

OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF ENVIRONMENTAL SERVICES 1980 WEST BROAD STREET COLUMBUS, OHIO 43223 (614) 466-7100



Project C-R-S / Name: SCI-823-0.00 (Phase I)
Project Identification Number (PID): 19415

Report Type: Level 2 ESR

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PROJECT SUMMARY

LOCATION DATA								
ODOT District: District 9								
County(ies):	Scioto							
Township(s):	Madiso	n and Harrison						
Project Cente (lat./long.):	r	38.85054°, -82.87094°						
Project Area Size (Ac): 310 acres +/-								

PROJECT DESCRIPTION

The overall Portsmouth bypass project will provide a missing link in the Appalachian Development Highway System to improve travel time and regional mobility, avoiding 30 traffic signals, 80 intersections and 500 driveways over the entire 26-mile route. A new roadway will result in a time savings of 16 minutes per trip (off peak) compared to the current through route. In addition to transportation benefits, a primary purpose is to provide access to suitable property (relatively flat) for economic development in the economically depressed region surrounding Portsmouth, Ohio, which consistently experiences unemployment and poverty rates of more than twice the statewide average.

ODOT will construct a new four-lane limited access highway/bypass of Portsmouth, Ohio as part of the Appalachian Development Highway system. This Ecological Survey Report (ESR) was conducted on Construction Phase 1 of the project. Phase 1 of the project shall be constructed from the TR 234 (Shumway Hollow Road) Interchange near the Scioto County Airport to an interchange at CR 28 (Lucasville-Minford Road). This phase is 3.32 miles long and contains four bridges and two interchanges. Upon completion of this phase, the roadway will be open to local traffic and provide a direct connection between CR 228 and SR 335.

Phase 1 shall be constructed from an interchange at the relocated TR 234 (Shumway Hollow Road) near the Scioto County Airport to an interchange at CR 28 (Lucasville-Minford Road). This phase is 3.32 miles long and contains four bridges and two interchanges. Major items of work for this phase of the project are as follows:

- Construct the TR 234 (Shumway Hollow Road)/SCI-823 interchange.
- Construct the CR 28 (Lucasville-Minford Road)/SCI-823 interchange.
- Construct Bridge No. SCI-823 L&R 0837 L&R over Swauger Valley-Minford Road and Harrison Furnace Creek.
- Construct Bridge No. SCI-823-0917 L&R over Portsmouth-Minford Road (SR 139) and Long Run Creek.

ECOLOGICAL IMPACT SUMMARY (Impacts may be preliminary and subject to revision)

Stream Impacts: 9,608 feet of WWH, Modified Class II PHWH, Class II PHWH, Class I PHWH **Wetland Impacts:** Total Wetland Impacts = 3.893 acres (0.057 acre of Provisional Category 1 Abutting Wetlands, 1.309 acres of Provisional Category 1 Adjacent Wetlands, 0.625 acre of Provisional Category 2 Abutting Wetlands, and 1.902 acres of Provisional Category 2 Adjacent Wetlands).

Potentially Jurisdictional Ditch Impacts: 178 feet or 0.02 acre

Pond/Lake/Reservoir Impacts: 2.70 acres

Vegetative Community Impacts: Approximate Vegetative Community Impacts include: Barren Land -

24 acres, Cultivated Crops – 13 acres, Developed Open Space – 19 acres, Grassland/Herbaceous – 113 acres, Open Water – 3 acres, Pasture/Hay – 30 acres, Scrub/Shrub – 3 acres, and Upland Forest – 123 acres.

Federally Listed Species Impacts: None

State-Listed Species Impacts: Impacts to the State Endangered Southern Monkshood (*Aconitum uncinatum*), State Potentially Threatened American Chestnut (*Castanea dentata*), and the State Endangered Primrose-leaved Violet (*Viola primulifolia*) are likely.

	LIT	ERATURE REVIEW	
	rature Source(s) Reviewed eck all that apply)	Results of Review	Map Included In Appendix
>	Ecoregion Map	List Ecoregion(s): 70f. Ohio-Kentucky Coniferous Plateaus 70d. Lower Scioto Dissected Plain	YES Figure 3
>	Physiographic Regions Map of Ohio	List Physiographic Region(s): 15.0 Shawnee-Mississippian Plateau (Choose Physiographic Region)	YES Figure 8
>	USGS 7.5 Minute Topographic Quadrangle Maps	List quadrangle(s): Minford New Boston	Map Required Figure 1
>	County Soil Survey	Mapped hydric soils within project area? NO	Map Required Figure 9
>	Ohio Water Quality Standards (Ohio Administrative Code, Chapter 3745-1)		Not Applicable
>	Biological and Water Quality Reports	List reports that cover project area (if applicable):	Not Applicable
>	Hydrologic Unit Code(s) (HUC)	List 14 Digit Watershed boundaries within project area: 05090103-040-030 - Long Run, 05090103-040-020 - Rocky Fork above McConnell Creek to Little Scioto River [except Long Run], 050901030-040-050 - Little Scioto River below Rocky Fork. to Ohio River [except Frederick Creek]	YES Figure 5
	Total Maximum Daily Load (TMDL) Program	List TMDL status of project area (If applicable):	NO
	National and State Wild and Scenic River lists, and the Nationwide Rivers Inventory (NRI)	List river(s) within or near the project area (if within applicable reach): (Choose River) (Choose River)	NO
>	Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM)	Is the project within a 100-year floodplain: YES	YES Figure 4
	Ohio's Coastal Zone Management Area	Is the project within the Coastal Zone Management Area: NO	NO
Y	National Wetlands Inventory (NWI) and or Ohio Wetland Inventory Mapping (OWI)		YES Figure 7
>	ODNR Division of Natural Areas and Preserves Natural Heritage Database	Are there records for listed species within 1 mile of the project area? YES Summarize on State Listed Species Table	YES Figure 2
V	Federally Endangered, Threatened, Proposed and Candidate Species in Ohio	List and Summarize on Federally Listed Species Table	Not Applicable
	Oak Openings Region of Ohio	Is the project located within the Oak Openings Region of Ohio? NO	NO
	Other		

	FIELD METHODS								
Field Investigator Name(s):	Jason Earley, Len Mikles, and Rick Paul								
Affiliation:	ASC Group, Inc.								
Date(s) of Field Work:	5/10/2011 through 7/15/2011, and 9/19/2011								
Weather Conditions:	Warm and cloudy, hot and sunny, rain and clear.								

Check all that apply

one will that apply										
Stream Survey (Habitat and Biology)										
Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams (v 2.3) (OEPA 2009)										
Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI). (OEPA 2006)										
Biological Criteria for the Protection of Aquatic Life: Volume I (OEPA 1987a), Volume II (OEPA 1987b, 2008a), Volume III (OEPA 1989, 2008b),										
ODOT Ecological Manual: Sections 203.2.1.1 -Stream, 203.2.1.5-Fishes, 203.2.1.6-Macrobenthos, 203.2.1.7-Mussels (ODOT 2010)										
Other Methods (describe and cite):										
Wetland Delineation and Classification										
Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1 (Environmental Laboratory 1987)										
Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual:										
Midwest Region (Environmental Laboratory 2008)										
Northcentral and Northeast										
Eastern Mountains and Piedmont										
Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et.al. 1979)										
Ohio Rapid Assessment Method for Wetlands v. 5.0, User's Manual and Scoring Forms (OEPA 2001)										
Other Methods (describe and cite):										
Other Waters										
ODOT Ecological Manual: Sections 203.2.1.3-Ditches/Swales, 203.2.1.4-Ponds/Lakes (ODOT 2010)										
Other Methods (describe and cite):										
Terrestrial										
ODOT Ecological Manual: Section 203.2.2 -Terrestrial Ecology (ODOT 2010)										
Other Methods (describe and cite):										
Listed Species										
✓ ODOT Ecological Manual: Sections 203.2.3 -Listed Species (ODOT 2010)										
Other Methods (describe and cite):										

FIELD DATA COLLECTION RESULTS

AQUATIC ECOLOGY								
Streams								
Were any streams identified within the project area? (If NO, delete the Stream Table)	YES							
Total number of streams within the project area:	21							
Total length of streams within the project area (linear feet):	12,459							

Wetlands	
Were any wetlands identified within the project area? (If NO, delete the Wetland Table)	YES
Total number of wetlands within the project area:	32
Total area of wetlands within the project area (acres):	4.681

Potentially Jurisdictional Ditches	
Were any potentially jurisdictional ditches identified within the project area? (If NO, delete the Potentially Jurisdictional Ditch Table)	YES
Total number of potentially jurisdictional ditches within the project area:	2
Total area of potentially jurisdictional ditches within the project area (acres):	0.02

Ponds	
Were any ponds identified within the project area? (If NO, delete the Pond Table)	YES
Total number of ponds within the project area:	5
Total area of ponds within the project area (acres):	2.70

Aquatic Life	
Were any fish communities sampled/observed within the project area? (If NO, delete the Fish Table)	YES
If yes, total number of fish species identified:	3
Were any aquatic macroinvertebrate communities sampled/observed within the project area? (If NO, delete the Macroinvertebrate Table)	YES
If yes, total number of aquatic macroinvertebrate species identified:	Observed – Not quantified
Were any mussel communities sampled/observed within the project area? (If NO, delete the Mussel Table)	NO
If yes, total number of mussel species identified:	0

					S	TREAM	TABLE: I	RESOURCE	S IDENT	IFIED O	N FIGURI	E(S) 11						
					roject	əd itch:	.: De	eristics:		Present:	Biological	ical Sampling Condu	al Sampling Conducted		o Use	ā	, Scenic, iin 1,000 :	Within a HUC with an Approved or Pending TMDL:
Stream Name/I.D.:	Photograph #(s):	Receiving Waters:	Drainage Area (mi²):	14-Digit HUC:	Total Length Within Project Area (lin. ft.):	Is this Stream Captured within the Roadway Ditch:	Stream Hydrology Type:	USACE Flow Characteristics:	Habitat Assessment	Evidence of Mussels	Salamanders Observed:	Fish Observed:	Aquatic Macro- invertebrates Observed:	Ohio EPA Aquatic Life Designation (may be provisional based on qualitative data):	National or State Wild, Scenic, or NRI Stream, or within 1,000 ft. of a Wild or Scenic:			
Stream 17- 1-1	19, 20	Sweet Run	0.017	05090103- 040-020	210	NO	Ephemeral	Non- Relatively Permanent Water	HHEI 22	NO	Not Surveyed	Not Surveyed	Not Surveyed	Class I PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	other pertiner ements if		17-1-1 -> S	weet Run -> Ro	ocky Fork -> Little	Scioto Rive	r -> Ohio Riv	ver.							
Stream 17a/b	41- 43, 138, 139	Long Run	0.540	05090103- 040-030	983	NO	Perennial (supraficial)	Relatively Permanent Water- Perennial	HHEI 55	NO	Not Surveyed	Not Surveyed - Observed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	n connects to a other pertiner rements if		17a/b -> Lo	ong Run -> Rock	y Fork -> Little So	cioto River ->	Ohio River.								
Stream 17c	13, 44, 45	Long Run	0.047	05090103- 040-030	985	NO	Intermittent	Relatively Permanent Water- Seasonal	HHEI 47	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	other pertiner rements if		17c -> Stre	am 17a/b -> Lor	ng Run -> Rocky l	Fork -> Little	Scioto Rive	r -> Ohio Rive	r.						
Stream 17c-	14, 15	Long Run	0.010	05090103- 040-030	390	NO	Ephemeral	Non- Relatively Permanent Water	HHEI 43	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	other pertiner ements if		17c-1 -> S	tream 17c -> Sti	ream 17a/b -> Loi	ng Run -> Ro	cky Fork ->	Little Scioto R	River -> Ohio I	River.					
Stream 17d	46 - 48	Long Run	0.110	05090103- 040-030	320	YES	Intermittent	Relatively Permanent Water- Seasonal	HHEI 59	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	other pertiner rements if		17d -> Stre	am 17a/b -> Loi	ng Run -> Rocky	Fork -> Little	Scioto Rive	r -> Ohio Rive	r.						

					S	TREAM	TABLE: F	RESOURCE	S IDENT	IFIED O	N FIGURI	E(S) 11			_			
					roject	ed itch:	.: De:	eristics:		Present:	Biological	ological Sampling Conducted	ogical Sampling Conducted		e Use	ignation:	Anti-degradation Designation: National or State Wild, Scenic, or NRI Stream, or within 1,000 ft. of a Wild or Scenic:	Within a HUC with an Approved or Pending TMDL:
Stream Name/I.D.:	Photograph #(s):	Receiving Waters:	Drainage Area (mi²):	14-Digit HUC:	Total Length Within Project Area (lin. ft.):	Is this Stream Captured within the Roadway Ditch:	Stream Hydrology Type:	USACE Flow Characteristics:	Habitat Assessment	Evidence of Mussels I	Salamanders Observed:	Fish Observed:	Aquatic Macro- invertebrates Observed:	Ohio EPA Aquatic Life Designation (may be provisional based on qualitative data):	Anti-degradation Des			
Stream 18 (Long Run)	143, 144	Rocky Fork	14.20	05090103- 040-030	638	NO	Perennial (supraficial)	Relatively Permanent Water- Perennial	QHEI 78.5	NO	Not Surveyed	Not Surveyed - Observed	Not Surveyed	Warmwater Habitat	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	other pertiner rements if		18 (Long R	un) -> Rocky Fo	ork -> Little Scioto	River -> Ohi	o River.								
Stream 18-1	89, 90	Long Run	0.072	05090103- 040-030	335	NO	Ephemeral	Non- Relatively Permanent Water	HHEI 39	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	other pertiner rements if		18-1 -> Lor	ig Run -> Rocky	Fork -> Little Sci	oto River ->	Ohio River.								
Stream 18b	91, 92, 94, 95	Long Run	0.180	05090103- 040-030	539	NO	Intermittent	Relatively Permanent Water- Seasonal	HHEI 39	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	other pertiner rements if		18 b -> Lon	g Run -> Rocky	Fork -> Little Sci	oto River -> (Ohio River.								
Stream 19	145, 146	Long Run	0.207	05090103- 040-030	649	NO	Perennial (interstitial)	Relatively Permanent Water- Perennial	HHEI 69	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	other pertiner rements if		19 -> Long	Run -> Rocky F	ork -> Little Sciot	o River -> Ol	io River.								
Stream 19-1	147, 148	Long Run	0.047	05090103- 040-030	691	NO	Intermittent	Relatively Permanent Water- Seasonal	HHEI 52	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO	
	avigable	Water (TNW)	and any	n connects to a other pertiner rements if		19-1 -> Stre	eam 19 -> Long	Run -> Rocky Fo	rk -> Little So	sioto River ->	> Ohio River.							

					S	TREAM	TABLE : I	RESOURCE	S IDENT	IFIED O	N FIGURI	E(S) 11					
					roject	od itch:	:ed	eristics:		Present:	Biological	Sampling Co	nducted	u Use	gnation:	Scenic, in 1,000	TMDL:
Stream Name/I.D.:	Photograph #(s):	Receiving Waters:	Drainage Area (mi²):	14-Digit HUC:	Total Length Within Project Area (lin. ft.):	Is this Stream Captured within the Roadway Ditch:	Stream Hydrology Type:	USACE Flow Characteristics:	Habitat Assessment	Evidence of Mussels F	Salamanders Observed:	Fish Observed:	Aquatic Macro- invertebrates Observed:	Ohio EPA Aquatic Life Designation (may be provisional based on qualitative data):	Anti-degradation Designation:	National or State Wild, Soor NRI Stream, or within ft. of a Wild or Scenic:	Within a HUC with an Approved or Pending TMDL:
Stream 20	149, 150	Long Run	0.920	05090103- 040-030	515	NO	Perennial (interstitial)	Relatively Permanent Water- Perennial	QHEI 58.5	NO	Not Surveyed - Observed	Not Surveyed - Observed	Not Surveyed	Modified Warmwater habitat	General High Quality Waters	NO	NO
	avigable	n. List how th Water (TNW) s water quality	and any	other pertiner		n 20 -> Lono	g Run -> Rocky	Fork -> Little Scio	oto River -> C	hio River.							
Stream 20-1	151, 152	Long Run	0.036	05090103- 040-030	1,261	NO	Ephemeral	Non- Relatively Permanent Water	HHEI 47	NO	(Choose)	(Choose)	(Choose)	Class II PHWH	General High Quality Waters	NO	NO
Additional Inf Traditional Na observations taken):	avigable		and any	other pertiner		20-1 -> Stre	eam 20 -> Long	Run -> Rocky Fo	rk -> Little So	cioto River ->	> Ohio River.						
Stream 20-2	102 - 104	Long Run	0.013	05090103- 040-030	445	NO	Ephemeral	Non- Relatively Permanent Water	HHEI 23	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class I PHWH	General High Quality Waters	NO	NO
	avigable	Water (TNW)	and any	other pertiner	1t 30. Str	eam loses d	efined channel	d 5. Pond 5 has b and sheet flows to Run -> Rocky Fo	Stream 20	where it eve	ntually discha			Stream 20-2 is	s a source of	hydrology fo	or Wetland
Stream 21	60, 61	Long Run	0.040	05090103- 040-030	734	NO	Intermittent	Relatively Permanent Water- Seasonal	HHEI 49	NO	None Found	None Found	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO
Additional Inf Traditional Na observations taken):	avigable		and any	other pertiner	nt	•		a larva in stream. n -> Rocky Fork ->	•		,	and did not fin	d any evidend	ce of salamande	ers within the	e stream.	
Stream 21a	51, 53, 54	Long Run	0.039	05090103- 040-030	518	NO	Intermittent	Relatively Permanent Water- Seasonal	HHEI 36	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO
Traditional Na	avigable	n. List how th Water (TNW) s water quality	and any	other pertiner		21a -> Pond	d 6 -> RR Ditch	-> Long Run -> R	ocky Fork ->	Little Scioto	River -> Ohio	River.					

					S	TREAM	TABLE: F	RESOURCE	S IDENT	IFIED O	N FIGURI	E(S) 11					
					roject	ed itch:	be:	ristics:		Present:	Biological	Sampling Co	enducted	. Use	gnation:	, Scenic, in 1,000	TMDL:
Stream Name/I.D.:	Photograph #(s):	Receiving Waters:	Drainage Area (mi²):	14-Digit HUC:	Total Length Within Project Area (lin. ft.):	Is this Stream Captured within the Roadway Ditch:	Stream Hydrology Type:	USACE Flow Characteristics:	Habitat Assessment	Evidence of Mussels F	Salamanders Observed:	Fish Observed:	Aquatic Macro- invertebrates Observed:	Ohio EPA Aquatic Life Designation (may be provisional based on qualitative data):	Anti-degradation Designation:	National or State Wild, Scenic, or NRI Stream, or within 1,000 ft. of a Wild or Scenic:	Within a HUC with an Approved or Pending
Stream 22a/b	77, 78, 80, 81	Little Scioto River	0.180	05090103- 040-050	1,764	YES	Perennial (supraficial)	Relatively Permanent Water- Perennial	HHEI 67	NO	Not Surveyed	Not Surveyed - Observed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO
	avigable	Water (TNW)	and any	n connects to a other pertiner rements if		22a/b -> Lit	tle Scioto River	-> Ohio River.									
Stream 22a-1	73, 74	Little Scioto River	0.030	05090103- 040-050	342	NO	Ephemeral	Non- Relatively Permanent Water	HHEI 43	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO
	avigable	Water (TNW)	and any	other pertiner rements if	nt		J	8. Pond 8 disch	· ·		pipes to Strea	am 22a/b.					
Stream 23/k	126, 127	Little Scioto River	0.047	05090103- 040-050	571	NO	Intermittent	Relatively Permanent Water- Seasonal	HHEI 53	NO	None Found	None Found	Not Surveyed	Class II PHWH	General High Quality Waters	NO	NO
Traditional Na observations	avigable	Water (TNW)	and any	other pertiner	investig	ation.		in this stream du	J	ogical invest	igation. No m	ayfly or stone	fly larvae wer	e observed with		n during the f	ield
stream 24-1	128	Little Scioto River	0.030	05090103- 040-050	Stream 441	23/k -> Stre	eam 22a/b -> Lit	Non- Relatively Permanent Water	HHEI 36	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO
	avigable	Water (TNW)	and any	n connects to a other pertiner rements if		24-1 -> Stre	eam 22a/b -> Lit	ttle Scioto River ->	Ohio River.								
Stream 18-2	159	Long Run	0.054	05090103- 040-030	98	NO	Intermittent	Relatively Permanent Water- Seasonal	HHEI 53	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO
	avigable	Water (TNW)	and any	n connects to a other pertiner rements if		18-2 -> Lor	ig Run -> Rocky	/ Fork -> Little Sci	oto River ->	Ohio River.							

					S	TREAM	TABLE: F	RESOURCE	S IDENT	IFIED O	N FIGURI	E(S) 11					
					roject	red Ditch:	/pe:	eristics:		Present:	Biological	Sampling Co	nducted	e Use	esignation:	I, Scenic, nin 1,000 :	TMDL:
Stream Name/I.D.:	Photograph #(s):	Receiving Waters:	Drainage Area (mi²):	14-Digit HUC:	Total Length Within P Area (lin. ft.):	Is this Stream Captur within the Roadway D	Stream Hydrology Ty	USACE Flow Charact	Habitat Assessment	Evidence of Mussels	Salamanders Observed:	Fish Observed:	Aquatic Macro- invertebrates Observed:	Ohio EPA Aquatic Life Designation (may be provisional based on qualitative data):	Anti-degradation Des	National or State Wild, or NRI Stream, or withi ft. of a Wild or Scenic:	Within a HUC with an Approved or Pending
Stream 18- 2-1	160	Long Run	0.01	05090103- 040-030	30	YES	Intermittent	Relatively Permanent Water- Seasonal	HHEI 37	NO	Not Surveyed	Not Surveyed	Not Surveyed	Modified Class II PHWH	General High Quality Waters	NO	NO

Additional Information. List how the stream connects to a Stream 18-2-1 ->18-2 -> Long Run -> Rocky Fork -> Little Scioto River -> Ohio River. Traditional Navigable Water (TNW) and any other pertinent observations (such as water quality measurements if taken):

				WETLAND TAB	LE : RES	OURCE	SIDEN	TIFIED	ON FIGU	RE(S) 11	& 12	
Wetland Name/I.D.:	Photograph #(s):	Hydrologic Connection:	Receiving Waters (if non- isolated):	14-Digit HUC Boundary the Wetland is Located within:	Located Within a Mapped Hydric Soil Unit(s):	Approximate Total Size (Ac.):	Wetland Area Located within the Project Area (Ac.):	ORAM Assessment Score:	Provisional Wetland Category (based on ORAM):	Known High Quality Wetland (from Natural Heritage Database):	Dominant Wetland Community(ies) Based on Cowardin (1979) Wetland Classifications:	Estimated Hydroperiod (Cowardin, 1979)
Wetland 1	1	Adjacent	Stream 17a/b	05090103-040-030	NO MoC2	0.141	0.141	23.5	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a l t species, and any other								heet flow and erosional channels. ver -> Ohio River.	
Wetland 2/3	2, 3	Adjacent	Stream 17a/b	05090103-040-030	NO MoC2	0.517	0.517	31.5	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a 1 t species, and any other								sheet flow and erosional features. ver -> Ohio River.	
Wetland 4	7	Adjacent	Stream 17a/b	05090103-040-030	NO MoC2	0.089	0.089	30.5	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a l t species, and any other						m 17a/b via a o ocky Fork -> L		ver -> Ohio River.	
Wetland W8WL6	4	Abutting	Stream 17a/b	05090103-040-030	NO Ha, MoC2	0.290	0.221	32.5	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a l t species, and any other						7a/b outside the ocky Fork -> L		ts. ver -> Ohio River.	
Wetland W8WL8	13	Abutting	Stream 17c	05090103-040-030	NO MoC2, ErD	0.020	0.020	28.5	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a les, and any other pertine		Water (TNW)		1 W8WL8 a			-> Rocky For	k -> Little Scioto River -> Ohio River.	
Wetland 5/ W8WL7	8	Abutting	Stream 17a/b	05090103-040-030	NO Ha	0.066	0.066	39.5	Modified Category 2	NO NO	Riverine - Emergent Wetland Nonpersistent (Choose Additional) (Choose Additional)	Semipermanently Flooded
			wetland connects to a l t species, and any other			Wetland 5/V Stream 17 a				ittle Scioto Ri	ver -> Ohio River.	
Wetland 6	9	Adjacent	Stream 17a/b	05090103-040-030	NO MoC2	0.018	0.018	30.5	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded

			1	WETLAND TAB	LE : RES	SOURCES	S IDEN	TIFIED	ON FIGU	RE(S) 11	& 12	
Wetland Name/I.D.:	Photograph #(s):	Hydrologic Connection:	Receiving Waters (if non- isolated):	14-Digit HUC Boundary the Wetland is Located within:	Located Within a Mapped Hydric Soil Unit(s):	Approximate Total Size (Ac.):	Wetland Area Located within the Project Area (Ac.):	ORAM Assessment Score:	Provisional Wetland Category (based on ORAM):	Known High Quality Wetland (from Natural Heritage Database):	Dominant Wetland Community(ies) Based on Cowardin (1979) Wetland Classifications:	Estimated Hydroperiod (Cowardin, 1979)
			wetland connects to a T t species, and any other								heet flow and erosional channels that are foun ver -> Ohio River.	d throughout this area.
Wetland 7	10, 11	Adjacent	Stream 17a/b	05090103-040-030	NO ErD	0.108	0.108	21	Category 1	NO	Palustrine - Emergent Wetland Nonpersistent (Choose Additional) (Choose Additional)	Saturated
			wetland connects to a T t species, and any other			wetland with into Stream	n a cat-tail 17a/b.	dominated	d fringe area. V	Vetland 7 dra	e berm of the pond has been removed leaving nins through a series of erosional channels and ver -> Ohio River.	
Wetland 8	12	Adjacent	Stream 17a/b	05090103-040-030	NO MoC2	0.028	0.028	30.5	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T t species, and any other								heet flow and erosional channels. ver -> Ohio River.	
Wetland 9	16	Abutting	Stream 17c-1	05090103-040-030	NO SfE	0.081	0.073	35.5	Modified Category 2	NO	Riverine - Emergent Wetland Nonpersistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T t species, and any other			drainage pa and bank, S	tterns in th tream 17c	ne form of -1 flows th	a braided chan rough Wetland	nel. Down sl W8WL8, the	of Stream 17c-1. Wetland 9 exists as an eme ope of Wetland 9, Stream 17c-1 exhibits a OH en to Stream 17a/b. ver -> Ohio River.	
Wetland 12	25- 30	Adjacent	Sweet Run	05090103-040-020 05090103-040-030	NO MoC2, Erl		0.811	39.0	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T t species, and any other						inected to Swe tle Scioto River			
Wetland 13	31	Adjacent	Stream 17a/b	05090103-040-030	NO MoC2	0.233	0.233	35	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T t species, and any other								sheet flow and erosional channels. ver -> Ohio River.	
Wetland 14	32	Adjacent	Stream 17a/b	05090103-040-030	NO MoC2	0.010	0.010	19.5	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded

			,	WETLAND TAB	LE : RES	OURCES	SIDEN	TIFIED	ON FIGU	RE(S) 11	& 12	
Wetland Name/I.D.:	Photograph #(s):	Hydrologic Connection:	Receiving Waters (if non- isolated):	14-Digit HUC Boundary the Wetland is Located within:	Located Within a Mapped Hydric Soil Unit(s):	Approximate Total Size (Ac.):	Wetland Area Located within the Project Area (Ac.):	ORAM Assessment Score:	Provisional Wetland Category (based on ORAM):	Known High Quality Wetland (from Natural Heritage Database):	Dominant Wetland Community(ies) Based on Cowardin (1979) Wetland Classifications:	Estimated Hydroperiod (Cowardin, 1979)
			wetland connects to a last species, and any other								sheet flow and erosional channels. ver -> Ohio River.	
Wetland 15	33	Adjacent	Sweet Run	05090103-040-020	NO MoC2, ErD	0.041	0.041	33.5	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a last to species, and any other						nected to Swe tle Scioto Rive		eet flow and erosional channels. er.	
Wetland 16	46	Abutting	Stream 17d	05090103-040-030	NO Ha	0.036	0.036	26	Category 1	NO	Palustrine - Emergent Wetland Persistent Riverine - Aquatic Bed (Choose Additional)	Seasonally Flooded
			wetland connects to a last t species, and any other		ns :	Wetland 16 Stream 17d			Long Run -> R	Rocky Fork ->	Little Scioto River -> Ohio River.	
Wetland 17	50	Adjacent	Pond beyond limits of eco survey	05090103-040-030	NO OmB, SbD	0.004	0.001	35.5	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a last to species, and any other		ns :	outflow struc	cture and	eventually		drainage to t	of the project area via sheet flow. This pond li he east. The RR drainage eventually discharg	
Wetland 18/ W9WL2	51	Abutting	Stream 21a	05090103-040-030	NO OmB	0.054	0.038	35.5	Modified Category 2	NO	Palustrine - Scrub/Shrub Wetland Palustrine - Emergent Wetland Persistent (Choose Additional)	Semipermanently Flooded
			wetland connects to a last t species, and any other		ns:	Stream 21a					ucture of Pond 6. This wetland is located within Scioto River -> Ohio River.	n a braided portion of
Wetland 19	52	Abutting	Stream 21a	05090103-040-030	NO OmB, SbD	0.180	0.180	49	Category 2	NO	Open Water (Unconsolidated Bottom/Shore) Palustrine - Emergent Wetland Persistent (Choose Additional)	Intermittently Exposed
			wetland connects to a 1 t species, and any other		ns:	northwest in channel nea	ito Wetlan ar the proje	d 18/W9W ect area bo	L2, which is flooundary. Strea	ows to the nor m 21a eventu	n impounded portion of Stream 21a. Pond 6 di thwest in a series of braided channels before r ually discharges into the RR ditch. a -> RR Ditch -> Long Run -> Rocky Fork -> Li	eturning to a defined

			1	WETLAND TAB	LE : RES	OURCES	S IDEN	TIFIED	ON FIGU	RE(S) 11	& 12	
Wetland Name/I.D.:	Photograph #(s):	Hydrologic Connection:	Receiving Waters (if non- isolated):	14-Digit HUC Boundary the Wetland is Located within:	Located Within a Mapped Hydric Soil Unit(s):	Approximate Total Size (Ac.):	Wetland Area Located within the Project Area (Ac.):	ORAM Assessment Score:	Provisional Wetland Category (based on ORAM):	Known High Quality Wetland (from Natural Heritage Database):	Dominant Wetland Community(ies) Based on Cowardin (1979) Wetland Classifications:	Estimated Hydroperiod (Cowardin, 1979)
			wetland connects to a T t species, and any other								21a and is hydrologically connected via sheet for scioto River -> Ohio River.	low.
Wetland 21	58	Adjacent	Stream 21a	05090103-040-030	NO OmB	0.085	0.082	28	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T t species, and any other			via sheet flo	w.		•		21a. Wetland 21 appears to be hydrologically c Scioto River -> Ohio River.	onnected to Stream 21a
W9WL4	59	Adjacent	Stream 21	05090103-040-030	NO ErD	0.029	0.029	34	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T t species, and any other						ly connected to Run -> Rocky F		ia sheet flow. Scioto River -> Ohio River.	
Wetland 22	62	Adjacent	Outlet tile at Pond 7	05090103-040-030	NO MoC2	0.344	0.344	28	Category 1	NO	Open Water (Unconsolidated Bottom/Shore) Palustrine - Emergent Wetland Persistent (Choose Additional)	Semipermanently Flooded
			wetland connects to a 1 t species, and any other			main source the southea active agricu	of hydrolo st corner o ultural field	ogy is she of the pond I to the ea	et flow. During d. After dischar st. This tile sys	the field inverging, it is assetem likely dis	channels were identified entering into Pond 7 a estigation it was determined that Pond 7 discha- sumed that the water enters into a tile system a scharges into the drainage ditches associated Little Scioto River -> Ohio River.	arges into a pipe near associated with the
Wetland 24	64	Adjacent	Sheet flow to farm tile	05090103-040-030	NO OmB, MoC	2 0.069	0.069	29	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T t species, and any other					,	inected to an a	•	ainage tile, which discharges into the RR Ditch	1, located to the east.
Wetland 26	66, 67, 69- 71	Adjacent	Sheet Flow to RR Ditch	05090103-040-050	NO OmB, MoC	0.483	0.483	29	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a I t species, and any other			surrounding RR Ditch.	area to th	e wetland		enerally flow	small topographical valleys that direct sheet f s to the south and eventually east as it dischar er.	

			1	WETLAND TAB	LE : RES	OURCES	S IDEN	TIFIED	ON FIGU	RE(S) 11	& 12	
Wetland Name/I.D.:	Photograph #(s):	Hydrologic Connection:	Receiving Waters (if non- isolated):	14-Digit HUC Boundary the Wetland is Located within:	Located Within a Mapped Hydric Soil Unit(s):	Approximate Total Size (Ac.):	Wetland Area Located within the Project Area (Ac.):	ORAM Assessment Score:	Provisional Wetland Category (based on ORAM):	Known High Quality Wetland (from Natural Heritage Database):	Dominant Wetland Community(ies) Based on Cowardin (1979) Wetland Classifications:	Estimated Hydroperiod (Cowardin, 1979)
Wetland 28	72	Abutting	Pond 8	05090103-040-050	NO SfE, OmB, SbD	0.101	0.101	34	Modified Category 2	NO	Palustrine - Emergent Wetland Nonpersistent (Choose Additional) (Choose Additional)	Intermittently Exposed
			wetland connects to a lt species, and any other		ns:						s connected to Stream 22a/b via a drainage st	tructure and sheet flow.
	1	1			1	Wetland 28	-> Stream	22a/b -> l	ittle Scioto Riv	er -> Ohio Ri		
Wetland 29	100	Abutting	Stream 18b	05090103-040-030	NO DoA	0.029	0.001	12.5	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a l t species, and any other			Wetland 28	-> Stream	18b -> St	ream 18 (Long	Run) -> Rock	ky Fork -> Little Scioto River -> Ohio River.	
Wetland 30	106	Adjacent	Stream 20	05090103-040-030	NO SfE	0.011	0.011	12.5	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a 1 t species, and any other							, ,	ically connected to Stream 20 via sheet flow. e Scioto River -> Ohio River.	
Wetland 31	108	Adjacent	Stream 20	05090103-040-030	NO SfE	0.027	0.027	12.5	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a 1			Wetland 31	is located	upslope o	f Stream 20 an	d is hydrolog	ically connected to Stream 20 via sheet flow.	
(INW) if non-isol	ated, do	minant plan	t species, and any other	pertinent observation		Wetland 31	-> Stream	20 -> Lon	a Run -> Rock	v Fork -> Littl	e Scioto River -> Ohio River.	
Wetland 32	137	Abutting	Stream 17a/b	05090103-040-030	NO MoC2	0.049	0.019	53	Category 2	NO	Riverine - Emergent Wetland Nonpersistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a l			Wetland 32	abuts Stre	am 17a/b.				
(11444) 11 11011-1501	ateu, uu	miniani pian	i species, and any other	pertinent observation		Wetland 32	-> Stream	17a/b -> l	ong Run -> Ro	ocky Fork -> I	Little Scioto River -> Ohio River.	
Wetland 33	104	Adjacent	Pond 5	05090103-040-030	NO SfE	0.021	0.021	26	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Intermittently Exposed
			wetland connects to a 1			Wetland 33	is associa	ted with th	e wetland fring	e around Por	1	
(INW) if non-isol	ated, do	minant plan	t species, and any other	pertinent observation		Stream 20 -	> Stream 1	18 (Lona F	Run) -> Rockv I	Fork -> Little :	Scioto River -> Ohio River.	
						Juli 20	J. Juiii	- 1-21191	, - 1.00ky I	LILLIO		

			1	NETLAND TABI	E : RESC	URCES	S IDEN	TIFIED	ON FIGUR	RE(S) 11	& 12	
Wetland Name/I.D.:	Photograph #(s):	Hydrologic Connection:	Receiving Waters (if non- isolated):	14-Digit HUC Boundary the Wetland is Located within:	Located Within a Mapped Hydric Soil Unit(s):	Approximate Total Size (Ac.):	Wetland Area Located within the Project Area (Ac.):	ORAM Assessment Score:	Provisional Wetland Category (based on ORAM):	Known High Quality Wetland (from Natural Heritage Database):	Dominant Wetland Community(ies) Based on Cowardin (1979) Wetland Classifications:	Estimated Hydroperiod (Cowardin, 1979)
Wetland 34					NO OmB	0.013	0.013	13	Category 1	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T			Vetland 34	is adjacen	t to Strear	n 19.			
(TNW) If non-isola	atea, ao	minant pian	t species, and any other	pertinent observation		Vetland 34	-> Stream	19 -> Lon	g Run -> Rocky	/ Fork -> Littl	e Scioto River -> Ohio River.	
Wetland 35	158	Abutting	Stream 18-2-1	05090103-040-030	NO OmC	0.092	0.00	37	Modified Category 2	NO	Palustrine - Emergent Wetland Persistent (Choose Additional) (Choose Additional)	Seasonally Flooded
			wetland connects to a T t species, and any other			Vetland 35	abuts Stre	am 18-2-1				
(1.444) 11 11011-13010	atou, do	iain pian	t opoolog, and any other	portinioni observation		Vetland 35	-> Stream	18-2-1 ->	Stream 18-2 ->	Long Run -:	> Rocky Fork -> Little Scioto River -> Ohio Riv	er.

(Warning: ditches	that acquire/po			DICTIONAL DITCH TABLE : lrk and become relatively permane				essed as stream	s and includ	led on the
				Stream Ta	able)					
Ditch I.D.:	Photograph #(s):	Receiving Waters:	14-Digit HUC Boundary the Ditch is Located within:	USACE Flow Characteristics:	OHWM Present:	Constructed Through or Drains a wetland:	Constructed Through a Mapped Hydric Soil Unit(s):	Flows Between Two or More Potential Waters of the US:	Average Width of Wetted Perimeter Within Project Area (ft.)	Total Length Within Project Area (lin. ft.):
Railroad Ditch 1	120	Stream 22a/b	05090103-040- 030	Relatively Permanent Water- Seasonal	YES	NO	NO ScF	YES	4	89
Additional Information Navigable Water (TNV			tions : those south no su	JSGS map (Figure 1) of the project area e streams that do enter Railroad Ditch 1 on and does not appear to capture any regurface connection between Pond 7 and Road Ditch 1 -> Stream 22a/b -> Little Scient	do so north of the project gulated channels. It is li ailroad Ditch 1 was obs	ct area and flow north ikely that Pond 7 ever served during the field	Field observations reventually discharges into the	ealed that Railroad	Ditch 1 flows	to the
Railroad Ditch 2	119	Stream 22a/b	05090103-040- 030	Relatively Permanent Water- Seasonal	YES	NO	NO ScF	YES	3	89
Additional Information Navigable Water (TNV			tions : strea chan	JSGS map (Figure 1) of the project area ms discharge into Railroad Ditch 2. Fiel nels. pad Ditch 2 -> Stream 22a/b -> Little Scio	d observations revealed	d that Railroad Ditch 2				

		PONI	D, LAKE,	RESERVOI	R TABLE :	RESOURCES IDENTIFIED ON F	IGURE(S) 11			
Pond I.D.	Photograph #(s):	Receiving Waters	14-Digit HUC Boundary the Water body is Located within:	Hydrologic Connection:	Туре	Function	Functioning as Intended?	Located Within a Mapped Hydric Soil Unit(s):	Approximate Total Size (Ac.):	Pond Area Located within the Project Area (Ac.):
Pond 4	92-94	Stream 18b to Long Run	05090103- 040-030	Non-Isolated	Constructed	Agriculture (Stock Watering, Irrigation, Etc)	YES	NO ErD, OmB	1.43	1.43
		the water body connects) and any other pertinent	:	ond 4 is an important	·	Stream 18b. 3 (Long Run) -> Rocky Fork -> Little Scioto Rive	r -> Ohio River.			
Pond 5	104, 105	Stream 20 to Long Run	05090103- 040-030	Non-Isolated	Constructed	Agriculture (Stock Watering, Irrigation, Etc)	NO	NO SfE	0.03	0.03
		the water body connects and any other pertinent	s	hallower than bef	ore.	Stream 20-2. Berm of pond has been breached (Long Run) -> Rocky Fork -> Little Scioto River	· ·	. Still functions as a po	ond, although	much
Pond 6	52	Stream 21a to Long Run	05090103- 040-030	Non-Isolated	Constructed	Agriculture (Stock Watering, Irrigation, Etc)	YES	NO OmB	0.19	0.19
		the water body connects) and any other pertinent		ond 6 is an impor	·	Stream 21a. stream 21a -> RR Ditch 1 -> Stream 18 (Long Ru	ın) -> Rockv Fork -> Lit	ttle Scioto River -> Ohi	o River.	
Pond 7	62	Outlet tiles to RR Ditch to Long Run	05090103- 040-030	Non-Isolated	Constructed	Agriculture (Stock Watering, Irrigation, Etc)	YES	NO MoC2	0.59	0.59
		the water body connects) and any other pertinent	i	nto RR Ditch 1.		n 22a/b -> Little Scioto River -> Ohio River.	ucture appears to outle	t into farm drainage tile	es and eventua	ally discharges
Pond 8	72	Outlet via drainage tile to Stream 22a/b to Little Scioto River	05090103- 040-050	Non-Isolated	Constructed	Aesthetics	YES	NO SfE, OmB, SbD	0.47	0.47
		the water body connects) and any other pertinent		, ,	•	to Stream 22a/b via an outlet structure and sheelioto River -> Ohio River.	et flow.			

		FISH TABLE	(Species Characteri	stics from OEPA	, <u>2008a</u>)			
Scientific Name	Common Name	Feeding Guild:	Breeding Guild:	Pollution Tolerance:	Federally Listed:	State Listed:	Declining Species (OAC 3745-1-05, Table 5-2):	Observed in Stream(s) (Include Quantity) :
Rhinichthys obtusus	Western Blacknose Dace	Generalized Insectivore (G)	Simple Lithophil (S)	Tolerant (T)	Not Listed	Not Listed	NO	Stream 22a/b
Semotilus atromaculatus	Creek Chub	Generalized Insectivore (G)	Complex, No Parental Care (N)	Tolerant (T)	Not Listed	Not Listed	NO	Streams 17a/b, 18, 20
Etheostoma nigrum	Johnny Darter	Insectivore (I)	Complex, Parental Care (C)	Intermediate Tolerance (Blank Code)	Not Listed	Not Listed	NO	Streams 18, 20

General Fish Community Observations:

No formal fish sampling was completed during the ecological survey. Species identified were casually observed while conducting QHEI and HHEI evaluations of the streams.

AQUATIC MACROINVERTEBRATE TABLE					
Taxa Observed Dbserved in Stream(s) (Include Quantity) :					

Additional Aquatic Macroinvertebrate Community Observations:

No formal aquatic macroinvertebrate sampling was completed during the ecological survey. Species identified were casually observed while conducting QHEI and HHEI evaluations of the streams and are noted on the QHEI and HHEI data forms.

Terrestrial Ecology

VEGETATIVE COMMUNITIES					
List the number of distinct vegetative communities identified within the project area	10				
Were any unique or high quality terrestrial habitats identified within the project area?	NO				

TERRESTRIAL WILDLIFE				
Were any mammals observed within the project area? (If NO, delete the Mammal Table)	YES			
If yes, total number of species identified:	8			
Were any birds observed within the project area? (If NO, delete the Bird Table)	YES			
If yes, total number of bird species identified:	34			
Were any reptiles observed within the project area? (If NO, delete the Reptile Table)	YES			
If yes, total number of reptile species identified:	4			
Were any amphibian communities sampled/observed within the project area? (If NO, delete the Amphibian Table)	YES			
If yes, total number of amphibian species identified:	6			

Vegetative Communities and	Land Cover Table : Vegetation and Land Cover Areas Identifie	d on Figure(s) 10					
Vegetative Communities and Land Cover found within the project area:	Degree of Man Induced Ecological Disturbance (based on descriptions in <u>Andreas et. al., 2004</u>)	Unique, Rare, or High Quality?	Acres				
Barren Land – BL - (Rock/Sand/Clay) - Barren areas of bedrock, slides, sand dunes, strip mines, gravel pits and other accumulations of earthen material. Generally, vegetation accounts for less than 15% of total cover.	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders or native highly tolerant taxa)	NO	23.93				
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	This area was recently clear-cut and consisted of logging slash and disturbed soils with some exposed rocky areas. Commonly encountered species within this community included <i>Acer saccharum</i> , <i>Rubus allegheniensis</i> , <i>Rosa multiflora</i> , <i>Smilax rotundifolia</i> , and <i>Lonicera japonica</i> . This area would have likely been considered an Oak-Maple-Tuliptree Forest as described by Anderson (1982), prior to clear cutting activities.						
Cultivated Crops - CC - (annual crops, all land being actively tilled, and perennial woody crops such as orchards and vineyards)	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders or native highly tolerant taxa)	NO	12.77				
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	Active agricultural field currently planted in soybeans and corn. Anderson (1982) community types do not apply.						
Developed Open Space - DS - (mown right-of-way, large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes)	High Disturbance (dominated by widespread taxa not typical of a particular community)	NO	19.07				
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	This area consists of road right-of-way and maintained lawns. Anderson (1 included <i>Poa pratensis</i> and <i>Festuca elatior</i> .	1982) community types do not	apply. Typical vegetation				
Grassland/Herbaceous – GH - (new fields, pastures, hay fields)	High Disturbance (dominated by widespread taxa not typical of a particular community)	NO	112.68				
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	These areas consist of former agricultural fields and pastures that have be evidenced by the presence of early successional pioneer species. Typical elatior, Poa pratensis, Asclepias hirtella, Vernonia gigantea, Schizachyriun level of past disturbances, Anderson (1982) community types do not apply.	species encountered in this con scoparium, and Solidago car	ommunity includes Festuca				
Open Water - All areas of open water, generally with less than 25% cover of vegetation or soil.	High Disturbance (dominated by widespread taxa not typical of a particular community)	NO	2.74				
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	These areas consist of farm ponds created by impoundments and excavation. Anderson (1982) communities do not apply.						
Pasture/Hay (PH1) - Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20 % of total vegetation.	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders or native highly tolerant taxa)	NO	25.01				

Vegetative Communities and	Land Cover Table : Vegetation and Land Cover Areas Identifie	d on Figure(s) 10				
Vegetative Communities and Land Cover found within the project area:	Degree of Man Induced Ecological Disturbance (based on descriptions in <u>Andreas et. al., 2004</u>)	Unique, Rare, or High Quality?	Acres			
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	This community type is used exclusively for grazing cattle. Typical species Poa pratensis, Dactylis glomerata, Trifolium repens, Trifolium pretense, and not apply.					
Pasture/Hay (PH2) - Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20 % of total vegetation.	High Disturbance (dominated by widespread taxa not typical of a particular community)	NO	5.16			
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	These areas are fenced off and appear to be used for occasional cattle grazing. Typical species present within this community includes Festuca elatior, Poa pratensis, Dactylis glomerata, and Vernonia gigantea. Anderson (1982) communities do not apply.					
Upland Forest – UF1 - (uplands dominated by trees)	High Disturbance (dominated by widespread taxa not typical of a particular community)	NO	103.81			
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	These areas have been clear cut and are in a more advanced stage of eco grazing livestock. These areas generally have low species diversity in the species include Quercus sp., Acer saccharum, Rosa multiflora, Acer rubrur would be considered Oak-Maple-Tuliptree Forests as described by Anderso	understory and generally have m, Smilax rotundifolia,and Lon	e a mature overstory. Typical			
Upland Forest – UF2 - (uplands dominated by trees)	Low Disturbance (dominated by plants with a narrow range of ecological tolerances that typify a stable or near "climax" community)	NO	19.47			
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	These areas are generally mature second growth forest that do not exhibit livestock. These areas exhibit a well established and diverse understory of Typically encountered species in this community include Acer saccharum, Quercus rubra, Quercus coccinea, and Carya glabra. These areas would by Anderson (1982).	consisting of graminoids, pterio Quercus prinus, Liriodendron	dophytes, and forbs. tulipifera, Quercus alba,			
Scrub/Shrub - SS - (true shrubs, and young trees in an early successional stage)	High Disturbance (dominated by widespread taxa not typical of a particular community)	NO	3.46			
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	These areas are pasture/hay or grassland/herbaceous habitat areas that ed of ecological succession. Typical species indentified within these areas ince multiflora, Lonicera japonica, and Solidago canadensis. Due to the historic (1982) community types do not apply.	clude <i>Vernonia gigantea, Rubi</i>	us allegheniensis, Řosa			

VEGETATION TABLE						
Scientific Name:	Common Name:	C of C:	Indicator Status:	Federally Listed:	State Listed:	Location (use vegetative community codes):
Acer negundo	BOX ELDER	3	FAC+	No	No	PH, GH, UF
Acer rubrum	RED MAPLE	2	FAC	No	No	UF, PH, GH, BL
Acer saccharinum	SILVER MAPLE	3	FACW	No	No	UF, PH, GH, BL
Acer saccharum	SUGAR MAPLE	5	FACU-	No	No	UF, BL
Achillea millefolium	YARROW SOUTHERN MONKSHOOD	1	FACU	No	No	PH, GH, DS, BL
Aconitum uncinatum Actaea alba	WHITE BANEBERRY	10 7	FAC+ UPL	No No	Yes No	UF UF
Adiantum pedatum	MAIDENHAIR FERN	6	FAC-	No	No	UF
Agalinis tenuifolia	SLENDER FOXGLOVE	4	FAC	No	No	PH. GH
Agrimonia gryposepala	TALL AGRIMONY	3	FACU	No	No	UF
Agrimonia parviflora	SMALL-FLOWERED AGRIMONY	2	FAC	No	No	PH, GH
AGROSTIS GIGANTEA	REDTOP	0	FACW	No	No	GH, PH, DS
AGROSTIS STOLONIFERA	CREEPING BENT GRASS	0	FACW	No	No	PH, GH
AILANTHUS ALTISSIMA	TREE-OF-HEAVEN	0	FACU-	No	No	UF
Alisma subcordatum	SOUTHERN WATER-PLANTAIN	2	OBL	No	No	PH, GH
ALLIARIA PETIOLATA	GARLIC MUSTARD	0	FACU-	No	No	UF
ALLIUM VINEALE	FIELD GARLIC	0	FACU-	No	No	DS, PH, GH
ALOPECURUS PRATENSIS AMARANTHUS RETROFLEXUS	MEADOW FOXTAIL REDROOT	0	FACW FACU	No No	No No	PH, GH GH, PH
Ambrosia artemisiifolia	COMMON RAGWEED	0	FACU	No No	No	GH, PH, BL, DS
Amelanchier arborea	DOWNY SERVICEBERRY	5	FAC-	No	No	UF
Amphicarpaea bracteata	HOG-PEANUT	4	FAC	No	No	UF
Andropogon virginicus	COMMON BROOM-SEDGE	3	FACU	No	No	PH, GH
Anemone virginiana	WOODLAND THIMBLEWEED	3	FACU	No	No	UF
Antennaria plantaginifolia	PLANTAIN-LEAVED PUSSY-TOES	1	UPL	No	No	UF
ANTHOXANTHUM ODORATUM	SWEET VERNAL GRASS	0	FACU	No	No	PH, GH
Apocynum cannabinum	INDIAN HEMP	1	FACU	No	No	PH, GH
Aralia spinosa	DEVIL'S WALKINGSTICK	5	FAC	No	No	BL
ARCTIUM MINUS	COMMON BURDOCK	0	FACU-	No	No	GH, PH, UF
Arisaema dracontium	GREEN DRAGON	5	FACW	No	No	UF
Arisaema triphyllum subsp. triphyllum Aruncus dioicus	JACK-IN-THE-PULPIT GOAT'S-BEARD	6	FACU- FACU	No No	No No	UF UF
Asarum canadense	WILD GINGER	6	FACU-	No	No	UF
Asclepias hirtella	SAND MILKWEED	8	UPL	No	No	PH, GH
Asclepias syriaca	COMMON MILKWEED	1	FACU-	No	No	GH, PH, DS
Asclepias tuberosa	BUTTERFLY-WEED	4	UPL	No	No	PH, GH
Asimina triloba	PAWPAW	6	FACU+	No	No	UF
Asplenium platyneuron	EBONY SPLEENWORT	3	FACU	No	No	UF
Aster cordifolius	BLUE WOOD ASTER	4	UPL	No	No	UF
Aster divaricatus	WHITE WOOD ASTER	5	UPL	No	No	UF
Aster lateriflorus	CALICO ASTER	2	FACW-	No	No	UF
Aster novae-angliae	NEW ENGLAND ASTER	2	FACW- UPL	No	No	PH, GH PH. GH
Aster pilosus Aster prenanthoides	AWL ASTER ZIGZAG ASTER	1 4	FAC	No No	No No	UF
Aster sagittifolius	ARROW-LEAVED ASTER	3	UPL	No	No	UF
Aster schreberi	LARGE-LEAVED ASTER	5	FACU+	No	No	UF
Athyrium filix-femina	LADY FERN	5	FAC	No	No	UF
Athyrium pycnocarpon	NARROW-LEAVED GLADE FERN	8	FAC	No	No	UF
Athyrium thelypteroides	SILVERY GLADE FERN	6	FAC	No	No	UF
BARBAREA VULGARIS	YELLOW ROCKET	0	FACU	No	No	PH, GH, DS
BERBERIS THUNBERGII	JAPANESE BARBERRY	0	FACU	No	No	UF
Betula nigra	RIVER BIRCH	9	FACW	No	No	UF OU UE
Bidens frondosa	DEVIL'S BEGGAR'S-TICK	2	FACW	No	No	PH, GH, UF
BIDENS POLYLEPIS Boehmeria cylindrica	OZARK TICKSEED-SUNFLOWER FALSE NETTLE	0 4	FACW+	No No	No No	PH, GH PH. GH. UF
Botrychium virginianum	RATTLESNAKE FERN	4	FACV+	No	No	UF
Brachyelytrum erectum	LONG-AWNED WOOD GRASS	5	UPL	No	No	UF
BROMUS COMMUTATUS	HAIRY CHESS	0	UPL	No	No	PH, GH, DS
BROMUS INERMIS	HUNGARIAN BROME	0	UPL	No	No	PH, GH, DS
Bromus pubescens	CANADA BROME	4	FACU	No	No	UF
Cacalia atriplicifolia	PALE INDIAN-PLANTAIN	6	UPL	No	No	UF
Calystegia sepium	HEDGE BINDWEED	1	FAC-	No	No	PH, GH, UF
Campanula americana	TALL BELLFLOWER	4	FAC	No	No	UF
Campsis radicans	TRUMPET-CREEPER	1	FAC	No	No	PH, GH, DS
CARDUUS NUTANS	NODDING THISTLE	0	UPL	No	No	GH, PH
Carex albicans var. albicans	OAK SEDGE	4	UPL	No No	No	UF
Carex albursina Carex blanda	WING-STEMMED WOOD SEDGE COMMON WOOD SEDGE	6	UPL FAC	No No	No No	UF UF
Carex communis	BEECH SEDGE	4	UPL	No	No	UF
Carex Communis	DLEON SEDGE	4	UPL	INO	INO	UF

VEGETATION TABLE						
Scientific Name:	Common Name:	C of C:	Indicator Status:	Federally Listed:	State Listed:	Location (use vegetative community codes):
Carex cristatella	CRESTED SEDGE	3	FACW	No	No	PH, GH
Carex digitalis	SLENDER WOOD SEDGE	4	UPL	No	No	UF
Carex frankii	FRANK'S SEDGE	2	OBL	No	No	PH, GH, DS
Carex glaucodea	BLUE-GREEN SEDGE	5	FAC	No	No	PH, GH, UF
Carex gracilescens	SLENDER WOOD SEDGE	3	UPL	No	No	UF
Carex hirsutella Carex hirtifolia	HIRSUTE SEDGE HAIRY-LEAVED SEDGE	3	FACU UPL	No No	No No	GH, PH UF
Carex Initiolia Carex laxiculmis	SPREADING SEDGE	3	UPL	No	No	UF
Carex laxiflora	TWO-EDGED WOOD SEDGE	3	FACU	No	No	UF
Carex luxinora Carex lurida	BOTTLEBRUSH SEDGE	3	OBL	No	No	GH, PH, UF
Carex pensylvanica	PENNSYLVANIA SEDGE	3	UPL	No	No	UF
Carex platyphylla	BROAD-LEAVED WOOD SEDGE	6	UPL	No	No	UF
Carex radiata	RADIATE SEDGE	6	FAC	No	No	UF
Carex rosea	ROSE SEDGE	3	UPL	No	No	UF
Carex squarrosa	SQUARROSE SEDGE	4	FACW	No	No	PH, GH
Carex stipata	CROWDED SEDGE	2	OBL	No	No	PH, GH
Carex swanii	SWAN'S SEDGE	4	FACU	No	No	UF
Carex tribuloides	BLUNT BROOM SEDGE	4	FACW+	No	No	PH, GH
Carex virescens Carex vulpinoidea	GREENISH SEDGE FOX SEDGE	6	FACU OBL	No No	No No	UF PH, GH
Carex vulpinoidea Carex willdenowii	WILLDENOW'S SEDGE	6	UPL	No	No	UF
Carex wilideriowii Carex woodii	WOOD'S SEDGE	7	UPL	No	No	UF
Carya cordiformis	BITTERNUT HICKORY	5	FACU+	No	No	UF
Carya glabra	PIGNUT HICKORY	5	FACU-	No	No	UF
Carya ovata	SHAGBARK HICKORY	6	FACU-	No	No	UF
Castanea dentata	AMERICAN CHESTNUT	6	UPL	No	Yes	UF
CELASTRUS ORBICULATUS	ORIENTAL BITTERSWEET	0	FACU	No	No	UF
Celtis occidentalis	HACKBERRY	4	FACU	No	No	UF
Cercis canadensis	REDBUD	3	FACU-	No	No	UF
Chamaecrista nictitans	WILD SENSITIVE PLANT	4	FACU-	No	No	PH, GH, UF
Chasmanthium latifolium	WILD RIVER OATS	7	FACU	No	No	UF
CHRYSANTHEMUM	OX-EYE DAISY	0	UPL	No	No	GH, PH
LEUCANTHEMUM CICHORIUM INTYBUS	CHICORY	0	UPL	No	No	DS
Cimicifuga racemosa	BLACK SNAKEROOT	7	FACU	No	No	UF
Circaea lutetiana	ENCHANTER'S-NIGHTSHADE	3	FACU	No	No	UF
CIRSIUM ARVENSE	CANADA THISTLE	0	FACU	No	No	DS, PH, GH
Cirsium discolor	FIELD THISTLE	4	UPL	No	No	DS, PH, GH
CIRSIUM VULGARE	BULL THISTLE	0	FACU-	No	No	PH, GH
Clematis virginiana	VIRGIN'S-BOWER	3	FAC	No	No	UF
Collinsonia canadensis	RICH WEED	5	FAC+	No	No	UF
COMMELINA COMMUNIS	COMMON DAY-FLOWER	0	FAC-	No	No	UF
CONIUM MACULATUM	POISON-HEMLOCK	0	FACW	No	No	PH, GH, DS, UF
Conopholis americana	SQUAWROOT	7	UPL	No	No	UF
Conyza canadensis	HORSEWEED	0	UPL	No	No	GH, PH, DS
Cornus florida	FLOWERING DOGWOOD	5	FACU-	No	No	UF, BL, PH, GH
Corylus americana	AMERICAN HAZEL	4	FACU-	No	No	UF
COTINUS COGGYGRIA Cryptotaenia canadensis	SMOKE-TREE HONEWORT	3	UPL FAC	No No	No No	PH, GH UF
Cunila origanoides	DITTANY	6	UPL	No	No	UF
Cyperus esculentus	YELLOW NUT-SEDGE	0	FACW	No	No	PH, GH
*1	STRAW-COLORED UMBRELLA-		FACW			
Cyperus strigosus	SEDGE	1	FACW	No	No	PH, GH
DACTYLIS GLOMERATA	ORCHARD GRASS	0	FACU	No	No	GH, PH, DS, UF
Danthonia spicata	POVERTY OAT GRASS	4	UPL	No	No	GH, PH, UF, BL
Dasistoma macrophylla	MULLEIN-FOXGLOVE	5	FACU	No	No	UF
DAUCUS CAROTA	QUEEN-ANNE'S-LACE	0	UPL	No	No	BL, DS
Delphinium tricorne	DWARF LARKSPUR	4	UPL	No	No	UF DU
Desmodium nudiflorum	NAKED TICK-TREFOIL	5	UPL	No	No	GH, PH
Desmodium paniculatum DIANTHUS ARMERIA	SHOWY TICK-TREFOIL DEPTFORD-PINK	3	UPL UPL	No No	No No	UF PH, GH
Diarrhena americana	AMERICAN BEAK GRASS	7	FAC+	No No	No No	UF
DIGITARIA SANGUINALIS	NORTHERN CRAB GRASS	0	FAC+	No	No	GH, PH, DS
Diodia teres	ROUGH BUTTONWEED	3	UPL	No	No	GH, PH
DIOSCOREA BATATAS	CINNAMON-VINE	0	FACU	No	No	DS
Dioscorea quaternata	WHORLED-LEAVED YAM	5	FACU	No	No	UF
Diospyros virginiana	PERSIMMON	4	FAC-	No	No	PH, GH
Diphasiastrum digitatum	GROUND-PINE	1	FACU-	No	No	UF
DIPSACUS FULLONUM	WILD TEASEL	0	FACU-	No	No	PH, GH, DS

VEGETATION TABLE						
Scientific Name:	Common Name:	C of C:	Indicator Status:	Federally Listed:	State Listed:	Location (use vegetative community codes):
Dryopteris carthusiana	SPINULOSE WOOD FERN	5	FAC+	No	No	UF
Dryopteris intermedia	EVERGREEN WOOD FERN	6	FACU	No	No	UF
Dryopteris marginalis	MARGINAL WOOD FERN	5	FACU-	No	No	UF
ECHINOCHLOA CRUSGALLI	BARNYARD GRASS	0	FACU	No	No	GH, PH, DS
Eclipta prostrata	YERBA-DE-TAJO	3	FAC	No	No	PH, GH
ELAEAGNUS UMBELLATA Eleocharis erythropoda	AUTUMN-OLIVE RED-FOOTED SPIKE-RUSH	0 4	FACU OBL	No No	No No	PH, GH PH, GH
Eleocharis obtusa	BLUNT SPIKE-RUSH	1	OBL	No	No	GH, PH
ELEUSINE INDICA	GOOSE GRASS	0	FACU-	No	No	GH, PH
Elymus hystrix	BOTTLEBRUSH GRASS	4	UPL	No	No	UF
Elymus virginicus	VIRGINIA WILD RYE	3	FACW-	No	No	UF
ELYTRIGIA REPENS	QUACKGRASS	0	FACU-	No	No	GH, PH, DS, UF
Epilobium coloratum	PURPLE-LEAVED WILLOW-HERB	1	OBL	No	No	PH, GH
Equisetum arvense	FIELD HORSETAIL	0	FAC	No	No	UF, DS
Erechtites hieracifolia	PILEWORT	2	FACU	No	No	BL, PH, GH
Erigeron annuus	DAISY FLEABANE	0	FACU	No	No	GH, PH, UF
Erigeron philadelphicus	PHILADELPHIA FLEABANE	2	FACU	No	No	PH, GH, UF
Erigeron strigosus	ROUGH FLEABANE	1	FACU+	No No	No	GH, PH, BL UF
Euonymus americanus Eupatorium coelestinum	AMERICAN STRAWBERRY-BUSH MISTFLOWER	6	FAC FAC	No No	No No	PH, GH
Eupatorium fistulosum	HOLLOW-STEMMED JOE-PYE W.	6	FACW	No	No	PH, GH
Eupatorium perfoliatum	COMMON BONESET	3	FACW+	No	No	PH. GH
Eupatorium rugosum	WHITE SNAKEROOT	3	FACU	No	No	UF
Eupatorium serotinum	LATE-FLOWERING BONESET	2	FAC-	No	No	PH, GH
Eupatorium sessilifolium	UPLAND BONESET	4	UPL	No	No	UF
Euthamia graminifolia	FLAT-TOPPED GOLDENROD	2	FAC	No	No	PH, GH
Fagus grandifolia	AMERICAN BEECH	7	FACU	No	No	UF
FESTUCA ELATIOR	TALL FESCUE	0	FACU	No	No	GH, PH, DS, UF
Fraxinus americana	WHITE ASH	6	FACU	No	No	UF, PH, GH
Fraxinus pennsylvanica	GREEN ASH	3	FACW	No	No	PH, GH
Galium aparine	CLEAVERS	0	FACU	No	No	PH, GH, UF
Galium circaezans	WILD LICORICE	4	UPL	No	No	UF
Galium concinnum	SHINING BEDSTRAW	5	UPL	No	No	UF
Galium lanceolatum GALIUM MOLLUGO	LANCE-LEAVED BEDSTRAW WHITE BEDSTRAW	5	UPL UPL	No No	No No	UF PH, GH, UF
Galium pilosum	HAIRY BEDSTRAW	4	UPL	No	No	UF, PH, GH
Galium tinctorium	SMALL THREE-LOBED BEDSTRAW	4	OBL	No	No	PH, GH
Galium triflorum	SWEET-SCENTED BEDSTRAW	4	FACU	No	No	UF
Gavlussacia baccata	HUCKLEBERRY	6	FACU	No	No	UF
Geranium maculatum	WILD GERANIUM	4	FACU	No	No	UF
Geum canadense	WHITE AVENS	2	FACU	No	No	UF
GLECHOMA HEDERACEA	GROUND IVY	0	FACU	No	No	UF, DS
Gleditsia triacanthos	HONEY LOCUST	4	FAC-	No	No	UF
Glyceria striata	FOWL MANNA GRASS	2	OBL	No	No	UF, PH, GH
Goodyera pubescens	DOWNY RATTLESNAKE-PLANTAIN	6	FACU-	No	No	UF
Hackelia virginiana	VIRGINIA STICKSEED	2	FACU	No	No	UF
Hamamelis virginiana	WITCH-HAZEL AMERICAN PENNYROYAL	5 2	FAC-	No No	No	UF UF
Hedeoma pulegioides HELENIUM FLEXUOSUM	NAKED SNEEZEWEED	0	UPL FAC-	No No	No No	PH. GH
HEMEROCALLIS FULVA	ORANGE DAY-LILY	0	UPL	No	No	DS, PH, GH, UF
Hepatica acutiloba	SHARP-LOBED HEPATICA	5	UPL	No	No	UF
Heuchera americana	COMMON ALUM-ROOT	4	FACU-	No	No	UF
HOLCUS LANATUS	VELVET GRASS	0	FACU	No	No	PH, GH
Hydrangea arborescens	WILD HYDRANGEA	7	FACU	No	No	UF
Hypericum hypericoides	ST. ANDREW'S CROSS	6	UPL	No	No	UF
ILEX OPACA	AMERICAN HOLLY	0	FACU+	No	No	UF
Impatiens capensis	SPOTTED TOUCH-ME-NOT	2	FACW	No	No	UF, PH, GH
Ipomoea lacunosa	WHITE MORNING-GLORY	4	FACW	No	No	PH, GH
Iris cristata	DWARF CRESTED IRIS	5	UPL	No	No	UF
Juglans nigra	BLACK WALNUT	5	FACU	No	No	UF, PH, GH
Juncus acuminatus	SHARP-FRUITED RUSH	4	OBL	No	No	PH, GH
Juncus anthelatus	BRANCHED RUSH	4	FAC-	No No	No No	GH, PH
Juncus brachycarpus Juncus dudleyi	SHORT-FRUITED RUSH DUDLEY'S RUSH	5 3	FACW-	No No	No No	PH, GH GH, PH
Juncus audieyi Juncus effusus	SOFT RUSH	1	FACW+	No	No	PH, GH
Juncus marginatus	GRASS-LEAVED RUSH	4	FACW	No	No	GH, PH
Juncus tenuis	PATH RUSH	1	FAC-	No	No	GH, PH, UF
Juniperus virginiana	EASTERN RED CEDAR	3	FACU	No	No	PH, GH
Krigia biflora	ORANGE DWARF-DANDELION	5	FACU	No	No	UF, PH, GH

Scientific Name: Lactuca biennis Laportea canadensis Leersia oryzoides Leersia virginica LEPIDIUM CAMPESTRE LEPIDIUM DENSIFLORUM LESPEDEZA CUNEATA Lespedeza repens LESPEDEZA STIPULACEA Lespedeza virginica LINARIA VULGARIS	Common Name: TALL BLUE LETTUCE WOOD-NETTLE RICE CUT GRASS WHITE GRASS FIELD PEPPER-GRASS PRAIRIE PEPPER-GRASS CHINESE BUSH-CLOVER SMALL TRAILING BUSH-CLOVER	C of C: 1 5 1 4 0 0	Indicator Status: FACU FACW	Federally Listed:	State Listed:	Location (use vegetative community codes):
Laportea canadensis Leersia oryzoides Leersia virginica LEPIDIUM CAMPESTRE LEPIDIUM DENSIFLORUM LESPEDEZA CUNEATA LESPEDEZA STIPULACEA Lespedeza virginica LINARIA VULGARIS	WOOD-NETTLE RICE CUT GRASS WHITE GRASS FIELD PEPPER-GRASS PRAIRIE PEPPER-GRASS CHINESE BUSH-CLOVER SMALL TRAILING BUSH-CLOVER	5 1 4 0	FACW	No		oodesj.
Leersia oryzoides Leersia virginica LEPIDIUM CAMPESTRE LEPIDIUM DENSIFLORUM LESPEDEZA CUNEATA LESPEDEZA STIPULACEA Lespedeza virginica LINARIA VULGARIS	RICE CUT GRASS WHITE GRASS FIELD PEPPER-GRASS PRAIRIE PEPPER-GRASS CHINESE BUSH-CLOVER SMALL TRAILING BUSH-CLOVER	1 4 0			No	UF
Leersia virginica LEPIDIUM CAMPESTRE LEPIDIUM DENSIFLORUM LESPEDEZA CUNEATA LESPEDEZA STIPULACEA LESPEDEZA STIPULACEA LESPEDEZA VIrginica LINARIA VULGARIS	WHITE GRASS FIELD PEPPER-GRASS PRAIRIE PEPPER-GRASS CHINESE BUSH-CLOVER SMALL TRAILING BUSH-CLOVER	4 0		No	No	UF
LEPIDIUM CAMPESTRE LEPIDIUM DENSIFLORUM LESPEDEZA CUNEATA Lespedeza repens LESPEDEZA STIPULACEA Lespedeza virginica LINARIA VULGARIS	FIELD PEPPER-GRASS PRAIRIE PEPPER-GRASS CHINESE BUSH-CLOVER SMALL TRAILING BUSH-CLOVER	0	OBL	No	No	PH, GH, UF
LEPIDIUM DENSIFLORUM LESPEDEZA CUNEATA Lespedeza repens LESPEDEZA STIPULACEA Lespedeza virginica LINARIA VULGARIS	PRAIRIE PEPPER-GRASS CHINESE BUSH-CLOVER SMALL TRAILING BUSH-CLOVER		FACW UPL	No No	No No	UF DS
LESPEDEZA CUNEATA Lespedeza repens LESPEDEZA STIPULACEA Lespedeza virginica LINARIA VULGARIS	CHINESE BUSH-CLOVER SMALL TRAILING BUSH-CLOVER		FAC	No	No	GH, PH
Lespedeza repens LESPEDEZA STIPULACEA Lespedeza virginica LINARIA VULGARIS	SMALL TRAILING BUSH-CLOVER	0	FACU-	No	No	PH, GH
Lespedeza virginica LINARIA VULGARIS		6	UPL	No	No	PH, GH
LINARIA VULGARIS	KOREAN-CLOVER	0	FACU	No	No	PH, GH
	VIRGINIA BUSH-CLOVER	3	UPL	No	No	GH, PH
	BUTTER-AND-EGGS	0	UPL	No	No	UF
Lindera benzoin	SPICEBUSH	5	FACW-	No	No	UF
Lindernia dubia Liquidambar styraciflua	FALSE PIMPERNEL SWEETGUM	6	OBL FAC	No No	No No	PH, GH, UF PH, GH
Liriodendron tulipifera	TULIP TREE	6	FACU	No	No	UF, PH, GH
Lobelia spicata	PALE-SPIKE LOBELIA	5	FAC-	No	No	GH, PH
LOLIUM PERENNE	PERENNIAL RYEGRASS	0	FACU-	No	No	GH, PH, DS
LONICERA JAPONICA	JAPANESE HONEYSUCKLE	0	FAC-	No	No	UF, BL, DS, PH, GH
LONICERA TATARICA	TATARIAN HONEYSUCKLE	0	FACU	No	No	DS, PH, GH, UF
Ludwigia alternifolia	SEEDBOX	3	FACW+	No	No	PH, GH
Ludwigia palustris	WATER-PURSLANE	3	OBL	No	No	PH, GH
Luzula acuminata	HAIRY WOODRUSH	6	FAC	No	No	UF
Luzula multiflora	COMMON WOODRUSH	3	FACU	No	No	UF CU
Lycopus americanus Lycopus virginicus	AMERICAN WATER-HOREHOUND VIRGINIA BUGLE-WEED	3	OBL OBL	No No	No No	PH, GH PH, GH
LYSIMACHIA NUMMULARIA	MONEYWORT	0	OBL	No	No	UF
Lysimachia quadrifolia	WHORLED LOOSESTRIFE	5	FACU-	No	No	UF
Maianthemum racemosum	FALSE SOLOMON'S-SEAL	4	FACU-	No	No	UF
MATRICARIA MATRICARIOIDES	PINEAPPLE-WEED	0	FACU	No	No	PH, GH
Medeola virginiana	INDIAN CUCUMBER-ROOT	6	UPL	No	No	UF
MEDICAGO LUPULINA	BLACK MEDICK	0	UPL	No	No	GH, PH, DS
MELILOTUS ALBA MELILOTUS OFFICINALIS	WHITE SWEET-CLOVER YELLOW SWEET-CLOVER	0	FACU- FACU-	No No	No No	DS, PH, GH PH, GH, DS
Mentha arvensis	FIELD MINT	2	FACU-	No	No	PH, GH
MICROSTEGIUM VIMINEUM	RECLINING EULALIA	0	FAC	No	No	GH, PH, DS, UF
Mimulus ringens	COMMON MONKEY-FLOWER	4	OBL	No	No	PH, GH
Mitchella repens	PARTRIDGE-BERRY	5	FACU	No	No	UF
Monarda clinopodia	BASIL BEE-BALM	4	FAC+	No	No	UF
MORUS ALBA	WHITE MULBERRY	0	UPL	No	No	UF
Myosotis verna	SPRING FORGET-ME-NOT	4	FAC-	No	No	UF
Nyssa sylvatica Obolaria virginica	BLACK-GUM PENNYWORT	7	FAC UPL	No No	No No	UF UF
Onoclea sensibilis	SENSITIVE FERN	2	FACW	No	No	UF
Orbexilum onobrychis	SCURF-PEA	5	UPL	No	No	PH, GH
Orchis spectabilis	SHOWY ORCHIS	7	UPL	No	No	UF
Osmorhiza claytonii	WOOLLY SWEET CICELY	4	FACU-	No	No	UF
Osmunda claytoniana	INTERRUPTED FERN	6	FAC	No	No	UF
Ostrya virginiana	HOP-HORNBEAM	5	FACU-	No	No	UF
Oxalis grandis Oxalis stricta	GREAT YELLOW WOOD-SORREL COMMON YELLOW WOOD-SORREL	7	UPL UPL	No No	No No	UF UF, DS
Oxalis stricta Oxalis violacea	VIOLET WOOD-SORREL	6	UPL	No	No	UF, DS
Oxydendron arboreum	SOURWOOD	7	UPL	No	No	UF
Panicum boscii	BOSC'S PANIC GRASS	6	UPL	No	No	UF
Panicum clandestinum	DEER'S-TONGUE PANIC GRASS	2	FAC+	No	No	UF, PH, GH
Panicum lanuginosum	WESTERN PANIC GRASS	3	FAC	No	No	PH, GH, UF
Panicum latifolium	BROAD-LEAVED PANIC GRASS	4	FACU-	No	No	UF
Panicum rigidulum	RIGID PANIC GRASS	5	FACW+	No	No	GH, PH
Parthenocissus quinquefolia	VIRGINIA CREEPER	2	FACU	No No	No No	UF, PH, GH, DS
PAULOWNIA TOMENTOSA Penstemon digitalis	PRINCESS TREE FOXGLOVE BEARD-TONGUE	2	UPL FAC	No No	No No	BL UF
Phalaris arundinacea	REED CANARY GRASS	0	FACW+	No	No	PH, GH, DS, UF
Phryma leptostachya	LOPSEED	5	FACU-	No	No	UF
Phytolacca americana	POKEWEED	1	FACU+	No	No	BL, UF
Pilea pumila	CLEARWEED	2	FACW	No	No	UF, PH, GH
Pinus echinata	SHORTLEAF PINE	8	UPL	No	No	UF
Pinus virginiana	VIRGINIA PINE	3	UPL	No	No	UF
PLANTAGO ARISTATA PLANTAGO LANCEOLATA	BRACTED PLANTAIN ENGLISH PLANTAIN	0	UPL UPL	No No	No No	GH, PH GH, PH, DS

VEGETATION TABLE						
Scientific Name:	Common Name:	C of C:	Indicator Status:	Federally Listed:	State Listed:	Location (use vegetative community codes):
Plantago rugelii	RUGEL'S PLANTAIN	0	FACU	No	No	GH, PH, DS
Platanthera lacera	RAGGED FRINGED ORCHID	3	FACW	No	No	PH, GH
Platanus occidentalis	SYCAMORE	7	FACW-	No	No	UF, PH, GH
POA COMPRESSA	CANADA BLUEGRASS	0	FACU	No	No	UF, PH, GH
POA PRATENSIS	KENTUCKY BLUEGRASS	0	FACU	No	No	GH, PH, DS
POA TRIVIALIS Podophyllum peltatum	ROUGH BLUEGRASS MAYAPPLE	0 4	FACW FACU	No No	No No	PH, GH UF
Polemonium reptans	SPREADING JACOB'S LADDER	5	FACU	No	No	UF
Polygala sanguinea	FIELD MILKWORT	2	FACU	No	No	PH, GH
Polygonatum biflorum	SMOOTH SOLOMON'S-SEAL	4	FACU	No	No	UF
POLYGONUM ARENASTRUM	DOORYARD KNOTWEED	0	[UPL]	No	No	UF
POLYGONUM CESPITOSUM	LONG-BRISTLED SMARTWEED	0	FACU-	No	No	GH, PH, UF
POLYGONUM CUSPIDATUM	JAPANESE KNOTWEED	0	FACU-	No	No	GH, PH
Polygonum hydropiper	WATER-PEPPER	1	OBL	No	No	PH, GH
POLYGONUM PERSICARIA	LADY'S THUMB	0	FACW	No	No	PH, GH PH, GH
Polygonum sagittatum Polystichum acrostichoides	ARROW-LEAVED TEARTHUMB CHRISTMAS FERN	3	OBL FACU-	No No	No No	UF
POPULUS ALBA	WHITE POPLAR	0	UPL	No	No	GH
Populus deltoides	EASTERN COTTONWOOD	3	FAC	No	No	UF, PH, GH
Populus grandidentata	BIG-TOOTH ASPEN	2	FACU-	No	No	UF
Porteranthus stipulatus	AMERICAN IPECAC	6	UPL	No	No	UF
Potamogeton epihydrus	RIBBON-LEAVED PONDWEED	6	OBL	No	No	PH, GH
Potentilla canadensis	RUNNING CINQUEFOIL	3	UPL	No	No	GH, PH
Potentilla simplex	OLD FIELD CINQUEFOIL	1	FACU-	No	No	PH, GH, UF
Prenanthes alba	WHITE RATTLESNAKE-ROOT	5	FACU	No	No	UF
Prenanthes altissima	TALL RATTLESNAKE-ROOT	4	FACU-	No	No	UF
Prenanthes serpentaria	LION'S FOOT	5	UPL	No	No	UF
Prosartes lanuginosa	YELLOW MANDARIN	7	UPL FACU+	No No	No No	UF UF
Prunella vulgaris Prunus serotina	SELF-HEAL BLACK CHERRY	3	FACU+	No	No	UF, PH, GH
Prunus virginiana	CHOKE CHERRY	2	FACU	No	No	UF, PH, GH
Pycnanthemum pycnanthemoides	SOUTHERN MOUNTAIN-MINT	6	UPL	No	No	UF
Pycnanthemum tenuifolium	NARROW-LEAVED MOUNTAIN-	4	FACW	No	No	PH, GH
PYRUS CALLIERYANA	MINT CALLIERY PEAR	0	UPL	No	No	PH, GH
Quercus alba	WHITE OAK	6	FACU-	No	No	UF, BL
Quercus coccinea	SCARLET OAK	6	UPL	No	No	UF
Quercus imbricaria	SHINGLE OAK	5	FAC	No	No	UF
Quercus muehlenbergii	CHINQUAPIN OAK	7	UPL	No	No	UF
Quercus prinus	ROCK CHESTNUT OAK	7	UPL	No	No	UF, BL
Quercus rubra	RED OAK	6	FACU-	No	No	UF, BL
Quercus velutina	BLACK OAK	7	UPL	No	No	UF, BL
Rhus copallinum	WINGED SUMAC	4	FACU-	No	No	PH, GH
Rhus typhina ROBINIA HISPIDA	STAGHORN SUMAC BRISTLY LOCUST	2	UPL	No No	No	PH, GH, DS
ROBINIA HISPIDA Robinia pseudoacacia	BLACK LOCUST	0	UPL FACU-	No No	No No	DS, PH, GH PH, GH, UF
RORIPPA SYLVESTRIS	CREEPING YELLOW CRESS	0	FACU- FACW	No	No	PH, GH
ROSA MULTIFLORA	MULTIFLORA ROSE	0	FACU	No	No	UF, PH, GH, DS,
	COMMON BLACKBERRY		FACU-			BL, DS
Rubus allegheniensis Rubus occidentalis	BLACK RASPBERRY	1 1	UPL	No No	No No	BL, DS BL, UF
Rubus occidentalis Rubus pensylvanicus	PENNSYLVANIA BLACKBERRY	1	FACU	No	No	UF, BL
Rudbeckia fulqida	ORANGE CONEFLOWER	6	FACO	No	No	UF, BL
Rudbeckia hirta	BLACK-EYED SUSAN	1	FACU-	No	No	PH, GH
RUMEX CRISPUS	CURLY DOCK	0	FACU	No	No	PH, GH
RUMEX OBTUSIFOLIUS	BITTER DOCK	0	FACU-	No	No	PH, GH
Salix exigua	SANDBAR WILLOW	1	OBL	No	No	PH, GH
SALIX FRAGILIS	CRACK WILLOW	0	FAC+	No	No	PH, GH
Salix nigra	BLACK WILLOW	2	FACW+	No	No	PH, GH
Salvia lyrata	LYRE-LEAVED SAGE	3	UPL	No	No	PH, GH
Sambucus canadensis	COMMON ELDERBERRY	3	FACW-	No No	No	PH, GH, DS UF
Sanguinaria canadensis Sanicula canadensis	BLOODROOT SHORT-STYLED SNAKEROOT	5 3	UPL UPL	No No	No No	UF
Sanicula canadensis Sanicula gregaria	CLUSTERED SNAKEROOT	3	FACU	No	No	UF
Sanicula gregaria Sanicula trifoliata	LARGE-FRUITED SNAKEROOT	3	UPL	No	No	UF
Sassafras albidum	SASSAFRAS	3	FACU-	No	No	UF, PH, GH
Schizachyrium scoparium	LITTLE BLUESTEM	5	FACU-	No	No	PH, GH
Scirpus atrovirens	GREEN BULRUSH	1	OBL	No	No	PH, GH
Scirpus hattorianus	SMOOTH-LVD. DARK GREEN BULR		OBL	No	No	PH, GH, DS

VEGETATION TABLE						
Scientific Name:	Common Name:	C of C:	Indicator Status:	Federally Listed:	State Listed:	Location (use vegetative community codes):
Scutellaria elliptica	HAIRY SKULLCAP	5	UPL	No	No	UF
Scutellaria integrifolia	HYSSOP SKULLCAP	6	FACW	No	No	PH, GH
Senecio aureus	GOLDEN RAGWORT	4	FACW	No	No	UF
SENECIO GLABELLUS SIDA SPINOSA	BUTTERWEED PRICKLY SIDA	0	OBL UPL	No No	No No	PH, GH PH, GH
Sisyrinchium albidum	PALE BLUE-EYED-GRASS	6	FAC	No	No	PH, GH
Sisyrinchium angustifolium	STOUT BLUE-EYED-GRASS	2	FACW-	No	No	PH, GH
Smilax rotundifolia	COMMON GREENBRIER	4	FAC	No	No	UF, BL
SOLANUM CAROLINENSE	HORSE NETTLE	0	UPL	No	No	UF
Solidago caesia	BLUE-STEMMED GOLDENROD	5	FACU	No	No	UF
Solidago canadensis	CANADA GOLDENROD	1	FACU	No	No	GH, PH, DS, UF
Solidago flexicaulis	ZIGZAG GOLDENROD	5	FACU	No	No	UF
Solidago gigantea	SMOOTH GOLDENROD	3	FACW	No	No	PH, GH
Solidago juncea	PLUME GOLDENROD	2	UPL	No	No	PH, GH, UF
Solidago nemoralis SONCHUS ASPER	GRAY GOLDENROD PRICKLY SOW-THISTLE	0	UPL FAC	No No	No No	UF, PH, GH DS, PH, GH
Sorghastrum nutans	INDIAN GRASS	5	UPL	No	No	PH, GH
SORGHUM HALEPENSE	JOHNSON GRASS	0	FACU	No	No	PH, GH, DS
Stachys cordata	HEART-LEAVED HEDGE-NETTLE	4	FAC	No	No	UF
Stachys tenuifolia	SMOOTH HEDGE-NETTLE	4	FACW+	No	No	PH, GH
STELLARIA AQUATICA	WATER CHICKWEED	0	FACW	No	No	UF
STELLARIA MEDIA	COMMON CHICKWEED	0	UPL	No	No	PH, GH
Stellaria pubera	STAR CHICKWEED	5	UPL	No	No	UF, PH, GH
TARAXACUM OFFICINALE	COMMON DANDELION	0	FACU-	No	No	DS, PH, GH
Thalictrum dasycarpum	PURPLE MEADOW-RUE	4	FACW	No	No	UF UF
Thalictrum dioicum Thelypteris hexagonaptera	EARLY MEADOW-RUE BROAD BEECH-FERN	5 7	FAC FAC	No No	No No	UF
Thelypteris noveboracensis	NEW YORK FERN	4	FAC	No	No	UF
THLASPI ARVENSE	FIELD PENNY CRESS	0	UPL	No	No	PH, GH
Toxicodendron radicans	POISON-IVY	1	FAC	No	No	UF, PH, GH, BL, DS
Trichophorum planifolium	FLAT-LEAVED BULRUSH	7	UPL	No	No	UF
Tridens flavus	GREASE GRASS	1	FACU	No	No	GH, PH, DS
TRIFOLIUM CAMPESTRE	PINNATE HOP CLOVER	0	0	No	No	GH, PH, UF
TRIFOLIUM HYBRIDUM	ALSIKE CLOVER	0	FACU-	No	No	PH, GH
TRIFOLIUM PRATENSE	RED CLOVER	0	FACU-	No	No	GH, PH
TRIFOLIUM REPENS Trillium grandiflorum	WHITE CLOVER LARGE-FLOWERED TRILLIUM	5	FACU- UPL	No No	No No	GH, PH UF
Triodanis perfoliata	VENUS'-LOOKING-GLASS	2	FAC	No	No	BL
TUSSILAGO FARFARA	COLTSFOOT	0	FACU	No	No	UF
TYPHA ANGUSTIFOLIA	NARROW-LEAVED CAT-TAIL	0	OBL	No	No	PH, GH
Typha latifolia	BROAD-LEAVED CAT-TAIL	1	OBL	No	No	DS
Ulmus americana	AMERICAN ELM	2	FACW-	No	No	UF
Ulmus rubra	SLIPPERY ELM	3	FAC	No	No	PH, GH, DS
Urtica dioica var. procera	AMERICAN STINGING NETTLE	1 -	FAC-	No	No	UF
Uvularia grandiflora Vaccinium pallidum	LARGE-FLOWERED BELLWORT LOW BLUEBERRY	5 6	UPL UPL	No No	No No	UF UF
Vaccinium pallidum Vaccinium stamineum	DEERBERRY	6	FACU-	No	No	UF
Verbena urticifolia	WHITE VERVAIN	3	FACU	No	No	BL
Verbesina alternifolia	WINGSTEM	5	FAC	No	No	UF
Vernonia gigantea	TALL IRONWEED	2	FAC	No	No	GH, PH
VERONICA OFFICINALIS	COMMON SPEEDWELL	0	FACU-	No	No	UF
Viburnum acerifolium	MAPLE-LEAVED VIBURNUM	6	UPL	No	No	UF
Viburnum prunifolium	BLACK-HAW	4	FACU	No	No	UF
VICIA VILLOSA	HAIRY VETCH	0	UPL	No	No	GH, PH
Viola palmata var. palmata	PALMATE-LEAVED VIOLET PRIMROSE-LEAVED VIOLET	8	FACW FAC+	No No	No	UF UF, PH, GH
Viola primulifolia Viola pubescens	DOWNY YELLOW VIOLET	4	FAC+	No No	Yes No	UF, PH, GH UF
Viola pubescens Viola sororia	COMMON BLUE VIOLET	1	FACU-	No	No	UF, DS
Viola striata	STRIPED CREAMY VIOLET	5	FACW	No	No	UF
Vitis aestivalis	SUMMER GRAPE	4	FACU	No	No	UF
Vitis riparia	RIVERBANK GRAPE	3	FACW	No	No	UF, PH, GH, DS
Vitis vulpina	FROST GRAPE	3	FAC	No	No	UF
XANTHIUM STRUMARIUM	COMMON COCKLEBUR	0	FAC	No	No	PH, GH

MAMMAL TABLE								
Scientific Name	Common Name	Federally Listed:	State Listed:	Location (use vegetative community codes):				
Blarina brevicauda	Shorttail Shrew	Not Listed	Not Listed	PH				
Canis latrans	Coyote	Not Listed	Not Listed	PH, GH, UF				
Didelphis marsupialis	Opossum	Not Listed	Not Listed	DS				
Marmota monax	Woodchuck	Not Listed	Not Listed	PH, GH, CC				
Odocoileus virginianus	Whitetail Deer	Not Listed	Not Listed	UF, PH, GH				
Procyon lotor	Raccoon	Not Listed	Not Listed	PH, GH, UF				
Sciurus griseus	Eastern Gray Squirrel	Not Listed	Not Listed	UF				
Sylvilagus floridanus	Eastern Cottontail	Not Listed	Not Listed	PH, GH				

Additional Mammal Observations:

All of the identified mammals are common throughout southern Ohio.

BIRD TABLE						
Scientific Name	Common Name	Date of Observation	Typical Ohio Range	Federally Listed:	State Listed:	Location (use vegetative community codes):
Agelaius phoeniceus	Red Winged Blackbird	6/28/2011	Year-Round Resident	Not Listed	Not Listed	DS, GH
Archilochus colubris	Ruby Throated Hummingbird	6/28/2011	Breeding Season Resident	Not Listed	Not Listed	GH
Ardea herodias	Great Blue Heron	6/23/2011	Year-Round Resident	Not Listed	Not Listed	PH
Baeolophus bicolor	Tufted Titmouse	6/14/2011	Year-Round Resident	Not Listed	Not Listed	UF
Buteo jamaicensis	Red Tailed Hawk	6/7/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH, DS
Cardinalis cardinalis	Northern Cardinal	6/15/2011	Year-Round Resident	Not Listed	Not Listed	DS, UF
Cathartes aura	Turkey Vulture	6/15/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH
Coccyzus erythropthalmus	Black Billed Cuckoo	6/22/2011	Breeding Season Resident	Not Listed	Not Listed	UF
Contopus virens	Eastern Wood Pewee	6/7/2011	Breeding Season Resident	Not Listed	Not Listed	UF
Corvus brachyrhynchos	American Crow	6/15/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH, DS
Cyanocitta cristata	Bluejay	6/7/2011	Year-Round Resident	Not Listed	Not Listed	DS, GH, SS
Dryocopus pileatus	Pileated Woodpecker	6/22/2011	Year-Round Resident	Not Listed	Not Listed	UF
Dumetella carolinensis	Gray Catbird	6/7/2011	Breeding Season Resident	Not Listed	Not Listed	UF, PH, GH
Empidonax virescens	Acadian Flycatcher	6/7/2011	Breeding Season Resident	Not Listed	Not Listed	UF
Hirundo rustica	Barn Swallow	6/8/2011	Breeding Season Resident	Not Listed	Not Listed	GH, PH, DS
Hylocichla mustelina	Wood Thrush	6/28/2011	Breeding Season Resident	Not Listed	Not Listed	UF
Megaceryle alcyon	Belted Kingfisher	6/28/2011	Year-Round Resident	Not Listed	Not Listed	PH
Melanerpes erythrocephalus	Red-headed Woodpecker	6/15/2011	Year-Round Resident	Not Listed	Not Listed	UF
Meleagris gallopavo	Turkey	6/15/2011	Year-Round Resident	Not Listed	Not Listed	UF, GH

BIRD TABLE						
Scientific Name	Common Name	Date of Observation	Typical Ohio Range	Federally Listed:	State Listed:	Location (use vegetative community codes):
Melospiza melodia	Song Sparrow	6/22/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH
Mimus polyglottos	Northern Mockingbird	6/8/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH
Passerina cyanea	Indigo Bunting	6/28/2011	Breeding Season Resident	Not Listed	Not Listed	PH, GH
Picoides pubescens	Downy Woodpecker	6/7/2011	Year-Round Resident	Not Listed	Not Listed	UF
Pipilo erythrophthalmus	Eastern Towhee	6/15/2011	Year-Round Resident	Not Listed	Not Listed	UF, GH
Poecile carolinensis	Carolina Chickadee	6/7/2011	Year-Round Resident	Not Listed	Not Listed	UF
Scolopax minor	American Woodcock	6/28/2011	Breeding Season Resident	Not Listed	Not Listed	UF
Seiurus aurocapillus	Ovenbird	6/7/2011	Breeding Season Resident	Not Listed	Not Listed	UF
Sitta carolinensis	Nuthatch	6/15/2011	Year-Round Resident	Not Listed	Not Listed	UF
Spizella pusilla	Field Sparrow	6/15/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH, DS
Sturnella magna	Eastern Meadowlark	6/15/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH
Sturnus vulgaris	European Starling	6/7/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH, DS
Tachycineta bicolor	Tree Swallow	6/22/2011	Breeding Season Resident	Not Listed	Not Listed	PH, GH
Turdus migratorius	American Robin	6/7/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH, UF, DS
Zenaida macroura	Mourning Dove	6/28/2011	Year-Round Resident	Not Listed	Not Listed	PH, GH

Additional Bird Observations:

All identified bird species are common throughout southern Ohio.

REPTILE TABLE					
Scientific Name	Common Name	Federally Listed:	State Listed:	Location (use vegetative community codes):	
Plestiodon fasciatus	Common Five-lined Skink	Not Listed	Not Listed	UF	
Terrapene carolina carolina	Eastern Box Turtle	Not Listed	Species of Concern	UF, GH	
Thamnophis sirtalis sirtalis	Eastern Garter Snake	Not Listed	Not Listed	РН	
Nerodia sipedon sipedon	Northern Water Snake	Not Listed	Not Listed	РН	

AMPHIBIAN TABLE					
Scientific Name	Common Name	Federally Listed:	State Listed:	Location (use vegetative community codes):	
Bufo americanus americanus	Eastern American Toad	Not Listed	Not Listed	UF	
Eurycea b. cirrigera	Southern Two-lined Salamander	Not Listed	Not Listed	UF	
Plethodon cinereus	Redback Salamander	Not Listed	Not Listed	UF	
Rana catesbeiana	American Bullfrog	Not Listed	Not Listed	PH, GH	
Rana palustris	Pickerel Frog	Not Listed	Not Listed	UF	
Rana pipiens pipiens	Northern Leopard Frog	Not Listed	Not Listed	GH. PH	

Listed Species

FEDERALLY LISTED SPECIES	
Were any federally listed species observed within the project area?	NO
Were any suitable habitats for federally listed species (known to be within the range of the project area) observed within the project area?	YES
Were any designated critical habitats for federally listed species present within the project area?	NO

Additional summary observations on federally listed species:

Surveys for the federally threatened running buffalo clover and small whorled pogonia were conducted as part of the ecological survey. No individuals of either listed species were identified within the project area. Habitat, of varying degrees of quality, was identified within the project area. Areas of potential habitat were intensively surveyed during the field investigation and failed to identify any individuals.

Mist-net surveys for the Indiana bat were conducted between July 1 and August 15, 2011. No Indiana bats were captured during the survey. Potential roosting habitat was prevalent throughout the corridor, as forested areas are common throughout the project area.

No evidence of mussels, live or dead, was found during the ecological investigation of the streams within the project area.

STATE-LISTED SPECIES	
Are any state-listed species known to be within 1 mile of the project area?	YES
Were any state-listed species observed within the project area?	YES
If any state-listed species are known to be within a mile of the project area (Natural Heritage Database record or other), was suitable habitat for the species observed within the project area?	YES

Additional summary observations on state-listed species:

The state endangered southern monkshood (*Aconitum uncinatum*) is reported within the project area. The State Threatened Spanish oak (*Quercus falcata*) is reported within one mile of the project area. No Spanish oaks were observed during the ecological survey of the project area.

Several individuals of the endangered southern monkshood (*Aconitum uncinatum*) were identified during the field investigation. According to the Ohio Department of Natural Resources, Division of Nature Preserves (ODNR-DNAP), as of 2006 there are records of southern monkshood in Scioto County.

Several individuals of the state endangered primrose-leaved violet (*Viola primulifolia*) were indentified within the project area. According to the ODNR-DNAP, there is a pre-1980 record of primrose-leaved violet in Scioto County.

One state potentially threatened American chestnut (*Castanea dentata*) was identified in the project area during the ecological survey. According to the ODNR-DNAP, there are post-1980 records of American chestnut in Scioto County.

Several individuals of the state species of concern eastern box turtle (*Terrapene carolina carolina*) were encountered throughout the project area.

Federally Listed Species Table: All species observed within the project area, or known to be within the county(ies) the project is located within					
Scientific Name	Common Name	Listing	Discuss Presence of Suitable Habitat(s) (note designated critical habitat if present)		
			Complete Attached Bat Habitat Worksheet in Appendix C. Include Figure(s) indicating the location of potential Indiana Bat habitat trees when feasible.		
Myotis sodalis	Indiana Bat	Endangered	Potential habitat for the Indiana bat is abundant throughout the project area, as much of the project area consists of forest. As of July 7, 2011, the project area is not located within 5 miles of a capture record, or within 10 miles of a suspected hibernacula record. This project will impact trees that are part of forested areas greater than 100 acres and several perennial and intermittent streams are located within and in close proximity to the project area.		
			No Indiana bats were captured during the mist-net survey for the project.		
Trifolium stoloniferum	Running Buffalo Clover	Endangered	Potential habitat is located within the project area; however, a survey for the running buffalo clover did not locate the species within the project area.		
Pleurobema clava	Clubshell	Endangered	No suitable habitat was identified within the project area.		
Cyprogenia stegaria	Fanshell	Endangered	No suitable habitat was identified within the project area.		
Epioblasma torulosa rangiana	Northern Riffleshell	Endangered	No suitable habitat was identified within the project area.		
Lampsilis orbiculata (=l. abrupta)	Pink Mucket Pearly Mussel	Endangered	No suitable habitat was identified within the project area.		
Villosa fabalis	Rayed Bean	Proposed Endangered	No suitable habitat was identified within the project area.		
Plethobasus cyphyus	Sheepnose	Proposed Endangered	No suitable habitat was identified within the project area.		
Epioblasma triquetra	Snuffbox	Proposed Endangered	No suitable habitat was identified within the project area.		
Isotria medeoloides	Small Whorled Pogonia	Threatened	Potential habitat is located within the project area; however, a survey for the small whorled pogonia did not locate the species within the project area.		
Spiraea virginiana	Virginia Spiraea	Threatened	Potential habitat is located along Long Run (Stream 18). No individuals were identified during the ecological survey of the project area.		
Haliaeetus leucocephalus	Bald Eagle	Species of Concern	This project is not within ½ mile of known nesting activity, as of July 29, 2011. The nearest nest is located approximately 7 miles from the proposed project.		
Cryptobranchus alleganiensis	Eastern Hellbender	Species of Concern	No suitable habitat was identified within the project area.		
Crotalus horridus	Timber Rattlesnake	Species of Concern	Potential habitat for the timber rattlesnake was found within the project area.		

State-Listed Species Table: All species observed within the project area, or known to be within 1 mile of the project area					
Scientific Name Common Name Listing Discuss Presence of Suitable Habitat(s)					
Aconitum uncinatum	Southern monkshood	Endangered	Several individuals were identified along Stream 18 (Long Run) within the woods.		
Castanea dentata	American chestnut	Potentially Threatened	One individual was identified along the wooded hillside east of Swauger Valley Road.		
Quercus falcata	Spanish oak	Threatened	This species is reported to exist within 1 mile of the project area.		
Terrapene carolina carolina	Eastern Box Turtle	Concern	Several individuals were encountered throughout the project area.		
Viola primulifolia	Primrose-leaved violet	Endangered	Several populations were identified along old logging roads within the project area.		

IMPACT SUMMARY

STREAMS IMPACTS				
Will any streams be impacts by the project?	YES			
(If NO, delete the Stream Impact Table)	123			
Total number of streams impacted by the project	21			
(list multiple alignments separately):	21			
Total length of streams impacted by the project (feet):	9,308 permanent			
Total length of streams impacted by the project (feet).	and 300 temporary			

Stream Impacts Table	ı	Alternative Impacts (ft.)			
Stream I.D.	Use Designation	USACE Flow Characteristics	Alternative 1	Alternative 2	Alternative 3
Stream 17-1-1	Class I PHWH	Non-Relatively Permanent Water	73		
Stream 17a/b	Modified Class II PHWH	Relatively Permanent Water- Perennial	831		
Stream 17c	Modified Class II PHWH	Relatively Permanent Water- Seasonal	960		
Stream 17c-1	Modified Class II PHWH	Non-Relatively Permanent Water	394		
Stream 17d	Modified Class II PHWH	Relatively Permanent Water- Seasonal	223		
Stream 18 (Long Run)	Warmwater Habitat	Relatively Permanent Water- Perennial	55 (150 temporary)		
Stream 18-1	Modified Class II PHWH	Non-Relatively Permanent Water	417		
Stream 18b	Modified Class II PHWH	Relatively Permanent Water- Seasonal	244		
Stream 19	Modified Class II PHWH	Relatively Permanent Water- Perennial	500		
Stream 19-1	Modified Class II PHWH	Relatively Permanent Water- Seasonal	662		
Stream 20	Modified Warmwater habitat	Relatively Permanent Water- Perennial	23 (150 temporary)		
Stream 20-1	Class II PHWH	Non-Relatively Permanent Water	720		
Stream 20-2	Modified Class I PHWH	Non-Relatively Permanent Water	375		
Stream 21	Modified Class II PHWH	Relatively Permanent Water- Seasonal	802		
Stream 21a	Modified Class II PHWH	Relatively Permanent Water- Seasonal	745		
Stream 22a/b	Modified Class II PHWH	Relatively Permanent Water- Perennial	1,218		
Stream 22a-1	Modified Class II PHWH	Non-Relatively Permanent Water	318		
Stream 23/k	Class II PHWH	Relatively Permanent Water- Seasonal	415		
Stream 24-1	Modified Class II PHWH	Non-Relatively Permanent Water	333		
Stream 18-2	Modified Class II PHWH	Relatively Permanent Water- Seasonal	0		
Stream 18-2-1	Modified Class II PHWH	Relatively Permanent Water- Seasonal	0		

Total impacts (ft)	9,608 total (9,308 permanent and 300 temporary)		
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Discuss the type of impact(s) expected to each stream. If a stream is impacted at multiple locations, discuss each location separately and include the distance (stream length) from other impacted locations.

Stream 17-1-1 will be culverted.

Stream 17a/b will be culverted.

Stream 17 c will likely be relocated.

Stream 17c-1 will likely be relocated.

Stream 17d will be culverted.

Stream 18 (Long Run) will be bridged.

Stream 18-1 will likely be relocated.

Stream 18b will be relocated.

Stream 19 will be relocated.

Stream 19-1 will likely be culverted and relocated.

Stream 20 will be bridged.

Stream 20-1 will likely be relocated and culverted.

Stream 20-2 will likely be relocated.

Stream 21 will be culverted.

Stream 21a will likely be relocated and culverted.

Stream 22a/b will relocated and culverted.

Stream 22a-1 will likely be relocated.

Stream 23k will be culverted.

Stream 24-1 will be culverted.

Stream 18-2 will likely not be impacted

Stream 18-2-1 will likely not be impacted.

WETLAND IMPACTS			
Will any wetlands be impacted by the project? (If NO, delete the Wetland Impact Table)	YES		
Total number of wetlands impacted by the project	33		
Total area of wetlands impacted by the project (acres):	3.893		

Wetland Impacts Table			Alternative Impacts (ac)		
Wetland I.D.	Provisional Wetland Category	Hydrologic Connection	Alternative 1	Alternative 2	Alternative 3
Wetland 1	Category 1	Adjacent	0.141		
Wetland 2/3	Modified Category 2	Adjacent	0.517		
Wetland 4	Modified Category 2	Adjacent	0.089		
Wetland W8WL6	Modified Category 2	Abutting	0.221		
Wetland W8WL8	Category 1	Abutting	0.020		
Wetland 5/W8WL7	Modified Category 2	Abutting	0.066		
Wetland 6	Modified Category 2	Adjacent	0.018		
Wetland 7	Category 1	Adjacent	0.108		
Wetland 8	Modified Category 2	Adjacent	0.028		
Wetland 9	Modified Category 2	Abutting	0.073		
Wetland 12	Modified Category 2	Adjacent	0.811		
Wetland 13	Modified Category 2	Adjacent	0.233		
Wetland 14	Category 1	Adjacent	0.010		
Wetland 15	Modified Category 2	Adjacent	0.041		
Wetland 16	Category 1	Abutting	0.036		
Wetland 17	Modified Category 2	Adjacent	0.001		
Wetland 18/W9WL2	Modified Category 2	Abutting	0.038		
Wetland 19	Category 2	Abutting	0.180		
Wetland 20	Modified Category 2	Adjacent	0.062		
Wetland 21	Category 1	Adjacent	0.082		
Wetland W9WL4	Modified Category 2	Adjacent	0.029		
Wetland 22	Category 1	Adjacent	0.344		
Wetland 24	Category 1	Adjacent	0.069		
Wetland 26	Category 1	Adjacent	0.483		
Wetland 28	Modified Category 2	Abutting	0.101		
Wetland 29	Category 1	Abutting	0.001		
Wetland 30	Category 1	Adjacent	0.011		
Wetland 31	Category 1	Adjacent	0.027		
Wetland 32	Category 2	Abutting	0.019		

Wetland Impacts Table			Alternative Impacts (ac)		
Wetland I.D.	Provisional Wetland Category	Hydrologic Connection	Alternative 1	Alternative 2	Alternative 3
Wetland 33	Category 1	Adjacent	0.021		
Wetland 34	Category 1	Adjacent	0.013		
Wetland 35	Modified Category 2	Abutting	0.000		

Discuss the types of impact(s) expected to each wetland.

Wetland 1 will be filled.

Wetland 2/3 will be filled.

Wetland 4 will be filled.

Wetland W8WL6 will be filled.

Wetland W8WL8 will be filled.

Wetland 5/W8WL7 will be filled.

Wetland 6 will be filled.

Wetland 7 will be filled.

Wetland 8 will be filled.

Wetland 9 will be filled.

Wetland 12 will be filled.

Wetland 13 will be filled.

Wetland 14 will be filled.

Wetland 15 will be filled.

Wetland 16 will be filled.

Wetland 17 will be filled.

Wetland 18/W9WL2 will be filled.

Wetland 19 will be filled.

Wetland 20 will be filled.

Wetland 21 will be filled.

Wetland W9WL4 will be filled.

Wetland 22 will be filled.

Wetland 24 will be filled.

Wetland 26 will be filled.

Wetland 28 will be filled.

Wetland 29 will be filled.

Wetland 30 will be filled.

Wetland 31 will be filled.

Wetland 32 will be filled.

Wetland 33 will be filled.

Wetland 34 will be filled.

Wetland 35 will not be impacted.

POTENTIALLY JURISDICTIONAL DITCH IMPACTS				
Will any potentially jurisdictional ditches be impacted by the project? (If NO, delete the Potentially Jurisdictional Ditch Impact Table)	YES			
Total number of potentially jurisdictional ditches impacted by the project:	2			
Total area of potentially jurisdictional ditches impacted by the project (acres):	0.02			

Potentially Jurisdictional Ditch Impact Table			Alternative Impacts (feet/ac.)		
Ditch I.D.	Receiving Waters	USACE Flow Characteristics	Alternative 1	Alternative 2	Alternative 3
Railroad Ditch 1	Stream 22a/b	Relatively Permanent Water- Seasonal	89 ft 0.01 acre		
Railroad Ditch 2	Stream 22a/b	Relatively Permanent Water- Seasonal	89 ft 0.01 acre		

Total imposts (as)	178 ft	
Total impacts (ac)	0.02 acre	

Discuss the types of impact(s) expected to each potentially jurisdictional ditch.

Railroad Ditch 1 will not be impacted by the proposed project.

Railroad Ditch 2 will not be impacted by the proposed project.

POND, LAKE, RESERVOIR IMPACTS				
Will any ponds, lakes, or reservoirs be impacted by the project? (If NO, delete the Pond Impact Table)	YES			
Total number of ponds, lakes or reservoirs impacted by the project:	5			
Total area of ponds, lakes or reservoirs impacted by the project (acres):	2.70			

nd, Lake, Reservoir Impacts Table			Alternative Impacts (ac)		
Water Body I.D.	Receiving Waters	Hydrologic Connection	Alternative 1	Alternative 2	Alternative
Pond 4	Stream 18b	Non-Isolated	1.418		
Pond 5	Stream 20	Non-Isolated	0.034		
Pond 6	Stream 21a	Non-Isolated	0.189		
Pond 7	Outlets to farm tiles to Railroad Ditch 1	Non-Isolated	0.592		
Pond 8	Stream 22a/b	Non-Isolated	0.467		
	Γ-	Fotal impacts (ac)	2.70		

Discuss the types of impact(s) expected to each pond, lake, or reservoir.

All of the impacted ponds will be filled as a result of the construction of the project.

IMPACTS TO AQUATIC LIFE

Discuss the expected impacts to aquatic fauna (fish, mussels, aquatic macroinvertebrates). Specific stream locations should be referenced when appropriate.

Aquatic fauna that inhabit streams that will be relocated will likely be adversely impacted by the construction of the proposed project. Aquatic fauna that are mobile will be able to migrate up or downstream of the proposed relocation. However, impacts to less mobile fauna will likely result in permanent impacts to these species. It is expected that aquatic fauna will begin to recolonize the relocated portion of the stream upon the completion of construction as the new channel will likely be tied into existing drainage ways.

Aquatic fauna that inhabit streams that will be culverted will likely be adversely impacted by the construction of the proposed project. The installation of the proposed culverts will permanently alter these streams making them less suitable for some aquatic organisms. Aquatic fauna that are mobile will be able to migrate up or downstream of the proposed relocation. However, impacts to less mobile fauna will likely result in permanent impacts to these species.

Aquatic fauna that inhabit streams that will be bridged will likely be minimally impacted as a result of the construction of these bridge structures. These bridges have been designed to minimize the amount of instream work. Localized permanent impacts, including the installation of piers and erosion control in the form of riprap, will likely impact less mobile aquatic fauna. Aquatic fauna with the ability to migrate upstream and downstream of the proposed structures will likely be temporarily impacted as they will be able to recolonize the areas around the new structures upon the completion of the structure.

OTHER WATER QUALITY IMPACTS

Discuss potential short term and long term water quality impacts that are likely expect to occur as a result of the proposed project.

The proposed project will permanently and temporarily impact Waters of the US, which will result in the lowering of water quality, which may possibly affect aquatic life and wildlife. Impacts include the placement of culverts, permanent erosion control, bridging, and the relocation of existing channels as part of the proposed project. During the installation of these culverts, aguatic organisms at the impact site and downstream of the impacts could be adversely affected by the temporary increase in sediments in the water column from the construction activities. These temporary impacts are expected to be minor and localized around the area of impact. All impacts to water quality will be minimized through the use of construction best management practices (BMPs) for sediment and erosion controls that include the installation of silt fencing and adherence to the project's Stormwater Pollution Prevention Plan (SWPPP). Proposed culverts have been designed so as not to impede flow or alter the stream's ability to transport sediment. All proposed bridge structures were designed using BMPs and will be installed above the OHWM of the streams when feasible so as not to impact these features. The project has been designed using standard ODOT design procedures that provide culverts that are wide enough to accommodate the connection of ecological systems, as the proposed culverts were designed using culverts 1-foot diameter larger than what is typically specified. In addition, the proposed culverts have been designed for a 50year flood, but will allow the conveyance of a 100-year flood without causing any significant damage.

Discuss how the project will be implemented to minimize these water quality impacts.

Short-term water quality impacts resulting from runoff from disturbed areas during construction will be minimized through the use of sediment and erosion controls in accordance with the ODOT *Construction and Materials Specifications*. Longer duration water quality impacts associated with roadway runoff will be minimized through the implementation of post-construction best management practices in accordance with the ODOT *Location and Design Manual*.

VEGETATIVE COMMUNITY AND LAND COVER IMPACTS				
Will any vegetative communities be impacted by the project? (If NO, delete the Vegetative Community Impact Table)	YES			
Total number of vegetative communities impacted by the project:	10			
Total area of vegetative communities impacted by the project (acres):	328.10			
Describe any impacts to vegetative communities (with emphasis on rare or unique c ecological perspective:	ommunities) from an			
No rare or unique habitats exist within the project area.				

Vegetative Community and Land Cover Impacts Table			Alternative Impacts (ac)		
Vegetative Community	Disturbance Level	Unique, Rare, or High Quality	Alternative 1	Alternative 2	Alternative 3
Barren Land (Rock/Sand/Clay)	Extreme Disturbance/Ruderal Community	NO	23.93		
Cultivated Crops	Extreme Disturbance/Ruderal Community	NO	12.77		
Developed Open Space	High Disturbance	NO	19.07		
Grassland/Herbaceous	High Disturbance	NO	112.68		
Open Water	High Disturbance	NO	2.74		
Pasture/Hay	High Disturbance	NO	5.16		
Pasture/Hay	Extreme Disturbance/Ruderal Community	NO	25.01		
Scrub/Shrub	High Disturbance	NO	3.46		
Upland Forest	High Disturbance	NO	103.81		
Upland Forest	Low Disturbance	NO	19.47		

Total impacts	328.10		
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IMPACTS TO TERRESTRIAL WILDLIFE

Discuss any terrestrial habitat alternations that may result from construction activities:

The previous table summarizes the expected terrestrial habitat impacts for all of the terrestrial habitats identified within the project area. It is expected that all habitat not impacted by pavement will likely be maintained as ODOT ROW, which would likely be considered DS habitat. The loss of the other habitats should not result in local or statewide decline of these habitats, as these habitats are abundant within the immediate vicinity of the project. In addition, species that utilize these habitats would not be expected to be permanently impacted by the project, as suitable habitat is abundant throughout the area.

Discuss the expected duration of the impacts (temporary/short term or permanent/long-term):

Impacts to terrestrial habitat within the construction limits and permanent ROW will be permanent. Areas not under pavement as a result of this project will likely be converted into DS. Areas of temporary ROW will likely be converted to DS.

Discuss if the project impacts would result in the likely extirpation of any taxa from the area:

Because of the level of disturbance found in the majority of the habitats within the project area, and because the vast majority of the identified species are common throughout Ohio, this project will likely not result in the extirpation of these common species.

Two state-endangered and one state potentially threatened species were found within the project area. This included the endangered southern monkshood (*Aconitum uncinatum*) and primrose-leaved violet (*Viola primulifolia*) and the potentially threatened American chestnut (*Castenea dentata*). It is unlikely that this project will cause the extirpation of any of these species as suitable habitat for these species is found throughout Scioto County and southern Ohio in general.

One state species of concern eastern box turtle (*Terrapene carolina carolina*) were encountered throughout the project area. The box turtle is common throughout the project area and would not be extirpated due to the construction of this project.

Include a general discussion of impacts to terrestrial fauna (mammals, birds, reptiles, and amphibians):

All animal species within the project area will have to relocate from the limits of the project area. Since large amounts of similar habitat is available within the immediate vicinity of the project and because all identified animal species are common throughout southern Ohio, no long-term adverse impacts to populations of these species are expected as a result of this project.

FEDERALLY LISTED SPECIES IMPACTS				
Will any federally listed species or suitable habitat for federally listed potentially be impacted by the project? (If NO, delete the Federally Listed Species Impact Table)	YES			
Will any designated critical habitats potentially be impacted by the project?	NO			

Federally Endangered Indiana Bat (<i>Myotis sodalis</i>) Impact Table						
Alternative I.D. Potential Maternity Roost Tree Impacts (#) Potential Roost Tree Impacts (#) Total Forest Habitat Impacts (ac) Anticipated Impacts						
Alternative 1	Unknown	Unknown	123 +/-	Not Likely		
Discussion of Impacts:						

Federally Listed Species Impact Summary Table (List Each Species Within the County/Range)			Anticipated Impacts		
Scientific Name	Common Name	Listing	Alternative 1	Alternative 2	Alternative 3
Haliaeetus leucocephalus	Bald Eagle	Species of Concern	None	(Choose)	(Choose)
Pleurobema clava	Clubshell	Endangered	None	(Choose)	(Choose)
Cryptobranchus alleganiensis alleganiensis	Eastern Hellbender	Species of Concern	None	(Choose)	(Choose)
Cyprogenia stegaria =c. irrorata	Fanshell	Endangered	None	(Choose)	(Choose)
Epioblasma torulosa rangiana	Northern Riffleshell	Endangered	None	(Choose)	(Choose)
Lampsilis orbiculata = I. abrupt	Pink Mucket Pearly Mussel	Endangered	None	(Choose)	(Choose)
Trifolium stoloniferum	Running Buffalo Clover	Endangered	Not Likely	(Choose)	(Choose)
Isotria medeoloides	Small whorled pogonia	Threatened	Not Likely	(Choose)	(Choose)
Crotalus horridus	Timber Rattlesnake	Species of Concern	Not Likely	(Choose)	(Choose)
Spiraea virginiana	Virginia Spirea	Threatened	Not Likely	(Choose)	(Choose)

For each species discuss the presence of, and anticipated impacts to, suitable habitats. The discussion should justify the level of anticipated impact.

No impacts to the **bald eagle** are anticipated as a result of the proposed project. The nearest bald eagle nest is located approximately 7 miles WSW of the project area.

No impacts to the **eastern hellbender** are anticipated as a result of the proposed project as no streams were identified in the project area large enough to support this species.

No impacts to any **mussel species** are anticipated as a result of this project. No evidence of mussels, live or dead, was identified in any of the streams located within the study area.

Impacts to the **small whorled pogonia** and **running buffalo clover** are not anticipated as neither of these species was identified within the project area during the field investigations targeting these species. Potentially suitable habitat for both of these species will be impacted as part of this project.

Impacts to **Virginia spirea** are not anticipated from the proposed project. It was determined after a survey for Virginia spirea in 2003 that it is not likely that this species is found within the project area due to the heavy canopy cover over streams with suitable habitat and due to impacts from logging, agriculture, and land development in the vicinity of the project area.

Potential habitat for the **timber rattlesnake** was found within the project area. However, in 2003, the ODNR agreed that the timber rattlesnake is very unlikely to inhabit or utilize potential habitat within the project area due to human disturbances.

STATE-LISTED SPECIES IMPACTS	
Will any state listed species potentially be impacted by the project?	YES
(If NO, delete the State-Listed Species Impact Table)	169

State Listed Species Impact Table (List Each Species Found Within or Known to be Within 1 Mile of the Project Area)		Anticipated Impacts			
Scientific Name	Common Name	Listing	Alternative 1	Alternative 2	Alternative 3
Aconitum uncinatum	Southern monkshood	Endangered	Likely	(Choose)	(Choose)
Castanea dentata	American chestnut	Potentially Threatened	Likely	(Choose)	(Choose)
Quercus falcata	Spanish oak	Threatened	Not Likely	(Choose)	(Choose)
Terrapene carolina carolina	Eastern Box Turtle	Concern	Likely	(Choose)	(Choose)
Viola primulifolia	Primrose-leaved violet	Endangered	Likely	(Choose)	(Choose)

For each species discuss the presence of, and anticipated impacts to, suitable habitats. The discussion should justify the level of anticipated impact.

Several individuals of southern monkshood were identified along Stream 18 (Long Run). All of the identified individuals are located within the project limits and will be impacted as a result of this project. No other individuals were identified in the vicinity of the project during the ecological survey of the project area.

One young American chestnut tree was found within the project area in the forested area located along the east side of Swauger Valley Road. The tree is located within the project area and will be impacted as a result of this project. Suitable habitat for the American chestnut is prevalent throughout the vicinity of the project.

No Spanish oaks were identified during the ecological evaluation of the project area. Suitable habitat, consisting dry upland woods, will be impacted by the project. However, dry upland woods are a dominant community type within Scioto County and this project should not have an adverse impact on the amount of potential habitat found in the vicinity of the project.

Several individuals of the primrose-leaved violet were identified during the ecological investigation for the proposed project. The violet was found along the edges of several logging roads that are prevalent throughout the project area. This species was also found in areas adjacent to the project area that will not be impacted by this project.

Several individuals of the state species of concern eastern box turtle (*Terrapene carolina carolina*) were encountered throughout the project area. Impacts to individuals will likely occur as a result of this project. However, impacts to the overall population of this species would likely be negligible as they are abundant throughout the project area and southern Ohio.

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APPENDICIES

1- Figures V Project Location Mapping - Figure 1 V Literature Review Mapping Results - Figure 2 V Ecological Resource Mapping - Figures 2 and 11 Other (List): Figure 2: DNAP Biodiversity Database and Field Survey T&E Results, Figure 3: Ecoregion Map, Figure 4: FEMA Map, Figure 5: 14-Digit HUC Map, Figure 6: National Landcover Dataset Map, Figure 7: NWI and OWI Map, Figure 8: Physiographic Regions Map, Figure 9: Soil Map, Figure 10: Vegetative Communities Map, Figure 11 – Ecological Survey Results, Figure 12 – Wetland Delineation Sample Plots. 2 - Photographs V Photograph Location Map - Appendix 2 Figure 1: Sheets 1 - 10 V **Photographs** 3 - Data Forms V Stream Characterization/Assessment Data Forms V Wetland Characterization/Assessment Data Forms V Indiana Bat Habitat Characterization Worksheet Other (List): 4 - Agency Data Requests V ODNR, Division of Natural Areas and Preserves - Natural Heritage Database Information Request V USFWS - Federally Listed Species Information Request V Other (List): ODNR DNAP - State Listed Species Abstracts and USFWS Correspondence

APPENDIX 1 Figures

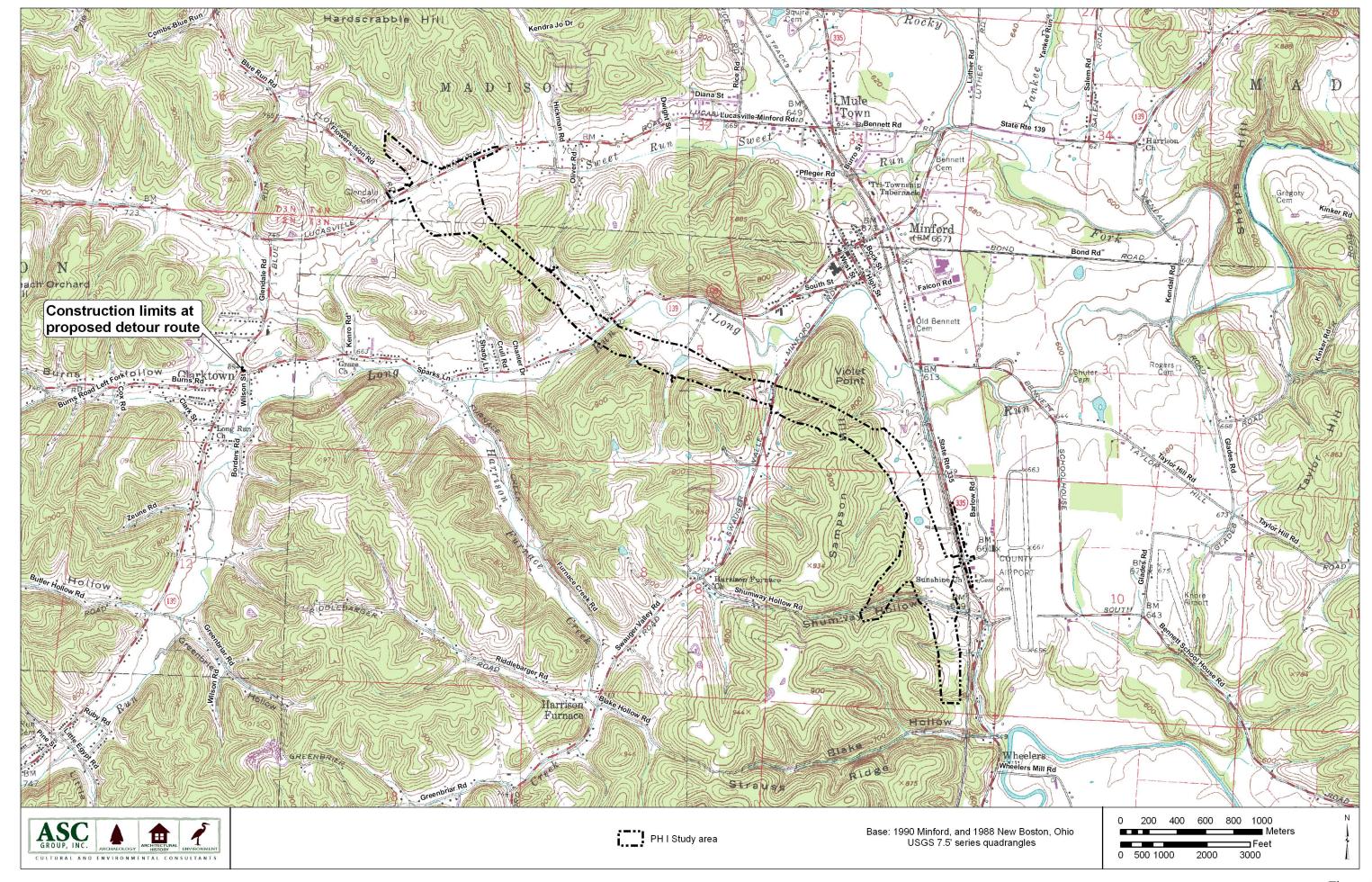


Figure 1. USGS 7.5' topographic maps.

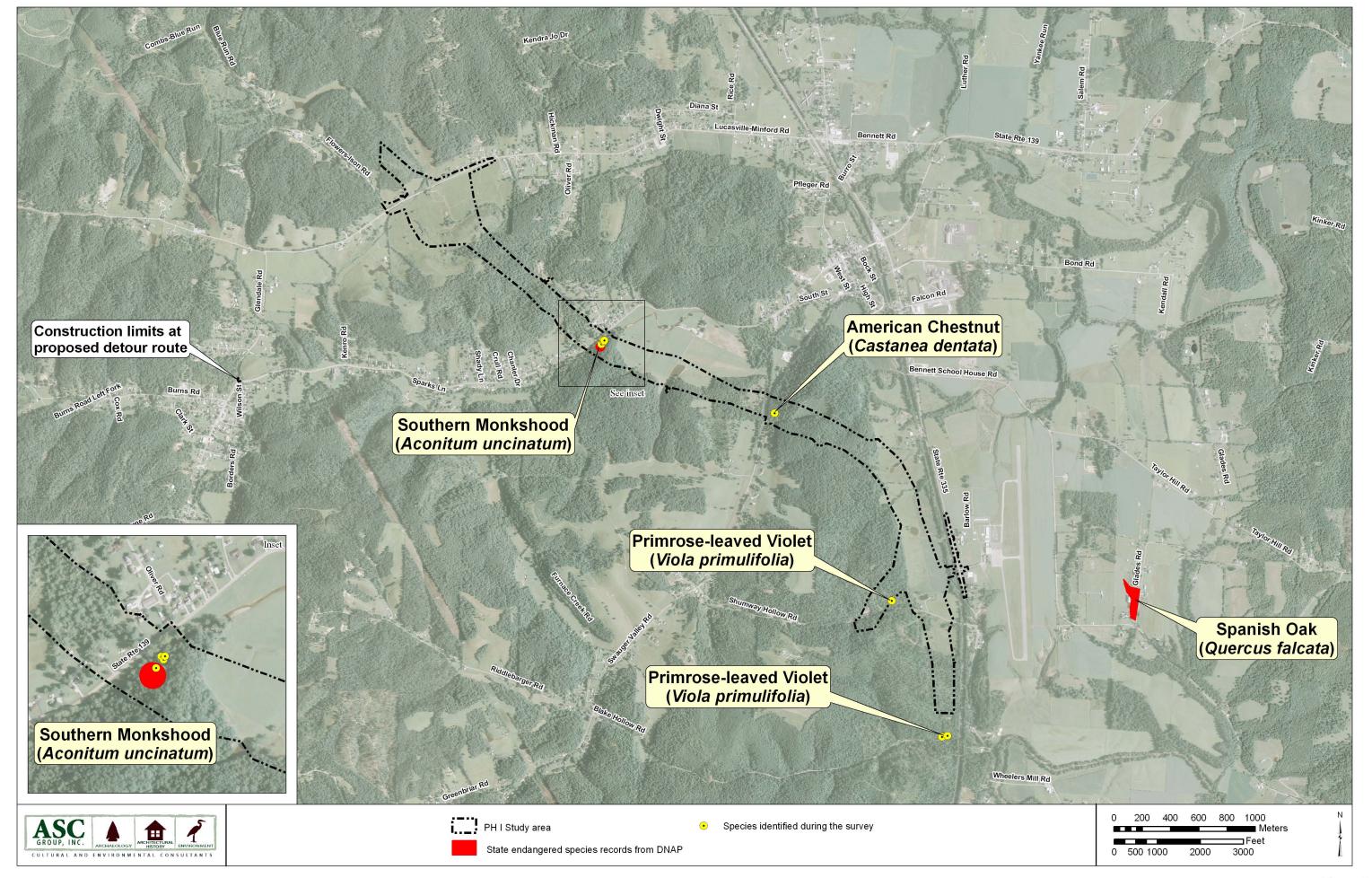


Figure 2. State endangered species map from DNAP GIS shapefiles and ecological survey.

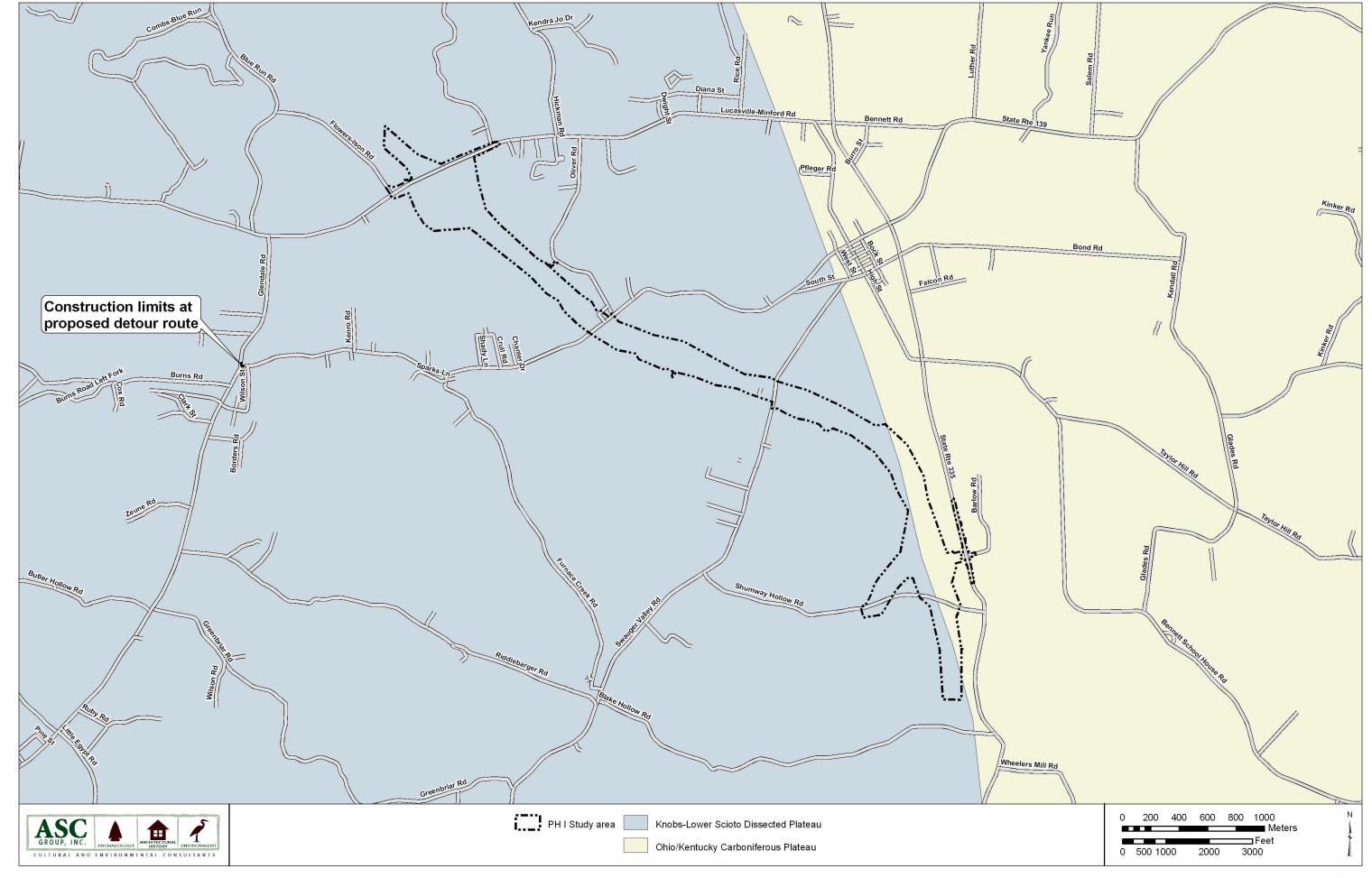


Figure 3. Ecoregion map.

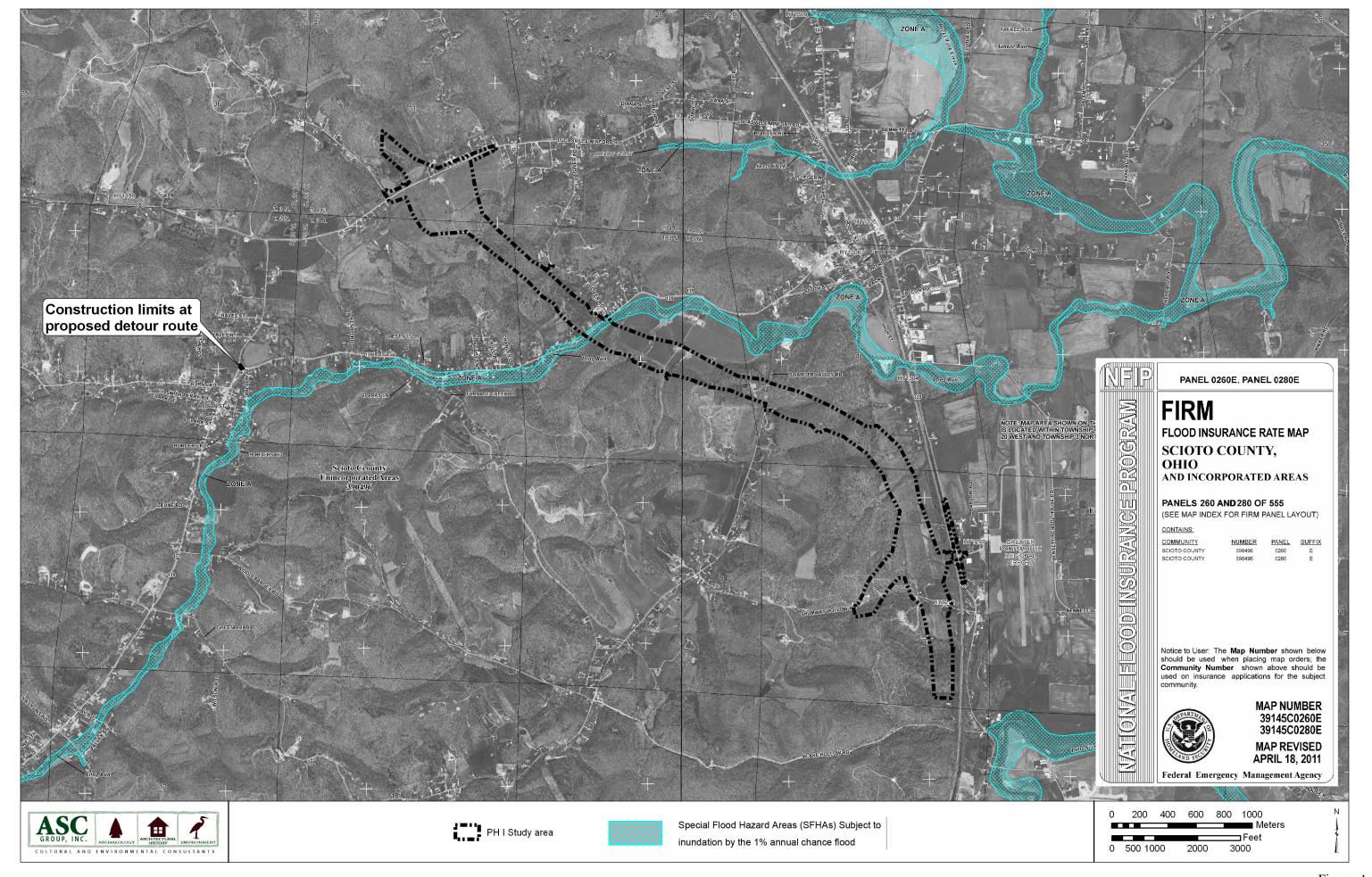


Figure 4. FEMA map.

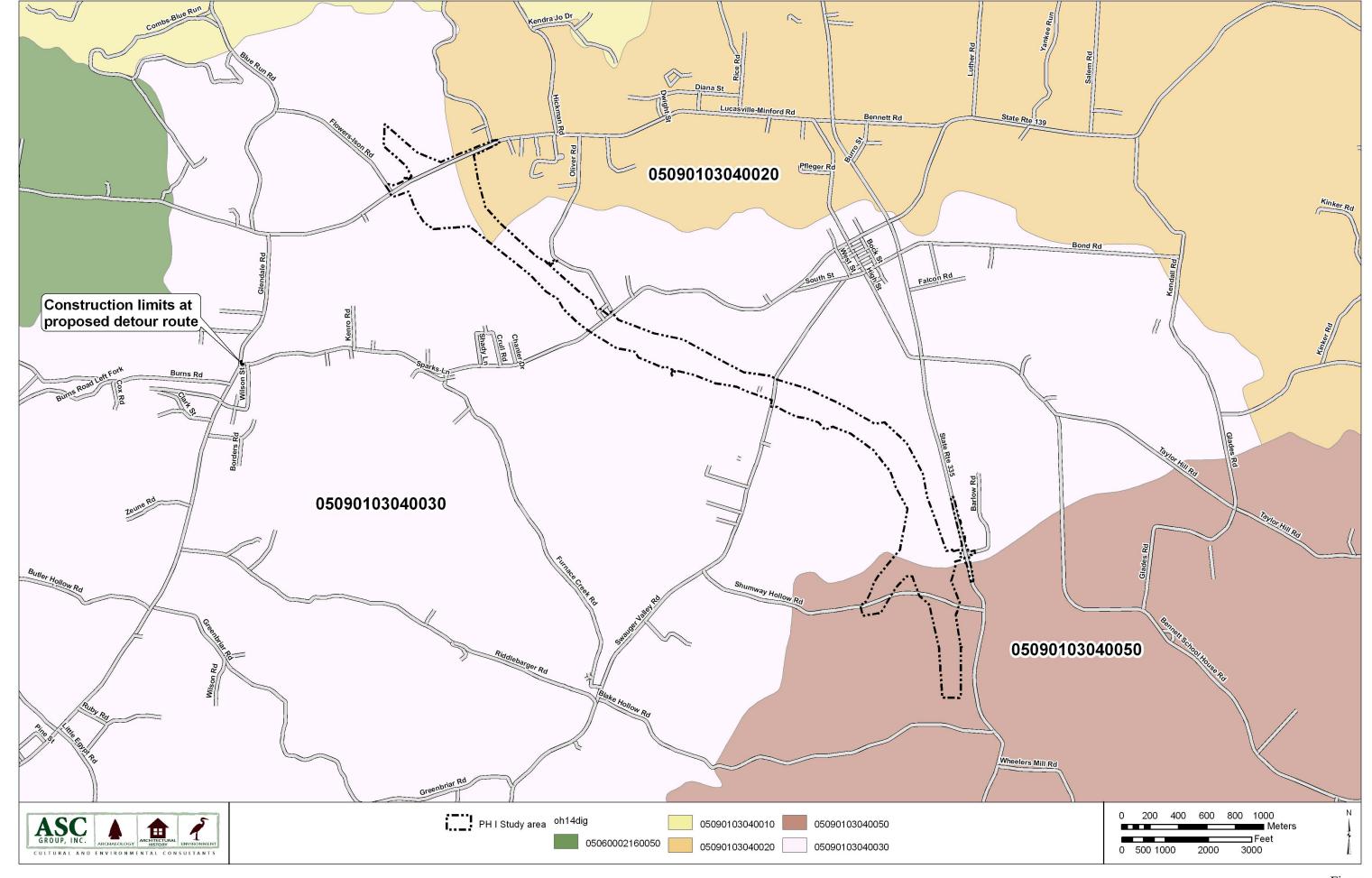


Figure 5. HUC.

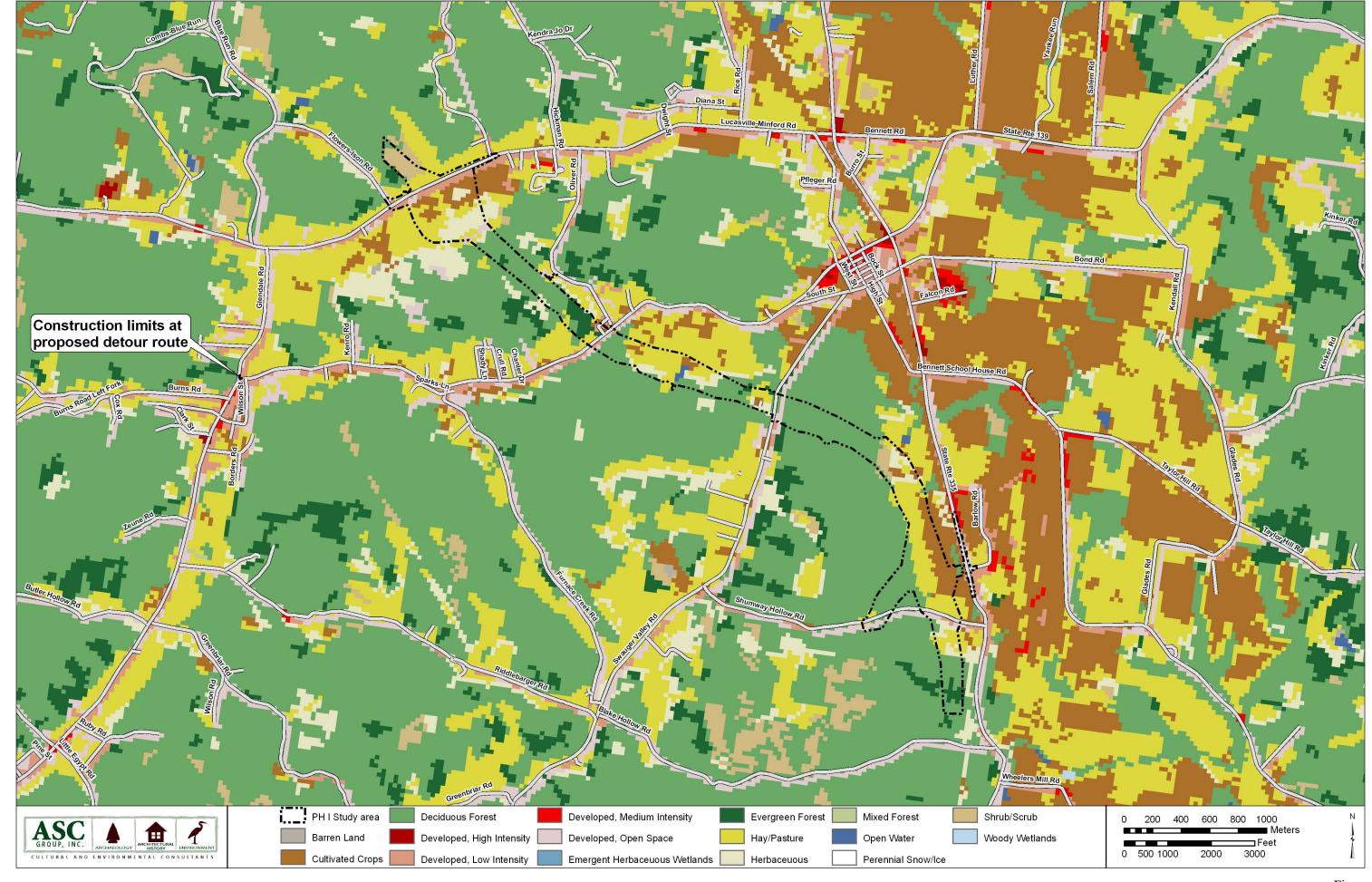


Figure 6. National Land Cover Dataset.

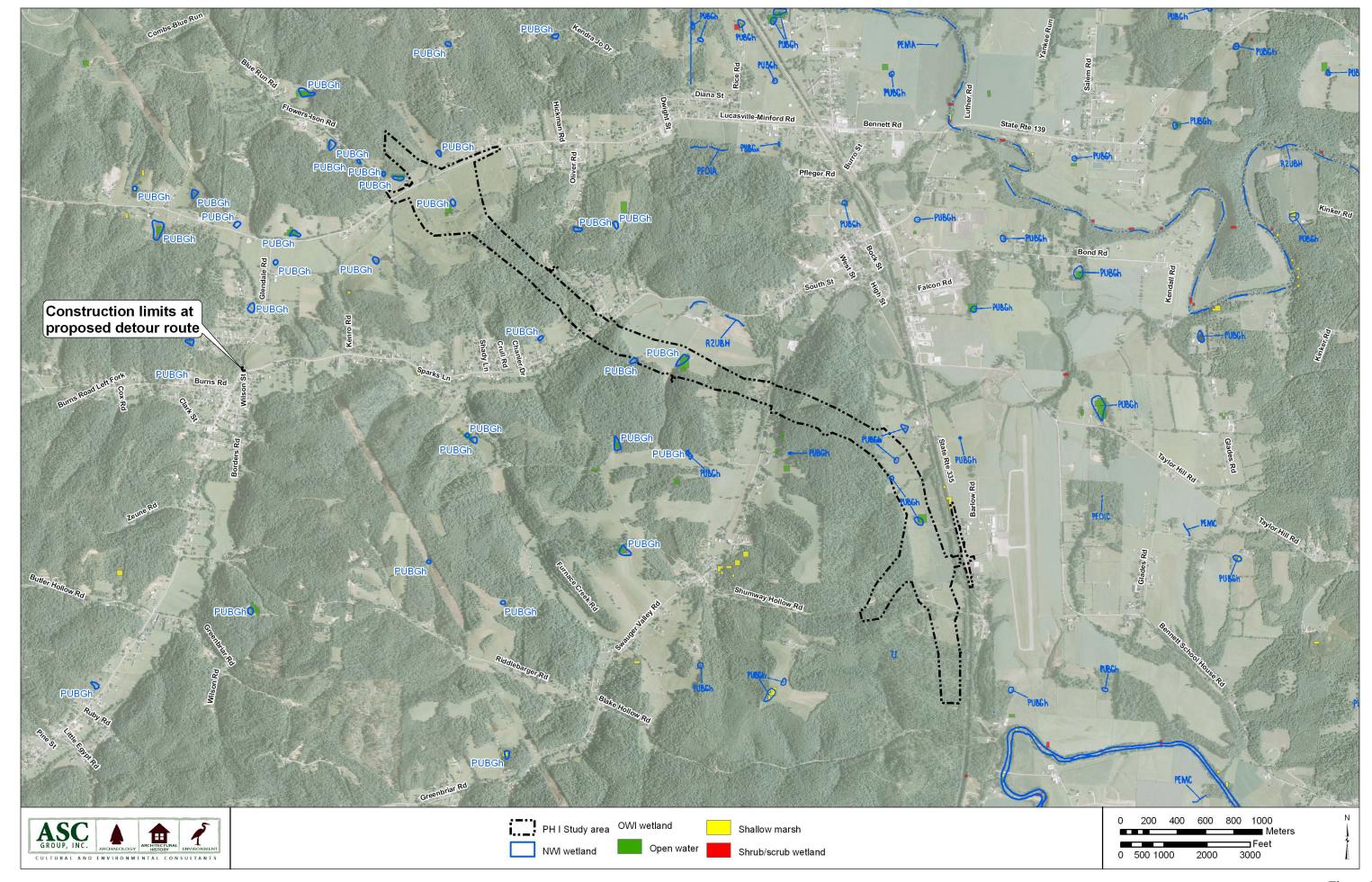


Figure 7. NWI and OWI wetlands.

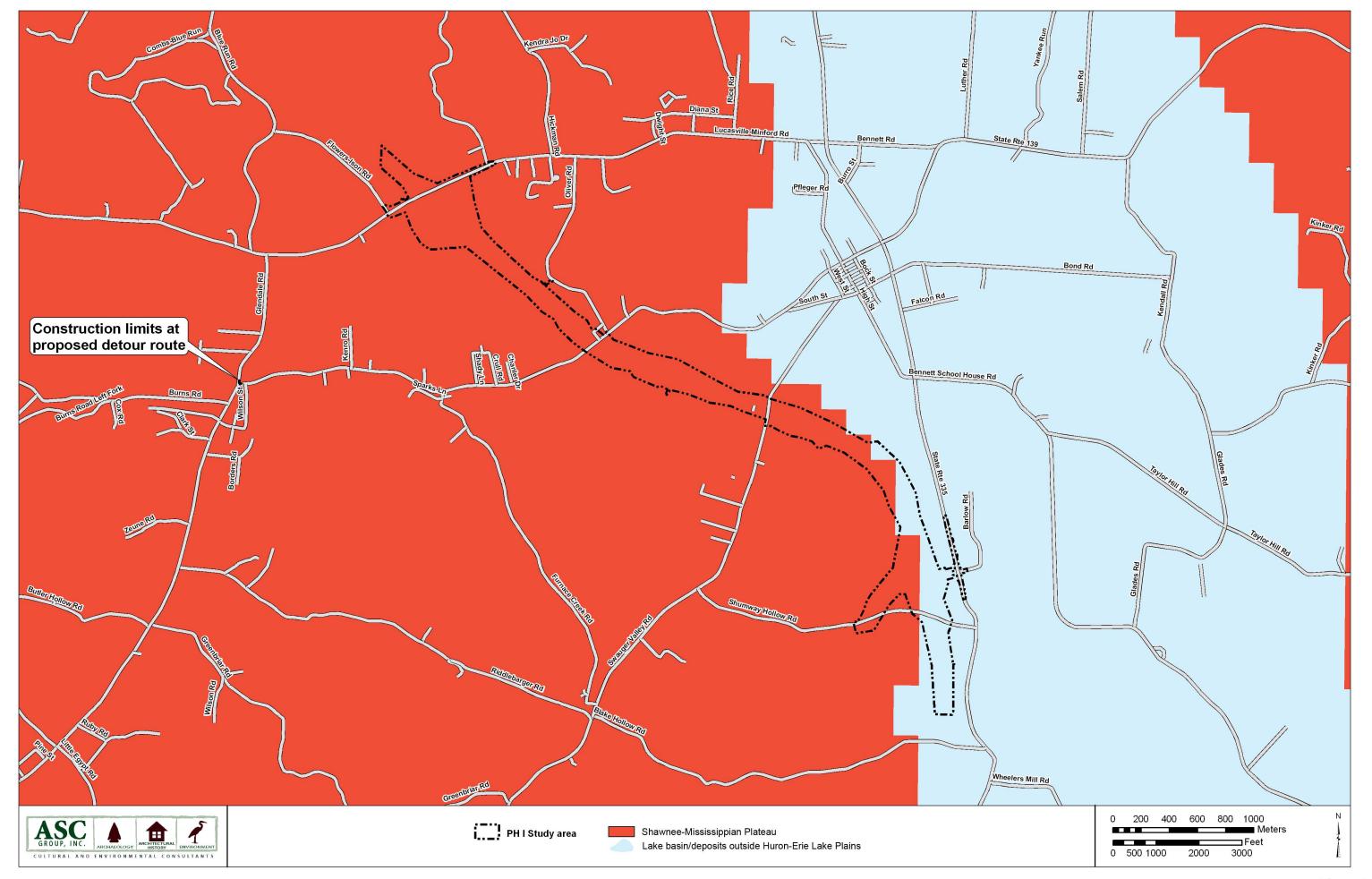


Figure 8. Physiographic regions map.

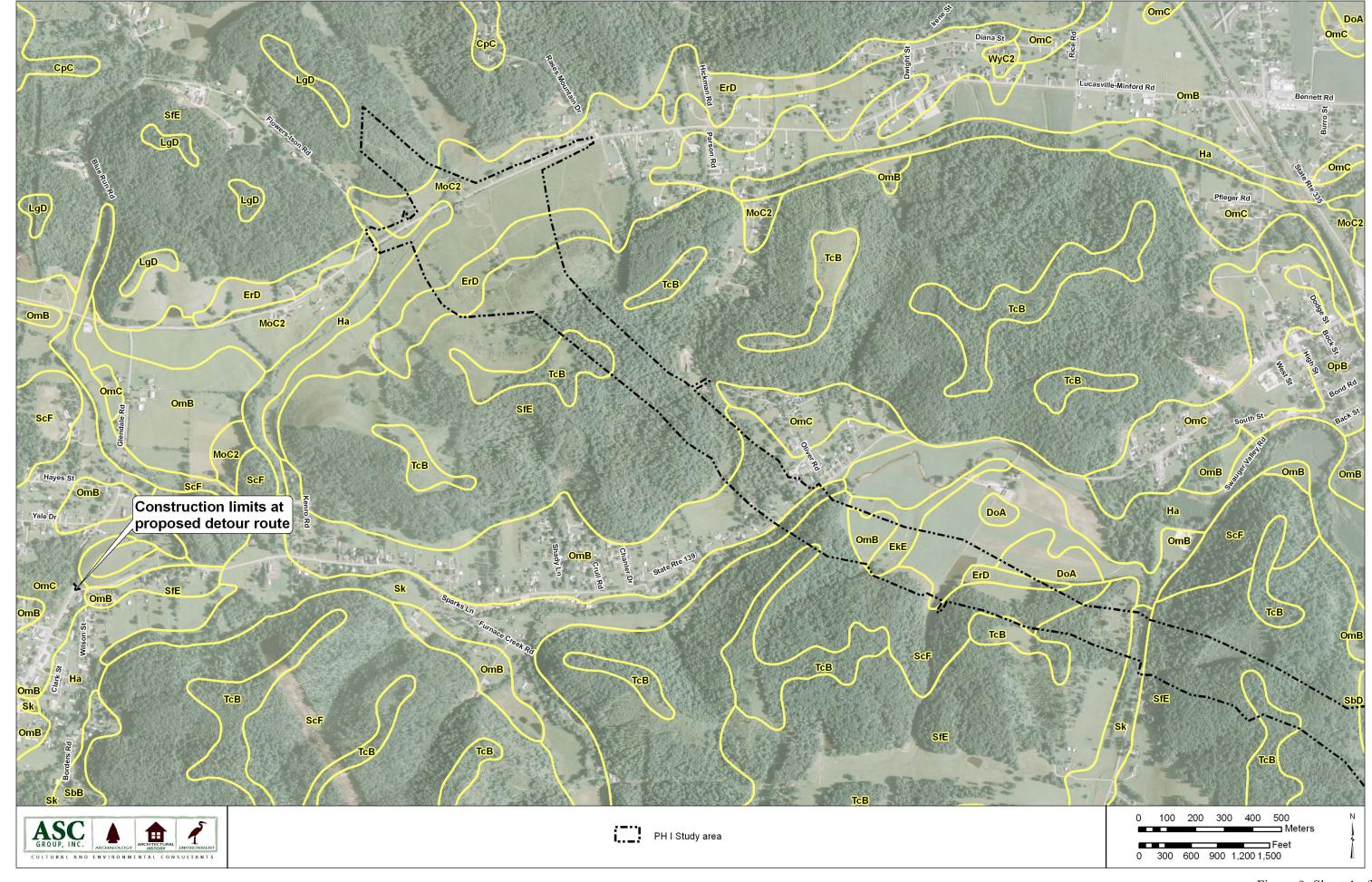


Figure 9. Soils



Figure 9. Soils Figure 9. Sheet 2 of 2

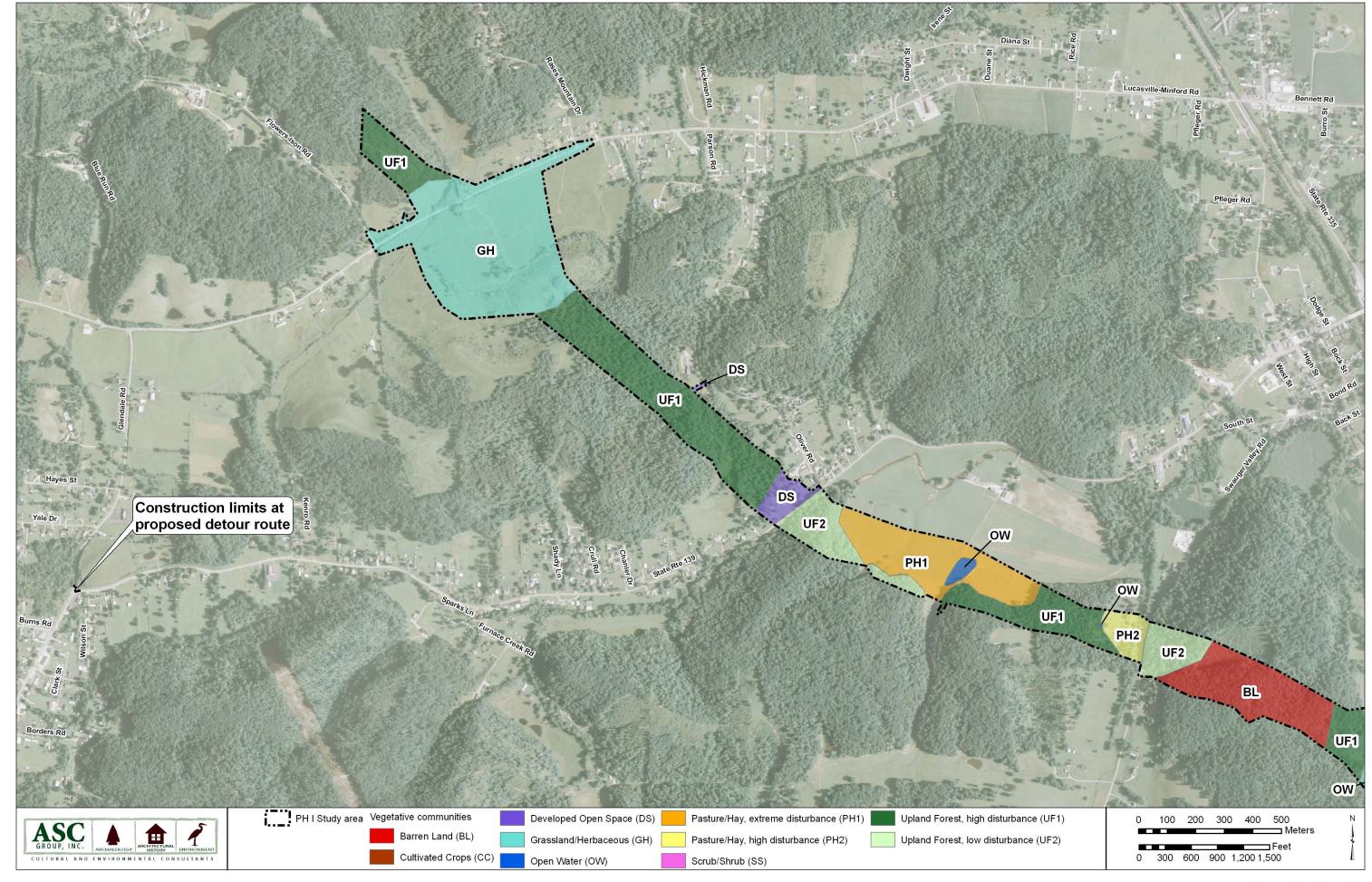


Figure 10. Vegetative communities.

Figure 10, Sheet 1 of 2

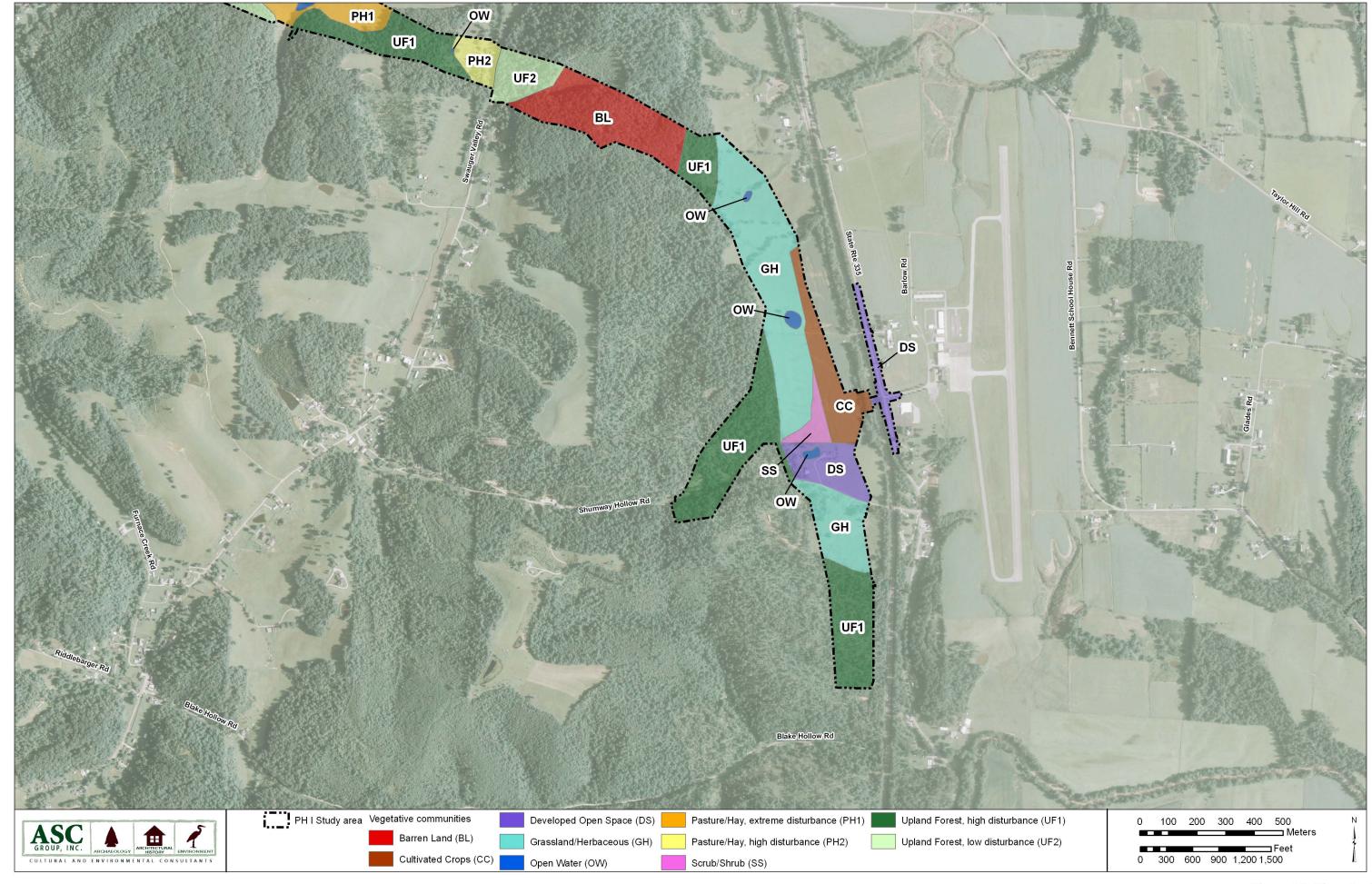


Figure 10. Vegetative communities.

Figure 10, Sheet 2 of 2

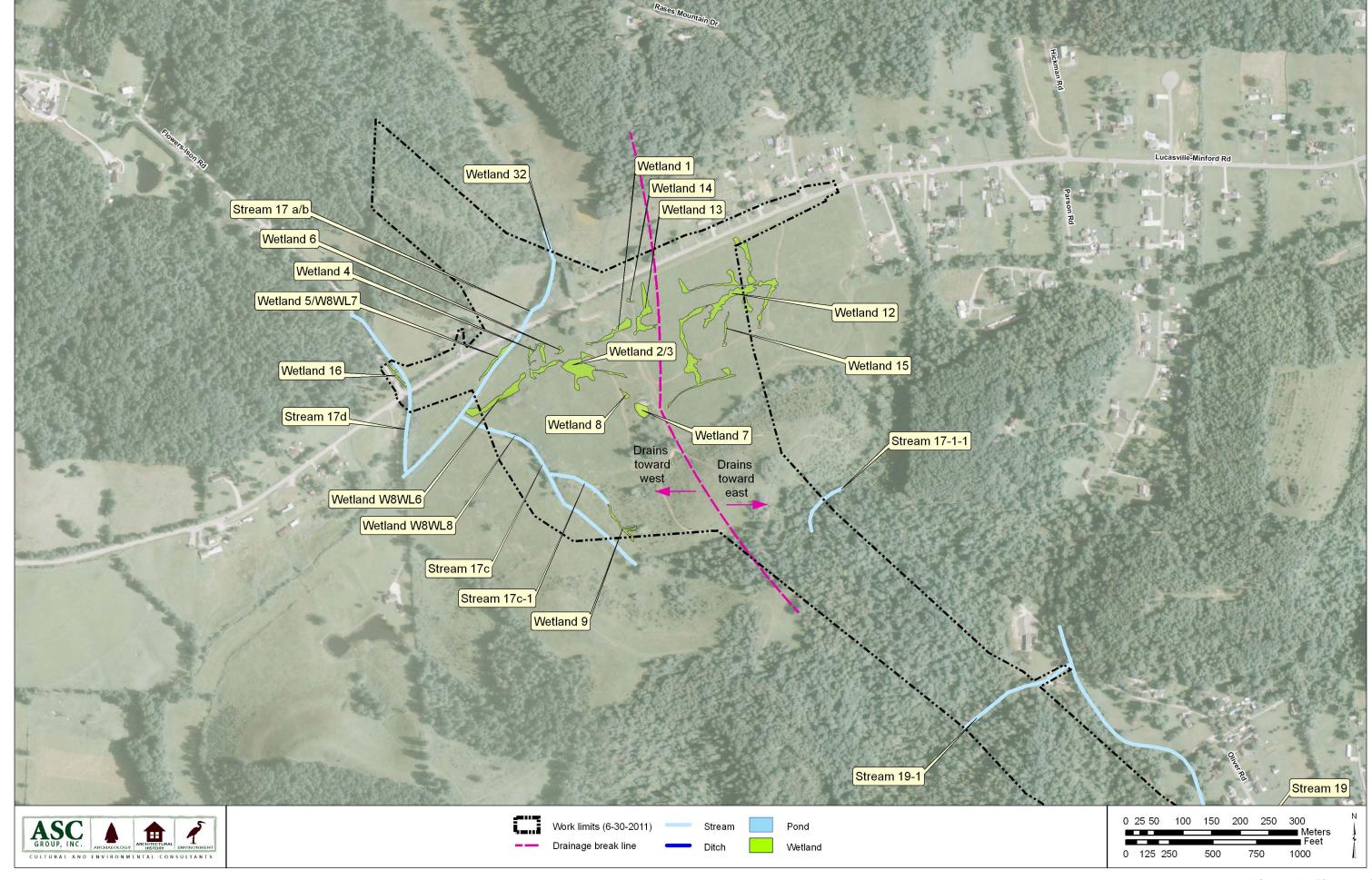


Figure 11. Survey results.

Figure 11, Sheet 1 of 5

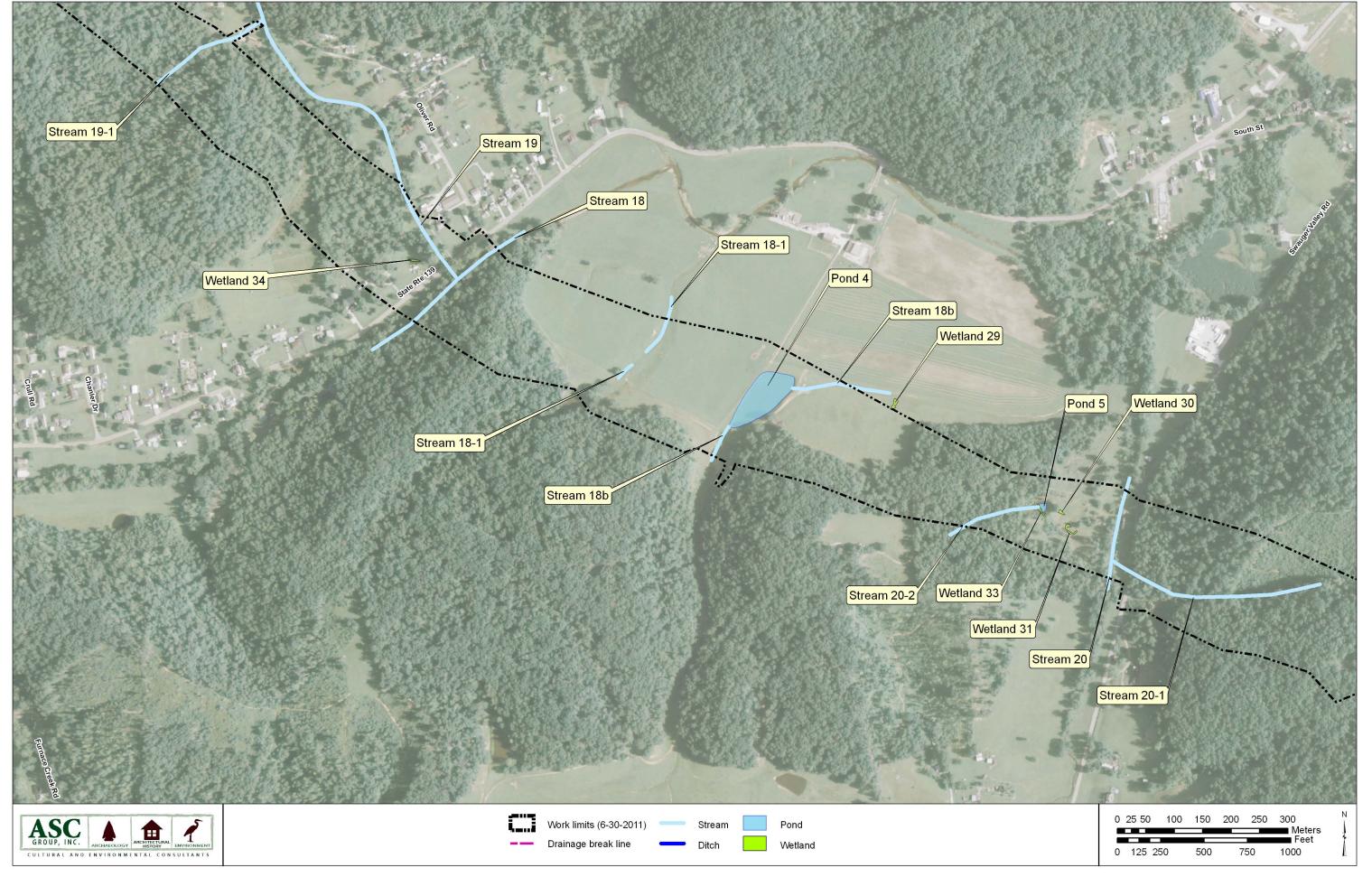


Figure 11. Survey results.

Figure 11, Sheet 2 of 5

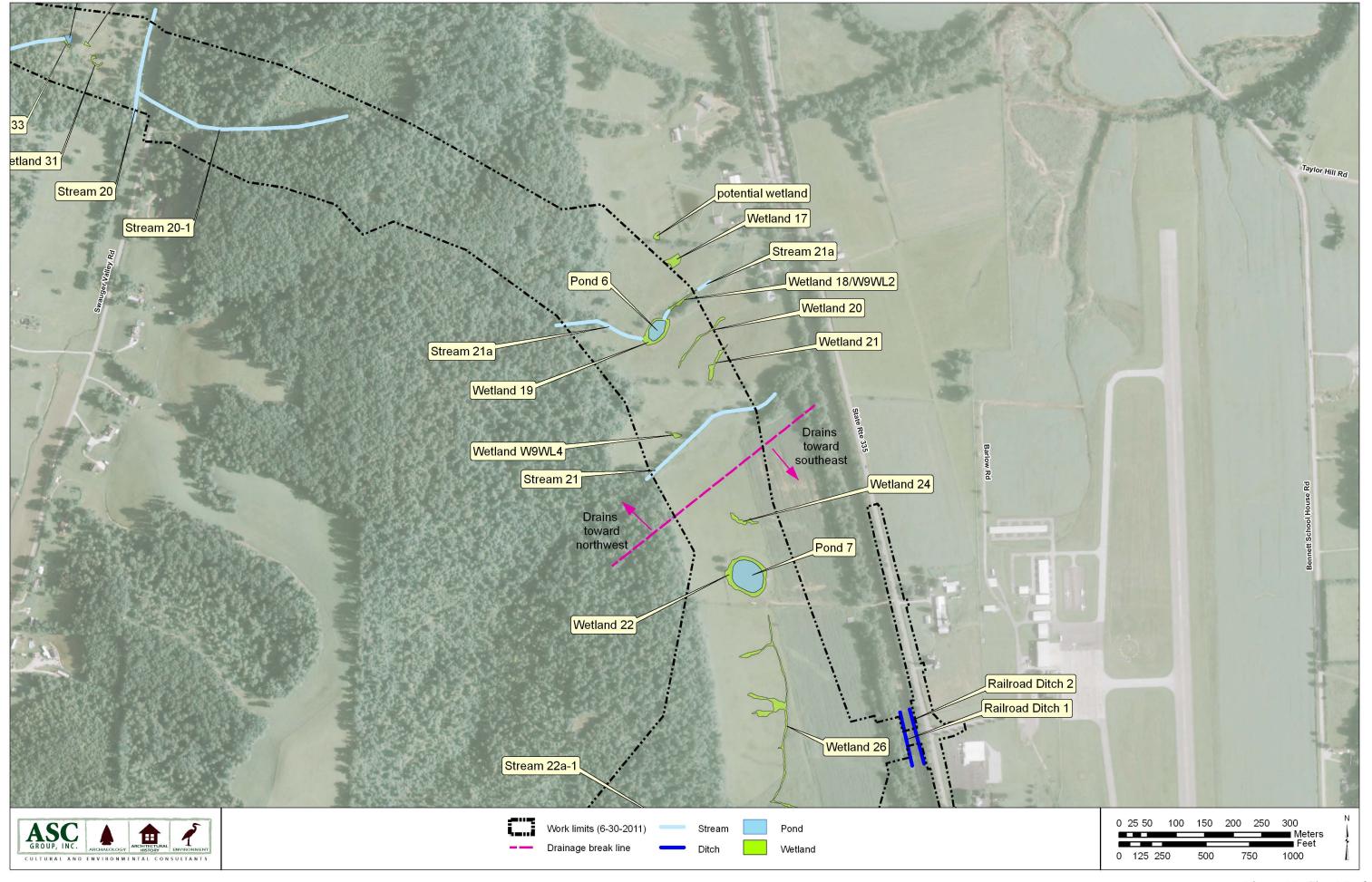


Figure 11. Survey results.

Figure 11, Sheet 3 of 5

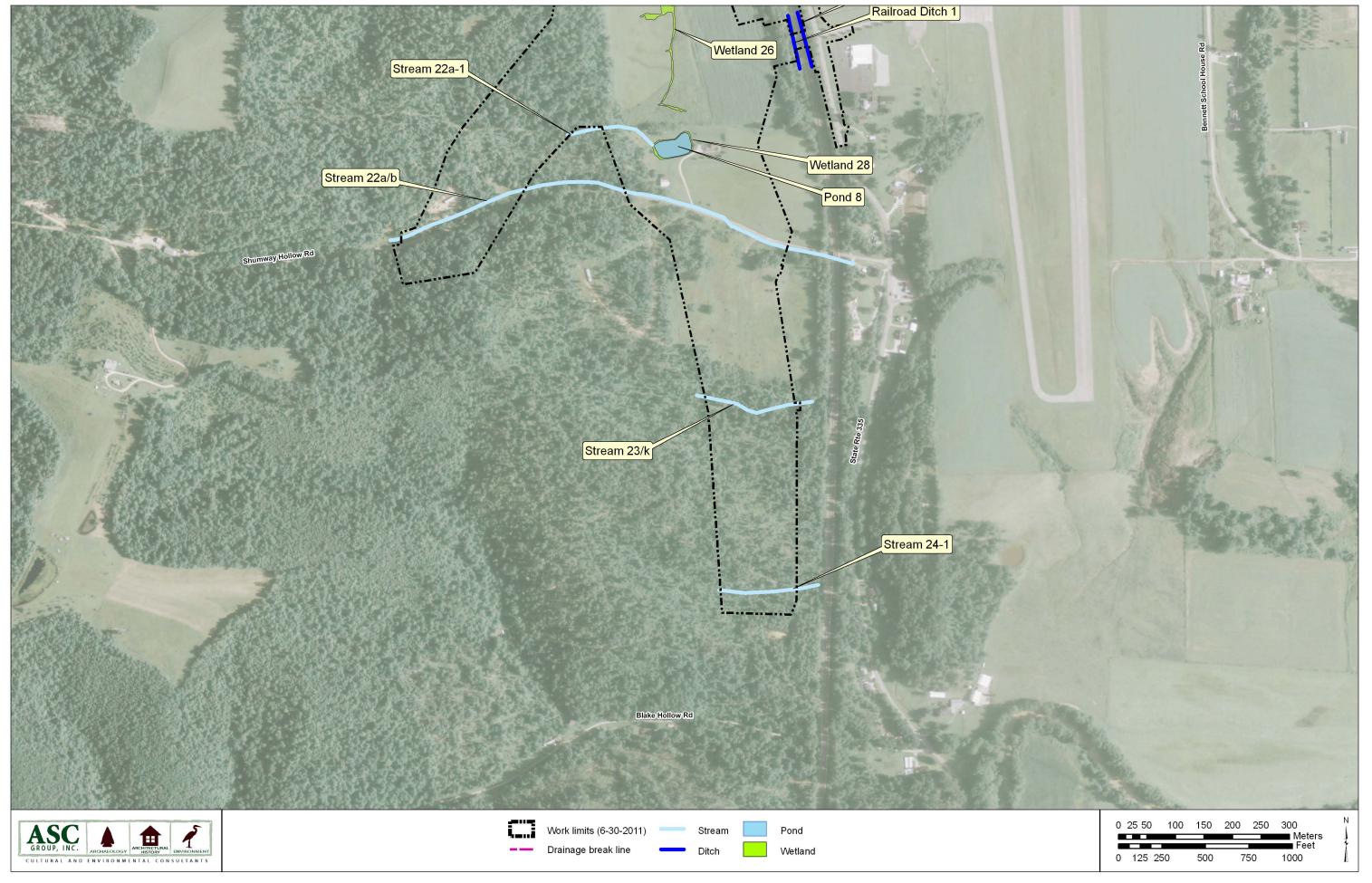


Figure 11. Survey results.

Figure 11, Sheet 4 of 5

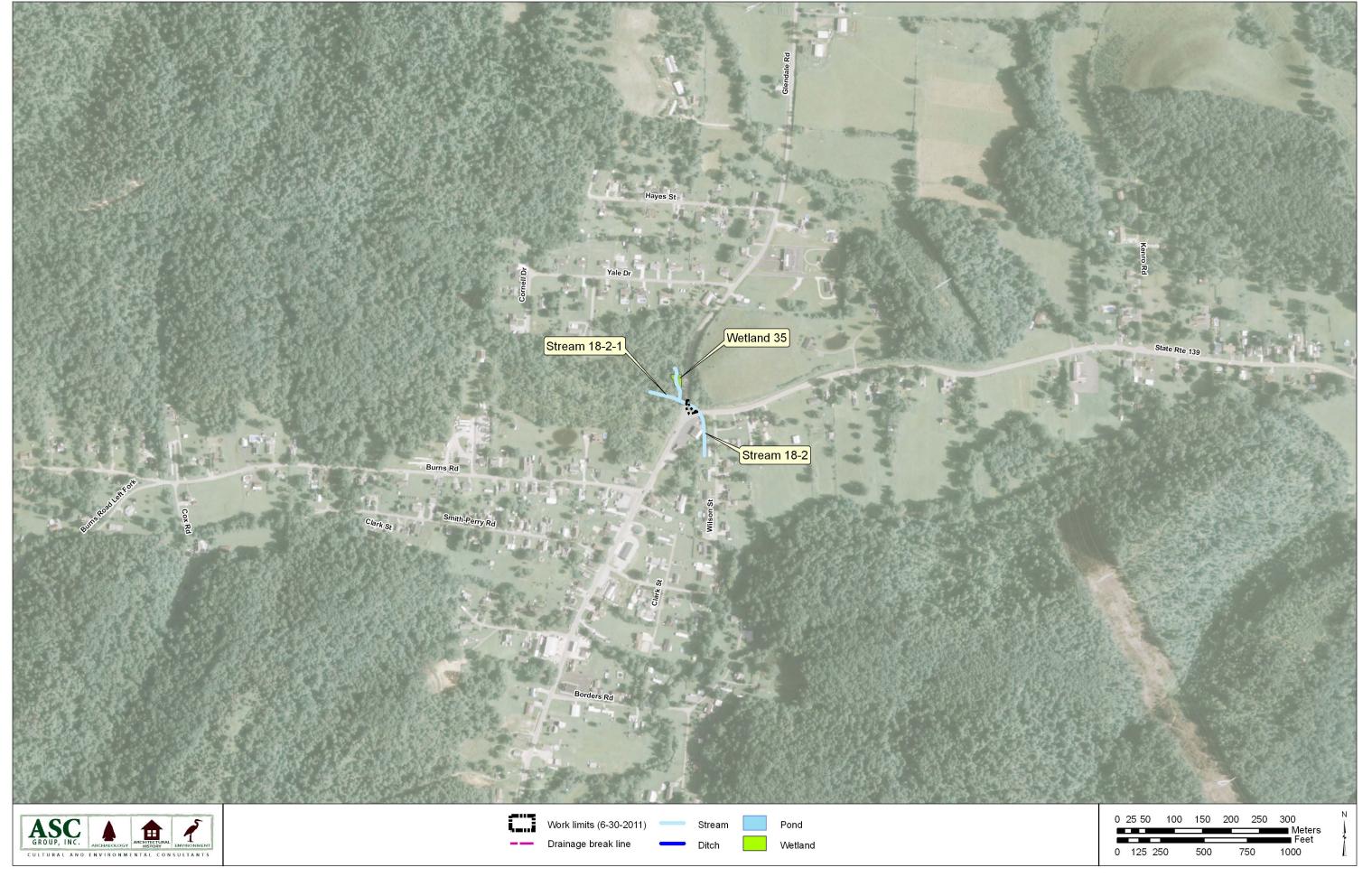


Figure 11. Survey results.

Figure 11, Sheet 5 of 5

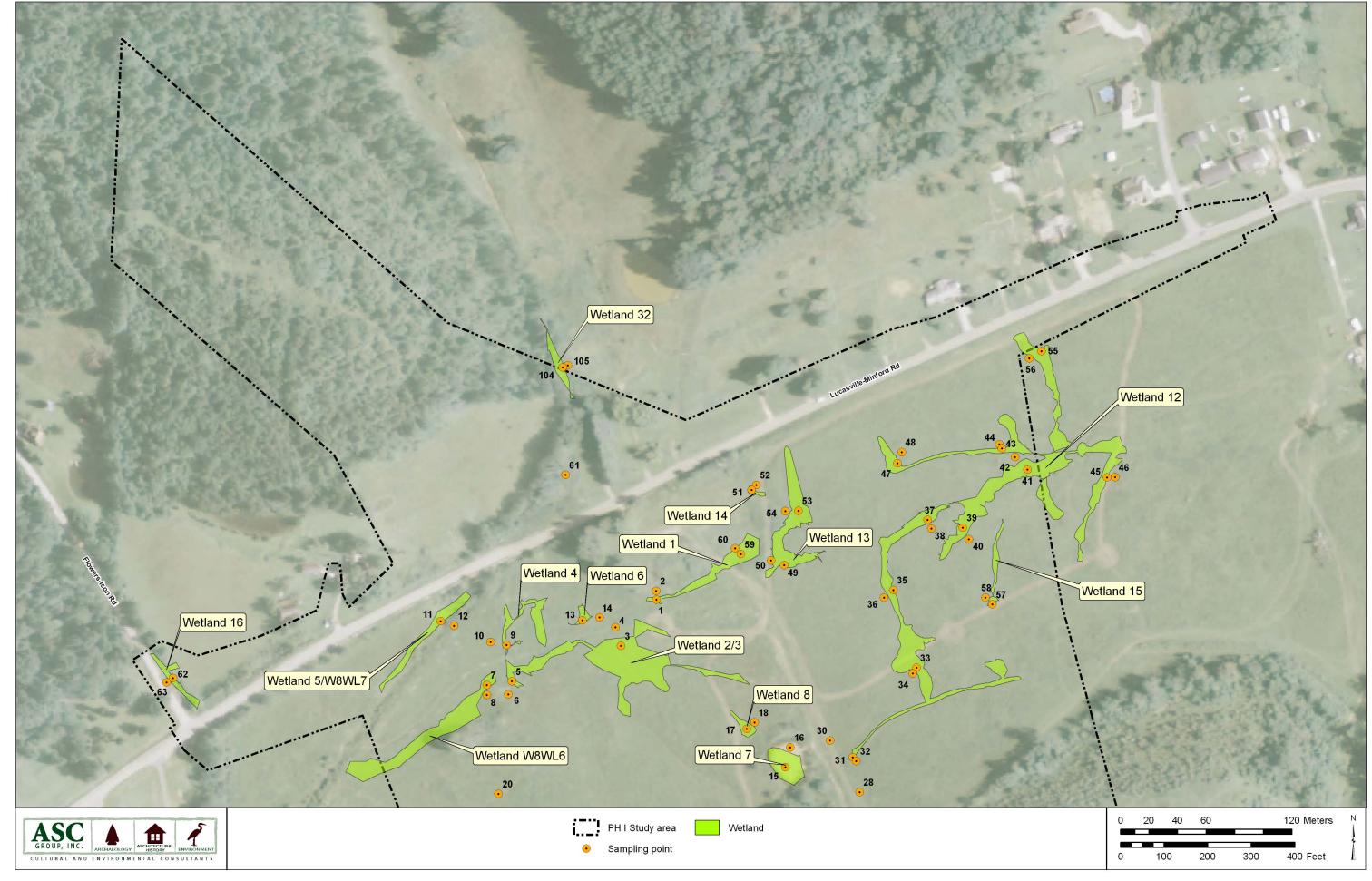


Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 1 of 11



Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 2 of 11

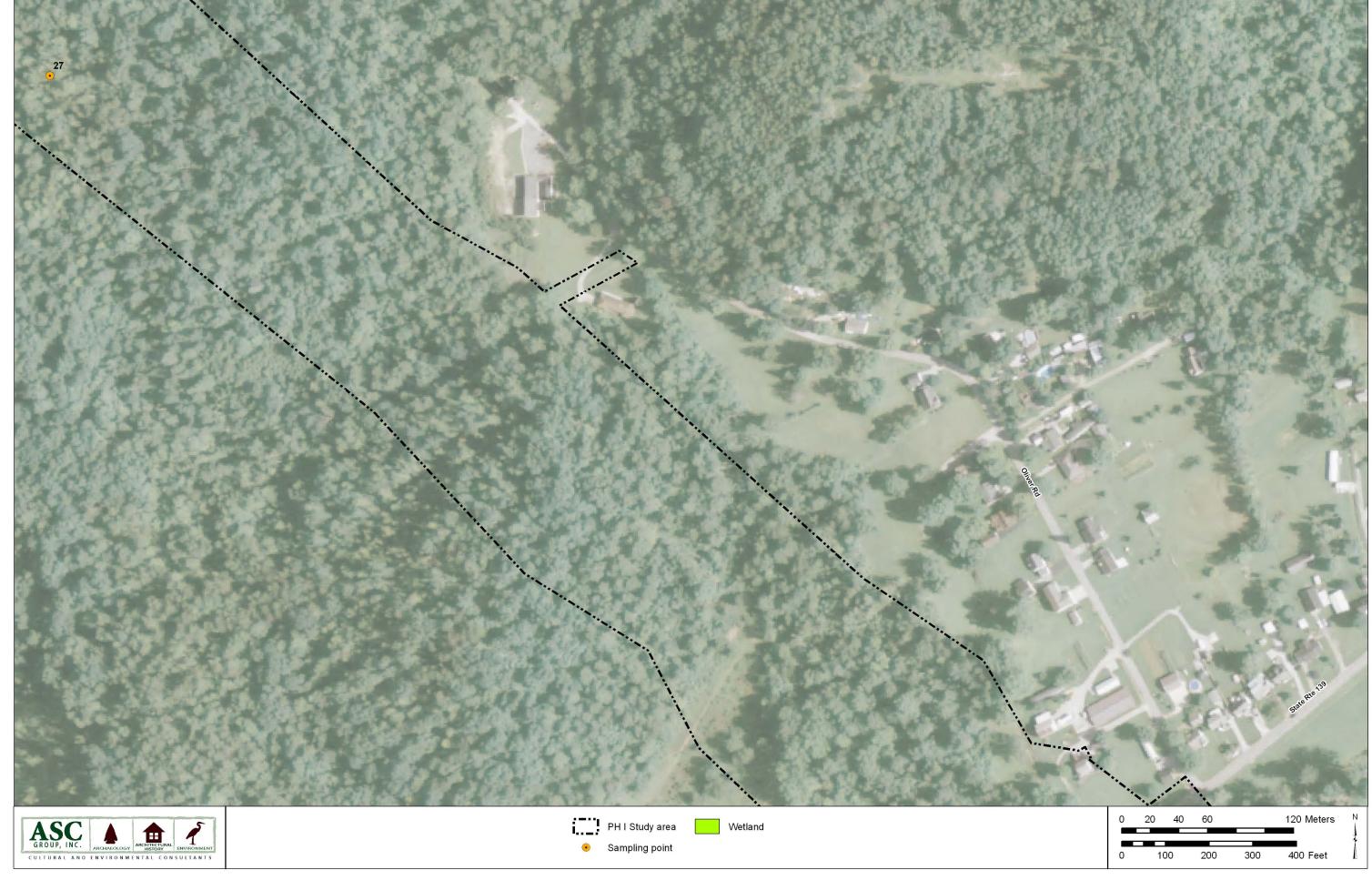


Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 3 of 11



Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 4 of 11

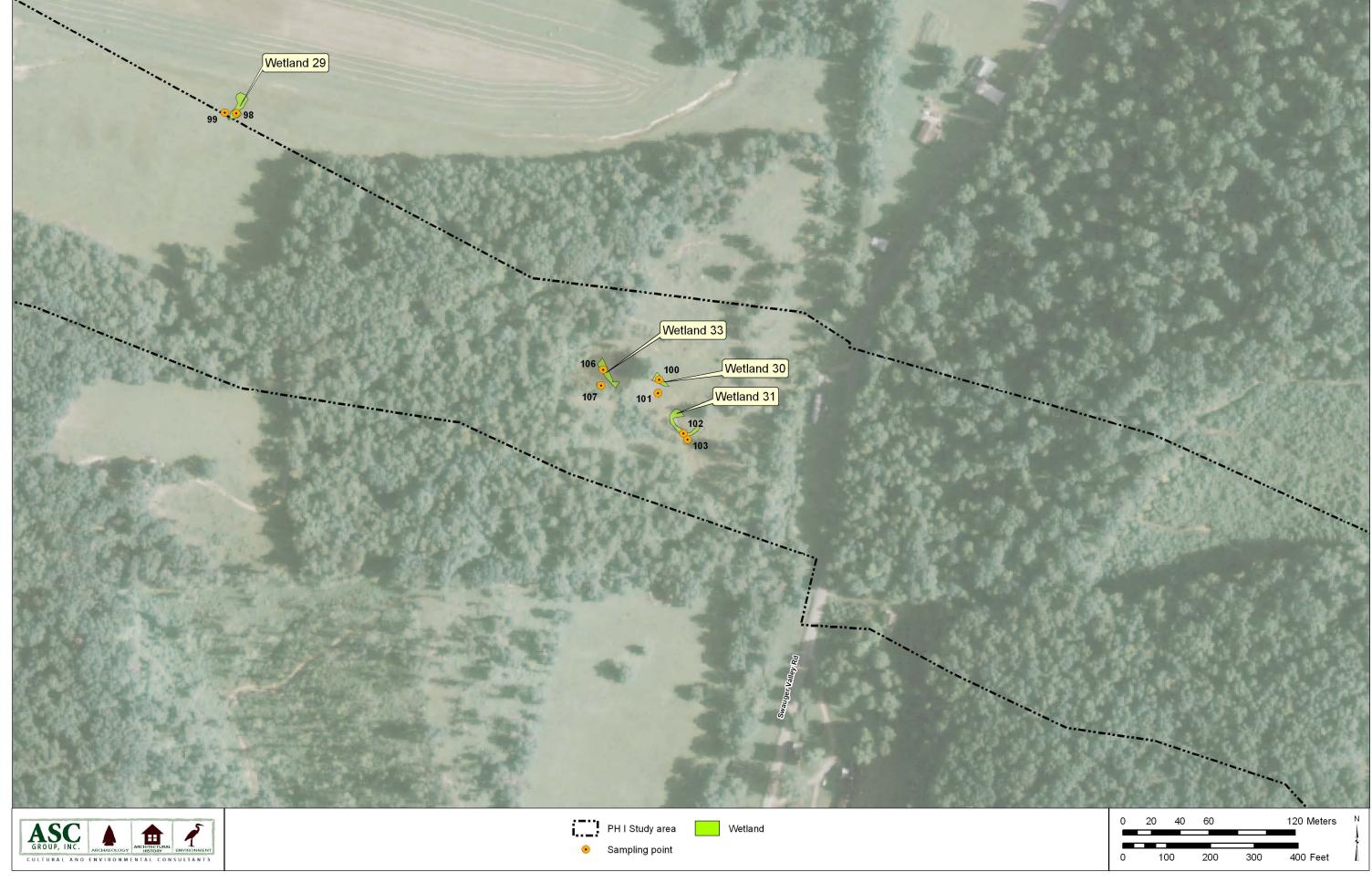


Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 5 of 11

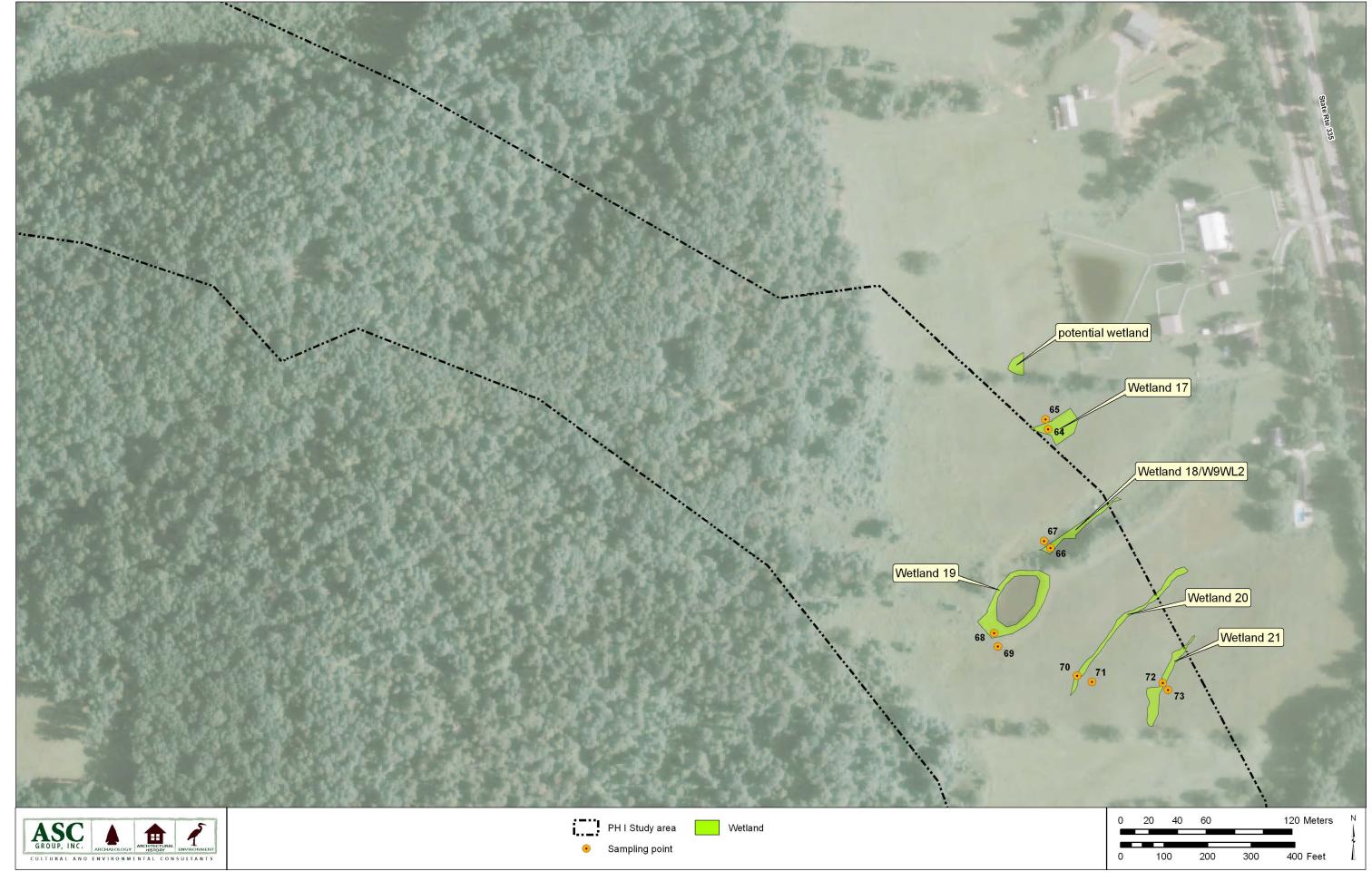


Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 6 of 11



Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 7 of 11



Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 8 of 11



Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 9 of 11



Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 10 of 11

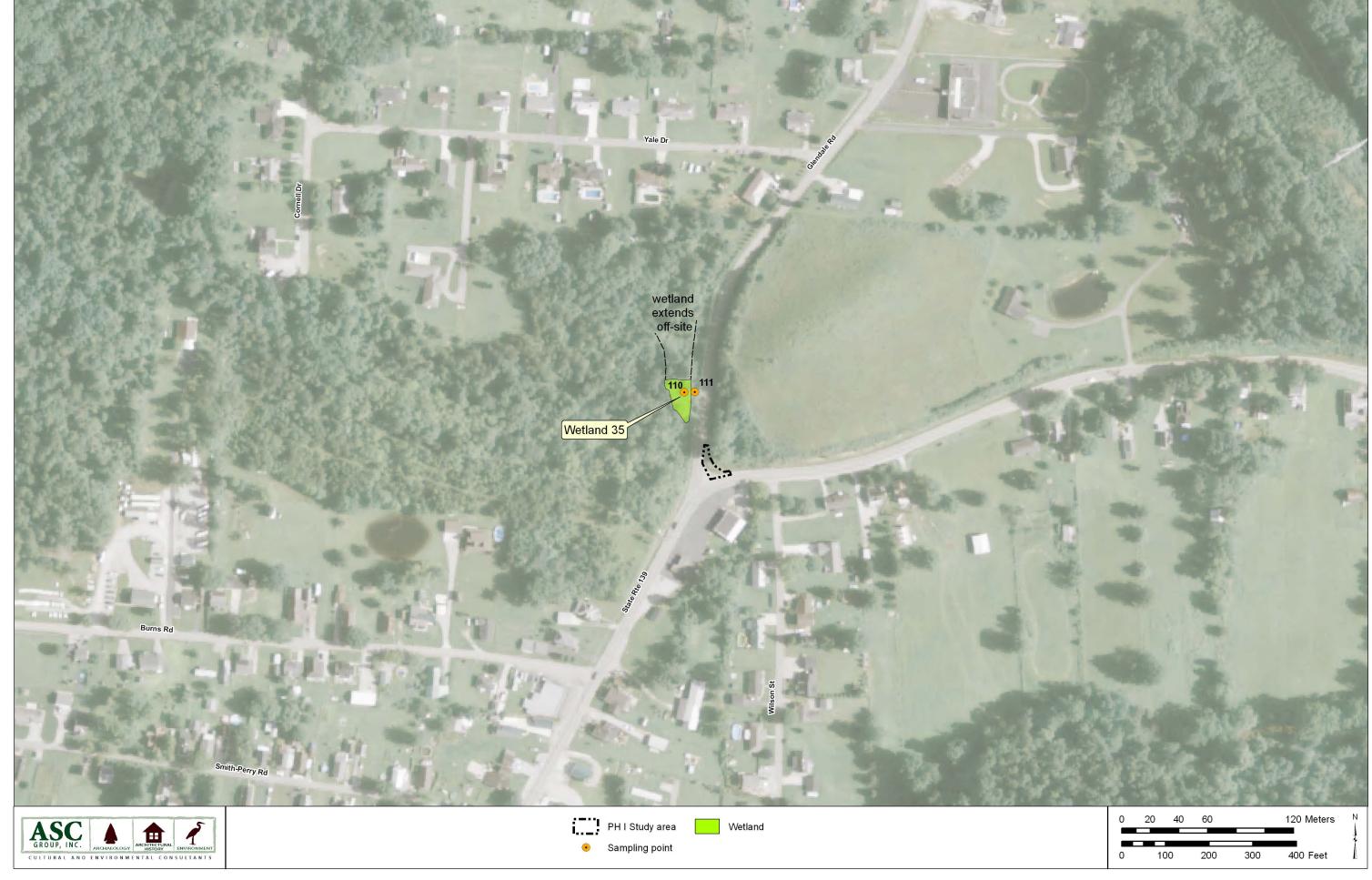


Figure 12. Wetland delineation sampling points.

Figure 12, Sheet 11 of 11

Appendix 2 Photographs

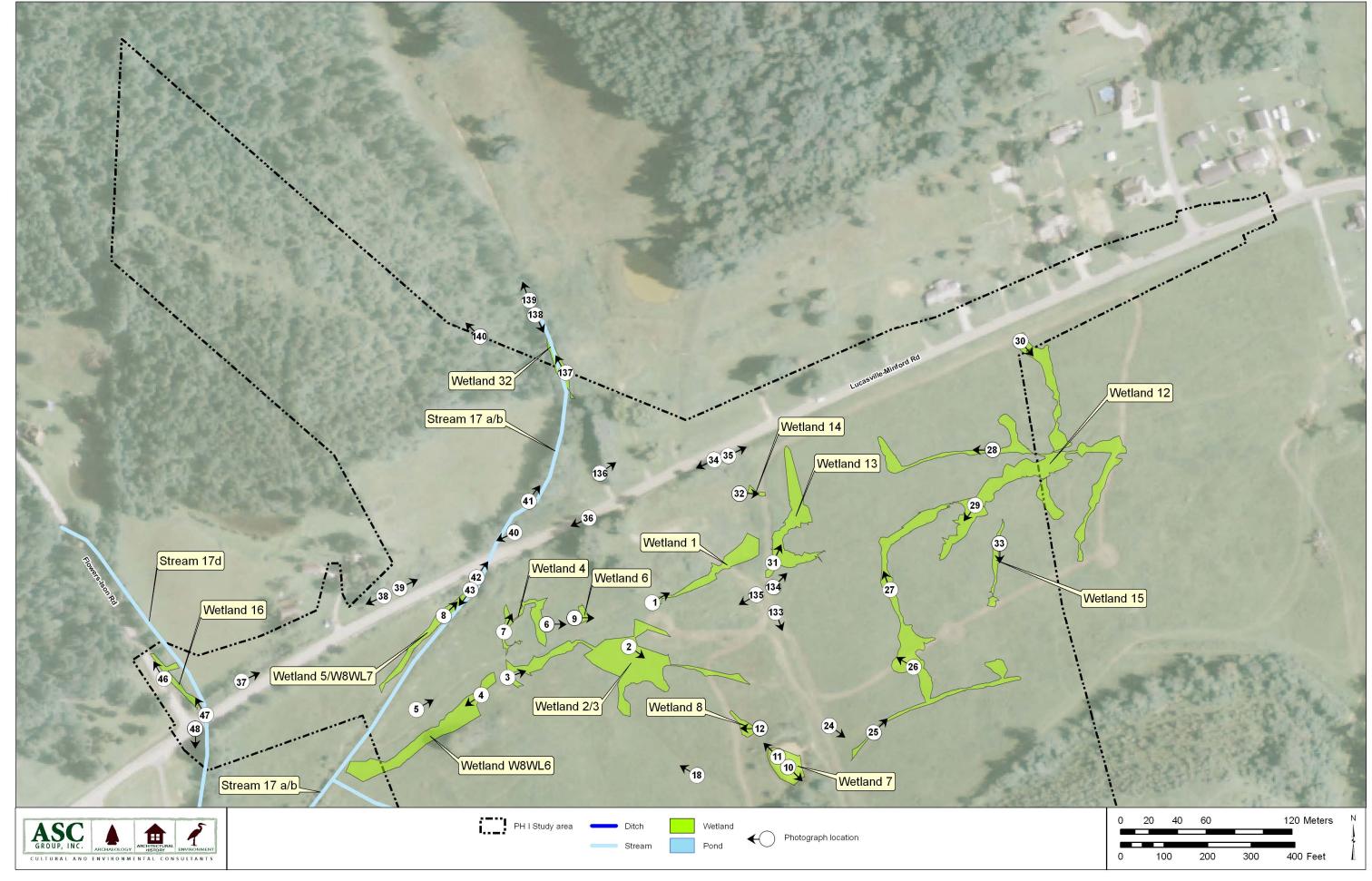


Figure 1. Photograph locations.

Figure 1, Sheet 1 of 11

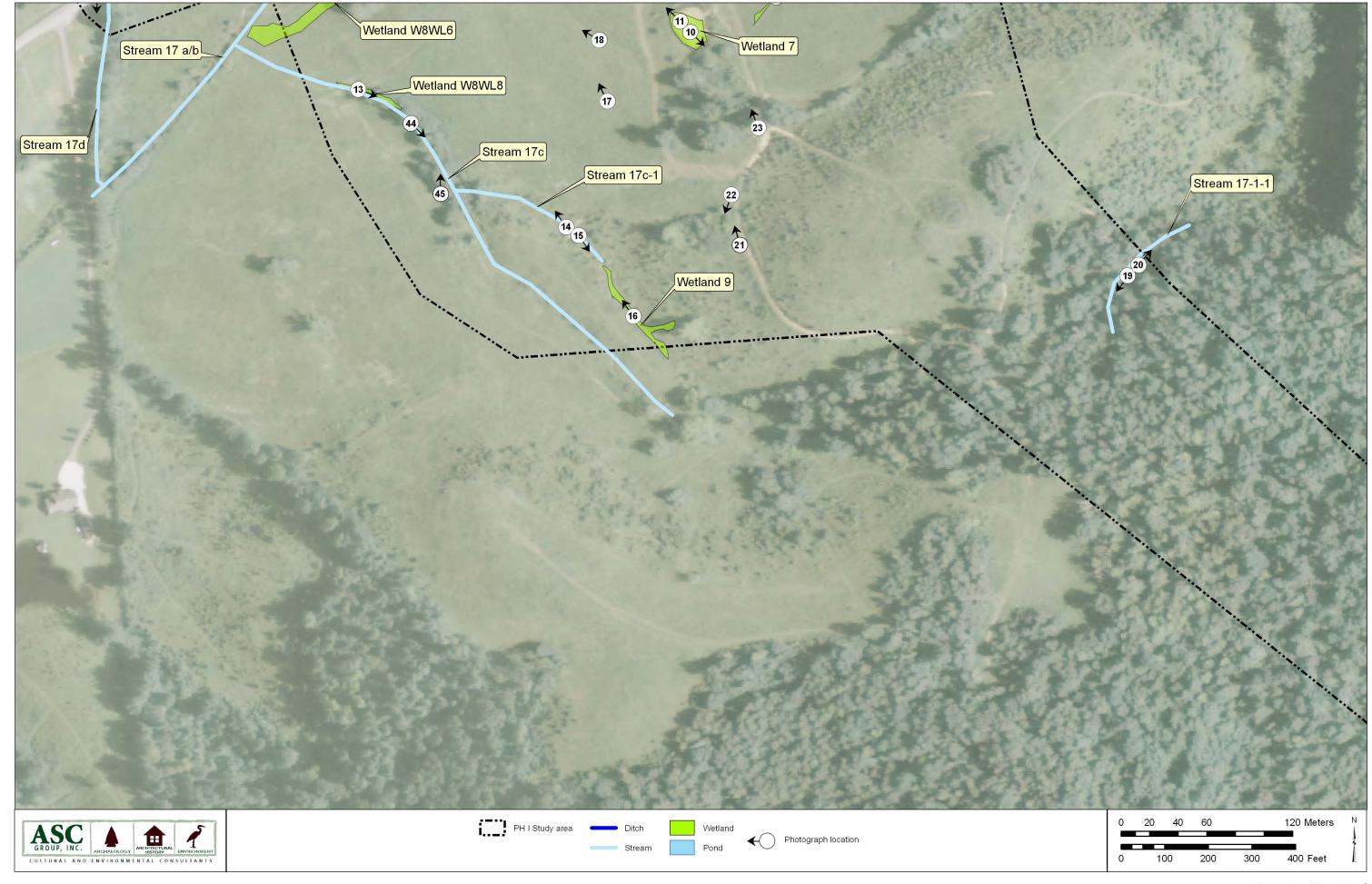


Figure 1. Photograph locations.

Figure 1, Sheet 2 of 11



Figure 1. Photograph locations.

Figure 1, Sheet 3 of 11



Figure 1. Photograph locations.

Figure 1, Sheet 4 of 11

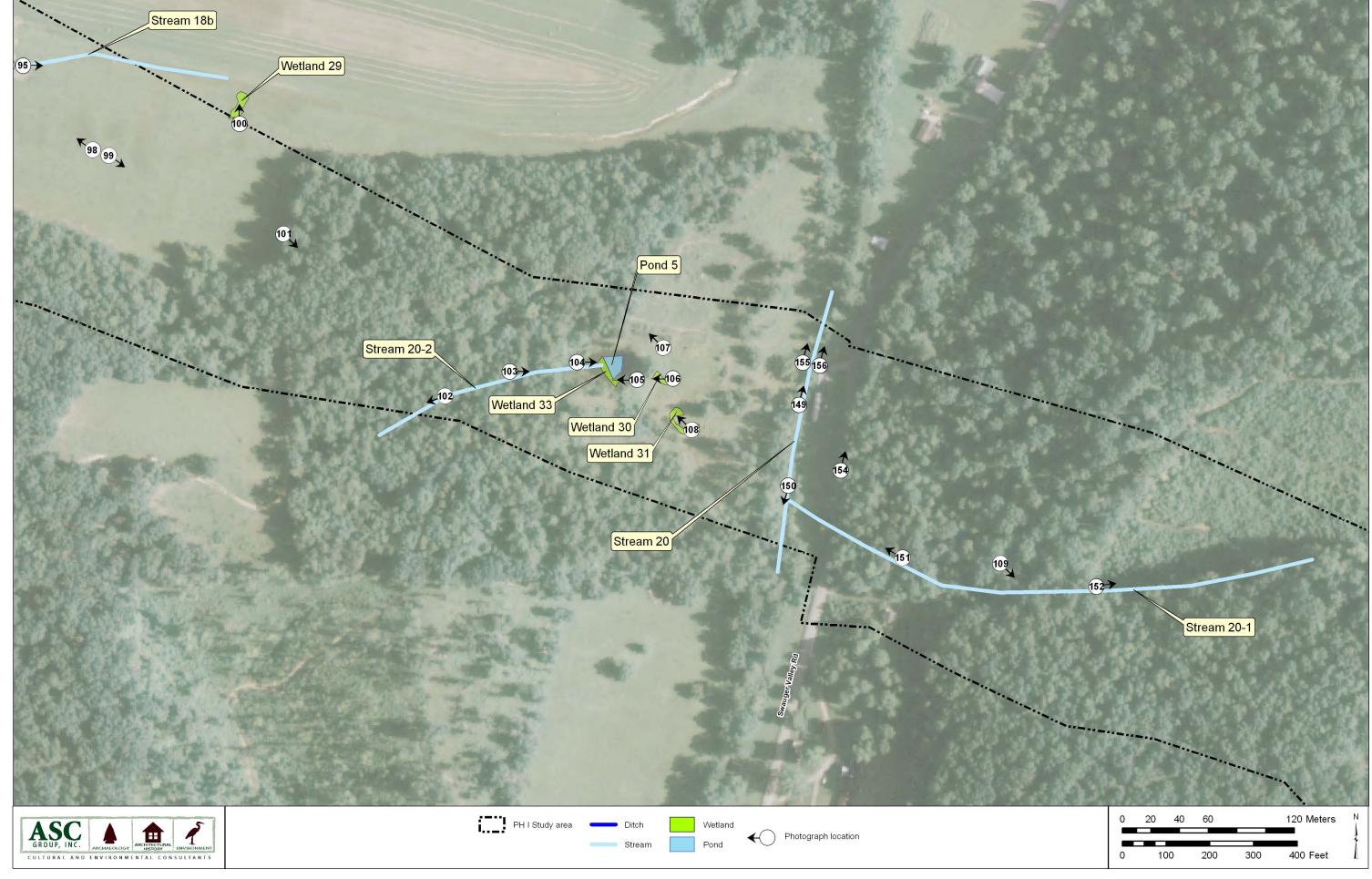


Figure 1. Photograph locations.

Figure 1, Sheet 5 of 11

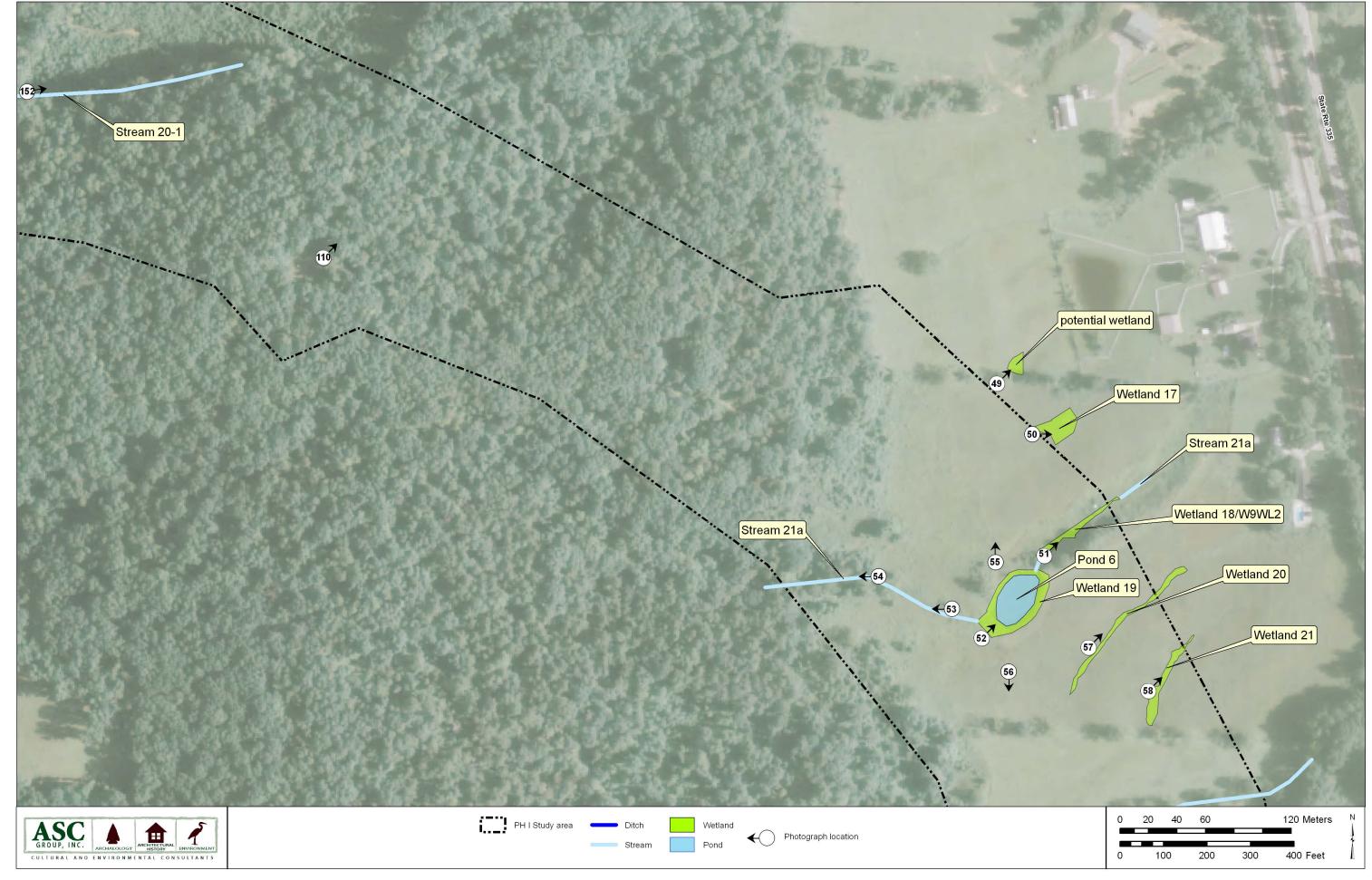


Figure 1. Photograph locations.

Figure 1, Sheet 6 of 11



Figure 1. Photograph locations.

Figure 1, Sheet 7 of 11

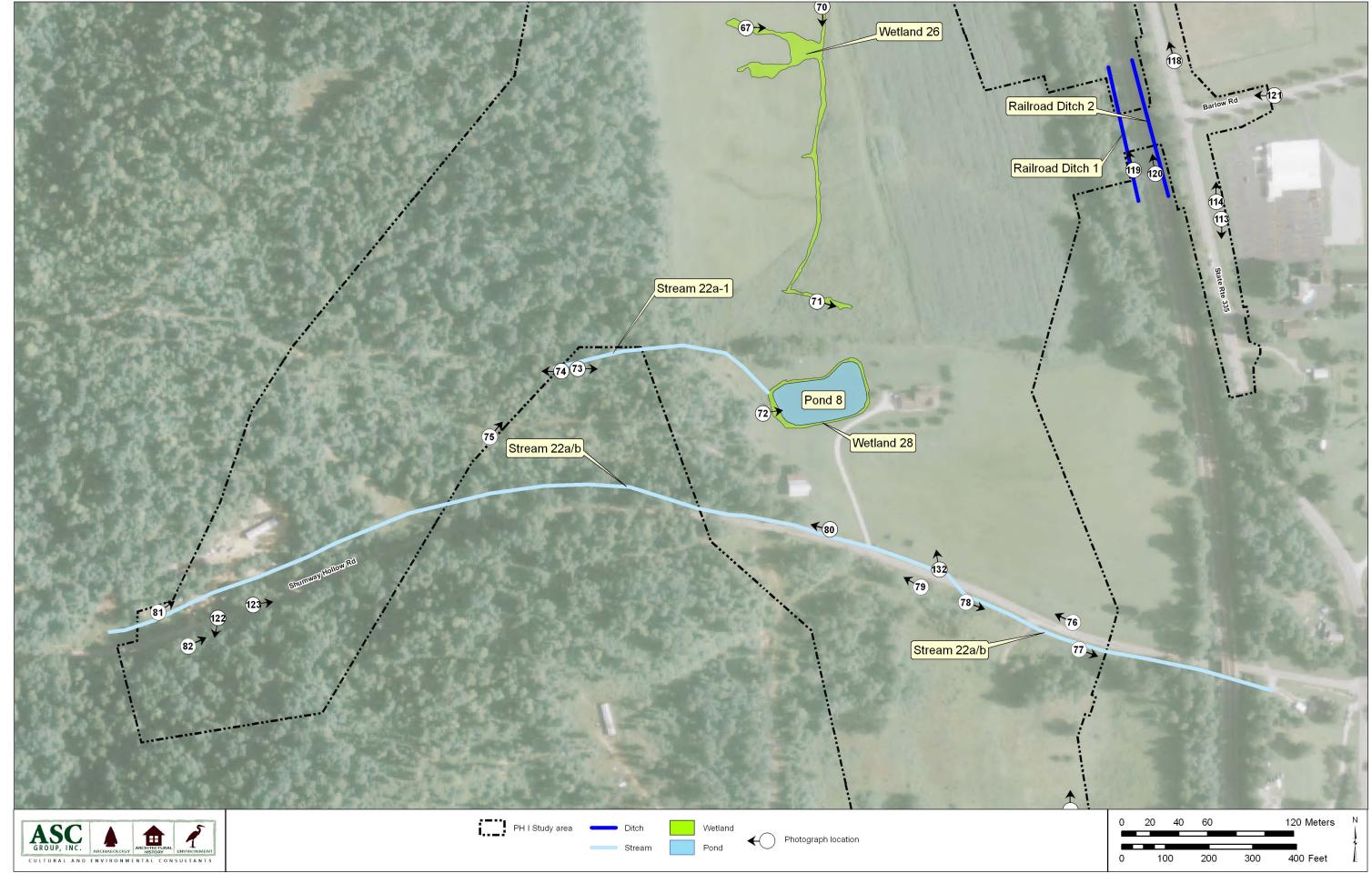


Figure 1. Photograph locations.

Figure 1, Sheet 8 of 11



Figure 1. Photograph locations.

Figure 1, Sheet 9 of 11



Figure 1. Photograph locations.

Figure 1, Sheet 10 of 11



Figure 1. Photograph locations.

Figure 1, Sheet 11 of 11



Photograph 1. View of Wetland 1, facing northeast.



Photograph 2. View of Wetland 2/3, facing southeast.



Photograph 3. View of Wetland 2/3, facing east.



Photograph 4. View of Wetland W8WL6, facing southwest.



Photograph 5. View of erosional feature (obscured by vegetation), facing east.



Photograph 6. View of erosional feature (obscured by vegetation), facing east.



Photograph 7. View of Wetland 4, facing northeast.



Photograph 8. View of Wetland 5/W8WL7, facing northeast.



Photograph 9. View of Wetland 6, facing east.



Photograph 10. View of Wetland 7 (formerly Pond 3), facing southeast.



Photograph 11. View of breached berm at Wetland 7 (former Pond 3), facing northwest.



Photograph 12. View of Wetland 12, facing west.



Photograph 13. View of Wetland W8WL8 and Stream 17c, facing east.



Photograph 14. View of Stream 17c-1, facing northwest.



Photograph 15. View of Stream 17c-1, facing northwest.



Photograph 16. View of Wetland 9, facing northwest.



Photograph 17. View of grassland/herbaceous community near upland plot 26, facing north.



Photograph 18. View of erosional feature, facing northwest.



Photograph 19. View of Stream 17-1-1, facing southwest.



Photograph 20. View of Stream 17-1-1, facing northeast.



Photograph 21. View of erosional feature, facing north.



Photograph 22. View of erosional feature, facing southwest.



Photograph 23. View of erosional feature, facing north.



Photograph 24. View of grassland/herbaceous community near upland plot 30, facing southeast.



Photograph 25. View of Wetland 12, facing northeast.



Photograph 26. View of Wetland 12, facing west.



Photograph 27. View of Wetland 12, facing north.



Photograph 28. View of Wetland 12, facing west.



Photograph 29. View of Wetland 12, facing southwest.



Photograph 30. View of Wetland 12, facing southeast.



Photograph 31. View of Wetland 13, facing northeast.



Photograph 32. View of wetland 14, facing east.



Photograph 33. View of Wetland 15, facing south.



Photograph 34. View of non-relatively permanent roadside drainage, facing southwest.



Photograph 35. View of non-relatively permanent roadside drainage, facing northeast.



Photograph 36. View of non-relatively permanent roadside drainage, facing southwest.



Photograph 37. View of non-relatively permanent roadside drainage, facing northeast.



Photograph 38. View of piped portion of a non-relatively permanent roadside drainage, facing southwest.



Photograph 39. View of non-relatively permanent roadside drainage, facing northeast.



Photograph 40. View of non-relatively permanent roadside drainage, facing southwest.



Photograph 41. View of Stream 17a/b, facing northeast.



Photograph 42. View of Stream 17a/b, facing northeast.



Photograph 43. View of Stream 17a/b, facing southwest.



Photograph 44. View of Stream 17c, facing southeast.



Photograph 45. View of Stream 17c, facing northwest.



Photograph 46. View of Wetland 16/Stream 17d, facing northwest.



Photograph 47. View of Stream 17d from the Lucasville-Minford Road crossing, facing northwest.



Photograph 48. View of Stream 17d from the Lucasville-Minford Road crossing, facing south.



Photograph 49. View of a potential wetland area adjacent to the project area, facing northeast.



Photograph 50. View of Wetland 17, facing east.



Photograph 51. View of Wetland 18/W9WL2 and Stream 21a, facing northeast.



Photograph 52. View of Wetland 19/Pond 6, facing northeast.



Photograph 53. View of Stream 21a, facing west.



Photograph 54. View of Stream 21a, facing west.



Photograph 55. Representative photograph of an old-field area, facing north.



Photograph 56. Representative photograph of grassland/herbaceous community, facing south.



Photograph 57. View of Wetland 20, facing northeast.



Photograph 58. View of Wetland 21, facing northeast.



Photograph 59. View of Wetland W9WL4, facing east.



Photograph 60. View of Stream 21, facing southwest.



Photograph 61. View of Stream 21, facing northeast.



Photograph 62. View of Wetland 22/Pond7, facing northwest.



Photograph 63. View of grassland/herbaceous community near upland plot 81, facing northeast.



Photograph 64. View of Wetland 24, facing southeast.



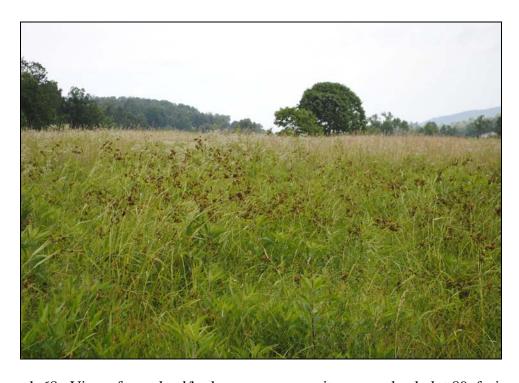
Photograph 65. View of grassland/herbaceous community near upland plot 85, facing north.



Photograph 66. View of Wetland 26, facing east.



Photograph 67. View of Wetland 26, facing east.



Photograph 68. View of grassland/herbaceous community near upland plot 89, facing north.



Photograph 69. View of Wetland 26, facing north.



Photograph 70. View of Wetland 26, facing south.



Photograph 71. View of Wetland 26, facing east.



Photograph 72. View of Wetland 28/Pond 8, facing east.



Photograph 73. View of Stream 22a-1, facing east.



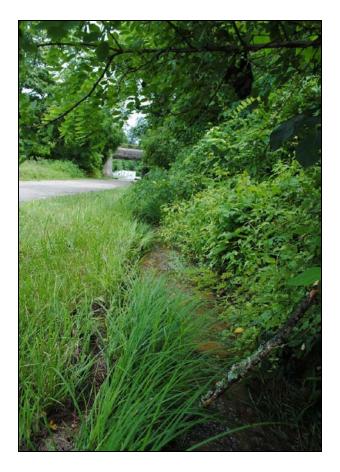
Photograph 74. View of stream 22a-1, facing west.



Photograph 75. View of Viola primulifolia along an old logging road.



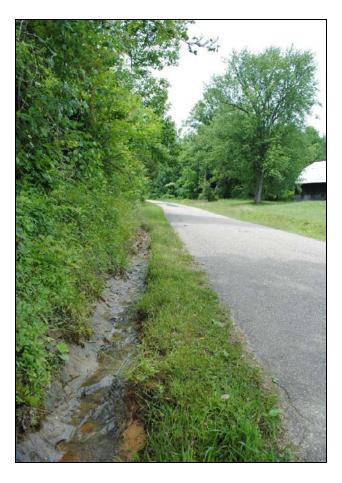
Photograph 76. View of non-relatively permanent roadside drainage along Shumway Hollow Road, facing northwest.



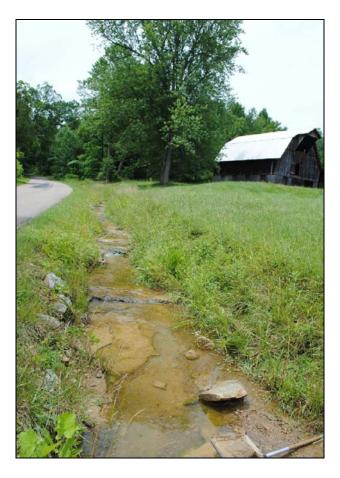
Photograph 77. View of Stream 22a/b along Shumway Hollow Road, facing southeast.



Photograph 78. View of Stream 22a/b along Shumway Hollow Road, facing southeast.



Photograph 79. View of non-relatively permanent roadside drainage, facing west.



Photograph 80. View of Stream 22a/b, facing northwest.



Photograph 81. View of Stream 22a/b along Shumway Hollow Road, facing northeast.



Photograph 82. View of non-relatively permanent roadside drainage, facing northeast.



Photograph 83. View of an old-field area and second growth forested area, facing northwest.



Photograph 84. View of a mowed lawn residential area, facing northwest.



Photograph 85. View of road right-of-way and an adjacent forested area, facing southeast.



Photograph 86. View of a forested area containing southern monkshood (*Aconitum uncinatum*), facing southwest.



Photograph 87. View of a forested slope, facing east.



Photograph 88. View of a forested slope, facing west.



Photograph 89. View of Stream 18-1, facing southwest.



Photograph 90. View of a portion of Stream 18-1 that has been silted in, facing northeast.



Photograph 91. View of stream 18-b, facing southwest.



Photograph 92. View of stream 18-b/Pond 4, facing northeast.



Photograph 93. View of Pond 4, facing northeast.



Photograph 94. View of stream 18-b and Pond 4, facing west.



Photograph 95. View of stream 18-b, facing east.



Photograph 96. View of a cow pasture, facing northwest.



Photograph 97. View of a cow pasture, facing southeast.



Photograph 98. View of a cow pasture, facing northwest.



Photograph 99. View of a cow pasture, facing southeast.



Photograph 100. View of Wetland 29, facing north.



Photograph 101. View of a forested area, facing southeast.



Photograph 102. View of Stream 20-2, facing southwest.



Photograph 103. View of Stream 20-2, facing east.



Photograph 104. View of Stream 20-2 draining into Pond 5 and Wetland 33, facing east.



Photograph 105. View of the outlet for Pond 5, facing west.



Photograph 106. View of Wetland 30, facing west.



Photograph 107. View of an old-field/pasture area, facing northwest.



Photograph 108. View of Wetland 31, facing northwest.



Photograph 109. View of a forested area, facing southeast.



Photograph 110. View of a recent clear cut, facing northeast.



Photograph 111. View of an agricultural area, facing north.



Photograph 112. View of an agricultural area, facing south.



Photograph 113. View of mowed lawn in the project area, facing south.



Photograph 114. View of mowed lawn in the project area, facing north.



Photograph 115. View of mowed lawn and old-field, facing south.



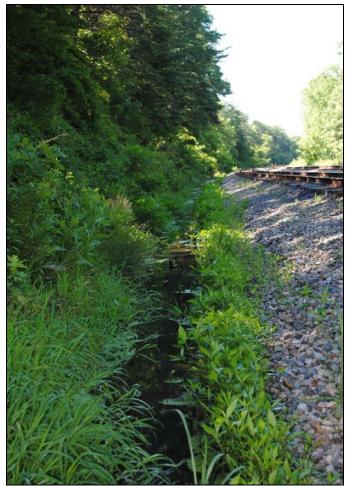
Photograph 116. View of agricultural area, facing north.



Photograph 117. View of non-relatively permanent roadside drainage, along east side of SR 335, facing north.



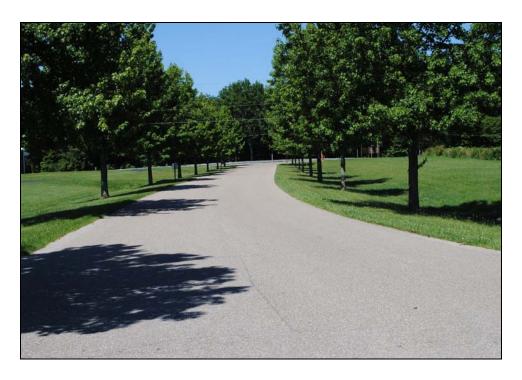
Photograph 118. View of non-relatively permanent roadside drainage, along east side of SR 335, facing south.



Photograph 119. View of Railroad Ditch 1 along west side of tracks, facing north.



Photograph 120. View of Railroad Ditch 2 along east side of tracks, facing south.



Photograph 121. View along Barlow Road, facing west.



Photograph 122. View of wooded area along Shumway Hollow Road, facing south.



Photograph 123. View along Shumway Hollow Road, facing east.



Photograph 124. View of an old-field area, facing north.



Photograph 125. View of an old-field area, facing south.



Photograph 126. View of Stream 23/k facing west.



Photograph 127. View of Stream 23/k facing east.



Photograph 128. View of Stream 24-1, facing west.



Photograph 129. View of Viola primulifolia in the project area.



Photograph 130. View of Viola primulifolia in the project area.



Photograph 131. View of a second growth forested area, facing south.



Photograph 132. View of an old-field/residential area, facing north.



Photograph 133. View of old-field area, facing southeast.



Photograph 134. View of old-field area, facing northeast.



Photograph 135. View of old-field area, facing southwest.



Photograph 136. View of old-field area, facing northeast.



Photograph 137. View of Wetland 32, facing northwest.



Photograph 138. View of Stream 17a/b-1, facing southeast.



Photograph 139. View of Stream 17a/b-1, facing north.



Photograph 140. View of young second growth woods, facing northwest.



Photograph 141. View of southern monkshood (Aconitum uncinatum).



Photograph 142. View of non-relatively permanent roadside drainage, facing southwest along SR 139.



Photograph 143. View of Stream 18, facing downstream (northeast).



Photograph 144. View of Stream 18, facing upstream (southwest).



Photograph 145. View of Stream 19, facing downstream (southeast).



Photograph 146. View of Stream 19, facing upstream (north).



Photograph 147. View of Stream 19-1, facing upstream (southwest).



Photograph 148. View of Stream 19-1, facing downstream (east).



Photograph 149. View of Stream 20, facing downstream (north).



Photograph 150. View of Stream 20, facing upstream (south).



Photograph 151. View of Stream 20-1, facing downstream (northwest).



Photograph 152. View of Stream 20-1, facing upstream (northeast).



Photograph 153. View of non-relatively permanent roadside drainage along west side of Oliver Road, facing northwest.



Photograph 154. View of non-relatively permanent roadside drainage along east side of Swauger Valley Road, facing north.



Photograph 155. Juvenile southern two-lined salamander (*Eurycea b. cirrigera*) with gills at Stream 20.



Photograph 156. Juvenile eastern box turtle (*Terrapene carolina carolina*) along Stream 20.



Photograph 157. View of Wetland 34, facing northwest.



Photograph 158. Wetland 35, facing northwest.



Photograph 159. Stream 18-2 from Glendale Road, facing east.



Photograph 160. Stream 18-2-1, facing north.



Photograph 161. Existing Glendale Road crossing over Stream 18-2, facing south.

Appendix 3 Data Forms



ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATIONSTREAMSITE NUMBER LENGTH OF STREAM REACH (ft)	RIVER BASIN _	DRA	INAGE AREA (mi²) <u>D. 017 m</u>
DATE 6/15/2011 SCORER R. PAUL	COMMENTS		
NOTE: Complete All Items On This For	m - Refer to "Field Evaluat	ion Manual for Ohio's PHWF	Streams" for Instructions
STREAM CHANNEL NONE / NA MODIFICATIONS:	TURAL CHANNEL RECO	/ERED RECOVERING	RECENT OR NO RECOVERY
1. SUBSTRATE (Estimate percent of ev (Max of 32). Add total number of signification of the control of the contr	cant substrate types found (Max PERCENT TYPE SIL SIL FIN CLA 12 MU MU	Check ONLY two predominant sul of 8). Final metric score is sum of T [3 pt] IF PACK/WOODY DEBRIS [3 pts] E DETRITUS [3 pts] AY or HARDPAN [0 pt] CK [0 pts]	boxes A & B. PERCENT POINTS Substrat Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _ SCORE OF TWO MOST PREDOMINATE SUBS		TOTAL NUMBER OF SUBSTRA	(B) 4 A + B
2. Maximum Pool Depth (Measure the n evaluation. Avoid plunge pools from roa > 30 centimeters [20 pts]	d culverts or storm water pipes)	61 meter (200 ft) evaluation read (Check ONLY one box): 5 cm - 10 cm [15 pts] 5 cm [5 pts] D WATER OR MOIST CHANNEL	Max = 30
COMMENTS		MAXIMUM POOL DEPTH (ce	ntimeters):
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	> 1	(Check <i>ONLY</i> one box .0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts .0 m (≤ 3' 3") [5 pts]	Width Max=30
COMMENTS		AVERAGE BANKFULL WIDT	H (meters) 1.2 15
RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH	This information <u>must</u> a PLAIN QUALITY ☆NOTE: F FLOODPLAIN QUALITY	Iso be completed River Left (L) and Right (R) as look	ring downstream☆
L R (Per Bank) Wide >10m Moderate 5-10m	L R (Most Predominan Mature Forest, We Immature Forest, \$ Field	etland	Conservation Tillage Irban or Industrial
☐ ☐ Narrow <5m ☐ ☐ None COMMENTS	Residential, Park, Fenced Pasture	New Field	Open Pasture, Row Grop Ilining or Construction
FLOW REGIME (At Time of Eva Stream Flowing Subsurface flow with isolated poc COMMENTS		Moist Channel, isolated pools	
SINUOSITY (Number of bends p None 0.5	er 61 m (200 ft) of channel) (C 1.0 1.5	heck ONLY one box): 2.0 2.5	3.0 >3
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	☐ Moderate (2 ft/100 ft)	Moderate to Severe	Severe (10 ft/100 ft)

AURIBERTARIEDO I IV WINA AUDIOANA	(If Yes, Attach Completed OHFI Form)
QHEI PERFORMED? - LJ Yes P No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	Distance from Evaluated Stream Distance from Evaluated Stream
WWH Name:	Distance from Evaluated Stream
	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
SGS Quadrangle Name: New Boston	NRCS Soil Map Page: 22 NRCS Soil Map Stream Order _/°
ounty: Scioto	Township / City: MADISON TWP
ounty:	TOWNSHIP FOREST
MISCELLANEOUS	0 10:
sase Flow Conditions? (Y/N): Date of last precipitatio	n: 6//5/2011 Quantity: 0,701n
hotograph Information: SEE ESR Report	for Photographs
Elevated Turbidity? (Y/N): Canopy (% open):	
	Note lab sample no. or id. and attach results) Lab Number:
field Measures: Temp (°C) MA Dissolved Oxygen (mg/	/I) <u>W/A</u> pH (S.U.) <u>W/A</u> Conductivity (µmhos/cm) <u>W/A</u>
s the sampling reach representative of the stream (Y/N)	If not, please explain:
BIOTIC EVALUATION	
. 1	
ID number. Include appropriate f	Voucher collections optional. NOTE: all voucher samples must be labeled with the sit field data sheets from the Primary Headwater Habitat Assessment Manual)
ID number. Include appropriate f Fish Observed? (Y/N) \(\frac{N}{N} \) \(\frac{V}{N} \) \(\frac{V}{	nders Observed? (Y/N) Voucher? (Y/N)
ID number. Include appropriate f Fish Observed? (Y/N) \(\frac{N}{N} \) \(\frac{V}{N} \) \(\frac{V}{	nders Observed? (Y/N) Voucher? (Y/N)
ID number. Include appropriate f Fish Observed? (Y/N) \(\frac{N}{N} \) Voucher? (Y/N) \(\frac{N}{N} \) Voucher? (Y/N) \(\frac{N}{N} \) Voucher? (Y/N) \(\frac{N}{N} \)	nders Observed? (Y/N) Voucher? (Y/N)
ID number. Include appropriate frish Observed? (Y/N) Voucher? (Y/N) Salamar Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher?	nders Observed? (Y/N) Voucher? (Y/N)
ID number. Include appropriate from the first Observed? (Y/N) Voucher? (Y/N) Salamaterogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Ocuments Regarding Biology:	field data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
ID number. Include appropriate frish Observed? (Y/N) Voucher? (Y/N) Salama. Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Outher? (Y/	ifield data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N)
ID number. Include appropriate for Fish Observed? (Y/N) Voucher? (Y/N) Salama, Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology: DRAWING AND NARRATIVE DESCRI	field data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Fish Observed? (Y/N) Voucher? (Y/N) Salaman Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) N Comments Regarding Biology: DRAWING AND NARRATIVE DESCRI	ifield data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N)
ID number. Include appropriate for Fish Observed? (Y/N) Voucher? (Y/N) Salama, Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology: DRAWING AND NARRATIVE DESCRI	ifield data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N)
Fish Observed? (Y/N) Voucher? (Y/N) Salaman Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) N Comments Regarding Biology: DRAWING AND NARRATIVE DESCRI	ifield data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N)
ID number. Include appropriate for Fish Observed? (Y/N) Voucher? (Y/N) Salaman Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Noucher? (Y/N	ifield data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N)
Fish Observed? (Y/N) Voucher? (Y/N) Salaman Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) N Comments Regarding Biology: DRAWING AND NARRATIVE DESCRI	ifield data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N)
ID number. Include appropriate for Salaman Fish Observed? (Y/N) Voucher? (Y/N) Salaman Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Nouch	ifield data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N)
ID number. Include appropriate for Salaman Fish Observed? (Y/N) Voucher? (Y/N) Salaman Voucher? (Y/N) Voucher? (Y/N) Noucher?	ifield data sheets from the Primary Headwater Habitat Assessment Manual) Inders Observed? (Y/N)
ID number. Include appropriate fish Observed? (Y/N) Voucher? (Y/N) Salamar rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Nou	prior of stream Reach (This must be completed): terest for site evaluation and a narrative description of the stream's location
ID number. Include appropriate fish Observed? (Y/N) Voucher? (Y/N) Salamarogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Nounder? (Y/N) Nound	prior of stream Reach (This must be completed): terest for site evaluation and a narrative description of the stream's location

ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

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SITE NUMBER RIVER BASIN DRAINAGE AREA (mi²)	254
LENGTH OF STREAM REACH (ft) 200 LAT. 38.8614 LONG. 82.8984 RIVER CODE RIVER MILE DATE 6/21/2011 SCORER J. EARLEY COMMENTS	2,37
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] PERCENT SILT [3 pt] PERCENT 1 0 %	HHEI Metric Points
BLDR SLABS [16 pts]	Substrate Max = 40
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] SOLAT OF TAKEN AND [0 pt] ARTIFICIAL [3 pts]	15
Total of Percentages of (A) Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Pool Depth Max = 30
☐ > 22.5 - 30 cm [30 pts]	20
COMMENTS MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Bankfull Width Max=30
→ 4.0 meters (> 13') [30 pts] → 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] → 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30

QHEI PERFORMED? - Tyes No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Long Run	
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	
USGS Quadrangle Name: New Boston NRG	CS Soil Map Page: 22 NRCS Soil Map Stream Order 2
County: Scioto Township/	city: Madison I wp.
MISCELLANEOUS	
Base Flow Conditions? (Y/N): / Date of last precipitation: 6/20	(2011 Quantity: 0.6614
Photograph Information: SEE ESR REPORT	
Elevated Turbidity? (Y/N): Y Canopy (% open): 50%	
Were samples collected for water chemistry? (Y/N): // (Note lab sam	ole no. or id. and attach results) Lab Number:
	pH (S.U.) 7,34 Conductivity (µmhos/cm) 6,787
Is the sampling reach representative of the stream (Y/N) / If not, pleas	
is the sampling reach representative of the stream (1/14) If not, pleas	Eam 17 a/b
Additional comments/description of pollution impacts: Located in	old Field / Matre Subject to Ruan
Ken off	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher colle	ections optional. NOTE: all voucher samples must be labeled with
ID number. Include appropriate field data sher	ets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Ma	ved? (Y/N) Voucher? (
Comments Regarding Biology:	
- Commonto (Cogarano de Corona de Commonto Commo	
DRAWING AND NARRATIVE DESCRIPTION OF	
Include important landmarks and other features of interest for site	evaluation and a narrative description of the stream's locati
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25 532 35 N	200
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PLOW 40	
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3	Constant of the service of the servi
	80 / 10
DIMMIT	n Page - 2
PHWH Form	

SITE NAME/LOCATIONSTREAM	176		1, 2, 0, 1	
SITE NUMBER	RIVER BASIN	D	RAINAGE AREA (mi²)	.047
SITE NUMBER LENGTH OF STREAM REACH (ft) 200 DATE 6/15/2011 SCORER J. EARley	LAT. <u>38,8613</u> LONG. <u>B2</u>	, 6964 RIVER CODE_	RIVER MILE	
NOTE: Complete All Items On This Form				uctions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	URAL CHANNEL 🗖 RECOVE	RECOVERING	TRECENT OR NO RECO	VERY
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	nt substrate types found (Max of RCENT TYPE SILT LEAF CLAY FINE CLAY MUC	8). Final metric score is sun [3 pt] PACK/WOODY DEBRIS [3	of boxes A & B. PERCENT Zo%	HHEI Metric Points Substrate Max = 40
SCORE OF TWO MOST PREDOMINATE SUBST		TOTAL NUMBER OF SUBS	TRATE TYPES:	
2. Maximum Pool Depth (Measure the massevaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	culverts or storm water pipes) > 5 c < 5 c	. ,	EL [0 pts] Zo	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	□ > 1.0	(Check <i>ONLY</i> one 0 m - 1.5 m (> 3' 3" - 4' 8") [15 0 m (≤ 3' 3") [5 pts]	pts]	Bankfull Width Max=30
COMMENTS		_ AVERAGE BANKFULL W	IDTH (meters)	5
RIPARIAN ZONE AND FLOODPI RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	This information must als AIN QUALITY ☆NOTE: Ri FLOODPLAIN QUALITY L R .(Most Predominant	per Bank) and L R and nrub or Old	looking downstream☆ Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
FLOW REGIME (At Time of Evalue) Stream Flowing Subsurface flow with isolated pools		Moist Channel, isolated p Dry channel, no water (E	ools, no flow (Intermittent)	
COMMENTS				
SINUOSITY (Number of bends pe None 0.5	r 61 m (200 ft) of channel) (Ch 1.0	eck <i>ONLY</i> one box): 2.0 2.5	3.0	

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Tyes No QHEI Score(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Long Run Distance from Evaluated Stream 1, 23 m; Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: New Boston NRCS Soil Map Page: 22 NRCS Soil Map Stream Order 2°
County: Scipto Township / City: Manison TWP
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/15/2011 Quantity: 0,10
Photograph Information: SEG ESR
Elevated Turbidity? (Y/N):Y Canopy (% open):
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) 15.7 Dissolved Oxygen (mg/l) 7.43 pH (S.U.) 7.02 Conductivity (µmhos/cm) 0.167
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
FLOW - STATE OF THE STATE OF TH



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SITE NAME/LOCATION 17c-1 - TRIB +		22.40.40	0/
LENGTH OF STREAM REACH (ft) Zoo	RIVER BASIN LAT. 38.8606 LONG82, 8452 RIVER CODE	RIVER MILE	01
	n - Refer to "Field Evaluation Manual for Ohio's Ph		uctions
-	TURAL CHANNEL PRECOVERED RECOVERING		
(Max of 32). Add total number of signification TYPE PI BLDR SLABS [16 pts] PI BOULDER (>256 mm) [16 pts] PI BEDROCK [16 pt] PI COBBLE (65-256 mm) [12 pts] PI COBBLE (65-256 mm) [12 pt		m of boxes A & B. PERCENT / 0 % pts] (B)	HHEI Metric Points Substrate Max = 40
	aximum pool depth within the 61 meter (200 ft) evaluation culverts or storm water pipes) (Check ONLY one box):		Pool Dept Max = 30
COMMENTS	MAXIMUM POOL DEPTI	H (centimeters):	
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [1 ☑ ≤ 1.0 m (≤ 3' 3") [5 pts]	5 pts]	Bankfull Width Max=30
COMMENTS	AVERAGE BANKFULL V	VIDIH (meters)	
RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH	This information must also be completed LAIN QUALITY ☆NOTE: River Left (L) and Right (R) as FLOODPLAIN QUALITY	s looking downstream☆	- 3
L R (Per Bank) Wide >10m Moderate 5-10m	L R (Most Predominant per Bank) L R Mature Forest, Wetland Immature Forest, Shrub or Old	Conservation Tillage Urban or Industrial	
□ □ Narrow <5m	Residential, Park, New Field	Open Pasture, Row Crop	
□ □ None COMMENTS	Fenced Pasture	Mining or Construction	
FLOW REGIME (At Time of Evalue Stream Flowing Subsurface flow with isolated pools COMMENTS	Moist Channel, isolated	pools, no flow (Intermittent) Ephemeral)	
SINUOSITY (Number of bends per None 0.5	er 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	3.0 3.3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	☐ Moderate (2 ft/100 ft)	Severe (10 ft/100) ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? - Tyes X No QHEI Score(If Yes, Attac	ch Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: NRCS Soil Map Pa	
County: Scitte Township / City: MAD	Tison / WI
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/15/2011	Quantity: 0,/0
Photograph Information: SEE ESR	
Elevated Turbidity? (Y/N): Canopy (% open): 90%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. an	
Field Measures: Temp (°C) 18,23 Dissolved Oxygen (mg/l) 7.11 pH (S.U.) 7.	
Is the sampling reach representative of the stream (Y/N) / If not, please explain:	STREAM is better downstream
in Wooded AREA	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Prir Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrate Comments Regarding Biology:	mary Headwater Habitat Assessment Manual) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM F Include important landmarks and other features of interest for site evaluation an	
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SITE NAME/LOCATION/ 7 d	
SITE NUMBER	RIVER BASIN DRAINAGE AREA (mi²)
LENGTH OF STREAM REACH (ft) 260 LAT. 38, 8	8623 LONG. 82. 8990 RIVER CODE RIVER MILE
DATE 6/21/2011 SCORER JASON EARley CO	OMMENTS
NOTE: Complete All Items On This Form - Refer	to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
	JANNEL PRECOVERED PRECOVERING PRECENT OR NO RECOVERY asville Minford Road
SUBSTRATE (Estimate percent of every type of a substraction)	substrate present. Check ONLY two predominant substrate TYPE boxes
	ate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT Metric
TYPE PERCENT BLDR SLABS [16 pts]	SILT [3 pt] 25 % Poin
BOULDER (>256 mm) [16 pts] 5%	LEAF PACK/WOODY DEBRIS [3 pts] /0 %
BEDROCK [16 pt]	FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] Substr
COBBLE (65-256 mm) [12 pts] 5 % 30 % GRAVEL (2-64 mm) [9 pts]	
SAND (<2 mm) [6 pts]	☐ ☐ ARTIFICIAL [3 pts] /
Total of Percentages of	(A) (B) A + B
Bldr Slabs, Boulder, Cobble, Bedrock	12
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TY	PES: TOTAL NUMBER OF SUBSTRATE TYPES:
	ool depth within the 61 meter (200 ft) evaluation reach at the time of Pool De
evaluation. Avoid plunge pools from road culverts o > 30 centimeters [20 pts]	or storm water pipes) (Check ONLY one box): Max = Max =
> 22.5 - 30 cm [30 pts]	2 < 5 cm [5 pts]
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]
COMMENTS	MAXIMUM POOL DEPTH (centimeters):
BANK FULL WIDTH (Measured as the average of	of 3-4 measurements) (Check ONLY one box): Bankf
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Widtl
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS	AVEDAGE PANKETH L MIDTH (masses) // 0 1 /5
COMMENTS	AVERAGE BANKFULL WIDTH (meters)
This	s information must also be completed
RIPARIAN ZONE AND FLOODPLAIN QUA RIPARIAN WIDTH FLOOD	ALITY \$\sqrt{\text{NOTE}}\$: River Left (L) and Right (R) as looking downstream \$\sqrt{\text{PRI ALITY}}\$
L R (Per Bank) L R	PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland L R Conservation Tillage
	I I I I O I O I O I O I O I O I O I O I
☐ ☐ Moderate 5-10m ☐ ☑	Immature Forest, Shrub or Old
Narrow <5m Note of lucus/mint	Residential, Park, New Field Open Pasture, Row
□ □ None □ □	Fenced Pasture
COMMENTS	
FLOW REGIME (At Time of Evaluation) (C	
 Stream Flowing Subsurface flow with isolated pools (Interstitic 	Moist Channel, isolated pools, no flow (Intermittent)
Subsurface flow with isolated pools (Interstitie COMMENTS Lively interm, text	
SINUOSITY (Number of bends per 61 m (20	
None 1.0	
1.5	☐ 2.5 ☐ >3
STREAM GRADIENT ESTIMATE	
☐ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☐ Mod	derate (2 ft/100 ft)

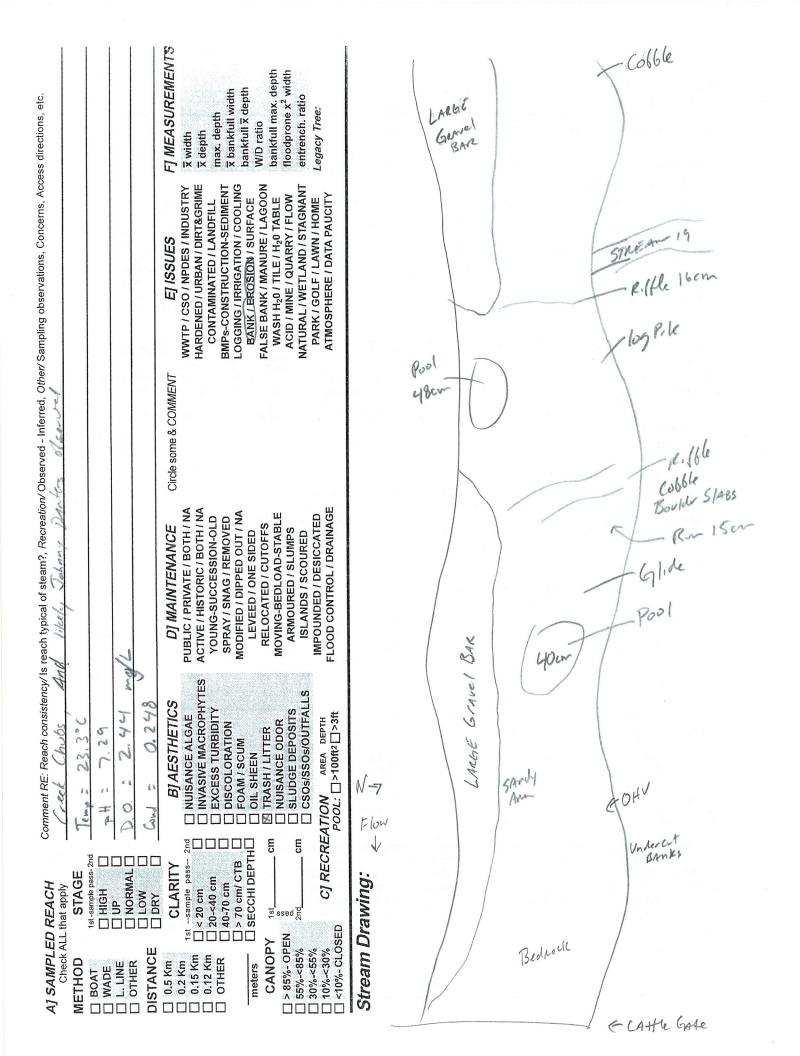
ADDITIONAL STREAM INFORMATION (This Information Must Also be Co	mpleted):
QHEI PERFORMED? - Tyes No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Long Run CWH Name:	Distance from Evaluated Stream
☐ EWH Name:	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE W	
USGS Quadrangle Name: New Boston NRCS	
County: Scioto Township/C	ity: M40(309 TWP
MISCELLANEOUS	
Base Flow Conditions? (Y/N): N Date of last precipitation: 6/20/	2011 Quantity: 0.66 in
Photograph Information:	
Elevated Turbidity? (Y/N):/\/ Canopy (% open):/\(\mathcal{OO}\) \%	
Were samples collected for water chemistry? (Y/N): (Note lab samples	e no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) 18.9 Dissolved Oxygen (mg/l) 6.55	pH (S.U.) 7.63 Conductivity (µmhos/cm) 0.162
Is the sampling reach representative of the stream (Y/N) Y If not, please	explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): _ N	tions optional. NOTE: all voucher samples must be labeled with the site s from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observe Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Mac Comments Regarding Biology: Green Frog Tappoles	
DRAWING AND NARRATIVE DESCRIPTION OF S	STREAM REACH (This must be completed):
Include important landmarks and other features of interest for site e	valuation and a narrative description of the stream's location
18	
7 3 2	200
FLOW TO THE STATE OF THE STATE	
1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 / 1.2 /	35 to 25
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171111 mather 11/1/	~ & ~
Flower - I son Rd.	7.5



Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI	Score:	[78,5]

Stream & Location: STREAM 18 - Long Run @ SR 139 RM: Date: 6 07 2011
Scorers Full Name & Affiliation: Jason Earley - ASC Group
River Code: STORET #: Lat./Long.: 3 8. 85 41 182. 88 14 Office verified location
1] SUBSTRATE Check ONLYTwo substrate TYPE BOXES; estimate % or note every type present BEST TYPES POOL RIFFLE OTHER TYPES POOL RIFFLE ORIGIN QUALITY BLDR /SLABS 10 1/0 25 HARDPAN 41
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools. UNDERCUT BANKS [1] POOLS > 70cm [2] OXBOWS, BACKWATERS [1] MODERATE 25-75% [7] OVERHANGING VEGETATION [1] ROOTWADS [1] AQUATIC MACROPHYTES [1] SPARSE 5-<25% [3] UNDERCUT BANKS [1] BOULDERS [1] LOGS OR WOODY DEBRIS [1] NEARLY ABSENT <5% [1] ROOTMATS [1] Cover Maximum 20
3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average) SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY HIGH [4] EXCELLENT [7] NONE [6] MODERATE [3] CHANNELIZATION STABILITY HIGH [3] MODERATE [2] RECOVERED [4] MODERATE [2] LOW [2] FAIR [3] RECOVERING [3] LOW [1] NONE [1] POOR [1] RECENT OR NO RECOVERY [1] Comments
A] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average) River right looking downstream RIPARIAN WIDTH REROSION RIPARIAN WIDTH RIPARIAN CONSERVATION TILLAGE [1] RIPARIAN OR INDUSTRIAL [0] RESIDENTIAL, PARK, NEW FIELD [1] RIPARIAN OR INDUSTRIAL [0] RIPARIAN OR INDUSTRIAL [0] RESIDENTIAL, PARK, NEW FIELD [1] RIPARIAN OR INDUSTRIAL [0] RIPARIAN OR INDUSTRIAL [0] RIPARIAN OR INDUSTRIAL [0] RESIDENTIAL, PARK, NEW FIELD [1] RIPARIAN OR INDUSTRIAL [0] RIPARIAN WIDTH RIPARIA
10
5] POOL / GLIDE AND RIFFLE / RUN QUALITY MAXIMUM DEPTH CHANNEL WIDTH Check ONE (ONLY!) Check ONE (Or 2 & average) Check ALL that apply > 1m [6] POOL WIDTH > RIFFLE WIDTH [2] TORRENTIAL [-1] SLOW [1] Secondary Contact 0.4-<0.7m [2] POOL WIDTH < RIFFLE WIDTH [0] FAST [1] INTERSTITIAL [-1] 0.2-<0.4m [1] MODERATE [1] DEDDIES [1] Pool / Current MODERATE [1] DINTERSTITIAL [-1] Pool / Current Pool /
Comments Maximum 12
Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (Or 2 & average). RIFFLE DEPTH RUN DEPTH RIFFLE / RUN SUBSTRATE RIFFLE / RUN EMBEDDEDNESS MAXIMUM > 50cm [2] STABLE (e.g., Cobble, Boulder) [2] MAXIMUM > 50cm [1] MOD. STABLE (e.g., Large Gravel) [1] BEST AREAS < 5cm [metric=0] Comments Riffle / Run Maximum Maximum Maximum Maximum Riffle / Run Maximum Maximum Maximum Maximum Maximum Refrection Comments
6] GRADIENT (10.0 ft/mi)



SITE NAME/LOCATION	se Property		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
CITE NUMBER	RIVER BASIN		DRAINAGE AREA (mi²)	072 mi
LENGTH OF STREAM REACH (ft) 200	LAT. 38, 85 32 LONG. 82.8	7774 RIVER CODE	RIVER MILE	
DATE 6/28/2011 SCORER JAM EAR	COMMENTS			
NOTE: Complete All Items On This Form	n - Refer to "Field Evaluation	Manual for Ohio's Pl	וואH Streams" for Instru	ıctions
	TURAL CHANNEL TRECOVER			
	Le Pasture			
	3300 W 300 300 M 300 300 300 300 300 300 300 3			
SUBSTRATE (Estimate percent of every (Max of 32). Add total number of significant sig	ery type of substrate present. Che	eck ONLY <u>two</u> predominar	nt substrate <i>TYPE</i> boxes m of boxes A & B.	HHEI
	ERCENT TYPE	7). T ma. moure coors	PERCENT	Metric Points
BLDR SLABS [16 pts]	SILT [3	B pt] PACK/WOODY DEBRIS [3		Folits
BOULDER (>256 mm) [16 pts] _ BEDROCK [16 pt] _		ETRITUS [3 pts]		Substrate Max = 40
OBBLE (65-256 mm) [12 pts]	5% 0 CLAY	or HARDPAN [0 pt]	45%	
		[0 pts] ICIAL [3 pts]	5%	7
SAND (<2 mm) [6 pts]		IOIAL [O PIO]	(B)	A . B
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _	10% (A) 3		6	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	TRATE TYPES:	OTAL NUMBER OF SUB	STRATE TYPES:	
2. Maximum Pool Depth (Measure the n	naximum pool depth within the 6	1 meter (200 ft) evaluation	n reach at the time of	Pool Dept
evaluation. Avoid plunge pools from roa > 30 centimeters [20 pts]	d culverts or storm water pipes) > 5 c	(Check ONLY one box): m - 10 cm [15 pts]		IVIAX = 30
> 22.5 - 30 cm [30 pts]	☐ <5 c	m [5 pts] VATER OR MOIST CHAN	INEL [0 pte]	25
> 10 - 22.5 cm [25 pts]			1/5	
COMMENTS		MAXIMUM POOL DEPT	H (centimeters):	
3. BANK FULL WIDTH (Measured as the	average of 3-4 measurements)	(Check ONLY or m - 1.5 m (> 3' 3" - 4' 8") [Bankfull Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]		m - 1.5 m (> 3 3 - 4 6) [m (≤ 3' 3") [5 pts]		Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]			0.75	5
COMMENTS		_ AVERAGE BANKFULL	WIDTH (meters)	
RIPARIAN ZONE AND FLOOD	This information must als	o be completed ver Left (L) and Right (R) a	as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY			
L R (Per Bank) Wide >10m	L R (Most Predominant Mature Forest, Wetl		Conservation Tillage	
Moderate 5-10m	Immature Forest, Sh			
	Field Residential, Park, N	ew Field	Open Pasture, Row	
☐ ☐ Narrow <5m	Residential, Park, N Fenced Pasture		_ Crop	
	Tericeu i astarc			_
FLOW REGIME (At Time of Ev	aluation) (Check ONLY one box):			
Stream Flowing		Moist Channel, isolate Dry channel, no water	d pools, no flow (Intermittent)
Subsurface flow with isolated po	oois (interstitiai)	Dry Chamler, no water	(Epromotal)	_
	per 61 m (200 ft) of channel) (Ch	eck ONLY one box):		
None _	1.0	2.0	3.0 >3	
J 0.5	J 1.5	2.5		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) STREAM GRADIENT ESTIMATE Flat to Moderate	Moderate (2 ft/100 ft)	☐ Moderate to Severe	Severe (10 ft/1	100 ft)
Flat (0.5 ft/100 ft) Flat to Moderate	INICACIALO (E INICO II)	5.5 - 5.5		

DOWNSTREAM DESIGNATED USE(S) Distance from Evaluated Stream O. 0. 9 mi. OWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: NRCS Soil Map Page: 30 NRCS Soil Map Stream Order 1º Township I City. HARKISOn Tup MISCELLANEOUS Sase Flow Conditions? (Y/N): Date of last precipitation: 6/27/2011 Quantity. 0.02" Photograph Information: SEE ESR Selevated Turbidity? (Y/N): Y Canopy (% open): 100 % Were samples collected for water chemistry? (Y/N): If Note lab sample no. or id. and attach results) Lab Number: ield Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm) is the sampling reach representative of the stream (Y/N) If not, please explain: Yo Freld Warter Quality Set the sampling reach representative of the stream (Y/N) If not, please explain: Active Cour Pastvice BIOTIC EVALUATION enformed? (Y/N): Were samples collected of pollution impacts: Located Active Cour Pastvice BIOTIC EVALUATION enformed? (Y/N) If Not Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) If Nounber Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) If Nounber Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include Important landmarks and other features of interest for site evaluation and a narrative description of the stream's location Flow Active Court Pastvice Start Market Start Mar		QHEI PERFORMED? - Tyes No OHFI	Score(If Yes, Attach Completed QHEI Form)
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Cattle Fence Cobsec Som Silt Dry 0.7m	Performed Fish Obsel Frogs or T Comments	(If Yes, Record all observation ID number. Include appropriatived? (Y/N) N Sala adpoles Observed? (Y/N) Y Voucher? (Y/N) Served? (Y/N) Y Voucher? (Y/N) Served? (Y/N) Y Voucher? (Y/N) Served? (Y/N) Y Voucher? (Y/N) Y Voucher? (Y/N) Y Voucher? (Y/N) Served? (Y/N) Served? (Y/N) Y Voucher? (Y/N) Served? (Y	ns. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ate field data sheets from the Primary Headwater Habitat Assessment Manual) manders Observed? (Y/N)
Cattle Fence Cobsec Som Silt Dry 0.7m	Performed Fish Obsel Frogs or Ti Comments	(If Yes, Record all observation ID number. Include appropriation I	ns. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ate field data sheets from the Primary Headwater Habitat Assessment Manual) manders Observed? (Y/N)
Cattle Fence Cobsec Som Silt Dry 0.7m	Performed Fish Obsel Frogs or Ti Comments	(If Yes, Record all observation ID number. Include appropriation I	ns. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ate field data sheets from the Primary Headwater Habitat Assessment Manual) manders Observed? (Y/N)
Fence Cobset Silt Dry 0.7m	Performed Fish Obset Frogs or To	(If Yes, Record all observation ID number. Include appropriation I	RIPTION OF STREAM REACH (This must be completed): interest for site evaluation and a narrative description of the stream's location NOTE: all voucher samples must be labeled with the site attended to the site of the sit
Fence Cobset Silt Dry 0.7m	Performed Fish Obsel Frogs or Ti Comments	(If Yes, Record all observation ID number. Include appropriation I	RIPTION OF STREAM REACH (This must be completed): interest for site evaluation and a narrative description of the stream's location NOTE: all voucher samples must be labeled with the site attended to the site of the sit
Sill Diy	Performed Fish Obset Frogs or To	(If Yes, Record all observation ID number. Include appropriatived? (Y/N)	RIPTION OF STREAM REACH (This must be completed): interest for site evaluation and a narrative description of the stream's location NOTE: all voucher samples must be labeled with the site attended to the site of the sit
	Fish Observers of Trops or Tro	(If Yes, Record all observation ID number. Include appropriatived? (Y/N)	ns. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ate field data sheets from the Primary Headwater Habitat Assessment Manual) manders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Natural Polynomy Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Natural Polynomy RIPTION OF STREAM REACH (This must be completed): interest for site evaluation and a narrative description of the stream's location Cather Formation Ription Advisor Completed Ription Advis
Channel	Fish Observers of Trops or Tro	(If Yes, Record all observation ID number. Include appropriatived? (Y/N)	RIPTION OF STREAM REACH (This must be completed): interest for site evaluation and a narrative description of the stream's location Ription of the stream's location Ription of the stream's location Ription of the stream's location
w · · · · · · · · ·	Performed Fish Obset Frogs or Ti Comments Inclu Flow	(If Yes, Record all observation ID number. Include appropriatived? (Y/N)	RIPTION OF STREAM REACH (This must be completed): interest for site evaluation and a narrative description of the stream's location Ription of the stream's location Ription of the stream's location Ription of the stream's location

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SITE NAME/LOCATION STREAM 18 6	
SITE NUMBERRIVER BASINDRAINAGE LENGTH OF STREAM REACH (ft) 260 ft LAT. 38.8522 LONG. 82.8744 RIVER CODE	E AREA (mi²) O. 18 m ; 2
DATE 6/28/2011 SCORER JASON EARLY COMMENTS CON PASTURE - Active	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Stre	
STREAM CHANNEL	NT OR NO RECOVERY
MODIFICATIONS:	5
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts]	HHEI Metric Points Substrate Max = 40
SAND (<2 mm) [6 pts] 10 % ARTIFICIAL [3 pts]	30%
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 10% SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	(B) A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts]	Max = 30
COMMENTSMAXIMUM POOL DEPTH (centime	eters):
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \	Bankfull Width Max=30
COMMENTSAVERAGE BANKFULL WIDTH (me	
The state of the s	lownstream☆ ervation Tillage or Industrial
Residential, Park, New Field Crop	Pasture, Row g or Construction
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS The property of the control of the co	,
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None	
STREAM GRADIENT ESTIMATE ☐ Flat (0.5 ft/100 ft) ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe	Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Tyes X No QHEI Score(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name:
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Minford NRCS Soil Map Page: 30 NRCS Soil Map Stream Order
County: Scioto Township/City: Hacason Twp.
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation:6/27/2011 Quantity:6/27/2011
Photograph Information: SEE ESR
Elevated Turbidity? (Y/N):
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) / If not, please explain:
Additional comments/description of pollution impacts: Water Quality samples not collected due Sandary Good Information Stream
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
FLOW Pond Pond Pond Pond Pool P

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SITE NAME/LOCATION STREAM 19	
SITE NUMBER RIVER BASIN DRAINAGE AREA (mi²)	,207
LENGTH OF STREAM REACH (ft) LAT. 38.8590 LONG: \$72.8827 RIVER CODE RIVER MILE	
DATE 6/7/2011 SCORER JASON EARLY COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ctions
STREAM CHANNEL	VERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts]	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 35 % SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 30 centimeters [20 pts]	Pool Depth Max = 30
COMMENTS MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Bankfull Width Max=30
COMMENTS AVERAGE BANKFULL WIDTH (meters)	/3
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m This information must also be completed RIPARIAN VIDTH FLOODPLAIN QUALITY L R Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Guide (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): None	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)	ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? - Tyes X No QHEI Score(If Yes, Attach	Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name:	Distance from Evaluated Stream Run
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED A	
USGS Quadrangle Name: New Boston NRCS Soil Map Page	
County: Scioto Township / City: HARR	
MISCELLANEOUS	3 11 11 11 11 11 11 11
Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/5/2011	
Photograph Information: SEE ESR	12.**
Elevated Turbidity? (Y/N): Canopy (% open):	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and	
Field Measures: Temp (°C) 23, 5 Dissolved Oxygen (mg/l) 3, 98 pH (S.U.) 7.	
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:	
Additional comments/description of pollution impacts: Pipe into STREAM Failing Septic. Black Sludge and foul opens of BIOTIC EVALUATION OF SURVEYED REACH.	Appears to be from at point of Disharge upstream
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Prim	
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Noucher? (Y/N) Aquatic Macroinvertebrates	Voucher? (Y/N) / Voucher? (Y/N) / Voucher? (Y/N)
Comments Regarding Biology: FRA and Tappoles & FRAS OBSERVED - NOT	orlected or ID
DRAWING AND NARRATIVE DESCRIPTION OF STREAM R Include important landmarks and other features of interest for site evaluation and	
S	9
Flow Flow 19 19 19 19 19 19 19 19 19 19 19 19 19	JCB 7 1. 4m SR 13 9 SR 13 9



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SITE NAME/LOCATIONSTAGAM	19-1	
SITE NUMBI	BER RIVER BASIN DRAINAGE AREA (mi²)	0.047
LENGTH OF STREAM REACH (ft) 200	LAT. <u>38, 8576</u> LONG. <u>82, 9867</u> RIVER CODE RIVER MILE	
DATE 6/7/2011 SCORER JASON	EARLY COMMENTS	1,00
NOTE: Complete All Items On This	s Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	E / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC	OVERY
MODIFICATIONS:		
the second control of	of every type of substrate present. Check ONLY two predominant substrate TYPE boxes significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE BLDR SLABS [16 pts]	PERCENT TYPE PERCENT SILT [3 pt]	Metri Point
BOULDER (>256 mm) [16 pts]		
BEDROCK [16 pt]	FINE DETRITUS [3 pts]	Substrate Max = 4
COBBLE (65-256 mm) [12 pts GRAVEL (2-64 mm) [9 pts]	s]	
SAND (<2 mm) [6 pts]	ARTIFICIAL [3 pts]	12
Total of Percentages of	A THE STATE OF THE PROPERTY OF	A D
Bldr Slabs, Boulder, Cobble, Bedro	rock	A + B
SCORE OF TWO MOST PREDOMINATE :	SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	
	the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
> 30 centimeters [20 pts]	om road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	S cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
2 10 - 22.3 cm [25 pts]		
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
	as the average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 p	\nearrow > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ts] \le 1.0 m (\le 3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 p	pts]	15
COMMENTS	AVERAGE BANKFULL WIDTH (meters)	
RIPARIAN ZONE AND FL	This information <u>must</u> also be completed LOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old	
□ □ Narrow <5m	Fleid Onen Pasture Row	
Narrow <5m	Residential, Park, New Field Grop Mining or Construction	
COMMENTS	Villing of Construction	_
FLOW REGIME (At Time of	of Evaluation) (Check ONLY one box):	
Stream Flowing	Moist Channel, isolated pools, no flow (Intermittent))
Subsurface flow with isolate COMMENTS	ed pools (Interstitial)	_
SINUOSITY (Number of he	ends per 61 m (200 ft) of channel) (Check ONLY one box):	property and the second
None	☐ 1.0 ☐ 2.0 ☐ 3.0	
□J 0.5	☐ 1.5	
STREAM GRADIENT ESTIMATE		
☐ Flat (0.5 ft/100 ft) ☐ Flat to Modera	ate Moderate (2 ft/100 ft) Moderate to Severe	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed): QHEI PERFORMED? - Tyes V No QHEI Score ______ (If Yes, Attach Completed QHEI Form) DOWNSTREAM DESIGNATED USE(S) Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: New Boston NRCS Soil Map Page: 30 NRCS Soil Map Stream Order County: Sciato Township/City: HAKRISON TWP **MISCELLANEOUS** Base Flow Conditions? (Y/N): N Date of last precipitation: 6/5/2011 Quantity: 0,09 '' Photograph Information: SEE ESR Elevated Turbidity? (Y/N): ____ Canopy (% open): ____/0 % Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:_____ Field Measures: Temp (°C) 21, 9 Dissolved Oxygen (mg/l) 5, 4 pH (S.U.) 5, 44 Conductivity (μmhos/cm) 0, 0, 9, 4 Is the sampling reach representative of the stream (Y/N) / If not, please explain:______ Additional comments/description of pollution impacts:______ BIOTIC EVALUATION Performed? (Y/N): _____ (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Comments Regarding Biology:___ DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



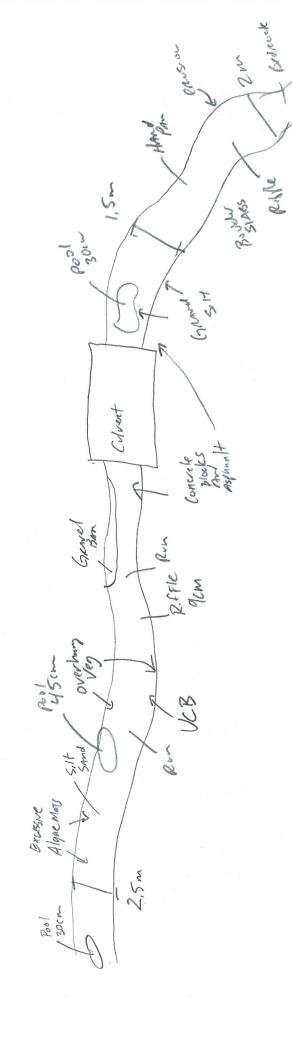
Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score:	58.5
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Stream & Location: STREAM 20 & Swanger Valley Rd RM: Date: 61812011
Scorers Full Name & Affiliation:
River Code: - STORET #: Lat./ Long.: 38. 8501 182. 8683 Office verified location
1] SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present BEST TYPES POOL RIFFLE DETRITUS [3] POOL RIFFLE DETRITUS [4] DETRITUS [5] POOL RIFFLE DETRITUS [5] POOL RIFFLE DETRITUS [6] POOL RIF
2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools. UNDERCUT BANKS [1] POOLS > 70cm [2] OXBOWS, BACKWATERS [1] MODERATE 25-75% [11] OVERHANGING VEGETATION [1] POOLS > 70cm [2] AQUATIC MACROPHYTES [1] SPARSE 5-<25% [3] ROOTMATS [1] BOULDERS [1] LOGS OR WOODY DEBRIS [1] NEARLY ABSENT <5% [1] Comments
3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average) SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY HIGH [4]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average) River right looking downstream RIPARIAN WIDTH FLOOD PLAIN QUALITY FLOOD PLAIN QUALIT
5] POOL / GLIDE AND RIFFLE / RUN QUALITY MAXIMUM DEPTH
Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (Or 2 & average). RIFFLE DEPTH RUN DEPTH RIFFLE / RUN SUBSTRATE RIFFLE / RUN EMBEDDEDNESS BEST AREAS > 10cm [2] MAXIMUM > 50cm [2] STABLE (e.g., Cobble, Boulder) [2] NONE [2] BEST AREAS 5-10cm [1] MOD. STABLE (e.g., Large Gravel) [1] LOW [1] BEST AREAS < 5cm UNSTABLE (e.g., Fine Gravel, Sand) [0] MODERATE [0] Riffle / Run Maximum Maximum Maximum Maximum Maximum None Run None Run Maximum None Run None Ru
6] GRADIENT (10 ft/mi) VERY LOW - LOW [2-4] %POOL: ZO %GLIDE: 10 Gradient Maximum (0.93 mi²) HIGH - VERY HIGH [10-6] %RUN: 40 %RIFFLE: 30

Stream Drawing:

-> Flow



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SITE NAME/LOCATION STREAM 20-1	DIVED BASIN DRAINAGE ADEA (mi2) 0,036
LENGTH OF STREAM REACH (#) 200 FT LAT. 38. B DATE 6/7/2011 SCORER JASON BALLOY COM	RIVER BASIN DRAINAGE AREA (mi²) O. 036 1990 LONG. 92.8674 RIVER CODE RIVER MILE
	"Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
STREAM CHANNEL NONE / NATURAL CHAIR MODIFICATIONS:	NNEL RECOVERED RECOVERING RECENT OR NO RECOVERY
(Max of 32). Add total number of significant substrate TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	types found (Max of 8). Final metric score is sum of boxes A & B. TYPE SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts] (A) Z1 HHEI Metric Points Substrate Max = 40 Z7 A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPI	TOTAL NUMBER OF SUBSTRATE TYPES:
evaluation. Avoid plunge pools from road culverts or s > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	## depth within the 61 meter (200 ft) evaluation reach at the time of storm water pipes) (Check ONLY one box):
3. BANK FULL WIDTH (Measured as the average of 3	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width
COMMENTS	AVERAGE BANKFULL WIDTH (meters)
RIPARIAN ZONE AND FLOODPLAIN QUAL	nformation must also be completed ITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ LAIN QUALITY (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage
☐ ☐ Moderate 5-10m ☐ ☐	Immature Forest, Shrub or Old Urban or Industrial Field
□ □ Narrow <5m □ □ □ None □ □ □	Residential, Park, New Field Grop Fenced Pasture Open Pasture, Row Crop Mining or Construction
FLOW REGIME (At Time of Evaluation) (Ch Stream Flowing Subsurface flow with isolated pools (Interstitial COMMENTS Not enough water	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)
SINUOSITY (Number of bends per 61 m (200 None 1.0 1.5	ft) of channel) (Check <i>ONLY</i> one box): 2.0
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	rate (2 ft/100 ft)

OHEI PERFORMED? - ☐ Yes ☒ No QHEI Score	e from Evaluated Stream
Distance CWH Name: Distance	e from Evaluated Stream
NRCS Soil Map Page: 3 County: Science Township / City: Harrison MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: 6/5/20/1 Qual Photograph Information: SEE ESR Refort Elevated Turbidity? (Y/N): Canopy (% open): 5/0 Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach Field Measures: Temp (°C) N/A Dissolved Oxygen (mg/l) M/A pH (S.U.) N/A C Is the sampling reach representative of the stream (Y/N) If not, please explain: Higher Harrison BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations, Voucher collections optional, NOTE: a ID number. Include appropriate field data sheets from the Primary Head Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Obsen Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH	
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: 6/5/20/1 Qual Photograph Information: EESR Refeet Elevated Turbidity? (Y/N): Canopy (% open): (Note lab sample no. or id. and attach Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	EARLY MARK THE SITE LOCATION
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: C	O NRCS Soil Map Stream Order
Base Flow Conditions? (Y/N): Date of last precipitation:	Twp
Photograph Information: SEE ESR Refort	
Photograph Information: SEE ESR Refort	tity:
Were samples collected for water chemistry? (Y/N):	
Were samples collected for water chemistry? (Y/N):	
Is the sampling reach representative of the stream (Y/N) N If not, please explain: Highway Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: a ID number. Include appropriate field data sheets from the Primary Head Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Adjustic Macroinvertebrates Observed Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH	esults) Lab Number:
Is the sampling reach representative of the stream (Y/N) If not, please explain: Highway	onductivity (µmhos/cm)
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations, Voucher collections optional, NOTE: a ID number. Include appropriate field data sheets from the Primary Head Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed Comments Regarding Biology:	Quality stream in woode
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: a ID number. Include appropriate field data sheets from the Primary Head Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH	
	water Habitat Assessment Manual) er? (Y/N)
Include important landmarks and other features of interest for site evaluation and a narra	
	This <u>must</u> be completed):
FLOW Standard Standar	

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	-2 - 16 Pond 5 RIVER BASIN DRAINAGE AREA (mi²) D, 0/34.
LENGTH OF STREAM REACH (ft) 200 LA	AT. <u>38.84/99</u> LONG. <u>82.87/6</u> RIVER CODE RIVER MILE
	Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
	RAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY
	unal in Wooled Area - Imported in Paster by Guttle
(Max of 32). Add total number of significant TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	type of substrate present. Check ONLY two predominant substrate TYPE boxes is substrate types found (Max of 8). Final metric score is sum of boxes A & B. CENT TYPE PERCENT O'C
	imum pool depth within the 61 meter (200 ft) evaluation reach at the time of ulverts or storm water pipes) (Check O/L/Y one box):
COMMENTS	MAXIMUM POOL DEPTH (centimeters):
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width
COMMENTS	AVERAGE BANKFULL WIDTH (meters)
RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	This information must also be completed AIN QUALITY
FLOW REGIME (At Time of Evalua Stream Flowing Subsurface flow with isolated pools (COMMENTS_	Moist Channel, isolated pools, no flow (Intermittent)
SINUOSITY (Number of bends per None 0.5	61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	☐ Moderate (2 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Tyes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Long line Distance from Evaluated Stream O. 28 m. CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Minford NRCS Soil Map Page: 30 NRCS Soil Map Stream Order 10
County: Scioto Township/City: HARRISON TWP
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/27/2011 Quantity: 0.02"
Photograph Information: SEG ESR Report Elevated Turbidity? (Y/N): N Canopy (% open): 20%
Elevated Turbidity? (Y/N): N Canopy (% open): 20%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) MA Dissolved Oxygen (mg/l) M/A pH (S.U.) MA Conductivity (µmhos/cm) M/A
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
E 3 2 4 8 2 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 8 5 5 5 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
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SITE NAME/LOCATION _						
LENGTH OF STREAM RE	SITE NUMBER	RIVER BA	ASIN	DRA	INAGE AREA (mi²)	0.04
	CORER JASON EARLEY					
	Items On This Form - F					ructions
STREAM CHANNEL MODIFICATIONS:	☐ NONE / NATURA	AL CHANNEL 🛛 R	ecovered 🗆 R	ecovering \Box	RECENT OR NO REC	OVERY
(Max of 32). Add to TYPE	256 mm) [16 pts] 16 pt] 256 mm) [12 pts] 2 mm) [9 pts]	ubstrate types found ENT TYPE O O W O O	(Max of 8). Final me SILT [3 pt] LEAF PACK/WOO FINE DETRITUS CLAY or HARDPA MUCK [0 pts]	tric score is sum of DY DEBRIS [3 pts [3 pts] N [0 pt]	PERCENT 10% 15%	HHE Metric Point Substrat Max = 4
			ARTIFICIAL [3 pts			
Bldr Slabs, Boulde	centages of er, Cobble, Bedrock <u>20°</u> REDOMINATE SUBSTRA	(A) 9 TE TYPES:	TOTAL NUM	BER OF SUBSTRA	(B) ATE TYPES:	A + B
	pts]		oipes) (Check ONL > 5 cm - 10 cm [7 < 5 cm [5 pts]	Y one box):		Pool Dep Max = 30
COMMENTS			MAXIMUM	POOL DEPTH (ce	entimeters):	
> 4.0 meters (> 13') > 3.0 m - 4.0 m (> 10 m)		age of 3-4 measure	> 1.0 m - 1.5 m (>	eck <i>ONLY</i> one bo · 3' 3" - 4' 8") [15 pts 5 pts]		Bankful Width Max=30
COMMENTS	***************************************	<u></u>	AVERAGE	BANKFULL WIDT	H (meters)	
RIPARIA L R (Per Ba	nk) L	I QUALITY & Ni LOODPLAIN QUALIT R (Most Predo D Mature Fore I Mature Fore	minant per Bank)	nd Right (R) as loo	king downstream☆ Conservation Tillage Urban or Industrial	
☐ ☐ Narrow ☐ None COMMEN		Field Residential, Fenced Pas	Park, New Field ture		Open Pasture, Row Crop Mining or Construction	_
Stream Flow	flow with isolated pools (In		Moist Cha	annel, isolated pool nel, no water (Ephe	s, no flow (Intermittent emeral))
SINUOSIT None 0.5	Y (Number of bends per 61 1. 1.	0	(Check <i>ONLY</i> or 2.0 2.5	ne box):	3.0 >3	
STREAM GRADIE		Moderate (2 ft/100 ft)	☐ Moderat	e to Severe	Severe (10 ft/1	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Tyes No QHEI Score(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Long Ron Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Min Fon D NRCS Soil Map Page: 31 NRCS Soil Map Stream Order 10
County: Scioto Township / City: Minford
MISCELLANEOUS
Base Flow Conditions? (Y/N): N Date of last precipitation: 6/21/2011 Quantity: 0.98"
Photograph Information: SEE ESR
Elevated Turbidity? (Y/N): Canopy (% open):90%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) 18.69 Dissolved Oxygen (mg/l) 8.3 pH (S.U.) 7.46 Conductivity (μmhos/cm) 0, 72.5
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
No Salamales observed - Samped 20 minutes x 2 people.
Leeches, Agrafic Sour Bigs & Riple Beetles,
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
Include important failulatives and other readures of interest for site evaluation and a narrative description of the execution
FLOW Proyon Rible 1.c/m 1.c/m 1.c/m 1.c/m 1.c/m
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SITE NAME/LOCATION STREAM 2/	4		
SITE NUMBER_	RIVER BASIN	DRAINAGE AREA (mi²)	139
LENGTH OF STREAM REACH (ft)	LAT. 38,845 7 LONG. 82,8588 R	IVER CODE RIVER MILE	
DATE 6/21/2011 SCORER JASON EN	/		
NOTE: Complete All Items On This For	m -Refer to "Field Evaluation Manual fo	or Ohio's PHWH Streams" for Instruction	ons
STREAM CHANNEL NONE / NA MODIFICATIONS:	TURAL CHANNEL A RECOVERED A RE	COVERING TRECENT OR NO RECOVER	ŧΥ
SUBSTRATE (Estimate percent of ev.)	ery type of substrate present. Check ONLY tw	o predominant substrate TYPE boxes	
(Max of 32). Add total number of signific	cant substrate types found (Max of 8). Final meti	ric score is sum of boxes A & B.	IHEI etric
TYPE BLDR SLABS [16 pts]	PERCENT TYPE SILT [3 pt]		oints
BOULDER (>256 mm) [16 pts]	LEAF PACK/WOOD	Cul	bstrate
BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts]	☐ FINE DETRITUS [3 DISI	ax = 40
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ ☐ GRAVEL (2-64 mm) [9 pts]	20% 00	/	11
SAND (<2 mm) [6 pts]	ARTIFICIAL [3 pts]		6
Total of Percentages of	(A)	(B) A	+ B
Bldr Slabs, Boulder, Cobble, Bedrock _ SCORE OF TWO MOST PREDOMINATE SUBS	TOTAL NUMBER	BER OF SUBSTRATE TYPES:	
	d culverts or storm water pipes) (Check ONL		ol Dept $ax = 30$
> 30 centimeters [20 pts]	> 5 cm - 10 cm [1:		ix 00
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	☐ < 5 cm [5 pts] ☐ NO WATER OR M	MOIST CHANNEL [0 pts]	5
	P.	9	
COMMENTS	MAXIMUM	POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]			ankfull Vidth
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]			ax=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		0.8	5
COMMENTS	AVERAGE	BANKFULL WIDTH (meters)	
RIPARIAN ZONE AND FLOOD	This information <u>must</u> also be comple PLAIN QUALITY	ted nd Right (R) as looking downstream分	
RIPARIAN WIDTH	FLOODPLAIN QUÁLITY	a right (it) as issuing as metically	
L R (Per Bank) ☑ Wide >10m	L R (Most Predominant per Bank) Mature Forest, Wetland	L R Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old	☐ ☐ Conservation Tillage ☐ ☐ Urban or Industrial	
	Fleid	— — Open Besture Bow	
☐ ☐ Narrow <5m	Residential, Park, New Field	Crop	
☐ ☐ None COMMENTS	☐ ☐ Fenced Pasture	☐ ☐ Mining or Construction	
	(Charle ONI V h)		
Stream Flowing		nnel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated poor	ols (Interstitial)	el, no water (Ephemeral)	
SINUOSITY (Number of bends None	per 61 m (200 ft) of channel) (Check ONLY on 1.0 2.0	e box):	
0.5	1.5	□ >3	
STREAM GRADIENT ESTIMATE	_	_	
Flat (0.5 ft/100 ft) Flat to Moderate	☐ Moderate (2 ft/100 ft) ☐ Moderate	e to Severe (10 ft/100 ft)	

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? - Tyes No QHEI Score (If Yes, Attack	h Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED A	AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Minford NRCS Soil Map Pa	age: 3/ NRCS Soil Map Stream Order/°
County: Sciolo Township / City: HARR	ison TWP/ Minford
MISCELLANEOUS	
Base Flow Conditions? (Y/N):/ Date of last precipitation:6/21/201/	Quantity: O, 98"
Photograph Information: SEE ESR	
Elevated Turbidity? (Y/N): Canopy (% open):	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. an	d attach results) Lab Number:
Field Measures: Temp (°C) 22, 9 Dissolved Oxygen (mg/l) 7,57 pH (S.U.) 6	8/ Conductivity (µmhos/cm) _0, /67
Is the sampling reach representative of the stream (Y/N)/_ If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Prim	
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrate	_ Voucher? (Y/N) s Observed? (Y/N) // Voucher? (Y/N) //
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM R	EACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and	
Out FAll Channel Mented Morard Silt	m Pool Grand HA* gar

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SITE NAME/LOCATION STREAM 22-A		0.10
SITE NUMBERL	RIVER BASIN AT 38.8367 LONG 82.8548	DRAINAGE AREA (mi²) O. 18 m;
DATE 6/22/2011 SCORER J. EARley	COMMENTS Combined SINE	Ams 22 A : 22 8 because Same STREA
NOTE: Complete All Items On This Form -	Refer to "Field Evaluation Manua	I for Ohio's PHWH Streams" for Instructions
	RAL CHANNEL BRECOVERED B	RECOVERING TRECENT OR NO RECOVERY
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]	substrate types found (Max of 8). Final recent TYPE SILT [3 pt] LEAF PACK/WG FINE DETRITU: CLAY or HARD! MUCK [0 pts] ARTIFICIAL [3]	PERCENT DODY DEBRIS [3 pts] S [3 pts] PAN [0 pt] pts] Pts]
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTR	ATE TYPES: TOTAL NU	(B) A + B MBER OF SUBSTRATE TYPES:
2. Maximum Pool Depth (Measure the maxies evaluation. Avoid plunge pools from road of 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	ulverts or storm water pipes) (Check O 5 cm - 10 cm 5 cm [5 pts] NO WATER O	MLY one box): Max = 30
3. BANK FULL WIDTH (Measured as the average of the second	万 > 1.0 m − 1.5 m	Check <i>ONLY</i> one box): a (> 3' 3" - 4' 8") [15 pts] Bankfull Width Max=30
COMMENTS	AVERAC	
L R (Per Bank) Wide >10m	FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland) and Right (R) as looking downstream☆ L R Conservation Tillage
	Field	Open Resture Roy
	Residential, Park, New Field Fenced Pasture	Crop Mining or Construction
FLOW REGIME (At Time of Evaluate Stream Flowing Subsurface flow with isolated pools (COMMENTS	Moist C	Channel, isolated pools, no flow (Intermittent) annel, no water (Ephemeral)
SINUOSITY (Number of bends per 6 None 0.5	61 m (200 ft) of channel) (Check <i>ONLY</i> 1.0	one box): 3.0 >3
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	☐ Moderate (2 ft/100 ft) ☐ Mode	rate to Severe

ADDITIONAL STREAM INFORMATION (This Information Must Also be	Completed):
QHEI PERFORMED? - TYes No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: CWH Name: EWH Name:	Distance from Evaluated Stream
USGS Quadrangle Name: Minford NF	RCS Soil Map Page: 3/ NRCS Soil Map Stream Order / °
MISCELLANEOUS Base Flow Conditions? (Y/N): Photograph Information: SEE ESK	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
Elevated Turbidity? (Y/N): Canopy (% open): / Canopy (% open): (Note lab sar Field Measures: Temp (°C) 22.1 Dissolved Oxygen (mg/l) 8.02	
Is the sampling reach representative of the stream (Y/N) If not, plea	ase explain:
Additional comments/description of pollution impacts: Along SiDE Captured Stream Along road.	,
	lections optional. NOTE: all voucher samples must be labeled with the site eets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic M Comments Regarding Biology:	rved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Black nosed Date, YoY and Aduly	6 6 served in Stream
	and the second second second
DRAWING AND NARRATIVE DESCRIPTION OF Include important landmarks and other features of interest for sit	
BONDUSICIS WIGE TOURS CONSUL SIH	Wand Pan/Clar D. tel
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SITE NAME/LOCATION STREAM 22A-1	. (2 02
SITE NUMBER RIVER BASIN DRAINAGE ARE. LENGTH OF STREAM REACH (ft) 200 FT LAT. 38.83.79 LONG. 82.8560 RIVER CODE RIVE DATE 6/23/2011 SCORER J. Earley COMMENTS	R MILE
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams"	
STREAM CHANNEL	
MODIFICATIONS:	
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & ETYPE BLDR SLABS [16 pts] SILT [3 pt] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] SILT [3 pt] COBBLE (65-256 mm) [12 pts] SILT [3 pt] CLAY or HARDPAN [0 pt] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:	HHEI Metric Points Substrate Max = 40 // // // // // // // // // // // // //
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 30 centimeters [20 pts]	Max = 30 25
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check <i>ONLY</i> one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] COMMENTS AVERAGE BANKFULL WIDTH (meters)	Bankfull Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) CINCOLOR (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) CINCOLOR (L) and Right (R) as looking downstred in the completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstred (L) and Right (R) as looking downstred Note: Left (L) and Right (R) as looking downstred L R Most Channel, isolated pooking of the channel (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) COMMENTS	n Tillage ustrial re, Row enstruction
None	Vere (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Tyes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Little Sciolo River Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Minford NRCS Soil Map Page: 30/3/ NRCS Soil Map Stream Order / *
County: Scioto Township/City: HARRISON Two Minterd
MISCELLANEOUS
Base Flow Conditions? (Y/N): N Date of last precipitation: 6/2//2011 Quantity: 0, 98 ''
Photograph Information: SEE ESIC
Elevated Turbidity? (Y/N): Canopy (% open):
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) 19.2 Dissolved Oxygen (mg/l) 6.98 pH (S.U.) 6.80 Conductivity (µmhos/cm) 0.708
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts: Area being logged Arund Stream
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
FLOW Home Grand Gr
16cm Dry Grand CIAM Grand Times



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SITE NAME/LOCATION _	STREAM 23/K			
	SITE NUMBER	RIVER BASIN	DRAINAGE AREA (mi²) RIVER CODE RIVER MILE	0.047
NOTE: Complete All	tems On This Form - Refe	r to "Field Evaluation Manua	Il for Ohio's PHWH Streams" for In	structions
STREAM CHANNEL MODIFICATIONS:	NONE / NATURAL C	HANNEL RECOVERED	RECOVERING TRECENT OR NO R	ECOVERY
(Max of 32). Add to TYPE	PERCENT	rate types found (Max of 8). Final r TYPE SILT [3 pt] LEAF PACK/WG FINE DETRITU CLAY or HARD MUCK [0 pts]	PAN [0 pt]	HHEI Metric Points Substrate Max = 40
	<u> </u>	☐ ☐ ARTIFICIAL [3		
Total of Per Bldr Slabs, Boulde SCORE OF TWO MOST P	centages of rr, Cobble, Bedrock <u>30 %</u> REDOMINATE SUBSTRATE T	YPES: TOTAL NU	MBER OF SUBSTRATE TYPES:	A+B
	blunge pools from road culverts [0 pts] pts]	or storm water pipes) (Check C	1 [15 pts]	Pool Depti Max = 30
COMMENTS	,	MAXIML	JM POOL DEPTH (centimeters):	
> 4.0 meters (> 13') > 3.0 m - 4.0 m (>	[30 pts]	> 1.0 m - 1.5 m	Check <i>ONLY</i> one box): n (> 3' 3" - 4' 8") [15 pts] ") [5 pts]	Bankfull Width Max=30
COMMENTS	<u> </u>	AVERAG	GE BANKFULL WIDTH (meters)	20
	ZONE AND FLOODPLAIN QU N WIDTH FLOO	DDPLAIN QUALITY) and Right (R) as looking downstream☆	
Wide >	· — —	Mature Forest, Wetland	Conservation Tillage	е
☐ ☐ Modera	te 5-10m	Immature Forest, Shrub or Ok Field	d Urban or Industrial	
☐ ☐ Narrow	<5m	Residential, Park, New Field	Open Pasture, Row Crop	
☐ ☐ None COMMEN	rs	Fenced Pasture	Mining or Construct	ion
Stream Flo	flow with isolated pools (Inters	Moist 0	Channel, isolated pools, no flow (Intermitte annel, no water (Ephemeral)	ent)
SINUOSIT None 0.5	Y (Number of bends per 61 m (200 ft) of channel) (Check <i>ONL</i>) 2.0 2.5	✓ one box):	
STREAM GRADIE				

QHEI PERFORMED? - Tyes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Little Science from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: NRCS Soil Map Page: 3 / NRCS Soil Map Stream Order //
County: Saioto Township / City: HARRISON Twee Mixed
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: Quantity: Quantity:
Photograph Information: SEE ESR
Elevated Turbidity? (Y/N): Canopy (% open): 5/2
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C)/7,/3 Dissolved Oxygen (mg/l) 5.47 pH (S.U.) 5.98 Conductivity (μmhos/cm) 0,78
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
Comments Regarding Biology: NG SAlamanlus found 10 Caddisfly lara, not mayly or storefly
Comments Regarding Biology: No SAlamandus found 10 Caddisfly lara, not mayly or Storefly
Comments Regarding Biology: NG SAlamanlus found 10 Caddisfly lara, not mayly or storefly
Comments Regarding Biology: No SAlamandus found No Caddisfly lara, not mayly or Storefly I are va - Alguable Son bys & leaches found DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Comments Regarding Biology: No SAlamandes found 10 Caddisfly lara, not mayly or storefly larva - Alyvahe Sou bys i leaches found

r			*******
	0	1	
	3	6)
88	-/	-	

SITE NAME/LOCATION	STREAM	24-1				
			ASIN	DRAIN	AGE AREA (mi²) _O	03 mi
LENGTH OF STREAM R	REACH (ft) Zoo PT	LAT. 38.8306 LOI	NG. <u>82.8531</u> RIVE	R CODE	RIVER MILE	
			aluation Manual for O			ctions
			RECOVERED RECO			
STREAM CHANNEL MODIFICATIONS:	L) NONE / NAT	URAL CHANNEL LJ R	ECOVERED D RECO	VERING LIKE	CENT OR NO RECO	VERT
WODIFICATIONS.						
1. SUBSTRATE (E	Estimate percent of ever	y type of substrate pre-	sent. Check <i>ONLY</i> <u>two</u> pr	edominant subs	trate TYPE boxes	
(Max of 32). Add	d total number of significa	nt substrate types found	(Max of 8). Final metric so	core is sum of bo	oxes A & B.	HHEI Metric
TYPE BLDR SLAB	The state of the s	RCENT TYPE	SILT [3 pt]		PERCENT 5%	Points
BOULDER ((>256 mm) [16 pts]		LEAF PACK/WOODY D		15%	Cubatuat
□ □ BEDROCK	[16 pt]		FINE DETRITUS [3 pt	s]	2004	Substrate Max = 40
COBBLE (65	5-256 mm) [12 pts]/	15% 00 25% 00	MUICIX FO -4-1			,
SAND (<2 m		10%	ARTIFICIAL [3 pts]			16
					(B)	
Bldr Slabs, Boul	ercentages of der, Cobble, Bedrock	25% (A) 9	7 × 8		7	A + B
SCORE OF TWO MOST	PREDOMINATE SUBST	RATE TYPES:	TOTAL NUMBER	OF SUBSTRAT	E TYPES:	
2. Maximum Pool	Depth (Measure the ma	ximum pool depth with	nin the 61 meter (200 ft) e	evaluation reach	at the time of	Pool Dept
		culverts or storm water r	pipes) (Check ONLY or > 5 cm - 10 cm [15 pts	ne box):		Max = 30
> 30 centimeters > 22.5 - 30 cm [3			< 5 cm [5 pts]	s]		15
> 10 - 22.5 cm [2			NO WATER OR MOIS	ST CHANNEL [0	pts] 304	
COMMENTS			MAXIMUM POO	OL DEPTH (cent	imeters):	
3. BANK FULL WI	IDTH (Measured as the a	average of 3-4 measure	ments) (Check	ONLY one box)		Bankfull
> 4.0 meters (> 13	3') [30 pts]	<u> </u>	> 1.0 m - 1.5 m (> 3' 3'	" - 4' 8") [15 pts]		Width
	(> 9' 7" - 13') [25 pts] (> 9' 7" - 4' 8") [20 pts]	SE WAY TO	≤ 1.0 m (≤ 3' 3") [5 pts	i]		Max=30
					1,2	15
COMMENTS			AVERAGE BAN	NKFULL WIDTH	(meters)	
		This information	must also be completed			
RIPARIA	AN ZONE AND FLOODPI		OTE: River Left (L) and R	ight (R) as lookir	ng downstream☆	
L R (Per E	IAN WIDTH	FLOODPLAIN QUALI		I D		
	Bank)	L R (Most Predo	ominant per Bank)	L R	nservation Tillage	
Wide Wide	Bank) >10m	L R (Most Predo			nservation Tillage ban or Industrial	
₩ Wide Mode	Bank) >10m erate 5-10m	L R (Most Predo	ominant per Bank) est, Wetland orest, Shrub or Old	Or Or	ban or Industrial	
Wide Mode	Bank) >10m erate 5-10m ow <5m	L R (Most Predomental Mature Fore Immature Immature Fore Immature Immatu	ominant per Bank) est, Wetland orest, Shrub or Old , Park, New Field	Or Or	ban or Industrial ben Pasture, Row op	
Wide Mode Narro None	Bank) >10m erate 5-10m ow <5m	L R (Most Predo	ominant per Bank) est, Wetland orest, Shrub or Old , Park, New Field	Or Or	ban or Industrial ben Pasture, Row	
Wide Mode Narro None COMME	Bank) >10m erate 5-10m ow <5m ents	L R (Most Predoment of Mature Fore Immature Immature Fore Immature Fore Immature Immature Fore Immature Immat	ominant per Bank) est, Wetland orest, Shrub or Old , Park, New Field sture	Or Or	ban or Industrial ben Pasture, Row op	
Wide Mode Narro None COMME	Bank) >10m erate 5-10m ow <5m ents	L R (Most Predoment of Mature Fore Immature Immature Fore Immature Fore Immature Immature Fore Immature Immat	ominant per Bank) est, Wetland orest, Shrub or Old park, New Field sture	Co	ban or Industrial ben Pasture, Row op	
Wide Mode Narro None COMME Stream F Subsurfac	Bank) >10m erate 5-10m ow <5m ENTS	L R (Most Predo Mature Fore Immature Immature Fore Immature Immature Immature Fore Immature Immature Fore Immature Immature Fore Immature Immature Fore Immature Immature Fore Immature Fore Immature	ominant per Bank) est, Wetland orest, Shrub or Old Park, New Field sture ne box): Moist Channel	Co	ban or Industrial ben Pasture, Row op ning or Construction no flow (Intermittent)	
M Wide Mode Narro None COMME	Bank) >10m erate 5-10m ow <5m ENTS	L R (Most Predo Mature Fore Immature Immature Fore Immature Immature Immature Fore Immature Immature Fore Immature Immature Fore Immature Immature Fore Immature Immature Fore Immature Fore Immature	ominant per Bank) est, Wetland orest, Shrub or Old Park, New Field sture ne box): Moist Channel	Ur Op Or Or Mi	ban or Industrial ben Pasture, Row op ning or Construction no flow (Intermittent)	
Wide Mode Narro None COMME Stream F Subsurfar COMME	Bank) >10m erate 5-10m ow <5m ENTS	L R (Most Predo Mature Fore Immature Immature Fore Immature	ominant per Bank) est, Wetland orest, Shrub or Old Park, New Field sture Moist Channel Dry channel, n	Country Cr. Cr. Mi	ban or Industrial ben Pasture, Row op ning or Construction no flow (Intermittent) neral)	
Wide Mode Narro None COMME Stream F Subsurfar COMME	Bank) >10m erate 5-10m ow <5m ENTS	L R (Most Predo Mature Fore Immature Immature Fore Immature Immature Fore Immature Immature Fore Immature	ominant per Bank) est, Wetland orest, Shrub or Old Park, New Field sture Moist Channel Dry channel, n	Op Or	ban or Industrial ben Pasture, Row op ning or Construction no flow (Intermittent)	
Wide Mode Narro None COMME FLOW R Stream F Subsurfac COMME SINUOS None 0.5	Bank) >10m erate 5-10m ow <5m ENTS	L R (Most Predo	ominant per Bank) est, Wetland orest, Shrub or Old Park, New Field sture Moist Channel Dry channel, n	Op Or	ban or Industrial ben Pasture, Row op ning or Construction no flow (Intermittent) heral)	

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Tyes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Distance from Evaluated Stream O, 40 mile 11- CWH Name: Distance from Evaluated Stream
WAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: Minfield NRCS Soil Map Page: 30/31 NRCS Soil Map Stream Order 10 County: Scioto Township / City: Hanaison Tup / Minford
MISCELLANEOUS Base Flow Conditions? (Y/N): \(\) Date of last precipitation: \(\langle \langle 2\langle 7\langle 0\) Quantity: \(\langle 0\) \(\langle 2'' \) Photograph Information: \(\langle \infty \infty \infty \)
Elevated Turbidity? (Y/N): Canopy (% open):
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: to Shallow to Collect
Field Measures: Temp (°C) MA Dissolved Oxygen (mg/l) MA pH (S.U.) MA Conductivity (µmhos/cm) M/A
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
FLOW Shallow Borlowslabs 1095 0.90 1001 1.56 Solt Solt
God Sond Leak profe

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1	フン	- 1
<u>.</u>	***************************************	

SITE NAME/LOCATION STREAM	/8°Z	
SITE NUMBER	RIVER BASIN	DRAINAGE AREA (mi²) D. 054 mi
LENGTH OF STREAM REACH (ft) 200	lat. <u>38.85136</u> long. <u>82,91/20</u> f	RIVER CODE RIVER MILE
DATE 9/13/2011 SCORER JME	COMMENTS <u>@ Defour Al</u>	SR 139 & Estendate Rd.
NOTE: Complete All Items On This Form	n - Refer to "Field Evaluation Manual fo	or Ohio's PHWH Streams" for Instructions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	FURAL CHANNEL ☑ RECOVERED ☐ RE	ECOVERING
(Max of 32). Add total number of significations of the control of		Tric score is sum of boxes A & B. PERCENT DY DEBRIS [3 pts] [3 pts] N [0 pt] HHEI Metric Points Substrate Max = 40
2. Maximum Pool Depth (Measure the m.	aximum pool depth within the 61 meter (200	Oft) evaluation reach at the time of Pool Depth
	d culverts or storm water pipes) (Check <i>ONL</i> > 5 cm - 10 cm [1 < 5 cm [5 pts]	.Y one box): Max = 30
COMMENTS	MUMIXAM	POOL DEPTH (centimeters):
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS		1,2 15
RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH L R (Per Bank) Wide > 10m Moderate 5-10m Narrow < 5m None COMMENTS	This information must also be completed in the completed	L R Conservation Tillage ☐ I Urban or Industrial ☐ Open Pasture, Row Crop ☐ Mining or Construction
FLOW REGIME (At Time of Eval Stream Flowing Subsurface flow with isolated pool COMMENTS	Moist Cha	unnel, isolated pools, no flow (Intermittent) nel, no water (Ephemeral)
SINUOSITY (Number of bends por None 0.5	er 61 m (200 ft) of channel) (Check <i>ONLY</i> on 1.0 2.0 2.5	□ 3.0 >3
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	☐ Moderate (2 ft/100 ft) ☐ Moderate	e to Severe

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):		
QHEI PERFORMED? - Tyes M No QHEI Score(If Yes, Att	tach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name:ONG Row CWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOC	ATION
USGS Quadrangle Name: New Boston NRCS Soil Map	Page: 30 NRCS Soil Map Stream C	Order
County: Scioto Township / City: C	larkstown Off	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): \underline{Y} Date of last precipitation: $\underline{9/9/201/}$ Photograph Information: \underline{SEE} \underline{ESR}		
Elevated Turbidity? (Y/N):/ Canopy (% open):/ O %		
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) _	Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:		
Additional comments/description of pollution impacts:		License
BIOTIC EVALUATION		
Performed? (Y/N): (If Yes, Record all observations. Voucher collections option ID number. Include appropriate field data sheets from the P	Primary Headwater Habitat Assessment Manu	ual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrate Regarding Biology:		N) <u>//</u>
	113170	-
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	REACH (This must be complete	ed):
Include important landmarks and other features of interest for site evaluation of the standard	and a narrative description of the stream	
FLOW -		

ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3): 37

SITE NAME/LOCATION STREAM	1 /8-2-/	
SITE NUMBER	DIVED DAGIN DRAINAGE AREA (mi2)	01 mi2
LENGTH OF STREAM REACH (ft) 100 %	LAT. 38.85/59 LONG. 82.91/39 RIVER CODE RIVER MILE COMMENTS TRIB 10 18-2 & SR 139 & Glendale	
DATE 9/13/2011 SCORER JME	COMMENTS TRIB to 18-2 @ SR 139 & Glendale	Lef
NOTE: Complete All Items On This For	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL	TURAL CHANNEL ÆRECOVERED ☐ RECOVERING ☐ RECENT OR NO RECO	OVERY
(Max of 32). Add total number of signific	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes cant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt]	HHEI Metric Points Substrate Max = 40
GRAVEL (2-64 mm) [9 pts]	/O	
SAND (<2 mm) [6 pts]	ARTIFICIAL [3 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS		A + B
	maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of ad culverts or storm water pipes) (Check ONLY one box): One continue of the time of the cultivariant of	Pool Depth Max = 30
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 3.0 m - 4.0 m (> 9'7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9'7" - 4'8") [20 pts]) ∠J ≤ 1.0 m (≤ 3' 3") [5 pts]	Max=30
_	AVERAGE BANKFULL WIDTH (meters)	Max=30
OMMENTS RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream & FLOODPLAIN QUALITY	Max=30
OMMENTS	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY 公NOTE: River Left (L) and Right (R) as looking downstream公	Max=30
OMMENTS RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH L R (Per Bank)	This information must also be completed PLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	Max=30
OMMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank) Wide > 10 pts]	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream for the following downstream for the followi	Max=30
OMMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m	This information must also be completed PLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream from the following stream from the	Max=30
COMMENTS RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Open Pasture, Row Crop Residential, Park, New Field Crop Mining or Construction aluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	5
COMMENTS RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Ever Stream Flowing Subsurface flow with isolated poor COMMENTS	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Open Pasture, Row Crop Residential, Park, New Field Crop Mining or Construction aluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	5

QHEI PERFORMED? - Yes No QHEI Score	
Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: NRCS Soil Map Page: 30 NRCS Soil Map Stream Order Not More County: Scioto Township / City: Clarkfown MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: 9/9/201/ Quantity: 0,14 in	
USGS Quadrangle Name: New Boston NRCS Soil Map Page: 30 NRCS Soil Map Stream Order Not More County: Scioto Township / City: C/a-ktown MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 9/9/201/ Quantity: 0,14 m	
County: Scioto Township / City: C/a-ktown MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 9/9/201/ Quantity: 0,14 m	
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 9/9/201/ Quantity: 0,14 in	
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 9/9/201/ Quantity: 0,14 in	
Base Flow Conditions? (Y/N): Y Date of last precipitation: 9/9/201/ Quantity: 0,14 in	
Elevated Turbidity? (Y/N): Canopy (% open): SO	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
is the sampling reach representative of the stream (Y/N) / If not, please explain.	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)	
Fish Observed? (Y/N) // Voucher? (Y/N) // Salamanders Observed? (Y/N) // Voucher? (Y/N) // Voucher? (Y/N) // Voucher? (Y/N) // Aquatic Macroinvertebrates Observed? (Y/N) // Voucher? (Y/N) // V	
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location	
S. It	
FLOW - SILT DIGHT GRAVEL IN DIGHT COMMENTED TO SEE	
0,31	



Site: Wetlan	d l	Rater(s): Rick Paul		Date: 6/2/2011
	letric 1. Wetland A	rea (size).		
max 6 pts. subtotal Se	ele <u>ct on</u> e size class and assign sco	re		
. 00	>50 acres (>20.2ha) (6 pts)		
	25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1			
	3 to <10 acres (1.2 to <4ha) (3 pts)		
	0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to <			
	<0.1 acres (0.04ha) (0 pts)			
11 12		ffers and surround		
max 14 pts. subtotal 2a		Select only one and assign score. If m (164ft) or more around wetland per		
(1)	MEDIUM. Buffers average	25m to <50m (82 to <164ft) around	wetland perimeter (4)	
		e 10m to <25m (32ft to <82ft) arour average <10m (<32ft) around wetlar		
2b.	 Intensity of surrounding land use. 	 Select one or double check and a 	verage.	
		r older forest, prairie, savannah, wild , shrub land, young second growth		
(1)	/ X MODERATELY HIGH. Res	sidential, fenced pasture, park, cons	servation tillage, new fallo	w field. (3)
M		pen pasture, row cropping, mining, c	construction. (1)	
7.5 19.5 N	letric 3. Hydrology	• ***		
max 30 pts. subtotal 3a.	Sources of Water. Score all that	apply. 3h	Connectivity. Score all t	hat annly
	High pH groundwater (5)		100 year floodplai	n (1)
0	Other groundwater (3) Yerecipitation (1)		Between stream/la	ake and other human use (1) land (e.g. forest), complex (1)
	Seasonal/Intermittent surface		Part of riparian or	upland corridor (1)
3c.	Perennial surface water (lal Maximum water depth. Select on	(e or stream) (5) 3d.		ration. Score one or dbl check. ntly inundated/saturated (4)
(1)	>0.7 (27.6in) (3)	((()	Regularly inundate	ed/saturated (3)
	0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	(2)	X Seasonally inunda	ated (2) ted in upper 30cm (12in) (1)
3e.	Modifications to natural hydrologic	c regime. Score one or double ched	ck and average.	
	None or none apparent (12) Recovered (7)	Check all disturbances observed X ditch	noint source (none	sta was usata u)
(3)	Recovering (3)	tile	point source (nons filling/grading	
	Recent or no recovery (1)	dike	road bed/RR track	
		stormwater input	dredging other	7
C Guld M	letric 4 Habitat Δlt	teration and Develo	nment	
5 24.5 M	ictio 4. Habitat Ali	cration and bever	pinent.	
max 20 pts. subtotal 4a.	Substrate disturbance. Score one	or double check and average.		
	None or none apparent (4) Recovered (3)			
3	X Recovering (2)			
4b.	Recent or no recovery (1) Habitat development. Select only	one and assign score.		
	Excellent (7)			
	Very good (6) Good (5)			
(1)	Moderately good (4)			
	Fair (3) Poor to fair (2)			
4-	Poor (1)			
4c.	Habitat alteration. Score one or d			
(2)	None or none apparent (9) Recovered (6)	Check all disturbances observed mowing	shrub/sapling remo	oval
	Recovering (3) Recent or no recovery (1)	grazing	herbaceous/aquati	
	LA Recent of no recovery (1)	clearcutting selective cutting	sedimentation dredging	
24.5		woody debris removal	farming	
subtotal this page		toxic pollutants	nutrient enrichmen	l
last revised 1 February 20	001 jjm			

Site:	Wetla	nd	/ Ra	nter(s): Ride	PAUL	Date: 6/ 2/2011
	24,5 subtotal first pa	ge	twice 5 Special West	landa		
0	24.5	ivie	tric 5. Special Wet	iaiius.		
max 10 pts.	subtotal		all that apply and score as indicat Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wet Lake Erie coastal/tributary wet Lake Plain Sand Prairies (Oak Relict Wet Prairies (10) Known occurrence state/feders Significant migratory songbird/ Category 1 Wetland. See Que	land-unrestricted hydrolo land-restricted hydrolo Openings) (10) al threatened or endar water fowl habitat or u estion 1 Qualitative Ra	nggy (5) Ingered species (10) Isage (10) Iting (-10)	anography.
-1	23.5	IVIE	tric 6. Plant comm		erspersion, microto	opograpny.
max 20 pts.	subtotal	6a. W	etland Vegetation Communities.	Vegetation C	Community Cover Scale	
		Score	all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	
			Aquatic bed	1	Present and either comprises sm	
		(Emergent		vegetation and is of moderate of	quality, or comprises a
			Shrub		significant part but is of low qua	
		1	Forest	2	Present and either comprises sig	nificant part of wetland's
			Mudflats		vegetation and is of moderate of	quality or comprises a small
			Open water		part and is of high quality	
		100	Other	3	Present and comprises significan	nt part, or more, of wetland's
		Ch h	prizontal (plan view) Interspersion.	J	vegetation and is of high quality	
					vegetation and is of might quality	,
		Select	only one.	Newstive De	scription of Vegetation Quality	
		-	High (5)		Low spp diversity and/or predom	inance of nonnative or
		-	Moderately high(4)	low		
		_	Moderate (3)		disturbance tolerant native spe	
		10	Moderately low (2)	mod	Native spp are dominant compon	
		(0)	Low (1)		although nonnative and/or distu	
		U.	None (0)		can also be present, and specie	
			overage of invasive plants. Refer		moderately high, but generally	w/o presence or rare
		to Tab	le 1 ORAM long form for list. Add		threatened or endangered spp	
		or ded	uct points for coverage	high	A predominance of native specie	
			Extensive >75% cover (-5)		and/or disturbance tolerant nat	
			Moderate 25-75% cover (-3)		absent, and high spp diversity	and often, but not always,
	-	\setminus \Box	Sparse 5-25% cover (-1)		the presence of rare, threatene	ed, or endangered spp
	(/	1) [Nearly absent <5% cover (0)			
		/ [Absent (1)	Mudflat and	Open Water Class Quality	<u> </u>
		6d. M	icrotopography.	0	Absent <0.1ha (0.247 acres)	
		Score	all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	cres)
			Vegetated hummucks/tussuck	s 2	Moderate 1 to <4ha (2.47 to 9.8)	8 acres)
	,	$\overline{}$	O Coarse woody debris >15cm (High 4ha (9.88 acres) or more	
	(0)	O Standing dead >25cm (10in) of	,		
		F	Amphibian breeding pools		aphy Cover Scale	
		L	U. Antimolari Stocking pools	0	Absent	
				1	Present very small amounts or if	more common
					of marginal quality	-
				2	Present in moderate amounts, but	ut not of highest
				۷	quality or in small amounts of h	
				3	Present in moderate or greater a	
	-			3		miounts
_	-				and of highest quality	

Site:	Wetland	1 2/3		Rater(s): J. EAR	ley / R. PAUL	Date: 6/2	2/2011
2	2	Metric 1.	Wetland A				
max 6 pts.	subtotal	>50 a 25 to 10 to 3 to < 0.3 to 0.1 to	class and assign score (>20.2ha) (6 pts) <50 acres (10.1 to <20 <25 acres (4 to <10.1 to acres (1.2 to <4ha) <3 acres (0.12 to <1.2 <0.3 acres (0.04 to <0.3 acres (0.04 to <0.2 acres (0.04 to <0.4 cacres (0.04 to <0.4 cacres (0.04 to) <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.	0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts)			
1	13	Metric 2.	Upland bu	ffers and surro	ounding lan	d use.	
max 14 pts.	subtotal	WIDE MEDI NARF VERY 2b. Intensity of VERY LOW. MODI	Buffers average 50n UM. Buffers average ROW. Buffers average 'NARROW. Buffers a surrounding land use. 'LOW. 2nd growth or Old field (>10 years), ERATELY HIGH. Res	elect only one and assign in (164ft) or more around wo 25m to <50m (82 to <164ft 10m to <25m (32ft to <82 verage <10m (<32ft) arour Select one or double che older forest, prairie, savan shrub land, young second idential, fenced pasture, paen pasture, row cropping, r	etland perimeter (7) around wetland perintf) around wetland perintf) around wetland perintf) around wetland perintf) d wetland perimeter (bk and average. hah, wildlife area, etc growth forest. (5) rk, conservation tillag	meter (4) rimeter (1) (0) (7) (7) (e, new fallow field. (3)	
9.5	22.5	Metric 3.	Hydrology	• 525 * 2			
max 30 pts.	subtotal	High Other Precip Season Season Maximum w >0.7 (0.4 to <0.4 to	27.6in) (3) 0.7m (15.7 to 27.6in) 1 (<15.7in) (1)	e water (3) e or stream) (5) y one and assign score.	3d. Duration inu Semi- Regul Seasc Seasc	Score all that apply. ear floodplain (1) een stream/lake and other hun f wetland/upland (e.g. forest), f riparian or upland corridor (1 ndation/saturation. Score one to permanently inundated/sat arly inundated/saturated (3) enally inundated (2) enally saturated in upper 30cm ge.	complex (1)) or dbl check. urated (4)
	(5)	Recovered Recove	or none apparent (12) vered (7) vering (3) nt or no recovery (1)	Check all disturbances o ditch tile dike weir stormwater input	point s	source (nonstormwater) grading ped/RR track ing	
8	20.5	Metric 4	. Habitat Alt	eration and De	evelopment		4
max 20 pts.	subtotal (2:	None Recover Received Ab. Habitat dev	or none apparent (4) vered (3) vering (2) nt or no recovery (1)	or double check and aver	age.		
	0	Good Mode Fair (3 Poor 1 Poor 4 Ac. Habitat alte	(5) rately good (4) 3) o fair (2) 1) ration. Score one or d or none apparent (9)	ouble check and average. Check all disturbances o]
s	30.5 subtotal this pa	Recei	vered (6) vering (3) nt or no recovery (1)	mowing grazing clearcutting selective cutting woody debris remo toxic pollutants	herba sedim dredg val farmir		

Site:	Wetland	1 2/3	Rater	(s): J. EAN	elen / R. Parl	Date: 6/2/20	11
s	30.5 subtotal first page	· -					
0	30.5 N	letric 5. Special	Wetlan	ds.			
max 10 pts.	subtotal Ch	eck all that apply and score a	s indicated.				
		Bog (10) Fen (10)					
		Old growth forest (10)	- J (C)				
		Mature forested wetlar Lake Erie coastal/tribu		nrestricted hyd	rology (10)		
		Lake Erie coastal/tribu	tary wetland-re	estricted hydrol			
		Lake Plain Sand Prairi		ings) (10)			
		Relict Wet Prairies (10 Known occurrence sta		atened or enda	ngered species (10)		
		Significant migratory s	-				
		Category 1 Wetland.					
1	51.0				erspersion, microt	opograpny.	
max 20 pts.		 Wetland Vegetation Commu ore all present using 0 to 3 sca 			Community Cover Scale	2471 paras) contiguous aras	_
	30	Aquatic bed	ale.	0 1	Absent or comprises <0.1ha (0.2 Present and either comprises sn		_
		Emergent			vegetation and is of moderate		
	(i)	Shrub			significant part but is of low qu		_
		Forest		2	Present and either comprises sig		
		Mudflats Open water			vegetation and is of moderate part and is of high quality	quality or comprises a small	
		Other		3	Present and comprises significant	nt part, or more, of wetland's	_
	6b.	horizontal (plan view) Intersp	persion.		vegetation and is of high qualit		_
	Se	lect only one.					
		High (5) Moderately high(4)		Narrative De	escription of Vegetation Quality Low spp diversity and/or predom	pinance of nonnative or	_
	2	Moderate (3)		IOW	disturbance tolerant native spe		
	(6)	Moderately low (2)		mod	Native spp are dominant compor		_
		Low (1)			although nonnative and/or dist		
	•	None (0)	Defe		can also be present, and speci		
		Coverage of invasive plants. Table 1 ORAM long form for li			moderately high, but generally threatened or endangered spp	-	
		deduct points for coverage		high	A predominance of native specie		_
		Extensive >75% cover	(-5)		and/or disturbance tolerant nat		
		Moderate 25-75% cov			absent, and high spp diversity		
	(-V	Sparse 5-25% cover (-Nearly absent <5% co			the presence of rare, threatene	a, or endangered spp	_
		Absent (1)	ver (o)	Mudflat and	Open Water Class Quality		
	6d.	. Microtopography.		0	Absent <0.1ha (0.247 acres)		
	Sc	ore all present using 0 to 3 sca		1	Low 0.1 to <1ha (0.247 to 2.47 a		
		Vegetated hummucks/ Coarse woody debris >		2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)	
	0	Standing dead >25cm	, ,	3	High 4ha (9.88 acres) or more		
		Amphibian breeding po	, ,	Microtopogi	raphy Cover Scale		
				0	Absent		
				1	Present very small amounts or if of marginal quality	1	
				2	Present in moderate amounts, be quality or in small amounts of h		
				3	Present in moderate or greater a		
21 6	7				and of highest quality		

Site:	Wetland	4	Rater(s): Jason Earl	cy	Date: 6/14/2011
0	o M	etric 1. Wetland A			
max 6 pts.	subtotal Seli	ect one size class and assign scor >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
1)	M	etric 2. Upland bu	ffers and surround	ding land use.	
max 14 pts.	9	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a Intensity of surrounding land use VERY LOW. 2nd growth or X LOW. Old field (>10 years) MODERATELY HIGH. Res	m (164ft) or more around wetland 25m to <50m (82 to <164ft) arour e 10m to <25m (32ft to <82ft) arour average <10m (<32ft) around wetl	perimeter (7) nd wetland perimeter (4) und wetland perimeter (1) and perimeter (0) I average. vildlife area, etc. (7) h forest. (5) nservation tillage, new fallo	ow field. (3)
9,5	20.5 M	etric 3. Hydrology			
max 30 pts.	subtotal 3a.	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfac Perennial surface water (lak Maximum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) Modifications to natural hydrologic	ce water (3) ke or stream) (5) ly one and assign score.	Part of wetland/u Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat Seasonally satura	nin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
	(5)	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observe X ditch	point source (non filling/grading road bed/RR trac dredging other	
8	28.5 M	etric 4. Habitat Alı	teration and Devel	opment.	
max 20 pts.	subtotal 4a.	Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6)			
	(1) 4c.	Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or compared to the second sec	louble check and average.		
	28,5 shotal this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal

Site:	Wetland 4	Rater	(s): J En	1 Rlen	Date: 6/14/101/
			1951	/	
	28.5 subtotal first page	otrio E. Special Wetler	, do		
0	28.5 IVI	etric 5. Special Wetlar	ias.		
max 10 pts	. subtotal Che	eck all that apply and score as indicated.			
		Bog (10) Fen (10)			
		Old growth forest (10)			
		Mature forested wetland (5)			
		Lake Erie coastal/tributary wetland-	and the same of th		
		Lake Erie coastal/tributary wetland-i		logy (5)	
		Relict Wet Prairies (10)	migo/ (10)		
		Known occurrence state/federal three			
		Significant migratory songbird/water			
		Category 1 Wetland. See Question			•
7	30.5 M	etric 6. Plant commun	ities, int	erspersion, microt	opography.
-			- West 100		
max 20 pts		Wetland Vegetation Communities. re all present using 0 to 3 scale.	Vegetation 0	Community Cover Scale Absent or comprises < 0.1ha (0.2)	2471 acres) contiguous area
	300	Aquatic bed	1	Present and either comprises sr	
		O Emergent		vegetation and is of moderate	
	(2)	Shrub		significant part but is of low qu	
		Forest	2	Present and either comprises sign	•
		Mudflats Open water		vegetation and is of moderate part and is of high quality	quality of comprises a small
		Other	3	Present and comprises significa	nt part, or more, of wetland's
	6b.	horizontal (plan view) Interspersion.		vegetation and is of high quali	
	Sele	ect only one.	N D	and the second s	
		High (5) Moderately high(4)	low	escription of Vegetation Quality Low spp diversity and/or predon	ninance of nonnative or
		Moderate (3)	1011	disturbance tolerant native spe	
	(0)	Moderately low (2)	mod	Native spp are dominant compo	nent of the vegetation,
		Low (1)		although nonnative and/or dist	
	60	None (0) Coverage of invasive plants. Refer		can also be present, and spec moderately high, but generally	•
		able 1 ORAM long form for list. Add		threatened or endangered spp	
		educt points for coverage	high	A predominance of native specie	
		Extensive >75% cover (-5)		and/or disturbance tolerant na	
	_	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity the presence of rare, threaten	
		Nearly absent <5% cover (0)		the presence of fare, threaten	eu, or endangered spp
	0	Absent (1)	Mudflat and	l Open Water Class Quality	
		Microtopography.	0	Absent <0.1ha (0.247 acres)	
	Sco	re all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	
		X Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	2	Moderate 1 to <4ha (2.47 to 9.8 High 4ha (9.88 acres) or more	oo acres)
	0	Standing dead >25cm (10in) dbh		Thigh the (clos dolos) of the c	-
		Amphibian breeding pools	Microtopog	raphy Cover Scale	
			0	Absent	f mara samman
			1	Present very small amounts or it of marginal quality	more common
			2	Present in moderate amounts, b	out not of highest
				quality or in small amounts of	highest quality
	_		3	Present in moderate or greater a	amounts
006	-		250 1. 2	and of highest quality	·

Site: W8 W6	Rater(s): J. EAR	ky D	Date: 6/14/2011
Metric 1. We	tland Area (size).		,
max 6 pts. subtotal Select one size class and >50 acres (>20 25 to <50 acres 10 to <25 acres 3 to <10 acres	d assign score. 0.2ha) (6 pts) s (10.1 to <20.2ha) (5 pts) s (4 to <10.1ha) (4 pts) (1.2 to <4ha) (3 pts)		
0.1 to <0.3 acr <0.1 acres (0.0			
Metric 2. Upl	and buffers and surrou	nding land use.	
* WIDE. Buffers MEDIUM. Buf NARROW. Bu VERY NARRO 2b. Intensity of surround VERY LOW. 2 LOW. Old field MODERATELY HIGH. Urban,	uffer width. Select only one and assign social average 50m (164ft) or more around wetlaters average 25m to <50m (82 to <164ft) ar ffers average 10m to <25m (32ft to <82ft) W. Buffers average 10m (<32ft) around ving land use. Select one or double check and growth or older forest, prairie, savannal to (>10 years), shrub land, young second growth or High. Residential, fenced pasture, park, industrial, open pasture, row cropping, min	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) vetland perimeter (0) and average. n, wildlife area, etc. (7) bowth forest. (5) conservation tillage, new fallow	field. (3)
9.5 21.5 Metric 3. Hyd	rology.		
Perennial surfa	dwater (5) ater (3)) mittent surface water (3) ice water (lake or stream) (5) ih. Select only one and assign score.	Part of wetland/upla Part of riparian or up 3d. Duration inundation/satura	(1) e and other human use (1) nd (e.g. forest), complex (1) pland corridor (1) tion. Score one or dbl check. ly inundated/saturated (4)
①	7.7 to 27.6in) (2)	Seasonally inundate Seasonally saturated	
None or none at Recovered (7) Recovering (3) Recent or no re	ditch tile	point source (nonsto	ormwater)
8 29.5 Metric 4. Hat	oitat Alteration and Dev	elopment.	
None or none at Recovered (3) Recovering (2) Recent or no re	ecovery (1) . Select only one and assign score.	i.	
Fair (3) Poor to fair (2) Poor (1)			
None or none at Recovered (6) Recovering (3) Recent or no recovering (3)	mowing grazing	shrub/sapling remov herbaceous/aquatic sedimentation dredging	
subtotal this page last revised 1 February 2001 jjm			

Site:	W8WL6	Rater(s): J. EA	Rley	Date: 6/14/20
SI O	295 btotal first page 29,5 Metric 5. Special W			
max 10 pts.	subtotal Check all that apply and score as inc	licated.		
	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (! Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	wetland-unrestricted hydrological wetland-restricted hydrological (10) (10) (10) (10) (10) (10) (10) (10)	ngered species (10) usage (10)	
3	32.5 Metric 6. Plant com	nmunities, inte	erspersion, microto	pography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities	es. Vegetation C	Community Cover Scale	11452
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	
	Aquatic bed	1	Present and either comprises sma	
	/ Emergent		vegetation and is of moderate q	
	Shrub		significant part but is of low qua	
	Forest	2	Present and either comprises sign	
	Mudflats		vegetation and is of moderate q	uality or comprises a small
	Open water		part and is of high quality	
	Other	3	Present and comprises significant	part, or more, of wetland's
	6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	
	Select only one.			
	High (5)	Narrative De	scription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomin	nance of nonnative or
	Moderate (3)		disturbance tolerant native spec	ies
	Moderately low (2)	mod	Native spp are dominant compone	ent of the vegetation,
	() Low (1)		although nonnative and/or distu	
			can also be present, and specie	s diversity moderate to
	6c. Coverage of invasive plants. Re	fer	moderately high, but generally v	v/o presence of rare
	to Table 1 ORAM long form for list.	Add	threatened or endangered spp	
	or deduct points for coverage	high	A predominance of native species	, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant nativ	e spp absent or virtually
	Moderate 25-75% cover (-	3)	absent, and high spp diversity a	nd often, but not always,
	Craves F 0F0/ sever/ 4)		the presence of rare, threatened	d, or endangered spp
	Nearly absent <5% cover	(0)		
	Absent (1)	Mudflat and	Open Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ac	res)
	(i) Vegetated hummucks/tuss	sucks 2	Moderate 1 to <4ha (2.47 to 9.88	acres)
	Coarse woody debris >15c	cm (6in) 3	High 4ha (9.88 acres) or more	
	Standing dead >25cm (10i	n) dbh	-	. EX
	Amphibian breeding pools	Microtopogr	aphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if r	nore common
			of marginal quality	
		2	Present in moderate amounts, bu	t not of highest
			quality or in small amounts of hi	ghest quality
		3	Present in moderate or greater an	nounts
00 /	}		and of highest quality	

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Site: Wetland W	8WL8	Rater(s): Jason Earle	7	Date: 6/14/201/
O O Met	tric 1. Wetland A	rea (size).		
max 6 pts. subtotal Select	one size class and assign score	a.		
	>50 acres (>20.2ha) (6 pts)			
-	25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1)			
	3 to <10 acres (1.2 to <4ha)			
-	0.3 to <3 acres (0.12 to <1.2 to <1.2 to <0.3 acres (0.04 to)) acres (0.04 to <0.3 acres (0.04 to)) acres (0.04 to)) acres			
	<0.1 acres (0.04ha) (0 pts)	. izlia) (i pt)		
12 14		ffers and surroundi	. T	
max 14 pts. subtotal 2a. Ca	alculate average buffer width. S	elect only one and assign score. Do n (164ft) or more around wetland pe	o not double check.	
0	MEDIUM. Buffers average NARROW. Buffers average	25m to <50m (82 to <164ft) around to 10m to <25m (32ft to <82ft) around to <25m (32ft to <82ft) around to <35m (32ft) around to 10m (48ft) around to 10m (48	wetland perimeter (4) d wetland perimeter (1)	
2b. <u>In</u>	tensity of surrounding land use.	Select one or double check and av	rerage.	
(5)	X LOW. Old field (>10 years) MODERATELY HIGH. Res	older forest, prairie, savannah, wildi shrub land, young second growth fo idential, fenced pasture, park, conse en pasture, row cropping, mining, co	orest. (5) ervation tillage, new fallo	ow field. (3)
14.5 16.5 Met	tric 3. Hydrology			
max 30 pts. subtotal 3a. So	ources of Water. Score all that	apply. 3b.	Connectivity. Score all	
	High pH groundwater (5) Other groundwater (3)	*	100 year floodpla	in (1) lake and other human use (1)
(4)	Precipitation (1)		Part of wetland/u	pland (e.g. forest), complex (1)
	X Seasonal/Intermittent surface Perennial surface water (lake)			r upland corridor (1) uration. Score one or dbl check.
3c. M	aximum water depth. Select on			ently inundated/saturated (4)
	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	(2)	Regularly inunda X Seasonally inund	
	<0.4m (<15.7in) (1)		Seasonally satura	ated in upper 30cm (12in) (1)
3e. M	and the second s	regime. Score one or double chec	k and average.	
(1)	None or none apparent (12) Recovered (7)	Check all disturbances observed	point source (nor	istormwater)
	Recovering (3)	tile	filling/grading	
	Recent or no recovery (1)	dike	road bed/RR trac	:k
		stormwater input	other	
11 27.5 Met	tric 4. Habitat Ali	eration and Develo	pment.	
max 20 pts. subtotal 4a. Si	ubstrate disturbance. Score one	or double check and average.		
	None or none apparent (4) X Recovered (3)			
(3)	Recovering (2)			
41	Recent or no recovery (1)			
46. H	abitat development. Select only Excellent (7)	one and assign score.		
	Very good (6)			
(3)	Good (5) Moderately good (4)			
(4)	Fair (3)			
	Poor to fair (2) Poor (1)			
4c. H	abitat alteration. Score one or o	ouble check and average.		
	None or none apparent (9)	Check all disturbances observed		
(6) P	X Recovered (6) Recovering (3)	x mowing grazing	shrub/sapling rer herbaceous/aqua	
	Recent or no recovery (1)	clearcutting	sedimentation	
275		selective cutting woody debris removal	dredging Karming	
61.0		toxic pollutants	nutrient enrichme	ent
subtotal this page last revised 1 February 2001	Liim			
IOTIOGA I I ODIUAIY 2001	n			

Site:	Wetland	W8WL8	Rater(s): T.E.	Areley	Date: 6/14/2011
	27.5 subtotal first page	etric 5. Special	Wetlands		
0	27.5	ouro or opoolar	Wollands.		
máx 10 pts.	subtotal Che	Lake Erie coastal/tributa Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state Significant migratory sor	l (5) rry wetland-unrestricted h rry wetland-restricted hyd	rology (5) dangered species (10) or usage (10)	
l	285 M	etric 6. Plant co			rotopography.
max 20 pts.	subtotal 6a.	Wetland Vegetation Communi	ties. Vegetatio	n Community Cover Scale	
	Sco	Aquatic bed Emergent Shrub	e. <u>0</u> 1	Present and either compris	erate quality, or comprises a
	0	Forest Mudflats Open water	2	Present and either compris	ses significant part of wetland's erate quality or comprises a small
		Other_ horizontal (plan view) Interspe	ersion.	the state of the s	nificant part, or more, of wetland's
	Seid	ect only one. High (5)	Narrative	Description of Vegetation Qu	ality
	(2)	Moderately high(4) Moderate (3)	low	Low spp diversity and/or pr disturbance tolerant nativ	redominance of nonnative or ve species
		Moderately low (2) Low (1) None (0) Coverage of invasive plants. If		although nonnative and/o	omponent of the vegetation, or disturbance tolerant native spp species diversity moderate to erally w/o presence of rare d spp
		educt points for coverage Extensive >75% cover (- Moderate 25-75% cover Sparse 5-25% cover (-1)	high (-5) (-3)	A predominance of native s and/or disturbance tolera absent, and high spp dive	species, with nonnative spp nt native spp absent or virtually ersity and often, but not always, eatened, or endangered spp
		Nearly absent <5% cove		-1 O W-1 O O	
	64	Absent (1) Microtopography.	Muditat a	Absent <0.1ha (0.247 acre	oe)
		re all present using 0 to 3 scale	The state of the s	Low 0.1 to <1ha (0.247 to 2	
		Vegetated hummucks/tu	ssucks 2	Moderate 1 to <4ha (2.47	to 9.88 acres)
	0	Coarse woody debris >1 Standing dead >25cm (1	0in) dbh	High 4ha (9.88 acres) or m	ore
		Amphibian breeding poo	0 Microtope	Absent	/////////////////////////////////////
			1	Present very small amount of marginal quality	
			2	Present in moderate amoun quality or in small amoun	ts of highest quality
. /	7		3	Present in moderate or gre and of highest quality	ater amounts

Site: Wetland	5/WBWL7	Rater(s): J. EARL	ey	Date: 6/14/2011
	etric 1. Wetland A			
max 6 pts. subtotal Se	lect one size class and assign sco) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) :0.12ha) (1 pt)		
11 12 M	etric 2. Upland bu	ıffers and surrou	unding land use) .
2b.	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth o X LOW. Old field (>10 years MODERATELY HIGH. Re HIGH. Urban, industrial, o	m (164ft) or more around wetle 25m to <50m (82 to <164ft) at e 10m to <25m (32ft to <82ft) average <10m (<32ft) around Select one or double checker older forest, prairie, savanna), shrub land, young second grisidential, fenced pasture, park pen pasture, row cropping, mir	and perimeter (7) Iround wetland perimeter (4) I around wetland perimeter (1) wetland perimeter (0) and average. Ih, wildlife area, etc. (7) Irowth forest. (5) In, conservation tillage, new fa	,
17 29 M	etric 3. Hydrology	/.	* .	
(b) 3c. (2)	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfa X Perennial surface water (la Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) Modifications to natural hydrolog	ce water (3) ke or stream) (5) nly one and assign score.	Part of wetland, Part of riparian 3d. Duration inundation/si Semi- to perma Regularly inund Seasonally inur Seasonally satu	plain (1) n/lake and other human use (1) /upland (e.g. forest), complex (1) or upland corridor (1) aturation. Score one or dbl check. nently inundated/saturated (4) lated/saturated (3)
(5)	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)			
10.5 39.5 M	letric 4. Habitat Al	teration and Dev	/elopment.	
(2.5)	Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)		e.	
4c.	Poor (1) Habitat alteration. Score one or o			
Subtotal this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances obsimowing grazing clearcutting selective cutting woody debris remova toxic pollutants	shrub/sapling reherbaceous/aquesedimentation dredging	uatic bed removal

Site: Wetland 5 / WB WL7 Rater	s): J. FA	aley Date: 6/14/2011
39,5 subtotal first page		
Metric 5. Special Wetland	ds.	*
max 10 pts. subtotal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water in Category 1 Wetland. See Question	estricted hydrologings) (10) atened or endar fowl habitat or u	ngered species (10) usage (10)
		erspersion, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation 0	Community Cover Scale
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed	1	Present and either comprises small part of wetland's
Emergent Shrub		vegetation and is of moderate quality, or comprises a significant part but is of low quality
Forest	2	Present and either comprises significant part of wetland's
Mudflats	_	vegetation and is of moderate quality or comprises a small
Open water		part and is of high quality
Other	3	Present and comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
Select only one.		
High (5)		scription of Vegetation Quality
Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
Moderate (3)		disturbance tolerant native species Native spp are dominant component of the vegetation,
Moderately low (2)	mod	although nonnative and/or disturbance tolerant native spp
X Low (1) None (0)		can also be present, and species diversity moderate to
6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
to Table 1 ORAM long form for list. Add		threatened or endangered spp
or deduct points for coverage	high	A predominance of native species, with nonnative spp
Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
Nearly absent <5% cover (0)		
Absent (1)	Mudflat and	Open Water Class Quality
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
Standing dead >25cm (10in) dbh Amphibian breeding pools	Miorotono	raphy Cover Scale
Amphibian breeding pools	0	Absent
	1	Present very small amounts or if more common
	1	of marginal quality
	2	Present in moderate amounts, but not of highest
	_	quality or in small amounts of highest quality
	3	Present in moderate or greater amounts
	7 1	and of highest quality

Site:	Wetking	1 6	Rater(s): 🦪	EARley	Date: 6/14/2011
0	O M	letric 1. Wetland A			,
max 6 pts.		Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1) 0.1 to <0.3 acres (0.04 to <10.1 acres (0.04ha) (0 pts)) 20.2ha) (5 pts) ha) (4 pts) ı) (3 pts) 2ha) (2pts) :0.12ha) (1 pt)		
18	_\ M	letric 2. Upland bu	ıffers and su	rrounding land us	6e.
max 14 pts.	7	NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Res	m (164ft) or more arou 25m to <50m (82 to < e 10m to <25m (32ft to average <10m (<32ft) a Select one or double r older forest, prairie, s), shrub land, young se sidential, fenced pastur	nd wetland perimeter (7) 164ft) around wetland perimeter (4) 5 <82ft) around wetland perimeter around wetland perimeter (0) 6 check and average. 6 avannah, wildlife area, etc. (7)	4) (1)
9.5	20,5 M	letric 3. Hydrology	/.		
max 30 pts.	subtotal 3a.	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <.0.4m (<15.7in) (1) Modifications to natural hydrologi	ce water (3) ke or stream) (5) nly one and assign sco (2)	Part of wetlar Part of riparia 3d. Duration inundation re. Semi- to perm Regularly inu X Seasonally in Seasonally sa	dplain (1) am/lake and other human use (1) am/lake and other human use (1) ad/upland (e.g. forest), complex (1) an or upland corridor (1) /saturation. Score one or dbl check. nanently inundated/saturated (4) ndated/saturated (3)
	(5)	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)		point source (
8	28.5 M	letric 4. Habitat Al	teration and	Development.	
max 20 pts.	subtotal 4a.	Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4)		C	
	()	Fair (3) Poor to fair (2) Poor (1)			
	4c.	Habitat alteration. Score one or one or one or one or one or one apparent (9)	Check all disturbance		
SU	28.5 libtotal this page	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cuttir woody debris r toxic pollutants	shrub/sapling herbaceous/a sedimentatior dredging removal shrub/sapling herbaceous/a sedimentatior dredging farming	nquatic bed removal
last revised	1 February 20	001 jjm	1		

Site:	Wetland	6	R	ater(s): (] E	ARley	Date: 6/14/2011
	28,5 subtotal first pa	ge			in Minney VI	
0	28.5	Met	ric 5. Special Wet	llands.		
max 10 pts	s. subtotal	Check a	all that apply and score as indicat	ed.		
			Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wet Lake Erie coastal/tributary wet Lake Plain Sand Prairies (Oak Relict Wet Prairies (10) Known occurrence state/feder	land-restricted hydrol Openings) (10) al threatened or enda	ngered species (10)	
			Significant migratory songbird/ Category 1 Wetland. See Que			
2	12	Met			erspersion, microt	opography.
max 20 pts	s. subtotal	່ງ 6a. We	tland Vegetation Communities.	Vegetation (Community Cover Scale	Y 1,4771
			II present using 0 to 3 scale.	0	Absent or comprises < 0.1ha (0.2	
			Aquatic bed	1	Present and either comprises sn	
			_		vegetation and is of moderate significant part but is of low qu	
	(0) -	Shrub Forest	2	Present and either comprises sig	
		$\nearrow \vdash$	Mudflats	2	vegetation and is of moderate	
			Open water		part and is of high quality	
		6b. hor	Otherizontal (plan view) Interspersion.	3	Present and comprises significative vegetation and is of high qualit	
		Select	only one.	Nametica Da	escription of Vagatation Quality	
		-	High (5) Moderately high(4)	low	Low spp diversity and/or predom	ninance of nonnative or
			Moderate (3)	1011	disturbance tolerant native spe	
	((g)	Moderately low (2)	mod	Native spp are dominant compo	
			Low (1)		although nonnative and/or dist	urbance tolerant native spp
		Χ	None (0)		can also be present, and speci	ies diversity moderate to
			verage of invasive plants. Refer		moderately high, but generally	
			e 1 ORAM long form for list. Add		threatened or endangered spp	
		or dedu	ct points for coverage	high	A predominance of native specie	
		-	Extensive >75% cover (-5)		and/or disturbance tolerant nat absent, and high spp diversity	
		-	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		the presence of rare, threatene	
	1	DH	Nearly absent <5% cover (0)	Education of the Control of the Cont	The processes of rais, amount	ou, or ornamiger of opp
	,	X	Absent (1)	Mudflat and	Open Water Class Quality	
		6d. Mic	crotopography.	0	Absent <0.1ha (0.247 acres)	
		Score a	all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	
		0	Vegetated hummucks/tussuck		Moderate 1 to <4ha (2.47 to 9.8	8 acres)
	(D _	Coarse woody debris >15cm (High 4ha (9.88 acres) or more	
	(Standing dead >25cm (10in) d		andre Carren Casta	
			Amphibian breeding pools		raphy Cover Scale	
				0	Absent Present very small amounts or if	more common
					of marginal quality	more common
				2	Present in moderate amounts, b	ut not of highest
					quality or in small amounts of l	
				3	Present in moderate or greater a	
					and of highest quality	

Site: Wetland	17	Rater(s): Jason El	ARley	Date: 6 /14/2011
	Metric 1. Wetland A		d	
max 6 pts. subtotal	Select one size class and assign sco) 20.2ha) (5 pts) ha) (4 pts) ı) (3 pts) .2ha) (2pts) :0.12ha) (1 pt)		
11 12	Metric 2. Upland bu	ffers and surroun	ding land use.	
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Re HIGH. Urban, industrial, o	m (164ft) or more around wetland 25m to <50m (82 to <164ft) arou e 10m to <25m (32ft to <82ft) arc average <10m (<32ft) around wet . Select one or double check and rolder forest, prairie, savannah, v), shrub land, young second grow sidential, fenced pasture, park, copen pasture, row cropping, mining	I perimeter (7) nd wetland perimeter (4) bund wetland perimeter (1) eland perimeter (0) d average. viidlife area, etc. (7) th forest. (5) enservation tillage, new fallo	ow field. (3)
5 17	Metric 3. Hydrology	7.		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog None or none apparent (12	ce water (3) ke or stream) (5) 3 nly one and assign score. (2) 1	Part of wetland/u Part of riparian or d. Duration inundation/sat Semi- to permand Regularly inunda Seasonally inund Seasonally satura heck and average.	nin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
	Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike - Levis - L weir stormwater input	point source (nor filling/grading road bed/RR trac dredging other	
3 20	Metric 4. Habitat Al	teration and Deve	lopment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)			
	4c. Habitat alteration. Score one or (None or none apparent (9)	double check and average. Check all disturbances observe	ed	
20 subtotal this pa last revised 1 Februa	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	itic bed removal
idot iovidou i i obiua	· , · ,j,···			

Site:	Wetland	7	Rater	(s): J. E	ARley	Date: 6/14/20/
	20 subtotal first page			(this is		
0	20 M	letric	5. Special Wetlan	ds.		
max 10 pts	. subtotal Ch	Bo Fe Ol	at apply and score as indicated. g (10) n (10) d growth forest (10)			
		La La La Re Kn Sig	ature forested wetland (5) ke Erie coastal/tributary wetland-u ke Erie coastal/tributary wetland-r ke Plain Sand Prairies (Oak Open elict Wet Prairies (10) sown occurrence state/federal thre gnificant migratory songbird/water utegory 1 Wetland. See Question	estricted hydrol ings) (10) atened or enda fowl habitat or I 1 Qualitative Ra	ngered species (10) usage (10) ating (-10)	
- 1	21 M	letric	6. Plant commun	ities, inte	erspersion, microf	lopography.
max 20 pts	. subtotal 6a.	Wetland	Vegetation Communities.	Vegetation (Community Cover Scale	Projection
	Sco		sent using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.	.2471 acres) contiguous area
			uatic bed	1	Present and either comprises s	
		-	nergent		vegetation and is of moderate	
			rub		significant part but is of low qu	
	Ω		rest	2	Present and either comprises s	
		/ 3	udflats		vegetation and is of moderate	quality or comprises a small
			pen water		part and is of high quality	
	21-		her	3	Present and comprises signification	
			al (plan view) Interspersion.		vegetation and is of high qual	ity
	Sel	lect only c				
			gh (5)		escription of Vegetation Quality	
		_	oderately high(4)	low	Low spp diversity and/or predor	
	-		oderate (3)		disturbance tolerant native sp	
	(6)	_	oderately low (2)	mod	Native spp are dominant compo	_
			w (1)		although nonnative and/or dis	
			one (0)		can also be present, and spec	
			e of invasive plants. Refer		moderately high, but generally	
			RAM long form for list. Add	In Lordon	threatened or endangered sp	
	or c		ints for coverage	high	A predominance of native speci	
			tensive >75% cover (-5)		and/or disturbance tolerant na absent, and high spp diversity	
		_	oderate 25-75% cover (-3)		the presence of rare, threaten	
	(1)		parse 5-25% cover (-1)		the presence of fare, threater	led, or endangered spp
			early absent <5% cover (0) sent (1)	Mudflot and	Open Water Class Quality	
	64		. ,	0	Absent <0.1ha (0.247 acres)	
		Microtop	sent using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47	acres)
	300		getated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.47	
			parse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	oo acres)
	0		anding dead >25cm (10in) dbh		11 11911 4110 (3.00 acres) or 11101e	
			nphibian breeding pools	Microtopogr	raphy Cover Scale	
			inplinated breeding pools	0	Absent	
				1	Present very small amounts or	if more common
					of marginal quality	
				2	Present in moderate amounts, I	but not of highest
				2	quality or in small amounts of	
				3	Present in moderate or greater	
	7				and of highest quality	
1 0 1					1	

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Site: Wetland	8	Rater(s): Jason E.	Areley	Date: 6/14/2011
, o M	etric 1. Wetland A		/	,
max 6 pts. subtotal Sel	ect one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to <1 <0.1 acres (0.04ha) (0 pts)) (0.2ha) (5 pts) ha) (4 pts) ı) (3 pts) 2ha) (2pts) (0.12ha) (1 pt)		
11 11 M	etric 2. Upland bu		ding land use.	
max 14 pts. subtotal 2a. 2b.	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth o X LOW. Old field (>10 years MODERATELY HIGH. Res	m (164ft) or more around wetland 25m to <50m (82 to <164ft) arou e 10m to <25m (32ft to <82ft) ar average <10m (<32ft) around we	d perimeter (7) und wetland perimeter (4) ound wetland perimeter (1) tland perimeter (0) d average. wildlife area, etc. (7) th forest. (5) onservation tillage, new fallo	ow field. (3)
9.5 20.5 M	etric 3. Hydrology	·		
	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la Maximum water depth. Select or	ce water (3) ke or stream) (5)	Part of wetland/u Part of riparian or Bd. Duration inundation/sate Semi- to permane	in (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4)
② 3e.	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) Modifications to natural hydrologi		Regularly inundary Seasonally inundary Seasonally satura	
(\$)	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)			
8 28.5 M	etric 4. Habitat Al	teration and Deve	lopment.	
max 20 pts. subtotal 4a.	Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4)			
	Fair (3) Poor to fair (2) Poor (1)			
28,5	Habitat alteration. Score one or of the second of the seco	Check all disturbances observ mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	ed shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal
subtotal this page last revised 1 February 20	001 jjm	L toxic polititarits		TIK.

Site:	Wetland &	Ra	ter(s): JE	geley	Date: 6/14/201
	, , , , , , , , , , , , , , , , , , ,			1 7 3/2	
s	28.5 ubtotal first page			*	
0	28,5 Met	ric 5. Special Wetl	ands.		
max 10 pts.	subtotal Check a	all that apply and score as indicate	d.		
	-	Bog (10) Fen (10)			
		Old growth forest (10)			
		Mature forested wetland (5)			
		Lake Erie coastal/tributary wetla Lake Erie coastal/tributary wetla			
	-	Lake Plain Sand Prairies (Oak (ogy (5)	
		Relict Wet Prairies (10)			
		Known occurrence state/federal			
		Significant migratory songbird/w Category 1 Wetland. See Ques			
	Mot	ric 6. Plant comm			onography
2	30.5	iic o. Flant commi	umiles, mi	erspersion, iniciou	ородгариу.
max 20 pts.		tland Vegetation Communities.		Community Cover Scale	0474
	Score a	Il present using 0 to 3 scale. Aquatic bed	0	Absent or comprises <0.1ha (0.3) Present and either comprises sr	
	() Emergent		vegetation and is of moderate	
		Shrub		significant part but is of low qu	
	(0)	Forest	2	Present and either comprises si	
		Mudflats		vegetation and is of moderate part and is of high quality	quality or comprises a small
		Open water Other	3	Present and comprises significa	int part, or more, of wetland's
	6b. hor	izontal (plan view) Interspersion.		vegetation and is of high quali	
	Select o	only one.	Name the D		
	-	High (5) Moderately high(4)	Narrative De	Escription of Vegetation Quality Low spp diversity and/or predon	ninance of nonnative or
		Moderate (3)	IOW	disturbance tolerant native spe	
	(0)	Moderately low (2)	mod	Native spp are dominant compo	
		Low (1)		although nonnative and/or dist	
	60 C01	None (0)		can also be present, and spec moderately high, but generally	-
		verage of invasive plants. Refered 1 ORAM long form for list. Add		threatened or endangered spr	
		ct points for coverage	high	A predominance of native specie	es, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant na	
		Moderate 25-75% cover (-3)		absent, and high spp diversity the presence of rare, threaten	
	(I)	Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	-	the presence of fare, threaten	ed, or endangered spp
	×	Absent (1)	Mudflat and	Open Water Class Quality	
		rotopography.	0	Absent <0.1ha (0.247 acres)	
	Score a	Ill present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a Moderate 1 to <4ha (2.47 to 9.8	
	(D)	Vegetated hummucks/tussucks Coarse woody debris >15cm (6		High 4ha (9.88 acres) or more	oo acres)
		Standing dead >25cm (10in) db	,	1	
		Amphibian breeding pools	Microtopog	raphy Cover Scale	
			0	Absent	f more commen
			1	Present very small amounts or i of marginal quality	i more common
			2	Present in moderate amounts, b	out not of highest
				quality or in small amounts of	highest quality
	-		3	Present in moderate or greater	amounts
	,			and of highest quality	

Site:	Wetland	1 9	Rater(s): JASON EA	1 Kley	Date: 6/15/2011
6	M	etric 1. Wetland A		/	
max 6 pts.	subtotal Sel	ect one size class and assign scol) 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts) 0.12ha) (1 pt)		
11	M	etric 2. Upland bu	ffers and surround	ing land use.	
max 14 pts.	0	MIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years) MODERATELY HIGH. Res	Select only one and assign score. Em (164ft) or more around wetland per 25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland. Select one or double check and a rolder forest, prairie, savannah, wild, shrub land, young second growth sidential, fenced pasture, park, conspense pasture, row cropping, mining, communications.	erimeter (7) wetland perimeter (4) id wetland perimeter (1) id perimeter (0) verage. illife area, etc. (7) forest. (5) ervation tillage, new fallo	ow field. (3)
12.5	23.5 M	etric 3. Hydrology		, ,	
max 30 pts.	subtotal 3a. (4) 3c.	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (lal Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) < 0.4m (<15.7in) (1) Modifications to natural hydrologic	ce water (3) ke or stream) (5) dly one and assign score.	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inund Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
	(\$)	None or none apparent (12 X Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR trac dredging other_	
8	31.5 M	etric 4. Habitat Al	teration and Develo	pment.	
max 20 pts.	subtotal 4a.	Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)			
	4c.	Poor (1) Habitat alteration. Score one or o			
	31. 5	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site:	Wethord	9	Ra	ter(s): J	EARley	Date: 6/15/201
s	31,5 ubtotal first page	letri	c 5. Special Wetl	ands.		
max 10 pts.			that apply and score as indicate Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetla Lake Erie coastal/tributary wetla Lake Plain Sand Prairies (Oak (Relict Wet Prairies (10) Known occurrence state/federal Significant migratory songbird/w Category 1 Wetland. See Ques	and-unrestricted hyd and-restricted hydrol Openings) (10) I threatened or enda vater fowl habitat or	ngered species (10) usage (10)	
4	35.5 M	letri	c 6. Plant comm	unities, inte	erspersion, microt	opography.
max 20 pts.	subtotal 6a	Wetla	and Vegetation Communities.	Vegetation (Community Cover Scale	
			present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	2471 acres) contiguous area
	000	0	Aquatic bed Emergent Shrub	1	Present and either comprises sm vegetation and is of moderate significant part but is of low qua	nall part of wetland's quality, or comprises a
	0	-	Forest Mudflats Open water	2	Present and either comprises signer vegetation and is of moderate part and is of high quality	nificant part of wetland's quality or comprises a small
			Otherontal (plan view) Interspersion.	3	Present and comprises significar vegetation and is of high qualit	
	Sel	lect onl				
			High (5)		escription of Vegetation Quality	
			Moderately high(4)	low	Low spp diversity and/or predom	
	\bigcirc		Moderate (3)		disturbance tolerant native spe	
			Moderately low (2)	mod	Native spp are dominant compor	_
		-	Low (1)		although nonnative and/or dist	
			None (0)		can also be present, and speci	•
			rage of invasive plants. Refer		moderately high, but generally	
			ORAM long form for list. Add		threatened or endangered spp	
	or o	deduct	points for coverage	high	A predominance of native specie	
			Extensive >75% cover (-5)		and/or disturbance tolerant nat	
		\vdash	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity the presence of rare, threatene	
	(1)	\vdash			the presence of fare, threatene	ed, or endangered spp
			Nearly absent <5% cover (0) Absent (1)	Mudfletend	Open Water Class Quality	
	64	Micro	topography.	0	Absent <0.1ha (0.247 acres)	
			present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	cres)
	000		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.8	
	6	\vdash	Coarse woody debris >15cm (6)		High 4ha (9.88 acres) or more	3 3.3.337
	(2)		Standing dead >25cm (10in) db	,	Triigit iiia (eree aeree) er iiiere	1 1
		1	Amphibian breeding pools		aphy Cover Scale	
				0	Absent	
				1	Present very small amounts or if of marginal quality	
				2	Present in moderate amounts, be quality or in small amounts of h	
				3	Present in moderate or greater a	mounts
25 5	7				and of highest quality	

35,5

Site:	Wetland	1 12	Rater(s):	Rick F	Au) "	Date: 6-16-2011
2	2 M	letric 1. Wetland A	rea (size)).		
max 6 pts.	subtotal Se	alost one size alose and assign see	ro			
max o pts.	300totai 36	elect one size class and assign sco				
		25 to <50 acres (10.1 to <2				
		10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha				
		X 0.3 to <3 acres (0.12 to <1	.2ha) (2pts)			
		0.1 to <0.3 acres (0.04 to <				
	M	letric 2. Upland bu		surroun	ding land use	
11	13	ouro zr opiaria se	more and	Janigan	anig lana acc.	
max 14 pts.	subtotal 2a.	. Calculate average buffer width.				
	(2)	WIDE. Buffers average 50 MEDIUM. Buffers average				
		NARROW. Buffers average				
	Ol-	VERY NARROW. Buffers				
	20.	 Intensity of surrounding land use VERY LOW. 2nd growth or 				
	(4)	LOW. Old field (>10 years), shrub land, you	ng second grow	th forest. (5)	
	0	MODERATELY HIGH. Re HIGH. Urban, industrial, o				ow field. (3)
1	M	letric 3. Hydrology		oropping, mining	,, concudation. (1)	
14	21	iotilo o. Tiyarologj	•			
max 30 pts.	subtotal 3a.	. Sources of Water. Score all that	apply.	3	b. Connectivity. Score all	that apply.
	*	High pH groundwater (5)		^	100 year floodpla	
		Other groundwater (3) Precipitation (1)				/lake and other human use (1) upland (e.g. forest), complex (1)
		Seasonal/Intermittent surfa		_	Part of riparian o	r upland corridor (1)
	30	Perennial surface water (la . Maximum water depth. Select or				turation. Score one or dbl check. ently inundated/saturated (4)
		>0.7 (27.6in) (3)				ated/saturated (3)
		0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	(2)	(1.5	Seasonally inund	dated (2) rated in upper 30cm (12in) (1)
	3e.	. Modifications to natural hydrolog	ic regime. Score	one or double c		
	(2)	None or none apparent (12	Check all distu	rbances observ		
	(915)	Recovered (7) Recovering (3)	ditch		point source (not	nstormwater)
		Recent or no recovery (1)	dike		road bed/RR trac	ck
			weir		dredging	
			stormwat		other	
9	36	letric 4. Habitat Al			lopment.	
max 20 pts.	subtotal 4a.	Substrate disturbance. Score on	e or double check	and average.		
	61	None or none apparent (4) Recovered (3)				
	4.3	Recovering (2)				
	4b.	Recent or no recovery (1) Habitat development. Select only	v one and assign	score.		
		Excellent (7)	,			
		Very good (6) Good (5)				
	(2)	Moderately good (4)				
	(6)	Fair (3) Poor to fair (2)				
		Poor (1)				
	4c.	Habitat alteration. Score one or	double check and	average.		7
		None or none apparent (9)		rbances observ		movel
	(4.5)	Recovered (6) Recovering (3)	mowing		shrub/sapling rer	
1		Recent or no recovery (1)	clearcutti		sedimentation	
	26		selective woody de	cutting ebris removal	dredging farming	
			toxic poll		nutrient enrichme	ent
	ibtotal this page 1 February 20	001 iim				
idot i cviocu	i coluary 20	OO 1 JJ111				

Site:	Wetlen	nd 12		Rater(s)	Rick	PAI	Date: 6-/6-2011
max 10 pts.	36 subtotal first page	Metr	ic 5. Special We		5.		
			Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary w Lake Erie coastal/tributary w Lake Plain Sand Prairies (O Relict Wet Prairies (10) Known occurrence state/fed Significant migratory songbi Category 1 Wetland. See C	vetland-unre vetland-restr vak Openings deral threater ird/water fow Question 1 Q	icted hydrolo s) (10) ned or endar I habitat or u ualitative Ra	ngered species (10) usage (10) ating (-10)	
3	39	Metr	ic 6. Plant com	muniti	es, inte	erspersion, microto	opography.
max 20 pts.	subtotal	6a. Wetla	and Vegetation Communities	. <u>V</u>	egetation C	Community Cover Scale	12.00 + 16. h
		Score all	present using 0 to 3 scale.	_	0	Absent or comprises <0.1ha (0.2-	
		3	Aquatic bed		1	Present and either comprises sm	all part of wetland's
		(1)	Emergent			vegetation and is of moderate of	quality, or comprises a
			Shrub			significant part but is of low qua	
	(1))	Forest	_	2	Present and either comprises sig	nificant part of wetland's
	\cup		Mudflats			vegetation and is of moderate of	
			Open water			part and is of high quality	
			Other	-	3	Present and comprises significan	t part or more of wetland's
		6h horiz		- n	3	vegetation and is of high quality	
			ontal (plan view) Interspersio	JII		vegetation and is of high quality	
		Select on	1				
			High (5)	<u> </u>	CONTRACTOR OF THE PERSON NAMED IN	scription of Vegetation Quality	
			Moderately high(4)		low	Low spp diversity and/or predomi	
			Moderate (3)	_		disturbance tolerant native spec	
	())	Moderately low (2)		mod	Native spp are dominant compon	
		X	Low (1)			although nonnative and/or distu	
			None (0)			can also be present, and specie	-
		6c. Cove	erage of invasive plants. Refe	er		moderately high, but generally	w/o presence of rare
		to Table	1 ORAM long form for list. A	dd		threatened or endangered spp	<u> </u>
		or deduct	t points for coverage		high	A predominance of native species	s, with nonnative spp
			Extensive >75% cover (-5)			and/or disturbance tolerant nati	ve spp absent or virtually
			Moderate 25-75% cover (-3))		absent, and high spp diversity a	and often, but not always,
			Sparse 5-25% cover (-1)			the presence of rare, threatene	d, or endangered spp
	()		Nearly absent <5% cover (0			-	
		X	Absent (1)		ludflat and	Open Water Class Quality	
		6d Micro	otopography.	-	0	Absent <0.1ha (0.247 acres)	
			present using 0 to 3 scale.	-	1	Low 0.1 to <1ha (0.247 to 2.47 ac	cres)
			Vegetated hummucks/tussu	ıcks –	2	Moderate 1 to <4ha (2.47 to 9.88	
		\ 	Coarse woody debris >15cn	_	3	High 4ha (9.88 acres) or more	
	(1	5) -	Standing dead >25cm (10in			1	
	(/ 	Amphibian breeding pools		licrotopogr	aphy Cover Scale	
			Transminian preeding pools		0	Absent	
				-	1	Present very small amounts or if	more common
					1		more common
				_		of marginal quality	t not of highest
					2	Present in moderate amounts, bu	
				_		quality or in small amounts of h	
	_				3	Present in moderate or greater a	mounts
1	1					and of highest quality	

Site:	Wetland	13	Rater(s):	KICK PA	ul	Date: 6-16-2011
,		letric 1. Wetland A	rea (size)	•		
max 6 pts.	subtotal Se	Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1.1 X) (0.2ha) (5 pts) ha) (4 pts) (3 pts) 2ha) (2pts) (0.12ha) (1 pt)			
8	9 M	letric 2. Upland bu	ffers and	surround	ling land use.	
max 14 pts.	9	. Calculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Red	m (164ft) or more 25m to <50m (82 e 10m to <25m (3 average <10m (<3 . Select one or do r older forest, prain), shrub land, your sidential, fenced p	around wetland p to <164ft) around 2ft to <82ft) around 2ft) around wetla ouble check and a iie, savannah, will g second growth asture, park, cons	erimeter (7) I wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
14	23 M	letric 3. Hydrology	7.			
max 30 pts.	subtotal 3a	. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) Modifications to natural hydrological	ce water (3) ke or stream) (5) nly one and assign (2) c regime. Score c	3d. score.	Part of wetland/u Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat Seasonally saturation	nin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
	(9,5)	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwate	bances observed er input	point source (nor filling/grading road bed/RR trac dredging other	4
9	32 N	letric 4. Habitat Al	teration a	nd Develo	opment.	
max 20 pts.	(2.5) 4b.	. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or or	y one and assign s	core.		
SI	32 bbtotal this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all distur mowing grazing clearcuttir selective	bances observed ng cutting bris removal	shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	itic bed removal

Site:	Wetland	13	Rater(s):	Rick	c Paul	Date: 6-/6-20
	32 subtotal first page	etric 5. Special V	Vetlands.			
0	52					
max 10 pts.	. subtotal Che	eck all that apply and score as in Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributar Lake Erie coastal/tributar Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/ Significant migratory song Category 1 Wetland. See	(5) y wetland-unrestric y wetland-restricter (Oak Openings) (1 federal threatened gbird/water fowl ha	d hydrolog (10) or endang bitat or us	y (5) lered species (10) age (10)	
3	35 M	etric 6. Plant cor	nmunities	, inte	rspersion, micro	topography.
max 20 pts.	subtotal 6a.	Wetland Vegetation Communiti	es. Vege	etation Co	mmunity Cover Scale	1 Reference
		ore all present using 0 to 3 scale		0	Absent or comprises <0.1ha (0.	.2471 acres) contiguous area
		Aquatic bed Emergent Shrub		1	Present and either comprises s vegetation and is of moderate significant part but is of low qu	e quality, or comprises a
		Forest Mudflats Open water		2	Present and either comprises s vegetation and is of moderate part and is of high quality	-
	6b.	Otherhorizontal (plan view) Intersper	sion.	3	Present and comprises significative vegetation and is of high qual	
		ect only one.		ativa Das	orintian of Vagatation Quality	7.35 A
		High (5) Moderately high(4)			cription of Vegetation Quality Low spp diversity and/or predor	
		Moderate (3)		IOW	disturbance tolerant native sp	
		Moderately low (2) Low (1) None (0) Coverage of invasive plants. R Table 1 ORAM long form for list.	efer	mod	Mative spp are dominant comport although nonnative and/or discan also be present, and spec moderately high, but generally threatened or endangered sp	onent of the vegetation, sturbance tolerant native spp cies diversity moderate to y w/o presence of rare
		leduct points for coverage		high	A predominance of native speci	
		Extensive >75% cover (-5 Moderate 25-75% cover (-5 Sparse 5-25% cover (-1)	5) (-3)	9	and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threater	ative spp absent or virtually y and often, but not always,
		Nearly absent <5% cover	` '		W-4 Ol O	
	0.1	Absent (1)	Mud		pen Water Class Quality Absent <0.1ha (0.247 acres)	
		Microtopography.			Low 0.1 to <1ha (0.247 acres)	acres)
	500	ore all present using 0 to 3 scale Vegetated hummucks/tus			Moderate 1 to <4ha (2.47 to 2.47	
		Coarse woody debris >15			High 4ha (9.88 acres) or more	oo acres)
	0	Standing dead >25cm (10 Amphibian breeding pool	Din) dbh		phy Cover Scale	
			-	0	Absent	
					Present very small amounts or of marginal quality	, and the second second
				2	Present in moderate amounts, I quality or in small amounts of	
20	,			3	Present in moderate or greater and of highest quality	amounts

35

Site:	Wetano	14		Rater(s): Rick	PAUL	Da	te: 6-16-2011
0	O	etric 1. V	Vetland A	rea (size).			
max 6 pts.	subtotal Sel	>50 acres 25 to <50 10 to <25 3 to <10 a 0.3 to <3 a 0.1 to <0.3	s and assign score (>20.2ha) (6 pts) acres (10.1 to <20 acres (4 to <10.1 to cres (1.2 to <4ha) acres (0.12 to <1.2 to <1.2 to <4ha) acres (0.04 to <0.3 acres (0.04 to <0.3 (0.04 to <0.4 to) (0.04	0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts)			
5	5 M	etric 2. L	lpland but	ffers and surr	ounding la	and use.	
max 14 pts.		WIDE. BU MEDIUM. NARROW VERY NA Intensity of surro VERY LO LOW. OIL MODERA	Iffers average 50n Buffers average : . Buffers average RROW. Buffers a verage grounding land use. M_2nd growth or lifeld > 10 years), TELY HIGH. Res	elect only one and assign n (164ft) or more around v 25m to <50m (82 to <164 10m to <25m (32ft to <8 verage <10m (<32ft) arou Select one or double ch older forest, prairie, sava shrub land, young secon idential, fenced pasture, p en pasture, row cropping,	wetland perimeter (ft) around wetland s2ft) around wetland und wetland perime eck and average. nnah, wildlife area, id growth forest. (5 park, conservation to the service of the service	7) perimeter (4) d perimeter (1) ster (0) etc. (7)) tillage, new fallow fie	łd. (3)
7.5	12.5 M	etric 3. F	lydrology	•	90.085		
max 30 pts.	(i) 3c.	High pH g Other grou Precipitati Seasonal/ Perennial Maximum water >0.7 (27.6 0.4 to 0.7r <0.4m (<1 Modifications to None or n Recovered Recoverin	Intermittent surface surface water (lak depth. Select onlin) (3) (15.7 to 27.6in) (5.7in) (1) natural hydrologic one apparent (12) (17) (2) (3)	e water (3) e or stream) (5) y one and assign score. (2) regime. Score one or do Check all disturbances ditch tile	3d. Duration So So Suble check and av observed	art of wetland/upland art of riparian or upla i inundation/saturatio emi- to permanently i egularly inundated/seasonally inundated i easonally saturated in erage. Dint source (nonstorming/grading	and other human use (1) (e.g. forest), complex (1) nd corridor (1) n. Score one or dbl check. inundated/saturated (4) aturated (3) (2) n upper 30cm (12in) (1)
			no recovery (1)	dike weir stormwater input	dr ot	ad bed/RR track edging her	
5	17.5 M	etric 4. H	labitat Alt	eration and D	evelopme	nt.	
max 20 pts.	4b.	None or none Recovered Recovering Recent or Habitat develop Excellent Very good Good (5) Moderatel Fair (3) Poor to fair Poor (1)	one apparent (4) I (3) I (3) I (2) Ino recovery (1) Inent. Select only I (6) I (900d (4) I (2)	or double check and ave one and assign score.			
_ su	17.5 btotal this page	Recovered Recoverin	one apparent (9) I (6) g (3) no recovery (1)	Check all disturbances mowing grazing clearcutting selective cutting woody debris rem toxic pollutants	sh he se dr	nrub/sapling removal erbaceous/aquatic be dimentation edging rming ttrient enrichment	d removal

Site:	Wetland	H Rat	ter(s): Rick	PAU	Date: 6-16-201
s	17,5				
0	17,5 M	etric 5. Special Wetl	ands.		
max 10 pts.		Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetla Lake Erie coastal/tributary wetla Lake Plain Sand Prairies (Oak C Relict Wet Prairies (10) Known occurrence state/federal Significant migratory songbird/w	nd-unrestricted hyd nd-restricted hydrol openings) (10) threatened or enda ater fowl habitat or	ogy (5) ngered species (10) usage (10)	
	La C M	etric 6. Plant commu			opography.
2	19.5				op o g. a.py.
max 20 pts.		Wetland Vegetation Communities.		Community Cover Scale	
	Sco	ore all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	
		Aquatic bed	1	Present and either comprises sn	
		Emergent		vegetation and is of moderate	
	(0)	Shrub		significant part but is of low qu	
	0	Forest	2	Present and either comprises sig	
		Mudflats		vegetation and is of moderate	quality or comprises a small
		Open water		part and is of high quality	
		Other	3	Present and comprises significant	nt part, or more, of wetland's
	6b.	horizontal (plan view) Interspersion.	National Control of Co	vegetation and is of high qualit	ty
	Sel	ect only one.			
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predom	inance of nonnative or
		Moderate (3)		disturbance tolerant native spe	ecies
		Moderately low (2)	mod	Native spp are dominant compor	nent of the vegetation,
		X Low (1)		although nonnative and/or dist	urbance tolerant native spp
		None (0)		can also be present, and speci	ies diversity moderate to
	6c.	Coverage of invasive plants. Refer		moderately high, but generally	
		able 1 ORAM long form for list. Add		threatened or endangered spp	
		leduct points for coverage	high	A predominance of native specie	
		Extensive >75% cover (-5)	9	and/or disturbance tolerant nat	
		Moderate 25-75% cover (-3)		absent, and high spp diversity	
	~	Sparse 5-25% cover (-1)		the presence of rare, threatene	
		Nearly absent <5% cover (0)	-	the presence of fare, uncaterio	sa, or oridangered opp
		Absent (1)	Mudflat and	Open Water Class Quality	
	64	Microtopography.	0	Absent <0.1ha (0.247 acres)	
		ore all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	ucrae)
	300	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.8	
		Coarse woody debris >15cm (6ii		High 4ha (9.88 acres) or more	o acres)
	(0)	Standing dead >25cm (10in) dbh	,	Triigit Tria (0.00 acres) of more	
		Amphibian breeding pools		raphy Cover Scale	
		Amphibian preeding pools			
			0	Absent	more common
			1	Present very small amounts or if	more common
				of marginal quality	ut not of hight
			2	Present in moderate amounts, b	
				quality or in small amounts of h	
	-		3	Present in moderate or greater a	imounts
_				and of highest quality	

Site: Wetland	15	Rater(s): Rick Paul		Date: 6-16-2011
O O N	letric 1. Wetland A	rea (size).		
	25 to <50 acres (20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 to <10.1 to <25 acres (4 to <10.1 to <25 acres (4 to <10.1 to <2.1 to <4.1 to <1.1 to	0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts) 0.12ha) (1 pt)		
11 1/ N	letric 2. Upland bu	ffers and surround	ing land use.	
(3) (3)	WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth on LOW. Old field 10 years) MODERATELY HIGH. Res HIGH. Urban, industrial, op	Select only one and assign score. Description (164ft) or more around wetland per 25m to <50m (82 to <164ft) around a 10m to <25m (32ft to <82ft) around wetland series (-32ft) around wetland Select one or double check and a colder forest, prairie, savannah, wild shrub land, young second growth fisidential, fenced pasture, park, consider pasture, row cropping, mining, consider the series of th	erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) forest. (5) ervation tillage, new fallo	w field. (3)
17 6	letric 3. Hydrology			
max 30 pts. subtotal 3a	N. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface		Part of wetland/up	
0		(2) (2) (1.5) c regime. Score one or double chec	Semi- to permane Regularly inundat Seasonally inundat Seasonally satura	
(9.5)	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (none filling/grading road bed/RR track dredging other	
6.5 31.5 N	letric 4. Habitat Alt	teration and Develo	pment.	
3,5	None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)			
40	Poor to fair (2) Poor (1) Habitat alteration. Score one or d	ouble check and average		
2	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed March Mar	shrub/sapling rem herbaceous/aquat sedimentation dredging farming	
subtotal this page	904.	toxic pollutants	nutrient enrichmer	nt
last revised 1 February 2	UU1 JJM			

Site:	Wetland	/ l	S F	Rater(s): Rick	PAUL	Date: 6-16-2011
	210						
	31.5						
0	subtotal first page	Metri	ic 5. Special We	etland	ls.		
max 10 pts.	subtotal C	heck all	that apply and score as indic	ated.			
			Bog (10)				
			Fen (10)				
			Old growth forest (10) Mature forested wetland (5)				
			Lake Erie coastal/tributary w	etland-unr	estricted hydro	ology (10)	
			Lake Erie coastal/tributary w		-		
			Lake Plain Sand Prairies (O	ak Openin	gs) (10)		
		-	Relict Wet Prairies (10)	aral throat	anad ar andar	agorad anacias (10)	
		-	Known occurrence state/fed Significant migratory songbi				
			Category 1 Wetland. See Q				
7	33,5	Metri	ic 6. Plant com	munit	ies, inte	erspersion, micro	topography.
max 20 pts.	subtotal 6		and Vegetation Communities.			ommunity Cover Scale	
	S	Score all	present using 0 to 3 scale.			Absent or comprises <0.1ha (0 Present and either comprises	
		0	Aquatic bed Emergent		1	vegetation and is of moderat	
	6		Shrub			significant part but is of low of	
	(0)		Forest		2	Present and either comprises	significant part of wetland's
		- 1	Mudflats				e quality or comprises a small
			Open water		3	part and is of high quality	cant part, or more, of wetland's
	6	h horiz	Otherontal (plan view) Interspersio	n	3	vegetation and is of high qua	
		Select on				T regeration and to or mgm que	
			High (5)		Narrative Des	scription of Vegetation Qualit	
			Moderately high(4)		low	Low spp diversity and/or predo	
		\ 	Moderate (3) Moderately low (2)		mod	disturbance tolerant native s Native spp are dominant comp	
	U	/ ×	Low (1)		mou		sturbance tolerant native spp
		/	None (0)			can also be present, and spe	
			erage of invasive plants. Refe			moderately high, but general	· ·
			1 ORAM long form for list. Ac	dd	1	threatened or endangered sp	
	0	r deduct	t points for coverage Extensive >75% cover (-5)		high	A predominance of native spectand/or disturbance tolerant r	
			Moderate 25-75% cover (-3)			absent, and high spp diversi	
	1		Sparse 5-25% cover (-1)			the presence of rare, threate	
	U		Nearly absent <5% cover (0)			
			Absent (1)			Open Water Class Quality	
			otopography. present using 0 to 3 scale.			Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47	Zacros)
		Score all	Vegetated hummucks/tussu	cks	2	Moderate 1 to <4ha (2.47 to 9	
	(A		Coarse woody debris >15cm		3	High 4ha (9.88 acres) or more	
	0		Standing dead >25cm (10in				18 1
			Amphibian breeding pools			aphy Cover Scale	
						Absent Present very small amounts or	if more common
						of marginal quality	
					2	Present in moderate amounts,	
						quality or in small amounts of	
	-				3	Present in moderate or greate	r amounts

Site: Wetland	16	Rater(s): JAM EAR	ley	Date: 6-21-2011
0 0 M	etric 1. Wetland A		/	
max 6 pts. subtotal Se	lect one size class and assign scolors >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)) 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
3 3 M	etric 2. Upland bu	ffers and surround	ing land use.	
0	WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth of LOW. Old field (>10 years) MODERATELY HIGH. Res	Select only one and assign score. In (164ft) or more around wetland posterior to <50m (82 to <164ft) around at 10m to <25m (32ft to <82ft) around at 10m to <25m (32ft to <82ft) around wetland select one or double check and a colder forest, prairie, savannah, wild, shrub land, young second growth sidential, fenced pasture, park, considential, fenced pasture, park, considential, fenced pasture, mining, compared to the selection of the selection o	erimeter (7) I wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
15.5 18.5 M	etric 3. Hydrology		construction. (1)	
max 30 pts. subtotal 3a.	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lal Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) Modifications to natural hydrologi	ce water (3) ke or stream) (5) dly one and assign score.	Part of wetland/up Part of riparian or Duration inundation/sate Semi-to permane Regularly inundat Seasonally inundat Seasonally satura	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
0	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR track dredging other	
9.5 28 M	etric 4. Habitat Al	teration and Develo	pment.	
3) 4b.	Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or content of the second of	one and assign score.		
28 subtotal this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed	shrub/sapling rem herbaceous/aqual sedimentation dredging farming nutrient enrichme	tic bed removal

Site:	Weth	M	16		Rater(s)	I. J.E	areley	Date: 6-21-2011
						1000	lario palvala.	
	28							
SI	ubtotal first pag	e						
0	28	Met	ric 5.	Special V	Vetland	s.		
max 10 pts.	subtotal	Check a		ly and score as ir	idicated.			
		-	Bog (10 Fen (10	•				
				wth forest (10)				
			_	forested wetland	• •	المصادة المصادة	release (10)	
		\vdash		ie coastal/tributar ie coastal/tributar	-			
				ain Sand Prairies	•	-	-37 (-7	
				et Prairies (10)	د ا ا المار		di (10)	
		-		ant migratory son			ngered species (10) usage (10)	
				y 1 Wetland. See				
-7	26	Met	ric 6.	Plant cor	nmuniti	es, int	erspersion, micro	topography.
6								
max 20 pts.			_	etation Communit	-	/egetation	Community Cover Scale Absent or comprises < 0.1ha (0	2471 acres) contiguous area
		Score	Aquatic	using 0 to 3 scale bed		1	Present and either comprises s	
		1	Emerge				vegetation and is of moderate	
	(1)) 0	Shrub				significant part but is of low q	
		_	Forest			2	Present and either comprises s	e quality or comprises a small
		-	Mudflats Open w				part and is of high quality	e quality of comprises a small
			Other	atei	-	3	Present and comprises signific	ant part, or more, of wetland's
		6b. hor	rizontal (pla	an view) Intersper	sion.		vegetation and is of high qua	lity
		Select	only one.			Jamestina D	nacyintian of Vagatatian Auglity	
		-	High (5)	tely high(4)		low	Escription of Vegetation Quality Low spp diversity and/or predo	
	6	\	Modera				disturbance tolerant native sp	pecies
				tely low (2)	-	mod	Native spp are dominant comp	
			Low (1)				although nonnative and/or dis	
		6c Co	None (C	r) nvasive plants. F	ofor		can also be present, and spe moderately high, but general	
				long form for list.			threatened or endangered sp	
		or dedu	ct points fo	or coverage	-	high	A predominance of native spec	
	1	X	_	ve >75% cover (-			and/or disturbance tolerant n	
	(-5	ノト		te 25-75% cover 5-25% cover (-1)	(-3)		absent, and high spp diversit the presence of rare, threater	
		-		absent <5% cover	· (0)		the presence of fare, unleater	nou, or oriumingerou opp
			Absent			Mudflat and	Open Water Class Quality	
			crotopogra			0	Absent <0.1ha (0.247 acres)	
		Score a		using 0 to 3 scale ed hummucks/tus	-	2	Low 0.1 to <1ha (0.247 to 2.47 Moderate 1 to <4ha (2.47 to 9.47 to 9.4	
	12			woody debris >1	-	3	High 4ha (9.88 acres) or more	.oo acres)
	(2	-) -		g dead >25cm (1			1 0 (3) ///	
			■ Amphib	ian breeding pool	s !		raphy Cover Scale	· Y
					-	<u>0</u>	Absent Present very small amounts or	if more common
						1	of marginal quality	ii iiiole common
						2	Present in moderate amounts,	but not of highest
							quality or in small amounts o	
	7					3	Present in moderate or greater	amounts

26

Site:	Wetlan	0 17		Rater(s): J. EAR	LEY	Date: 6/21/2011
D	0	Metri	c 1. Wetland A			-
max 6 pts.	subtotal	X	e size class and assign scor >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1) 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1.3 0.1 to <0.3 acres (0.04 to <0.4 <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) na) (4 pts) I (3 pts) 2ha) (2pts) 0.12ha) (1 pt)		
1/	11	Metri	c 2. Upland bu	ffers and surroเ	ınding land use	·-
max 14 pts.	subtotal	2b. Inten	WIDE. Buffers average 50r MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a sity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res HIGH. Urban, industrial, op	select only one and assign son (164ft) or more around weth 25m to <50m (82 to <164ft) a 210m to <25m (32ft to <82ft) e 10m to <25m (32ft) around Select one or double check older forest, prairie, savanna shrub land, young second gridential, fenced pasture, park en pasture, row cropping, mir	land perimeter (7) around wetland perimeter (4) around wetland perimeter (1 wetland perimeter (0) a and average. sh, wildlife area, etc. (7) rowth forest. (5) a, conservation tillage, new fa	
12	23	Metri	c 3. Hydrology	•		
max 30 pts.	subtotal	3c. Maxir	ces of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake mum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	ee water (3) e or stream) (5) y one and assign score.	Part of wetland/Part of riparian 3d. Duration inundation/sa Semi- to perma Regularly inund Seasonally inur Seasonally satu	lain (1) n/lake and other human use (1) /upland (e.g. forest), complex (1) or upland corridor (1) aturation. Score one or dbl check. nently inundated/saturated (4) ated/saturated (3)
	C		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)			,
9.5	32.5	Metri	c 4. Habitat Alt	eration and Dev	/elopment.	•
max 20 pts.	subtotal	4b. Habit	trate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) at development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) at alteration. Score one or d		e.	
	6		None or none apparent (9)	Check all disturbances obse		mayal
	32.5 btotal this pag	ge	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	sedimentation dredging	latic bed removal
last revised	i Leningl	y∠∪∪ijjm				

Site:	Wethind	17	Rater(s): J	EARley	Date: 6/21/20
s	32.5 ubtotal first page	etric 5. Special \	Wetlands.		
max 10 pts.		k all that apply and score as ir	ndicated.		
illax to pis.	Subtotal Cited	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributar Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/ Significant migratory son Category 1 Wetland. Se	(5) ry wetland-unrestricted hydrometric (Oak Openings) (10) federal threatened or englished (water fowl habitat of	dangered species (10) or usage (10)	
3	35.5 Me			terspersion, mic	rotopography.
max 20 pts.	subtotal 6a V	Vetland Vegetation Communit	ies Vegetation	n Community Cover Scale	
men ze pre-		e all present using 0 to 3 scale			na (0.2471 acres) contiguous area
		Aquatic bed Emergent Shrub	1	Present and either comprise vegetation and is of mod significant part but is of least to the comprise of the c	lerate quality, or comprises a
		Forest	2		ses significant part of wetland's
		Mudflats		vegetation and is of mod	lerate quality or comprises a small
	,	Open water		part and is of high quality	
	6h h	Other norizontal (plan view) Interspe	3	vegetation and is of high	nificant part, or more, of wetland's
		ct only one.		vegetation and is of migh	quanty
	Γ	High (5)	Narrative	Description of Vegetation Qu	uality
		Moderately high(4)	low		redominance of nonnative or
	6	Moderate (3)		disturbance tolerant nati	
	(0)	Moderately low (2) Low (1)	mod		omponent of the vegetation, or disturbance tolerant native spp
		X None (0)			I species diversity moderate to
	6c. (Coverage of invasive plants. F	Refer	, , ,	nerally w/o presence of rare
		ble 1 ORAM long form for list.		threatened or endangere	
	or de	duct points for coverage	high	•	species, with nonnative spp ant native spp absent or virtually
		Extensive >75% cover (- Moderate 25-75% cover			rersity and often, but not always,
		Sparse 5-25% cover (-1)			eatened, or endangered spp
		Nearly absent <5% cove		Para	
	Ĺ	X Absent (1)		nd Open Water Class Quality	
		Microtopography. e all present using 0 to 3 scale	<u>0</u>	Absent <0.1ha (0.247 acr Low 0.1 to <1ha (0.247 to	
	3001	Vegetated hummucks/tu		Moderate 1 to <4ha (2.47	
	$\widehat{\Omega}$	Coarse woody debris >1		High 4ha (9.88 acres) or m	
		Standing dead >25cm (1			
	L	Amphibian breeding poo		ography Cover Scale	
			0	Absent Present very small amoun	ts or if more common
			1	of marginal quality	
			2	Present in moderate amou	
			3	Present in moderate or gre	eater amounts
-01				and of highest quality	

35.5

Site: W9 WL	-2/Wetland 18 Rater(s): J. EARRY	Date: 6/21/2011
0 0 M	etric 1. Wetland Area (size).	
max 6 pts. subtotal Sele	ect one size class and assign score.	
	>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts)	
(0)	10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts)	
	0.3 to <3 acres (0.12 to <1.2ha) (2pts)	
	0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
1/ 11	etric 2. Upland buffers and surrounding land use	•
max 14 pts. subtotal 2a.	Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)	
7	MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0))
2b.	Intensity of surrounding land use. Select one or double check and average.	
()	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5)	-
D	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fall	low field. (3)
12 23 Me	HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) etric 3. Hydrology.	
	Sources of Water. Score all that apply. 3b. Connectivity. Score all	I that apply.
	High pH groundwater (5) 100 year floodpl	
(4)	Precipitation (1)	upland (e.g. forest), complex (1)
	Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) Duration inundation/sa	or upland corridor (1) turation. Score one or dbl check.
3c.	Maximum water depth. Select only one and assign score. Semi- to permar	nently inundated/saturated (4)
	0.4 to 0.7m (15.7 to 27.6in) (2)	ated/saturated (3) dated (2)
3e.	<0.4m (<15.7in) (1) Modifications to natural hydrologic regime. Score one or double check and average.	rated in upper 30cm (12in) (1)
. `	None or none apparent (12) Check all disturbances observed	
	Recovered (7) Recovering (3) ditch X point source (no filling/grading	nstormwater)
	Recent or no recovery (1) dike road bed/RR trace	ck
	weir dredging stormwater input other	
O C To C M		
8,5 31,5 MG	etric 4. Habitat Alteration and Development.	
max 20 pts. subtotal 4a.	Substrate disturbance. Score one or double check and average.	
(2)	None or none apparent (4) Recovered (3)	
	Recovering (2) Recent or no recovery (1)	
4b.	Habitat development. Select only one and assign score.	
	Excellent (7) Very good (6)	
	Good (5)	
	Moderately good (4) Fair (3)	
	Poor to fair (2) X Poor (1)	
4c. i	Habitat alteration. Score one or double check and average.	
60	None or none apparent (9) Check all disturbances observed	
4,5/	X Recovered (6) X mowing shrub/sapling rer X Recovering (3) X grazing herbaceous/aqua	
[Recent or no recovery (1) clearcutting sedimentation	
31.5	selective cutting dredging woody debris removal farming	
subtotal this page	toxic pollutants nutrient enrichme	ent
last revised 1 February 200)1 jjm	

Site: W9 W/L2 / Wetland 18	Rater(s): J. EAR	by Date:	6/21/201
	7 7 2 2 2 2		
31.5			
subtotal first page			
Metric E Special M	letlands		
O 31.5 Wetric 5. Special W	otianao.		
max 10 pts. subtotal Check all that apply and score as inc	licated.		
Bog (10)			
Fen (10) Old growth forest (10)			
Mature forested wetland (\$	5)		
	wetland-unrestricted hydrology	(10)	
	wetland-restricted hydrology (5))	
Lake Plain Sand Prairies (Relict Wet Prairies (10)	Oak Openings) (10)		
	ederal threatened or endangered	d species (10)	
	bird/water fowl habitat or usage		
	Question 1 Qualitative Rating (-		
4 35,5 Metric 6. Plant con	ımunities, intersp	persion, microtopogra	pny.
(W. Carrey Carle	
max 20 pts. subtotal 6a. Wetland Vegetation Communities Score all present using 0 to 3 scale.		nunity Cover Scale ent or comprises <0.1ha (0.2471 acres) c	ontiquous area
Aquatic bed		sent and either comprises small part of we	
1 Emergent	ve	getation and is of moderate quality, or co	
Shrub		gnificant part but is of low quality	of watland's
Forest Mudflats		sent and either comprises significant part egetation and is of moderate quality or cor	
Open water	1	art and is of high quality	iipiiooo a oiiia
Other		sent and comprises significant part, or mo	re, of wetland's
6b. horizontal (plan view) Interspers	ion. ve	getation and is of high quality	
Select only one.	Narrativa Doscrint	tion of Vegetation Quality	
High (5) Moderately high(4)		spp diversity and/or predominance of no	nnative or
Moderate (3)		sturbance tolerant native species	
Moderately low (2)		ve spp are dominant component of the ve	
<u>λ</u> Low (1)		though nonnative and/or disturbance tole In also be present, and species diversity r	
None (0) 6c. Coverage of invasive plants. Re		oderately high, but generally w/o presenc	
to Table 1 ORAM long form for list.	Add thr	reatened or endangered spp	
or deduct points for coverage		redominance of native species, with nonn	
Extensive >75% cover (-5		nd/or disturbance tolerant native spp abse osent, and high spp diversity and often, bu	
Moderate 25-75% cover (- Sparse 5-25% cover (-1)		e presence of rare, threatened, or endang	
Nearly absent <5% cover		1 2 2	
Absent (1)		Water Class Quality	
6d. Microtopography. Score all present using 0 to 3 scale.		ent <0.1ha (0.247 acres) 0.1 to <1ha (0.247 to 2.47 acres)	
Vegetated hummucks/tus		derate 1 to <4ha (2.47 to 9.88 acres)	
Coarse woody debris >15		n 4ha (9.88 acres) or more	
Standing dead >25cm (10		Occurs Occile	
Amphibian breeding pools			
		ent sent very small amounts or if more comm	on .
	of	marginal quality	
		sent in moderate amounts, but not of high	
		uality or in small amounts of highest qualit sent in moderate or greater amounts	цу
-6/		sent in moderate or greater amounts	

Site: Wetland 19-Fringe & Pond & Rater(s): Kick PA	Date: 6/22/2011
Metric 1. Wetland Area (size).	
Select one size class and assign score. Solect one size class and ass	
Metric 2. Upland buffers and surroun	iding land use.
max 14 pts. subtotal 2a. Calculate average buffer width. Select only one and assign score WIDE. Buffers average 50m (164ft) or more around wetland MEDIUM. Buffers average 25m to <50m (82 to <164ft) around NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland VERY NARROW. Buffers average <10m (<32ft) around wetland VERY LOW. Date of the select one or double check an VERY LOW. 2nd growth or older forest, prairie, savannah, which is a compact of the select one or double check an VERY LOW. 2nd growth or older forest, prairie, savannah, which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which is a compact of the select one or double check and which i	d perimeter (7) und wetland perimeter (4) ound wetland perimeter (1) tland perimeter (0) d average. wildlife area, etc. (7) th forest. (5) onservation tillage, new fallow field. (3)
Metric 3. Hydrology.	
High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1)	8b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1) 8d. Duration inundation/saturation. Score one or dbl check. Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
3e. Modifications to natural hydrologic regime. Score one or double c	ed
Recovered (7) Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Recovered (7) Itile Itile Idike Weir Stormwater input	point source (nonstormwater) filling/grading road bed/RR track dredging other
Metric 4. Habitat Alteration and Deve	lopment.
max 20 pts. subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4)	
Fair (3) Poor to fair (2) Poor (1)	
4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Subtotal this page Check all disturbances observe mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	ed shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment
last revised 1 February 2001 jjm	

Metric 5. Special Wetlands. Check all that apply and score as indicated. Bog (10) Fen (10) Seq. (10) Fen (10)	Site: Wetland 19 - Fringe & Pond 6 Rater	s): Rick	PArl	Date: 6/22/2011
Check all that apply and score as indicated. Bog (10) Check all that apply and score as indicated. Bog (10) Check all that apply and score as indicated. Bog (10) Check all that apply and score as indicated. Bog (10) Check all that apply and score as indicated. Bog (10) Check all that apply and score as indicated. Bog (10) Check all that apply and score as indicated. Bog (10) Check all that apply and score as indicated. Bog (10) Check all that apply and score as indicated. Lake Eric coastal/irbutary vetland-unrestricted hydrology (10) Lake Eric coastal/irbutary vetland-directricted hydrology (10) Lake Plans Sand Prairies (20k Openings) (10) Related Well Prairies (20k Openings) (10) Significant marginary snophidwater for whabitat or usage (10) Significant indicates (10) Score all present using to 10 3 scale. Aquatic bed Aquatic bed Coher Shout Forest Mudflats Open water Other. Bb. hortzontal (plan view) Interspersion. Select only one. High (6) Moderately high(4) Moderately high(4) Moderately high(4) Moderately high (2) Low (1) Spinule Forest To Table 1 ORAM long from for list. Add or deduct points for coverage Extensive 779% cover (3) Xpars 6-29% cover (3) Xpars 6-29% cover (4) Nearly absent 45% cover (9) Absent (1) The Application and in the moderate quality or comprises a significant part or wetland's vegetation and is of moderate quality or comprises a significant part or wetland's vegetation and is of moderate quality or comprises a significant part or wetland's vegetation and is of moderate quality or comprises a significant part or wetland's vegetation and is of moderate quality or comprises a significant part or wetland's vegetation and is of moderate quality or comprises a significant part or wetland's vegetation and is of moderate quality or comprises a significant part or wetland's vegetation and is of moderate quality or comprises a significant part or wetland's vegetation and is of moderate quality or comprises or a significant part or wetland's vegetation	subtotal first page	de		
Bog (10) Category the regards (20) Lake Ene coastal/tributary wetland-unrestricted hydrology (10) Lake Ene coastal/tributary wetland-restricted hydrology (10) Lake Ene coastal/tributary wetland-restricted hydrology (5) Lake Ene coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Cak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songlar/dwater fow habitat or usage (10) Category 1 Wetland. See Question 1 Coultatien Resting (-10) Metric 6. Plant communities, interspersion, microtopography. Wetland Vegetation Communities, interspersion, microtopography. Wegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises as a mall part and is of moderate quality or comprises as a small part and is of moderate quality or compr	$O \mid \mathcal{A}_{\beta} \mid$ Metric 3. Special Wetland	us.		
Score all present using 0 to 3 scale. Aquatic bed I Emergent Shrub Forest Mudlats Open water Other Other I I I I I I I I I I I I I I I I I I I	max 10 pts. subtotal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water is Category 1 Wetland. See Question 2	estricted hydrol ings) (10) atened or enda fowl habitat or I Qualitative R	angered species (10) usage (10) ating (-10)	
Score all present using 0 to 3 scale. Aquatic bed Aquatic bed Emergent Shrub Forest Mudflats Open water Other Other Other Other Moderately high (4) Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderatel 25-75% cover (-5) Moderatel 25-75% cover (-1) Nearly absent <5% cover (0) Absent of Open Water Comprises South (3) Appendix and is of moderate or comprises significant part of wetland's vegetation and is of moderate depaility or comprises a small part and is of high quality O pen water O pen water O ther Other	\ 49 Metric 6. Plant communi	ties, int	erspersion, microt	opography.
Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or present and comprises significant part, or more, of wetland's vegetation and is of high quality or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises and significant part but is of low quality or comprises and significant part but is of low quality or comprises a significant part but is of low quality or comprises and significant part but is of low quality or comprises and significant part but is of low quality or comprises and significant part but is of low quality or comprises as significant part but is of low quality or comprises as significant part but is of low quality or comprises as significant part but is of low quality or comprises as significant part but is of low quality or comprises as significant part but is of low quality or comprises as significant part but is of low quality or comprises as significant part or wetland's vegetation and is of high quality or present and comprises significant part, or comprises as small and is of high quality. Narrative Description of Vegetation Audistry specificant part, or more, of wetland's vegetation and is of high quality or present and comprises as mall and is of high quality. Narrative Description of vieland's part and is of high quality. Narrative De	max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	A Section 1
Emergent Shrub Shrub Forest Mudflats Present and either comprises significant part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality	Score all present using 0 to 3 scale.	0		
Forest Mudflats Open water Other Other Select only one. High (5) Moderately high(4) Moderatel (3) None (0) 6c. Coverage of invasive plants. Refer to Table 1 OPEN Moderate 25-75% cover (-5) Moderate 25-75% cover (-5) Moderate 25-75% cover (-1) Nearly absent <5% cover (0) Absent (1) Gd. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/fussucks Coarse woody debris > 15cm (6in) Standing dead > 25cm (10in) dbh 1 Amphibian breeding pools Persent and either comprises significant part or weltand's vegetation and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality Narrative Description of Vegetation Quality Iow Low spy diversity and/or predominance of nonnative or disturbance tolerant native species mod Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often the vegetation and is of high quality or predominance of nonnative or disturbance tolerant native species mod Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native species or also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native species of rare threatened or endangered spp high A predominance of native species, with nonnative species of rare threatened or endangered spp 1 Low Closs species and or high quality or presence of rare th	I Emergent	1	vegetation and is of moderate	quality, or comprises a
Open water Other O		2	Present and either comprises sig	gnificant part of wetland's
6b. horizontal (plan view) Interspersion. Select only one. High (5) Moderately high(4) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Roary absent (-5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Absent (1) Present and comprises significant part, or more, of wetland's vegetation and is of high quality Narrative Description of Vegetation Quality Low spp diversity and/or predominance of nonnative or disturbance tolerant native species mod Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance of native spa and/or disturbance tolerant native spp and/or disturbance tolerant na	Mudflats		vegetation and is of moderate	quality or comprises a small
6b. horizontal (plan view) Interspersion. Select only one. High (5) Moderately high(4) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Roary absent (-5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Absent (1) Present and comprises significant part, or more, of wetland's vegetation and is of high quality Narrative Description of Vegetation Quality Low spp diversity and/or predominance of nonnative or disturbance tolerant native species mod Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance of native spa and/or disturbance tolerant native spp and/or disturbance tolerant na	Open water		part and is of high quality	
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Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Membrane Amphibian breeding pools Moderate 1 or Absent Moderate 25-75% cover (-5) Moderate 25-75% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh They have been down and the vegetation, although nonnative and/or disturbance tolerant native spp can dore in depression of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance tolerant na		1044		
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None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh 1 Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality 3 Present in moderate or greater amounts	()	mod		
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Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts		-		
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Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale 0		2	Moderate 1 to <4ha (2.47 to 9.8	88 acres)
Amphibian breeding pools Microtopography Cover Scale			High 4ha (9.88 acres) or more	
Amphibian breeding pools Microtopography Cover Scale				
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quality or in small amounts of highest quality Present in moderate or greater amounts		1	Present very small amounts or it of marginal quality	
3 Present in moderate or greater amounts		2		
		3		

Site:	Wetlan	d 20	Rater(s): Rick Paul		Date:	6/22/2011
		Metric 1. Wetland A	rea (size)			
0	0	motifo ii vvotidila /	1104 (5120).			
max 6 pts.	subtotal	Select one size class and assign sco				
		>50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2				
		10 to <25 acres (4 to <10.1	ha) (4 pts)			
		3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1				
		0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)				
10	10	Metric 2. Upland bu		ing land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width.				
	G		m (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around			
			e 10m to <25m (32ft to <82ft) arour average <10m (<32ft) around wetlar			
		2b. Intensity of surrounding land use	. Select one or double check and a	verage.		
	(3		r older forest, prairie, savannah, wild), shrub land, young second growth t			
		HIGH. Urban, industrial, o	sidential, fenced pasture, park, cons pen pasture, row cropping, mining, c		w field. (3)	
18	28	Metric 3. Hydrology	7.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that	apply. 3b.	Connectivity. Score all t		
		High pH groundwater (5) Other groundwater (3)	\mathcal{O}	100 year floodplai Between stream/l		er human use (1)
	(1	Precipitation (1) Seasonal/Intermittent surfa		Part of wetland/up		orest), complex (1)
		Perennial surface water (la	ke or stream) (5) 3d.	<u>Duration</u> inundation/satu	ration. Sco	re one or dbl check.
		 Maximum water depth. Select or >0.7 (27.6in) (3) 	nly one and assign score.	Semi- to permane Regularly inundat		
	(0.4 to 0.7m (15.7 to 27.6in)	(2)	Seasonally inunda	ated (2)	
	;	(<15.7in) (1)3e. Modifications to natural hydrologi	c <u>regime. Score one or double chec</u>	Seasonally satura ck and average.	tea in upper	30cm (12in) (1)
	62	None or none apparent (12				
	(1c	Recovered (7) Recovering (3)	ditch	point source (non:	stormwater)	
		Recent or no recovery (1)	dike	road bed/RR track	:	
			stormwater input	other		_
6	34	Metric 4. Habitat Al	teration and Develo	pment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score on	e or double check and average.			
	(5)	None or none apparent (4) Recovered (3)				
	(4)	Recovering (2)				
	4	Recent or no recovery (1) 4b. <u>Habitat development</u> . Select only	one and assign score.			
		Excellent (7) Very good (6)				
		Good (5)				
	(1	Moderately good (4) Fair (3)				
		Poor to fair (2) Poor (1)				
	4	4c. Habitat alteration. Score one or c	louble check and average.			
	(1	None or none apparent (9)	Check all disturbances observed	ohmuh/aanlina	oval.	
	U	Recovered (6) Recovering (3)	mowing grazing	shrub/sapling rem herbaceous/aquat		val
I		Recent or no recovery (1)	clearcutting selective cutting	sedimentation dredging		
	34		woody debris removal	farming		4
su	ubtotal this page		toxic pollutants	nutrient enrichmer	ıt	

Site: Wetland 20	Rater(s): K	ck PAUI	Date: 6/22/2011
3H subtotal first page	agaigl Watlands		
0 34 Wetric 5. 5	pecial Wetlands.		
max 10 pts. subtotal Check all that apply ar Bog (10) Fen (10) Old growth 1 Mature fore: Lake Erie co Lake Plain S Relict Wet F	forest (10) sted wetland (5) pastal/tributary wetland-unrestricted by pastal/tributary wetland-restricted by pastal/tributary wetland-restricted by pand Prairies (Oak Openings) (10) Prairies (10)	drology (5)	
Significant n	rrence state/federal threatened or en nigratory songbird/water fowl habitat	or usage (10)	
	Wetland. See Question 1 Qualitative ant communities, in		topography.
max 20 pts. subtotal 6a. Wetland Vegetation		on Community Cover Scale	
Score all present using Aquatic bed Emergent Shrub		Absent or comprises <0.1ha (0 Present and either comprises some vegetation and is of moderate significant part but is of low comprises.)	small part of wetland's e quality, or comprises a quality
Forest Mudflats Open water	3	Present and either comprises some vegetation and is of moderate part and is of high quality Present and comprises significations.	e quality or comprises a small
Other 6b. horizontal (plan vi		vegetation and is of high qua	
Select only one.	Narrative	Description of Vegetation Quality	V.
High (5) Moderately Moderate (3	high(4) low	Low spp diversity and/or predo disturbance tolerant native s	minance of nonnative or pecies
Moderately Low (1) None (0) 6c. Coverage of invasto Table 1 ORAM long	sive plants. Refer		sturbance tolerant native spp ecies diversity moderate to ly w/o presence of rare
Moderate 29 Sparse 5-25	75% cover (-5) 5-75% cover (-3) 5% cover (-1)	A predominance of native spec and/or disturbance tolerant n absent, and high spp diversit the presence of rare, threate	ative spp absent or virtually by and often, but not always,
Nearly abservable Absent (1)	ent <5% cover (0) Mudflat a	and Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present usin		Low 0.1 to <1ha (0.247 to 2.47	
	nummucks/tussucks 2 ody debris >15cm (6in) 3	Moderate 1 to <4ha (2.47 to 9 High 4ha (9.88 acres) or more	
(I) Standing de	ead >25cm (10in) dbh	ography Cover Scale	
Amphibian i	0	Absent	Jan San San San San San San San San San S
	1	Present very small amounts or of marginal quality	if more common
	2	Present in moderate amounts, quality or in small amounts of	
	3	Present in moderate or greater	

Site: Wetland 2	- Rater(s): Rick Paul	Date: 6/22/2011
O O M	etric 1. Wetland Area (size).	
	lect one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	
7 7 M	etric 2. Upland buffers and surrounding land use.	
9 2b.	Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallo HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w field. (3)
17 24 M	etric 3. Hydrology.	
3c.	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Your (27.6in) (2) Seasonally inundate Seasonally satural seasons. Part of wetland/up Part of vetland/up Part of wetland/up Part of vetland/up Part of wetland/up Part of vetland/up Part of vet	in (1) ake and other human use (1) ake and other human use (1) aland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. intly inundated/saturated (4) ed/saturated (3)
36.	Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Check all disturbances observed	
3 27 M	etric 4. Habitat Alteration and Development.	
0	Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poer (4)	
4c.	Poor (1) Habitat alteration. Score one or double check and average.	
27 subtotal this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Recent or no recovery (1) Recovering (3) Recent or no recovery (1)	ic bed removal
last revised 1 February 20	լու ijm	

Site: h	letland	21	Rater	(s): Rick	Paul	Date: 6/22/2011
su	27 btotal first p	_	Avia F. Owa sial Madlau	(ende		
0	27	IVIE	etric 5. Special Wetlan	as.		
max 10 pts.	subtotal	-	k all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-ru Lake Erie coastal/tributary wetland-ru Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro lings) (10) atened or enda fowl habitat or 1 Qualitative R	angered species (10) usage (10) ating (-10)	
1	28	Me	tric 6. Plant communi	ities, int	erspersion, microt	opography.
max 20 pts.	subtotal	٦ ٩٩ ٧	Vetland Vegetation Communities.	Vegetation	Community Cover Scale	
111ax 20 pts.	Subtotal		e all present using 0 to 3 scale.	0 vegetation	Absent or comprises <0.1ha (0.2	2471 acres) contiguous area
			Aquatic bed Emergent	1	Present and either comprises sn vegetation and is of moderate	nall part of wetland's quality, or comprises a
		(0)	Shrub		significant part but is of low qu	
			Forest Mudflats Open water	2	Present and either comprises signer vegetation and is of moderate part and is of high quality	
		6b. h	Otherorizontal (plan view) Interspersion.	3	Present and comprises significal vegetation and is of high qualit	
		Selec	t only one.			
			High (5)	Narrative D	escription of Vegetation Quality	
		(0)	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predom disturbance tolerant native spe	ecies
		6c. C	Moderately low (2) Low (1) None (0) Coverage of invasive plants. Referble 1 ORAM long form for list. Add	mod	Native spp are dominant comportant and/or dist can also be present, and specimoderately high, but generally threatened or endangered spp	urbance tolerant native spp les diversity moderate to w/o presence of rare
			duct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native specie and/or disturbance tolerant nat absent, and high spp diversity the presence of rare, threatene	tive spp absent or virtually and often, but not always,
			Nearly absent <5% cover (0)	NA. udda 4 a a a	LOngo Water Class Ovelity	
		C-1 N	Absent (1)		Open Water Class Quality	
			Aicrotopography.	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 a	ucros)
		Score	e all present using 0 to 3 scale. Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.8	
		\sim \vdash	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	0 acres)
	(0)	Standing dead >25cm (10in) dbh		Trigit 4tia (9.00 acres) of filore	
		-	Amphibian breeding pools	Microtopog	raphy Cover Scale	
		L		0	Absent	
				1	Present very small amounts or if of marginal quality	more common
				2	Present in moderate amounts, b quality or in small amounts of l	nighest quality
a A	1			3	Present in moderate or greater a and of highest quality	amounts
20						

Site: W9WL4	Rater(s): Rick Paul		Date: 6/27/2011
Metric 1. Wetland A	area (size).		
max 6 pts. subtotal Select one size class and assign scc >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <)		
10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1	a) (3 pts) .2ha) (2pts)		
0.1 to <0.3 acres (0.04 to <		an land usa	
10 10	ıffers and surroundir		
WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers	Select only one and assign score. Do m (164ft) or more around wetland peri 25m to <50m (82 to <164ft) around we 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland . Select one or double check and ave	meter (7) retland perimeter (4) wetland perimeter (1) perimeter (0)	
LOW. Old field (>10 years MODERATELY HIGH. Re	r older forest, prairie, savannah, wildlif), shrub land, young second growth for sidential, fenced pasture, park, conser pen pasture, row cropping, mining, cor	rest. (5) vation tillage, new fallo	w field. (3)
Metric 3. Hydrology	/.		
max 30 pts. subtotal 3a. Sources of Water. Score all that High pH groundwater (5)	apply. 3b. C	Connectivity. Score all t	
Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa		Part of wetland/up Part of riparian or	ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1)
3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	nly one and assign score.	Semi- to permane Regularly inundate X Seasonally inunda Seasonally satura	
None or none apparent (12			
Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir	point source (none filling/grading road bed/RR track dredging	
Metric 4 Habitat Al	teration and Develor	other	
0 3/	-	Jillolli.	
4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2)	e or double creek and average.		
Recent or no recovery (1) 4b. Habitat development. Select onl	y one and assign score.		
Excellent (7) Very good (6) Good (5)			
Moderately good (4) Fair (3) Poor to fair (2) Poor (1)			
4c. Habitat alteration. Score one or			
None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting	shrub/sapling rem herbaceous/aquat sedimentation	
33	selective cutting woody debris removal toxic pollutants	dredging farming nutrient enrichmer	nt
subtotal this page last revised 1 February 2001 jjm	·		

Site: W9WL4	Rater(s): Rick	P _{AU} Date: 6/22/201
33 subtotal first page		
0 33 Metric 5. Special W	etlands.	
max 10 pts. subtotal Check all that apply and score as indi-	cated.	
Bog (10) Fen (10)		
Old growth forest (10)		
Mature forested wetland (5)		
Lake Erie coastal/tributary v		
Lake Erie coastal/tributary v Lake Plain Sand Prairies (C		ogy (5)
Relict Wet Prairies (10)	an openingo) (10)	
Known occurrence state/fed		•
Significant migratory songbi		
Category 1 Wetland. See C		
34 Metric 6. Plant com	munities, inte	erspersion, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities		community Cover Scale
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's
Aquatic bed Emergent	'	vegetation and is of moderate quality, or comprises a
(U) Shrub		significant part but is of low quality
Forest	2	Present and either comprises significant part of wetland's
Mudflats		vegetation and is of moderate quality or comprises a small part and is of high quality
Open water Other	3	Present and comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspersion	-	vegetation and is of high quality
Select only one.	Nametive De	scription of Vegetation Quality
High (5) Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
Moderate (3)		disturbance tolerant native species
Moderately low (2)	mod	Native spp are dominant component of the vegetation,
Low (1) None (0)		although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to
6c. Coverage of invasive plants. Refe	er	moderately high, but generally w/o presence of rare
to Table 1 ORAM long form for list. A		threatened or endangered spp
or deduct points for coverage	high	A predominance of native species, with nonnative spp
Extensive >75% cover (-5) Moderate 25-75% cover (-3	\	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,
Sparse 5-25% cover (-1)	,	the presence of rare, threatened, or endangered spp
Nearly absent <5% cover (0		in the second se
Absent (1)		Open Water Class Quality
6d. Microtopography. Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)
Vegetated hummucks/tussu		Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debris >15cr		High 4ha (9.88 acres) or more
Standing dead >23cm (10m	•	
Amphibian breeding pools	Microtopogr 0	aphy Cover Scale Absent
	1	Present very small amounts or if more common
	The second secon	of marginal quality
	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
	3	Present in moderate or greater amounts
		and of highest quality

Site: Wetland 22 - Lainge Rond / Rater(s): Kick Paul	Date: 6/22/2011
Metric 1. Wetland Area (size).	e grâ
Select one size class and assign score.	
Metric 2. Upland buffers and surrounding land use.	
max 14 pts. subtotal 2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallo HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w field. (3)
18 22 Metric 3. Hydrology.	
Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Part of wetland/up Part of vetland/up Part of wetland/up	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (6) Recovering (7) Recovering (7) Recovering (8)	
Metric 4. Habitat Alteration and Development.	
max 20 pts. subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4)	
Fair (3) Poor to fair (2) Poor (1)	
4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Check all disturbances observed	
Recovered (6) Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (5) Recovering (5) Recovering (6) Recovering (6) Recovering (7) Recovering (7	tic bed removal
last revised 1 February 2001 jjm	

Site: Wetland 22 - Farge Pond 7 Rate	r(s): Rick	Paul Dat	e: 6/22/2011
29			
subtotal first page			
Metric 5. Special Wetla	nds.		
max 10 pts. subtotal Check all that apply and score as indicated.			
Bog (10)			
Fen (10) Old growth forest (10)			
Mature forested wetland (5)			
Lake Erie coastal/tributary wetland	-unrestricted hyd	Irology (10)	
Lake Erie coastal/tributary wetland		logy (5)	
Lake Plain Sand Prairies (Oak Ope	enings) (10)		
Relict Wet Prairies (10) Known occurrence state/federal thi	eatened or ends	angered species (10)	
Significant migratory songbird/water		*	
Category 1 Wetland. See Question			
Metric 6. Plant commun	nities, int	erspersion, microtopod	araphy.
- 28 Metric 6. Flant commun	,		J
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	ly i
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acr	
Aquatic bed 0 Emergent	1	Present and either comprises small part vegetation and is of moderate quality,	
O) Enlergent Shrub		significant part but is of low quality	or comprises a
Forest	2	Present and either comprises significant	part of wetland's
Mudflats		vegetation and is of moderate quality of	
Open water		part and is of high quality	
Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or vegetation and is of high quality	or more, or welland's
Select only one.		vegetation and is or riight quality	
High (5)	Narrative D	escription of Vegetation Quality	
Moderately high(4)	low	Low spp diversity and/or predominance	of nonnative or
Moderate (3) Moderately low (2)	mod	disturbance tolerant native species Native spp are dominant component of t	he vegetation
Moderately low (2) K Low (1)	mod	although nonnative and/or disturbance	_
None (0)		can also be present, and species diver	
6c. Coverage of invasive plants. Refer		moderately high, but generally w/o pre	sence of rare
to Table 1 ORAM long form for list. Add	<u> </u>	threatened or endangered spp	
or deduct points for coverage Extensive >75% cover (-5)	high	A predominance of native species, with and/or disturbance tolerant native spp	
\(\times \) Moderate 25-75% cover (-3)		absent, and high spp diversity and often	
(-3) Sparse 5-25% cover (-1)		the presence of rare, threatened, or er	idangered spp
Nearly absent <5% cover (0)			
Absent (1)		Open Water Class Quality	
6d. Microtopography. Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)	_
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	_
Standing dead >25cm (10in) dbh	Mionatan	ranhy Cayar Saala	
Amphibian breeding pools	Microtopog	raphy Cover Scale Absent	
	1	Present very small amounts or if more co	ommon
	5 10 10 10	of marginal quality	3
	2	Present in moderate amounts, but not of	
	3	quality or in small amounts of highest of Present in moderate or greater amounts	
	. 3	and of highest quality	

Site: Wet	and 24	Rater(s): Vick Vaul	Date: 6/23/2011
0 0	Metri	c 1. Wetland Area (size).	
max 6 pts. sub	Select on	e size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
6	Metri	c 2. Upland buffers and surrounding land use.	
max 14 pts. sub	2b. Inten	alate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) sity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallor HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w field. (3)
13 /		c 3. Hydrology.	
max 30 pts. sub	3c. Maxin	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) num water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Part of wetland/up Part of wetland/up Part of vetland/up Part of wetland/up	n (1) ake and other human use (1) land (e.g. forest), complex (1) upland corridor (1) ration. Score one or dbl check. ntly inundated/saturated (4) ed/saturated (3)
		fications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Check all disturbances observed ditch ditch filling/grading road bed/RR track dredging other stormwater input other	stormwater)
7 2	6 Metr	ic 4. Habitat Alteration and Development.	
max 20 pts. sub	3 x	trate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) tat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	
	4c. Habit	at alteration. Score one or double check and average. None or none apparent (9) Check all disturbances observed	
	this page	Recovered (6) Recovering (3) Recent or no recovery (1) Recovering (2) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (4) Recoveri	ic bed removal

Site:	Wetle		24		Rater(s): Ride	PAUL	Date:	6/23/2011
L		7					A 24 A 27 A 27		
	21								
	26								
	subtotal first pa	age							
0	21	Me	etric 5	. Special \	Wetland	ds.			
	26								
max 10 pts.	. subtotal	Chec	ck all that a	pply and score as i	ndicated.				
			Bog (ř		
			Fen (
		1		rowth forest (10)	(5)				
		-		e forested wetland Erie coastal/tributa	. ,	aractricted byde	rology (10)		
		-		Erie coastal/tributa Erie coastal/tributa		•	• ,		
		ŀ		Plain Sand Prairies	Ē		59) (5)		
		Ī		Wet Prairies (10)	,	0 / (
			Know	n occurrence state	/federal threa	itened or endai	ngered species (10)		
				icant migratory son					
		ا ل		ory 1 Wetland. Se					2
2	79	Me	etric 6	. Plant co	mmuni	ties, inte	erspersion, microt	opogra	ıphy.
>	01								
max 20 pts.	. subtotal			getation Communi			Community Cover Scale		
		Score		nt using 0 to 3 scale tic bed	€.		Absent or comprises <0.1ha (0.2) Present and either comprises sn		
		+	Emer			1	vegetation and is of moderate	•	
	,		Shrub				significant part but is of low qu		
	(1)	Fores	t		2	Present and either comprises sig		of wetland's
			Mudfl	ats			vegetation and is of moderate	quality or co	mprises a small
				water			part and is of high quality		
		[Other			3	Present and comprises significa		ore, of wetland's
			norizontai (ct only one.	plan view) Interspe	rsion.		vegetation and is of high qualit	ty	
		Selec	High			Narrative De	scription of Vegetation Quality		
				rately high(4)		low	Low spp diversity and/or predom	inance of no	nnative or
	Ti		Mode	rate (3)			disturbance tolerant native spe	ecies	*
	(1) [Mode	rately low (2)		mod	Native spp are dominant compo		
			X Low (,			although nonnative and/or dist		
			None	` '			can also be present, and spec	•	
				f invasive plants. F M long form for list.			moderately high, but generally threatened or endangered spp	•	e of rare
				for coverage	. Add	high	A predominance of native specie		ative spp
		ο, ασ		sive >75% cover (-	5)	mgn	and/or disturbance tolerant nati		
	(ī	1		rate 25-75% cover	,		absent, and high spp diversity		
	C	/ [Spars	se 5-25% cover (-1)			the presence of rare, threatene	ed, or endang	gered spp
				y absent <5% cove	r (0)				
			Abser	` '			Open Water Class Quality		
			Microtopog	rapny. nt using 0 to 3 scale		0 1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 a	orac)	
		3001		tated hummucks/tu		2	Moderate 1 to <4ha (2.47 to 9.8		
		ŀ		se woody debris >1		3	High 4ha (9.88 acres) or more	0 00100)	
	(8)			ling dead >25cm (1					
	C	/	Amph	ibian breeding poo	ls		aphy Cover Scale	-1	
						0	Absent		
						1	Present very small amounts or if of marginal quality	more comm	on
						2	Present in moderate amounts, b	ut not of high	nest
						_	quality or in small amounts of I		
						3	Present in moderate or greater a		-
							and of highest quality		

Site:	Netland	26 Rater(s): Kick PAN	Date: 6/23/2011
2		etric 1. Wetland Area (size).	
1	_	· ·	
max 6 pts.	subtotal Sel	lect one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
3	>	etric 2. Upland buffers and surrounding land use.	
max 14 pts.	0	Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallor. HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w field (3)
13	18 M	etric 3. Hydrology.	
max 30 pts.	subtotal 3a.	Sources of Water. Score all that apply. High pH groundwater (5) 100 year floodpla Other groundwater (3) Between stream/l	
	0	Precipitation (1) Seasonal/Intermittent surface water (3) Part of wetland/up Part of riparian or	pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check.
		Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Semi- to permane Regularly inundat Seasonally inundate Se	. ,
	() 3e.	< < 0.4m (<15.7in) (1) Seasonally satural Modifications to natural hydrologic regime. Score one or double check and average.	ated in upper 30cm (12in) (1)
	0	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (4) Recovering (4) Recovering (4) Recovering (5) Recovering (5) Recovering (6) Recoveri	90
7	25 M	letric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal 4a.	Substrate disturbance. Score one or double check and average. None or none apparent (4)	
	(3)	Recovered (3) Recovering (2)	
	4b.	Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7)	
		Very good (6) Good (5)	
	(1)	Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	
	4c.	Habitat alteration. Score one or double check and average.	
	3	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (8) Recovering (8) Recovering (9) R	
s	25 ubtotal this page	woody debris removal farming nutrient enrichme	nt

Site:	Wetla	nd 26	Ra	ater(s):	Rick	PAUL	Date: 6/23/201/
		1				Les semanting in the control	
	25						
5	subtotal first pa	_ age					
		Metri	c 5. Special Wet	lands.			
0	25		о от орости.				
max 10 pts.	subtotal	Check all t	hat apply and score as indicat	ed.			
			Bog (10)			, r y	
			Fen (10) Old growth forest (10)				
			Mature forested wetland (5)				
			_ake Erie coastal/tributary wet				
			_ake Erie coastal/tributary wetl			gy (5)	
			Lake Plain Sand Prairies (Oak Relict Wet Prairies (10)	Openings)	(10)		
			Known occurrence state/federa	al threatene	d or endan	gered species (10)	
			Significant migratory songbird/				
			Category 1 Wetland. See Que				
4	29	Metri	c 6. Plant comm	unitie	s, inte	erspersion, micro	topography.
max 20 pts.	subtotal		nd Vegetation Communities.	Vo	notation C	ommunity Cover Scale	
max 20 pto	oubtotal		resent using 0 to 3 scale.	<u>v e (</u>	0	Absent or comprises <0.1ha (0.	.2471 acres) contiguous area
			Aquatic bed		1	Present and either comprises s	· · · ·
	\sim		Emergent			vegetation and is of moderate	
	(1)		Shrub Forest		2	significant part but is of low queries and either comprises s	
			Mudflats		_	vegetation and is of moderate	
			Open water			part and is of high quality	
			Other		3	Present and comprises significa	
		Select only	ntal (plan view) Interspersion.	-		vegetation and is of high qual	ity .
			High (5)	Nai	rative Des	scription of Vegetation Quality	
			Moderately high(4)		low	Low spp diversity and/or predor	
)	Moderate (3) Moderately low (2)		mod	disturbance tolerant native sp Native spp are dominant compo	
	U		ow (1)		mod	although nonnative and/or dis	
			None (0)			can also be present, and spec	
			age of invasive plants. Refer			moderately high, but generally	
			ORAM long form for list. Add points for coverage		high	threatened or endangered sp A predominance of native speci	
			Extensive >75% cover (-5)		riigii	and/or disturbance tolerant na	
			Moderate 25-75% cover (-3)			absent, and high spp diversity	
			Sparse 5-25% cover (-1)			the presence of rare, threaten	ed, or endangered spp
			Nearly absent <5% cover (0) Absent (1)	Mii	dflat and (Open Water Class Quality	
		-	opography.	iviu	0	Absent <0.1ha (0.247 acres)	
			resent using 0 to 3 scale.		1	Low 0.1 to <1ha (0.247 to 2.47	acres)
	_		Vegetated hummucks/tussucks		2	Moderate 1 to <4ha (2.47 to 9.	38 acres)
	-(1)		Coarse woody debris >15cm (6 Standing dead >25cm (10in) dl		3	High 4ha (9.88 acres) or more	
			Amphibian breeding pools		rotopogra	aphy Cover Scale	
		-			0	Absent	
					1	Present very small amounts or of marginal quality	f more common
				_	2	Present in moderate amounts, I	out not of highest
						quality or in small amounts of	highest quality
	7				3	Present in moderate or greater and of highest quality	amounts
1	1					i and of fildfiest duality	

Site: W	letland	28 - fainge e fond 8 Rater(s): Rick Parl Date:	
0	O N	Wetric 1. Wetland Area (size).	
max 6 pts.	subtotal S	Sele <u>ct on</u> e size class and assign score.	
		>50 acres (>20.2ha) (6 pts)	
		25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts)	
		3 to <10 acres (1.2 to <4ha) (3 pts)	
		0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	
		<0.1 acres (0.04ha) (0 pts)	
3	3 1	Wetric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal 2	2a. Calculate average buffer width. Select only one and assign score. Do not double check.	
	(2)	WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)	
	0	NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)	
	21	VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) b. Intensity of surrounding land use. Select one or double check and average.	
		VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)	
	3	LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)	
		HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
24	27 1	Wetric 3. Hydrology.	
max 30 pts.	subtotal 3	Ba. Sources of Water. Score all that apply. 3b. Connectivity. Score all that apply.	
		High pH groundwater (5) Other groundwater (3) High pH groundwater (5) Other groundwater (3) High pH groundwater (1) Between stream/lake and other hum	an use (1)
	(a)	Precipitation (1) Part of wetland/upland (e.g. forest), o	complex (1)
		Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one	
	30	Bc. Maximum water depth. Select only one and assign score.	
		>0.7 (27.6in) (3) Regularly inundated/saturated (3)	
	0	0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) Seasonally saturated in upper 30cm	(12in) (1)
	36	Be. Modifications to natural hydrologic regime. Score one or double check and average.	
		None or none apparent (12) Check all disturbances observed	
	(12)	Recovered (7) ditch point source (nonstormwater) Recovering (3) tile filling/grading	
		Recent or no recovery (1) dike road bed/RR track	
		weir dredging stormwater input other	
			Í
1/	38	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal 4	la. <u>Subs</u> trate disturbance. Score one or double check and average.	
		None or none apparent (4)	
	(3)	Recovered (3) Recovering (2)	
		Recent or no recovery (1)	
	4	4b. Habitat development. Select only one and assign score. Excellent (7)	
		Very good (6)	
		Good (5) Moderately good (4)	
	12	Fair (3)	
		Poor to fair (2)	
	4	Poor (1) 4c. Habitat alteration. Score one or double check and average.	
		None or none apparent (9) Check all disturbances observed	
	(6)	Recovered (6) mowing shrub/sapling removal	
		Recovering (3) grazing herbaceous/aquatic bed removal Recent or no recovery (1) clearcutting sedimentation	
	20	selective cutting dredging	(1)
	38		
SU	ubtotal this page		1

Site: (Netland 2	B - fainge Chand & Rater	(s): Rick	PAN Date: 6/23/20
SI	38 ubtotal first page			
0	38 Me	tric 5. Special Wetlan	ids.	
max 10 pts.		k all that apply and score as indicated.		
		Bog (10)		7
	-	Fen (10) Old growth forest (10)		
	F	Mature forested wetland (5)		
		Lake Erie coastal/tributary wetland-u	unrestricted hydr	rology (10)
		Lake Erie coastal/tributary wetland-r	the second secon	ogy (5)
	-	Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10)	ings) (10)	
	-	Known occurrence state/federal thre	atened or endar	ngered species (10)
		Significant migratory songbird/water		
	L	Category 1 Wetland. See Question		
-4	34 Me	etric 6. Plant communi	ities, inte	erspersion, microtopography.
max 20 pts.	subtotal 6a. V	Vetland Vegetation Communities.	Vegetation C	Community Cover Scale
	Score	all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	6	Aquatic bed © Emergent	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
	(A)	Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
	2 2 2	Mudflats		vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
	L 6b h	Other orizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		et only one.		rogotation and to or mgm quality
		High (5)	Narrative De	scription of Vegetation Quality
	-	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3) Moderately low (2)	mod	disturbance tolerant native species Native spp are dominant component of the vegetation,
	(9)	Low (1)	11100	although nonnative and/or disturbance tolerant native spp
		X None (0)		can also be present, and species diversity moderate to
		Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
		ble 1 ORAM long form for list. Add duct points for coverage	high	threatened or endangered spp A predominance of native species, with nonnative spp
	~	Extensive >75% cover (-5)	riigii	and/or disturbance tolerant native spp absent or virtually
	(-<)	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
	6d. N	// Aicrotopography.	0	Absent <0.1ha (0.247 acres)
		all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more
		Amphibian breeding pools	Microtopogra	aphy Cover Scale
	12		0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
	1			and of highest quality

Site: Wetland 2	9 F	Rater(s): JAson (TARLEY	Date: 6/28/2011
Parameter				
O O IVIET	tric 1. Wetland Ar	ea (Size).		
max 6 pts. subtotal Select	one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20. 10 to <25 acres (4 to <10.1ha 3 to <10 acres (1.2 to <4ha) (0.3 to <3 acres (0.12 to <1.2ha)	2ha) (5 pts) a) (4 pts) (3 pts)		
	0.1 to <0.3 acres (0.04 to <0. <0.1 acres (0.04ha) (0 pts)	12ha) (1 pt)		
2 2 Met	ric 2. Upland buf	fers and surrou	ınding land use.	
0		(164ft) or more around wetl 5m to <50m (82 to <164ft) a 10m to <25m (32ft to <82ft) erage <10m (<32ft) around Select one or double check older forest, prairie, savanna shrub land, young second gidential, fenced pasture, park	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0) and average. h, wildlife area, etc. (7) rowth forest. (5) , conservation tillage, new fallo	w field. (3)
6.5 8.5 Met	HIGH. Urban, industrial, ope tric 3. Hydrology.	n pasture, row cropping, mir	ning, construction. (1)	
	ources of Water. Score all that an High pH groundwater (5) Other groundwater (3) Precipitation (1)		(2) Part of wetland/up	in (1) ake and other human use (1) bland (e.g. forest), complex (1)
	Seasonal/Intermittent surface Perennial surface water (lake aximum water depth. Select only >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2	or stream) (5) one and assign score.	3d. Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat	ated (2)
	∠ <0.4m (<15.7in) (1) odifications to natural hydrologic —	regime. Score one or doub		ated in upper 30cm (12in) (1)
0	None or none apparent (12) Recovered (7) Recovering (3) K Recent or no recovery (1)	Check all disturbances obs ditch tile dike weir stormwater input	erved point source (non filling/grading road bed/RR track dredging other	
3 11.5 Me	tric 4. Habitat Alte	eration and Dev	velopment.	
0	ubstrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) abitat development. Select only of Excellent (7) Very good (6) Good (5) Moderately good (4)		e.	
4c. H	Fair (3) Poor to fair (2) Poor (1) abitat alteration. Score one or do			
	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances obs mowing grazing clearcutting selective cutting	shrub/sapling rem herbaceous/aqua sedimentation dredging	
subtotal this page		woody debris remova toxic pollutants	farming nutrient enrichme	nt

Site:	Wething 2	9 Rate	r(s): JAson	EARley	Date: 6/28/2011
	11.5				
s	subtotal first page				
0		tric 5. Special Wetlar	nds.		
max 10 pts.	subtotal Check	all that apply and score as indicated.			
	-	Bog (10) Fen (10)		· · · · · · · · · · · · · · · · · · ·	
	F	Old growth forest (10)			
		Mature forested wetland (5)			
	_	Lake Erie coastal/tributary wetland-			
	-	Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Ope		ogy (5)	
		Relict Wet Prairies (10)	111193) (10)		
		Known occurrence state/federal three			
	<u> </u>	Significant migratory songbird/wate			
		Category 1 Wetland. See Question			. 4
/	12.5 IVIE	tric 6. Plant commun	lities, inte	erspersion, micro	topograpny.
max 20 pts.		etland Vegetation Communities.	Vogotation	Community Cover Scale	
max 20 pto.		all present using 0 to 3 scale.	0		0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises	small part of wetland's
		O Emergent		vegetation and is of modera	
	(6)	Shrub Forest	2	significant part but is of low Present and either comprises	
		Mudflats	2	1	te quality or comprises a small
	18 x2 85	.Open water		part and is of high quality	4
		Other	3		cant part, or more, of wetland's
		orizontal (plan view) Interspersion.		vegetation and is of high qua	ality
	Select	only one. High (5)	Narrative De	escription of Vegetation Qualit	tv
	g all loss	Moderately high(4)	low	Low spp diversity and/or predo	
	(a) =	Moderate (3)		disturbance tolerant native s	
		Moderately low (2)	mod	Native spp are dominant comp	· · · · · · · · · · · · · · · · · · ·
	 -	Low (1) None (0)		can also be present, and spe	isturbance tolerant native spp ecies diversity moderate to
	6c. Co	overage of invasive plants. Refer		moderately high, but genera	• • • • • • • • • • • • • • • • • • • •
		le 1 ORAM long form for list. Add		threatened or endangered s	
	or ded	luct points for coverage	high	A predominance of native spe	
	-	Extensive >75% cover (-5) Moderate 25-75% cover (-3)			native spp absent or virtually ty and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threate	
		Nearly absent <5% cover (0)			
		Absent (1)		Open Water Class Quality	
		icrotopography. all present using 0 to 3 scale.	0 1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47	7 acres)
	Γ	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9	
	(0)	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
		Standing dead >25cm (10in) dbh	Mioretens	ranhy Coyor Soala	
	L	Amphibian breeding pools	Microtopogi 0	Absent	water to the second
			1	Present very small amounts or	r if more common
				of marginal quality	
			2	Present in moderate amounts,	
			3	quality or in small amounts or Present in moderate or greate	
	7		Ü	and of highest quality	

12.5

Site: Wetlan	30 Ra	ter(s): JASON GARLLY	Date: 6/28/2011
0 0	Metric 1. Wetland Area	,	*
max 6 pts. subtota	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha 10 to <25 acres (4 to <10.1ha) (4 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) 0.1 to <0.3 acres (0.04 to <0.12ha) (0.12 to <1.2ha) 0.1 acres (0.04ha) (0 pts)	4 pts) ts) (2pts) na) (1 pt)	
2-2	Metric 2. Upland buffe	rs and surrounding land u	se.
max 14 pts. subtota	WIDE. Buffers average 50m (16 MEDIUM. Buffers average 25m NARROW. Buffers average 10n VERY NARROW. Buffers average 12b. Intensity of surrounding land use. Se VERY LOW. 2nd growth or olde LOW. Old field (>10 years), shr	t only one and assign score. Do not double check that or more around wetland perimeter (7) to <50m (82 to <164ft) around wetland perimeter to <50m (82ft to <82ft) around wetland perimeter to <25m (32ft to <82ft) around wetland perimeter ge <10m (<32ft) around wetland perimeter (0) lect one or double check and average. For forest, prairie, savannah, wildlife area, etc. (7) ab land, young second growth forest. (5) tial, fenced pasture, park, conservation tillage, neasture own cropping, mining, construction. (1)	r (4) ler (1)
6.5 8.5	Metric 3. Hydrology.		
max 30 pts. subtota	3a. Sources of Water. Score all that apply High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface wa Perennial surface water (lake or 3c. Maximum water depth. Select only on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic reg	ater (3) stream) (5) a and assign score. 100 year file Between sile Part of wet Part of ripa 20	ore all that apply. oodplain (1) tream/lake and other human use (1) land/upland (e.g. forest), complex (1) urian or upland corridor (1) on/saturation. Score one or dbl check. ermanently inundated/saturated (4) nundated/saturated (3) v inundated (2) v saturated in upper 30cm (12in) (1)
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	neck all disturbances observed ditch tile dike weir stomwater input point source filling/gradi road bed/R dredging other	
3 11.5	Metric 4. Habitat Alter	ation and Development.	
max 20 pts. subtota	4a. Substrate disturbance. Score one or of None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double	and assign score.	
subtotal thi	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	neck all disturbances observed shrub/sapl	ing removal is/aquatic bed removal tion - Pond Breach richment

Site: Wethord 30	Rater(s): Jaso.	Eneley	Date: 6/28/2011
		/	(
115			
11.7			
subtotal first page			
() _{//.} Metric 5. Special W	etianas.		
max 10 pts. subtotal Check all that apply and score as indi	cated.	1,000	
Fen (10)			
Old growth forest (10)			
Mature forested wetland (5)			
Lake Erie coastal/tributary	The state of the s		
Lake Erie coastal/tributary v		logy (5)	
Relict Wet Prairies (10)	oun openings) (10)		
Known occurrence state/fed	deral threatened or enda	ingered species (10)	
Significant migratory songb			
Category 1 Wetland. See 0			
Metric 6. Plant com	munities, inte	erspersion, micro	topography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities Score all present using 0 to 3 scale.	s. <u>Vegetation</u>	Community Cover Scale	2471 carea) contigueus area
Aquatic bed	1	Absent or comprises <0.1ha (0 Present and either comprises s	
© Emergent		vegetation and is of moderate	
Shrub		significant part but is of low q	
Forest	2	Present and either comprises s	
Mudflats Open water		part and is of high quality	e quality or comprises a small
Other	3	Present and comprises signific	ant part, or more, of wetland's
6b. horizontal (plan view) Interspersion	-	vegetation and is of high qua	
Select only one.			55,2 7 7
High (5)		escription of Vegetation Quality	
Moderately high(4) Moderate (3)	low	Low spp diversity and/or predo disturbance tolerant native sp	
Moderately low (2)	mod	Native spp are dominant comp	
Low (1)		although nonnative and/or dis	sturbance tolerant native spp
None (0)		can also be present, and spe	
6c. Coverage of invasive plants. Ref- to Table 1 ORAM long form for list. A		moderately high, but generall threatened or endangered sp	
or deduct points for coverage	high	A predominance of native spec	<u> </u>
Extensive >75% cover (-5)	3	and/or disturbance tolerant na	
Moderate 25-75% cover (-3)	absent, and high spp diversity	
Sparse 5-25% cover (-1)		the presence of rare, threater	ned, or endangered spp
Nearly absent <5% cover (0	•	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47	acres)
Vegetated hummucks/tussu		Moderate 1 to <4ha (2.47 to 9.	88 acres)
Coarse woody debris >15cr	` '	High 4ha (9.88 acres) or more	
Standing dead >25cm (10in Amphibian breeding pools	•	raphy Cover Scale	
withing an account position	0	Absent	Activities and activities activities and activities activities and activities activities and activities activities activities and activities act
	1	Present very small amounts or	if more common
		of marginal quality	had and of high and
	2	Present in moderate amounts, quality or in small amounts of	•
	3	Present in moderate or greater	
2/	6.24	and of highest quality	

12.5

Site:	1/etland 31	Rater(s): JAson Earle	4	Date: 6/28/201/
V		roa (cizo)	/	,
0	Metric 1. Wetland A	irea (Size).		
max 6 pts.	subtotal Select one size class and assign sco >50 acres (>20.2ha) (6 pts			
	25 to <50 acres (10.1 to <2	0.2ha) (5 pts)		
	10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha			
	0.3 to <3 acres (0.12 to <1	2ha) (2pts)		
	0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)			
2	2 Metric 2. Upland bu		ng land use.	
max 14 pts.	subtotal 2a. Calculate average buffer width.	Select only one and assign score. Do	not double check.	
	MEDILIM Buffers average	m (164ft) or more around wetland per 25m to <50m (82 to <164ft) around v	rimeter (7) vetland perimeter (4)	
	X NARROW. Buffers average	e 10m to <25m (32ft to <82ft) around	wetland perimeter (1)	
	2b. Intensity of surrounding land use	average <10m (<32ft) around wetland . Select one or double check and av	erage.	
	VÉRY LOW. 2nd growth o	r older forest, prairie, savannah, wildl	ife area, etc. (7)	
	MODERATELY HIGH. Re), shrub land, young second growth fo sidential, fenced pasture, park, conse	rvation tillage, new fallo	ow field. (3)
	X HIGH. Urban, industrial, 6	pen pasture row cropping, mining, co	nstruction. (1)	
5.5	7.5 Metric 3. Hydrology	/.		
max 30 pts.	subtotal 3a. Sources of Water. Score all that High pH groundwater (5)	apply. 3b.	Connectivity. Score all 100 year floodpla	
	Other groundwater (3)		Between stream/	lake and other human use (1)
	Precipitation (1) Seasonal/Intermittent surfa	una water (3)		pland (e.g. forest), complex (1) rupland corridor (1)
	Perennial surface water (la		Duration inundation/sati	uration. Score one or dbl check.
	3c. Maximum water depth. Select o	nly one and assign score.	Semi- to permane Regularly inunda	ently inundated/saturated (4)
	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in	(1.5)	Seasonally inund	
	< 0.4m (<15.7in) (1)	ic regime. Score one or double chec		ated in upper 30cm (12in) (1)
	None or none apparent (1)		k and average.	
	Recovered (7)	ditch	point source (nor	istormwater)
	Recovering (3) Recent or no recovery (1)	tile	filling/grading road bed/RR trac	·k
	These in the receivery (1)	weir	A dredging	
		stormwater input	other	
3	Metric 4. Habitat A	teration and Develo	pment.	
max 20 pts.	subtotal 4a. Substrate disturbance. Score of			
	None or none apparent (4) Recovered (3)			
	Recovering (2)			
	Recent or no recovery (1) 4b. Habitat development. Select on	ly one and assign score.		
	Excellent (7)			
	Very good (6) Good (5)			
	Moderately good (4)			
	Fair (3) Poor to fair (2)			
	Poor (1)	double abook and average		
	4c. Habitat alteration. Score one or None or none apparent (9			
	Recovered (6)	mowing	shrub/sapling rer	
	Recovering (3) Recent or no recovery (1)	grazing clearcutting	herbaceous/aqua	atic bed removal
	Trecent of no recovery (1)	selective cutting	dredging	
	10.5	woody debris removal toxic pollutants	farming nutrient enrichme	ent
s	subtotal this page	toxio pondiditio		
last revised	d 1 February 2001 jjm			

Site:	Wetland	31	Rater(s):	gran Earley	Date: 6/28/2011
s	Ubtotal first page		. 0	ang recap [*] president	
0	10.5 N	letric 5. Special V	Vetlands.		
max 10 pts.	subtotal Ch	neck all that apply and score as in Bog (10)	ndicated.		
		Fen (10) Old growth forest (10) Mature forested wetland	(5)		
		Lake Erie coastal/tributar Lake Erie coastal/tributar Lake Plain Sand Prairies Relict Wet Prairies (10)	y wetland-unrestricte y wetland-restricted h (Oak Openings) (10)	ydrology (5)	
		Known occurrence state/ Significant migratory sone Category 1 Wetland. See	gbird/water fowl habit		
2	12.5 N	letric 6. Plant cor			crotopography.
max 20 pts.	subtotal 6a	. Wetland Vegetation Communiti	es. Vegeta	tion Community Cover Scale	
	Sc	ore all present using 0 to 3 scale	-		1ha (0.2471 acres) contiguous area
		Aquatic bed	1		rises small part of wetland's
		@ Emergent		-	oderate quality, or comprises a
	0	Shrub		significant part but is of	
		Forest	2		rises significant part of wetland's
		Mudflats			oderate quality or comprises a small
		Open water		part and is of high qual	
	01-	Other	3		ignificant part, or more, of wetland's
		. horizontal (plan view) Intersper	sion.	vegetation and is of hig	h quality
	Se	elect only one.		5,000	
		High (5)		ve Description of Vegetation G	
		Moderately high(4)	lo		predominance of nonnative or
	(6)	Moderate (3)		disturbance tolerant na	tive species
	(0)	Moderately low (2)	mo	The second secon	component of the vegetation,
		Low (1)		although nonnative and	d/or disturbance tolerant native spp
		X None (0)			nd species diversity moderate to
		. Coverage of invasive plants. R			enerally w/o presence of rare
		Table 1 ORAM long form for list.		threatened or endange	
	or	deduct points for coverage	hig	h A predominance of native	e species, with nonnative spp
		Extensive >75% cover (-5			rant native spp absent or virtually
		Moderate 25-75% cover (-3)		iversity and often, but not always,
	\mathcal{O}	Sparse 5-25% cover (-1)		the presence of rare, th	reatened, or endangered spp
		Nearly absent <5% cover	1 /		
		Absent (1)	Mudfla	and Open Water Class Qualit	
		. Microtopography.	0	Absent <0.1ha (0.247 ac	
	Sc	ore all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to	
		Vegetated hummucks/tus			
	\sim	Coarse woody debris >15		High 4ha (9.88 acres) or	more
	(1)	Standing dead >25cm (10	,		
		Amphibian breeding pools	-	pography Cover Scale	
			0	Absent	
			1	Present very small amount of marginal quality	
			2	quality or in small amou	unts of highest quality
			3	Present in moderate or gr	reater amounts
/	1		19	and of highest quality	

12.5

Site:	Wetlan	1 32	R	ater(s):	Rick Paul		Date: 7/2	1/2011
0	0	Metric 1.	Wetland Are	ea (size)	(2)		,	,
max 6 pts.	subtotal (>50 acr 25 to <5 10 to <2 3 to <10 0.3 to <	ass and assign score. es (>20.2ha) (6 pts) 0 acres (10.1 to <20.2 5 acres (4 to <10.1ha) acres (1.2 to <4ha) (3 3 acres (0.12 to <1.2ha) 0.3 acres (0.04 to <0.1 es (0.04ha) (0 pts)	(4 pts) 5 pts) a) (2pts)				
12	12	Metric 2.	Upland buff	ers and	surround	ing land use.		
max 14 pts.	0	WIDE. MEDIUI NARRO VERY N VERY L LOW. G MODER	W. Buffers average 1 IARROW. Buffers averounding land use. Soow. 2nd growth or old field (>10 years), si	164ft) or more m to <50m (82 0m to <25m (3 rage <10m (<3 0 0m to end of the forest, prainrub land, your ential, fenced p	around wetland po to <164ft) around i2ft to <82ft) around i2ft) around wetlar puble check and a rie, savannah, wilc ig second growth asture, park, cons	erimeter (7) wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) nverage. diffe area, etc. (7) forest. (5) ervation tillage, new fallo	ow field. (3)	
21	33	Metric 3.	Hydrology.					
max 30 pts.		High pl- Other g Precipit Season. Perenni 3c. Maximum wal >0.7 (27) 0.4 to 0. <0.4m (al/Intermittent surface al surface water (lake er depth. Select only	water (3) or stream) (5) one and assigr	3d. score. 3	Part of wetland/u Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat Seasonally satura	nin (1) lake and other hum pland (e.g. forest), upland corridor (1) uration. Score one ently inundated/satu ted/saturated (3)	complex (1)) or dbl check. urated (4)
	(12)	Recove Recove	ed (7)	Check all distured ditch tile dike weir stormwate	bances observed	point source (non filling/grading road bed/RR trac dredging other_		*
16	49	Metric 4.	Habitat Alte	ration a	nd Develo	pment.		I
max 20 pts.	(4)	None or Recove Recove Recove Recole Recent Habitat develue Very go Good (5 Modera X Fair (3) Poor to Poor (1'	ring (2) or no recovery (1) opment. Select only or tt (7) od (6)) ely good (4) fair (2)	ne and assign s	score.			
SI	49 Jubital this page	None or Recove Recove Recent	none apparent (9) red (6)	Check all disturmowing grazing clearcutting selective	bances observed ng cutting bris removal	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal	**

Site:	Wetlan	d 32	Rat	er(s): Lick	PAI	Date: 7/21/2011
		7			g beet grant W	franciski,
	49					
SI	ubtotal first pa	7		_		
()	49	Me	etric 5. Special Wetla	ands.		
max 10 pts.	subtotal	ן Chec	k all that apply and score as indicated			
			Bog (10)		,	
		1	Fen (10)			
		-	Old growth forest (10) Mature forested wetland (5)			
		-	Lake Erie coastal/tributary wetlan	nd-unrestricted hyd	rology (10)	
		F	Lake Erie coastal/tributary wetlan			
			Lake Plain Sand Prairies (Oak O	penings) (10)		
		-	Relict Wet Prairies (10)		(40)	
		-	Known occurrence state/federal t Significant migratory songbird/wa			
		-	Category 1 Wetland. See Questi		- , .	
. 1	62	Me	etric 6. Plant commu			otopography
14	53	1410	tire of Trant commit	iiiidos, iiid	croperoion, more	stopograpny.
max 20 pts.	subtotal	J -6a. √	Vetland Vegetation Communities.	Vegetation	Community Cover Scale	
			e all present using 0 to 3 scale.	0		(0.2471 acres) contiguous area
			Aquatic bed	1	Present and either comprises	
		4	Emergent		vegetation and is of modera	
	(D	Shrub Forest	2	significant part but is of low Present and either comprises	
	,		Mudflats	2		ate quality or comprises a small
			Open water		part and is of high quality	na safé.
			Other	3		icant part, or more, of wetland's
			norizontal (plan view) Interspersion.		vegetation and is of high qu	ıality
		Selec	ct only one. High (5)	Narrative De	escription of Vegetation Quali	ity
		arra est	Moderately high(4)	low	Low spp diversity and/or pred	
		_ [Moderate (3)	A CONTRACTOR OF SERVICE	disturbance tolerant native	
	(0	Moderately low (2)	mod	Native spp are dominant com	
		-	Low (1)			disturbance tolerant native spp becies diversity moderate to
		6c (None (0) Coverage of invasive plants. Refer		moderately high, but genera	•
			ble 1 ORAM long form for list. Add		threatened or endangered s	
		or de	duct points for coverage	high	A predominance of native spe	
			Extensive >75% cover (-5)			native spp absent or virtually
		1	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		the presence of rare, threat	sity and often, but not always,
	C	ソト	Nearly absent <5% cover (0)		the presence of fare, threat	crica, or criacingered opp
			Absent (1)	Mudflat and	Open Water Class Quality	10 "
			Microtopography.	0	Absent <0.1ha (0.247 acres)	
		Score	e all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.4	
		-	Vegetated hummucks/tussucks Coarse woody debris >15cm (6in	2 3	Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or more	
	(0	Ostanding dead >25cm (10in) dbh		1311 1114 (0.00 40100) 01 11101	
	(Amphibian breeding pools		raphy Cover Scale	
		-		0	Absent	
				1	Present very small amounts of marginal quality	
				2	Present in moderate amounts quality or in small amounts	
				3	Present in moderate or greate	
	7				I and at binbook analis.	

Site: Wet hand	33- Bond Faires	Rater(s): J. EARley		Date: 9/9/201/
O O M	letric 1. Wetland A	area (size).		/
max 6 pts. subtotal Se	lect one size class and assign sco) 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
4 4 M	letric 2. Upland bu	ffers and surround	ing land use.	
0	WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years) MODERATELY HIGH. Res	Select only one and assign score. If m (164ft) or more around wetland point of 25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetlar select one or double check and a colder forest, prairie, savannah, wild should be and young second growth sidential, fenced pasture, park, consider pasture, row cropping, mining, or	erimeter (7) I wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	w field. (3)
14.5 18.5 M	etric 3. Hydrology	.		
3c. (<i>D</i>) 3e.	None or none apparent (12) Recovered (7)	ce water (3) (4) (5) (9) (12) (2) (2) (2) (2) (2) (3) (4) (5) (6) (7) (7) (8) (9) (9) (9) (10) (10) (10) (10) (10) (10) (10) (10	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundate X Seasonally inundate Seasonally satura	in (1) ake and other human use (1) aland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) ated (2) tted in upper 30cm (12in) (1)
	Recovering (3) X Recent or no recovery (1)	tile X dike weir stormwater input	filling/grading road bed/RR track X dredging other	(
4.5 Z3 M	letric 4. Habitat Alt	teration and Develo	pment.	
(1.5)	Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)	·		
•	Poor to fair (2)			
4c. 23 subtotal this page	Habitat alteration. Score one or d None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	ouble check and average. Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling remained herbaceous/aquatisedimentation dredging farming nutrient enrichments	ic bed removal
last revised 1 February 20	001 jjm			

Site: (Wetland	33	- Pox	·d 5	friese)	Rater(s	s): J.	EARLY	Date:	9/9/2011
· · · · · · · · · · · · · · · · · · ·	23								(,
SI	ubtotal first pa	j ige									
0	23	Ме	tric	5.	Spec	ial V	Vetland	ds.			
max 10 pts.	subtotal	Chec			oly and sco	ore as ir	idicated.				
		F		3og (10 Fen (10							
		-			wth forest	(10)					
					forested v						
		L					-	restricted hydr			
		-					y wettand-re: (Oak Openir	stricted hydrolo nas) (10)	Jgy (3)		
		<u> </u>			Vet Prairie		(oun open	9-7 (7			
									ngered species (10)		
				Signific	ant migrat	ory son	gbird/water fo	owl habitat or u	usage (10)		
		ا ^ل						Qualitative Ra			I
3	26	Me	tric	56.	Plan	t cor	nmuni	iles, inte	erspersion, microto	pogra	ipny.
max 20 pts.	subtotal] 60 V	Motlar	nd Voq	etation Co	mmunit	ioe	Vegetation (Community Cover Scale		
1118X 20 Pt3.	Subtotui			-	using 0 to			0	Absent or comprises <0.1ha (0.2	471 acres)	contiguous area
		Γ		Aquatic				1	Present and either comprises sm	all part of w	etland's
				Emerge	ent				vegetation and is of moderate		omprises a
	(1)) -		Shrub					significant part but is of low qua		of wotland's
		-		Forest	to			2	Present and either comprises sig vegetation and is of moderate of		
		ŀ	─	Mudflat Open w					part and is of high quality	quality of oo	imprioco a siriai
		ŀ		Other	rator			3	Present and comprises significan	nt part, or m	ore, of wetland's
		6b. h			lan view) l	ntersper	sion.		vegetation and is of high qualit	У	
		Selec	ct only		-1				to the second se		
		-	_	High (5		4)		low	scription of Vegetation Quality Low spp diversity and/or predom	inance of no	onnative or
		F		Modera	ately high(- ate (3)	4)		IOW	disturbance tolerant native spe		Simulation of
		a			ately low (2	2)		mod	Native spp are dominant compor	nent of the v	egetation,
		9) [Low (1)					although nonnative and/or distu		
		L		None (,	_			can also be present, and speci		
				•	invasive p				moderately high, but generally threatened or endangered spp	w/o present	ce or rare
					for covera		Add	high	A predominance of native specie	s, with nonr	native spp
		Γ			ive >75%	-	5)		and/or disturbance tolerant nat		
				Modera	ate 25-75%	6 cover	(-3)		absent, and high spp diversity		
		0			5-25% cc				the presence of rare, threatene	d, or endan	gered spp
					absent <5	% cove	r (0)	Mudflat and	Open Water Class Quality		
		6d 1		Absent lopogra	. ,			0	Absent <0.1ha (0.247 acres)		
					using 0 to	3 scale	١,	1	Low 0.1 to <1ha (0.247 to 2.47 a	cres)	
					ated humm			2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)	
	(1	1			e woody de			3	High 4ha (9.88 acres) or more		
	C.	/			ng dead >: bian breed			Microtopogr	aphy Cover Scale		
		L	<i>'</i>	чирии	Jian breed	iing poo	15	0	Absent		
								1	Present very small amounts or if	more comn	non
									of marginal quality		
								2	Present in moderate amounts, be		
								3	quality or in small amounts of the Present in moderate or greater a		ity
	7							J	and of highest quality	mounts	

Site:	Wetla	und 3	34	F	Rater(s): TAson	EARLE.	Date: 9/	13/2011
٥	0	Metri	c 1. Wetla	and Ar	ea (size).	,	,	
max 6 pts.	(6)		e size class and a >50 acres (>20.2) 25 to <50 acres (10 to <25 acres (3 to <10 acres (1 0.3 to <3 acres (0 0.1 to <0.3 acres <0.1 acres (0.04h	na) (6 pts) 10.1 to <20.; 4 to <10.1ha 2 to <4ha) (. .12 to <1.2h (0.04 to <0.; a) (0 pts)	2ha) (5 pts)) (4 pts) 3 pts) a) (2pts) 12ha) (1 pt)			
3	3	Metri	c 2. Uplar	nd buff	ers and suri	oundi	ng land use.	
max 14 pts.		2b. Intens	WIDE. Buffers av MEDIUM. Buffers NARROW. Buffer VERY NARROW. sity of surrounding VERY LOW. 2nd LOW. Old field (> MODERATELY H	erage 50m of average 25 s average 1 Buffers average 1 land use. S growth or ol 10 years), s GH. Reside	lect only one and assig (164ft) or more around fim to <50m (82 to <164 0m to <25m (32ft to < erage <10m (<32ft) aro Select one or double of der forest, prairie, sava hrub land, young secon ential, fenced pasture, pasture, row cropping	wetland per lft) around w 82ft) around und wetland neck and aven annah, wildli and growth for park conserver.	imeter (7) vetland perimeter (4) I wetland perimeter (1) I perimeter (0) erage. fe area, etc. (7) rest. (5)	
5.5	8.5	Metric	c 3. Hydro	ology.		,	(1)	
max 30 pts.		3c. Maxim	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 t <0.4m (<15.7in) (1	ter (5) (3) ent surface value (lake of Select only of 27.6in) (2)	water (3) or stream) (5) one and assign score.	3d. D	Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other hu Part of wetland/upland (e.g. forest Part of riparian or upland corridor Duration inundation/saturation. Score or Semi- to permanently inundated/sa Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30c and average.), complex (1) (1) ne or dbl check. aturated (4)
	Ü		None or none appa Recovered (7) Recovering (3) Recent or no recov		Check all disturbances ditch tile dike weir stormwater input	observed [point source (nonstormwater) filling/grading - Achive road bed/RR track dredging other	Adjount
3.5	12	Metric	4. Habita	at Alte	ration and D	evelop	oment.	<u> </u>
max 20 pts.	41	b. Habitat	lone or none appa Recovered (3) Recovering (2) Recent or no recover Cevelopment. Se Excellent (7) (ery good (6) Food (5) Inderately good (4 air (3) oor to fair (2)	rent (4) ery (1) lect only on	double check and ave and assign score.	rage.		
subto	12 tal this page	Ni Ri	one or none appar ecovered (6) ecovering (3) ecent or no recove	ent (9)	heck all disturbances of mowing grazing clearcutting selective cutting woody debris remotoxic pollutants	2	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	ADJACENT to SILO

ORAM v	. 5.0 Field Fo	orm Quantita			400		3
Site:	Wetland	134		Rater(s)	: J. EAS	eley	Date: 9/13/2011
0	1Z subtotal first p] Metri	c 5. Special W		5.	,	
max 10 p			Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory songl Category 1 Wetland. See	wetland-unre wetland-resti Oak Opening deral threate bird/water fov Question 1 G	ricted hydrolo s) (10) ned or endan vI habitat or u Qualitative Ra	gy (5) gered species (10) sage (10)	opography.
12	. 14	Metri	c 6. Plant com				opograpny.
max 20	pts. subtotal		and Vegetation Communitie	es.		ommunity Cover Scale Absent or comprises <0.1ha (0.	2471 cares) configuous area
		Score all	present using 0 to 3 scale.	-	<u>0</u> 1	Present and either comprises si	mail part of wetland's
		-	Aquatic bed		ı	vegetation and is of moderate	quality, or comprises a
		, 1	Emergent			significant part but is of low qu	uality
		()	Shrub Forest	-	2	Present and either comprises si	ignificant part of wetland's
			Mudflats		_	vegetation and is of moderate	quality or comprises a small
						part and is of high quality	
			Open water	•	3	Present and comprises significa	ant part, or more, of wetland's
			Other		J	vegetation and is of high qual	
			ontal (plan view) Interspers	,		, ogotation and	
		Select or	4°		Narrative De	scription of Vegetation Quality	,
		ļ	High (5)	,	low	Low spp diversity and/or predor	minance of nonnative or
			Moderately high(4)		1011	disturbance tolerant native sp	pecies
		$\wedge \vdash$	Moderate (3)		mod	Native spp are dominant compo	onent of the vegetation,
	((o)	Moderately low (2)		11100	although nonnative and/or dis	sturbance tolerant native spp
		· ·	Low (1)			can also be present, and spe-	cies diversity moderate to
		\ X	None (0)	əfər		moderately high, but generall	y w/o presence of rare
		bc. Cove	erage of invasive plants. Ro 1 ORAM long form for list.	Add		threatened or endangered sp	
				7144	high	A predominance of native spec	
		or deduc	t points for coverage Extensive >75% cover (-5	3	1.19.1	and/or disturbance tolerant na	ative spp absent or virtually
			Moderate 25-75% cover (absent, and high spp diversit	y and often, but not always,
			Sparse 5-25% cover (-1)	-3)		the presence of rare, threater	ned, or endangered spp
		0 H	Nearly absent <5% cover	(0)			
			-	(0)	Mudflat and	Open Water Class Quality	
		X X	Absent (1)		0	Absent <0.1ha (0.247 acres)	
			otopography. I present using 0 to 3 scale.		1	Low 0.1 to <1ha (0.247 to 2.47	acres)
		Score at	Vegetated hummucks/tus	sucks	2	Moderate 1 to <4ha (2.47 to 9	.88 acres)
			Coarse woody debris >15	icm (6in)	3	High 4ha (9.88 acres) or more	
		(9 F	Standing dead >25cm (10	on (on)			
		-	Amphibian breeding pool		Microtopoa	raphy Cover Scale	
		L		-	0	Absent	
					1	Present very small amounts or	if more common
					•	of marginal quality	
						Present in moderate amounts,	but not of highest
					-	quality or in small amounts o	f highest quality
					3	Present in moderate or greater	
					J	and of highest quality	
1	1						

Site:	Wetland	35	Rater(s): Jason Earle	Y	Date: 9/13/2011
0	0	Metric 1. Wetland A			,
max 6 pts.	subtotal	Select one size class and assign sco) 20.2ha) (5 pts) ha) (4 pts) a) (3 pts) .2ha) (2pts) :0.12ha) (1 pt)		
8	8	Metric 2. Upland bu	ffers and surroundi	ng land use.	
max 14 pts.	G	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth o X LOW. Old field (>10 years X MODERATELY HIGH. Res HIGH. Urban, industrial, op	m (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around to e 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland Select one or double check and average forest, prairie, savannah, wildl), shrub land, young second growth forestial, fenced pasture, park, consepen pasture, row cropping, mining, co	rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) yerage. life area, etc. (7) orest. (5) ervation tillage, new fallo	w field. (3)
17	25	Metric 3. Hydrology	'.		
max 30 pts.	(3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (Ial 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) × 0.4m (<15.7in) (1) 3e. Modifications to natural hydrologi	ce water (3) ke or stream) (5) ally one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat Seasonally satura	in (1) ake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check intly inundated/saturated (4) ed/saturated (3)
	9.5	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (non: filling/grading road bed/RR track dredging other_	,
10	35	Metric 4. Habitat Al	teration and Develo	pment.	
max 20 pts.	G	4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	y one and assign score.		
		4c. Habitat alteration. Score one or o	double check and average. Check all disturbances observed		
	ubtotal this page	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichmer	ic bed removal
last revised	l 1 February	[,] 2001 jjm			

Site: Welland 35	Rater(s): JASON EARLEY	Date: 9//3/201/
Site. Welland 3)	Mater(3). JASON EARLEY	Date: 1/ 1/3/ 1/3/
subtotal first page O 35 Metric 5. Special V	Vetlands.	
Lake Erie coastal/tributary Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/f Significant migratory song Category 1 Wetland. See	y wetland-unrestricted hydrology (10) y wetland-restricted hydrology (5) (Oak Openings) (10) federal threatened or endangered species (10) gbird/water fowl habitat or usage (10) e Question 1 Qualitative Rating (-10)	
2 37 Metric 6. Plant con	nmunities, interspersion, mic	crotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities		
Score all present using 0 to 3 scale. Aquatic bed Emergent	Present and either compresent vegetation and is of mo	ha (0.2471 acres) contiguous area ises small part of wetland's derate quality, or comprises a
O Shrub Forest Mudflats Open water	vegetation and is of mo part and is of high quali	ises significant part of wetland's derate quality or comprises a small ty
Other 6b. horizontal (plan view) Interspers		gnificant part, or more, of wetland's h quality
Select only one. High (5)	Narrative Description of Vegetation Q	mality
Moderately high(4) Moderate (3)		predominance of nonnative or
Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Re to Table 1 ORAM long form for list.	although nonnative and can also be present, an efer moderately high, but ge	component of the vegetation, /or disturbance tolerant native spp d species diversity moderate to enerally w/o presence of rare red spp
or deduct points for coverage Extensive >75% cover (-5 Moderate 25-75% cover (Sparse 5-25% cover (-1)	and/or disturbance toler absent, and high spp di the presence of rare, th	e species, with nonnative spp rant native spp absent or virtually versity and often, but not always, reatened, or endangered spp
Nearly absent <5% cover X Absent (1) 6d. Microtopography.	(0) Mudflat and Open Water Class Qualit 0 Absent <0.1ha (0.247 ac	-
Score all present using 0 to 3 scale.		
Coarse woody debris >15 Standing dead >25cm (10	Din) dbh	more
Amphibian breeding pools		
	0 Absent 1 Present very small amount of marginal quality	nts or if more common
	2 Present in moderate amo quality or in small amou	
	3 Present in moderate or grand of highest quality	reater amounts

Wetland Determination Data Forms Eastern Mountains and Piedmont

(forms are grouped by wetland and not in sequential order)

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 5 Subregion (LRR or MLRA: LRR N 38.8628 82.8954 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 1 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): 10 Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. Sambucus canadensis 2. 3. 4.		10	Yes	FACW	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	
Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FACU Species	
Carex vulpinoidea Carex lurida Agrostis gigantea		30 30 30	Yes Yes Yes	OBL OBL FACW	Column Totals: (A) Prevalence Index = B/A =	(B)
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separa sheet) Problematic Hydrophytic Vegetation¹ (Exp	
Woody Vine Stratum (Plot size:	30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog must be present, unless disturbed or problema	
1. 2.					Definitions of Four Vegetation Strata:	
3. 4. 5. 6.					Tree – Woody plants, excluding vines, 3 in. (7 or more in diameter at breast height (DBH), re of height	
7. 8.					Sapling/Shrub – Woody plants, excluding vine less than 3 in. DBH and greater than 3.28 ft (1	
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than tall.	n 3.28 ft
					Woody vine – All woody vines greater than 3. height.	.28 ft in
Remarks: (Include photo number	a hora or an a accord	proto obset			Hydrophytic Vegetation Present? Yes X No	

All of the dominant species observed have an OBL and FACW wetland indicator status. This observation satisfies the Rapid Test for Hydrophytic Vegetation. This observation satisfies the vegetation criterion.

Depth	Matrix			Redo	x Featur	es					
inches)	Color (moist)	%	Color	r (moist) % Type ¹ Loc ²				Texture	Re	marks	
0-6	10YR 4/2	95		YR 4/4	5	C	PL	SiL			
6-18	10YR 5/2	95	10`	YR 4/6	5	С	PL	SiL			
Hydric Soi Histoso Histoso Black F Hydrog Stratific 2 cm M Deplete Thick D Sandy Sandy Sandy	Epipedon (A2) Histic (A3) Jen Sulfide (A4) Jed Layers (A5) Muck (A10) (LRR N) Jed Below Dark Surface (A12) Mucky Mineral (S1) (LRR	A11)	x	Dark Surface Polyvalue E 147, 148) Thin Dark S Loamy Gley Depleted M Redox Dark Depleted Do Redox Depi Iron-Manga MLRA 136) Umbric Surf Piedmont F 148)	ce (S7) selow Su Gurface (red Matr atrix (F3 c Surface ark Surface ression (nese Matr face (F1)	S9) (MLR/ ix (F2)) e (F6) ace (F7) (F8) ssses (F12	(MLRA A 147, 148)) (LRR N, 136, 122)	Coast Prairie Piedmont Flo 148) Red Parent IV Very Shallow Other (Explai	roblematic Hy 110) (MLRA 14 Redox (A16) (odplain Soils (Material (TF2) Dark Surface n in Remarks)	dric Soils I7) MLRA 130 F19) (MLF (TF12)	6, 147) RA 147,
								uniess disturb	ed or problema	atic	
Postriotivo	Layer (if absorved):										
Restrictive	Layer (if observed):										

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point:

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8629 Long: 82.8954 Datum: NAD 27

Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 1

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat						I			
Primary Indicators (minimum	of one is req		Secondary Indicators	(minimum of	two requi	red)			
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)	 	Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on L Presence of Reduced Iron (Recent Iron Reduction in Til Finn Muck Surface (C7) Other (Explain in Remarks)	Living Roots (C3) C4)	Surface Soil Crac Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Tes	ed Concave S s (B10) (B16) er Table (C2) (C8) e on Aerial Im sed Plants (D' tition (D2) (D3) r Relief (D4)	agery (C9	ŕ
Field Observations:						-			
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland F	lydrology Present?	Yes	No	X
Describe Recorded Data (str	eam gauge, r	nonitoring	g wel	ll, aerial photos, previous in	spections), if availa	able:			
Remarks:									

T 0		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 3 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 33 (A/B)
1. 2. 3. 4. 5.			Yes	UPL	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species x 1 = FACW Species x 2 = FAC Species x 3 =
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species x 4 = UPL Species x 5 =
Solidago canadensis Agrostis gigantea Galium aparine		30 30 30	Yes Yes Yes	FACU FACW FACU	Column Totals: (A) (B) Prevalence Index = B/A =
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo number	o boro or on o occasi	rate sheet			Hydrophytic Vegetation Present? Yes No X

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

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	x Featu	res						
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rem	arks		
0-6	10YR 4/3	100					SiL	Disturbed			
>6	IMPENETRABLE						Fill				
	Concentration, D=Deple	etion, RM=	Reduced Matrix, MS	= Maske	d Sand Gra	ains.		Pore Lining, M=Mati			
Histoso	ol (A1)		Dark Surface (S7)				2 cm Muck (A10) (MLRA 147)				
Histic I	Epipedon (A2)		Polyvalue I 147, 148)	Below Su	ırface (S8)	(MLRA	Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147) 148)				
Black I	Histic (A3)		Thin Dark	Surface (S9) (MLR/	A 147, 148)					
Stratific 2 cm M Deplet Thick I Sandy 147, 14 Sandy Sandy	gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (Li 48) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6)	, ,	Depleted M Redox Dar Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sui	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)				Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Otrippe	sa waanx (00)						wetland hy	Hydrophytic vegetat drology must be pre urbed or problemati	esent,		
Restrictive	Layer (if observed):Ye	S									
Restrictive	Layer (if observed):Ye	S									

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 59 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 5 Subregion (LRR or MLRA: LRR N 38.8631 82.8947 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 1 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

Tree Stratum (Plot size: 30 ft) 1. 2. 3. 4. 5.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
3. 4.					
0.				Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)	00	V	E4 014/	UPL Species × 5 =	(D)
Phalaris arundinacea Polygonum persicaria	60 20	Yes Yes	FACW FACW	Column Totals: (A)	(B)
3. Agrostis gigantea	10	No	FACW	Prevalence Index = B/A =	
 4. Ambrosia artemisiifolia 5. 6. 7. 8. 9. 10. 11 	10	No	FACU	Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separ sheet) Problematic Hydrophytic Vegetation¹ (Expendiced)	rate
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog must be present, unless disturbed or problem	
1.				Definitions of Four Vegetation Strata:	
2. 3. 4. 5.				Tree – Woody plants, excluding vines, 3 in. (7 or more in diameter at breast height (DBH), re of height	
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vir less than 3 in. DBH and greater than 3.28 ft (
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less that tall.	n 3.28 ft
				Woody vine – All woody vines greater than 3 height.	3.28 ft in
				Hydrophytic Vegetation Present? Yes X No)

All of the dominant species observed have a FACW wetland indicator status. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

	scription: (Describe to	the dept	h neede	d to docume	ent the i	ndicator o	r confirm	the absence of inc	icators.)			
Depth	Matrix			Redo	x Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Remark	(S	
0-18	10YR 5/2	95	10`	YR 4/6	5	С	PL	SiL				
	Concentration, D=Deple	tion, RM=	Reduced	d Matrix, MS=	= Masked	d Sand Gr	ains.	² Location: PL=P				
•	I Indicators:				(0-)			Indicators for		-	Soils ":	
Histoso	` '			Dark Surfact Polyvalue B		ırface (SR)	/MIRA		2 cm Muck (A10) (MLRA 147)			
Histic E	Epipedon (A2)			147, 148)	Clow Gu	macc (OO)	(MEIXA	Coast Prair	Coast Prairie Redox (A16) (MLRA 136, 147)			
Black H	Histic (A3)			Thin Dark S	urface (S9) (MLR /	A 147, 148	\	Piedmont Floodplain Soils (F19) (MLRA 147, 148)			
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I	pen Sulfide (A4) ed Layers (A5) fluck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LF 18) Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA				Red Paren Very Shallo	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
,	d Matrix (S6)			148)				31 11 1				
									ydrophytic ve rology must b rbed or proble	e prese		
Restrictive	Layer (if observed):											
Type:												
								Hydric Sc	il Yes	s X	No	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 60

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8631 Long: 82.8948 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 1

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum	of one is rec	quired; ch	eck a	II that apply)		Secondary Indicators	(minimum of	two requi	ired)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)	0 , ((B7)	F R T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1 Dxidized Rhizospheres on Presence of Reduced Iron (Recent Iron Reduction in Ti Thin Muck Surface (C7) Other (Explain in Remarks)	Living Roots (C3) (C4) illed Soils (C6)	Surface Soil Crac Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave S is (B10) (B16) er Table (C2) is (C8) e on Aerial Imis sed Plants (D1 tition (D2) (D3) c Relief (D4)	agery (C9	ŕ
Field Observations:						•			
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland F	lydrology Present?	Yes	No	X
Describe Recorded Data (stre	eam gauge, i	monitorin	g well	l, aerial photos, previous ir	nspections), if availa	able:			
Remarks: Wetland hydrology indicators	were not ob	served.	This c	observation does not satisfy	y the hydrology crit	erion.			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5.			Yes	UPL	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species × 4 = UPL Species × 5 =
Festuca elatior Elytrigia repens		60 25	Yes Yes	FACU FACU	Column Totals: (A) (B)
3. Phalaris arundinacea		5	No	FACW	Prevalence Index = B/A =
 4. Dactylis glomerata 5. Melilotus officinalis 6. 7. 8. 9. 10. 11 		5 5	No No	FACU FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.					Definitions of Four Vegetation Strata:
2. 3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Davids (table to be to be to be					Hydrophytic Vegetation Present? Yes No X

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

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix	Redox Features						
inches)	Color (moist) %	Color (moist) % Type ¹ Loc	c ² Texture	Remarks				
0-1	IMPENETRABLE FILL							
-/-	Concentration, D=Depletion, RI	M=Reduced Matrix, MS= Masked Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.				
Histoso		Dark Surface (S7)		10) (MLRA 147)				
Histic E	Epipedon (A2)	Polyvalue Below Surface (S8) (MLR 147, 148)	Coast Prairie I	Coast Prairie Redox (A16) (MLRA 136, 147				
Black I	Histic (A3)	Thin Dark Surface (S9) (MLRA 147,	, 148) Piedmont Floo 148)	odplain Soils (F19) (MLRA 147,				
Stratific 2 cm M Deplete Thick I Sandy 147, 14	gen Sulfide (A4) ed Layers (A5) fuck (A10) (LRR N) ed Below Dark Surface (A11) Dark Surface (A12) Mucky Mineral (S1) (LRR N, N 48) Gleyed Matrix (S4)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRF MLRA 136) Umbric Surface (F13) (MLRA 136, 1 Piedmont Floodplain Soils (F19) (ML	Red Parent M. Very Shallow I Other (Explain R N,	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Sandy	Redox (S5)	148)	LNA					
Strippe	ed Matrix (S6)	·,	wetland hydrol	rophytic vegetation and ogy must be present, ed or problematic				
	Layer (if observed):Yes							
Restrictive	., . (,							
Restrictive Type:	Fill							

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 5 Subregion (LRR or MLRA: LRR N 38.8625 82.8957 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? Are vegetation or Hydrology significantly disturbed? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 2/3 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): 2 Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
2. 3. 4. 5.				Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =	
Juncus effusus Carex lurida Agrostis gigantea	60 20 20	Yes Yes Yes	FACW OBL FACW	Column Totals: (A) Prevalence Index = B/A =	(B)
4. 5. 6. 7. 8.				Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetatio 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a sepasheet) Problematic Hydrophytic Vegetation¹ (E	arate
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrold must be present, unless disturbed or probler	
 1. 2. 3. 4. 5. 6. 				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH), of height	
7. 8. 9.				Sapling/Shrub – Woody plants, excluding v less than 3 in. DBH and greater than 3.28 ft Herb – All herbaceous (non-woody) plants,	ines, (1 m) tall.
10.		= Total Cover		regardless of size, and woody plants less that tall.	
				Woody vine – All woody vines greater than height.	3.28 ft in
Remarks: (Include photo numbers here or on a sepa	arate sheet \			Hydrophytic Vegetation Present? Yes X N	lo

All of the dominant species observed have an OBL and FACW wetland indicator status. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	scription: (Describe to	the depth n	eede	d to docume	nt the i	ndicator c	r confirm	the absence of	ndicators.)			
Depth	Matrix			Redox	Featur	es							
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	marks		
0-18	10YR 5/2	95	10\	/R 4/6	5	С	PL	SiL					
¹ Type: C=C	concentration, D=Deple	tion, RM=Red	ducec	d Matrix, MS=	Masked	d Sand Gra	ins.	² Location: PL	=Pore Linin	ig, M=M	atrix.		
Hydric Soi	I Indicators:							Indicators f	or Problen	natic Hy	dric S	oils ³ :	
Histoso	l (A1)			Dark Surface				2 cm Mu	ick (A10) (N	ILRA 14	17)		
Histic E	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 147, 148)					Coast P	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	listic (A3)			Thin Dark Su	urface (S9) (MLR	147, 148	\	Piedmont Floodplain Soils (F19) (MLRA 147, 148)				
Stratifie 2 cm M Deplete Thick D Sandy 147, 14	en Sulfide (A4) ed Layers (A5) uck (A10) (LRR N) ed Below Dark Surface eark Surface (A12) Mucky Mineral (S1) (LR 8) Gleyed Matrix (S4)	. ,	Redox Depression (F8)				Red Par Very Sh	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
Sandy	Redox (S5)			Piedmont Flo 148)	ooapiair	1 Solls (F1	9) (WLKA						
Strippe	d Matrix (S6)			-,					of Hydrophy nydrology m sturbed or p	nust be p	resent		
Restrictive	Layer (if observed):												
Type:													
Depth (inches):							Hydric Prese		Yes	Х	No	
Remarks:													

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11

Applicant/Owner: Ohio Department of Transportation OH Sampling Point: State:

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8627 Long: 82.8957 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland 2/3

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicato						la , , , , , ,			
Primary Indicators (minimum	of one is rea	luired; ch	eck a	Il that apply)		Secondary Indicators	minimum ot) د	i two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living F Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)						Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)			ĺ
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present?	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
(includes capillary fringe)									
Describe Recorded Data (stre	am gauge, r	monitorin	g well	l, aerial photos, previous insp	pections), if availa	able:			
Remarks:									

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5.			Yes	UPL	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species × 4 = UPL Species × 5 =
Solidago canadensis Solidago canadensis		100	Yes	FACU	Column Totals: (A) (B)
3.					Prevalence Index = B/A =
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
David database and					Hydrophytic Vegetation Present? Yes No X

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

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Profile Des	scription: (Describe to	the depth n	eede	d to docume	nt the i	ndicator o	or confirm	the absence of in	ndicators.)			
Depth	Matrix			Redox	Featur	res						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-18	10YR 5/2	95	10)	YR 4/6	5	С	PL	SiL				
¹ Type: C=C	Concentration, D=Deplet	tion, RM=Re	duced	d Matrix, MS=	Maske	d Sand Gr	ains.	² Location: PL=	=Pore Lining	, M=M	atrix.	
Hydric Soi	Il Indicators:							Indicators for	or Problema	tic Hy	dric S	oils ³ :
Histoso	ol (A1)			Dark Surface		(00)		2 cm Mu	ck (A10) (ML	.RA 14	17)	
Histic E	Epipedon (A2)			Polyvalue Be 147 , 148)	elow Su	ırface (S8)	(MLRA	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	Histic (A3)			Thin Dark Su	urface (S9) (MLR	A 147, 148		t Floodplain	Soils (F19) (N	/ILRA 147,
Stratifie 2 cm M Deplete Thick E Sandy 147, 14	gen Sulfide (A4) ed Layers (A5) fluck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LR 18) Gleyed Matrix (S4)	,	Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122)				Red Pare Very Sha	148) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Sandy	Redox (S5)			Piedmont Flo 148)	oodplaii	n Soils (F1	9) (MLRA					
Strippe	ed Matrix (S6)			,					f Hydrophytic ydrology mu sturbed or pr	st be p	oresent	
Restrictive	Layer (if observed):											
Type:												
'	(inches):							Hydric S Preser		Yes	X	No
Remarks:												

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 5 Subregion (LRR or MLRA: LRR N 38.8623 82.8966 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? Are vegetation or Hydrology significantly disturbed? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 2/3 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		UPL Species × 5 =	
Leersia oryzoides Carex lurida		40 40	Yes Yes	OBL OBL	Column Totals: (A)	(B)
3. Juncus effusus 4. 5. 6. 7. 8.		20	Yes	FACW	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separa sheet) Problematic Hydrophytic Vegetation¹ (Exp	
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problema	
1. 2.					Definitions of Four Vegetation Strata:	
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7. or more in diameter at breast height (DBH), reg of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vine less than 3 in. DBH and greater than 3.28 ft (1	
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than tall.	3.28 ft
					Woody vine – All woody vines greater than 3.2 height.	28 ft in
Remarks: (Include photo number	re hara ar an a sans	prata shoot)			Hydrophytic Vegetation Present? Yes X No	

All of the dominant species observed have an OBL and FACW wetland indicator status. This observation satisfies the Rapid Test for Hydrophytic Vegetation. This observation satisfies the vegetation criterion.

Depth	Matrix			Redo	ox Featu	res			
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	2.5Y 5/1	95	10`	/R 4/4	5	С	PL	SiCL	
Hydric Soi Histoso Histic E	Epipedon (A2)	etion, RM=f	Reduced	Dark Surfa Polyvalue I 147, 148)	ce (S7) Below Su	urface (S8)	(MLRA	2 cm Muck (A1 Coast Prairie F	Lining, M=Matrix. bblematic Hydric Soils ³ : 0) (MLRA 147) Redox (A16) (MLRA 136, 147 dplain Soils (F19) (MLRA 147
Hydrog Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Histic (A3) Jen Sulfide (A4) Jed Layers (A5) Juck (A10) (LRR N) Jed Below Dark Surface Jark Surface (A12) Mucky Mineral (S1) (L Jed Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	,		Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)) (LRR N, 136, 122)	148) Red Parent Ma	aterial (TF2) Dark Surface (TF12)
	, ,							wetland hydrolo	ophytic vegetation and ogy must be present, d or problematic
Restrictive	Layer (if observed):								
								1	
Type:	(inches):							Hydric Soil Prese	ent? Yes X No

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point:

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8622 Long: 82.8966 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydro	phytic Vegetation Present?	Yes	No	Χ	Is the Sampled Area			
Hydrid	Soils Present?	Yes	No	X	Within a Wetland?	Yes	No	X
Wetla	nd Hydrology Present?	Yes	No	Х		Out Point for V	Vetlan	nd 2/3

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

D:								
Primary Indicators (minimum Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)	rial Imagery (ving Roots (C3) 4) ed Soils (C6)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)					
Field Observations:						TAC-Neutral Test (D3)		
Surface Water Present?	Yes	No	X	Depth (inches):				
Water Table Present?	Yes	No	X	Depth (inches):				
Saturation Present? (includes capillary fringe) Describe Recorded Data (str	Yes	No	X X	Depth (inches):		Wetland Hydrology Present? Yes No >		
Remarks: Wetland hydrology indicators								

	Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.				Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		Yes = Total Cover	UPL	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
Solidago canadensis Andropogon virginicus	40 20	Yes Yes	FACU FACU	Column Totals: (A) (B)
3. Juncus effusus	15 15	No No	FACW FACU	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
 4. Anthoxanthum odoratum 5. Chrysanthemum leucanthemum 6. 7. 8. 9. 10. 11 	15 10	No No	UPL	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.				Definitions of Four Vegetation Strata:
2. 3. 4. 5.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes No X

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

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Red	ox Featu	res					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarl	ks	
0-8	10YR 5/4						SiL			
8-18	10YR 5/3	95	10YR 5/6	5	С	PL	SiL			
	Concentration, D=Deple	etion, RM=	Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore			
ydric Soil	I Indicators:						Indicators for Pro	blematic Hydric	Soils 3:	
Histoso	ol (A1)	Dark Surfa		((00)	(841 D.A	2 cm Muck (A1	0) (MLRA 147)			
Histic E	istic Epipedon (A2)			Below St	urface (S8)	(WLKA	Coast Prairie R	edox (A16) (MLR	RA 136, 147	
Black H	listic (A3)			Surface ((S9) (MLR	A 147, 148)	Piedmont Floodplain Soils (F19) (MLRA 147 148)			
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)			Loamy Gle Depleted M Redox Dar Depleted E Redox Dep Iron-Mangs MLRA 136 Umbric Su Piedmont I 148)	Matrix (F3 k Surfact Park Surf Pression anese Ma Matrix Ma	3) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Strippe	d Matrix (S6)		,				³ Indicators of Hydro wetland hydrolo unless disturbed	gy must be prese		
Restrictive I	Layer (if observed):									
Restrictive I	Layer (if observed):									

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Drainage Swale Local relief (concave, convex, none): Concave Slope (%): 5 Subregion (LRR or MLRA: LRR N 38.8623 82.8968 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** PURGH Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? Are vegetation or Hydrology significantly disturbed? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Χ No Is the Sampled Area Hydrophytic Vegetation Present? Yes Within a Wetland? Hydric Soils Present? Yes X No Yes X No Wetland W8WL6 Wetland Hydrology Present? Yes Χ No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Χ Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aguitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Χ Wetland Hydrology Present? Yes No Depth (inches): Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 4 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 75 (A/B)
 Fraxinus pennsylvanica Rubus allegheniensis 4. 5. 		15 5	Yes Yes	FACW FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species x 1 = FACW Species x 2 = FAC Species x 3 =
Herb Stratum (Plot size: 5 ft)	20	= Total Cover		FACU Species x 4 = UPL Species x 5 =
Juncus effusus Solidago gigantea Solidago canadensis		60 30 10	Yes Yes No	FACW FACW FACU	Column Totals: (A) (B) Prevalence Index = B/A =
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
7. 8. 9.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants,
10.			= Total Cover		regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo number	e here or on a seco	urate shoot \			Hydrophytic Vegetation Present? Yes X No

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

The dominance test is greater than fifty percent. This observation satisfies the vegetation criterion.

Depth	Matrix		Redox Features								
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-18	2.5Y 5/1	95	10YR 4/4	5	С	PL	SiCL				
	Concentration, D=Deple	tion, RM=Re	,		d Sand Gr	ains.		oblematic Hydric Soils ³ :			
	Epipedon (A2)		Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148)			Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA					Redox (A16) (MLRA 136, 147)
Black F	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)					Piedmont Floodplain Soils (F19) (MLRA 147 148)			
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface bark Surface (A12) Mucky Mineral (S1) (LF 18) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	` ,					Red Parent Ma	Dark Surface (TF12)			
оттрре	a Matiix (OO)						wetland hydrolo	ophytic vegetation and ogy must be present, d or problematic			
Restrictive	Layer (if observed):										
Type:											

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 8

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8622 Long: 82.8968 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland W8WL6

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Field Pydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Orainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No	Primary Indicators (minimum	of one is rec	uired ch	eck a	ill that apply)		Secondary Indicators	(minimum of	two requi	red)
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B	rial Imagery (7 6 F F	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Leresence of Reduced Iron (Cacent Iron Reduction in Till Thin Muck Surface (C7)	C4)	Surface Soil Crac Sparsely Vegetal Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	cks (B6) ded Concave (B10) (B16) er Table (C2) (C8) e on Aerial Imsed Plants (D dition (D2) (D3) c Relief (D4)	Surface (E	38)
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	Field Observations:									
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No	Surface Water Present?	Yes	No	X	Depth (inches):					
	Water Table Present?	Yes	No	X	Depth (inches):					
(Includes Cabillary Tinge)	Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland F	lydrology Present?	Yes	No	X
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		eam gauge,	monitorin	g wel	l, aerial photos, previous ins	spections), if availa	able:			
Remarks:	Remarks:									

	Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.				Total Number of Dominant Species Across All Strata: 3 (B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. Rubus allegheniensis	20	Yes	FACU	Prevalence Index Worksheet:
2. Rosa multiflora 3. 4. 5.	15	Yes	FACU	Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)	35	= Total Cover		FACU Species × 4 = UPL Species × 5 =
Solidago canadensis Chrysanthemum leucanthemum	70 10	Yes No	FACU UPL	Column Totals: (A) (B)
3. Poa pratensis	10	No	FACU	Prevalence Index = B/A =
4. 5. 6. 7. 8. 9. 10.				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.				Definitions of Four Vegetation Strata:
2. 3. 4. 5.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Red	ox Featui	es					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	rks	
0-8	10YR 5/4						SiL			
8-18	10YR 5/3	95	10YR 5/6	5	С	PL	SiL			
lydric Soil	oncentration, D=Deplet Indicators:	tion, RM=Red			d Sand Gr	ains.	² Location: PL=Pore Liu	ematic Hydric		
Histosol	(A1)		Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148)				2 cm Muck (A10) (MLRA 147)			
Histic E	pipedon (A2)						Coast Prairie Red	dox (A16) (ML	RA 136, 147	7)
Black H	istic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)			Piedmont Floodplain Soils (F19) (MLRA 14				
Stratifie 2 cm Mu Deplete Thick Do Sandy M 147, 144 Sandy G	en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface (A12) Mucky Mineral (S1) (LR B) Gleyed Matrix (S4) Redox (S5)	` ,	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)				Red Parent Mate Very Shallow Dal Other (Explain in	k Sùrface (TF	12)	
Stribber	i watii (OO)						³ Indicators of Hydrop wetland hydrology unless disturbed of	must be pres		
							1			
Restrictive L	_ayer (if observed):									
Restrictive L	_ayer (if observed):						Hydric Soil			

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Drainage Swale Local relief (concave, convex, none): Concave Slope (%): 5 38.8625 Subregion (LRR or MLRA: LRR N Lat: Long: Datum: NAD 27 Ha - Haymond silt loam, occasionally flooded and MoC2 - Monongahela silt loam, 8 Soil Map Unit Name: **NWI Classification:** N/A to 15 percent slopes, eroded Are climatic/hydrologic conditions on the site typical for this time of year? Х (If no, explain in Remarks.) Yes No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? X Nο Are vegetation Soil naturally problematic? (If needed, explain any answers in Remarks.) or Hydrology SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Х No Hydric Soils Present? Χ Within a Wetland? Yes Χ No Yes Nο Χ Wetland 4 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Water(A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Water Marks (B1) X Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Other (Explain in Remarks) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Microtopographic Relief (D4) Aquatic Fauna (B13) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No X Depth (inches): Water Table Present? X Yes No Depth (inches): Saturation Present? Χ Yes Depth (inches): Wetland Hydrology Present? X No No Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:		
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	3	(A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	3	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	100	(A/B)
1. 2. 3. 4. 5.			T		Prevalence Index Worksheet: Total % Cover of: Multiply OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	by:	
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species x 4 = UPL Species x 5 =		
Carex vulpinoidea Polygonum persicaria Xanthium strumarium		30 30 30	Yes Yes Yes	OBL FACW FAC	Column Totals: (A) Prevalence Index = B/A =		(B)
 4. Carex lurida 5. 6. 7. 8. 9. 10. 11 		10	No	OBL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Veget 2 - Dominance Test is > fifty percer 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Prosupporting data in Remarks or on a sheet) Problematic Hydrophytic Vegetation	nt ovide a separat	
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hy must be present, unless disturbed or pr		
1. 2.					Definitions of Four Vegetation Strata	a:	
3. 4. 5.					Tree – Woody plants, excluding vines, or more in diameter at breast height (D of height		
6. 7. 8.					Sapling/Shrub – Woody plants, exclude less than 3 in. DBH and greater than 3.		
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) pla regardless of size, and woody plants le tall.		3.28 ft
					Woody vine – All woody vines greater height.	than 3.2	8 ft in
Remarks: (Include photo number					Hydrophytic Vegetation Present? Yes X	No	

The dominance test is greater than fifty percent. This observation satisfies the vegetation criterion.

Depth	Matrix		Red	ox Featu	res			
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	2.5Y 5/1	95	10YR 4/4	5	С	PL	SiCL	
2.1	Concentration, D=Depleti	ion, RM=Re	educed Matrix, MS		d Sand Gr	ains.		Lining, M=Matrix. bblematic Hydric Soils ³ : 10) (MLRA 147)
	Epipedon (A2)		Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA Piedmont Floodplain Soils (F19) (Redox (A16) (MLRA 136, 147)
Black H	listic (A3)		Thin Dark	Surface ((S9) (MLR	A 147, 148)	148)	odpiain Solis (F19) (MLRA 147
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface (Park Surface (A12) Mucky Mineral (S1) (LR 18) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	,	X Depleted I Redox Da Depleted I Redox De Iron-Mang MLRA 136 Umbric Su	Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)			Red Parent Ma	Dark Surface (TF12)
ouippe	a manix (00)						wetland hydrolo	rophytic vegetation and ogy must be present, ed or problematic
Restrictive	Layer (if observed):							
Type:								

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11

Applicant/Owner: Ohio Department of Transportation OH Sampling Point: State: 10

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5

Subregion (LRR or MLRA: LRR N Lat: 38.8625 Long: 82.8967 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

ſ	Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
	Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
	Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 4

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicato	ors:									
Primary Indicators (minimum	of one is req	uired; ch	eck a	Ill that apply)		Secondary Indicators (minimum of two required)				
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Water Stained Leaves (B) Aquatic Fauna (B13)		B7)		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on L Presence of Reduced Iron (Recent Iron Reduction in Ti Thin Muck Surface (C7) Other (Explain in Remarks)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)			Í		
Field Observations:										
Surface Water Present?	Yes	No	X	Depth (inches):						
Water Table Present?	Yes	No	X	Depth (inches):						
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X	
Describe Recorded Data (stre	eam gauge, r	monitorin	g wel	I, aerial photos, previous in	spections), if availa	able:				

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	0 (A)
2. 3. 4. 5.				Total Number of Dominant Species Across All Strata:	1 (B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	0 (A/B)
1. 2. 3. 4. 5.				Prevalence Index Worksheet: Total % Cover of: Multi OBL Species x 1 = FACW Species x 2 = FAC Species x 3 =	:
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species x 4 = UPL Species x 5 =	:
 Solidago canadensis 	90	Yes	FACU	Column Totals: (A)	(B)
 3. 4. 5. 6. 7. 8. 				Prevalence Index = B/A = Hydrophytic Vegetation Indicator 1 - Rapid Test for Hydrophytic \ 2 - Dominance Test is > fifty per 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ supporting data in Remarks or of sheet) Problematic Hydrophytic Vegeta	/egetation rcent (Provide on a separate
Woody Vine Stratum (Plot size: 30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetlan must be present, unless disturbed o	or problematic.
1. 2. 3. 4. 5.				Tree – Woody plants, excluding vin or more in diameter at breast height of height	es, 3 in. (7.6 cm)
6. 7. 8.				Sapling/Shrub – Woody plants, excless than 3 in. DBH and greater tha	
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) regardless of size, and woody plant tall.	
				Woody vine – All woody vines greatheight.	iter than 3.28 ft in
				Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Profile Des	ndicators.)										
Depth	Matrix		Redo	x Featur	es						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	3	
0-8	10YR 5/4						SiL				
8-18	10YR 5/3	95	10YR 5/6	5	С	PL	SiL				
Hydric Soil Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete	Indicators:		Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)					Pore Lining, or Problemat ck (A10) (MLF airie Redox (A t Floodplain S ent Material (T Illow Dark Sur cplain in Rem	ic Hydric S RA 147) A16) (MLRA Soils (F19) (I TF2) rface (TF12	\ 136, 147 MLRA 14	,
Sandy I 147, 14	Mucky Mineral (S1) (LF	RR N, MLRA	Redox Dep Iron-Manga MLRA 136) Umbric Sur	nese Ma	issés (F12	, ,					
•	Redox (S5)		Piedmont F								
Strippe	d Matrix (S6)		·				wetland h	Hydrophytic ydrology mus turbed or pro	t be presen		
Restrictive I	_ayer (if observed):							•			
Type:											
Depth (Depth (inches):					Hydric S Presen		'es	No	X	

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 Portsmouth/Scioto Co. Sampling Date: City/County: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 11 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Braided Stream Channel Local relief (concave, convex, none): Concave Slope (%): 5 Subregion (LRR or MLRA: LRR N Lat: 38.8627 82.8972 NAD 27 Long: Datum: Ha - Haymond silt loam, occasionally flooded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ No (If no, explain in Remarks.) Yes Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Yes Χ No X Within a Wetland? Hydric Soils Present? Yes No Yes X No Wetland Hydrology Present? Yes Χ Wetland 5/W8WL7 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Χ Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Recent Iron Reduction in Tilled Soils (C6) Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Microtopographic Relief (D4) Aquatic Fauna (B13) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): 3 Water Table Present? Yes Χ No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

Tree Stratum (Plot size: 30 ft	\	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. Acer negundo)	5	Yes	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
2. Salix fragilis 3. 4. 5.		5	Yes	FAC	Total Number of Dominant Species Across All Strata: 5 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)	10	= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 100 (A/B)
Sambucus canadensis Sambucus canadensis Sambucus canadensis Sambucus canadensis		5	Yes	FACW	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)	5	= Total Cover		FACU Species × 4 = UPL Species × 5 =
Phalaris arundinacea Impatiens capensis 3.		80 20	Yes Yes	FACW FACW	Column Totals: (A) (B) Prevalence Index = B/A =
9. 10.					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo number		and also all			Hydrophytic Vegetation Present? Yes X No

The dominance test is greater than fifty percent. This observation satisfies the vegetation criterion.

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

Depth	Matrix			Red	ox Featu	res			
inches)	Color (moist)	%	Color	r (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	10YR 4/2	95	10	YR 3/4	5	С	PL	SiL	
>12	IMPENETRABLE							Gravel	
								2	
2.1	Concentration, D=Deple	tion, RIM	=Reduced	d Matrix, MS	= Maske	d Sand Gr	ains.		=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histoso	I Indicators:			Dark Surfa	co (S7)				ick (A10) (MLRA 147)
	` '			Polyvalue I		ırface (S8)	(MLRA		, , ,
Histic E	Epipedon (A2)			147, 148)		(30)	,		rairie Redox (A16) (MLRA 136, 147)
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 14							A 147, 148	A I	nt Floodplain Soils (F19) (MLRA 147,
	en Sulfide (A4)			Loamy Gle	`	, ,	,	′ 148)	ent Material (TF2)
	ed Layers (A5)		Х	Depleted N					allow Dark Surface (TF12)
	luck (A10) (LRR N)			Redox Dar				Other (E	xplain in Remarks)
•	ed Below Dark Surface	(A11)		Depleted D		` '			
	Oark Surface (A12) Mucky Mineral (S1) (LF	R N. MI	RΔ	Redox Dep Iron-Manga) (I RR N		
147, 14		,		MLRA 136)	`	, ,		
Sandy	Gleyed Matrix (S4)			Umbric Su					
Sandy	Redox (S5)			Piedmont F 148)	-loodplai	n Soils (F1	19) (MLRA		
Strippe	d Matrix (S6)			1-10)					
	` '								of Hydrophytic vegetation and
									nydrology must be present,
) o otrioti: : -	Lavar (if abaamad):\/							uniess di	sturbed or problematic
	Layer (if observed):Yes	i							
Type:	Gravel								
٠.	inches): 12							Hydric Soil	Present? Yes X No

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 12

Applicant/Owner: Ohio Department of Transportation OH Sampling Point: State:

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Stream Embankment Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N 38.8627 Long: 82.8971 Datum: NAD 27

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Ha - Haymond silt loam, occasionally flooded

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 5/W8WL7

Remarks:

Soil Map Unit Name:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum of	one is requir	ed; ch	eck al	ll that apply)		Secondary Indicators	(minimum of	two requi	ired)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Water Stained Leaves (B9) Aquatic Fauna (B13)	Imagery (B7	·)	H C P R T	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Lecent Iron Reduction in Tilled Strin Muck Surface (C7) Other (Explain in Remarks)	` ,	Surface Soil Crac Sparsely Vegetal Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ed Concave S s (B10) (B16) er Table (C2) (C8) e on Aerial Ima ed Plants (D' ition (D2) (D3) c Relief (D4)	agery (C9	ŕ
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	ydrology Present?	Yes	No	X

Remarks:

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

NWI Classification:

N/A

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0	(A)
2. 3. 4. 5.				Total Number of Dominant Species Across All Strata: 2	(B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.				Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species x 4 = UPL Species x 5 =	
 Solidago canadensis Poa pratensis Chrysanthemum leucanthemum 	60 20 10	Yes Yes No	FACU FACU UPL	Column Totals: (A) Prevalence Index = B/A =	(B)
4. 5. 6. 7. 8.				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separa sheet) Problematic Hydrophytic Vegetation¹ (Exp	ate
Woody Vine Stratum (Plot size: 30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog must be present, unless disturbed or problema	
1. 2. 3. 4. 5.				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7 or more in diameter at breast height (DBH), re of height	
6.7.8.9.				Sapling/Shrub – Woody plants, excluding vin- less than 3 in. DBH and greater than 3.28 ft (1	
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than tall.	n 3.28 ft
				Woody vine – All woody vines greater than 3. height.	.28 ft in
				Hydrophytic Vegetation Present? Yes No	Х

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

epth	Matrix		Redo	ox Featur	es				
nches)	Color (moist)	% Co	olor (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-8	10YR 5/4						SiL		
>8	IMPENETRABLE								
	Concentration, D=Depletio	n, RM=Reduc	ced Matrix, MS	= Masked	d Sand Gr	ains.	Location: PL=Pore Lindicators for Probl		
yarıc so Histos	il Indicators:		Dark Surfa	00 (07)			2 cm Muck (A10)	•	c Solls :
	· /		Polyvalue I	(- /	rface (S8)	(MLRA			
Histic I	Epipedon (A2)		147, 148)	20.0 0		(Coast Prairie Red	. , .	
Black I	Histic (A3)		Thin Dark S	Surface (S9) (MLR	A 147, 148)	Piedmont Floodp	lain Soils (F19	9) (MLRA 14
Stratifi 2 cm N Deplet Thick I Sandy 147, 14 Sandy	gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surface (A Dark Surface (A12) Mucky Mineral (S1) (LRR 48) Gleyed Matrix (S4) Redox (S5)	,	Loamy Gle Depleted M Redox Dar Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sul Piedmont F 148)	Matrix (F3 k Surface Park Surfa Pression (Anese Ma) Iface (F1) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	148) Red Parent Mate Very Shallow Dar Other (Explain in	rk Sùrface (TF	F12)
	ed Matrix (S6)		•				³ Indicators of Hydrop wetland hydrology		
Strippe							unless disturbed of		;
	Layer (if observed):Yes								;
	Layer (if observed):Yes Unknown								:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 13 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Depression/Drainage Swale Local relief (concave, convex, none): Concave Slope (%): 5 38.8627 Subregion (LRR or MLRA: LRR N Lat: Long: 82.8960 Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks.) Yes No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ Nο Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Χ No Χ Wetland 6 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Χ Drainage Patterns (B10) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Х Depth (inches): Water Table Present? Yes Χ No Depth (inches): Χ Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes Х No No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

The dominance test is greater than fifty percent. This observation satisfies the vegetation criterion.

Color (moist)				: Featur						
	%	Color (mo	ist)	%	Type ¹	Loc ²	Texture	Remarks		
2.5Y 5/1	95	10YR 4/4	4	5	С	PL	SiCL			
ndicators:	on, RM=Re		•		d Sand Gr	ains.	Indicators for P	re Lining, M=Matrix. roblematic Hydric Soils ³ :		
Histic Epipedon (A2) Polyvi 147, 1					ırface (S8)	(MLRA	Coast Prairie	Coast Prairie Redox (A16) (MLRA 136, 147)		
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)			Dark Su	urface (S9) (MLR	A 147, 148)	Piedmont Floodplain Soils (F19) (MLRA 147 148)			
			leted Ma ox Dark leted Da ox Depre -Mangan RA 136) oric Surfa	atrix (F3 Surface rk Surfa ession (ese Ma ace (F1	e (F6) ace (F7) (F8) asses (F12	136, 122)	Red Parent N Very Shallow	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
Matrix (S6)		148)				,		drophytic vegetation and plogy must be present,		
over ('f also area d)								ed or problematic		
ayer (if observed):										
ali a a V							United a Cody C	sent? Yes X No		
() ii	ndicators: (A1) ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) ck (A10) (LRR N) Below Dark Surface (rk Surface (A12) ucky Mineral (S1) (LR) leyed Matrix (S4)	ndicators: (A1) ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) ck (A10) (LRR N) Below Dark Surface (A11) rk Surface (A12) ucky Mineral (S1) (LRR N, MLRA) leyed Matrix (S4) edox (S5) Matrix (S6)	ndicators: (A1) Dark poly pedon (A2) 147; stic (A3) Thin Loan Layers (A5) X Dep ck (A10) (LRR N) Red Below Dark Surface (A11) rk Surface (A12) ucky Mineral (S1) (LRR N, MLRA) leyed Matrix (S4) Umb Pieco pedox (S5) Matrix (S6)	ipedon (A2) Stic (A3) Stic (A3) Stic (A4) Layers (A5) Sek (A10) (LRR N) Below Dark Surface (A11) rk Surface (A12) sucky Mineral (S1) (LRR N, MLRA) Depleted Da Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 136) Umbric Surface Polyvalue Be 147, 148) X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 136) Umbric Surface Piedmont Flat Piedmont Flat	Indicators: (A1) Ipedon (A2) Ipedon (A2) In Sulfide (A4) Layers (A5) Ick (A10) (LRR N) Below Dark Surface (A11) Irk Surface (A12) In Surface (A12) In Surface (A12) In Surface (A13) In Dark Surface (Interpretation of the properties of the propert	Indicators: (A1) Ipedon (A2) Ipedon (A2) Istic (A3) In Sulfide (A4) Layers (A5) Ick (A10) (LRR N) Below Dark Surface (A11) Irk Surface (A12) In Surface (A12) In Surface (A12) In Surface (A13) In Dark Surface (S9) (MLR A Loamy Gleyed Matrix (F2) In Depleted Matrix (F3)	Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) ayer (if observed):	Indicators: (A1) Ipedon (A2) Ipedon (A2) In Sulfide (A4) Layers (A5) Below Dark Surface (A11) rk Surface (A12) ucky Mineral (S1) (LRR N, MLRA 1edox (S5) Matrix (S6) In Matrix (S6) Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) X Depleted Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Indicators for P 2 cm Muck (A Coast Prairie Piedmont Flo 148) Red Parent N Very Shallow Other (Explain Indicators for P 2 cm Muck (A Coast Prairie Piedmont Flo 148) Red Parent N Very Shallow Other (Explain Indicators for P 2 cm Muck (A Coast Prairie Piedmont Flo 148) Red Parent N Very Shallow Other (Explain Indicators of P 2 cm Muck (A Coast Prairie Piedmont Flo 148) Red Parent N Very Shallow Other (Explain Indicators of P 2 cm Muck (A Coast Prairie Piedmont Flo 148) Red Parent N Very Shallow Other (Explain Indicators of P 2 cm Muck (A Coast Prairie Piedmont Flo 148) Red Parent N Very Shallow Other (Explain Indicators of P 2 cm Muck (A Coast Prairie Piedmont Flo 148) Red Parent N Very Shallow Other (Explain Indicators of P Indica		

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 14

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8627 Long: 82.8961 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes \mathbf{X} No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 6

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Stained Leaves gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators (minimum of two required spaces of the hydrology criterion.	Wetland Hydrology Indica	tors:								
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Water Table Present? Yes No X Depth (inches): Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Primary Indicators (minimum	n of one is red	quired; ch	eck a	II that apply)		Secondary Indicators	(minimum of t	wo requi	red)
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (I	erial Imagery ((B7)	F F T	Hydrogen Sulfide Odor (Ć1) Oxidized Rhizospheres on Livi Presence of Reduced Iron (C4 Recent Iron Reduction in Tillec Thin Muck Surface (C7)	4)	Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic	ed Concave Si s (B10) (B16) er Table (C2) (C8) e on Aerial Ima sed Plants (D1) tition (D2) (D3) r Relief (D4)	gery (C9)	ŕ
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Field Observations:									
Saturation Present? Yes No X Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water Present?	Yes	No	X	Depth (inches):					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Present?	Yes	No	X	Depth (inches):					
Remarks:	(includes capillary fringe)				, ,			Yes	No	X
		s were not ob	served.	This c	observation does not satisfy th	ne hydrology crite	erion.			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)	
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)	
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/E	В)
1. 2. 3. 4. 5.			Yes	UPL	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species × 4 = UPL Species × 5 =	
Solidago canadensis Asclepias syriaca		80 20	Yes Yes	FACU FACU	Column Totals: (A) (B)	
3.					Prevalence Index = B/A =	
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)	
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1.					Definitions of Four Vegetation Strata:	
2. 3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardler of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tal	ıII.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 f tall.	ft
					Woody vine – All woody vines greater than 3.28 ft ir height.	n
					Hydrophytic Vegetation Present? Yes No X	x

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	x Featu	res						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	rks		
0-8	10YR 5/4						SiL				
8-18	10YR 5/3	95	10YR 5/6 5 C PL				SiL				
	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	= Maske	ed Sand Gr	ains.	Location: PL=Pore L				
Hydric Soil Indicators: Histosol (A1) Dark Surface (S7)							2 cm Muck (A10	•	Solls :		
Polyvalue Below Surface (S8) (MLRA						`	,	DA 400 44	7 \		
HISTIC E	Histic Epipedon (A2) 147, 148)						Coast Prairie Re	, , ,		•	
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148)						Piedmont Flood 148)	plain Soils (F19) (MLRA 1 4	17,		
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)						Red Parent Mat Very Shallow Da Other (Explain in	ark Sùrface (TF	12)			
Strippe	u iwatrix (56)						³ Indicators of Hydro wetland hydrolog unless disturbed	y must be pres			
	Layer (if observed):										
Restrictive	Layer (ii observed).						i				
Restrictive Type:	Layer (ii observed).						Hydric Soil				

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 15 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Drained Pond/Depression Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N 38.8618 82.8944 Long: Datum: NAD 27 ErD - Ernest silt loam, 15 to 25 percent slopes Soil Map Unit Name: **NWI Classification:** PLIRGH Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? Are vegetation or Hydrology significantly disturbed? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 7 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) X Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): 3 Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft) 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
2. 3. 4. 5.					Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species x 1 = FACW Species x 2 = FAC Species x 3 = FACU Species x 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
 Eleocharis obtusa Echinochloa crusgalli 		25 5	Yes No	OBL FACU	Column Totals: (A) Prevalence Index = B/A =	(B)
4. 5. 6. 7. 8.					Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (E	e arate
	Oft)	30	= Total Cover		¹ Indicators of hydric soil and wetland hydrold must be present, unless disturbed or proble	
1.					Definitions of Four Vegetation Strata:	
 3. 4. 5. 					Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH), of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excluding v less than 3 in. DBH and greater than 3.28 ft	
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less th tall.	an 3.28 ft
					Woody vine – All woody vines greater than height.	3.28 ft in
Remarks: (Include photo numbers he					Hydrophytic Vegetation Present? Yes X N	lo

The dominant species observed has an OBL wetland indicator status. This observation satisfies the Rapid Test for Hydrophytic Vegetation. This observation satisfies the vegetation criterion.

epth	Matrix			Redo	ox Featu	ires				
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Remark	KS
0-18	5/10Y GLEY (5/1)	100						SiC		
-/-	Concentration, D=Deple il Indicators: ol (A1)	tion, RM=R	educed	Dark Surfa	ce (S7)			² Location: PL=Pore Indicators for Pro		
Histic E	c Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)		•		Redox (A16) (MLR dplain Soils (F19)					
Black I	Histic (A3)			Thin Dark	Surface	(S9) (MLR	A 147, 148)	148)	upiairi 30iis (i 19)	(WILKA 147
Stratific 2 cm N Deplete Thick I Sandy 147, 14 Sandy Sandy	gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LF 48) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6)	, ,		Loamy Gle Depleted M Redox Dar Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F 148)	latrix (F3 k Surfact Park Surfact Paression Anese M Martact Ma	3) ie (F6) face (F7) (F8) asses (F12	136, 122)	Red Parent Ma Very Shallow I Other (Explain	Dark Sùrface (TF1	2)
Спрр								,	ophytic vegetation ogy must be prese d or problematic	
Restrictive	Layer (if observed):									
Type:										

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11

Applicant/Owner: Ohio Department of Transportation OH Sampling Point: State: 16

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Fill Pile Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N Lat: 38.8619 Long: 82.8943 Datum: NAD 27

NWI Classification: Soil Map Unit Name: ErD - Ernest silt loam, 15 to 25 percent slopes N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 7

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No X Depth (inches): True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)	Wetland Hydrology Indicat	ors:								
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Sufface Water Present? Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)	Primary Indicators (minimum	of one is req		Secondary Indicators (minimum of two required)						
Surface Water Present? Yes No X Depth (inches):	High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E	rial Imagery (B7)	F F T	Hydrogen Sulfide Odor (Ć1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	,	Sparsely Vegetal Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ted Concave s (B10) (B16) er Table (C2) e on Aerial In eed Plants (D tition (D2) (D3) c Relief (D4)	nagery (C9)	
		.,		.,	5 (1					
Water Table Present? Yes No X Depth (inches):	Surface Water Present?	Yes	No	X	Depth (inches):					
· · · ·	Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No	Saturation Present?	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
(includes capillary fringe)	(includes capillary fringe)									

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	0 (A/B)
1. 2. 3. 4. 5.			Yes = Total Cover	UPL	Prevalence Index Worksheet: Total % Cover of: Multiply b OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =	y:
Herb Stratum (Plot size: 5 ft 1. Melilotus alba)	30	Yes	FACU	UPL Species × 5 = Column Totals: (A)	(B)
Ambrosia artemisiifolia 3.		10	Yes	FACU	Prevalence Index = B/A =	, ,
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Veget 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Prosupporting data in Remarks or on a sheet) Problematic Hydrophytic Vegetation²	vide separate
Woody Vine Stratum (Plot size:	30 ft)	40	= Total Cover		¹ Indicators of hydric soil and wetland hydric must be present, unless disturbed or pro	
1. 2.					Definitions of Four Vegetation Strata:	
3. 4. 5.					Tree – Woody plants, excluding vines, 3 or more in diameter at breast height (DB of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excluding less than 3 in. DBH and greater than 3.2	ng vines, 28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plar regardless of size, and woody plants les tall.	
					Woody vine – All woody vines greater theight.	han 3.28 ft in
Pomorko: (Includo photo numbor					Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	x Featur	es						
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remark	S		
0-1	10YR 5/4						Fill Material				
>1	IMPENETRABLE										
	Concentration, D=Deplet	tion, RM=	Reduced Matrix, MS:	= Maske	d Sand Gra	ains.	² Location: PL=Pore	<u> </u>			
-	il Indicators:			(- -)			Indicators for Pro		Soils 3:		
Histoso	Histosol (A1) Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA				2 cm Muck (A1	0) (MLRA 147)					
Histic Epipedon (A2) Histic Epipedon (A2) 147, 148)					Coast Prairie F	Redox (A16) (MLR	A 136, 147	7)			
Black I	t Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148)				′ 148)						
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Gleyed Depleted Matrix Redox Dark S Depleted Dark Redox Depres Iron-Mangane MLRA 136) Umbric Surface Piedmont Floc 148)				atrix (F3 s Surface ark Surfa ression (nese Ma) face (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent Ma Very Shallow I Other (Explain	Dark Sùrface (TF12	2)		
отпрре	ou mana (OO)							ophytic vegetation ogy must be preser d or problematic			
		2									
Restrictive	Layer (if observed): Yes	,									
Restrictive Type:	Fill Material	,					Hydric Soil				

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 17 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Depression/Drainage Swale Local relief (concave, convex, none): Concave Slope (%): 5 Subregion (LRR or MLRA: LRR N 38.8620 82.8947 Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 8 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Saturation (A3) Χ Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Χ Yes No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species	
1.				That are OBL, FACW, or FAC:	(A)
2.				That are OBE, 1710VV, or 1710.	(71)
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
5.					(/
		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft)				That are OBL, FACW, or FAC:	(A/B)
size:					
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species × 1 =	
4.				FACW Species × 2 =	
5.		= Total Cover		FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		UPL Species x 4 = x 5 =	
TIEID STIATUITI (FIOT SIZE. 3 IT)				OFL Species X 5 =	
Juncus effusus	40	Yes	FACW	Column Totals: (A)	(B)
2. Scirpus hattorianus	40	Yes	OBL		
3. Juncus dudleyi	20	Yes	FACW	Prevalence Index = B/A =	
4.				Hydrophytic Vegetation Indicators:	
5.				X 1 - Rapid Test for Hydrophytic Vegetation)
6.				2 - Dominance Test is > fifty percent	
7. 8.				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide	
0.				supporting data in Remarks or on a sepa	rato
				sheet)	iale
9.				Problematic Hydrophytic Vegetation ¹ (Ex	nlain)
10.				1 Toblematic Hydrophytic Vegetation (Ex	piairi)
11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog	gy
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problem	
4				Definitions of Four Variation Ctuston	
1.				Definitions of Four Vegetation Strata:	
2.3.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
4.				or more in diameter at breast height (DBH), re	
5.				of height	ogaraioco
6.					
7.				Sapling/Shrub - Woody plants, excluding vir	nes,
8.				less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9.					
10.				Herb – All herbaceous (non-woody) plants,	
10.		= Total Cover		regardless of size, and woody plants less tha	n 3.28 ft
		- 10tai 0010i		tall.	
				Weedy vine All woody vines greater then	20 4 15
				Woody vine – All woody vines greater than 3	0.20 IL III
				height.	
				Hydrophytic	
				Vegetation Present? Yes X No)
Domarka: (Include photo numbers here or on a concr	oto oboot \				

All of the dominant species observed have a wetland indicator status of OBL and FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

SOIL Sampling Point: 17

Profile Des	scription: (Describe to	the depth ne	eede	d to docume	ent the i	ndicator o	or confirm	the absence of i	ndicators.)		
Depth	Matrix			Redo	x Featur	es					
(inches)	Color (moist)	% (Color	(moist)	%	Type ¹	Loc ²	Texture		Remarks	3
0-18	2.5Y 5/2	95	10\	′R 4/4	5	С	PL	SiL			
Hydric Soi Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy	Epipedon (A2) Histic (A3) Histic (A3) Histic (A4) Histic (A5) Histic (A10) (LRR N) Histic (A10) (LRR N) Histic (A10) (LRR N) Histic (A12)	(A11)		Dark Surface Polyvalue B 147, 148) Thin Dark S Loamy Gley Depleted M. Redox Dark Depleted Da Redox Depl Iron-Mangal MLRA 136) Umbric Surf Piedmont F	ce (S7) selow Su Gurface (ved Matr atrix (F3 c Surface ark Surface ression (nese Matr face (F1)	S9) (MLR/ ix (F2)) e (F6) ace (F7) (F8) ssses (F12	(MLRA A 147, 148) (LRR N, 136, 122)	2 cm Mu Coast Pi Piedmor 148) Red Pari Very Sha	or Problem ck (A10) (M rairie Redox at Floodplair ent Material	atic Hydric S ILRA 147) (A16) (MLRA n Soils (F19) ((TF2) Gurface (TF12	A 136, 147) MLRA 147,
Strippe	d Matrix (S6)			148)							
								wetland h		ic vegetation a ust be presen problematic	
Restrictive	Layer (if observed):										
Type:											
Depth ((inches):							Hydric Soil	Present?	Yes X	No
Remarks:								·			

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 18

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8620 Long: 82.8946 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 8

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:								
Primary Indicators (minimum	of one is req	uired; ch	eck a	all that apply)		Secondary Indicators (minimum of two required)			
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)	erial Imagery (I	B7)	F F T	Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	,	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)			
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present? Yes No X			
Describe Recorded Data (str	ream gauge, n	nonitorin	g wel	ll, aerial photos, previous inspec	tions), if availa	able:			
Remarks:									

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 18

Depth	Matrix		Redo	x Featu	res							
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	ırks			
0-8	10YR 5/2						SiL					
>8	IMPENETRABLE						Rock					
	Concentration, D=Deple	tion, RM=	-Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore Indicators for Pro					
Histoso	ol (A1)		Dark Surfa				2 cm Muck (A10) (MLRA 147)					
Histic I	Epipedon (A2)		•	Polyvalue Below Surface (S8) (MLRA 147, 148)				Coast Prairie Redox (A16) (MLRA 136, 147				
Black I	Histic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)				Piedmont Floodplain Soils (F19) (MLRA 147, 148)					
Stratific 2 cm M Deplet Thick I Sandy 147, 14 Sandy Sandy	gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (Lf 48) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6)	, ,	Depleted M Redox Dar Depleted D Redox Dep RA Iron-Manga MLRA 136 Umbric Su	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA				Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Ottippe	or mattix (00)						³ Indicators of Hydro wetland hydrolo unless disturbed	gy must be pres	sent,			
Restrictive	Layer (if observed): Ye	S										
Restrictive Type:	Layer (if observed): Ye Rock	S										

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation OH Sampling Point: 19 State: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Depression/Drainage Swale Local relief (concave, convex, none): 10 Concave Slope (%): Subregion (LRR or MLRA: LRR N 38.8609 Long: 82.8945 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	Х	No		Is the Sampled Area
Hydric Soils Present?	Yes		No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	General Out Point

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicate	ors:						
Primary Indicators (minimum	of one is req	uired; ch	eck a	Il that apply)		Secondary Indicators (minimum of two requ	iired)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ael Water Stained Leaves (E Aquatic Fauna (B13)		g Roots (C3) Soils (C6)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16)				
Field Observations:							
Surface Water Present?	Yes	No	X	Depth (inches):			
Water Table Present?	Yes	No	X	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches): I, aerial photos, previous inspec		Hydrology Present? Yes No	X
Remarks: Wetland hydrology indicators	s were not ob	served	This c	observation does not satisfy the	hydrology crit	erion.	

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft) 1.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
 3. 4. 5. 				Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.		Total Course		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species x 4 = UPL Species x 5 =	
 Scirpus hattorianus Juncus effusus Juncus dudleyi 	20 10 10	Yes Yes Yes	OBL FACW FACW	Column Totals: (A) Prevalence Index = B/A =	(B)
 4. Alopecurus pratensis 5. 6. 7. 8. 9. 10. 11 	5	No	FACW	Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a sep sheet) Problematic Hydrophytic Vegetation¹ (E	e parate
Woody Vine Stratum (Plot size: 30 ft)	45	= Total Cover		¹ Indicators of hydric soil and wetland hydrol must be present, unless disturbed or proble	
1.				Definitions of Four Vegetation Strata:	
 3. 4. 5. 				Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH), of height	
6.7.8.9.				Sapling/Shrub – Woody plants, excluding less than 3 in. DBH and greater than 3.28 ft	
10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less th tall.	
				Woody vine – All woody vines greater than height.	n 3.28 ft in
Remarks: (Include photo numbers here or on a sens				Hydrophytic Vegetation Present? Yes X I	No

All of the dominant species observed have a wetland indicator status of OBL and FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

SOIL Sampling Point: 19

Depth	Matrix		Red	ox Featu	res					
inches)	Color (moist)	% C	olor (moist)	%	Type ¹	Loc ²	Texture	Remar	rks	
0-2	10YR 5/2						SiL			
>2	IMPENETRABLE						Rock			
Type: C=0	Concentration, D=Depletion	on, RM=Redu	uced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore	U,		
Hydric Soil Indicators:							Indicators for Pro	•	Soils 3:	
Histosol (A1)			Dark Surfa		((00)	(MI D A	2 cm Muck (A10) (MLRA 147)			
Histic I	Epipedon (A2)		Polyvalue 147, 148)	Below St	urface (S8)	(MLRA	Coast Prairie	Redox (A16) (MLi	RA 136, 147)	
Black I	Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR MLRA 136) Umbric Surface (F13) (MLRA 136, 12) Piedmont Floodplain Soils (F19) (MLI 148)				A 147, 148)	Piedmont Floodplain Soils (F19) (MLRA 14				
Stratific 2 cm M Deplete Thick I Sandy 147, 14 Sandy Sandy					136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) 3Indicators of Hydrophytic vegetation and				
							wetland hydrol	ogy must be presented or problematic		
	Layer (if observed): Yes									
Restrictive	Layer (ii observed). Tes									
Restrictive Type:	Rock									

Remarks:

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 20

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8616 Long: 82.8967 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area			
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X			
Wetland Hydrology Present?	Yes	No	X	General Out Point			

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:					1			
Primary Indicators (minimum	of one is rec	uired; ch	eck a	II that apply)		Secondary Indicators	s (minimum of t	wo requii	ed)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)	F F T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Schin Muck Surface (C7) Other (Explain in Remarks)	` ,	Surface Soil Crac Sparsely Vegeta' Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave Si is (B10) (B16) er Table (C2) is (C8) e on Aerial Imaged Plants (D1) ition (D2) ((D3) c Relief (D4)	gery (C9)	
Field Observations:							,		
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe) Describe Recorded Data (str	Yes eam gauge,	No monitorin	X g wel	Depth (inches): I, aerial photos, previous inspect		ydrology Present?	Yes	No	Х
Remarks: Wetland hydrology indicators	were not ob	served.	This o	observation does not satisfy the h	ydrology crite	erion.			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 50 (A/B)
1. 2. 3. 4. 5.	,		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =
Herb Stratum (Plot size: 5 ft 1. Solidago canadensis)	40	Yes	FACU	UPL Species x 5 = Column Totals: (A) (B)
Juncus effusus Carex vulpinoidea		40 10	Yes No	FACW OBL	Prevalence Index = B/A =
 4. Agrostis gigantea 5. 6. 7. 8. 9. 10. 11 		10	No	FACW	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.					Definitions of Four Vegetation Strata:
2. 3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 20

Depth	Matrix		Redo	x Featu	res						
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks				
0-18	10YR 5/3	95	10YR 4/6	5	С	PL	SiL				
	oncentration, D=Depl	etion, RM=Re	educed Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore Indicators for Pro		_		
Histoso	I (A1)	2 cm Muck (A1	0) (MLRA 147)								
Histic E	pipedon (A2)		Polyvalue I 147, 148)	Below Su	urface (S8)	(MLRA	Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147, 148)				
Black H	listic (A3)		, ,	Surface ((S9) (MLR	A 147, 148)					
Stratifie 2 cm Mi Deplete Thick D Sandy M 147, 14 Sandy G	en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) ud Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L 8) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	Loamy Gle Depleted M Redox Dar Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Su Piedmont F	latrix (F3 k Surface ark Surface ression anese Ma) face (F1	3) e (F6) ace (F7) (F8) asses (F12	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
Stripped	a iviatiix (30 <i>)</i>						³ Indicators of Hydro wetland hydrolo unless disturbed	gy must be prese			
Restrictive I	_ayer (if observed): Ye	70									
Restrictive I	_ayer (if observed): Ye Rock	5 5					Hydric Soil				

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 21 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Depression/Stream Terrace Local relief (concave, convex, none): Concave Slope (%): 5 38.8614 Subregion (LRR or MLRA: LRR N Lat: Long: 82.8969 Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks.) Yes No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ No naturally problematic? Are vegetation or Hydrology (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Χ No Wetland W8WL8 Χ Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Saturation (A3) Χ Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes Х No Depth (inches): 2 Water Table Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Saturation Present? Yes Depth (inches): Х No Χ No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species	
1.				That are OBL, FACW, or FAC:	(A)
2.					(* ')
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
5.		T O		D	
Sapling/Shrub Stratum (Plot 15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
Sapling/Shrub Stratum (Plot 15 ft) size:				That are OBL, FACW, OF FAC.	(A/D)
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species × 1 =	
4.				FACW Species × 2 =	
5.		T-1-1-0		FAC Species × 3 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species × 4 = UPL Species × 5 =	
Herb Stratum (Plot size: 5 ft)				· ·	
1. Juncus effusus	30	Yes	FACW	Column Totals: (A)	(B)
2. Carex lurida	30	Yes	OBL	Dravelanas Inday D/A	
3. Scirpus hattorianus	15 15	Yes Yes	OBL OBL	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:	
Glyceria striata Eleocharis obtusa	10	No	OBL	X 1 - Rapid Test for Hydrophytic Vegetation	
6.	10	140	OBL	2 - Dominance Test is > fifty percent	
7.				3 - Prevalence Index is ≤3.01	
8.				4 - Morphological Adaptations ¹ (Provide	
				supporting data in Remarks or on a separa	ate
•				sheet)	. 1 - ! - \
9. 10.				Problematic Hydrophytic Vegetation ¹ (Exp	olain)
11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog	У
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problema	
1.				Definitions of Four Vegetation Strata:	
2.				Definitions of Four Vegetation Strata.	
3.				Tree – Woody plants, excluding vines, 3 in. (7.	.6 cm)
4.				or more in diameter at breast height (DBH), re	gardless
5.				of height	
6.				Conline/Chruh Woody plants avaluating vin	
7.				Sapling/Shrub – Woody plants, excluding vine less than 3 in. DBH and greater than 3.28 ft (1	
8.				less than 5 m. DDH and greater than 5.20 ft (1	III) tall.
9.				Herb – All herbaceous (non-woody) plants,	
10.		= Total Cover		regardless of size, and woody plants less than	3.28 ft
		= Total Cover		tall.	
				Woody vine All woody vines greater than 2	20 ft in
				Woody vine – All woody vines greater than 3. height.	.∠0 II III
				Inorgin.	
				Hydrophytic	
				Vegetation Present? Yes X No	
Pamarka: (Ingluda phata numbara bara ar an a appar	oto oboot \				

All of the dominant species observed have a wetland indicator status of OBL or FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

SOIL Sampling Point: 21

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

Depth	Matrix		Redox Features									
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-12	2.5Y 5/2	95	10	YR 4/6	5	С	PL	SiL				
>12	IMPENETRABLE											
Гvpe: C=C	concentration, D=Deple	tion. RM=	-Reduced	d Matrix. MS	= Maske	d Sand Gr	ains.	² Location: PL:	=Pore Lining, M=Matrix.			
2.1	I Indicators:	,		,					or Problematic Hydric Soils ³ :			
Histoso	l (A1)			Dark Surfa	ce (S7)				ick (A10) (MLRA 147)			
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)								Coast Prairie Redox (A16) (MLRA 136, 147)				
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148)) Piedmon 148)	nt Floodplain Soils (F19) (MLRA 147,					
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)							Red Parent Material (TF2)					
	ed Layers (A5)		Х	Depleted N					Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
	luck (A10) (LRR N) ed Below Dark Surface	(Δ11)		Redox Dar Depleted D				Other (E	xplain in Remarks)			
	Park Surface (A12)	(/ ())		Redox Dep		` '						
	Mucky Mineral (S1) (LF	RR N, ML	RA	Iron-Manga		assés (F12	2) (LRR N,					
147, 14	·8) Gleyed Matrix (S4)			MLRA 136 Umbric Su		2) /MI D A	126 122\					
•	• , ,			Piedmont F								
•	Redox (S5)			148)	•	,	, ,					
Strippe	d Matrix (S6)							3Indicators o	f Hydrophytic vegetation and			
									nydrology must be present,			
									sturbed or problematic			
estrictive l	Layer (if observed): Ye	s										
Type:	Rock											
Depth (inches): 12							Hydric Soil	Present? Yes X No			
emarks:								· ·				

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 22

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8615 Long: 82.8969 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland W8WL8

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicate	ors:								
Primary Indicators (minimum	of one is req	uired; ch	eck a	II that apply)		Secondary Indicators	s (minimum o	f two requi	ed)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ael Water Stained Leaves (BA) Aquatic Fauna (B13)		B7)	F F T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	, ,	Surface Soil Crac Sparsely Vegetar Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave is (B10) (B16) er Table (C2) s (C8) e on Aerial In sed Plants (D tition (D2) (D3) c Relief (D4)	nagery (C9)	,
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present?	Yes	No	X	Depth (inches):	Wetland H	ydrology Present?	Yes	No	X
Describe Recorded Data (str Remarks:	eam gauge, n	nonitorin	g wel	I, aerial photos, previous inspec	tions), if availa	able:			
Wetland hydrology indicators	; were not obs	served	This c	observation does not satisfy the	hydrology crite	erion.			

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 22

Depth	Matrix				x Featur			the absence of indicato	,	
(inches)	Color (moist)	%	Color	(moist)	% realui	Type ¹	Loc ²	Texture	Remarks	
0-18	10YR 5/2	95		(IIIOISI) /R 4/6	5	C C	PL	SiL	Remarks	
	Concentration, D=Deplet	ion, RM=R	educed	l Matrix, MS=	: Masked	d Sand Gr	ains.	² Location: PL=Pore L		
•	I Indicators:			D 10 ((07)				lematic Hydric Soils 3:	
Histoso	` ,			Dark Surface Polyvalue B		rface (S8)	(MI RA	2 cm Muck (A10) (MLRA 147)		
Histic E	Epipedon (A2)		147, 148)	0.011 04	11400 (00)	(Coast Prairie Re	edox (A16) (MLRA 136, 14		
Black H	listic (A3)		Thin Dark S	Surface (S9) (MLR	A 147, 148)	Piedmont Floodplain Soils (F19) (MLRA 147, 148)			
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)				Loamy Gley Depleted M Redox Dark Depleted D Redox Depl Iron-Manga MLRA 136) Umbric Sur	atrix (F3) Surface ark Surfa ression (nese Ma) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
Sandy	Redox (S5)			Piedmont F 148)	iooupiaii	1 3011S (F 1	9) (IVILKA			
Stripped Matrix (S6)									ohytic vegetation and y must be present, or problematic	
Restrictive	Layer (if observed):									
Type:										

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 23 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Depression/Drainage Swale Local relief (concave, convex, none): Concave Slope (%): 5 Subregion (LRR or MLRA: LRR N 38.8602 82.8950 Long: Datum: NAD 27 ErD - Ernest silt loam, 15 to 25 percent slopes Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil significantly disturbed? Are "Normal Circumstances" present? Are vegetation or Hydrology No Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Χ No Is the Sampled Area Hydrophytic Vegetation Present? Yes Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 9 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes Х No Depth (inches): 2 X Water Table Present? Yes No Depth (inches): Saturation Present? Χ Wetland Hydrology Present? Yes No Depth (inches): Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

The dominant species observed has a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

SOIL Sampling Point: 23

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

Depth	Matrix			Redo	x Featu	res			
inches)	Color (moist)	%	Color (mo	oist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5Y 5/2	95	10YR 4	6	5	С	PL	SiL	
>12	IMPENETRABLE							Rock	
	Concentration, D=Deple	etion, RM:	=Reduced Ma	rix, MS=	= Maske	d Sand Gr	ains.		Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso	Histosol (A1) Dark Surface (S7)								(A10) (MLRA 147)
Histic E	Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147, 148)							rie Redox (A16) (MLRA 136, 147)
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148)						Piedmont F	Floodplain Soils (F19) (MLRA 147,		
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)					Very Shallo	t Material (TF2) ow Dark Surface (TF12) lain in Remarks)			
Спррс	d Matrix (GG)							wetland hyd	Hydrophytic vegetation and drology must be present, urbed or problematic
Restrictive !	Layer (if observed): Ye	s							
Type:	Rock								
								1	

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 24

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N Lat: 38.8602 Long: 82.8951 Datum: NAD 27 Soil Map Unit Name: ErD – Ernest silt loam, 15 to 25 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes ${\bf X}$ No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 9

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:								
Primary Indicators (minimum	of one is req	uired; ch	eck a	all that apply)		Secondary Indicators	s (minimum of	two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (B4) Aquatic Fauna (B13)		B7)	F F F	Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Li Presence of Reduced Iron (C Recent Iron Reduction in Tille Fhin Muck Surface (C7) Other (Explain in Remarks)	(4)	Surface Soil Crac Sparsely Vegetar Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave S as (B10) (B16) er Table (C2) s (C8) e on Aerial Ima sed Plants (D1 ition (D2) c Relief (D4)	agery (C9)	•
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe) Describe Recorded Data (str	Yes	No	X	Depth (inches):		lydrology Present?	Yes	No	Х
Remarks:	Jan gauge, I		9 WC	n, donar priotos, provious ins	posionoj, ii avaiie	AMIO.			
Wetland hydrology indicators	s were not ob	served.	This o	observation does not satisfy	the hydrology crite	erion.			

US Army Corps of Engineers

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	3 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	33 (A/B)
1. Rubus pensylvanicus 2. 3. 4.		20	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multipl OBL Species x 1 = FACW Species x 2 = FAC Species x 3 =	ly by:
Herb Stratum (Plot size: 5 ft)	20	= Total Cover		FACU Species × 4 = UPL Species × 5 =	
Solidago canadensis		10	Yes	FACU	Column Totals: (A)	(B)
2. 3.					Prevalence Index = B/A =	
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Ve 2 - Dominance Test is > fifty perc 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (If supporting data in Remarks or or sheet) Problematic Hydrophytic Vegetat	egetation eent Provide n a separate
Woody Vine Stratum (Plot size:	30 ft)	10	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed or	
1. Lonicera japonica		80	Yes	FAC	Definitions of Four Vegetation Stra	nta:
2. 3. 4. 5.					Tree – Woody plants, excluding vines or more in diameter at breast height of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excl less than 3 in. DBH and greater than	uding vines, 3.28 ft (1 m) tall.
9. 10.		80	= Total Cover		Herb – All herbaceous (non-woody) regardless of size, and woody plants tall.	
					Woody vine – All woody vines greate height.	er than 3.28 ft in
Pomarka: (Include photo numbou					Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 24

Depth	Matrix		Redo	x Featu	res					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks	
0-4	10YR 5/4						SiL			
>4	IMPENETRABLE						Rock			
	Concentration, D=Deple	tion, RM=	-Reduced Matrix, MS	= Maske	d Sand Gra	ains.	² Location: PL=Pore			
Histose			Dark Surfa	ce (S7)				10) (MLRA 147)		
Histic I	Epipedon (A2)		Polyvalue I 147, 148)	Belòw Śu	urface (S8)	(MLRA	Coast Prairie	Redox (A16) (MI	LRA 136, 14	7)
Black I	Histic (A3)		Thin Dark	Surface ((S9) (MLR	147, 148	Piedmont Floo 148)	odplain Soils (F1	9) (MLRA 1 4	17 ,
Stratific 2 cm No Deplet Thick I Sandy 147, 14 Sandy Sandy	Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LR MLRA 136) Umbric Surface (F13) (MLRA 136, Piedmont Floodplain Soils (F19) (MLRA 136)				136, 122))				
Strippe	ed Matrix (S6)							rophytic vegetati ogy must be pre ed or problematio	sent,	
Restrictive	Layer (if observed): Ye	S								
Comonyc										
Type:	Rock									

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Ohio Department of Transportation ОН Sampling Point: Applicant/Owner: State: 26 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15 Subregion (LRR or MLRA: LRR N Lat: 38.8602 Long: 82.8951 Datum: NAD 27 Soil Map Unit Name: ErD - Ernest silt loam, 15 to 25 percent slopes **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes X (If no, explain in Remarks.) No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Х No Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Χ	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	General Out Point
Remarks:					

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livit Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled) ` ` ′	Surface Soil Crad Sparsely Vegetat Drainage Pattern Moss Trim Lines	ted Concave S is (B10)	urface (B	3)
Water Stained Leaves (B9) Aquatic Fauna (B13)		Thin Muck Surface (C7) Other (Explain in Remarks)	i Sulis (Co)	Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	er Table (C2) s (C8) e on Aerial Ima sed Plants (D1 ition (D2) (D3) c Relief (D4)		
Field Observations:					,		
Surface Water Present? Yes No	X	Depth (inches):					
Water Table Present? Yes No	X	Depth (inches):					
Saturation Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitor)		- op ().		lydrology Present?	Yes	No	Х
Remarks:							
Wetland hydrology indicators were not observed.	This	s observation does not satisfy th	e hydrology crit	erion.			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
2. 3. 4. 5.					Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
 Solidago canadensis Agrostis gigantea Asclepias syriaca 		80 10 10	Yes No No	FACU FACW FACU	Column Totals: (A) (B) Prevalence Index = B/A =
4. 5. 6. 7. 8. 9. 10.	30 ft)	100	= Total Cover	1,00	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 1. 2.	30 ft)				Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8. 9.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10.		80	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 26

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm t	he absence of indi	ators.)		
Depth	Matrix			Redo	x Featur	res					
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	F	Remarks	3
0-18	10YR 5/2	95	10\	/R 4/6	5	С	PL	SiL			
	concentration, D=Deple	etion, RM=Re	educed	l Matrix, MS=	Maske	d Sand Gra	ains.	² Location: PL=Po			Soils ³ :
Histoso				Dark Surfac	e (S7)				A10) (MLRA 1	•	
Histic E	Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)				(MLRA	Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147,					
Black H	Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148)					147, 148)	Piedmont Fl	odplain Soils	(F19) (MLRA 147,	
Stratifie 2 cm M Deplete Thick E Sandy 147, 14 Sandy	Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Loamy Redox IPOPLET Redox Iron-M MLRA Umbri			Depleted Ma Redox Dark Depleted Da Redox Depr Iron-Mangar MLRA 136) Umbric Surf	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N,					()	
Sandy	Redox (S5)			148)	ooupiuii	., 00110 (1 1	o, (
Strippe	d Matrix (S6)							³ Indicators of Hy wetland hydr unless distur		presen	
Restrictive	Layer (if observed):										
Type:											
' '	inches):							Hydric Soil Present?	Yes	Х	No
Remarks:											

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 27 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Old-Logging Road Tire Ruts Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N 38.8589 82.8904 Long: Datum: NAD 27 Soil Map Unit Name: TcB - Tilsit-Coolville association, undulating **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Soil significantly disturbed? Are "Normal Circumstances" present? No Are vegetation or Hydrology Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes No X Within a Wetland? Yes No X Wetland Hydrology Present? Yes **General Out Point** X Nο Remarks: This area satisfies only two of the three criteria necessary for a positive wetland determination. This area is not a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Microtopographic Relief (D4) Aquatic Fauna (B13) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes Х No Depth (inches): 0.5 X Water Table Present? Yes No Depth (inches): Saturation Present? Χ Yes No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
2. 3. 4. 5.				Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
 1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft) 		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =	
Leersia oryzoides Sagittaria latifolia 3.	10 5	Yes Yes	OBL OBL	Column Totals: (A) Prevalence Index = B/A =	(B)
4. 5. 6. 7. 8. 9. 10.				Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetatic 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a sep sheet) Problematic Hydrophytic Vegetation¹ (E	e parate
Woody Vine Stratum (Plot size: 30 ft) 1.	15	= Total Cover		¹ Indicators of hydric soil and wetland hydrol must be present, unless disturbed or proble Definitions of Four Vegetation Strata:	
2. 3. 4. 5. 6.				Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH), of height	
6. 7. 8. 9.				Sapling/Shrub – Woody plants, excluding less than 3 in. DBH and greater than 3.28 ft	vines, t (1 m) tall.
10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less th tall.	
				Woody vine – All woody vines greater than height.	n 3.28 ft in
Remarks: (Include photo numbers here or on a sep.	arata choot \			Hydrophytic Vegetation Present? Yes X	No

The dominant species observed have a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Depth	Matrix		Red	ox Featur	es					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	ırks	
0-2	10YR 4/2 AND 4/6	100	Color (Inicial)	,,,	1,700	200	SiCL	Distur		
2-6	10YR 5/4	100					SiCL			
>6	IMPENETRABLE						Rock			
Tvno: C-C	Concentration, D=Deple	tion DM_D	aduaad Matrix MS	– Maaka	d Sand Cr	aina	² Location: PL=Pore	Lining M-Motri		
	· · · · · · · · · · · · · · · · · · ·	tion, Rivi=Ri	educed Matrix, MS	= Masked	a Sand Gr	ams.	Indicators for Pro			
Hydric Soil Indicators: Histosol (A1)		Dark Surfa	ce (S7)				0) (MLRA 147)			
Histic Epipedon (A2)		Polyvalue		rface (S8)	(MLRA	,	Coast Prairie Redox (A16) (MLRA 136, 147)			
Histic Epipedon (A2)		147, 148)					, , ,			
Black F	Black Histic (A3)		Thin Dark	Surface (S9) (MLR /	A 147, 148)		Piedmont Floodplain Soils (F19) (MLRA 147, 148)		
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)		Loamy Gle Depleted M Redox Dar Depleted E Redox Dep Iron-Mangs MLRA 136 Umbric Su Piedmont I 148)	latrix (F3 k Surface lark Surfa laression (lanese Ma) face (F1) e (F6) ace (F7) F8) asses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Strippe	d Matrix (S6)		140)							
5 ppc	a main (33)							ophytic vegetation ogy must be pres d or problematic	ent,	
estrictive	Layer (if observed): Yes	S						•		
Tymai	Rock									
Type:										

Remarks:

This sampling point was taken on an old-logging road. The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 28

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 20

Subregion (LRR or MLRA: LRR N Lat: 38.8616 Long: 82.8938 Datum: NAD 27
Soil Map Unit Name: ErD – Ernest silt loam, 15 to 25 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	Х	No		Is the Sampled Area
Hydric Soils Present?	Yes		No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	General Out Point

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicator	s:					
Primary Indicators (minimum o	f one is requ	uired; ch	eck al	I that apply)		Secondary Indicators (minimum of two required)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water Stained Leaves (B9) Aquatic Fauna (B13)		37)	H C P R T	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) exidized Rhizospheres on Living resence of Reduced Iron (C4) ecent Iron Reduction in Tilled S hin Muck Surface (C7) ether (Explain in Remarks)	` ,	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	X	Depth (inches):		
Water Table Present?	Yes	No	X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches): , aerial photos, previous inspect		lydrology Present? Yes No X
Remarks: Sufficient Wetland hydrology in	idicators we	re not ob	oserve	ed. This observation does not sa	atisfy the hydi	rology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft) 1.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
 3. 4. 				Total Number of Dominant Species Across All Strata:	(B)
5. Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.				Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species x 4 = UPL Species x 5 =	
 Carex vulpinoidea Juncus dudleyi Scirpus hattorianus 	40 40 10	Yes Yes No	OBL FACW OBL	Column Totals: (A) Prevalence Index = B/A =	(B)
 4. Eleocharis obtusa 5. Ambrosia artemisiifolia 6. 7. 8. 9. 10. 11 	5 5	No No	OBL FACU	Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate) Problematic Hydrophytic Vegetation¹ (E	arate
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrold must be present, unless disturbed or proble	
1.				Definitions of Four Vegetation Strata:	
 3. 4. 5. 				Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH), of height	
6. 7. 8.				Sapling/Shrub – Woody plants, excluding v less than 3 in. DBH and greater than 3.28 ft	
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less th tall.	an 3.28 ft
				Woody vine – All woody vines greater than height.	3.28 ft in
Remarks: (Include photo numbers here or on a separ				Hydrophytic Vegetation Present? Yes X N	lo

The dominant species observed have a wetland indicator status of OBL and FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Depth	Matrix		Redo	ox Featur	es							
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-2	10YR 5/3	95	10YR 4/6	5	С	PL	SiL					
>2	IMPENETRABLE											
	Concentration, D=Deple	etion, RM=	=Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore	e Lining, M=Matrix. oblematic Hydric Soils ³ :				
Histosol (A1)			Dark Surfa	ce (S7)				2 cm Muck (A10) (MLRA 147)				
Histic Epipedon (A2)			Polyvalue I 147, 148)		rface (S8)	(MLRA	Coast Prairie	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black Histic (A3)			Thin Dark S	Surface (S9) (MLR	A 147, 148	\	Piedmont Floodplain Soils (F19) (MLRA 147, 148)				
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)			MLRA 136 Umbric Sui Piedmont F	Matrix (F3 k Surface Park Surfa pression (anese Ma) rface (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent M Very Shallow	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
•	,		148)									
Strippe	ed Matrix (S6)						wetland hydrol	rophytic vegetation and ogy must be present, ed or problematic				
		ic.										
Restrictive	Layer (if observed): Ye	3										
Restrictive Type:	Rock	.5										

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 Sampling Date: City/County: Portsmouth/Scioto Co. 7.21.11 Applicant/Owner: Ohio Department of Transportation Sampling Point: 30 State: OH Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Access Road Convex 20 Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA: LRR N Lat: 38.8619 Long: 82.8940 Datum: NAD 27 N/A

NWI Classification: Soil Map Unit Name: ErD – Ernest silt loam, 15 to 25 percent slopes

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation or Hydrology significantly disturbed? Are "Normal Circumstances" present? Х Soil Yes No

Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	General Out Point

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	tors:								
Primary Indicators (minimum	n of one is req	juired; ch	eck a	II that apply)		Secondary Indicators	s (minimum c	of two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E) Aquatic Fauna (B13)	erial Imagery (B7)	F F T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks)	, ,	Surface Soil Crac Sparsely Vegetar Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave as (B10) (B16) er Table (C2) s (C8) e on Aerial In sed Plants (D ition (D2) (D3) c Relief (D4)) magery (C9)	ĺ
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
Describe Recorded Data (str	ream gauge, r	monitorin	ig wel	I, aerial photos, previous inspe	ctions), if availa	able:			
Remarks:									

Remarks:

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 50 (A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
1. Festuca elatior	,	40	Yes	FACU	Column Totals: (A) (B)
Agrostis gigantea Plantago lanceolata		30 10	Yes No	FACW UPL	Prevalence Index = B/A =
 4. Ambrosia artemisiifolia 5. 6. 7. 8. 9. 10. 11 		10	No	FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		•	Redo	x Featu	res						
inches)	Color (moist)	%	Color (m	oist)	%	Type ¹	Loc ²	Texture	Rem	arks		
0-1	IMPENETRABLE							Rock				
ype: C=C	Concentration, D=Deple	tion, RM=Re	duced Ma	trix, MS:	= Maske	d Sand Gr	ains.	² Location: PL=Poi				
Hydric Soil Indicators: Histosol (A1) Dark Surface (S7)						Indicators for P	•					
Histosol (A1) Histic Epipedon (A2) Black Histic (A3)					((00)	(841 D.A	2 cm Muck (A	(10) (MLRA 147)				
			iyvalue t 7, 148)	Below St	urface (S8)	(MLRA	Coast Prairie	Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147, 148)				
		Th	in Dark S	Surface (S9) (MLR	A 147, 148	١ ١					
Hydrog	gen Sulfide (A4)		Lo	amy Gle	yed Matr	ix (F2)			Red Parent Material (TF2)			
	ed Layers (A5)		Depleted Matrix (F3) Redox Dark Surface (F6)				,	Dark Surface (T	F12)			
	Muck (A10) (LRR N) ed Below Dark Surface	(Δ11)				e (F6) ace (F7)		Other (Expla	n in Remarks)			
	Dark Surface (A12)	(/////			ression							
	Mucky Mineral (S1) (LF	RR N, MLRA				àssés (F12	2) (LRR N,					
147 , 1 4 Sandv	48) Gleyed Matrix (S4)			RA 136		3) (MLRA	136. 122)					
,	Redox (S5)			dmont F			9) (MLRA					
Strippe	ed Matrix (S6)		1-7	5)								
	,							³ Indicators of Hy				
									logy must be pre ed or problemati			
estrictive	Layer (if observed): Yes	S						uriless disturt	ed of problemati	<u> </u>		
Type:	Rock											
								Hydric Soil		No		

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to City/County: Project/Site: SCI-823 Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 31 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Hillslope Terrace 2 Local relief (concave, convex, none): Level Slope (%): Subregion (LRR or MLRA: LRR N Lat: 38.8620 Long: 82.8939 Datum: NAD 27 ErD - Ernest silt loam, 15 to 25 percent slopes **NWI Classification:** Soil Map Unit Name: N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Χ No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	Х	No	Is the Sampled Area
Hydric Soils Present?	Yes	X	No	Within a Wetland? Yes X No
Wetland Hydrology Present?	Yes	X	No	Wetland 12
Domorko				

Remarks:

This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

HYDROLOGY

Wetland Hydrology Indicators	s:							
Primary Indicators (minimum of	one is re	equir	ed; ch	eck a	ll that apply)			Secondary Indicators (minimum of two required)
Surface Water(A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Water Stained Leaves (B9) Aquatic Fauna (B13)		/ (B7)	F F T	True Aquatic Plants Hydrogen Sulfide Od Dxidized Rhizosphe Presence of Reduce Recent Iron Reductic Thin Muck Surface (Other (Explain in Re	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)		
Field Observations:								
Surface Water Present?	Yes		No	X	Depth (inches):			
Water Table Present?	Yes		No	X	Depth (inches):			
Saturation Present?	Yes	X	No		Depth (inches):	1	Wetland H	ydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (streat Remarks:	n gauge	, mo	nitorin	g wel	l, aerial photos, pre	vious inspecti	ons), if availa	able:
Wetland hydrology indicators we	ere obse	erved	. This	obse	rvation satisfies the	hydrology cr	iterion.	

			Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)		% Cover	Species?	Status	Number of Dominant Species	
1. 2.						That are OBL, FACW, or FAC:	(A)
3.						Total Number of Dominant	(5)
4. 5.						Species Across All Strata:	(B)
	4= 0	`		= Total Cover		Percent of Dominant Species	(4 (5)
Sapling/Shrub Stratum (Plot size:	15 ft)				That are OBL, FACW, or FAC:	(A/B)
1.						Prevalence Index Worksheet:	
2. 3.						Total % Cover of: Multiply by: OBL Species × 1 =	
4.						FACW Species × 2 =	
5.				= Total Cover		FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)			. 0.0. 0070.		UPL Species × 5 =	
1. Juncus effusus			100	Yes	FACW	Column Totals: (A)	(B)
2. 3.						Prevalence Index = B/A =	
4.						Hydrophytic Vegetation Indicators:	
5. 6.						 X 1 - Rapid Test for Hydrophytic Vegetatior 2 - Dominance Test is > fifty percent 	1
7.						3 - Prevalence Index is ≤3.01	
8.						4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a sepa	rato
						sheet)	
9. 10.						Problematic Hydrophytic Vegetation ¹ (Ex	(plain)
11							
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog must be present, unless disturbed or problem	
	30 II	,					ialic.
1. 2.						Definitions of Four Vegetation Strata:	
3.						Tree – Woody plants, excluding vines, 3 in. (,
4. 5.						or more in diameter at breast height (DBH), r of height	egardiess
6.						Continue (Charaba NA) and a planta analystic and	
7. 8.						Sapling/Shrub – Woody plants, excluding virtless than 3 in. DBH and greater than 3.28 ft (
o. 9.						, and the second	,
10.				= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less tha tall.	n 3.28 ft
						Woody vine – All woody vines greater than 3 height.	3.28 ft in
Domarko: (Inaluda photo number						Hydrophytic Vegetation Present? Yes X No	o .

The dominant species observed has a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of ir	dicators.	.)		
Depth	Matrix			Redox	(Featu	res						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	marks	
0-12	10YR 5/2	95	10	′R 5/6	5	С	PL	SiL				
>12	IMPENETRABLE							Rock				
	concentration, D=Deple	tion, RM=R	educed	l Matrix, MS=	Maske	d Sand Gra	ains.	² Location: PL=				alla 3.
•	I Indicators:			Dorle Curton	o (C7)			Indicators fo		•		oils ":
Histoso	` '			Dark Surface Polyvalue Be	` '	ırface (S8)	(MLRA	2 cm Muck (A10) (MLRA 147)				
Histic E	pipedon (A2)		147, 148)						Coast Prairie Redox (A16) (MLRA 136, 147)			•
Black H	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)				Piedmont Floodplain Soils (F19) (MLRA 147, 148)			/ILRA 147,		
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)				Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Stripped Matrix (S6)							³ Indicators of wetland hy unless dis	ydrology n	nust be p	resent		
Restrictive	Layer (if observed): Yes	3										
Type:	Rock											
Depth (Depth (inches): 12								Soil t?	Yes	X	No

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823

City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 32

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Access Road Local relief (concave, convex, none): Convex Slope (%): 20

Subregion (LRR or MLRA: LRR N Lat: 38.8618 Long: 82.8938 Datum: NAD 27

Soil Map Unit Name: ErD – Ernest silt loam, 15 to 25 percent slopes NWI Classification:

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 12

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicate						1			
Primary Indicators (minimum	of one is req	iuired; ch	eck a	Il that apply)		Secondary Indicators	(minimum o	of two requir	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (BA)		B7)	F R T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tiller Thin Muck Surface (C7) Other (Explain in Remarks)	1)	Surface Soil Crac Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Tesi	red Concave s (B10) (B16) er Table (C2) c (C8) e on Aerial Im sed Plants (D tition (D2) (D3) c Relief (D4)) nagery (C9)	,
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
Describe Recorded Data (stre	eam gauge, r	nonitorin	g well	I, aerial photos, previous insp	ections), if availa	able:			

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

N/A

	Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.				Total Number of Dominant Species Across All Strata: 2 (B)
		= Total Cover		Percent of Dominant Species
Sapling/Shrub Stratum (Plot 15 ft) size:				That are OBL, FACW, or FAC: 0 (A/B)
 Rubus allegheniensis 3. 4. 	15	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 =
5. Herb Stratum (Plot size: 5 ft)	15	= Total Cover		FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
Solidago canadensis Chrysanthemum leucanthemum	80 10	Yes No	FACU UPL	Column Totals: (A) (B)
3. Achillea millefolium	10	No	FACU	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
4. 5. 6. 7. 8. 9. 10.				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.				Definitions of Four Vegetation Strata:
2. 3. 4. 5.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vine – All woody vines greater than 3.28 ft in height.
Pomarks: //nclude phote numbers here or on a con-				Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	x Featu	es					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks	
0-3	10YR 5/3	100					SiL			
>3	IMPENETRABLE						Rock			
	Concentration, D=Deple	etion, RM=	-Reduced Matrix, MS	= Maske	d Sand Gra	ains.	² Location: PL=Pore	U1		
•	Histosol (A1) Dark Surface (S7)							10) (MLRA 147)		
	Epipedon (A2)	Polyvalue Below Surface (S8) (ML 147, 148)			(MLRA	Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147, 148)				
Black F	Histic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)							
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)			Loamy Gle Depleted M Redox Dari Depleted D Redox Dep RA Iron-Manga MLRA 136 Umbric Sui Piedmont F	latrix (F3 k Surface ark Surfa ression (anese Ma) face (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Sandy	Redox (S5)		148)	looupiui	1 00110 (1 1	o) (III L ITA				
Strippe	d Matrix (S6)							Irophytic vegetatiogy must be pre	sent,	
Restrictive	Layer (if observed): Ye	s						•		
Type:	Rock									
							Hydric Soil			

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation OH Sampling Point: State: 33 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10 Subregion (LRR or MLRA: LRR N Lat: 38.8624 Long: 82.8933 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: ErD - Ernest silt loam, 15 to 25 percent slopes N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? X Within a Wetland? Yes No Yes Х No Х Wetland 12 Wetland Hydrology Present? Yes No Remarks:

This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

HYDROLOGY

Wetland Hydrology Indicate	ors:						
Primary Indicators (minimum	of one is req	uired; ch	eck a	ıll that apply)		Secondary Indicators (minimum of two required)	
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (BA)		37)	F F T	Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	Moss Trim Lines (B16)		
Field Observations:						, , , , , , , , , , , , , , , , , , , ,	
Surface Water Present?	Yes	No	X	Depth (inches):			
Water Table Present?	Yes	No	X	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	Hydrology Present? Yes X No	
Remarks: Wetland hydrology indicators	s were observ	ed. This	obse	ervation satisfies the hydrology o	criterion.		

	Al	bsolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)		Cover	Species?	Status		
1.			·		Number of Dominant Species That are OBL, FACW, or FAC:	(A)
2.					That are Obe, i Aow, or i Ao.	(^)
3.					Total Number of Dominant	
4.					Species Across All Strata:	(B)
5.					·	` ′
			= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft)				That are OBL, FACW, or FAC:	(A/B)
size:					Director of Index Montreleast.	
1. 2.					Prevalence Index Worksheet: Total % Cover of: Multiply by:	l
2. 3.					Total % Cover of: Multiply by: OBL Species × 1 =	
4.					FACW Species × 2 =	
5.					FAC Species × 3 =	
			= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)					UPL Species × 5 =	l
Juncus effusus		40	Yes	FACW	Column Totals: (A)	(B)
Bidens polylepis		40	Yes	FACW	Column Fotalo.	(5)
3. Juncus anthelatus		10	No	FAC	Prevalence Index = B/A =	
4. Eupatorium perfoliatum		5	No	FACW	Hydrophytic Vegetation Indicators:	
5. Eupatorium serotinum		5	No	FAC	X 1 - Rapid Test for Hydrophytic Vegetation	
6.					2 - Dominance Test is > fifty percent	
7.					3 - Prevalence Index is ≤3.0 ¹	
8.					4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separat	+ <u>^</u>
					sheet)	re
9.					Problematic Hydrophytic Vegetation ¹ (Expla	ain)
10.					(=	u.,
11						
		100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology	
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problemat	tic.
1.				ľ	Definitions of Four Vegetation Strata:	
2.					20	
3.					Tree – Woody plants, excluding vines, 3 in. (7.6	
4.					or more in diameter at breast height (DBH), reg	jardless
5.					of height	
6.					Carling/Chrush Woody plants, evaluding vine	_
7.					Sapling/Shrub – Woody plants, excluding vines less than 3 in. DBH and greater than 3.28 ft (1 r	
8.					less than 3 in. Don and greater than 3.20 it (1)	III) taii.
9.					Herb - All herbaceous (non-woody) plants,	
10.			Total Cover		regardless of size, and woody plants less than 3	3.28 ft
			= Total Cover		tall.	
					Woody vine – All woody vines greater than 3.2	28 ft in
					height.	
				ŀ		
					Hydrophytic	
					Vegetation Present? Yes X No	

The dominant species observed have a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	indicator o	or confirm	the absence of ir	ndicators	.)		
Depth	Matrix			Redox	k Featu	res						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-12	10YR 5/2	95	10\	′R 4/6	5	С	PL	SiL				
>12	IMPENETRABLE							Rock				
	concentration, D=Deplet	tion, RM=Re	educec	l Matrix, MS=	Maske	d Sand Gr	ains.	² Location: PL=				oils 3.
Histoso				Dark Surfac	o (S7)					•		olis :
	Epipedon (A2)			Polyvalue B	` '	ırface (S8)	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 136, 147)			136, 147)		
Black H	Histic (A3)			, ,	S9) (MLR		Piedmont Floodplain Soils (F19) (MLRA 147, 148)					
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I Sandy I	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface (A12) Mucky Mineral (S1) (LR 8) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	` ,		Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)				Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Зпрре	u Iviaitix (30)							³ Indicators of wetland hy unless dis	ydrology r	nust be p	oresent	
Restrictive	Layer (if observed): Yes	3										
Type:	Rock											
Depth (Depth (inches): 12							Hydric S Presen		Yes	X	No

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 34

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none):

Convex

Slope (%): 20

Subregion (LRR or MLRA: LRR N Lat: 38.8624 Long: 82.8933 Datum: NAD 27

Soil Map Unit Name: ErD – Ernest silt loam, 15 to 25 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 12

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	tors:					
Primary Indicators (minimum	n of one is req	uired; ch	eck a	ıll that apply)		Secondary Indicators (minimum of two required
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (B4) Aquatic Fauna (B13)	erial Imagery (B7)		Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	,	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	X	Depth (inches):		
Water Table Present?	Yes	No	X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present? Yes No)
Describe Recorded Data (str	ream gauge, r	monitorin	g wel	I, aerial photos, previous inspec	tions), if availa	able:
Remarks:						

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.				Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot 15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
size: 1. Rubus allegheniensis	15	Yes	FACU	Prevalence Index Worksheet:
2. 3. 4. 5.				Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)	15	= Total Cover		FACU Species x 4 = UPL Species x 5 =
Solidago canadensis Eupatorium fistulosum	70 10	Yes No	FACU FACW	Column Totals: (A) (B)
3. Erigeron strigosus	10	No	FACU	Prevalence Index = B/A =
 4. Anthoxanthum odoratum 5. 6. 7. 8. 9. 10. 11 	10	No	FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.				Definitions of Four Vegetation Strata:
2. 3. 4. 5.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	x Featu	res						
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	ırks		
0-5	10YR 5/3	100					SiL				
>5	IMPENETRABLE						Rock				
	Concentration, D=Deple	etion, RM=	Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore Indicators for Pro				
Histoso	ol (A1)		Dark Surfa				2 cm Muck (A1	2 cm Muck (A10) (MLRA 147)			
Histic E	Epipedon (A2)		Polyvalue l 147, 148)	Below Su	ırface (S8)	(MLRA	Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147, 148)				
Black I	Histic (A3)		, ,	Surface (S9) (MLR	A 147, 148)					
Stratific 2 cm N Deplete Thick I Sandy 147, 14 Sandy Sandy	gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LI 48) Gleyed Matrix (S4) Redox (S5)	, ,	Thin Dark Surface (S9) (MLRA 147, 14 Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N MLRA 136) Umbric Surface (F13) (MLRA 136, 122 Piedmont Floodplain Soils (F19) (MLRA 148)				Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Chippe	24 Matrix (00)						³ Indicators of Hydro wetland hydrolo unless disturbed	gy must be pres	ent,		
Restrictive	Layer (if observed): Ye	es									
Restrictive Type:	Layer (if observed): Ye Rock	es									

Remarks:

The soils in this area do not correspond to any of the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Sampling Date: Portsmouth/Scioto Co. 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 35 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Hillslope Swale Local relief (concave, convex, none): Convex Slope (%): 15 Subregion (LRR or MLRA: LRR N 38.8629 82.8935 Lat: Long: Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 12 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	2 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	3 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	66 (A/B)
 Rubus allegheniensis 3. 4. 5. 		10	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multip OBL Species x 1 = FACW Species x 2 = FAC Species x 3 =	
Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FACU Species × 4 = UPL Species × 5 =	
Juncus effusus Juncus anthelatus Eupatorium fistulosum		50 20 15	Yes Yes No	FACW FAC FACW	Column Totals: (A) Prevalence Index = B/A =	(B)
 4. Apocynum cannabinum 5. 6. 7. 8. 9. 10. 11 		15	No	FACU	Hydrophytic Vegetation Indicator: 1 - Rapid Test for Hydrophytic V X 2 - Dominance Test is > fifty per 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ supporting data in Remarks or c sheet) Problematic Hydrophytic Vegeta	egetation cent (Provide n a separate ation ¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed o	r problematic.
1. 2. 3. 4. 5. 6.					Definitions of Four Vegetation Str Tree – Woody plants, excluding vine or more in diameter at breast height of height	es, 3 in. (7.6 cm)
7. 8.					Sapling/Shrub – Woody plants, excless than 3 in. DBH and greater than	
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) regardless of size, and woody plants tall.	plants, s less than 3.28 ft
					Woody vine – All woody vines greatheight.	ter than 3.28 ft in
					Hydrophytic Vegetation Present? Yes	X No

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

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

Depth	Matrix			Redo	ox Featu	es						
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-12	10YR 5/2	95	10\	/R 5/6	5	С	PL	SiL				
12-18	10YR 6/3	95	10\	/R 5/8	5	С	PL	SiL				
	concentration, D=Deple	etion, RM=	:Reduced	I Matrix, MS	= Maske	d Sand Gra	ains.	² Location: Pl				3
•	I Indicators:				(==\)			Indicators		•		oils ":
Histoso	ol (A1)			Dark Surface Polyvalue B		urface (S8)	/MI D A	2 cm M	uck (A10) (MLRA 14	1 7)	
Histic E	pipedon (A2)			147, 148)	Jeiow Su	inace (30)	(IVILIXA	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	listic (A3)			Thin Dark S	Surface (S9) (MLRA	147. 148		Piedmont Floodplain Soils (F19) (MLRA 147, 148)			
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy	en Sulfide (A4) ed Layers (A5) uck (A10) (LRR N) ed Below Dark Surface bark Surface (A12) Mucky Mineral (S1) (LI 8) Gleyed Matrix (S4) Redox (S5)	,		Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F	Matrix (F3 k Surface Park Surfa pression (anese Ma) rface (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
Strippe	d Matrix (S6)			,	³ Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic							
Restrictive	Layer (if observed):											
Type:												
Depth (inches):						Hydric Prese		Yes	X	No	

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 36

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N Lat: 38.8628 Long: 82.8936 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Χ	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland 12

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary indicators (minimum	Secondary Indicators (minimum of two required)									
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drift Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)						Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Its (C3) Drainage Patterns (B10) Moss Trim Lines (B16)				
Field Observations:							- (- /			
Surface Water Present?	Yes	No	X	Depth (inches):						
Water Table Present?	Yes	No	X	Depth (inches):						
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes eam gauge, r	No monitorin	X g wel	Depth (inches): I, aerial photos, previous insp		lydrology Present?	Yes	No	Х	
Remarks:										
Wetland hydrology indicators	were not ob	served.	This c	observation does not satisfy t	he hydrology crite	erion.				

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft) 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
 Rubus allegheniensis 3. 4. 		10	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 =
5. Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FAC Species x 3 = FACU Species x 4 = UPL Species x 5 =
Solidago canadensis Anthoxanthum odoratum 3.		90 10	Yes No	FACU FACU	Column Totals: (A) (B)
9. 10.					Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
	0 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix			Redo	x Featur	es					
inches)	Color (moist)	%	Color (moist) % Type¹ Loc² Texture				R	emarks			
0-12	10YR 5/2	95	10YR 5/6 5 C PL				SiL				
12-18 10YR 6/3 95			10YR 5/8			С	PL	SiL			
¹ Type: C=Concentration, D=Depletion, RM=Rec Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)				Matrix, MS= Dark Surface Polyvalue B 147, 148) Thin Dark S Loamy Gley Depleted Mi Redox Dark Depleted Dark Dark Dark Dark Dark Dark Dark Dark	ce (S7) selow Su Gurface (ved Matr atrix (F3 c Surface ark Surfacession (nese Matr face (F1)	S9) (MLRA ix (F2)) e (F6) ace (F7) (F8) asses (F12	(MLRA A 147, 148) (LRR N, 136, 122)	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147 148) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			. 136, 147) MLRA 147,
Stripped Matrix (S6)				,				³ Indicators of Hydrophytic vegetation and wetland hydrology must be present,			
								unless distu	bed or problen	natic	
	Layer (if observed):										
Restrictive I	Layer (if observed):							Hydric So	_		

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 37 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N 38.8633 82.8932 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 12 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 4 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 75 (A/B)
 Rubus allegheniensis 3. 4. 5. 		5	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)	5	= Total Cover		FACU Species
Carex vulpinoidea Juncus effusus Epilobium coloratum		40 30 20	Yes Yes Yes	OBL FACW OBL	Column Totals: (A) (B) Prevalence Index = B/A =
4. Ludwigia alternifolia 5. Apocynum cannabinum 6. Agrimonia parviflora 7. 8. 9. 10.		2.5 2.5 2.5	No No No	FACW FACU FAC	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	97.5	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
7. 8. 9.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo numbe	re horo or on a seco	urato choot \			Hydrophytic Vegetation Present? Yes X No

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

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

Depth	Matrix			Redo	x Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture Remarks				
0-12	10YR 5/2	95	10Y	/R 5/6	5	С	PL	SiL	SiL			
12-18	10YR 6/3	95	10Y	′R 5/8	5	С	PL	SiL				
Hydric Soi Histoso Histoso Black H Hydrog Stratific 2 cm M Deplete Thick D Sandy Sandy	epipedon (A2) distic (A3) en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface dark Surface (A12) Mucky Mineral (S1) (LI	(A11)	x	Dark Surface Polyvalue B 147, 148) Thin Dark S Loamy Gley Depleted Margedox Dark Depleted Dark Redox Depr Iron-Mangal MLRA 136) Umbric Surf Piedmont Fi 148)	se (S7) selow Su surface (red Matr atrix (F3; s Surface ark Surfacession (nese Matr face (F1)	S9) (MLR/ ix (F2)) e (F6) ace (F7) (F8) ssses (F12	(MLRA A 147, 148) (LRR N, 136, 122)	Piedmor 148) Red Par Very Sh: Other (E	or Probleck (A10) airie Rec t Floodpi ent Mate allow Dar xplain in	ematic Hy (MLRA 1 dox (A16) lain Soils rial (TF2) k Surface Remarks)	ydric S 47) (MLRA (F19) (I (TF12)	. 136, 147) MLRA 147,
Restrictive	Layer (if observed):							unless di	siurbeu c	or problem	auc	
Type:	., . (
	inches):							Hydric	Soil	Yes	х	No

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 38

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N Lat: 38.8628 Long: 82.8936 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for	Wetlar	nd 12

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum	of one is req	uired; ch	eck a	II that apply)		Secondary Indicators	s (minimum of	two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ael Water Stained Leaves (BA) Aquatic Fauna (B13)	0 , (B7)	F F T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Liversence of Reduced Iron (CRecent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	4)	Surface Soil Cra Sparsely Vegeta Drainage Patterr Moss Trim Lines Dry-Season Wat Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave S ns (B10) (B16) er Table (C2) s (C8) e on Aerial Ims sed Plants (D1 tition (D2) d (D3) c Relief (D4)	agery (C9)	,
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	Х
Describe Recorded Data (str	eam gauge, r	nonitorin	g wel	l, aerial photos, previous ins	pections), if availa	able:			
Remarks:									
Matienal budenie eu indiante e			Th:						
Wetland hydrology indicators	were not ob	servea.	i nis c	odservation does not satisty t	ne nyarology criti	erion.			

	Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
3. 4. 5.				Total Number of Dominant Species Across All Strata: 3 (B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 33 (A/B)
1. Rubus allegheniensis 2. 3. 4. 5.	5	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)	5	= Total Cover		FACU Species × 4 = UPL Species × 5 =
Solidago canadensis Anthoxanthum odoratum	40 10	Yes No	FACU FACU	Column Totals: (A) (B)
3. Juncus anthelatus	10	No	FAC	Prevalence Index = B/A =
 4. Eupatorium fistulosum 5. 6. 7. 8. 9. 10. 11 	5	No	FACW	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	65	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Lonicera japonica	30	Yes	FAC	Definitions of Four Vegetation Strata:
2. 3. 4. 5.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.	30	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

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

Depth	Matrix			Redo	x Featu	es						
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-12	10YR 5/2	95	10\	/R 5/6	5	С	PL	SiL				
12-18	10YR 6/3	95	10\	/R 5/8	5	С	PL	SiL				
	Concentration, D=Deple	etion, RM=	:Reduced	ł Matrix, MS:	= Maske	d Sand Gra	ains.	² Location: P				
•	I Indicators:							Indicators		•		oils ³ :
Histoso	l (A1)			Dark Surfa		rfood (CO)	/MIDA	2 cm M	uck (A10) (MLRA 1	47)	
Histic E	pipedon (A2)			Polyvalue E 147 , 148)	selow Su	mace (So)	Coast Prairie Redox (A16) (MLRA 136, 147)					
Black H	listic (A3)			Thin Dark Surface (S9) (MLRA 147, 148)					Piedmont Floodplain Soils (F19) (MLRA 147 148)			
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I	Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Candy Mucky Mineral (S1) (LRR N, MLRA 47, 148) Candy Gleyed Matrix (S4) Candy Gleyed Matrix (S4) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA					Red Pa Very St	rent Materi nallow Dark Explain in F	Surface)		
Sandy I	Redox (S5)			148)	loouplaii	1 30113 (1 1	o) (IVILIXA					
Strippe	d Matrix (S6)			-					of Hydroph hydrology listurbed or	must be p	oresent	
Restrictive	Layer (if observed):											
Type:												
Depth (inches):							Hydrid Prese		Yes	Х	No

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 39 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Hill slope Swale Local relief (concave, convex, none): Concave Slope (%): 10 38.8633 Subregion (LRR or MLRA: LRR N Lat: Long: 82.8929 Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks.) Yes No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ No naturally problematic? Are vegetation or Hydrology (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Х No Χ Wetland 12 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Χ Drainage Patterns (B10) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Saturation Present? Yes Χ Depth (inches): Х No No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 5 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 60 (A/B
Rubus allegheniensis Rosa multiflora 4. 5.		5 5	Yes Yes	FACU FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species x 1 = FACW Species x 2 = FAC Species x 3 =
Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FACU Species × 4 = UPL Species × 5 =
Juncus effusus Carex vulpinoidea Juncus anthelatus		40 20 20	Yes Yes Yes	FACW OBL FAC	Column Totals: (A) (B)
 4. Eleocharis obtusa 5. 6. 7. 8. 9. 10. 11 		10	No No	OBL	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardles of height
7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes X No

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

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

Depth	Matrix			Redo	x Featur	res							
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks		
0-12	10YR 5/2	95	10\	YR 5/6	5	С	PL	SiL					
12-18	10YR 6/3	95	10\	YR 5/8	5	С	PL	SiL	SiL				
Hydric Soi Histoso Histoso Histic E Black F Hydrog Stratific 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	dipipedon (A2) distic (A3) en Sulfide (A4) dd Layers (A5) uck (A10) (LRR N) dd Below Dark Surface dark Surface (A12) Mucky Mineral (S1) (LI	(A11)	x	Dark Surface Polyvalue E 147, 148) Thin Dark S Loamy Gley Depleted M Redox Dark Depleted D Redox Dep Iron-Manga MLRA 136) Umbric Sur Piedmont F 148)	ce (S7) Below Su Gurface (yed Matr atrix (F3 c Surface ark Surfa ression (nese Ma) face (F1	S9) (MLRA ix (F2) i) e (F6) ace (F7) (F8) asses (F12	(MLRA A 147, 148) (LRR N, 136, 122)	2 cm Coast Piedm 148) Red F Very S Other	s for Prob Muck (A10 Prairie Re nont Flood Parent Mat Shallow Da (Explain in	olematic Hy (MLRA 1- edox (A16)	vdric S 47) (MLRA (F19) (I (TF12)	.136, 147) MLRA 147,	
Restrictive	Layer (if observed):									•			
Type:													
•	inches):								ic Soil sent?	Yes	X	No	
Remarks:													

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 40

Applicant/Owner: Ohio Department of Transportation
Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N Lat: 38.8632 Long: 82.8929 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes \mathbf{X} No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for	Wetlaı	nd 12

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		F	Гrue Aquatic Plants (В14) Hydrogen Sulfide Odor (С1) Dxidized Rhizospheres on Living Roots (С	Surface Soil Cr Sparsely Veget	tated Concave S	Surface (B	0/
Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13)		Т	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)	Moss Trim Line Dry-Season Wa Crayfish Burrov Saturation Visik Stunted or Stre Geomorphic Po Shallow Aquitan Microtopograph FAC-Neutral Te	ater Table (C2) ws (C8) ble on Aerial Imessed Plants (Dosition (D2) and (D3) hic Relief (D4)	agery (C9	,
Field Observations:							
Surface Water Present? Yes N	lo)	K	Depth (inches):				
Water Table Present? Yes N	10)	X	Depth (inches):				
Saturation Present? Yes N (includes capillary fringe) Describe Recorded Data (stream gauge, monitor		X wel	. , ,	nd Hydrology Present?	Yes	No	Х
Remarks:							

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	=
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	3 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	0 (A/B)
 Rubus allegheniensis 3. 4. 5. 		5	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multip OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	ly by:
Herb Stratum (Plot size: 5 ft)	5	= Total Cover		FACU Species × 4 = UPL Species × 5 =	
Solidago canadensis Anthoxanthum odoratum		60 20	Yes Yes	FACU FACU	Column Totals: (A)	(B)
 3. Pycnanthemum tenuifolium 4. Eupatorium fistulosum 5. Juncus effusus 6. 7. 8. 9. 10. 11 		5 5 5	No No No	FACW FACW FACW	Prevalence Index = B/A = Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vec 2 - Dominance Test is > fifty perc 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Is supporting data in Remarks or or sheet) Problematic Hydrophytic Vegetat	egetation ent Provide n a separate
	30 ft)	95	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed or	
1. 2. 3. 4. 5.					Definitions of Four Vegetation Stra Tree – Woody plants, excluding vine or more in diameter at breast height of height	s, 3 in. (7.6 cm)
6. 7. 8.					Sapling/Shrub – Woody plants, excl less than 3 in. DBH and greater than	
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) regardless of size, and woody plants tall.	plants, less than 3.28 ft
					Woody vine – All woody vines great height.	er than 3.28 ft in
					Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

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

Depth	Matrix			Redo	ox Featur	es						
(inches)	Color (moist)	%	Color	r (moist)	%	Type ¹	Loc ²	Texture		R	emarks	ı
0-12	10YR 5/2	95	10	YR 5/6	5	С	PL	SiL				
12-18	10YR 6/3	95	10	YR 5/8	5	С	PL	SiL				
	Concentration, D=Depl	etion, RM=	Reduced	d Matrix, MS	= Maske	d Sand Gra	nins.	² Location: PL				3
-	I Indicators:							Indicators f			•	oils ":
Histoso	ol (A1)			Dark Surface Polyvalue B		rface (SQ)	/MI D A	2 cm Mu	ick (A10)	(MLRA 1	47)	
Histic E	pipedon (A2)			147, 148)	Selow Su	mace (30)	(IVILIXA	Coast P	rairie Red	ox (A16)	(MLRA	136, 147)
Black H	listic (A3)			Thin Dark S	Surface (S9) (MLR<i>A</i>	147, 148	Piedmor	nt Floodpl	ain Soils	(F19) (I	VILRA 147
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface Park Surface (A12) Mucky Mineral (S1) (L B) Gleyed Matrix (S4)	,		Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur	Matrix (F3 k Surface Park Surfa pression (anese Ma) rface (F1) e (F6) ace (F7) (F8) asses (F12)	136, 122)	Red Par Very Sh	ent Mater allow Darl xplain in I	k Sùrface)
Sandy I	Redox (S5)			Piedmont F 148)	-loodplaii	n Soils (F1	9) (MLRA					
Strippe	d Matrix (S6)			1-10)					nydrology	must be	present	
Dantuinti .a	l							unless di	sturbed o	r problem	atic	
	Layer (if observed):											
Type:								Hydric	0-11			
1) 00.												

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 41 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N 38.8636 82.8924 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 12 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

T 0 (5)		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 3 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: (A/B)
1. Rubus allegheniensis 2. 3. 4.		5	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 =
5. <u>Herb Stratum</u> (Plot size: 5 ft)	5	= Total Cover		FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
Juncus effusus Carex vulpinoidea Juncus anthelatus		40 30 10	Yes Yes No	FACW OBL FAC	Column Totals: (A) (B) Prevalence Index = B/A =
 4. Epilobium coloratum 5. Apocynum cannabinum 6. 7. 8. 9. 10. 		10 10	No No	OBL FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
11 Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo number					Hydrophytic Vegetation Present? Yes X No

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

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

								i I		•		
Depth	Matrix			Redo	x Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		R	emarks	
0-12	10YR 5/2	95	10Y	YR 5/6	5	С	PL	SiL				
12-18	10YR 6/3	95	10Y	YR 5/8	5	С	PL	SiL				
Hydric Soi Histoso Histoso Black F Hydrog Stratific 2 cm M Deplete Thick D Sandy Sandy Sandy	Epipedon (A2) distic (A3) en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LI	(A11)	x	Dark Surface Polyvalue B 147, 148) Thin Dark S Loamy Gley Depleted Ma Redox Dark Depleted Dark Dark Dark Dark Dark Dark Dark Dark	ee (S7) elow Su urface (red Matr atrix (F3 Surface ark Surface ark Surface ession (nese Ma face (F1)	S9) (MLR/ ix (F2)) e (F6) ace (F7) (F8) ssses (F12	(MLRA A 147, 148) (LRR N, 136, 122)	Coast Pi Piedmor 148) Red Par Very Shi Other (E	or Problick (A10) airie Red t Floodp ent Mate allow Da xplain in	ematic Hy (MLRA 1 dox (A16) lain Soils rial (TF2) rk Surface Remarks)	ydric S 47) (MLRA (F19) (I (TF12)	. 136, 147) MLRA 147,
									, ,,	/ must be or problem		ī,
Restrictive	Layer (if observed):											
Type:												
								Hydric	Soil			

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 42

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8637 Long: 82.8925 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Χ	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland 12

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum	of one is rec	uired: ch	eck :	all that apply)		Secondary Indicators	s (minimum of	f two reaui	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)	rial Imagery (True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	(4)	Surface Soil Crac Sparsely Vegetar Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	cks (B6) ted Concave (B10) (B16) er Table (C2) (C8) e on Aerial Imped Plants (Ditton (D2) (D3) c Relief (D4)	Surface (B	38)
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present?	Yes	No	Χ	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
(includes capillary fringe)									
Describe Recorded Data (stre	eam gauge, i	monitorin	g we	ell, aerial photos, previous ins	pections), if availa	able:			

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

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

Depth	Matrix			Redo	ox Featur	es						
(inches)	Color (moist)	%	Color	r (moist)	%	Type ¹	Loc ²	Texture		R	emarks	ı
0-12	10YR 5/2	95	10	YR 5/6	5	С	PL	SiL				
12-18	10YR 6/3	95	10	YR 5/8	5	С	PL	SiL				
	Concentration, D=Depl	etion, RM=	Reduced	d Matrix, MS	= Maske	d Sand Gra	nins.	² Location: PL				3
-	I Indicators:							Indicators f			•	oils ":
Histoso	ol (A1)			Dark Surface Polyvalue B		rface (SQ)	/MI D A	2 cm Mu	ick (A10)	(MLRA 1	47)	
Histic E	pipedon (A2)			147, 148)	Selow Su	mace (30)	(IVILIXA	Coast P	rairie Red	ox (A16)	(MLRA	136, 147)
Black H	listic (A3)			Thin Dark S	Surface (S9) (MLR<i>A</i>	147, 148	Piedmor	nt Floodpl	ain Soils	(F19) (I	VILRA 147
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface Park Surface (A12) Mucky Mineral (S1) (L B) Gleyed Matrix (S4)	,		Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur	Matrix (F3 k Surface Park Surfa pression (anese Ma) rface (F1) e (F6) ace (F7) (F8) asses (F12)	136, 122)	Red Par Very Sh	ent Mater allow Darl xplain in I	k Sùrface)
Sandy I	Redox (S5)			Piedmont F 148)	-loodplaii	n Soils (F1	9) (MLRA					
Strippe	d Matrix (S6)			1-10)					nydrology	must be	present	
Dantuinti .a	l							unless di	sturbed o	r problem	atic	
	Layer (if observed):											
Type:								Hydric	0-11			
1) 00.												

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 43 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N 38.8638 82.8926 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 12 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
3. 4. 5.				Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft) 1. Juncus effusus	35	Yes	FACW	UPL Species x 5 = Column Totals: (A)	(D)
Juncus effusus Carex vulpinoidea	35 35	Yes Yes	OBL	Column Totals: (A)	(B)
3. Eleocharis obtusa	10	No	OBL	Prevalence Index = B/A =	
 4. Polygonum persicaria 5. Epilobium coloratum 6. 7. 8. 9. 10. 11 	10 10	No No	FACW OBL	Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separ sheet) Problematic Hydrophytic Vegetation¹ (Expense)	ate
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog must be present, unless disturbed or problem	,,
1.				Definitions of Four Vegetation Strata:	
 3. 4. 5. 				Tree – Woody plants, excluding vines, 3 in. (7 or more in diameter at breast height (DBH), re of height	
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vir less than 3 in. DBH and greater than 3.28 ft (
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less that tall.	n 3.28 ft
				Woody vine – All woody vines greater than 3 height.	.28 ft in
December (feel also between bounds of the control o				Hydrophytic Vegetation Present? Yes X No	1

The dominant species observed have a wetland indicator status of FACW or OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

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

Depth	Matrix			Redo	x Featur	es						
(inches)	Color (moist)	%	Color	r (moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-12	10YR 5/2	95	10`	YR 5/6	5	С	PL	SiL				
12-18	10YR 6/3	95	10`	YR 5/8	5	С	PL	SiL				
	oncentration, D=Depl	etion, RM=	Reduced	d Matrix, MS:	= Maske	d Sand Gra	ins.	² Location: PL				
-	Indicators:							Indicators f				oils ³ :
Histosol	I (A1)			Dark Surface		······································	(BALDA	2 cm Mu	ck (A10) (MLRA 1	47)	
Histic E	pipedon (A2)		Polyvalue E 147, 148)	selow Su	rrace (S8)	(WLKA	Coast P	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 14							147, 148	Piedmor	t Floodpla	in Soils	(F19) (I	VILRA 147
Stratifie 2 cm Mo Deplete Thick D Sandy M 147, 14	en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L 8) Gleyed Matrix (S4)		Loamy Gley Depleted M Redox Dark Depleted D Redox Dep Iron-Manga MLRA 136 Umbic str	latrix (F3 C Surface ark Surfa ression (Inese Ma) face (F1) e (F6) ace (F7) (F8) asses (F12)	36, 122)	Red Par Very Sh	ent Materi allow Dark xplain in F	Surface		,	
Sandy F	Redox (S5)			Piedmont F 148)	loodplaii	n Soils (F1) (MLRA					
Stripped	d Matrix (S6)			,					f Hydroph ydrology i sturbed or	must be	present	
Restrictive L	_ayer (if observed):									•		
Type:	,											
Denth (i	inches):							Hydric Prese		Yes	X	No

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 44

Applicant/Owner: Ohio Department of Transportation
Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8638 Long: 82.8927 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classificatio

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Χ	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland 12

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum	of one is red	uired; ch	eck a	all that apply)		Secondary Indicators	s (minimum of	f two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)	0 , ([B7)	 -	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	24)	Surface Soil Crac Sparsely Vegetal Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave S as (B10) (B16) er Table (C2) s (C8) e on Aerial Im sed Plants (D' itton (D2) (D3) c Relief (D4)	agery (C9	,
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes eam gauge, r	No monitorin	X g we	Depth (inches):		lydrology Present?	Yes	No	Х
Remarks:									

	Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.				Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
Solidago canadensis Chrysanthemum leucanthemum	70 10	Yes No	FACU UPL	Column Totals: (A) (B)
3. Eupatorium fistulosum	10	No No	FACW	Prevalence Index = B/A =
 4. Juncus anthelatus 5. Juncus effusus 6. 7. 8. 9. 10. 11 	5 5	No No	FAC FACW	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.				Definitions of Four Vegetation Strata:
2. 3. 4. 5.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

epth	Matrix			Redo	x Featur	es					
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	R	emarks	
0-12	10YR 5/2	95	10`	YR 5/6	5	C	PL	SiL			
12-18	10YR 6/3	95	10`	YR 5/8	5	С	PL	SiL			
	oncentration, D=Deple Indicators: I (A1)	etion, RM=F	Reduced	Dark Surfac	ce (S7)			² Location: PL=Pore Indicators for Pro 2 cm Muck (A	oblematic H	ydric S	oils ³:
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)						(WLKA	Coast Prairie	, ,	•		
Black H	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)					140)			
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)				Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F 148)	latrix (F3 C Surface ark Surfa ression (Inese Ma) face (F1) e (F6) ace (F7) F8) asses (F12 3) (MLRA	136, 122)	Red Parent M Very Shallow Other (Explair	Dark Surface		
Suipped	a iviautix (30)							³ Indicators of Hyd wetland hydrol unless disturbe	ogy must be	present	
	_ayer (if observed):										
estrictive L											
estrictive L Type:											

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 45 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N 38.8636 82.8918 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 12 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
2. 3. 4. 5.				Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot 15 ft size:)	= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
 Juncus effusus Carex vulpinoidea 	90 10	Yes Yes	FACW OBL	Column Totals: (A) Prevalence Index = B/A =	(B)
4. 5. 6. 7. 8.				Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a sep sheet) Problematic Hydrophytic Vegetation¹ (Indicators)	e parate
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrol must be present, unless disturbed or proble	
1.				Definitions of Four Vegetation Strata:	
2.3.4.5.				Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH), of height	
6. 7. 8.				Sapling/Shrub – Woody plants, excluding less than 3 in. DBH and greater than 3.28 ft	
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less the tall.	
				Woody vine – All woody vines greater than height.	n 3.28 ft in
Remarks: (Include photo numbers here or on				Hydrophytic Vegetation Present? Yes X I	No

The dominant species observed has a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

epth	Matrix			Redo	x Featur	es						
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	R	emarks		
0-12	10YR 5/2	95	10`	/R 5/6	5	C	PL	SiL				
12-18	10YR 6/3	95	10`	/R 5/8	5	С	PL	SiL				
	oncentration, D=Deple Indicators: I (A1)	etion, RM=l	Reduced	Dark Surfa	ce (S7)			² Location: PL=Pore Indicators for Pro 2 cm Muck (A	oblematic H	ydric S	oils ³:	
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)						(MLRA	Coast Prairie Redox (A16) (MLRA 136, 1					
Black H	istic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)					140)				
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)				Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F 148)	latrix (F3 k Surface lark Surfa ression (anese Ma) face (F1) e (F6) ace (F7) F8) asses (F12 3) (MLRA	136, 122)	Red Parent M Very Shallow Other (Explair	Dark Surface			
Suipped	a iviaurix (30)							³ Indicators of Hyd wetland hydrol unless disturbe	ogy must be	present		
	_ayer (if observed):											
estrictive L												
estrictive L Type:												

Remarks:

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 46

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N Lat: 38.8636 Long: 82.8917 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Х	Is the Sampled Area		
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes	No	X
Wetland Hydrology Present?	Yes		No	X	Out Poin	t for Wetla	and 12

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum	of one is rec	uired: ch	eck a	ill that apply)		Secondary Indicators (m	ninimum of two requi	ired)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)	ial Imagery (7 6 F F	Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Le Presence of Reduced Iron (Recent Iron Reduction in Til Thin Muck Surface (C7) Other (Explain in Remarks)	Living Roots (C3) C4)	Surface Soil Cracks Sparsely Vegetated Drainage Patterns (E Moss Trim Lines (B1 Dry-Season Water T Crayfish Burrows (Ci Saturation Visible on Stunted or Stressed Geomorphic Positior Shallow Aquitard (DC) Microtopographic Re FAC-Neutral Test (D	(B6) Concave Surface (E310) 6) able (C2) 8) Aerial Imagery (C9 Plants (D1) n (D2) 3) elief (D4)	38)
Field Observations:								
Surface Water Present?	Yes	No	X	Depth (inches):				
Water Table Present?	Yes	No	X	Depth (inches):				
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes eam gauge, r	No monitorin	X g wel	Depth (inches): I, aerial photos, previous in			Yes No	X
Remarks: Wetland hydrology indicators	were not ob	served.	This o	observation does not satisfy	the hydrology crit	erion.		

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (/	(A)
3. 4. 5.				Total Number of Dominant Species Across All Strata: 3 (I	(B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0	(A/B)
Rubus allegheniensis 3. 4. 5.	10	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	
Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FACU Species	
Solidago canadensis Anthoxanthum odoratum	70 20	Yes Yes	FACU FACU	Column Totals: (A) (B)	3)
 3. Chrysanthemum leucanthemum 4. 5. 6. 7. 8. 9. 10. 11 	10	No	UPL	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain	
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. 2. 3. 4. 5. 6.				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 c or more in diameter at breast height (DBH), regard of height	rdless
7. 8. 9.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m)	
10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.2 tall.	28 ft
				Woody vine – All woody vines greater than 3.28 height.	ft in
				Hydrophytic Vegetation Present? Yes No	х

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

epth	Matrix			Redo	x Featur	es					
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	R	emarks	
0-12	10YR 5/2	95	10`	/R 5/6	5	C	PL	SiL			
12-18	10YR 6/3	95	10`	/R 5/8	5	С	PL	SiL			
	oncentration, D=Deple Indicators: I (A1)	etion, RM=R	Reduced	Dark Surfac	ce (S7)			² Location: PL=Pore Indicators for Pro 2 cm Muck (A	oblematic H	ydric So	oils ³:
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)					(MLRA	Coast Prairie	` ,	•			
Black H	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)				Piedmont Floodplain Soils (F19) (MLRA 147				
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)				Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F 148)	latrix (F3 k Surface lark Surfa ression (anese Ma) face (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
отпррес	T Matrix (30)							³ Indicators of Hyd wetland hydrol unless disturbe	ogy must be	present	
	_ayer (if observed):				_						
estrictive L											
estrictive L Type:											

Remarks:

6.2.11 to City/County: Project/Site: SCI-823 Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 47 Investigator(s): Len Mikles, Jason Earley, and Richard Paul 3 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): Subregion (LRR or MLRA: LRR N Lat: 38.8637 Long: 82.8935 Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** Soil Map Unit Name: N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Χ No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	Х	No	Is the Sampled Area
Hydric Soils Present?	Yes	X	No	Within a Wetland? Yes X No
Wetland Hydrology Present?	Yes	X	No	Wetland 12

Remarks:

This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

Wetland Hydrology Indicator	s:									
Primary Indicators (minimum o	f one is requ	ired; ch	eck a	ll that apply)		Secondary Indicators (minimum of two required)				
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water Stained Leaves (B9) Aquatic Fauna (B13)		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Surface Soil Cracks (B6) Sparsely Vegetated Concave Sur Moss Trim Lines (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Image Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)								
Field Observations:						. ,				
Surface Water Present?	Yes	No	X	Depth (inches):						
Water Table Present?	Yes	No	X	Depth (inches):						
Saturation Present? (includes capillary fringe)	Yes	No	Х	Depth (inches):		rdrology Present? Yes X No				
Remarks:				I, aerial photos, previous inspecti	,· 	JIG.				
3 ,										

_	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status		
1. 2.	70 00001	орешев.	Otatus	Number of Dominant Species That are OBL, FACW, or FAC:	3 (A)
3. 4.				Total Number of Dominant Species Across All Strata:	3 (B)
5. Sapling/Shrub Stratum (Plot 15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	100 (A/B)
size:					100
1.				Prevalence Index Worksheet:	
2. 3.				Total % Cover of: Multiple OBL Species × 1 =	y by:
4.				FACW Species × 2 =	
5.				FAC Species × 3 =	
		= Total Cover		FACU Species x 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
Juncus effusus Carex vulpinoidea	30 30	Yes Yes	FACW OBL	Column Totals: (A)	(B)
3. Juncus anthelatus	30	Yes	FAC	Prevalence Index = B/A =	
4. Eupatorium fistulosum	5	No	FACW	Hydrophytic Vegetation Indicators	
5. Agrostis gigantea	5	No	FACW	1 - Rapid Test for Hydrophytic VeX 2 - Dominance Test is > fifty pero	egetation
6. 7.				3 - Prevalence Index is ≤3.01	ent
8.				4 - Morphological Adaptations ¹ (I	Provide
				supporting data in Remarks or or	
				sheet)	
9.				Problematic Hydrophytic Vegetat	ion' (Explain)
10. 11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland	hydrology
Woody Vine Stratum (Plot size: 30 ft)	.00			must be present, unless disturbed or	
1.				Definitions of Four Vegetation Stra	
2.				Definitions of Four Vegetation Stra	ııa.
3.				Tree - Woody plants, excluding vines	s, 3 in. (7.6 cm)
4. 5.				or more in diameter at breast height of height	DBH), regardless
6.					andia and da c
7. 8.				Sapling/Shrub – Woody plants, excl less than 3 in. DBH and greater than	
9.				I.,	
10.				Herb – All herbaceous (non-woody) regardless of size, and woody plants	
		= Total Cover		tall.	1000 Hall 3.20 Il
				Woody vine – All woody vines great height.	er than 3.28 ft in
				noight.	
				Hydrophytic Vegetation Present? Yes	(No
Remarks: (Include photo numbers here or on a sepa	arate sheet.)			1	

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

Depth	Matrix			Redo	x Featu	res			
(inches)		%	Color	(moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12		95		′R 5/6	5	C	PL	SiL	
12-18	10YR 6/3	95	10Y	′R 5/8	5	С	PL	SiL	
Hydric Soi Histoso Histoso Black F Hydrog Stratific 2 cm M Deplete Thick D Sandy Sandy	Epipedon (A2) distic (A3) den Sulfide (A4) ded Layers (A5) luck (A10) (LRR N) ded Below Dark Surface (A1 Dark Surface (A12) Mucky Mineral (S1) (LRR	11)		Dark Surfact Polyvalue E 147, 148) Thin Dark S Loamy Gley Depleted M Redox Dark Depleted D Redox Dep Iron-Manga MLRA 136) Umbric Sur Piedmont F 148)	ce (S7) Below Si Burface yed Mat atrix (F; a Surface ark Surface ark Surf ression nese M	urface (S8) (S9) (MLRA rix (F2) 3) e (F6) face (F7) (F8) asses (F12	(MLRA A 147, 148)) (LRR N, 136, 122)	Indicators for P 2 cm Muck (A Coast Prairie Piedmont Flo 148) Red Parent N Very Shallow Other (Explai	re Lining, M=Matrix. roblematic Hydric Soils ³ : A10) (MLRA 147) Redox (A16) (MLRA 136, 147) rodplain Soils (F19) (MLRA 147, Material (TF2) r Dark Surface (TF12) in in Remarks) drophytic vegetation and plogy must be present,
Strippe									
								unless disturb	ped or problematic
Restrictive	Layer (if observed):							unless disturb	
	Layer (if observed):							unless disturb	ped or problematic

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11

Applicant/Owner: Ohio Department of Transportation OH Sampling Point: 48 State:

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5

Subregion (LRR or MLRA: LRR N Lat: 38.8638 Long: 82.8934 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Х	Is the Sampled Area	
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No	X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland	d 12

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum of	one is requ	uired; ch	eck a	ll that apply)		Secondary Indicators	(minimum	of two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water Stained Leaves (B9) Aquatic Fauna (B13)		37)	H C P R T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	, ,	Surface Soil Crac Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Tes	ed Concave s (B10) (B16) er Table (C2 (C8) e on Aerial Ir sed Plants (I tition (D2) (D3) : Relief (D4)	e) magery (C9) D1)	,
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	ydrology Present?	Yes	No	X
Describe Recorded Data (strea	m gauge, m	nonitoring	g well	l, aerial photos, previous inspect	ions), if availa	able:			
Remarks:									

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	0 (A/B)
Rubus allegheniensis 3. 4. 5.		20	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: OBL Species FACW Species FAC Species * 2 = FAC Species * 3 =	oly by:
Herb Stratum (Plot size: 5 ft)	20	= Total Cover		FACU Species × 4 = UPL Species × 5 =	
Solidago canadensis Erigeron strigosus		70 15	Yes No	FACU FACU	Column Totals: (A)	(B)
3.					Prevalence Index = B/A =	
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (supporting data in Remarks or or sheet) Problematic Hydrophytic Vegetation	egetation cent Provide n a separate
Woody Vine Stratum (Plot size:	30 ft)	85	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed or	
1.					Definitions of Four Vegetation Stra	ata:
2. 3. 4. 5.					Tree – Woody plants, excluding vine or more in diameter at breast height of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excless than 3 in. DBH and greater than	
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) regardless of size, and woody plants tall.	
					Woody vine – All woody vines great height.	ter than 3.28 ft in
					Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix			Redo	x Featur	es					
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	R	emarks	
0-12	10YR 5/2	95	10\	/R 5/6	5	C	PL	SiL			
12-18	10YR 6/3	95	10\	/R 5/8	5	С	PL	SiL			
Hydric Soil Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I Sandy I	epipedon (A2) distic (A3) en Sulfide (A4) ed Layers (A5) uck (A10) (LRR N) ed Below Dark Surface (A12) Mucky Mineral (S1) (LR	(A11)	x	Dark Surface Polyvalue B 147, 148) Thin Dark S Loamy Gley Depleted M: Redox Dark Depleted Dark Depleted Dark Depleted Dark Depression MLRA 136) Umbric Surf Piedmont Fit 148)	ee (S7) elow Su urface (Fed Matrix (F3) a Surface ark Surfacession (Inese Matrix (F1))	S9) (MLRA ix (F2)) e (F6) ace (F7) (F8) asses (F12	(MLRA A 147, 148)) (LRR N, 136, 122)	Coast Prairie Piedmont Fl 148) Red Parent Very Shallov		ydric So 47) (MLRA (F19) (N	. 136, 147) MLRA 147,
									drophytic vege plogy must be ped or problem	present	
Restrictive I	Layer (if observed):							1			
Restrictive I	Layer (if observed):										

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 55 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N 38.8644 82.8923 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 12 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
2. 3. 4. 5.				Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species × 4 = UPL Species × 5 =	
 Carex vulpinoidea Juncus dudleyi Juncus effusus 	70 10 5	Yes No No	OBL FACW FACW	Column Totals: (A) Prevalence Index = B/A =	(B)
 4. Solidago canadensis 5. 6. 7. 8. 9. 10. 11 	5	No	FACU	Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a sep sheet) Problematic Hydrophytic Vegetation¹ (E	e arate
Woody Vine Stratum (Plot size: 30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland hydrol must be present, unless disturbed or proble	
1.				Definitions of Four Vegetation Strata:	
 3. 4. 5. 				Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH), of height	
6.7.8.9.				Sapling/Shrub – Woody plants, excluding vless than 3 in. DBH and greater than 3.28 ft	
10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less th tall.	nan 3.28 ft
				Woody vine – All woody vines greater than height.	3.28 ft in
Remarks: (Include photo numbers here or on a sena				Hydrophytic Vegetation Present? Yes X	No

The dominant species has a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of i	ndicato	rs.)			
Depth	Matrix			Redox	c Featur	es							
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	3	
0-18	10YR 5/2	95	PL	SiL									
- ''	concentration, D=Deple	tion, RM=R	educed	I Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL:					
•	I Indicators:							Indicators f		-		oils ³ :	
Histoso	l (A1)			Dark Surface Polyvalue Be		rf000 (CO)	/MIDA	2 cm Mu	ck (A10)) (MLRA 1	47)		
Histic E	pipedon (A2)			147, 148)	elow Su	nace (36)	(IVILKA	Coast Pr	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR /	A 147, 148	Piedmor	t Floodp	olain Soils	(F19) (I	MLRA 147,	
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depri Iron-Mangar MLRA 136) Umbric Surfa Piedmont Fla 148)	atrix (F3 Surface ork Surface ession (nese Ma ace (F1;) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Red Pare Very Sha	allow Da	erial (TF2) rk Surface ı Remarks))	
Strippe	d Matrix (S6)								ydrolog	ohytic vege y must be or problem	presen		
Restrictive	Layer (if observed):	<u></u>											
Type:													
Depth (inches):							Hydric Preser		Yes	X	No	
Remarks:													

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 56

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8643 Long: 82.8924 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for V	Netlan	nd 12

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

Primary Indicators (minimum of one is required; check all that apply) Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion. Surface Soil Cracks (B6) Sparsely Vegetated Concave (B8) Dranage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Drift Deposits (B5) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Saturation Present? This observation does not satisfy the hydrology criterion.	, ,											
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No X Depth (inches): Water Table Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		of one is req	uired; ch	eck all	that apply)		Secondary Indicators (minimum of two required)					
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Dridinage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)											
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Field Observations:											
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water Present? Yes No X Depth (inches):											
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Present?	Yes	No	X	Depth (inches):							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		Yes	No	X	Depth (inches):	Wetland H	lydrology Present? Yes No X					
wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.												

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of	indicato	rs.)			
Depth	Matrix			Redox	k Featur	es							
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		R	emarks	1	
0-18	10YR 5/2	95	PL	SiL									
- '	concentration, D=Deple	tion, RM=Re	educed	l Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL					
_	I Indicators:							Indicators		•	•	oils ³ :	
Histoso	l (A1)			Dark Surface Polyvalue Be		rfooo (CO)	/MIDA	2 cm M	uck (A10) (MLRA 1	47)		
Histic E	pipedon (A2)			147, 148)	elow Su	mace (So)	(IVILKA	Coast F	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR /	A 147, 148	Piedmo 148)	nt Flood	olain Soils	(F19) (MLRA 147,	
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depri Iron-Mangar MLRA 136) Umbric Surfa Piedmont Fl	atrix (F3 Surface ark Surfa ession (nese Ma ace (F1;) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Pa Very Sh	allow Da	erial (TF2) ark Surface a Remarks))	
Strippe	d Matrix (S6)								hydrolog	ohytic vege y must be or problem	presen		
Restrictive	Layer (if observed):									•			
Type:													
Depth (inches):							Hydric Prese		Yes	X	No	
Remarks:													

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation OH Sampling Point: 49 State: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N Lat: 38.8630 Long: 82.8944 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? X Within a Wetland? Yes No Yes Х No Χ Wetland 13 Wetland Hydrology Present? Yes No Remarks:

This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

Wetland Hydrology Indicate	ors:									
Primary Indicators (minimum	of one is requ	uired; ch	eck a	all that apply)		Secondary Indicators (minimum of two required)				
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Noncare Surface (B8) Sparsely Vegetated Concave Surface (B8)										
Field Observations:										
Surface Water Present?	Yes	No	X	Depth (inches):						
Water Table Present?	Yes	No	X	Depth (inches):						
Saturation Present?	Yes	No	X	Depth (inches):	Wetland F	Hydrology Present? Yes X No				
(includes capillary fringe)				II, aerial photos, previous inspecti	L					
Remarks:				ervation satisfies the hydrology cr						

The dominant species have a wetland indicator status of FACW and OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

epth	Matrix			Redo	ox Featur	es					
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Re	marks	
0-18	10YR 5/2	95	PL	SiL							
	oncentration, D=Deple	etion, RM=R	educed	d Matrix, MS	= Masked	d Sand Gra	ains.	² Location: PL=Pore Lii			oils ³ :
Histoso	l (A1)			Dark Surfa	ce (S7)			2 cm Muck (A10)	-		
	pipedon (A2)			Polyvalue I 147, 148)	Belòw Śu	rface (S8)	(MLRA	Coast Prairie Red	dox (A16) (MLRA	
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148							A 147, 148)	Piedmont Floodp 148)	lain Soils (F19) (M	ILRA 147
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I	Gleyed Matrix (S4) Redox (S5)			Loamy Gle Depleted M Redox Dar Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F 148)	Matrix (F3 k Surface Dark Surfa Dression (Dress Ma Dress (F13 Matrix (F13)) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent Mate Very Shallow Dal Other (Explain in	k Surface	(TF12)	
Strippe	d Matrix (S6)							³ Indicators of Hydrop wetland hydrology unless disturbed o	must be p	resent,	
	Layer (if observed):										
estrictive											
estrictive Type:								Hydric Soil			

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 50

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8631 Long: 82.8945 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

F	lydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area			
H	lydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
٧	Vetland Hydrology Present?	Yes		No	X		Out Point for \	Wetlar	nd 13

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Hydrogen Sulfide Odor (Ć1) Sparsely Vegetat Dxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic	-L (DO)	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	at apply)	o o a.	unica, on	or one is req	Primary Indicators (minimum			
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	ted Concave Surface (B8 ns (B10) (B16) er Table (C2) s (C8) e on Aerial Imagery (C9) sed Plants (D1) ition (D2) d (D3) c Relief (D4)	Surface Soil Cracks (B6) Sparsely Vegetated Concav Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C: Crayfish Burrows (C8) Saturation Visible on Aerial I Stunted or Stressed Plants (Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)	rogen Sulfide Odor (Ć1) ized Rhizospheres on Living ence of Reduced Iron (C4) ent Iron Reduction in Tilled S Muck Surface (C7)	H C P R T	B7)	0, 1	High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Water Stained Leaves (B5)			
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							Field Observations:			
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	urface Water Present? Yes No X Depth (inches):									
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			Depth (inches):	X	No	Yes	Water Table Present?			
	Yes No	ydrology Present? Yes	Depth (inches):	X	No	Yes				
Remarks:		able:	erial photos, previous inspec	g well	nonitorin	eam gauge, r				
							Remarks:			
Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.		erion.	ervation does not satisfy the	This o	served.	were not obs	Wetland hydrology indicators			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0	(A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0	(A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =	
Solidago canadensis Bromus commutatus		60 30	Yes Yes	FACU UPL	Column Totals: (A)	(B)
 3. Agrostis gigantea 4. 5. 6. 7. 8. 		10	No	FACW	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetati 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a sepsheet) Problematic Hydrophytic Vegetation¹ (Indicators)	e parate
11 Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydro must be present, unless disturbed or proble	
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH) of height	
7. 8.					Sapling/Shrub – Woody plants, excluding less than 3 in. DBH and greater than 3.28 f	vines, t (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less the tall.	
					Woody vine – All woody vines greater than height.	n 3.28 ft in
Pomarke: (Include photo number					Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of i	ndicato	rs.)		
Depth	Matrix			Redox	c Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	1
0-18	10YR 5/2	95	10\	′R 5/6	5	С	PL	SiL				
¹ Type: C=C	concentration, D=Deple	tion, RM=Re	educec	I Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL	=Pore L	ining, M=M	latrix.	
Hydric Soi	I Indicators:							Indicators f	or Prob	lematic Hy	/dric S	oils ³ :
Histoso	l (A1)			Dark Surface		-((OO)	(841 D.A	2 cm Mu	ck (A10) (MLRA 1	47)	
Histic E	pipedon (A2)			Polyvalue Be 147, 148)	elow Su	пасе (58)	(WLKA	Coast P	airie Re	dox (A16)	(MLRA	136, 147)
Black H	listic (A3)			Thin Dark St	urface (S9) (MLR /	A 147, 148	Piedmor	t Floodp	olain Soils	(F19) (I	MLRA 147,
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gleyd Depleted Ma Redox Dark Depleted Da Redox Depro Iron-Mangar MLRA 136) Umbric Surfa Piedmont Fle 148)	atrix (F3 Surface ork Surface ession (nese Ma ace (F1;) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Red Par Very Sha	allow Da	erial (TF2) ırk Surface ı Remarks))
Strippe	d Matrix (S6)								ydrolog	ohytic vege y must be or problem	presen	
Restrictive	Layer (if observed):											
Type:												
Depth (inches):							Hydric Prese		Yes	Х	No
Remarks:												

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation OH Sampling Point: State: 53 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N Lat: 38.8634 Long: 82.8943 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? X Within a Wetland? Yes No Yes Х No Χ Wetland 13 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

Wetland Hydrology Indicato	rs:									
Primary Indicators (minimum of	of one is requi	red; ch	eck a	ll that apply)		Secondary Indicators (minimum of two required)				
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeric Water Stained Leaves (B5) Aquatic Fauna (B13)		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Imagery (B7) X Surface Soil Cracks Sparsely Vegetated Moss Trim Lines (B Dry-Season Water Crayfish Burrows (C Saturation Visible o Stunted or Stressed Geomorphic Positio Shallow Aquitard (D Microtopographic R X FAC-Neutral Test (I								
Field Observations:										
Surface Water Present?	Yes	No	X	Depth (inches):						
Water Table Present?	Yes	No	X	Depth (inches):						
Saturation Present?	Yes	No	X	Depth (inches):	Wetland H	lydrology Present? Yes X No				
(includes capillary fringe) Describe Recorded Data (stre	am gauge, mo	onitorin	g well	l, aerial photos, previous inspect	lions), if availa	able:				
Remarks: Wetland hydrology indicators	were observe	d. This	obse	ervation satisfies the hydrology cr	iterion.					

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species	
1.				That are OBL, FACW, or FAC:	(A)
2.				That are GB2, 1716VV, or 1716.	(7.1)
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
5.					
		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft)				That are OBL, FACW, or FAC:	(A/B)
size:					
1.				Prevalence Index Worksheet:	
2. 3.				Total % Cover of: Multiply by: OBL Species × 1 =	
4.				FACW Species × 2 =	
5.				FAC Species × 3 =	
		= Total Cover		FACU Species x 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
1. Juncus effusus	60	Yes	FACW	Column Totals: (A)	(B)
Juncus dudleyi	10	No	FACW	Column rotals. (A)	(D)
Ludwigia alternifolia	10	No	FACW	Prevalence Index = B/A =	
4. Bidens polylepis	10	No	FACW	Hydrophytic Vegetation Indicators:	
5. Solidago canadensis	10	No	FACU	X 1 - Rapid Test for Hydrophytic Vegetation	n
6.				2 - Dominance Test is > fifty percent	
7.				3 - Prevalence Index is ≤3.0 ¹	
8.				4 - Morphological Adaptations ¹ (Provide	
				supporting data in Remarks or on a sepa	rate
9.				sheet) Problematic Hydrophytic Vegetation ¹ (E:	(nioln)
9. 10.				Froblematic Hydrophytic vegetation (L.	kpiairi)
11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolo	gy
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problem	
1.				Definitions of Four Vegetation Strata:	
2.				Definitions of Four Vegetation Strata.	
3.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
4.				or more in diameter at breast height (DBH), i	
5.				of height	Ü
6.					
7.				Sapling/Shrub – Woody plants, excluding vi	
8.				less than 3 in. DBH and greater than 3.28 ft	(1 m) tall.
9.				Herb – All herbaceous (non-woody) plants,	
10.				regardless of size, and woody plants less that	an 3 28 ft
		= Total Cover		tall.	0.20 10
				Woody vine - All woody vines greater than:	3.28 ft in
				height.	
				Hydrophytic	
				Vegetation Present? Yes X N	0

The dominant species has a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm t	he absence of indi	cators.)			
Depth	Matrix			Redox	Featu	res						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Remark	ks	
0-18	10YR 5/2	95	10\	′R 5/6	5	С	PL	SiL				
	Concentration, D=Deple	tion, RM=Re	educed	I Matrix, MS=	Maske	d Sand Gra	ains.	² Location: PL=Po				3
•	I Indicators:			D = vl = 0 · · · · (- (07)			Indicators for I		•	Soils	s °:
Histoso	` '			Dark Surface Polyvalue Be		ırface (S8)	(MLRA		A10) (MLRA	•		
Histic E	Epipedon (A2)			147, 148)			`		e Redox (A16	•		
Black H	listic (A3)			Thin Dark St	urface (S9) (MLR/	A 147, 148)	Piedmont Fi	oodplain Soils	; (F19)	(MLI	RA 147,
Stratifie 2 cm M Deplete Thick E Sandy 147, 14 Sandy	Gleyed Matrix (S4)	,		Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depro Iron-Mangar MLRA 136) Umbric Surfa Piedmont Flo	atrix (F3 Surface ork Surface ession (nese Ma	e (F6) ace (F7) (F8) asses (F12	136, 122)	Red Parent Very Shallo	Material (TF2 v Dark Surfac ain in Remark	e (TF1	2)	
Sandy	Redox (S5)			148)	ooupiaii	11 30113 (1-1	3) (WILKA					
Strippe	d Matrix (S6)								vdrophytic veg ology must be bed or proble	prese		I
Restrictive	Layer (if observed):											
Type:												
	(inches):							Hydric Soi Present?	Yes	X		No
Remarks:												

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 OH Sampling Point: 54 State:

Applicant/Owner: Ohio Department of Transportation

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8634 Long: 82.8944 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for	Wetlar	nd 13

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

Primary Indicators (minimum	of one is red	uired; ch	eck a	ıll that apply)		Secondary Indicators	(minimum of	two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)		B7)		Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on L Presence of Reduced Iron (CR Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks)	iving Roots (C3) C4)	Surface Soil Crac Sparsely Vegetal Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	red Concave S s (B10) (B16) er Table (C2) (C8) e on Aerial Ima sed Plants (D1 tition (D2) (D3) c Relief (D4)	agery (C9	,
Field Observations:							, ,		
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
Describe Recorded Data (stre	eam gauge, r	nonitorin	g wel	I, aerial photos, previous ins	spections), if availa	able:			
Remarks:									
Wetland hydrology indicators	were not ob	served	This o	observation does not satisfy	the hydrology crite	erion.			

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of i	ndicato	rs.)		
Depth	Matrix			Redox	c Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	1
0-18	10YR 5/2	95	10\	′R 5/6	5	С	PL	SiL				
¹ Type: C=C	concentration, D=Deple	tion, RM=Re	educec	I Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL	=Pore L	ining, M=M	latrix.	
Hydric Soi	I Indicators:							Indicators f	or Prob	lematic Hy	/dric S	oils ³ :
Histoso	l (A1)			Dark Surface		-((OO)	(841 D.A	2 cm Mu	ck (A10) (MLRA 1	47)	
Histic E	pipedon (A2)			Polyvalue Be 147, 148)	elow Su	пасе (58)	(WLKA	Coast P	airie Re	dox (A16)	(MLRA	136, 147)
Black H	listic (A3)			Thin Dark St	urface (S9) (MLR /	A 147, 148	Piedmor	t Floodp	olain Soils	(F19) (I	MLRA 147,
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gleyd Depleted Ma Redox Dark Depleted Da Redox Depro Iron-Mangar MLRA 136) Umbric Surfa Piedmont Fle 148)	atrix (F3 Surface ork Surface ession (nese Ma ace (F1;) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Red Par Very Sha	allow Da	erial (TF2) ırk Surface ı Remarks))
Strippe	d Matrix (S6)								ydrolog	ohytic vege y must be or problem	presen	
Restrictive	Layer (if observed):											
Type:												
Depth (inches):							Hydric Prese		Yes	Х	No
Remarks:												

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 51 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale 3 Local relief (concave, convex, none): Concave Slope (%): 38.8635 Subregion (LRR or MLRA: LRR N Lat: Long: 82.8947 Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A X Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks.) Yes No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ Nο naturally problematic? Are vegetation or Hydrology (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes Χ No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Χ No X Wetland 14 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Χ Drainage Patterns (B10) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) X Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Shallow Aquitard (D3) Water Stained Leaves (B9) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes Χ No Depth (inches): Χ Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes Х No No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: (A	۹)
3. 4. 5.					Total Number of Dominant Species Across All Strata: (E	В)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: (A	A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species x 1 = FACW Species x 2 = FAC Species x 3 = FACU Species x 4 =	
Herb Stratum (Plot size: 5 ft)		- Total Cover		UPL Species × 5 =	
Scirpus hattorianus Eleocharis obtusa Polygonum persicaria		30 25 15	Yes Yes No	OBL OBL FACW	Column Totals: (A) (B) Prevalence Index = B/A =)
 4. Agrostis gigantea 5. Xanthium strumarium 6. Ambrosia artemisiifolia 7. 8. 9. 10. 11 		10 10 5	No No No	FACW FAC FACU	Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain	n)
Woody Vine Stratum (Plot size:	30 ft)	95	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. 2.					Definitions of Four Vegetation Strata:	
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cr or more in diameter at breast height (DBH), regard of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m)	tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.2 tall.	28 ft
					Woody vine – All woody vines greater than 3.28 fi height.	ft in
Remarks: (Include photo numbe	re here or on a con-	prata choot)			Hydrophytic Vegetation Present? Yes X No	

The dominant species have a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

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

Depth	Matrix			Red	ox Featu	res					
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	R	emarks	
0-12	10YR 5/2	95	10Y	'R 3/4	5	С	PL	SiL			
12-18	10YR 5/6	95	10Y	'R 4/6	5	С	PL	SiL			
¹ Type: C=C Hydric Soi Histosc Histic E Black H Hydrog Stratifie 2 cm M	Concentration, D=Deple	tion, RM	=Reduced	Matrix, MS	= Maske lice (S7) Below St Surface (eyed Matrix Matrix (F3 k Surface	urface (S8) (S9) (MLRA rix (F2) 8) e (F6)	ains. (MLRA	² Location: PL: Indicators for 2 cm Mu Coast Price Priedmore 148) Red Parrivery Share	=Pore Lining, M=M or Problematic Hy ck (A10) (MLRA 1 rairie Redox (A16) at Floodplain Soils ent Material (TF2) allow Dark Surface xplain in Remarks)	ydric So 47) (MLRA (F19) (M	136, 147)
Sandy 147, 1 4 Sandy	Oark Surface (A12) Mucky Mineral (S1) (LF 8) Gleyed Matrix (S4) Redox (S5)	RR N, MI	LRA	Redox Dep Iron-Manga MLRA 136 Umbric Su Piedmont I 148)	anese Ma i) rface (F1	àssés (F12 3) (MLRA	136, 122)				
Strippe	d Matrix (S6)			140)				wetland h	f Hydrophytic vege lydrology must be sturbed or problem	present,	nd
Restrictive	Layer (if observed):							unios un	standed of problem	410	
Туре:	,										
	(inches):							Hydric Prese	700	X	No
Remarks:											

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 52

Applicant/Owner: Ohio Department of Transportation
Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8635 Long: 82.8946 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland 14

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum	of one is rec	uired: ch	eck a	all that apply)		Secondary Indicators (minimum of two required)					
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (BA) Aquatic Fauna (B13)	erial Imagery (True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Leresence of Reduced Iron (Recent Iron Reduction in Till Thin Muck Surface (C7) Other (Explain in Remarks)	iving Roots (C3) C4)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)					
Field Observations:						` ,					
Surface Water Present?	Yes	No	X	Depth (inches):							
Water Table Present?	Yes	No	X	Depth (inches):							
Saturation Present? (includes capillary fringe) Describe Recorded Data (str	Yes	No	Х	Depth (inches):		lydrology Present? Yes No X					
Remarks: Wetland hydrology indicators											

			Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)		% Cover	Species?	Status		
1.	•			•		Number of Dominant Species That are OBL, FACW, or FAC:	0 (A)
2.						That are OBE, I AGW, OF I AG.	0 (A)
3.						Total Number of Dominant	
4.						Species Across All Strata:	1 (B)
5.							` ′
				= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot	15 ft)				That are OBL, FACW, or FAC:	o (A/B)
size:						L	Ŭ
1.						Prevalence Index Worksheet:	
2. 3.							ply by:
3. 4.						OBL Species x 1 = FACW Species x 2 =	
5.						FACW Species x 2 = FAC Species x 3 =	
.				= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)					UPL Species × 5 =	
	,		05	Vac	FACIL	•	
 Solidago canadensis Agrostis gigantea 			95 5	Yes No	FACU FACW	Column Totals: (A)	(B)
3.			5	INO	IACW	Prevalence Index = B/A =	
4.						Hydrophytic Vegetation Indicator	·e·
5.						1 - Rapid Test for Hydrophytic \	
6.						2 - Dominance Test is > fifty per	
7.						3 - Prevalence Index is ≤3.01	
8.						4 - Morphological Adaptations ¹	
						supporting data in Remarks or o	on a separate
•						sheet)	. 1 (51-1-)
9.						Problematic Hydrophytic Vegeta	ation` (Explain)
10. 11							
11			100	= Total Cover		¹ Indicators of hydric soil and wetlan	d hydrology
Woody Vine Stratum (Plot size:	30 ft)	100	- 10101 0010.		must be present, unless disturbed of	
,		,					•
1.						Definitions of Four Vegetation St	rata:
2.						Tree – Woody plants, excluding vin	es 3 in (7.6 cm)
3.						or more in diameter at breast height	
4. 5.						of height	(DDII), regardiess
6.						or neight	
7.						Sapling/Shrub - Woody plants, ex	cluding vines,
8.						less than 3 in. DBH and greater tha	n 3.28 ft (1 m) tall.
9.						l	
10.						Herb – All herbaceous (non-woody)	
				= Total Cover		regardless of size, and woody plant tall.	s less than 3.28 tt
						tall.	
						Woody vine – All woody vines grea	ater than 3.28 ft in
						height.	201 11011 0.20 1111
						Hydrophytic	No. V
						Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

epth	Matrix			Redo	x Featur	es					
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		emarks	
0-12	10YR 5/2	95	10`	/R 3/4	5	C	PL	SiL			
12-18	10YR 5/6	95	10`	/R 4/6	5	С	PL	SiL			
lydric Soil Histosol	` '	etion, RM=R	educed	d Matrix, MS: Dark Surfac Polyvalue E	ce (S7)			² Location: PL=Pore Indicators for Pro 2 cm Muck (A1	oblematic Hy 0) (MLRA 1	ydric So 47)	
Histic E	pipedon (A2)			147, 148)	Jeiow Su	mace (50)	(MLIXA	Coast Prairie F	` '	•	
Black H	listic (A3)		Thin Dark S	Surface (S9) (MLR /	A 147, 148)	Piedmont Floo 148)	dplain Soils	(F19) (N	MLRA 147	
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)				Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F 148)	latrix (F3 < Surface ark Surfa ression (nese Ma) face (F1:) e (F6) ace (F7) F8) asses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Ompped	T Matrix (30)							³ Indicators of Hydr wetland hydrold unless disturbe	gy must be	present	
	_ayer (if observed):										
estrictive L											
estrictive L Type:											

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation OH Sampling Point: 57 State: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): 3 Concave Slope (%): 82.8927 Subregion (LRR or MLRA: LRR N Lat: 38.8628 Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** Soil Map Unit Name: N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	Is the Sampled Area
Hydric Soils Present?	Yes	X	No	Within a Wetland? Yes X No
Wetland Hydrology Present?	Yes	X	No	Wetland 15
Remarks:				

This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

HYDROLOGY

High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Water Stained Leaves (B9) Aquatic Fauna (B13) Hydrogen Sulfide Odor (C1) Sparsely Vegeta X Drainage Pattern Moss Trim Lines Dry-Season Wat Crayfish Burrow Saturation Visible Sparsely Vegeta X Drainage Pattern Moss Trim Lines Dry-Season Wat Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos Shallow Aquitara Microtopographi						
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Saturation Present Prese	ors (minin	rs (minii	nimum	m of tv	vo requ	ired)
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)					
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:						
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:						
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Yes	Ye	'es	Х	No	

<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5,750.00		Number of Dominant Species That are OBL, FACW, or FAC:	(A)
2.				111at allo 052, 17(01), 0117(0.	(71)
3.				Total Number of Dominant	(D)
4. 5.				Species Across All Strata:	(B)
<u>.</u>		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft)				That are OBL, FACW, or FAC:	(A/B)
size: 1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species × 1 =	
4.				FACW Species × 2 =	
5.		= Total Cover		FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		UPL Species × 5 =	
1. Juncus effusus	75	Yes	FACW	Column Totals: (A)	(B)
2. Scirpus hattorianus	5	No	OBL	5 5/2	
 Juncus anthelatus Eupatorium perfoliatum 	5 5	No No	FAC FACW	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:	
5. Ludwigia alternifolia	5 5	No	FACW	X 1 - Rapid Test for Hydrophytic Vegetation	
6. Solidago gigantea	5	No	FACW	2 - Dominance Test is > fifty percent	
7.				3 - Prevalence Index is ≤3.0 ¹	
8.				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate	_
				sheet)	E
9.				Problematic Hydrophytic Vegetation ¹ (Expla	ain)
10.					
11	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology	
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		must be present, unless disturbed or problemati	c.
1.				Definitions of Four Vegetation Strata:	
2.				_	
3.				Tree – Woody plants, excluding vines, 3 in. (7.6	
4. 5.				or more in diameter at breast height (DBH), rega	ardiess
6.					
7.				Sapling/Shrub – Woody plants, excluding vines	
8.				less than 3 in. DBH and greater than 3.28 ft (1 n	n) tall.
9.				Herb – All herbaceous (non-woody) plants,	
10.		= Total Cover		regardless of size, and woody plants less than 3	3.28 ft
		= Total Cover		tall.	
				Woody vine – All woody vines greater than 3.28	8 ft in
				height.	
				Hydrophytic Vegetation Present? Yes X No	
				regulation i resent: 165 A NO	
Pamarka: (Include photo numbers here or on a conor	oto oboot \				

The dominant species has a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	cription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of	ndicato	rs.)			
Depth	Matrix			Redox	x Featur	es							
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	•	
0-12	10YR 5/2	95	10\	′R 3/4	5	С	PL	SiL					
¹ Type: C=C	oncentration, D=Deple	tion, RM=Re	educed	I Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL					
Hydric Soi	Indicators:							Indicators f		-		oils ³ :	
Histoso	l (A1)			Dark Surfac		-f (CO)	/MI DA	2 cm Mu	ck (A10) (MLRA 1	47)		
Histic E	pipedon (A2)			Polyvalue B 147, 148)	elow Su	nace (So)	(IVILKA	Coast P	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR /	147, 148	Piedmor 148)	t Floodp	olain Soils	(F19) (I	MLRA 147,	
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)				Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)					Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Strippe	d Matrix (S6)								ydrolog	ohytic vege y must be or problem	presen		
Restrictive	Layer (if observed):												
Type:													
<u> </u>	inches):							Hydric Prese		Yes	X	No	
Remarks:													

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 58

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N Lat: 38.8628 Long: 82.8928 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes \mathbf{X} No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for	Wetlar	nd 15

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum	of one is rec	uirod: ch	ock c	all that apply)		Secondary Indicators	(minimum of	two roqui	rod)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ael Water Stained Leaves (B Aquatic Fauna (B13)	rial Imagery (- (-	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Liv Presence of Reduced Iron (C Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	4)	Surface Soil Crac Sparsely Vegetal Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	cks (B6) ted Concave S s (B10) (B16) ter Table (C2) s (C8) te on Aerial Imaged Plants (D1 tition (D2) (D3) te Relief (D4)	Surface (B	88)
Field Observations:							` '		
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
	eam gauge, r	monitorin	g we	ll, aerial photos, previous insp	pections), if availa	able:			
Damada.									
Remarks:									
Wetland hydrology indicators	were not ob	served.	This	observation does not satisfy t	he hydrology crite	erion.			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	3 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	33 (A/B)
 Rubus allegheniensis 3 4 5 		10	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multipl OBL Species x 1 = FACW Species x 2 = FAC Species x 3 =	ly by:
Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FACU Species × 4 = UPL Species × 5 =	
Solidago canadensis		40	Yes	FACU	Column Totals: (A)	(B)
2. 3.					Prevalence Index = B/A =	
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Ve 2 - Dominance Test is > fifty pero 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (I supporting data in Remarks or or sheet) Problematic Hydrophytic Vegetat	egetation cent Provide n a separate
Woody Vine Stratum (Plot size:	30 ft)	40	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed or	
1. Lonicera japonica		50	Yes	FAC	Definitions of Four Vegetation Stra	ata:
2. 3. 4. 5.					Tree – Woody plants, excluding vines or more in diameter at breast height of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excl less than 3 in. DBH and greater than	
9. 10.		50	= Total Cover		Herb – All herbaceous (non-woody) regardless of size, and woody plants tall.	
					Woody vine – All woody vines great height.	er than 3.28 ft in
					Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Profile Des	cription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of	indicato	rs.)		
Depth	Matrix			Redox	x Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	1
0-12	10YR 5/2	95	10\	′R 3/4	5	С	PL	SiL				
- ''	oncentration, D=Deple	tion, RM=Re	educed	I Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL				
•	Indicators:							Indicators		-		oils ³ :
Histoso	l (A1)			Dark Surface Polyvalue B		rface (CO)	/MIDA	2 cm Mu	ick (A10) (MLRA 1 4	47)	
Histic E	pipedon (A2)			147, 148)	elow Su	nace (So)	(IVILKA	Coast P	rairie Re	dox (A16)	(MLRA	136, 147)
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR	A 147, 148	\	nt Floodp	olain Soils ((F19) (I	MLRA 147,
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depr Iron-Mangar MLRA 136) Umbric Surfa Piedmont FI 148)	atrix (F3 Surface ark Surfa ession (nese Ma ace (F1;) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Very Sh	allow Da	erial (TF2) rk Surface ı Remarks))
Strippe	d Matrix (S6)								nydrolog	ohytic vege y must be p or problem	presen	
Restrictive	Layer (if observed):				_							
Type:												
Depth (inches):							Hydric Prese		Yes	X	No
Remarks:												

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 61

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Level Slope (%): 1

Subregion (LRR or MLRA: LRR N Lat: 38.8636 Long: 82.8962 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Н	lydrophytic Vegetation Present?	Yes	No	Χ	Is the Sampled Area
Н	lydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
٧	Vetland Hydrology Present?	Yes	No	Х	General Out Point

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Surface Water Braviague, monitoring well, aerial photos, previous inspections), if available: Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No X Depth (inches): Saturation Present	Primary Indicators (minimum	tors:								
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No X Depth (inches): Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Drift Deposits (B3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No (includes capillary fringe)	Filmary indicators (milhimum	n of one is requ	uired; ch	eck a	ll that apply)		Secondary Indicators	s (minimum	of two requ	red)
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E	erial Imagery (E	B7)	F F T	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	,	Sparsely Vegeta Drainage Patterr Moss Trim Lines Dry-Season Wat Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitaro Microtopographic	ted Concave ns (B10) (B16) er Table (C2 s (C8) e on Aerial Ir sed Plants (I sition (D2) d (D3) c Relief (D4)	e) magery (C9 D1)	ŕ
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Field Observations:									
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water Present?	Yes	No	X	Depth (inches):					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Present?	Yes	No	X	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Saturation Present?	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	Х
	Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.	·	ream gauge, n	monitorin	g wel	l, aerial photos, previous inspec	ctions), if availa	able:			

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Red	ox Featui	es					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks	
0-18	10YR 4/3	100					SiL			
Hydric Soi Histoso	Concentration, D=Depl I Indicators: ol (A1) Epipedon (A2)	etion, RM=R	educed Matrix, MS Dark Surfa Polyvalue 147, 148)	ce (S7)			² Location: PL=Pore L Indicators for Prob 2 cm Muck (A10 Coast Prairie Re	lematic Hydri) (MLRA 147)	c Soils ³ :	7)
Black H	Histic (A3)			Surface (S9) (MLR	A 147, 148)	Piedmont Flood	plain Soils (F19	9) (MLRA 1 4	17 ,
Stratifie 2 cm M Deplete Thick D Sandy 147, 14	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L B) Gleyed Matrix (S4)	, ,	Loamy Gle Depleted M Redox Dar Depleted E Redox Dep Iron-Manga MLRA 136 Umbric Su Piedmont I	Matrix (F3 k Surface Park Surfa pression (anese Ma) rface (F1) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	2)			
Sandy	Redox (S5)		148)	-iooapiaii	1 Solls (F1	9) (IVILKA				
Strippe	d Matrix (S6)		,				³ Indicators of Hydrolog wetland hydrolog unless disturbed	y must be pres	sent,	
	Layer (if observed):									
Restrictive										
Restrictive Type:							Hydric Soil			

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 62 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Stream Terrace Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N 38.88623 82.8993 Lat: Long: Datum: NAD 27 Ha - Haymond silt loam, occasionally flooded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 16 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): 0.5 Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

The dominant species have a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	cription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of	indicato	rs.)		
Depth	Matrix			Redox	x Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	1
0-18	2.5Y 5/2	95	10\	′R 3/4	5	С	PL	SiL				
	oncentration, D=Deple	tion, RM=R	educec	I Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL				
•	Indicators:				(==)			Indicators		-	•	oils ':
Histoso	,			Dark Surface Polyvalue B		rface (S8)	(MIRA		`) (MLRA 1 -	,	
Histic E	pipedon (A2)			147, 148)	ciow ou	11400 (00)	(11121177	Coast P	rairie Re	dox (A16)	(MLRA	136, 147)
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR /	147, 148	Piedmo 148)	nt Flood	olain Soils	(F19) (MLRA 147,
Stratifie 2 cm M Deplete Thick E Sandy 147, 14 Sandy	en Sulfide (A4) ad Layers (A5) uck (A10) (LRR N) ad Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LF 8) Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depr Iron-Mangar MLRA 136) Umbric Surfa Piedmont FI 148)	atrix (F3 Surface ark Surfa ession (nese Ma ace (F1;) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Red Pa Very Sh	allow Da	erial (TF2) rrk Surface r Remarks))
Strippe	d Matrix (S6)			140)					hydrolog	ohytic vege y must be or problem	presen	
Restrictive	Layer (if observed):											
Type:												
Depth (inches):							Hydric Prese		Yes	X	No
Remarks:												

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823

City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 63

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Road Embankment Local relief (concave, convex, none): Convex Slope (%): 15

Subregion (LRR or MLRA: LRR N Lat: 38.8623 Long: 82.8994 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 16

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No X Depth (inches): Surface Water (A1) Hydrogen Sulfide Odor (C1) Dxift Deposits (B2) Dxift Deposits (B3) Aquatic Fauna (B13) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Dxinange Patterns (B10) Moss Trim Lines (B16) Dxy-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches):	Wetland Hydrology Indicate	ors:								
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Surface Water Present? Yes No X Depth (inches): Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X	Primary Indicators (minimum	of one is req	uired; ch	eck a	ll that apply)		Secondary Indicators	(minimum of	f two requi	ired)
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ael Water Stained Leaves (E		B7)	F F T	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	, ,	Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic	ted Concave State (Capacitation (Capacitatio	agery (C9	ŕ
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	Field Observations:									
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	Surface Water Present?	Yes	No	X	Depth (inches):					
	Water Table Present?	Yes	No	X	Depth (inches):					
	Saturation Present?	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
(includes capillary fringe)	(includes capillary fringe)									

Remarks:

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	3 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	33 (A/B)
1. Rhus copallinum 2. 3. 4. 5.		10	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multip OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	ly by:
Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FACU Species x 4 = UPL Species x 5 =	
Solidago canadensis Verbesina alternifolia		35 35	Yes Yes	FACU FAC	Column Totals: (A)	(B)
3. Calystegia sepium 4. Hemerocallis fulva 5. 6. 7. 8.		10 10	No No	FAC UPL	Prevalence Index = B/A = Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vec 2 - Dominance Test is > fifty perc 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (I supporting data in Remarks or or sheet) Problematic Hydrophytic Vegetat	egetation ent Provide n a separate
Woody Vine Stratum (Plot size:	30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed or	
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strate - Woody plants, excluding vine or more in diameter at breast height of height	s, 3 in. (7.6 cm)
7. 8.					Sapling/Shrub – Woody plants, excl less than 3 in. DBH and greater than	
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) regardless of size, and woody plants tall.	plants, less than 3.28 ft
					Woody vine – All woody vines great height.	er than 3.28 ft in
					Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Rec	ox Featui	es					
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	irks	
0-1	IMPENETRABLE						Fill			
lydric So	Concentration, D=Deple	etion, RM=Re	·		d Sand Gr	ains.	² Location: PL=Pore L Indicators for Prob	lematic Hydri		
Histos	ol (A1)		Dark Surfa		urfana (CO)	/MIDA	2 cm Muck (A10) (MLRA 147)		
Histic I	Epipedon (A2)		Polyvalue 147, 148)	below 50	mace (So)	(IVILKA	Coast Prairie Re	dox (A16) (ML	RA 136, 14	7)
Black I	Histic (A3)			Surface (S9) (MLR /	A 147, 148)	Piedmont Floodp	olain Soils (F19	9) (MLRA 1 4	47,
Stratifi 2 cm N Deplet Thick I Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)		MLRA 130 Umbric St	Matrix (F3 rk Surface Dark Surfa pression (anese Ma b) Irface (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA		Red Parent Mate Very Shallow Da Other (Explain in	rk Surface (TF	:12)	
Strippe	ed Matrix (S6)						³ Indicators of Hydrop wetland hydrolog unless disturbed	y must be pres	ent,	
) o o tri o tiv o	Layer (if observed): Ye	S								
testrictive	Fill									
Type:	1 111						Hydric Soil			

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 64 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3 Subregion (LRR or MLRA: LRR N Lat: 38.8467 Long: 82.8577 Datum: NAD 27 Soil Map Unit Name: OmB - Omulga silt loam, 1 to 8 percent slopes **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ (If no, explain in Remarks.) Yes Nο Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ No Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Х No Χ Wetland 17 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Χ Saturation (A3) Χ Drainage Patterns (B10) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) X Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Х Depth (inches): Water Table Present? Yes Χ No Depth (inches): Saturation Present? Yes Χ Depth (inches): 10 Wetland Hydrology Present? Yes Х No No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status		
1. 2.	70 GOVE	орошео:	Otatas	Number of Dominant Species That are OBL, FACW, or FAC:	3 (A)
3. 4.				Total Number of Dominant Species Across All Strata:	4 (B)
5. Sapling/Shrub Stratum (Plot 15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	7.5 (A/B)
Size:				mat are OBL, I AGW, OF I AG.	75 ^(A/B)
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multipl	y by:
3.				OBL Species x 1 = FACW Species x 2 =	
5.				FACW Species x 2 = FAC Species x 3 =	
·		= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
Scirpus hattorianus Juncus anthelatus	30 30	Yes Yes	OBL FAC	Column Totals: (A)	(B)
3. Apocynum cannabinum	20	Yes	FACU	Prevalence Index = B/A =	
4. Panicum clandestinum5.6.	20	Yes	FAC	Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Ve X 2 - Dominance Test is > fifty percentage.	egetation
7.				3 - Prevalence Index is ≤3.01	
8.				4 - Morphological Adaptations ¹ (I supporting data in Remarks or or sheet)	
9. 10.				Problematic Hydrophytic Vegetat	ion ¹ (Explain)
11 Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed or	
1.				Definitions of Four Vegetation Stra	nta:
2.					
3. 4. 5.				Tree – Woody plants, excluding vines or more in diameter at breast height (of height	
6. 7. 8.				Sapling/Shrub – Woody plants, excl less than 3 in. DBH and greater than	
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) regardless of size, and woody plants tall.	
				Woody vine – All woody vines greate height.	er than 3.28 ft in
December (Include abote guarbons burgers				Hydrophytic Vegetation Present? Yes	(No
Remarks: (Include photo numbers here or on a	ı separate sheet.)				

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

epth	Matrix			Redo	ox Featur	es					
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	R	emarks	
0-14	10YR 5/2	95	10`	/R 4/4	5	C	PL	SiL			
14-18	10YR 6/6	95	10`	/R 5/6	5	С	PL	SiCL			
	oncentration, D=Deple Indicators:	etion, RM=	Reduced	l Matrix, MS Dark Surfa		d Sand Gr	ains.	² Location: PL=Pore Indicators for Pr 2 cm Muck (A	oblematic H	ydric S	oils ³:
	pipedon (A2)			Polyvalue E 147, 148)		rface (S8)	(MLRA	Coast Prairie	, ,	,	136, 147)
Black H	istic (A3)			, ,	Surface (S9) (MLR	A 147, 148)	Piedmont Floo 148)	odplain Soils	(F19) (N	/ILRA 147
Stratifie 2 cm Mid Deplete Thick Di Sandy M 147, 144 Sandy G Sandy F	en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (Li 8) Gleyed Matrix (S4) Redox (S5)	,		Loamy Gle Depleted M Redox Dari Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sui Piedmont F 148)	Matrix (F3 k Surface Park Surfa pression (anese Ma) rface (F1) e (F6) ace (F7) F8) asses (F12 3) (MLRA	136, 122)	Red Parent M Very Shallow Other (Explair	Dark Sùrface		
Suipped	a iviautix (30)							³ Indicators of Hyd wetland hydrol unless disturbe	ogy must be	present	
	_ayer (if observed):		_								
estrictive L											
estrictive L Type:											

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation OH Sampling Point: 65 State:

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8467 Long: 82.8578 Datum: NAD 27

NWI Classification: Soil Map Unit Name: OmB - Omulga silt loam, 1 to 8 percent slopes N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Х	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for \	Wetlar	nd 17

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:							
Primary Indicators (minimum	of one is req	juired; ch	eck a	ıll that apply)		Secondary Indicators (minimum of	two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)		Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	,	Surface Soil Cracks (B6) Sparsely Vegetated Concave S Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Ima Stunted or Stressed Plants (D1 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)	igery (C9)	,
Field Observations:								
Surface Water Present?	Yes	No	X	Depth (inches):				
Water Table Present?	Yes	No	X	Depth (inches):				
Saturation Present?	Yes	No	X	Depth (inches):	Wetland H	lydrology Present? Yes	No	X
(includes capillary fringe)								
Describe Recorded Data (str	ream gauge, r	monitorin	g wel	II, aerial photos, previous inspect	ions), if availa	able:		
Remarks:								

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: (A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =
Herb Stratum (Plot size: 5 ft 1. Carex hirsutella)	30	Yes	FACU	UPL Species $\times 5 =$ Column Totals: (A) (B)
 Festuca elatior Vernonia gigantea 		30 10	Yes No	FACU FAC	Prevalence Index = B/A =
 4. Andropogon virginicus 5. Solidago canadensis 6. Trifolium campestre 7. 8. 9. 10. 11 		10 10 10	No No No	FACU FACU UPL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix			Redo	x Featur	es					
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	F	emarks	
0-14	10YR 5/2	95	10Y	'R 4/4	5	С	PL	SiL			
14-18	10YR 6/6	95	10Y	′R 5/6	5	С	PL	SiCL			
Hydric Soil Histoso	oncentration, D=Deplet I Indicators: I (A1) pipedon (A2)	tion, RM=Re	educed	Matrix, MS= Dark Surfac Polyvalue B 147, 148)	e (S7)					ydric S 47)	
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR /	A 147, 148)	Piedmont F	loodplain Soils	(F19) (I	MLRA 147,
Stratifie 2 cm Model Deplete Thick D Sandy Model 147, 14 Sandy G	en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) uck Below Dark Surface lark Surface (A12) Mucky Mineral (S1) (LR 8) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	` ,		Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depr Iron-Mangar MLRA 136) Umbric Surf Piedmont Fl 148)	atrix (F3 Surface ark Surfa ression (nese Ma) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent Very Shallo	Material (TF2) w Dark Surface ain in Remarks	e (TF12))
Спрро	3 man/ (00)								ydrophytic veg ology must be bed or problen	present	
Restrictive I	Layer (if observed):										
Restrictive I	Layer (if observed):										

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 66 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 10 Subregion (LRR or MLRA: LRR N 38.8460 82.8575 Lat: Long: Datum: NAD 27 Soil Map Unit Name: OmB - Omulga silt loam, 1 to 8 percent slopes **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil significantly disturbed? Are "Normal Circumstances" present? No Are vegetation or Hydrology Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland 18/W9WL2 Wetland Hydrology Present? Yes Χ Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): 0.5 Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

Profile Des	scription: (Describe to	the dep	th neede	d to docum	ent the i	ndicator o	r confirm	the absence of i	ndicator	·s.)		
Depth	Matrix			Redo	x Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-12	10YR 5/2	95	10	/R 5/6	5	С	PL	SiL				
>12	IMPENETRABLE							Rock				
¹ Type: C=C	concentration, D=Deple	tion, RM=	=Reduced	l Matrix, MS-	= Masked	d Sand Gra	ains.	² Location: PL	=Pore Lir	ning, M=M	atrix.	
Hydric Soi	I Indicators:							Indicators f	or Probl	ematic Hy	dric S	oils ³:
Histoso	l (A1)			Dark Surface				2 cm Mu	ck (A10)	(MLRA 14	47)	
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)						Coast P	Coast Prairie Redox (A16) (MLRA 136, 147)					
Black H	listic (A3)	Thin Dark Surface (S9) (MLRA 147, 148)						Piedmont Floodplain Soils (F19) (MLRA 147, 148)				
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Thin Dark Loamy Gle Redox Dal Depleted I Redox Del Iron-Mang MLRA 136 Umbric Su Piedmont 148)					atrix (F3 c Surface ark Surfa ression (nese Ma) face (F1)) e (F6) ace (F7) F8) sses (F12 3) (MLRA	136, 122)	Red Par Very Sha	allow Dar	rial (TF2) rk Surface Remarks)		
Strippe	d Matrix (S6)			,					ydrology	hytic vege must be p or problem	oresent	
Restrictive	Layer (if observed): Ye	s										
Type:	Rock											
Depth (inches): 12							Hydric Prese		Yes	X	No

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 67

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8460 Long: 82.8578 Datum: NAD 27

Soil Map Unit Name: OmB – Omulga silt loam, 1 to 8 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 18/W9WL2

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicate	ors:								
Primary Indicators (minimum	of one is req	juired; ch	eck a	ll that apply)		Secondary Indicators	s (minimum of	two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ael Water Stained Leaves (B Aquatic Fauna (B13)		B7)	F R T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	, ,	Surface Soil Crac Sparsely Vegetal Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave State (B10) (B16) er Table (C2) (C8) e on Aerial Imported (D2) (Idion (D2) (D3) c Relief (D4)	agery (C9	ŕ
Field Observations:									
Surface Water Present?	Yes	No	Χ	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	ydrology Present?	Yes	No	X

Remarks:

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (/	(A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 4 (I	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 25	(A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =	
Solidago canadensis Festuca elatior		20 15	Yes Yes	FACU FACU	Column Totals: (A) (B	3)
Carex hirsutella Pycnanthemum tenuifoliun	1	10 5	Yes No	FACU FACW	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:	
5. 6. 7. 8. 9.	,	v	No	1 AOW	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explair	
Woody Vine Stratum (Plot size:	30 ft)	50	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. Lonicera japonica		50	Yes	FAC	Definitions of Four Vegetation Strata:	
2. 3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 c or more in diameter at breast height (DBH), regard of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m)) tall.
9. 10.		50	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.2 tall.	28 ft
					Woody vine – All woody vines greater than 3.28 height.	ft in
Pomarks: (Include photo numbou					Hydrophytic Vegetation Present? Yes No	х

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix										
inches)		% Colo	or (moist)	x Featu	Type ¹	Loc ²	Texture	Re	marks		
0-6	10YR 3/3	0010	71 (1110101)	,,,	1 1900	200	SiL	110	mamo		
6-18		5 10	YR 5/6	5	С	PL	SiCL				
	Concentration, D=Depletion	, RM=Reduce	ed Matrix, MS	= Maske	d Sand Gr	ains.		Pore Lining, M=Ma			
•	I Indicators:		Dorle Curfo	oo (C7)				Problematic Hy			
Histoso	` '		Dark Surface Polyvalue E		ırface (S8)	(MIRA	2 cm Muck (A10) (MLRA 147)				
Histic E	Epipedon (A2)		147, 148)	0.011 00	aoo (0 0)	(Coast Pra	irie Redox (A16) (MLRA 136, 147)		
Black H	Histic (A3)		Thin Dark S	Surface ((S9) (MLR	A 147, 148	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) N,				
Stratific 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)		Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F 148)	atrix (F3 s Surface ark Surface ression (nese Ma face (F1	8) e (F6) ace (F7) (F8) asses (F12	136, 122)					
Strippe	d Matrix (S6)						wetland hy	Hydrophytic veget drology must be p urbed or problema	resent,		
Restrictive	Layer (if observed):										
Restrictive Type:	Layer (if observed):										

Remarks:

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 68 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Pond Fringe Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N 82.8582 Lat: 38.8454 Long: Datum: NAD 27 OmB - Omulga silt loam, 1 to 8 percent slopes Soil Map Unit Name: **NWI Classification:** PURGH Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil significantly disturbed? Are "Normal Circumstances" present? Are vegetation or Hydrology Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 19 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): 0.5 Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 100 (A/B)
1. 2. 3. 4. 5.			Turk Our		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species × 4 = UPL Species × 5 =
Panicum clandestinum Juncus anthelatus		60 10	Yes No	FAC FAC	Column Totals: (A) (B)
 3. Juncus effusus 4. Carex lurida 5. Scirpus hattorianus 6. 7. 8. 9. 10. 11 		10 10 10	No No No	FACW OBL OBL	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo number	re hara ar an a sans	prate shoot)			Hydrophytic Vegetation Present? Yes X No

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm t	he absence of ind	cators.)			
Depth	Matrix			Redox	x Featu	res						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Remar	'ks	
0-18	10YR 5/2	95	10)	/R 4/4	5	С	PL	SiCL				
	concentration, D=Deple	etion, RM=R	educed	d Matrix, MS=	Maske	d Sand Gra	ains.	² Location: PL=Po				3
•	I Indicators:			Dank Confee	- (07)			Indicators for		•	Soi	ils ":
Histoso	` '			Dark Surfac Polyvalue B		ırface (S8)	(MLRA		(A10) (MLRA	•		
Histic E	pipedon (A2)		147, 148)		()	Coast Prairie Redox (A16) (MLRA 136, 147)						
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR/	A 147, 148)	Piedmont F 148)	oodplain Soil	s (F19)) (M	LRA 147,
Stratifie 2 cm M Deplete Thick E Sandy 147, 1 4 Sandy	Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)				ession (nese Ma ace (F1	e (F6) ace (F7)	136, 122)	Red Parent Very Shallo	Material (TF2 w Dark Surfac ain in Remark	e (TF	12)	
•	Redox (S5)			148)	·	,	, ,					
Strippe	d Matrix (S6)								ydrophytic ve ology must b bed or proble	e prese		nd
Restrictive	Layer (if observed):											
Type:												
' '	inches):							Hydric So Present?	l Yes	Х		No
Remarks:												

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11

Applicant/Owner: Ohio Department of Transportation OH Sampling Point: State: 69

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8453 Long: 82.8581 Datum: NAD 27

OmB - Omulga silt loam, 1 to 8 percent slopes **NWI Classification:** Soil Map Unit Name: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 19

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicate	ors:								
Primary Indicators (minimum	of one is req	uired; ch	eck a	all that apply)		Secondary Indicators	(minimum c	of two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)		B7)	 -	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	, ,	Surface Soil Crac Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Test	ed Concave s (B10) (B16) er Table (C2) (C8) on Aerial In ed Plants (C tion (D2) (D3) Relief (D4)) nagery (C9)	,
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
Describe Recorded Data (stre	eam gauge, n	nonitorin	g we	II, aerial photos, previous inspec	tions), if availa	able:			

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species	
1.					That are OBL, FACW, or FAC:	0 (A)
2.					Total Number of Deminent	
3. 4.					Total Number of Dominant Species Across All Strata:	2 (B)
5.						()
Sapling/Shrub Stratum (Plot	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
size:	1311)				mat are OBE, 1 AOW, 011 AC.	0 (٨/١٥)
1.					Prevalence Index Worksheet:	
2. 3.					Total % Cover of: Multip OBL Species × 1 =	y by:
4.					FACW Species × 2 =	
5.			= Total Cover		FAC Species x 3 = FACU Species x 4 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		UPL Species × 5 =	
1. Schizachyrium scoparium	,	40	Yes	FACU	Column Totals: (A)	(B)
2. Festuca elatior		40	Yes	FACU	()	(5)
3. Vernonia gigantea		5	No	FAC	Prevalence Index = B/A =	_
Solidago canadensis Rudbeckia hirta		5 5	No No	FACU FACU	Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Ve	
6. Daucus carota		5	No	UPL	2 - Dominance Test is > fifty perc	
7. 8.					3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (I	Provide
<u> </u>					supporting data in Remarks or or	
					sheet)	:1 (F.ml-:-)
9. 10.					Problematic Hydrophytic Vegetat	ion (Explain)
11					1	
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed or	
· · · · · · · · · · · · · · · · · · ·	00 It)				' '	•
1. 2.					Definitions of Four Vegetation Stra	ita:
3.					Tree – Woody plants, excluding vine	
4.					or more in diameter at breast height of height	(DBH), regardless
5. 6.					of Height	
7.					Sapling/Shrub – Woody plants, excl	
8.					less than 3 in. DBH and greater than	3.28 π (1 m) tall.
9. 10.					Herb - All herbaceous (non-woody)	
			= Total Cover		regardless of size, and woody plants tall.	less than 3.28 ft
					Woody vine – All woody vines great	er than 3.28 ft in
					height.	
					Hydrophytic	
					Vegetation Present? Yes	No X
Remarks: (Include photo number	o horo or on a com-	aroto obset \				

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	x Featu	res					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	rks	
0-6	10YR 4/3						SiL			
6-15	10YR 6/6						SiCL			
	Concentration, D=Deple	etion, RM=F	Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore L Indicators for Prob			
Histoso	ol (A1)		Dark Surfa	ce (S7)			2 cm Muck (A10	-		
Histic E	Epipedon (A2)		Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148)			Coast Prairie Redox (A16) (MLRA 136, 14 Piedmont Floodplain Soils (F19) (MLRA 14 148)				
Black H	Histic (A3)									
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)		Loamy Gle Depleted M Redox Dar Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Su Piedmont M 148)	latrix (F3 k Surface ark Surfa ression anese Ma) face (F1	8) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Strippe	d Matrix (S6)						³ Indicators of Hydro wetland hydrolog unless disturbed	y must be pres		
							1	· · · · · · · · · · · · · · · · · · ·		_
Restrictive	Layer (if observed):									
Restrictive	Layer (if observed):									

Remarks:

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 70 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N 82.8575 Lat: 38.8451 Long: Datum: NAD 27 Soil Map Unit Name: OmB - Omulga silt loam, 1 to 8 percent slopes **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil significantly disturbed? Are "Normal Circumstances" present? No Are vegetation or Hydrology Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 20 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2. 3. 4. 5.				Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 100 (A/B)
1. 2. 3. 4. 5.				Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
Herb Stratum (Plot size: 5 ft)		= Total Cover		FACU Species × 4 = UPL Species × 5 =
 Scirpus hattorianus Panicum clandestinum Juncus anthelatus 	60 20 10	Yes Yes No	OBL FAC FAC	Column Totals: (A) (B) Prevalence Index = B/A =
 4. Carex vulpinoidea 5. 6. 7. 8. 9. 10. 11 	10	No	OBL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4.				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes X No

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of i	ndicato	rs.)		
Depth	Matrix			Redox	x Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	1
0-18	10YR 5/2	95	10\	(R 4/4	5	С	PL	SiCL				
- ''	concentration, D=Deple	tion, RM=Re	educed	l Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL:				3
•	I Indicators:			D 10 ((07)			Indicators f				oils ":
Histoso Histic E	Epipedon (A2)		Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148)				2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 136, 147)					
Black F	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (N 148)				MLRA 147,					
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	(S4) Gleyed Matrix (S4) Redox (S5)	(A4) A5) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) (LRR N) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodylain Soils (F19) (MLRA				Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks))			
Strippe	d Matrix (S6)								ydrolog	ohytic vege y must be or problem	oresen	
Restrictive	Layer (if observed):									•		
Type:												
	inches):							Hydric Preser		Yes	X	No
Remarks:												

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 OH Sampling Point: 71 State:

Applicant/Owner: Ohio Department of Transportation

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8451 Long: 82.8574 Datum: NAD 27

NWI Classification: Soil Map Unit Name: OmB - Omulga silt loam, 1 to 8 percent slopes N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 20

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum of	one is reauir								
		ed; ch	eck a	Il that apply)		Secondary Indicators (minimum of two required)			
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Statistics Thin Muck Surface (C7) Other (Explain in Remarks)						Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)		ĺ	
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
Describe Recorded Data (stream	n gauge, mo	nitorin	g well	I, aerial photos, previous inspecti	ions), if availa	able:			
Remarks:									

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =
Herb Stratum (Plot size: 5 ft)		= 10tai 00vci		UPL Species × 5 =
Schizachyrium scoparium Carex hirsutella		30 30	Yes Yes	FACU FACU	Column Totals: (A) (B)
3. Trifolium campestre		10	No	UPL	Prevalence Index = B/A =
 4. Asclepias hirtella 5. Eupatorium coelestinum 6. Festuca elatior 7. 8. 9. 10. 11 		10 10 10	No No No	UPL FAC FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	x Featu	res					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	ırks	
0-6	10YR 4/3						SiL			
6-15	10YR 6/6						SiCL			
	Concentration, D=Deplet	ion, RM=Re	educed Matrix, MS	= Maske	ed Sand Gr	ains.	² Location: PL=Pore			
Histoso			Dark Surfa	ce (S7)			2 cm Muck (A1	-	c Julia .	
	Epipedon (A2)		Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148)			Coast Prairie Redox (A16) (MLRA 136, 147				
Black H	Histic (A3)									
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)		Loamy Gle Depleted M Redox Dar Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F	Natrix (F3 k Surfact Park Surf Peression Anese M Martace (F1 Matrix (F1	3) e (F6) face (F7) (F8) asses (F12	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
•	Redox (S5)		148)	юочріа	11 00113 (1 1	o) (MEKA				
Sirippe	ed Matrix (S6)						³ Indicators of Hydro wetland hydrolo unless disturbed	gy must be pres	sent,	
Restrictive	Layer (if observed):									
Restrictive Type:	Layer (if observed):									

Remarks:

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 72 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N Lat: 38.8451 Long: 82.8568 Datum: NAD 27 Soil Map Unit Name: OmB - Omulga silt loam, 1 to 8 percent slopes **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ (If no, explain in Remarks.) Yes Nο Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ No Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Х No Χ Wetland 21 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Χ Drainage Patterns (B10) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Х Depth (inches): Water Table Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Х Depth (inches): Yes Х No No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Dominance rest Worksheet.	
Tice citatum (Flot Size: 50 ft)	70 OOVC1	Орсскоз:	Otatus	Number of Dominant Species	
1.				That are OBL, FACW, or FAC:	(A)
2.					, ,
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
5.				·	
		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft)				That are OBL, FACW, or FAC:	(A/B)
size:					, ,
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species × 1 =	
4.				FACW Species × 2 =	
5.				FAC Species × 3 =	
		= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
,	00		ODI	, ,	(D)
Scirpus hattorianus	30	Yes	OBL	Column Totals: (A)	(B)
2. Carex vulpinoidea	30	Yes	OBL		
3. Juncus anthelatus	15	No	FAC	Prevalence Index = B/A =	
4. Apocynum cannabinum	15	No	FACU	Hydrophytic Vegetation Indicators:	
Eupatorium coelestinum	10	No	FAC	X 1 - Rapid Test for Hydrophytic Vegetation	
6.				2 - Dominance Test is > fifty percent	
7.				3 - Prevalence Index is ≤3.01	
8.				4 - Morphological Adaptations ¹ (Provide	
				supporting data in Remarks or on a separa	ate
				sheet)	
9.				Problematic Hydrophytic Vegetation ¹ (Exp	olain)
10.					
11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog	
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problema	atic.
4				Definitions of Four Vegetation Strate:	
1.				Definitions of Four Vegetation Strata:	
2.				Tree Woody plants evaluding vines 2 in /7	(G am)
3.				Tree – Woody plants, excluding vines, 3 in. (7	
4.				or more in diameter at breast height (DBH), re	gardiess
5.				of height	
6.				Sanling/Shrub Woody plants evaluding vin	00
7.				Sapling/Shrub – Woody plants, excluding vin	
8.				less than 3 in. DBH and greater than 3.28 ft (1	m) tan.
9.				Harb All barbassaus (non woods) plants	
10.				Herb – All herbaceous (non-woody) plants,	2 20 4
		= Total Cover		regardless of size, and woody plants less than	1 3.28 π
				tall.	
				Manda vine All woods vines greater than 2	20 # in
				Woody vine – All woody vines greater than 3.	.∠8 π in
				height.	
				Hydrophytic	
				Vegetation Present? Yes X No	
	_				
Pemarks: (Include photo numbers here or on a senar	ata chaat \				

The dominant species observed have a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	scription: (Describe to	the depth	neede	d to docume	ent the i	ndicator c	r confirm t	he absence of ind	cators.)			
Depth	Matrix			Redo	x Featui	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Remai	rks	
0-18	10YR 5/2	95	10)	(R 4/4	5	С	PL	SiCL				
	concentration, D=Deple	tion, RM=R	educed	l Matrix, MS=	: Maske	d Sand Gra	ains.	² Location: PL=Po				3
•	Hydric Soil Indicators: Histosol (A1) Dark Surface (S7)							Indicators for		•	: So	ils °:
	` '			Polyvalue B		ırface (S8)	(MLRA		2 cm Muck (A10) (MLRA 147)			
Histic Epipedon (A2)				147, 148)			(Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	Black Histic (A3)				urface (S9) (MLR	A 147, 148)		Piedmont Floodplain Soils (F19) (MLRA 147, 148)			
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)				Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depr Iron-Mangar MLRA 136) Umbric Surf Piedmont Fl	atrix (F3 Surface ark Surface ession (nese Ma)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
•	` ,			148)								
Stripped Matrix (S6)								³ Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic				nd
Restrictive	Layer (if observed):											
Type:												
' '	inches):							Hydric So Present?	l Yes	Х	ζ	No
Remarks:												

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 73

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Are climatic/hydrologic conditions on the site typical for this time of year?

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8450 Long: 82.8568 Datum: NAD 27

Soil Map Unit Name: OmB – Omulga silt loam, 1 to 8 percent slopes NWI Classification: N/A

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Yes

Χ

No

(If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 21

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicate	ors:									
Primary Indicators (minimum	of one is req	juired; ch	eck a	ll that apply)		Secondary Indicators	s (minimum of	f two requi	red)	
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)	Roots (C3) oils (C6)	Surface Soil Crac Sparsely Vegetar Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave : is (B10) (B16) er Table (C2) s (C8) e on Aerial Im sed Plants (D tition (D2) (D3) c Relief (D4)	agery (C9)	ŕ			
Field Observations:										
Surface Water Present?	Yes	No	X	Depth (inches):						
Water Table Present?	Yes	No	X	Depth (inches):						
Saturation Present?	Yes	No	X	Depth (inches):	Wetland Hydrology Present? Yes No X					
(includes capillary fringe) Describe Recorded Data (str	eam gauge, r	monitorin	g wel	I, aerial photos, previous inspec	l ions), if availa	able:				
Remarks: Wetland hydrology indicators	s were not ob	served	This c	observation does not satisfy the l	nydrology crite	erion.				

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	x Featur	es						
inches)	Color (moist)	% C	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks		
0-6	10YR 4/3						SiL				
6-15	10YR 6/6						SiCL				
Type: C-C	concentration, D=Depleti	on PM-Radi	ucad Matrix MS	– Masko	d Sand Gr	pine	² Location: PL=Pore L	ning M-Matri	v		
	I Indicators:	on, min-medi	uceu Matrix, Mo	- Masket	J Sand Ord	aii i3.	Indicators for Prob				
Histosol		Dark Surfa	ce (S7)			2 cm Muck (A10	-				
Histic Epipedon (A2)			Polyvalue I		rface (S8)	(MLRA	Coast Prairie Redox (A16) (MLRA 136, 147				
147, 148)					Piedmont Floods	· , ,					
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148				A 147, 148)	148)	Jani Cono (i 1) (III L IVA 14				
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)		Loamy Gle Depleted M Redox Dar Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Su	latrix (F3 k Surface lark Surfa laression (lanese Ma) face (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
Sandy F	Redox (S5)		Piedmont F 148)	loodplaii	n Soils (F1	9) (MLRA					
Stripped	d Matrix (S6)		140)								
							³ Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic				
estrictive L	Layer (if observed):										
Restrictive L	Layer (if observed):										

Remarks:

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 74 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N 38.8439 85.8575 Lat: Long: Datum: NAD 27 ErD - Ernest silt loam, 15 to 25 percent slopes Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil significantly disturbed? Are "Normal Circumstances" present? No Are vegetation or Hydrology Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland W9WL4 Wetland Hydrology Present? Yes Χ Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

The dominant species observed has a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Yes

Χ

No

Hydrophytic **Vegetation Present?**

Profile Des	cription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	or confirm	the absence of in	dicators.)				
Depth	Matrix			Redox	x Featur	res							
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks		
0-18	10YR 5/2	95	10	/R 4/4	5	С	PL	SiCL					
	oncentration, D=Deple	etion, RM=R	educed	l Matrix, MS=	Maske	d Sand Gr	ains.	² Location: PL=	r Problema	tic Hy	dric S	oils ³:	
Histosol (A1)				Dark Surfac				2 cm Muc	k (A10) (ML	-RA 14	47)		
Histic Epipedon (A2)				Polyvalue B 147, 148)	elow Su	ırface (S8)	Coast Pra	Coast Prairie Redox (A16) (MLRA 136, 147)					
Black Histic (A3)				Thin Dark S	urface (S9) (MLR		Piedmont Floodplain Soils (F19) (MLRA 147, 148)					
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)				Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depr Iron-Mangar MLRA 136) Umbric Suff.	atrix (F3 Surface ark Surfa ession (nese Ma ace (F1	s) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	Red Pare Very Shal	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
Sandy	Redox (S5)			Piedmont FI 148)	ooapiaii	n Solis (F1	9) (WILKA						
Stripped Matrix (S6)								wetland hy	³ Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic				
Restrictive	Layer (if observed):												
Type:													
Depth (inches):							Hydric S Present		Yes	X	No	
Remarks:	_						•				•		

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 75

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8440 Long: 82.8575 Datum: NAD 27

Soil Map Unit Name: ErD – Ernest silt loam, 15 to 25 percent slopes NWI Classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland W9WL4

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicate	ors:								
Primary Indicators (minimum	of one is req	uired; ch	eck a	all that apply)		Secondary Indicators	(minimum of	two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)			ŕ					
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland Hydrology Present? Yes No X				X
Describe Recorded Data (stre Remarks:				II, aerial photos, previous inspect					

N/A

Depth	scription: (Describe to the Matrix	i		x Featur				•			
inches)	Color (moist) %	Colo	or (moist)	%	Type ¹	Loc ²	Texture	Rema	orke		
0-11	10YR 5/4	5 C010	ii (iiioisi)	/0	туре	LUC	SiL	Keme	aino		
11-18	10 YR 5/6						SiCL				
11-10	10 1 K 5/0						SICL				
Tumou C. C	tonocutration D. Doulation	DM Daduas	d Motrix MC	Maaka	4 Cand Cr	nina	² Location, DL. Doro	Lining M Mate			
<i>-</i> -	concentration, D=Depletion, I Indicators:	KIVI=Reduce	u Maurx, Mo	= Masked	u Sanu Gr	airis.	Location: PL=Pore				
•			Dark Surfa	ca (S7)							
Histosol (A1) Histic Epipedon (A2)			Polyvalue E		ırface (S8)	(MLRA	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 136, 147)				
			147, 148)		` ,	•					
Black H	listic (A3)		Thin Dark S	Surface (S9) (MLR	A 147, 148)	Piedmont Floodplain Soils (F19) (MLRA 147 148) Red Parent Material (TF2)				
	en Sulfide (A4)		Loamy Gle								
	ed Layers (A5)		Depleted M	`	,		,	Dark Surface (TF	- 12)		
	luck (A10) (LRR N) ed Below Dark Surface (A11	1)	Redox Dari Depleted D				Other (Explain	i in Remarks)			
Thick D	ark Surface (A12)	•	Redox Dep								
,	Mucky Mineral (S1) (LRR N	i, MLRA	Iron-Manga		asses (F12) (LRR N,					
147, 14	Gleyed Matrix (S4)		MLRA 136 Umbric Sur		3) (MI R A	136 122\					
•	Redox (S5)		Piedmont F								
-	d Matrix (S6)		148)								
	a mann (00)						³ Indicators of Hyd	rophytic vegetati	on and		
Chippo								ogy must be pre			
Cimppo							Linless disturbe	ed or problemation	;		
	Lover (if about 40 d)						dilicoo diotarbe	a or problematic			
estrictive l	Layer (if observed):						diffeed dietarbe	a or problematic			
	Layer (if observed):						Hydric Soil	a or problematic			

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation OH Sampling Point: 76 State: Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Stream Channel Local relief (concave, convex, none): 2 Concave Slope (%): Subregion (LRR or MLRA: LRR N 38.8441 Long: 82.8571 Datum: NAD 27 Lat: ErD - Ernest silt loam, 15 to 25 percent slopes **NWI Classification:** Soil Map Unit Name: N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Within a Wetland? Yes No Χ Yes No Χ **General Out Point** Wetland Hydrology Present? Yes Х No Remarks: This area satisfies only two of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

	ors:									
Primary Indicators (minimum	of one is requi	red; ch	eck a	ll that apply)		Secondary Indicators (minimum of two required)				
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) X Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Doxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Water Stained Leaves (B2) Starter Concave Surface (B8) Noss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)										
Field Observations:										
Surface Water Present?	Yes	No	X	Depth (inches):						
Water Table Present?	Yes	No	X	Depth (inches):						
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present? Yes X No				
Remarks:				, aerial photos, previous inspecti		aule.				
1										

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 3 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: (A/B)
1. Rosa multiflora 2. 3. 4.		10	Yes	FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =
5. Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
Panicum clandestinum		90	Yes	FAC	Column Totals: (A) (B)
2. 3.					Prevalence Index = B/A =
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	90	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Lonicera japonica		20	Yes	FAC	Definitions of Four Vegetation Strata:
2. 3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.		20	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

Depth	Matrix		Red	ox Featu	res										
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Texture Remarks							
0-14	10YR 4/3						SiL								
>14	IMPENETRABLE						Rock								
	Concentration, D=Deple	etion, RM:	=Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore								
Histos	ol (A1)		Dark Surfa				2 cm Muck (A	10) (MLRA 147)							
Histic Epipedon (A2)			Polyvalue 147, 148)	Below Su	urface (S8)	(MLRA		Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147,							
Black I	Histic (A3)		Thin Dark	Surface ((S9) (MLR	A 147, 148	Piedmont Floo 148)	odplain Soils (F1	9) (MLRA 14	7,					
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)		MLRA 136 Umbric Su Piedmont I	Matrix (F3 k Surface Park Surface Pression anese Ma) rface (F1	8) e (F6) ace (F7) (F8) asses (F12	136, 122)	Other (Explain	Dark Surface (Tl	=12)							
•	Redox (S5) ed Matrix (S6)		148)					rophytic vegetatiogy must be pre	sent,						
	Layer (if observed): Ye	es					นาแบรร นารเนาย	a or problemant	,						
Restrictive															
Restrictive Type:	Rock														

Remarks:

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 77

Applicant/Owner: Ohio Department of Transportation
Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8438 Long: 82.8570 Datum: NAD 27

Soil Map Unit Name: ErD – Ernest silt loam, 15 to 25 percent slopes NWI Classification:

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	General Out Point

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:						
Primary Indicators (minimum	of one is req	uired; ch	eck a	ıll that apply)		Secondary Indicators (minimum of two red	juired)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)	O , (B7)	F F T	Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Liv Presence of Reduced Iron (C- Recent Iron Reduction in Tille Finin Muck Surface (C7) Other (Explain in Remarks)	4)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (Catuation Visible on Aerial Imagery (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)	` ,
Field Observations:							
Surface Water Present?	Yes	No	X	Depth (inches):			
Water Table Present?	Yes	No	X	Depth (inches):			
Saturation Present? (includes capillary fringe) Describe Recorded Data (str	Yes	No monitorin	X a wel	Depth (inches):		Hydrology Present? Yes No	X
Remarks:				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Wetland hydrology indicators	were not obs	served.	Γhis c	observation does not satisfy the	he hydrology crite	erion.	

N/A

Depth	Matrix		Red	x Featu	res						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Ren	narks		
0-6	10YR 5/4						SiL				
>6	IMPENETRABLE						Rock				
	Concentration, D=Deple	etion, RM:	=Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Po				
Histoso			Dark Surfa	ce (S7)				A10) (MLRA 147			
Histic Epipedon (A2)			Polyvalue 147, 148)		urface (S8)	(MLRA	Coast Prairie	Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147,			
Black I	Histic (A3)		Thin Dark	Surface ((S9) (MLR	A 147, 148	Piedmont Flo	odplain Soils (F	19) (MLRA 14	7,	
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)			Loamy Gle Depleted N Redox Dar Depleted E Redox Dep Iron-Manga MLRA 136 Umbric Su Piedmont I 148)	latrix (F3 k Surface bark Surferession anese Ma) face (F1	8) e (F6) ace (F7) (F8) asses (F12	136, 122)	Red Parent I Very Shallov Other (Expla	Material (TF2) v Dark Surface (* in in Remarks)	TF12)		
эшрре	ed Matrix (S6)							drophytic vegeta blogy must be pr bed or problemat	esent,		
	Layer (if observed): Ye	9									
Restrictive	Layer (ii observed). Ye	0									
Restrictive Type:	Rock						Hydric Soil				

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 78 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Pond Fringe Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N 38.8416 82.8559 Lat: Long: Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** PURGH Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? Are vegetation or Hydrology significantly disturbed? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 22 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status		
,		·		Number of Dominant Species	(4)
1. 2.				That are OBL, FACW, or FAC:	(A)
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
5.				Openies / Mioss / Mi Ottata.	(5)
•		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft)				That are OBL, FACW, or FAC:	(A/B)
size:					. ,
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species × 1 =	
4.				FACW Species × 2 =	
5.		= Total Cover		FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		UPL Species × 5 =	
				· ·	
1. Juncus effusus	40	Yes	FACW	Column Totals: (A)	(B)
2. Typha latifolia	40	Yes	OBL	5 54	
3. Leersia oryzoides	20	Yes	OBL	Prevalence Index = B/A =	
4.				Hydrophytic Vegetation Indicators:	
5.				X 1 - Rapid Test for Hydrophytic Vegetation2 - Dominance Test is > fifty percent	on
6. 7.				3 - Prevalence Index is ≤3.01	
7. 8.				4 - Morphological Adaptations ¹ (Provide	۵
0.				supporting data in Remarks or on a sep	
				sheet)	
9.				Problematic Hydrophytic Vegetation ¹ (B	Explain)
10.					
11					
W 1 1 1 2 1 (D) 1 1 00 (C)	100	= Total Cover		Indicators of hydric soil and wetland hydrol	
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or proble	ematic.
1.				Definitions of Four Vegetation Strata:	
2.					
3.				Tree – Woody plants, excluding vines, 3 in.	(7.6 cm)
4.				or more in diameter at breast height (DBH),	, regardless
5.				of height	
6.				Capling/Charle \\\/	
7.				Sapling/Shrub – Woody plants, excluding less than 3 in. DBH and greater than 3.28 ft	
8.				less than 3 in. DBH and greater than 3.26 in	t (1 m) tall.
9.				Herb – All herbaceous (non-woody) plants,	
10.				regardless of size, and woody plants less th	
		= Total Cover		tall.	
				Woody vine – All woody vines greater than	3.28 ft in
				height.	
				Hydrophytic	
					No
Remarks: (Include photo numbers here or on a sepa	rate sheet.)			•	

The dominant species observed have a wetland indicator status of OBL and FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm t	he absence of ind	cators.)			
Depth	Matrix			Redox	(Featu	res						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Rer	marks	
0-18	2.5Y 6/1	95	10\	′R 5/6	5	С	PL	SiCL				
	concentration, D=Deple	tion, RM=R	educed	I Matrix, MS=	Maske	d Sand Gra	ains.	² Location: PL=P				3
•	I Indicators:			Dorle Curton	o (C7)			Indicators for		-		oils ":
Histoso	` '			Dark Surface Polyvalue Be		ırface (S8)	(MLRA		(A10) (MLRA		•	400 447)
HISTIC E	pipedon (A2)			147, 148)		,	`		Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147,			
Black H	listic (A3)			Thin Dark St	urface (S9) (MLRA	Piedmont F	loodplain Soi	is (F	-19) (N	MLRA 147,	
Stratifie 2 cm M Deplete Thick D Sandy 147, 14	Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)				ed Matrix (F3 Surface ork Surface ession (nese Matace (F1	Red Parent Very Shallo	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
Sandy	Redox (S5)			Piedmont Flo 148)	ooupiaii	11 30113 (1-1	9) (IVILINA					
Strippe	d Matrix (S6)			•					ydrophytic ve rology must b bed or proble	e pr	resent	
Restrictive	Layer (if observed):											
Type:												
	inches):							Hydric So Present?		;	X	No
Remarks:												

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 79

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8415 Long: 82.8558 Datum: NAD 27

Soil Map Unit Name: ErD – Ernest silt loam, 15 to 25 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 22

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum	of one is req	uired; ch	eck a	all that apply)		Secondary Indicators (minimum of two required)			
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Water Stained Leaves (B4) Aquatic Fauna (B13)		B7)		True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks))	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)			
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland F	Hydrology Present? Yes No X			
	eam gauge, r	monitorin	g we	ell, aerial photos, previous inspe	ections), if availa	able:			

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)		% Cover	Species?	Status		
1.			•		Number of Dominant Species That are OBL, FACW, or FAC:	0 (A)
2.					Total Niverban of Dominant	
3. 4.					Total Number of Dominant Species Across All Strata:	1 (B)
5.					Species Acioss Ali Stiata.	1 (D)
			= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15	ft)				That are OBL, FACW, or FAC:	0 (A/B)
size:						
1.					Prevalence Index Worksheet:	L
2. 3.					Total % Cover of: Multiply OBL Species × 1 =	by:
4.					FACW Species × 2 =	
5.					FAC Species × 3 =	
			= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)					UPL Species × 5 =	
1. Festuca elatior		60	Yes	FACU	Column Totals: (A)	(B)
 Poa pratensis Trifolium repens 		15 10	No No	FACU FACU	Prevalence Index = B/A =	
4. Trifolium campestre		5	No	UPL	Hydrophytic Vegetation Indicators:	
5.		-	-		1 - Rapid Test for Hydrophytic Veg	
6.					2 - Dominance Test is > fifty perce	nt
7.					3 - Prevalence Index is ≤3.0¹	مادات الماد
8.					 4 - Morphological Adaptations¹ (Pr supporting data in Remarks or on a 	
					sheet)	a Separate
9.					Problematic Hydrophytic Vegetatio	n ¹ (Explain)
10.						, , ,
11		00	T-1-1 0		The diseases of books and an about an abo	da a la au .
Woody Vine Stratum (Plot size: 30 f	't)	90	= Total Cover		Indicators of hydric soil and wetland h must be present, unless disturbed or p	
	,				<u>'</u>	
1. 2.					Definitions of Four Vegetation Strate	a:
3.					Tree – Woody plants, excluding vines,	3 in. (7.6 cm)
4.					or more in diameter at breast height (D	
5.					of height	
6.					One line of Observed. A Mary should not a second to	allia ann aithe an
7.					Sapling/Shrub – Woody plants, excludes than 3 in. DBH and greater than 3	
8.					less than 3 in. DBH and greater than 3	.20 it (1 iii) taii.
9. 10.					Herb - All herbaceous (non-woody) pla	
10.			= Total Cover		regardless of size, and woody plants le	ess than 3.28 ft
			= 10tal 00vcl		tall.	
					Woody vine - All woody vines greater	than 3.28 ft in
					height.	
					Hydrophytic	
					Vegetation Present? Yes	No X

Depth	scription: (Describe to th	1		x Featur	200			•		
inches)		% Colo						Rem	arks	
0-5	10YR 4/3	/6 COIC	or (moist)	/0	туре	LUC	Texture SiL	Keiii	ains	
5-18	10YR 6/6						SiCL			
5-16	101K 0/0						SICL			
Γvpe: C=C	Concentration, D=Depletior	n. RM=Reduce	ed Matrix. MS	= Maske	d Sand Gr	ains.	² Location: PL=Por	e Lining, M=Matr	ix.	
	il Indicators:	,	,			-	Indicators for Pr			
Histosol (A1) Dark Surfa				ce (S7)			2 cm Muck (A	(10) (MLRA 147))	
Histic E	Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147, 148)			Coast Prairie Redox (A16) (MLRA 136, 147)			7)		
Black H	Histic (A3)		Thin Dark S	Surface (S9) (MLR	A 147, 148)	Piedmont Flo	odplain Soils (F1	9) (MLRA 1 4	47,
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)		Loamy Gle Depleted M Redox Dari Depleted D Redox Dep Iron-Manga MLRA 136	latrix (F3 k Surface ark Surfa ression (anese Ma) e (F6) ace (F7) F8) sses (F12	,	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
•	Gleyed Matrix (S4) Redox (S5)		Umbric Sur Piedmont F							
-	ed Matrix (S6)		148)							
Опірро	ou Matrix (OO)							drophytic vegetat logy must be pre ed or problemati	esent,	
								•		
estrictive	Layer (if observed):									
estrictive Type:	Layer (if observed):									

Remarks:

6.2.11 to Sampling Date: Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. 7.21.11 Applicant/Owner: Ohio Department of Transportation Sampling Point: 81 State: OH Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Hillslope Convex 7 Local relief (concave, convex, none): Slope (%): Subregion (LRR or MLRA: LRR N Lat: 38.8427 Long: 82.8575 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ Yes No

naturally problematic?

(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	General Out Point

Remarks:

Are vegetation

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

or Hydrology

Soil

HYDROLOGY

Wetland Hydrology Indicat	ors:								
Primary Indicators (minimum	of one is req	uired; ch	eck a	all that apply)		Secondary Indicators (minimum of two required)			
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)	 -	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	4)	Surface Soil Crac Sparsely Vegetal Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave S s (B10) (B16) er Table (C2) s (C8) e on Aerial Imseed Plants (D2) (tition (D2) c (D3) c Relief (D4)	agery (C9)	ĺ
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland F	lydrology Present?	Yes	No	X
,	eam gauge, r	monitorin	g we	ll, aerial photos, previous insp	pections), if availa	able:			
Remarks:									
Wetland hydrology indicators	s were not ob	served.	This	observation does not satisfy t	he hydrology crit	erion.			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 3 (B)
Sapling/Shrub Stratum (Plot	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
size: 1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft 1. Festuca elatior 2. Anthoxanthum odoratum 3. Dactylis glomerata 4. Trifolium pratense 5. Trifolium campestre 6. 7. 8.)	30 30 30 5 5	= Total Cover Yes Yes Yes Yes No No	FACU FACU FACU FACU UPL	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 = Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤ 3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate
9. 10. 11 Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4. 5. 6.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/Shrub – Woody plants, excluding vines,
9. 10.			= Total Cover		less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

Depth	Matrix		Redox Features						
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-5	10YR 4/3		,	•			SiL		
5-18	10YR 6/4	95	10YR 5/6	5	С	PL	SiCL		
							2		
	Concentration, D=Deplet	tion, RM=R	educed Matrix, MS	= Masked	d Sand Gr	ains.	Location: PL=Pore	e Lining, M=Matrix. oblematic Hydric Soils ³ :	
Hydric Soil Indicators: Histosol (A1) Dark Surface (S7)								10) (MLRA 147)	
	Epipedon (A2)		Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148)						
HISUC E	pipedon (AZ)							, , ,	-
Black H	listic (A3)					Piedmont Floodplain Soils (F19) (MLRA 147, 148)			
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)			Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur Piedmont F	latrix (F3 < Surface ark Surfaresion (Inese Ma) face (F1)) e (F6) ace (F7) F8) asses (F12 3) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
Sandy I	Redox (S5)		148)	Toouplail	1 30115 (F 1	9) (WILKA			
Strippe	d Matrix (S6)		,						
							wetland hydrol	rophytic vegetation and ogy must be present, ed or problematic	
estrictive l	Layer (if observed):								
Restrictive I	Layer (if observed):								

Remarks:

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 82 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N Lat: 38.8426 Long: 82.8564 Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks.) Yes No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ No Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Х No Χ Wetland 24 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Χ Drainage Patterns (B10) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes Х No Depth (inches): Water Table Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes Х No Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

6.2.11 to

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Dominance rest worksheet.	
1.	70 COVE	орестез:	Status	Number of Dominant Species That are OBL, FACW, or FAC:	2 (A)
2. 3.				Total Number of Deminent	
3. 4.				Total Number of Dominant Species Across All Strata:	2 (B)
5.				Species Across All Strata.	2 (D)
0.		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft) size:				That are OBL_EACW_or EAC:	100 (A/B)
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply b	y:
3.				OBL Species x 1 =	
4.				FACW Species × 2 =	
5.		T-1-1 0		FAC Species × 3 =	
Harle Chretime (Distains, E.f.		= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
Panicum clandestinum Scirpus hattorianus	60 20	Yes Yes	FAC OBL	Column Totals: (A)	(B)
3. Carex vulpinoidea	10	No	OBL	Prevalence Index = B/A =	
4. Aster pilosus	5	No	UPL	Hydrophytic Vegetation Indicators:	
5. Agrostis gigantea	5	No	FACW	1 - Rapid Test for Hydrophytic Vege	tation
6.				X 2 - Dominance Test is > fifty percent	t
7.				3 - Prevalence Index is ≤3.0 ¹	
8.				4 - Morphological Adaptations ¹ (Pro	
				supporting data in Remarks or on a	separate
				sheet)	1 (
9.				Problematic Hydrophytic Vegetation	(Explain)
10.					
11	100	Total Cover		1 Indicators of budgie soil and watland by	drology.
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hy must be present, unless disturbed or pro	
1.				Definitions of Four Vegetation Strata:	i i
2.				_	
3.				Tree – Woody plants, excluding vines, 3	
4.				or more in diameter at breast height (DE	BH), regardless
5.				of height	
6.				Continue/Charle Manda allegate avaluati	
7.				Sapling/Shrub – Woody plants, excludi	
8.				less than 3 in. DBH and greater than 3.2	20 II (1 III) Iali.
9.				Herb - All herbaceous (non-woody) plan	nts
10.				regardless of size, and woody plants les	
		= Total Cover		tall.	0.20 K
				Woody vine - All woody vines greater t	han 3.28 ft in
				height.	
				Hydrophytic	
				Vegetation Present? Yes X	No

Profile Des	cription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of i	ndicato	rs.)		
Depth	Matrix			Redox	k Featur	es						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	1
0-18	10YR 5/2	95	10\	′R 5/6	5	С	PL	SiCL				
- ''	oncentration, D=Deple	tion, RM=Re	educed	I Matrix, MS=	Masked	d Sand Gra	ains.	² Location: PL				
•	Indicators:							Indicators f		-		oils ³ :
Histoso	l (A1)			Dark Surface Polyvalue Be		rf000 (CO)	/MIDA	2 cm Mu	ck (A10)) (MLRA 1	47)	
Histic E	pipedon (A2)			147, 148)	elow Su	nace (36)	(IVILKA	Coast P	airie Re	dox (A16)	(MLRA	136, 147)
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR /	147, 148	Piedmor	t Floodp	olain Soils	(F19) (I	MLRA 147,
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	` ,		Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depri Iron-Mangar MLRA 136) Umbric Surfa Piedmont Fla 148)	atrix (F3 Surface ark Surfa ession (nese Ma ace (F1;) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Red Par Very Sha	allow Da	erial (TF2) ırk Surface ı Remarks))
Strippe	d Matrix (S6)								ydrolog	ohytic vege y must be or problem	presen	
Restrictive	Layer (if observed):									•		
Type:												
	inches):							Hydric Prese		Yes	Х	No
Remarks:												

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 83

Applicant/Owner: Ohio Department of Transportation OH Sampling Point: State:

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7

Subregion (LRR or MLRA: LRR N Lat: 38.8426 Long: 82.8565 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 24

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:								
Primary Indicators (minimum		uired; ch	eck a	all that apply)		Secondary Indicators	(minimum of tw	o requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)	F F F	Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Livi Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Finin Muck Surface (C7) Other (Explain in Remarks)	.)	Surface Soil Crac Sparsely Vegetate Drainage Patterns Moss Trim Lines of Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Test	ed Concave Sur s (B10) (B16) er Table (C2) (C8) e on Aerial Image ed Plants (D1) tition (D2) (D3) Relief (D4)	·	ŕ
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe) Describe Recorded Data (str	Yes eam gauge, r	No monitorin	X g wel	Depth (inches):		lydrology Present?	Yes	No	Х
Remarks:									
	s were not ob	served.	This o	observation does not satisfy th	e hydrology crit	erion.			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0	(A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft 1. Anthoxanthum odoratum)	30 20	Yes Yes	FACU FACU	UPL Species × 5 = Column Totals: (A)	(B)
 Solidago canadensis Schizachyrium scoparium 		20 15	r es No	FACU	Prevalence Index = B/A =	
4. Festuca elatior 5. Agrostis gigantea 6. Panicum clandestinum 7. 8. 9. 10.		10 5 5	No No No	FACU FACW FAC	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetatio 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a sepasheet) Problematic Hydrophytic Vegetation¹ (E	arate
Woody Vine Stratum (Plot size:	30 ft)	85	= Total Cover		¹ Indicators of hydric soil and wetland hydrold must be present, unless disturbed or probler	
1.					Definitions of Four Vegetation Strata:	
2. 3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. or more in diameter at breast height (DBH), of height	
6. 7. 8.					Sapling/Shrub – Woody plants, excluding v less than 3 in. DBH and greater than 3.28 ft	ines, (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less that tall.	an 3.28 ft
					Woody vine – All woody vines greater than height.	3.28 ft in
Pomarke: (Include photo numbor					Hydrophytic Vegetation Present? Yes N	lo X

Depth	Matrix		Red	ox Featur	es					
nches)	Color (moist)	% (Color (moist)	%	Type ¹	Loc ²	Texture	Rema	ırks	
0-5	10YR 5/4						SiL			
5-18	10YR 6/6						SiCL			
ype: C=C	oncentration, D=Deplet	ion, RM=Red	uced Matrix, MS	= Masked	d Sand Gr	ains.	² Location: PL=Pore	Lining, M=Matri	х.	
ydric Soil	Indicators:						Indicators for Pro	blematic Hydri	c Soils ³ :	
Histoso	I (A1)		Dark Surfa				2 cm Muck (A	10) (MLRA 147)		
Histic E	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 147, 148)			Coast Prairie F	Redox (A16) (ML	.RA 136, 147	7)	
Black H	listic (A3)		Thin Dark	Surface (S9) (MLR /	A 147, 148)	Piedmont Floo 148)	dplain Soils (F19	9) (MLRA 14	7,
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14	andy Gleyed Matrix (S4) Umbric Surface		Matrix (F3 k Surface Park Surfa Pression (Anese Ma) Iface (F1) e (F6) ace (F7) F8) asses (F12 3) (MLRA	136, 122)	Red Parent Ma Very Shallow I	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Sandy F	Redox (S5)		Piedmont I 148)	-iooapiaii	1 50lls (F1	9) (WILKA				
Stripped	d Matrix (S6)		,							
								ophytic vegetation ogy must be pres d or problemation	sent,	
antriotiva I	Layer (if observed):									
estrictive i										
Type:										

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Ohio Department of Transportation Applicant/Owner: State: OH Sampling Point: 85 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10 38.8410 Subregion (LRR or MLRA: LRR N Lat: Long: 82.8565 Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Х No Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Χ Is the Sampled Area Hydric Soils Present? Χ Yes No Within a Wetland? Yes No Χ

Χ

General Out Point

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

No

Yes

HYDROLOGY

Wetland Hydrology Present?

Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Water Table Present? Yes No X Depth (inches): Saturation Present? Water Deposits (Path Stream gauge, monitoring well, aerial photos, previous inspections), if available: True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Parainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Remarks:	, 0,	ors:	والمسادين	l	II that annly		Caaaadam. laalis starr	. /!!	-f t	الد بديد
Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E	rial Imagery (T C F F	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Livi Presence of Reduced Iron (C4 Recent Iron Reduction in Tiller Thin Muck Surface (C7))	Surface Soil Crac Sparsely Vegetar Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	cks (B6) ted Concave as (B10) (B16) er Table (C2) s (C8) e on Aerial II sed Plants (I ition (D2) c Relief (D4)	e Surface (E 2) magery (C9	38)
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Field Observations:						171011041141110	(20)		
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water Present?	Yes	No	X	Depth (inches):					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Present?	Yes	No	X	Depth (inches):					
Remarks:	Remarks:	Saturation Present? (includes capillary fringe)				, ,		, 0,	Yes	No	Х
Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.	Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.	Describe Recorded Data (str	eam gauge, r	monitorin	g wel	I, aeriai photos, previous insp	ections), if availa	able:			
		Wetland hydrology indicators	were not ob	served.	This c	observation does not satisfy th	e hydrology crite	erion.			

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: 30 ft 1.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2. 3. 4.					Total Number of Dominant Species Across All Strata: 3 (B)
5. <u>Sapling/Shrub Stratum</u> (Plot	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 33 (A/B)
size:					Prevalence Index Worksheet:
2.					Total % Cover of: Multiply by:
3. 4.					OBL Species × 1 = FACW Species × 2 =
5.					FAC Species x 2 = FAC Species x 3 =
			= Total Cover		FACU Species x 4 =
Herb Stratum (Plot size: 5 ft)				UPL Species x 5 =
1. Trifolium campestre		30	Yes	UPL	Column Totals: (A) (B)
 Vernonia gigantea Erigeron annuus 		30 30	Yes Yes	FAC FACU	Prevalence Index = B/A =
4. Festuca elatior		5	No	FACU	Hydrophytic Vegetation Indicators:
 Asclepias syriaca 6. 		5	No	FACU	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent
7.					3 - Prevalence Index is ≤3.0¹
8.					4 - Morphological Adaptations ¹ (Provide
					supporting data in Remarks or on a separate sheet)
9.					Problematic Hydrophytic Vegetation ¹ (Explain)
10.					
11		100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology
Woody Vine Stratum (Plot size:	30 ft)	100	= 10tal 00vcl		must be present, unless disturbed or problematic.
1.					Definitions of Four Vegetation Strata:
2.					
3. 4.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardles
5. 6.					of height
7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall
9.					Herb – All herbaceous (non-woody) plants,
10.			= Total Cover		regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo number	ra hara ar an a sa-	orato abast			Hydrophytic Vegetation Present? Yes No X

Profile Des	scription: (Describe to	the depth ne	eded to docum	ent the i	ndicator of	or confirm	the absence of ind	cators.)			
Depth	Matrix		Redo	x Featu	res						
(inches)	Color (moist)	% (Color (moist)	%	Type ¹	Loc ²	Texture	F	Remarks		
0-5	10YR 5/4						SiL				
5-18	10YR 6/6						SiCL				
	Concentration, D=Deplet il Indicators: ol (A1)	tion, RM=Red	Dark Surfa	ce (S7)			² Location: PL=Police Indicators for 2 cm Muck		lydric Soils 3:		
Histic E	Epipedon (A2)		Polyvalue E 147, 148)	selow St	іпасе (58)	(WLKA		,	(MLRA 136, 1	•	
Black F	Histic (A3)		Thin Dark S	Surface (S9) (MLR	A 147, 148)	148)	loodplain Soils	(F19) (MLRA	147,	
Stratifie 2 cm M Deplete Thick E Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	` ,	Redox Dep Iron-Manga MLRA 136 Umbric Sur	latrix (F3 < Surface ark Surface ression of rese Ma linese Ma) face (F1	(F3) Very Sh face (F6) Other (E Surface (F7) Other (E			hallow Dark Surface (TF12) Explain in Remarks)			
	ed Matrix (S6)							ydrophytic veg rology must be bed or probler	present,		
Restrictive	Layer (if observed):										
							1				
Type:							Hydric So				

Remarks:

6.2.11 to Sampling Date: Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 86 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10 Subregion (LRR or MLRA: LRR N 38.8405 82.8561 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 26 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): 0.5 Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

The dominant species have a wetland indicator status of OBL and FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Depth	Matrix			Redo	x Featur	es					
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	F	emarks	
0-10	10YR 5/1	95	10\	/R 4/4	5	C	PL	SiL			
10-18	10YR 5/2	95	10\	/R 5/6	5	С	PL	SiCL			
	concentration, D=Depletion I Indicators:	on, RM=Re	educed	I Matrix, MS= Dark Surfac Polyvalue B	e (S7)			2 cm Muck	Problematic H (A10) (MLRA 1	ydric So 47)	
Histic E	pipedon (A2)			147, 148)	elow Su	mace (So)	(WILKA		rie Redox (A16)	-	-
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR /	A 147, 148)	Piedmont 148)	Floodplain Soils	(F19) (M	LRA 147,
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I	en Sulfide (A4) ed Layers (A5) uck (A10) (LRR N) ed Below Dark Surface (A eark Surface (A12) Mucky Mineral (S1) (LRF 8) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	,		Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)				Red Parer Very Shall	it Material (TF2) ow Dark Surfac olain in Remarks	e (TF12)	
Strippe	u Matrix (56)							wetland hy	Hydrophytic veg drology must be urbed or problen	present,	nd
Restrictive I	Layer (if observed):							1			
Restrictive I	Layer (if observed):										

Remarks:

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 87

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8404 Long: 82.8561 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 26

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:					
Primary Indicators (minimum	n of one is req	uired; ch	eck a	all that apply)		Secondary Indicators (minimum of two required)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)	rial Imagery (B7)		Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	,	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	X	Depth (inches):		
Water Table Present?	Yes	No	X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present? Yes No X
Describe Recorded Data (str	ream gauge, r	nonitorin	g wel	ll, aerial photos, previous inspec	tions), if availa	able:
Remarks:						

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Red	x Featu	res							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks			
0-6	10YR 4/3						SiL					
>6	IMPENETRABLE						Rock					
	Concentration, D=Deple	etion, RM:	=Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore					
Histoso			Dark Surfa	ce (S7)				0) (MLRA 147)	C JUIIS .			
	` '			Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA				Coast Prairie Redox (A16) (MLRA 136, 14				
HISTIC	Epipedon (A2)		147, 148)			•		` , '	•	•		
Black I	Histic (A3)		Thin Dark	Surface (S9) (MLR	A 147, 148	Piedmont Floo 148)	dplain Soils (F1	9) (MLRA 1 4	7,		
Stratific 2 cm M Deplete Thick I Sandy 147, 14 Sandy	gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LI 48) Gleyed Matrix (S4) Redox (S5)	` ,	Depleted M Redox Dar Depleted D Redox Dep LRA Iron-Manga MLRA 136 Umbric Su	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)				aterial (TF2) Dark Surface (Tf in Remarks)	- 12)			
Strippe	ed Matrix (S6)		,					ophytic vegetati ogy must be pres d or problematio	sent,			
	Layer (if observed): Ye	es										
Restrictive												
Restrictive Type:	Rock											

Remarks:

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Sampling Date: Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 90 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Convex Slope (%): 10 Subregion (LRR or MLRA: LRR N 38.8398 82.8560 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 26 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): 0.5 Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species	
1. 2.				That are OBL, FACW, or FAC:	(A)
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
5.		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft)				That are OBL, FACW, or FAC:	(A/B)
size: 1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species x 1 =	
4.				FACW Species × 2 =	
5.		= Total Cover		FAC Species × 3 = FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)		= Total Cover		UPL Species × 5 =	
	00	Vaa	OBL	, ,	(D)
 Scirpus hattorianus Carex vulpinoidea 	90 10	Yes No	OBL	Column Totals: (A)	(B)
3.	-		-	Prevalence Index = B/A =	
4.				Hydrophytic Vegetation Indicators:	
5.				X 1 - Rapid Test for Hydrophytic Vegetation	n
6. 7.				 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 	
7. 8.				4 - Morphological Adaptations ¹ (Provide	
·				supporting data in Remarks or on a sepa	
				sheet)	
9.				Problematic Hydrophytic Vegetation ¹ (E	xplain)
10. 11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolo	ogy
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problem	matic.
1. 2.				Definitions of Four Vegetation Strata:	
3.				Tree – Woody plants, excluding vines, 3 in.	(7.6 cm)
4.				or more in diameter at breast height (DBH),	
5.				of height	
6.				Sapling/Shrub – Woody plants, excluding v	rines.
7. 8.				less than 3 in. DBH and greater than 3.28 ft	
9.					
10.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less th	an 2 29 ft
		= Total Cover		tall.	an 3.20 il
				Woody vine – All woody vines greater than height.	3.28 ft in
				neight.	
				Hydrophytic	
					lo
Remarks: (Include photo numbers here or on a sepa	rate sheet.)				

The dominant species has a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

epth	Matrix			Redo	x Featur	es					
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	R	emarks	
0-10	10YR 5/1	95	10Y	′R 4/4	5	С	PL	SiL			
10-18	10YR 5/2	95	10Y	′R 5/6	5	С	PL	SiCL			
lydric Soil Histoso	` '	ion, RM=Re	educed	I Matrix, MS= Dark Surface Polyvalue B	e (S7)				Problematic Hy A10) (MLRA 1	ydric S 47)	
HISTIC E	pipedon (A2)			147, 148)		,	•		e Redox (A16) codplain Soils	•	
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR	A 147, 148)	148)	oodpiairi Solis	(F19) (I	VILKA 147
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I	en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface (ark Surface (A12) Mucky Mineral (S1) (LR 8) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	,		Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)				Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Strippet	a iviatiix (30)								drophytic vege plogy must be ped or problem	present	
estrictive I	Layer (if observed):										
estrictive I	Layer (if observed):							Hydric Soi			

Remarks:

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 91

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8397 Long: 82.8560 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes \mathbf{X} No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Х	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes	es	No	X
Wetland Hydrology Present?	Yes		No	X	Our	ut Point for W	etlan	nd 26

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:								
Primary Indicators (minimum	of one is req	uired; ch	eck a	ll that apply)		Secondary Indicators	(minimum of tw	o requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)						
Field Observations:							,		
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	Х	Depth (inches): , aerial photos, previous inspect	Wetland Hydrology Present? Yes No X				
Remarks:				bservation does not satisfy the h					

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 4 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: (A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
Vernonia gigantea Erigeron strigosus	,	30 20	Yes Yes	FAC FACU	Column Totals: (A) (B)
3. Trifolium repens		20	Yes	FACU	Prevalence Index = B/A =
 4. Solidago canadensis 5. Festuca elatior 6. Dactylis glomerata 7. 8. 9. 10. 11 		20 5 5	Yes No No	FACU FACU FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.					Definitions of Four Vegetation Strata:
2. 3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix			Redo	x Featur	es							
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Remarks	3		
0-10	10YR 5/1	95	10Y	R 4/4	5	С	PL	SiL					
10-18	10YR 5/2	95	10Y	R 5/6	5	С	PL	SiCL					
	Concentration, D=Depleti I Indicators: ol (A1)	on, RM=Re	educed	Dark Surfac	e (S7)				Pore Lining, M r Problematic k (A10) (MLR<i>A</i>	Hydric S	oils ³ :		
Histic Epipedon (A2) Polyvalue Be 147, 148)						rface (S8)	(MLRA		Coast Prairie Redox (A16) (MLRA 136, 147)				
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 14							A 147, 148)	Piedmont Floodplain Soils (F19) (MLRA 147, 148)					
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)				Loamy Gley Depleted M: Redox Dark Depleted D: Redox Depi Iron-Manga MLRA 136) Umbric Surf Piedmont F 148)	atrix (F3 Surface ark Surfa ression (nese Ma face (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Pare Very Shal	nt Material (TF low Dark Surf <i>a</i> plain in Remar	ce (TF12)		
Strippe	d Matrix (S6)							wetland hy	Hydrophytic ve drology must b turbed or proble	oe presen			
				·		·			·				
Restrictive I	Layer (if observed):												
Restrictive I	Layer (if observed):												

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 92 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Convex Slope (%): 10 Subregion (LRR or MLRA: LRR N Lat: 38.8396 Long: 82.8559 Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks.) Yes No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ No Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Χ No Χ Wetland 26 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Χ Drainage Patterns (B10) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Χ Depth (inches): 0.5 Yes Х No No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1. 2.		·		Number of Dominant Species That are OBL, FACW, or FAC:	(A)
3.				Total Number of Dominant	
4. 5.				Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot 15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
size:					(,,,,,,
1. 2.				Prevalence Index Worksheet: Total % Cover of: Multiply by:	
3.				OBL Species x 1 =	
4. 5.				FACW Species × 2 = FAC Species × 3 =	
		= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
Scirpus hattorianus Carex vulpinoidea	90 10	Yes No	OBL OBL	Column Totals: (A)	(B)
3.	10	NO	OBL	Prevalence Index = B/A =	
4.				Hydrophytic Vegetation Indicators:	
5. 6.				X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent	
7.				3 - Prevalence Index is ≤3.01	
8.				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separat	•
				sheet)	e
9.				Problematic Hydrophytic Vegetation ¹ (Expla	ain)
10. 11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology	
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problemat	ic.
1. 2.				Definitions of Four Vegetation Strata:	
3.				Tree – Woody plants, excluding vines, 3 in. (7.6	
4.				or more in diameter at breast height (DBH), reg. of height	ardless
5. 6.					
7.				Sapling/Shrub – Woody plants, excluding vines less than 3 in. DBH and greater than 3.28 ft (1 r	
8. 9.				less than 3 m. DBH and greater than 3.20 ft (11	II) tall.
9. 10.				Herb – All herbaceous (non-woody) plants,	
		= Total Cover		regardless of size, and woody plants less than 3 tall.	3.28 π
				Woody vine – All woody vines greater than 3.2	8 ft in
				height.	
				Hydrophytic	
				Vegetation Present? Yes X No	
Remarks: (Include photo numbers here or on a separa	ate sheet.)		J		

The dominant species has a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Depth	Matrix			Redo	x Featur	es							
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	R	emarks			
0-10	10YR 5/1	95	10\	′R 4/4	5	С	PL	SiL					
10-18	10YR 5/2	95	10\	′R 5/6	5	С	PL	SiCL					
Hydric Soil Histoso	` '	tion, RM=Re	educed	I Matrix, MS= Dark Surface Polyvalue B	e (S7)			· ·	roblematic Hy A10) (MLRA 1	ydric S 47)			
Histic Epipedon (A2) 147, 148)							`		Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147)				
Black H	listic (A3)			Thin Dark S	urface (S9) (MLR	A 147, 148)	148)	Joupiain Soils	(119) (1 1	VILNA 147		
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)				Loamy Gley Depleted M Redox Dark Depleted Da Redox Depi Iron-Manga MLRA 136) Umbric Surf Piedmont F 148)	atrix (F3 Surface ark Surfa ression (nese Ma) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Very Shallov	Material (TF2) v Dark Surface in in Remarks				
Strippet	a matrix (00)								drophytic vege plogy must be ped or problem	present			
estrictive I	Layer (if observed):												
estrictive I	Layer (if observed):							Hydric Soil					

Remarks:

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 93

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8395 Long: 82.8559 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Χ	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for V	Netlar	nd 26

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Primary Indicators (minimum	of one is req	uired; ch	eck a	II that apply)		Secondary Indicators (minimum of two require
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)	0 , \	B7)		Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	` ,	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	X	Depth (inches):		
Vater Table Present?	Yes	No	X	Depth (inches):		
Saturation Present? includes capillary fringe) Describe Recorded Data (str	Yes eam gauge, r	No monitorin	X g wel	Depth (inches): I, aerial photos, previous inspect		hydrology Present? Yes No able:
Remarks: Vetland hydrology indicators	were not ob	served.	This o	observation does not satisfy the h	nydrology crite	erion.
,				,	, , , , , , , , , , , , , , , , , , , ,	

T 0 (5)		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 4 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: (A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species x 1 = FACW Species x 2 = FAC Species x 3 = FACU Species x 4 =
Herb Stratum (Plot size: 5 ft)		- 10tal 0010l		UPL Species × 5 =
Vernonia gigantea Erigeron strigosus Trifolium repens		30 20 20	Yes Yes Yes	FAC FACU FACU	Column Totals: (A) (B) Prevalence Index = B/A =
4. Solidago canadensis 5. Festuca elatior 6. Dactylis glomerata 7. 8. 9. 10.		20 5 5	Yes No No	FACU FACU FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo number	n horo or on a com-	proto object			Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix			Redo	x Featui	es						
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	F	Remarks		
0-10	10YR 5/1	95	10\	/R 4/4	5	С	PL	SiL				
10-18	10YR 5/2	95	10\	/R 5/6	5	С	PL	SiCL				
2.1	concentration, D=Deplet I Indicators: Il (A1)	tion, RM=R	educeo	Dark Surfac	e (S7)			2 cm Muck	Problematic H (A10) (MLRA 1	lydric Soils ³ : 147)		
Histic Epipedon (A2) Polyvalue Below Surf						mace (So)	(IVILKA		rie Redox (A16)	-		
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 14)							A 147, 148)	Piedmont Floodplain Soils (F19) (MLRA 147 148)				
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)				Loamy Gley Depleted M Redox Dark Depleted D Redox Dep Iron-Manga MLRA 136) Umbric Sur Piedmont F 148)	atrix (F3 Surface ark Surfa ression (nese Ma face (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Paren Very Shall	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Strippe	d Matrix (S6)			, 				wetland hyd	Hydrophytic veg drology must be urbed or probler	present,		
	Layer (if observed):											
Restrictive I												
Restrictive Type:								Hydric So				

Remarks:

6.2.11 to Sampling Date: Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 94 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Convex Slope (%): 10 Subregion (LRR or MLRA: LRR N 38.8400 82.8553 Lat: Long: Datum: NAD 27 MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 26 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): 0.5 Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

Absolute Dominant Indicator Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft) % Cover Species? Status	
Number of Dominant Species	
1. That are OBL, FACW, or FAC:	(A)
2.	
3. Total Number of Dominant	
4. Species Across All Strata:	(B)
5.	
= Total Cover Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft) That are OBL, FACW, or FAC:	(A/B)
size:	
1. Prevalence Index Worksheet:	
2. Total % Cover of: Multiply by:	:
3. OBL Species × 1 =	
4. FACW Species $\times 2 =$	
5. FAC Species $\times 3 =$	
= Total Cover FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft) UPL Species × 5 =	
1. Juncus effusus 90 Yes FACW Column Totals: (A)	(B)
2. Agrostis gigantea 10 No FACW	(D)
3. Prevalence Index = B/A =	
4. Hydrophytic Vegetation Indicators:	
5. X 1 - Rapid Test for Hydrophytic Vegeta	ntion
6. 2 - Dominance Test is > fifty percent	111011
7. 3 - Prevalence Index is ≤3.0¹	
8. 4 - Morphological Adaptations ¹ (Provi	ido
supporting data in Remarks or on a se	enarate
sheet)	оригию
9. Problematic Hydrophytic Vegetation ¹	(Explain)
10.	(Explain)
100 = Total Cover Indicators of hydric soil and wetland hydr	rology
Woody Vine Stratum (Plot size: 30 ft) must be present, unless disturbed or prob	
1. Definitions of Four Vegetation Strata:	
2.	(7.0.)
3. Tree – Woody plants, excluding vines, 3 i	
or more in diameter at breast height (DBF	1), regardiess
5. of height	
6.	a vinaa
7. Sapling/Shrub – Woody plants, excluding	
8. less than 3 in. DBH and greater than 3.28	on (1 m) tan.
9. Herb – All herbaceous (non-woody) plant:	
10. regardless of size, and woody plants less	
= Total Cover tall.	111a11 3.20 11
tan.	
Woody vine – All woody vines greater that	an 3 28 ft in
height.	O.E.O IC III
noight.	
Hydrophytic	
Vegetation Present? Yes X	No
Remarks: (Include photo numbers here or on a separate sheet.)	

The dominant species has a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	scription: (Describe to	the depth	neede	d to docume	nt the i	ndicator o	r confirm	the absence of in	dicators.))		
Depth	Matrix			Redox	(Featu	res						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-18	10YR 5/2	95	10	/R 5/6	5	С	PL	SiCL				
	concentration, D=Deple	etion, RM=Re	educed	d Matrix, MS=	Maske	d Sand Gra	ains.	² Location: PL=I				•
•	I Indicators:							Indicators for		•		oils ³ :
Histoso	l (A1)			Dark Surface Polyvalue Be		urfooo (CO)	/MIDA	2 cm Mucl	(A10) (N	ILRA 14	47)	
Histic E	pipedon (A2)		147, 148)	elow Su	mace (36)	(IVILKA	Coast Pra	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black F	listic (A3)		Thin Dark Su	urface (S9) (MLR	A 147, 148)	Piedmont 148)	Floodplaiı	n Soils ((F19) (I	MLRA 147,	
Stratified 2 cm M Deplete Thick D Sandy 147, 14	Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)				ession (nese Ma ace (F1	e) (F6) ace (F7) (F8) asses (F12	136, 122)	Red Parer Very Shall Other (Exp	ow Dark S	Sùrface		1
Sandy	Redox (S5)			Piedmont Flo 148)	oodplaii	n Soils (F1	9) (MLRA					
Strippe	d Matrix (S6)			·-,				³ Indicators of wetland hy unless dist	drology m	iust be p	presen	
Restrictive	Layer (if observed):											
Type:												
Depth (inches):							Hydric S Present		Yes	X	No
Remarks:										_		

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 95

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8400 Long: 82.8554 Datum: NAD 27 Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes \mathbf{X} No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for	Wetlaı	nd 26

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat						1
Primary Indicators (minimum	of one is req	juired; ch		11 77		Secondary Indicators (minimum of two required)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (B4) Aquatic Fauna (B13)		B7)	 	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (Ca Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)	
Field Observations:						
Surface Water Present?	Yes	No	X	Depth (inches):		
Water Table Present?	Yes	No	X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland F	lydrology Present? Yes No X
·	eam gauge, r	monitorin	ig we	ll, aerial photos, previous insp	ections), if availa	able:
Remarks:						
Wetland hydrology indicators	s were not ob	served.	This	observation does not satisfy tl	ne hydrology crit	erion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: (A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =
Herb Stratum (Plot size: 5 ft 1. Erigeron strigosus)	30	Yes	FACU	UPL Species × 5 = Column Totals: (A) (B)
Solidago canadensis Panicum clandestinum		30 15	Yes No	FACU FAC	Prevalence Index = B/A =
 4. Trifolium repens 5. Festuca elatior 6. Asclepias hirtella 7. 8. 9. 10. 11 		10 10 5	No No No	FACU FACU UPL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	ox Featur	es							
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Rem	narks		
0-18	10YR 5/2	95	10	/R 5/6	5	С	PL	SiCL				
Type: C-C	Concentration, D=Deple	tion PM-P	aducac	1 Matriy MS	– Maskor	1 Sand Gr	aine	² Location: PL=Pore I	ining M-Mat	riv		
	il Indicators:	tion, rawi–ra	caacce	i watin, wo	- Masket	d Garia Gre	дн ю.	Indicators for Prob			s ³ :	
Histosol (A1) Dark Surface (S7)								2 cm Muck (A10) (MLRA 147)				
Histic Epipedon (A2)				Polyvalue E 147, 148)	Belòw Śu	rface (S8)	(MLRA	Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	Histic (A3)		Thin Dark Surface (S9) (MLRA 147, 148)				Piedmont Flood 148)	plain Soils (F	19) (ML I	RA 147		
Stratifie 2 cm M Deplete Thick E Sandy 147, 14	gen Sulfide (A4) ed Layers (A5) fuck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LF 48) Gleyed Matrix (S4)	, ,	X	Redox Dep Iron-Manga MLRA 136 Umbric Sui	Matrix (F3) k Surface Park Surfa Pression (Anese Ma) Iface (F13)) (F6) ace (F7) F8) sses (F12 B) (MLRA	136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Sandy	Redox (S5)			Piedmont F 148)	Floodplair	Soils (F1	9) (MLRA					
Strippe	ed Matrix (S6)			140)				³ Indicators of Hydro wetland hydrolog unless disturbed	gy must be pre	esent,	I	
Restrictive	Layer (if observed):								•			
Type:								Hydric Soil				

6.2.11 to Project/Site: SCI-823 Sampling Date: City/County: Portsmouth/Scioto Co. 7.21.11 Applicant/Owner: Ohio Department of Transportation Sampling Point: 89 State: OH Investigator(s): Len Mikles, Jason Earley, and Richard Paul

10 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%):

Subregion (LRR or MLRA: LRR N Lat: 38.8401 82.8561 Datum: NAD 27 **NWI Classification:** Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation Soil significantly disturbed? Are "Normal Circumstances" present? Х or Hydrology Yes No

Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	Х	General Out Point

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	tors:								
Primary Indicators (minimum	n of one is req	Secondary Indicators (minimum of two required)							
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Foresence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Foresence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)						Surface Soil Crac Sparsely Vegetar Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visibles Stunted or Strees Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave is (B10) (B16) er Table (C2) s (C8) e on Aerial In sed Plants (D ition (D2) (D3) c Relief (D4)) nagery (C9)	,
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
Describe Recorded Data (str	ream gauge, ı	monitorin	ıg wel	ll, aerial photos, previous inspe	ctions), if availa	able:			
Remarks:									

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

	,	Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 4 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 25 (A/B)
1. 2. 3. 4. 5.)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species x 1 = FACW Species x 2 = FAC Species x 3 = FACU Species x 4 = UBL Species x 5
Herb Stratum (Plot size: 5 ft 1. Erigeron strigosus)	20	Yes	FACU	UPL Species x 5 = Column Totals: (A) (B)
Solidago canadensis Trifolium repens		20 20	Yes Yes	FACU FACU	Prevalence Index = B/A =
 Vernonia gigantea Festuca elatior Anthoxanthum odoratum 8. 9. 10. 11 		20 20 10 10	Yes No No	FACU FACU FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

epth	Matrix			Redo	x Featur	es					
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	F	emarks	
0-16	10YR 5/2	95	10`	YR4/4	5	C	PL	SiL			
16-18	10YR 6/4	95	10\	′R 5/6	5	С	PL	SiCL			
lydric Soil Histosol	` '	tion, RM=Re	educed	I Matrix, MS= Dark Surfac Polyvalue E	ce (S7)			`	roblematic H A10) (MLRA 1	ydric S 47)	
Histic E	pipedon (A2)		147, 148) Thin Dark Surface (S9) (MLRA 147, 148)						Coast Prairie Redox (A16) (MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 147,		
Black H	listic (A3)							148)			
Stratifie 2 cm Mi Deplete Thick D Sandy M 147, 14 Sandy G	en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LR 8) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	,		Loamy Gley Depleted M Redox Dark Depleted D Redox Dep Iron-Manga MLRA 136) Umbric Sur Piedmont F 148)	latrix (F3 k Surface lark Surfa ression (anese Ma) face (F1) e (F6) ace (F7) F8) isses (F12 3) (MLRA	136, 122)	Very Shallow	Material (TF2) Dark Surface in in Remarks	e (TF12)	
Stripped	a Matrix (S6)							³ Indicators of Hy wetland hydro unless disturb	ology must be	present	
	_ayer (if observed):										
estrictive L	, (,-										
estrictive L Type:								Hydric Soil			

Remarks:

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 96 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Pond Fringe Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N 38.8374 82.8557 Lat: Long: Datum: NAD 27 OmB - Omulga silt loam, 1 to 8 percent slopes Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? No Are vegetation or Hydrology significantly disturbed? Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 28 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): 2 Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	(A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
1. Salix exigua 2. 3. 4.		10	Yes	OBL	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 =	
Herb Stratum (Plot size: 5 ft)	10	= Total Cover		FACU Species x 4 = UPL Species x 5 =	
Typha latifolia Carex vulpinoidea		85 5	Yes No	OBL OBL	Column Totals: (A)	(B)
3. Leersia oryzoides		5	No	OBL	Prevalence Index = B/A =	
4. 5. 6. 7. 8. 9. 10.					Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separa sheet) Problematic Hydrophytic Vegetation¹ (Exp	
Woody Vine Stratum (Plot size:	30 ft)	95	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog must be present, unless disturbed or problema	
1.					Definitions of Four Vegetation Strata:	
2. 3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7. or more in diameter at breast height (DBH), reformed theight	
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vine less than 3 in. DBH and greater than 3.28 ft (1	
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than tall.	3.28 ft
					Woody vine – All woody vines greater than 3. height.	28 ft in
Remarks: (Include photo number	s here or on a cons	rato shoot)			Hydrophytic Vegetation Present? Yes X No	

The dominant species have a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Depth	Matrix			Redo	x Featu	res					
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Re	emarks	
0-18	10YR 5/2	95	10	YR4/6	5	С	PL	SiL	SiL		
[vne: C−C	Concentration, D=Depl	etion RM-Re	aduced	1 Matriy MS-	- Maska	d Sand Gr	aine	² Location: PL=Pore Li	ning M-M	atriv	
	I Indicators:	<u> </u>			macro	<u> </u>		Indicators for Prob			oils ³ :
Histoso				Dark Surfac	ce (S7)			2 cm Muck (A10)	-		
Histic E	istic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)				Coast Prairie Redox (A16) (MLRA 136, 147)						
Black H	Histic (A3)			Thin Dark S	Surface (S9) (MLR /	A 147, 148)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			MLRA 147
Stratifie 2 cm M Deplete Thick E Sandy 147, 14	pen Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L 18) Gleyed Matrix (S4)	` ,		Loamy Gley Depleted M Redox Dark Depleted Di Redox Dep Iron-Manga MLRA 136) Umbric Sur	atrix (F3	e (F6) ace (F7) (F8) asses (F12	136, 122))
Sandy	Redox (S5)			Piedmont F 148)	loodplai	n Soils (F1	9) (MLRA				
Strippe	d Matrix (S6)			,				³ Indicators of Hydrop wetland hydrolog unless disturbed	y must be p	oresen	
estrictive	Layer (if observed):								•		
Type:											
	(inches):							Hydric Soil	Yes	х	No

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 97

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8373 Long: 82.8559 Datum: NAD 27

Soil Map Unit Name: OmB – Omulga silt loam, 1 to 8 percent slopes NWI Classification:

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area			
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X			
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 28			

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	tors:					
Primary Indicators (minimum	n of one is req	uired; ch	eck a	ll that apply)		Secondary Indicators (minimum of two required
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (B4) Aquatic Fauna (B13)	erial Imagery (I	B7)	F F T	rue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S hin Muck Surface (C7) Other (Explain in Remarks)	, ,	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	X	Depth (inches):		
Water Table Present?	Yes	No	X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes	No	Х	Depth (inches): I, aerial photos, previous inspect		Hydrology Present? Yes No
Remarks:				observation does not satisfy the h		

N/A

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft) 1. 2.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC:	0 (A)
3. 4. 5.				Total Number of Dominant Species Across All Strata:	2 (B)
Sapling/Shrub Stratum (Plot 15 ft) size:		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	0 (A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multipl OBL Species x 1 = FACW Species x 2 = FAC Species x 3 = FACU Species x 4 = UPL Species x 5 =	y by:
Poa pratensis Festuca elatior	40 40	Yes Yes	FACU FACU	Column Totals: (A)	(B)
3. Trifolium repens	10	No	FACU	Prevalence Index = B/A =	
 4. Plantago lanceolata 5. 6. 7. 8. 9. 10. 11 	10	No	UPL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Ve 2 - Dominance Test is > fifty perce 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (F supporting data in Remarks or on sheet) Problematic Hydrophytic Vegetati	getation ent Provide a separate
Woody Vine Stratum (Plot size: 30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland must be present, unless disturbed or	, 0,
1.				Definitions of Four Vegetation Stra	ta:
2. 3. 4. 5.				Tree – Woody plants, excluding vines or more in diameter at breast height (of height	s, 3 in. (7.6 cm) DBH), regardless
6. 7. 8.				Sapling/Shrub – Woody plants, excludes than 3 in. DBH and greater than	
9. 10.		= Total Cover		Herb – All herbaceous (non-woody) pregardless of size, and woody plants tall.	
				Woody vine – All woody vines greate height.	er than 3.28 ft in
December (but the barbers have been been been been been been been be				Hydrophytic Vegetation Present? Yes	No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Redo	ox Featu	res						
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	rks		
0-6	10YR 4/3						SiL				
>6	IMPENETRABLE						Rock				
	Concentration, D=Deple	etion, RM=	-Reduced Matrix, MS	= Maske	d Sand Gr	ains.	² Location: PL=Pore Indicators for Pro				
Histoso	Histosol (A1) Dark Surface (S7)				2 cm Muck (A1	0) (MLRA 147)					
Histic I	Epipedon (A2)		•	Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148)				Coast Prairie Redox (A16) (MLRA 136, 147)			
Black I	Histic (A3)		<i>'</i>					Piedmont Floodplain Soils (F19) (MLRA 147, 148)			
Stratific 2 cm M Deplet Thick I Sandy 147, 14 Sandy Sandy	Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6)				136, 122)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
оттрре	34 Matrix (00)						³ Indicators of Hydro wetland hydrolo unless disturbed	gy must be pres			
Restrictive	Layer (if observed): Ye	s									
Restrictive	Layer (if observed): Ye	s									

Remarks:

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 98 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Pond Fringe Local relief (concave, convex, none): Convex Slope (%): 10 Subregion (LRR or MLRA: LRR N 38.8517 82.8729 Lat: Long: Datum: NAD 27 OmB - Omulga silt loam, 1 to 8 percent slopes Soil Map Unit Name: **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil significantly disturbed? Are "Normal Circumstances" present? Are vegetation or Hydrology No Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 29 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Χ Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes X No Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Dominance rest Worksheet.	
Tice citatum (Flot 3126. 30 ft)	70 OOVC1	Орсскоз:	Otatus	Number of Dominant Species	
1.				That are OBL, FACW, or FAC:	(A)
2.					` '
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
5.					
		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot 15 ft)				That are OBL, FACW, or FAC:	(A/B)
size:					, ,
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species x 1 =	
4.				FACW Species × 2 =	
5.				FAC Species × 3 =	
		= Total Cover		FACU Species x 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species x 5 =	
,		.,	0.01	· '	(5)
1. Carex lurida	50	Yes	OBL	Column Totals: (A)	(B)
2. Leersia oryzoides	30	Yes	OBL		
3. Juncus effusus	10	No	FACW	Prevalence Index = B/A =	
4. Agrostis gigantea	10	No	FACW	Hydrophytic Vegetation Indicators:	
5.				X 1 - Rapid Test for Hydrophytic Vegetation	
6.				2 - Dominance Test is > fifty percent	
7.				3 - Prevalence Index is ≤3.0 ¹	
8.				4 - Morphological Adaptations ¹ (Provide	
				supporting data in Remarks or on a separa	ate
				sheet)	
9.				Problematic Hydrophytic Vegetation ¹ (Exp	lain)
10.					
11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology	
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problema	atic.
1.				Definitions of Four Vegetation Strate.	
				Definitions of Four Vegetation Strata:	
2.				Trae Woody plants evaluding vince 2 in (7	6 om)
3.				Tree – Woody plants, excluding vines, 3 in. (7. or more in diameter at breast height (DBH), red	
4.				• • • • • • • • • • • • • • • • • • • •	yaruless
5.				of height	
6.				Sanling/Shrub Woody plants evaluding vine	20
7.				Sapling/Shrub – Woody plants, excluding vine less than 3 in. DBH and greater than 3.28 ft (1	₹5, ~~\ toll
8.				less than 3 in. DBH and greater than 3.26 it (1	m) tan.
9.				Harb All barbassaus (non woody) plants	
10.				Herb – All herbaceous (non-woody) plants,	2 20 4
		= Total Cover		regardless of size, and woody plants less than	3.28 II
				tall.	
				Woody vine All woody vines greater than 2	20 ft in
				Woody vine – All woody vines greater than 3.3	∠0 II II I
				height.	
				Hadronbadio	
				Hydrophytic	
				Vegetation Present? Yes X No	
Pamarke: (Include photo numbers here or on a senar	roto oboot \				

The dominant species have a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Depth	Matrix			Redo	x Featu	res							
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Texture Remarks				
0-12	2.5Y 4/1	95	10	YR3/4	5	С	PL	SiL	SiL				
>12	IMPENETRABLE							Rock					
	Concentration, D=Depletion of Indicators:	on, RM=F	Reduced	d Matrix, MS=	= Maske	d Sand Gr	ains.	² Location: PL=Pore	Lining, M=Matrix.				
Histos	ol (A1)			Dark Surface	ce (S7)				10) (MLRA 147)				
Histic I	poipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)				Coast Prairie F	Coast Prairie Redox (A16) (MLRA 136, 147)							
Black I	Histic (A3)			Thin Dark S	Surface ((S9) (MLR	A 147, 148)	Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					
Stratifi 2 cm N Deplet Thick I Sandy 147, 1 Sandy	gen Sulfide (A4) led Layers (A5) Muck (A10) (LRR N) led Below Dark Surface (A Dark Surface (A12) Mucky Mineral (S1) (LRF 48) Gleyed Matrix (S4) Redox (S5)	,		Loamy Gley Depleted M Redox Dark Depleted D Redox Dep Iron-Manga MLRA 136) Umbric Sur Piedmont F	atrix (F3	8) e (F6) ace (F7) (F8) asses (F12	136, 122)						
•	ed Matrix (S6)			148)									
	, ,							wetland hydrolo	rophytic vegetation and ogy must be present, d or problematic				
estrictive	Layer (if observed): Yes												
estrictive	,												

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 99

Applicant/Owner: Ohio Department of Transportation
Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8517 Long: 82.8730 Datum: NAD 27

Soil Map Unit Name: OmB – Omulga silt loam, 1 to 8 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Х	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland 29			nd 29

Remarks:

This area satisfies only one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicators									
Primary Indicators (minimum of	one is requ	uired; ch	eck a	ll that apply)		Secondary Indicators	(minimum of t	wo requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Water Stained Leaves (B9) Aquatic Fauna (B13)	g Roots (C3) Soils (C6)	Surface Soil Crac Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Tes	ed Concave Sus (B10) (B16) er Table (C2) (C8) e on Aerial Imaged Plants (D1) (tion (D2) (D3) e Relief (D4)	,	,				
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	Х
Describe Recorded Data (stream Remarks:	n gauge, n	nonitorin	g wel	l, aerial photos, previous inspe	ctions), if availa	able:			

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5.			= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species x 1 = FACW Species x 2 = FAC Species x 3 = FACU Species x 4 =
Herb Stratum (Plot size: 5 ft 1. Festuca elatior)	60	Yes	FACU	UPL Species x 5 = Column Totals: (A) (B)
 Panicum clandestinum Juncus dudleyi 		15 10	No No	FAC FAC	Prevalence Index = B/A =
 4. Asclepias syriaca 5. Asclepias hirtella 6. Vernonia gigantea 7. 8. 9. 10. 11 		5 5 5	No No No	FACU UPL FAC	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.					Definitions of Four Vegetation Strata:
3. 4. 5.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9. 10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix		Red	dox Featui	res				
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-12	2.5Y 4/1	95	10YR3/4	5	С	PL	SiL		
>12	IMPENETRABLE						Rock		
	Concentration, D=Depleti	on, RM=Re	educed Matrix, M	S= Maske	d Sand Gr	ains.	² Location: PL=Pore L		Is ³ :
Histoso	ol (A1)		Dark Surf	ace (S7)			2 cm Muck (A10	•	
Histic E	Epipedon (A2)		Polyvalue 147, 148)		ırface (S8)	(MLRA		dox (A16) (MLRA 1	
Black H	Histic (A3)		Thin Dark	Surface (S9) (MLR	A 147, 148)	Piedmont Floodp 148)	olain Soils (F19) (MI	LRA 147
Stratific 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	Gleyed Matrix (S4) Redox (S5)	,	X Depleted Redox Da Depleted Redox Da Iron-Mana MLRA 13 Umbric S	ark Surface Dark Surfa epression (ganese Ma 6) urface (F1	e) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	(LRR N, 136, 122) 9) (MLRA	Red Parent Mate	rk Surface (TF12)	
Suippe	ed Matrix (S6)						³ Indicators of Hydrop wetland hydrolog unless disturbed	y must be present,	d
estrictive	Layer (if observed): Yes								
estrictive Type:	Layer (if observed): Yes Rock								

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 100 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Convex Slope (%): 10 Subregion (LRR or MLRA: LRR N 38.8501 82.8695 Lat: Long: Datum: NAD 27 Soil Map Unit Name: SfE - Shelocta-Wharton-Latham association, steep **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? Are vegetation or Hydrology significantly disturbed? No Yes Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 30 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes No Χ Depth (inches): Χ Water Table Present? Yes No Depth (inches): Saturation Present? Χ Yes No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Dominance rest Worksheet.	
,	70 0010.	Оросіос.	Otatao	Number of Dominant Species	
1.				That are OBL, FACW, or FAC:	(A)
2.					
3.				Total Number of Dominant	(D)
4.				Species Across All Strata:	(B)
5.		Tatal Cause		Demonst of Deminant County	
Carling (Charle Ctratum (Dist 45 ft)		= Total Cover		Percent of Dominant Species	(A (D)
Sapling/Shrub Stratum (Plot 15 ft) size:				That are OBL, FACW, or FAC:	(A/B)
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species × 1 =	
4.				FACW Species × 2 =	
5.				FAC Species × 3 =	
0.		= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
,		.,	0.01	· '	(5)
1. Carex vulpinoidea	40	Yes	OBL	Column Totals: (A)	(B)
2. Scirpus hattorianus	40	Yes	OBL		
3. Juncus effusus	20	Yes	FACW	Prevalence Index = B/A =	
4.				Hydrophytic Vegetation Indicators:	
5.				X 1 - Rapid Test for Hydrophytic Vegetation	1
6.				2 - Dominance Test is > fifty percent	
7. 8.				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide	
0.				supporting data in Remarks or on a sepa	rato
				sheet)	iale
9.				Problematic Hydrophytic Vegetation ¹ (Ex	(nlain)
10.				1 Toblematic Tryarophytic Vegetation (22	(piairi)
11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolo	av
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problem	
1.				Definitions of Four Vegetation Strata:	
2.				Tree Woody plants evaluding vines 2 in /	7 C am)
3.				Tree – Woody plants, excluding vines, 3 in. (or more in diameter at breast height (DBH), r	
4.				of height	egaruless
5.				or neight	
6.				Sapling/Shrub - Woody plants, excluding vi	nes
7.				less than 3 in. DBH and greater than 3.28 ft (
8.				l loos than 5 km 55 h and groater than 5.25 h	,
9.				Herb – All herbaceous (non-woody) plants,	
10.		T-1-1 0		regardless of size, and woody plants less that	n 3.28 ft
		= Total Cover		tall.	
				Woody vine – All woody vines greater than 3	3.28 ft in
				height.	
				Hydrophytic	
				Vegetation Present? Yes X No	0
Remarks: (Include photo numbers here or on a separ	ata chaat)				

The dominant species have a wetland indicator status of OBL and FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

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

Depth	Matrix			Redo	ox Featur	es						
inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-6	10YR 5/2	95	10`	YR3/4	5	С	PL	SiL				
6-13	10YR 6/4	95	10\	/R 5/6	5	С	PL	SiCL				
	concentration, D=Deple	etion, RM=	Reduced	ł Matrix, MS	= Maske	d Sand Gra	ains.	² Location: P				
•	I Indicators:							Indicators		•		oils ³:
Histoso	l (A1)			Dark Surfa		urfano (CO)	/MIDA	2 cm N	uck (A10)	(MLRA 1	47)	
Histic E	pipedon (A2)			Polyvalue E 147 , 148)	selow Su	mace (So)	(IVILKA	Coast I	Prairie Rec	dox (A16)	(MLRA	136, 147)
Black H	listic (A3)			Thin Dark S	Surface (S9) (MLR /	A 147, 148	Piedmo	nt Floodp	lain Soils ((F19) (I	VILRA 147
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I	Gleyed Matrix (S4)	,		Loamy Gle Depleted M Redox Dari Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sui Piedmont F	Matrix (F3 k Surface Park Surfa Pression (Anese Ma) Iface (F1) e (F6) ace (F7) (F8) asses (F12 3) (MLRA	136, 122)	Red Pa Very S	irent Mate nallow Dar Explain in	k Sùrface)
Sandy I	Redox (S5)			148)	-iooupiaii	1 30llS (F I	9) (IVILKA					
Strippe	d Matrix (S6)			-,					of Hydrop hydrology disturbed o	must be p	present	
Restrictive	Layer (if observed):									•		
Type:	,											
Depth (inches):							Hydrid Pres		Yes	Х	No

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 101

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8500 Long: 82.8695 Datum: NAD 27

SfE - Shelocta-Wharton-Latham association, steep **NWI Classification:** Soil Map Unit Name: Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Х	Is the Sampled Area			
Hydric Soils Present?	Yes	X	No		Within a Wetland?	Yes	No	X
Wetland Hydrology Present?	Yes		No	X		Out Point for V	Netlar	nd 30

Remarks:

This area only satisfies one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicato						I			
Primary Indicators (minimum	of one is req	uired; ch	eck a	Il that apply)		Secondary Indicators	s (minimum of	two requi	red)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Water Stained Leaves (B5) Aquatic Fauna (B13)		(B7)	H C P R T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Liv Presence of Reduced Iron (C- Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	4)	Surface Soil Crac Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave S as (B10) (B16) er Table (C2) s (C8) e on Aerial Im- sed Plants (D' tition (D2) (D3) c Relief (D4)	agery (C9	
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
Describe Recorded Data (stre	am gauge, r	monitorin	g well	l, aerial photos, previous insp	ections), if availa	able:			
Remarks:									

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

N/A

		Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: 30 ft 1. 2.)	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5.	,		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 =
Herb Stratum (Plot size: 5 ft 1. Festuca elatior 2. Dactylis glomerata)	45 45	Yes Yes	FACU FACU	UPL Species × 5 = Column Totals: (A) (B)
3. Trifolium repens 4. 5. 6. 7. 8.		10	No	FACU	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	30 ft)	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
7. 8. 9.			= Total Cover		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft
			- 10141 00001		tall. Woody vine – All woody vines greater than 3.28 ft in height.
Remarks: (Include photo number	es hara or on a sana	rate sheet \			Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Depth	Matrix			Redo	x Featu	res				
(inches)		%	Color	· (moist)	% %	Type ¹	Loc ²	Texture	Rema	arks
0-6		95		YR3/4	5	C	PL	SiL	rtom	ano
6-15		95		YR 5/6	5	C	PL	SiCL		
Hydric Soi Histoso Histic E Black I Hydrog Stratific 2 cm M Deplete Thick E Sandy Sandy	Epipedon (A2) Histic (A3) gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surface (A- Dark Surface (A12) Mucky Mineral (S1) (LRR	11)	х	Dark Surface Polyvalue E 147, 148) Thin Dark S Loamy Gley Depleted M Redox Dark Depleted D Redox Dep Iron-Manga MLRA 136) Umbric Sur Piedmont F 148)	ce (S7) Below Si Burface yed Mat atrix (F; x Surface ark Surf ression nese M face (F1	urface (S8) (S9) (MLRA rix (F2) 3) e (F6) face (F7) (F8) asses (F12	(MLRA A 147, 148)) (LRR N, 136, 122)	Indicators for 2 cm Muck Coast Prain Piedmont F 148) Red Parent Very Shallo Other (Exp	ore Lining, M=Matr Problematic Hydri (A10) (MLRA 147) rie Redox (A16) (MI Floodplain Soils (F1 t Material (TF2) riw Dark Surface (Ti lain in Remarks)	ic Soils ³ : LRA 136, 147) 9) (MLRA 147, F12)
									Irology must be pre rbed or problemation	
										•
Restrictive	Layer (if observed):									
Restrictive Type:	Layer (if observed):									

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 102 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N 38.8497 82.8693 Lat: Long: Datum: NAD 27 Soil Map Unit Name: SfE - Shelocta-Wharton-Latham association, steep **NWI Classification:** N/A Are climatic/hydrologic conditions on the site typical for this time of year? Χ Yes No (If no, explain in Remarks.) Soil Are "Normal Circumstances" present? Are vegetation or Hydrology significantly disturbed? Yes No Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes Χ No Hydric Soils Present? Yes X No Within a Wetland? Yes X No Wetland Hydrology Present? Yes Χ Wetland 31 Nο Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Drainage Patterns (B10) Saturation (A3) Χ Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Other (Explain in Remarks) Iron Deposits (B5) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes Х No Depth (inches): 2 X Water Table Present? Yes No Depth (inches): Saturation Present? Χ Yes No Depth (inches): Wetland Hydrology Present? Yes Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species	
1.				That are OBL, FACW, or FAC:	(A)
2.				That are 652, 17(61), 6117(6.	(, ,)
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
5.		T / 10			
Conline/Chrush Ctrotum (Dlot 15 ft)		= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC:	(A /D)
Sapling/Shrub Stratum (Plot 15 ft) size:				That are OBL, FACW, or FAC.	(A/B)
1.				Prevalence Index Worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL Species x 1 =	
4.				FACW Species × 2 =	
5.		T		FAC Species × 3 =	
Llorb Stratum (Diet aire) Eft		= Total Cover		FACU Species × 4 =	
Herb Stratum (Plot size: 5 ft)				UPL Species × 5 =	
1. Typha angustifolia	40	Yes	OBL	Column Totals: (A)	(B)
2. Scirpus hattorianus	40	Yes	OBL	5 5/4	
3. Juncus effusus	20	Yes	FACW	Prevalence Index = B/A =	
4. 5.				Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation	
6.				2 - Dominance Test is > fifty percent	
7.				3 - Prevalence Index is ≤3.01	
8.				4 - Morphological Adaptations ¹ (Provide	
				supporting data in Remarks or on a separ	ate
				sheet)	
9.				Problematic Hydrophytic Vegetation ¹ (Ex	plain)
10. 11					
	100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolog	ıv
Woody Vine Stratum (Plot size: 30 ft)				must be present, unless disturbed or problem	
4				Definitions of Four Venetation Strate.	
1. 2.				Definitions of Four Vegetation Strata:	
3.				Tree – Woody plants, excluding vines, 3 in. (7	7.6 cm)
4.				or more in diameter at breast height (DBH), re	
5.				of height	
6.					
7.				Sapling/Shrub – Woody plants, excluding vin	
8.				less than 3 in. DBH and greater than 3.28 ft (1	ı m) talı.
9.				Herb – All herbaceous (non-woody) plants,	
10.		T		regardless of size, and woody plants less than	n 3.28 ft
		= Total Cover		tall.	
				Woody vine – All woody vines greater than 3	.28 ft in
				height.	
				Hydrophytic	
				Vegetation Present? Yes X No)

The dominant species have a wetland indicator status of OBL and FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

Profile Des	rofile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix			Redox	(Featu	res						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture		Re	emarks	
0-7	10YR 5/2	95	10	′R 4/4	5	С	PL	SiCL				
>7	IMPENETRABLE							Rock				
	concentration, D=Deplet	ion, RM=R	Reduced	l Matrix, MS=	Maske	d Sand Gr	ains.	² Location: PL=				
•	I Indicators:								Indicators for Problematic Hydric Soils ³ :			
Histoso	l (A1)			Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148)				2 cm Mu	ck (A10) (MLRA 14	47)	
Histic E	pipedon (A2)									, ,	•	136, 147)
Black H	listic (A3)							Piedmon 148)	t Floodpla	iin Soils ((F19) (I	MLRA 147,
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I Sandy I	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface (lark Surface (A12) Mucky Mineral (S1) (LR 8) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	,						Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks))	
								³ Indicators of wetland h unless dis	ydrology i	must be p	present	
	Layer (if observed): Yes	5										
Type:	Rock											
Depth (Depth (inches): 7								Soil it?	Yes	Х	No

Remarks:

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

6.2.11 to Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation OH Sampling Point: 103 State:

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N 38.8497 Long: 82.8693 Datum: NAD 27 Lat: SfE - Shelocta-Wharton-Latham association, steep **NWI Classification:**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Χ No (If no, explain in Remarks.)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 31

Remarks:

Soil Map Unit Name:

This area only satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water (A1) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Staturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Water Table Present? Yes No X Depth (inches):	Wetland Hydrology Indicat						1
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Ves No X Depth (inches): Water Table Present? Yes No X Depth (inches): Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Remarks:	Primary Indicators (minimum	of one is req	uired; ch	eck a	ll that apply)		Secondary Indicators (minimum of two required)
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E		B7)	` ,	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)		
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Field Observations:						
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water Present?	Yes	No	X	Depth (inches):		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Present?	ater Table Present? Yes No X Depth (inches):					
Remarks:	(includes capillary fringe)						,
		s were not ob	served.	This c	bservation does not satisfy the h	nydrology crite	erion.

N/A

Tree Stratum (Plot size: 30 ft	\	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. Pinus virginiana	,	20	Yes	UPL	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
2. 3. 4. 5.					Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size:	15 ft)	20	= Total Cover		Percent of Dominant Species That are OBL, FACW, or FAC: 0 (A/B)
1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cover		Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL Species × 1 = FACW Species × 2 = FAC Species × 3 = FACU Species × 4 = UPL Species × 5 =
Festuca elatior Carex hirtifolia		20 15	Yes No	FACU UPL	Column Totals: (A) (B)
3. Penstemon digitalis		10	No No	FAC UPL	Prevalence Index = B/A =
 4. Daucus carota 5. Solidago juncea 6. Rudbeckia hirta 7. Trifolium campestre 8. 9. 		10 10 10 5	No No No No	UPL FACU UPL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > fifty percent 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
10. 11 Woody Vine Stratum (Plot size:	30 ft)	80	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. 3. 4. 5.					Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
6. 7. 8. 9.					Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10.			= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
					Woody vine – All woody vines greater than 3.28 ft in height.
					Hydrophytic Vegetation Present? Yes No X

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

Profile Des	ofile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Re	dox Featu	res						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	marks		
0-6	10YR 5/6						SiCL w/ Gravel				
>6	IMPENETRABLE						Graver				
70	IWI LINETIVADLE										
¹ Type: C=C	Concentration, D=Deple	etion, RM=	Reduced Matrix, M	S= Maske	ed Sand Gr	ains.	² Location: PL=Por	e Lining, M=Ma	atrix.		
Hydric Soi	I Indicators:						Indicators for P	roblematic Hy	dric Soils 3:		
Histoso	ol (A1)			Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148)			2 cm Muck (A	A10) (MLRA 14	7)		
Histic E	pipedon (A2)						Coast Prairie	Redox (A16) (MLRA 136, 14	17)	
Black H	Histic (A3)		Thin Dar	Thin Dark Surface (S9) (MLRA 147, 148)				odplain Soils (F	=19) (MLRA 1	47,	
Stratifie 2 cm M Deplete Thick D Sandy 147, 14 Sandy Sandy	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LI 18) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	, ,	Depleted Redox D Depleted Redox D Iron-Man MLRA 13 Umbric S	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA			Very Shallow Other (Explai	Material (TF2) Dark Surface (n in Remarks)			
	(2-7)							drophytic veget logy must be p led or problema	resent,		
Restrictive	Layer (if observed): Ye	s									
Type:	Rock										
Depth (Depth (inches): 6						Hydric Soil Present?	Yes	No	Х	
Remarks:											

Remarks:

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 7.21.11 Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 104 Investigator(s): Len Mikles, Jason Earley, and Richard Paul Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA: LRR N Lat: 38.8643 Long: 82.8962 Datum: NAD 27 Soil Map Unit Name: MoC2 - Monongahela silt loam, 8 to 15 percent slopes, eroded **NWI Classification:** N/A Χ Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks.) Yes No Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Χ No Are vegetation or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Soil SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No Is the Sampled Area Hydric Soils Present? Yes Х Nο Within a Wetland? Yes Χ No Χ Wetland 32 Wetland Hydrology Present? Yes No Remarks: This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water(A1) True Aquatic Plants (B14) Surface Soil Cracks (B6) Hydrogen Sulfide Odor (C1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Χ Drainage Patterns (B10) Water Marks (B1) Presence of Reduced Iron (C4) Moss Trim Lines (B16) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Drift Deposits (B3) Algal Mat or Crust (B4) Other (Explain in Remarks) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Water Stained Leaves (B9) Shallow Aquitard (D3) Aquatic Fauna (B13) Microtopographic Relief (D4) FAC-Neutral Test (D5) **Field Observations:** Surface Water Present? Yes Х No Depth (inches): 2 Water Table Present? Yes Χ No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes Х No Х No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology indicators were observed. This observation satisfies the hydrology criterion.

6.2.11 to

Tree Stratum (Plot size: 30 ft 9% Cover Species? Status		Absolute	Dominant	Indicator	Dominance Test Worksheet:	
1. 2. 3. 4. 5. 5. 5. 5. 5. 6. 7. 7. 7. 7. 7. 7. 7	Tree Stratum (Plot size: 30 ft)				Dominance rest Worksheet.	
2. 4. 4. 5. Sapling/Shrub Stratum (Plot size: 5 ft)	Tice citatum (1 lot 312c. 30 lt)	70 OOVC1	Орсскоз:	Otatus		
2. 4. 4. 5. Sapling/Shrub Stratum (Plot size: 5 ft)	1.				That are OBL, FACW, or FAC:	(A)
Spaling/Shrub Stratum (Plot 15 ft) Sapling/Shrub Stratum (Plot 15 ft) Sapling/Shrub Stratum (Plot 35 ft) Sapling/Shrub Stratum (Plot 36 ft) Learning (Plot 37 ft) Learning (Plot 38 ft) Le	2.					, ,
Sapling/Shrub Stratum (Plot size: 5 ft) 1. Learsia oryzoides 70 Yes OBL 2. Carex Lurida 20 Yes OBL 4. Impatiens capensis 5 No FACW 1. Rapiders Capensis 5. N	3.				Total Number of Dominant	
Sapling/Shrub Stratum (Plot 15 ft) Size: 1. 2. 3. 4. 5. Heft Stratum (Plot size: 5 ft) 1. Leersia oryzoides 2 70 Yes OBL 2 Corex kunda 3. Boohmeria cylindrica 5 No FACW 1. Impatiens capensis 5 No FACW 2. Carex kunda 6 No FACW 2. Carex kunda 7 No FACW 3. Boohmeria cylindrica 8 No FACW 4. Impatiens capensis 5 No FACW 4. Impatiens capensis 5 No FACW 5. No FACW 4. Impatiens capensis 5 No FACW 5. No FACW 4. Impatiens capensis 5 No FACW 5. No FACW 6. Prevalence Index is Six (A) (B) 7. No FACW 7. No FACW 7. No FACW 8. Prevalence Index is Six (A) (B) 8. Prevalence Index is Six (A) (B) 8. Prevalence Index is Six (A) (B) 9. Providence Index is Six (A) (B) 10. Impatiens capensis 10 No FACW 11. Impatiens capensis 10 No FACW 12. Impatiens capensis 10 No FACW 13. Impatiens capensis 10 No FACW 14. Impatiens capensis 10 No FACW 15. No FACW 16. Prevalence Index is Six (A) (B) 16. Prevalence Index is Six (A) (B) 17. Impatiens capensis 10 No FACW 18. Prevalence Index is Six (A) (B) 18. Prevalence Index is Six (A) (B) 19. Impatient 10 No FACW 19. Impatient 10 No FACW 10 No FACW 10 No FACW 11 No FACW 11 No FACW 11 No FACW 11 No Provide salt in Medicators: 11 No Prevalence Index is Six (A) (B) 12 No FACW 13 No Prevalence Index is Six (A) (B) 14 No Prevalence Index is Six (A) (B) 15 No FACW 16 No FACW 17 No Prevalence Index is Six (A) (B) 18 No FACW 19 No FACW 10 No Provide salt in Medicators: 10 No Provide salt in Medicators: 10 No Provide salt in Medicators: 11 No Prevalence Index is Six (A) (B) 12 No Prevalence Index is No Provide salt in Medicators: 13	4.				Species Across All Strata:	(B)
That are OBL, FACW, or FAC: (A/B)	5.				·	
That are OBL, FACW, or FAC: (A/B)			= Total Cover		Percent of Dominant Species	
1.	Sapling/Shrub Stratum (Plot 15 ft)					(A/B)
2.	size:					` ,
2.	1.				Prevalence Index Worksheet:	
3.						
## FACW Species					1,7,7	
FAC Species x 3 = FAC Species x 4 = UPL Species x 5 = 1. Leersla oryzoides 20 Yes OBL 20 FACW species x 5 = 0. Column Totals: (A) (B) 20 FACW 4. Impatiens capensis 5 No FACW 4. Impatiens capensis 5 No FACW 5. No FACW 7. Rapid Test for Hydrophytic Vegetation 10. 11 Problematic Plyrophytic Vegetation (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 10. 11 Problematic Plyrophytic Vegetation Strata: 10. 11 Problematic Plain 10. 11 Problematic Plyrophytic Vegetation Strata: 10. 11 Problematic Plain 10. 11 Problematic Plain 10. 11 Problematic Plyrophytic Vegetation Strata: 10. 11 Problematic Plain 10. 11 Problema						
## Stratum (Plot size: 5 ft) 1. Leersia oryzoides						
Leersla oryzoides			= Total Cover			
1. Leersia oryzoides 2. Carex Jurida 2. Carex Jurida 2. Carex Jurida 3. Boehmeria cylindrica 4. Impatiens capensis 5. No FACW 4. Impatiens capensis 5. No FACW 6. The prevalence Index = B/A = Hydrophytic Vegetation Indicators: 7.	Herb Stratum (Plot size: 5 ft)					
2. Carex lurida 2. Definitions of periodica 3. Boehmeria cylindrica 4. Impatiens capensis 5. No FACW 5. No FACW 6. Tapatiens capensis 7. No FACW 7. Rapid Test for Hydrophytic Vegetation Indicators: 8. Tapati Test for Hydrophytic Vegetation Indicators: 9. The control of the co					· ·	
3. Boehmeria cylindrica 4. Impatiens capensis 5. No FACW Impatiens capensis 5. No FACW Impatiens capensis 5. No FACW 1. Replid Test for Hydrophytic Vegetation 6. 2 Dominance Test is > fifty percent 7. 3 - Prevalence Index is < 3.0 ft 9. 10. 10. 11 10. 10. 10. 11 11 10. 10. 10. 10. 11 11 11 12. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	•	-		-	Column Totals: (A)	(B)
4. Impatiens capensis 5. No FACW 5. Carried and the second of the state of the second				-		
5. 6. 6. 7. 8. 9. 100 = Total Cover Woody Vine Stratum (Plot size: 30 ft) 1. 2. 3. 3. 4. 6. 7. 8. 9. 100 = Total Cover Woody Vine Stratum (Plot size: 30 ft) 1. 2. 3. 4. Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) "Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree — Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/Shrub — Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb — All herbaceous (non-woody) plants, regardless of size, and woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	3. Boehmeria cylindrica	5	No	FACW		
6. 7. 8. 9. 9. Woody Vine Stratum (Plot size: 30 ft) 10 11 2. 3. 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 10 11 11 2. 3. 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1. 2. 3. 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1. 2. 3. 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic vegetation¹ (Explain) 1. 2. 3. 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic vegetation¹ (Explain) 1. 2. 3. Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height 3. Prevalence Index is \$3.0¹ 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic vegetation \$1	4. Impatiens capensis	5	No	FACW	Hydrophytic Vegetation Indicators:	
7. 8. 3 - Prevalence Index is s3.0 1 4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet) 9. 10. 111 Woody Vine Stratum (Plot size: 30 ft) 100 = Total Cover Woody Vine Stratum (Plot size: 30 ft) 100 = Total Cover Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height 9. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	5.				X 1 - Rapid Test for Hydrophytic Vegetation	า
7. 8. 3 - Prevalence Index is s3.0 1 4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet) 9. 10. 111 Woody Vine Stratum (Plot size: 30 ft) 100 = Total Cover Woody Vine Stratum (Plot size: 30 ft) 100 = Total Cover Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height 9. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	6.				2 - Dominance Test is > fifty percent	
9. 10. 11 100 = Total Cover Woody Vine Stratum (Plot size: 30 ft) 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 10. 10. 10. 10. 10. 10. 10. 10. 11. 2. 3. 4. 4. 5. 6. 7. 8. 9. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	7.					
9. 10. 11 100 = Total Cover Woody Vine Stratum (Plot size: 30 ft) 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 10. 10. 10. 10. 10. 10. 10. 10. 11. 2. 3. 4. 4. 5. 6. 7. 8. 9. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	8.				4 - Morphological Adaptations ¹ (Provide	
9. 10. 11 Woody Vine Stratum (Plot size: 30 ft) 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 10. 9. 10. 10. 11. 2. 4. 5. 6. 7. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10					supporting data in Remarks or on a sepa	rate
10. 11						
11	9.				Problematic Hydrophytic Vegetation ¹ (Ex	(plain)
Moody Vine Stratum (Plot size: 30 ft) 100	10.					. ,
Moody Vine Stratum (Plot size: 30 ft) 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. = Total Cover must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No						
Woody Vine Stratum (Plot size: 30 ft) must be present, unless disturbed or problematic. 1. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height 6. 7. 8. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No		100	= Total Cover		¹ Indicators of hydric soil and wetland hydrolo	qv
Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	Woody Vine Stratum (Plot size: 30 ft)					
2. 3. 4. 5. 6. 7. 8. 9. 10. = Total Cover Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	,					
3. 4. 5. 6. 7. 8. 9. 10. = Total Cover Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No					Definitions of Four Vegetation Strata:	
4. 5. 6. 7. 8. 9. 10. = Total Cover Total Cover Total Cover or more in diameter at breast height (DBH), regardless of height Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	2.					
5. 6. 7. 8. 9. 10. = Total Cover Total Cover of height Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	3.					
Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	4.				G (/·	egardless
7. 8. 9. 10. = Total Cover Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	5.				of height	
less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	6.					
8. 9. 10. = Total Cover Less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	7.					
9. 10. = Total Cover Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No					less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10. = Total Cover Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No						
= Total Cover Total Cover Tegardless of size, and woody plants less than 3.28 ft tall.					Herb – All herbaceous (non-woody) plants,	
Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes X No	10.		- Total Cover			ın 3.28 ft
height. Hydrophytic Vegetation Present? Yes X No			= Total Cover		tall.	
height. Hydrophytic Vegetation Present? Yes X No						
Hydrophytic Vegetation Present? Yes X No					Woody vine – All woody vines greater than 3	3.28 ft in
Vegetation Present? Yes X No					height.	
Vegetation Present? Yes X No						
Vegetation Present? Yes X No					Hudronbudio	
					myaropnytic	_
					vegetation Present? Yes X No	ס
	Pamarks: (Include photo numbers here or on a separ	-4b(\			1	

The dominant species have a wetland indicator status of OBL. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

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

Depth	Matrix		Red	ox Featu	eatures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	S
0-11	10YR 4/1	95	10YR 4/6	5	С	PL	SiCL			
>11	IMPENETRABLE						Rock			
	Concentration, D=Deple	tion, RM=	Reduced Matrix, MS	= Maske	d Sand Gr	ains.		=Pore Lining, M		2
•	I Indicators:							or Problemation	•	Soils 3:
Histoso	ol (A1)		Dark Surfa		urfano (CO)	/MIDA	2 cm Mu	ck (A10) (MLR	A 147)	
Histic E	Epipedon (A2)		Polyvalue 147, 148)	Below St	лпасе (58)	(WLKA	Coast Pr	airie Redox (A	6) (MLR	A 136, 147)
Black H	listic (A3)		Thin Dark	Surface ((S9) (MLR	A 147, 148	Piedmor	t Floodplain Sc	ils (F19) ((MLRA 147,
Stratifie 2 cm M Deplete Thick D Sandy I 147, 14 Sandy I	en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface bark Surface (A12) Mucky Mineral (S1) (LF 18) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	` ,	X Depleted Medox Dan Depleted I Redox Depleted I Redox Depleted Iron-Mang MLRA 136 Umbric Su	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA				Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
	, ,						wetland h	f Hydrophytic v lydrology must sturbed or prob	be preser	
Restrictive I	Layer (if observed): Ye	<u></u>								
Type:	Rock									
Depth (Depth (inches): 11							Soil nt?	s X	No

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 105

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5

Subregion (LRR or MLRA: LRR N Lat: 38.8643 Long: 82.8961 Datum: NAD 27
Soil Map Unit Name: MoC2 – Monongahela silt loam. 8 to 15 percent slopes, eroded NWI Classification: N/A

Soil Map Unit Name: MoC2 – Monongahela silt loam, 8 to 15 percent slopes, eroded NWI Classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 32

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	tors:								
Primary Indicators (minimum of one is required; check all that apply)						Secondary Indicators (minimum of two required)			
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)				Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)				
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)							Yes	No	X
Remarks:									
Tronaire Hydrology maleures.				bservation does not satisfy the h	, and a gy and				

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

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 105

Profile Des	scription: (Describe to the	e depth need	ded to docum	ent the i	indicator o	or confirm t	ne absence of indicator	rs.)			
Depth	Matrix		Redo	x Featu	res						
inches)	Color (moist)	6 Col	or (moist)	%	Type ¹	Loc ²	Texture	Rema	arks		
0-4	10YR 3/3						SiL w/ Gravel				
>4	IMPENETRABLE										
1T	Name and the D. Danielian	DM Darker	- d Marcha MO	Maralia	-1.01.0	_1	21 (' D) - D 1 '	udu u NA NASIN			
	Concentration, D=Depletion I Indicators:	, RIVI=Reduc	ed Matrix, MS:	= iviaske	a Sana Gr	ains.	Location: PL=Pore Li				
Histoso			Dark Surfa	ce (S7)				•	c oons .		
	,		Polyvalue E		urface (S8)	(MLRA	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 136, 147)				
HISTICE	Epipedon (A2)		147, 148)					, , ,	•	•	
Black F	listic (A3)		Thin Dark S	Surface ((S9) (MLR	A 147, 148)	Piedmont Floodp 148)	lain Soils (F19	9) (MLRA 1 4	1 7,	
	en Sulfide (A4)		Loamy Gle				Red Parent Mate				
	ed Layers (A5)		Depleted M	,	,		Very Shallow Da		F12)		
	luck (A10) (LRR N) ed Below Dark Surface (A1	1)	Redox Darl Depleted D				Other (Explain in	Remarks)			
	Park Surface (A12)	1)	Redox Dep								
Sandy	Mucky Mineral (S1) (LRR I	N, MLRA	Iron-Manga	inese Ma) (LRR N,					
147, 14			MLRA 136		2) (MI D A	400 400\					
,	Gleyed Matrix (S4)		Umbric Sur Piedmont F								
Sandy	Redox (S5)		148)	.ooup.u.		o, (
Strippe	d Matrix (S6)						3				
							³ Indicators of Hydrop wetland hydrology				
							unless disturbed	, ,	,		
Restrictive	Layer (if observed): Yes										
Type:	Rock										
Depth ((inches): 4						Hydric Soil Present?	Yes	No		
Remarks:											

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 9.13.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 106

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Pond Fringe Local relief (concave, convex, none): Concave Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8502 Long: 82.8699 Datum: NAD 27
Soil Map Unit Name: SfE – Shelocta-Wharton-Latham association, steep NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydroph	ytic Vegetation Present?	Yes	X	No	Is the Sampled Area
Hydric S	oils Present?	Yes	X	No	Within a Wetland? Yes X No
Wetland	Hydrology Present?	Yes	X	No	Wetland 33

Remarks:

This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

HYDROLOGY

Wetland Hydrology Indicator	rs:							
Primary Indicators (minimum o	of one is r	equir	ed; ch	ieck a	all that apply)			Secondary Indicators (minimum of two required)
Surface Water(A1) High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water Stained Leaves (B9 Aquatic Fauna (B13)		у (В7	')	F F T	True Aquatic Plants (Hydrogen Sulfide Od Oxidized Rhizospher Presence of Reduced Recent Iron Reductic Thin Muck Surface (O Other (Explain in Rer	dor (Ć1) res on Living I d Iron (C4) on in Tilled Sc C7)	, ,	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:								
Surface Water Present?	Yes			Х	Depth (inches):			
Water Table Present?	Yes		No	Х	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes	Х	No		Depth (inches):	2		lydrology Present? Yes X No
Remarks: Wetland hydrology indicators v								aute.

30 ft

Tree Stratum (Plot size:

2.						That are OBL, FACW, OFF	AC.	(A)
3.						Total Number of Dominant		
4. 5.						Species Across All Strata:		(B)
Sapling/Shrub Stratum (Plot	15 ft)		= Total Cov	er	Percent of Dominant Spec That are OBL, FACW, or F		(A/B
size: 1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft 1. Eleocharis obtusa 2. Polygonum pennsylvanica)		40 40	= Total Cov Yes Yes	rer OBL facw	Prevalence Index Works Total % Cover of: OBL Species FACW Species FAC Species FACU Species UPL Species Column Totals:	Multiply by: × 1 = × 2 = × 3 = × 4 = × 5 = (A)	(B)
3. 4. 5. 6. 7. 8.						Prevalence Index = Hydrophytic Vegetation X 1 - Rapid Test for Hyd 2 - Dominance Test is 3 - Prevalence Index is 4 - Morphological Adal supporting data in Rer sheet) Problematic Hydrophy	Indicators: rophytic Vegetation > fifty percent s ≤3.0¹ ptations¹ (Provide narks or on a separ	rate
10. 11 Woody Vine Stratum (Plot size: 1. 2. 3. 4.	30 ft)	80	= Total Cov	er	¹ Indicators of hydric soil ar must be present, unless di Definitions of Four Vege Tree – Woody plants, excl or more in diameter at bre	nd wetland hydrolog isturbed or problem tation Strata: luding vines, 3 in. (7	gy atic. 7.6 cm)
5. 6. 7. 8. 9.				= Total Cov	er	of height Sapling/Shrub – Woody pless than 3 in. DBH and gr Herb – All herbaceous (no regardless of size, and wo tall. Woody vine – All woody wheight.	plants, excluding vir reater than 3.28 ft (* on-woody) plants, ody plants less than	nes, 1 m) tall n 3.28 f
1						Hydrophytic		

Absolute

% Cover

Dominant

Species?

Indicator

Status

Vegetation Strata:

Vegetation Present? Yes Χ No

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

The dominant species have a wetland indicator status of OBL and FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

SOIL Sampling Point: 106

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

Depth	Matrix		Redox F	eatures								
inches)	Color (moist)	%	Color (m	noist)	%	Type ¹	Loc ²	Texture	Rema	arks		
18	10YR 5/2	95	10YR3/4		5	С	PL	SiL				
	Concentration, D=De	nlation PN	1-Poduco	d Matrix MS.	– Macke	od Sand G	raine	² Location: F	DI _Doro I	ining M-M	latriy	
	il Indicators:	pietion, ran	/i=i\educed	u Matrix, Mo-	- Maske	u Sanu C	italiis.			blematic Hy		ioile ³ ·
Histoso				Dark Surfa						0) (MLRA 1		
Histic E	Epipedon (A2)			Polyvalue E 147. 148)	Below S	urface (S8	B) (MLRA	Coast	Prairie R	edox (A16)	(MLRA	A 136, 147)
Black H	Histic (A3)			, -,	Surface	(S9) (MLF	RA 147, 148	Piedm 148)	ont Flood	Iplain Soils	(F19) (MLRA 147,
Stratifie 2 cm M Deplete Thick D Sandy 147, 14	gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surfa Dark Surface (A12) Mucky Mineral (S1) 18) Gleyed Matrix (S4)	,	X	Loamy Gle Depleted M Redox Darl Depleted D Redox Dep Iron-Manga MLRA 136 Umbric Sur	latrix (F3 k Surfactark Surfactark Surfactare eression enese M	3) e (F6) face (F7) (F8) asses (F1	, ,	Red P Very S	Shallow D	terial (TF2) ark Surface n Remarks))
Sandy	Redox (S5)			Piedmont F 148)	loodpla	in Soils (F	19) (MLRA					
Strippe	ed Matrix (S6)			- 1-5,				wetlan	d hydrolog	ophytic vege gy must be I or problem	presen	
estrictive	Layer (if observed):									'		
Type:									_			
	(inches):							Hydric So	oil	Yes	X	No

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 6.2.11 to 7.21.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 107

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8803 Long: 82.8698 Datum: NAD 27
Soil Map Unit Name: SfE – Shelocta-Wharton-Latham association, steep NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland 33

Remarks:

This area only satisfies one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required;	che	ck all	I that apply)	Secondary Indicators (minimum of two required)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13)		H O P R TI	rue Aquatic Plants (B14) ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living Roots (C3) resence of Reduced Iron (C4) ecent Iron Reduction in Tilled Soils (C6) hin Muck Surface (C7) ther (Explain in Remarks)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present? Yes No	0	Χ	Depth (inches):	

Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes No X Depth (inches):
Saturation Present? Yes No X Depth (inches):

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

Yes

No X

Wetland Hydrology Present?

15 ft

30 ft

Tree Stratum (Plot size:

Sapling/Shrub Stratum (Plot

Herb Stratum (Plot size:

Festuca elatior

Dactylis glomerata

Trifolium repens

2. 3.

4.

5.

size:

1. 2.

3.

4.

5.

1.

2.

3.

4. 5.

6. 7.

8.

Absolute

% Cover

45

45

10

Dominant

Species?

= Total Cover

= Total Cover

= Total Cover

Yes

Yes

Nο

Status

FACU

facu

facu

9. 10. 11 <u>Woody Vine Stratum</u> (Plot size:	30 ft)	100	= Total Cover
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes

X No

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

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 107

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

Depth	Matrix		Redox F	eatures								
inches)	Color (moist)	%	Color (m	noist)	%	Type ¹	Loc ²	Texture	Rema	arks	-	
18	10YR 5/2	95	10YR3/4	ı	5	С	PL	SiL				
	Concentration, D=De	epletion, RI	M=Reduced	d Matrix, MS	= Maske	ed Sand G	rains.	² Location: Indicators		Lining, M=M blematic H		Soils ³ :
Histoso				Dark Surfa	ce (S7)					0) (MLRA 1	•	
	Epipedon (A2)			Polyvalue 147, 148)		urface (S8) (MLRA	Coast	Prairie R	edox (A16)	, (MLR)	A 136, 147)
Hydrog Stratific 2 cm M Deplete Thick E Sandy 147, 14 Sandy Sandy	Histic (A3) yen Sulfide (A4) ed Layers (A5) fuck (A10) (LRR N) ed Below Dark Surfa Dark Surface (A12) Mucky Mineral (S1) 48) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6)	, ,		Loamy Gle Depleted M Redox Dar Depleted E Redox Dep Iron-Manga MLRA 136 Umbric Su	yed Mat Matrix (F: k Surfac Dark Surf Dression anese M () rface (F'	rix (F2) 3) ee (F6) face (F7) (F8) asses (F1	2) (LRR N, 136, 122) 19) (MLRA	148) Red P Very S Other	arent Ma hallow D (Explain	terial (TF2) ark Surface in Remarks)	(TF12)	and
										gy must be I or problem		ıt,
	Layer (if observed):											
Type:												
	(inches):							Hydric Sc	II	Yes	Х	No

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 9.13.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 108

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA: LRR N Lat: 38.8540 Long: 82.8826 Datum: NAD 27

Soil Map Unit Name: OmB – Omulga silt loam, 1 to 8 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	Х	No	Is the Sampled Area
Hydric Soils Present?	Yes	X	No	Within a Wetland? Yes X No
Wetland Hydrology Present?	Yes	X	No	Wetland 34

Remarks:

This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:					
Primary Indicators (minimum	of one is req	uired; ch	eck a	Ill that apply)		Secondary Indicators (minimum of two required)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)		Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C Dxidized Rhizospheres on Presence of Reduced Iron Recent Iron Reduction in Fhin Muck Surface (C7) Other (Explain in Remarks	1) Living Roots (C3) (C4) Filled Soils (C6)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	X	Depth (inches):		
Water Table Present?	Yes	No	X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	ydrology Present? Yes X No
Describe Recorded Data (str Remarks:	eam gauge, r	nonitorin	g wel	l, aerial photos, previous	inspections), if availa	ble:
Wetland hydrology indicators	s were observ	ed. This	obse	ervation satisfies the hydro	ology criterion.	

30 ft

Tree Stratum (Plot size:

1. 2. 3. 4. 5.					= Total Cove	
	apling/Shrub Stratum (Plot re:	15 ft)			
ш.	orb Stratum (Diat aiza: Eft	\			= Total Cov	er
1. 2. 3. 4. 5. 6. 7.	erb Stratum (Plot size: 5 ft Impatiens capensis Eupatorium perfoliatum Polygonum pensylvanicum Bidens frondosa Boehmeria cylindrica)		20 20 20 20 20 20	Yes Yes Yes Yes Yes	facw facw facw FACW facw
9. 10 11 <u>W</u> 1. 2. 3. 4. 5.		30 ft)	80	= Total Cove	er
6. 7. 8. 9.					= Total Cove	er

Absolute

% Cover

Dominant

Species?

Indicator

Status

Prevalence Index = B/A = Hydrophytic Vegetation Indicators:

Column Totals:

- X 1 Rapid Test for Hydrophytic Vegetation
 - 2 Dominance Test is > fifty percent
 - 3 Prevalence Index is ≤3.01
 - 4 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

(A)

(B)

Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic

Vegetation Present? Yes X No

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

The dominant species have a wetland indicator status of FACW. This observation satisfies the Rapid Test for Hydrophytic Vegetation.

SOIL Sampling Point: 108

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

Depth	Matrix		Redox F	eatures								
inches)	Color (moist)	%	Color (m	noist)	%	Type ¹	Loc ²	Texture	Rema	arks		
18	10YR 5/2	95	10YR3/4		5	С	PL	SiL				
	Concentration, D=De	epletion, RI	M=Reduced	d Matrix, MS	S= Maske	ed Sand G	rains.	² Location: Indicators		_ining, M=M blematic Hv		Soils 3.
Histoso				Dark Surfa	ce (S7)) (MLRA 1		
	Epipedon (A2)			Polyvalue 147, 148)		urface (S8) (MLRA		`	, ,	,	A 136, 147)
Hydrog Stratifie 2 cm M Deplete Thick E Sandy 147 , 14 Sandy Sandy	Histic (A3) gen Sulfide (A4) ed Layers (A5) fluck (A10) (LRR N) ed Below Dark Surfa Dark Surface (A12) Mucky Mineral (S1) 48) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6)	, ,		Loamy Gle Depleted N Redox Dan Depleted I Redox Depleton-Mang MLRA 136 Umbric Su	eyed Mat Matrix (F: rk Surfac Dark Surf pression anese M b) Irface (F'	rix (F2) 3) ee (F6) face (F7) (F8) asses (F1	2) (LRR N, 136, 122) 19) (MLRA	148) Red P Very S Other	arent Mat hallow Da (Explain ii	plain Soils erial (TF2) ark Surface n Remarks) phytic vege gy must be	(TF12	and
	Lavar (# abaar 1)									or problem		ιι,
	Layer (if observed):											
Type:								Hydric Sc	.ii			
	(inches):							i invalle ac	111	Yes	Х	No

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 9.13.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 109

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Level Slope (%):

Subregion (LRR or MLRA: LRR N Lat: 38.8540 Long: 82.8828 Datum: NAD 27

Soil Map Unit Name: OmB - Omulga silt loam, 1 to 8 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

 $\hbox{Are vegetation} \qquad \hbox{,} \qquad \hbox{or Hydrology} \qquad \hbox{significantly disturbed?} \qquad \hbox{Are "Normal Circumstances" present?} \qquad \hbox{Yes} \qquad \hbox{X} \qquad \hbox{Normal Circumstances" present?}$

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	Х	Is the Sampled Area
Hydric Soils Present?	Yes	X	No		Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes		No	X	Out Point for Wetland 34

Remarks:

This area only satisfies one of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicato	ors:								
Primary Indicators (minimum	of one is req	uired; ch	eck a	II that apply)		Secondary Indicators	(minimum of	two requi	ired)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)		B7)	F F T	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Livit Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks))	Surface Soil Crac Sparsely Vegetat Drainage Pattern Moss Trim Lines Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Tes	ted Concave S is (B10) (B16) er Table (C2) s (C8) e on Aerial Ima sed Plants (D1 tition (D2) (D3) c Relief (D4)	agery (C9	
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):					
Water Table Present?	Yes	No	X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present?	Yes	No	X
	eam gauge, r	nonitorin	g wel	l, aerial photos, previous inspe	ections), if availa	able:			
Remarks:									
Wetland hydrology indicators	were not obs	served.	This c	bservation does not satisfy the	e hydrology crite	erion.			

15 ft

)

30 ft

Tree Stratum (Plot size:

Sapling/Shrub Stratum (Plot

Herb Stratum (Plot size:

Festuca elatior

Dactylis glomerata

2. 3.

4.

5.

size:

1. 2.

3.

4.

5.

1.

2.

3.

4. 5.

6. 7.

8.

Absolute

% Cover

50

Dominant

Species?

= Total Cover

= Total Cover

Yes

Yes

Status

FACU

facu

9. 10. 11 <u>Woody Vine Stratum</u> (Plot size:	30 ft)	100	= Total Cover
1. 2. 3.				
4. 5. 6.				
7. 8. 9.				
10.				= Total Cover

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic

Yes **Vegetation Present?** No

X

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

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 109

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

Depth	Matrix		Redox Fe	eatures								
inches)	Color (moist)	%	Color (m	ioist)	%	Type ¹	Loc ²	Texture	Rema	arks		
18	10YR 5/2	95	10YR3/4		5	С	PL	SiL				
-	Concentration, D=De	pletion, RI	<i>I</i> =Reduced	d Matrix, MS	= Maske	ed Sand G	rains.	² Location: F				2
•	I Indicators:									blematic Hy		ioils ":
Histoso	ol (A1)			Dark Surfa) /841 D A	2 cm l	Muck (A1	0) (MLRA 1	47)	
Histic E	Epipedon (A2)			Polyvalue I 147, 148)	Below Si	urrace (St	5) (WILKA	Coast	Prairie R	edox (A16)	(MLRA	A 136, 147)
Black H	Histic (A3)			Thin Dark	Surface	(S9) (MLF	RA 147, 148	Piedm 148)	ont Flood	dplain Soils	(F19) (MLRA 147,
	en Sulfide (A4)		v	Loamy Gle				Red P		terial (TF2)	/TE40	A
	ed Layers (A5) luck (A10) (LRR N)		Х	Depleted M Redox Dar						ark Surface in Remarks))
	ed Below Dark Surfa	ice (A11)		Depleted D				0	(=:4p:::			
	Dark Surface (A12)			Redox Dep								
,	Mucky Mineral (S1)	(LRR N, N	ILRA	Iron-Manga		asses (F1	2) (LRR N,					
147 , 1 4 Sandy	Gleved Matrix (S4)					(MLR	A 136, 122)					
,	Redox (S5)			Piedmont F			19) (MLRA					
Strinne	ed Matrix (S6)			148)								
Guippe	a Matrix (00)							3Indicators	of Hydro	phytic vege	tation	and
										gy must be		
								unless	disturbed	or problem	atic	
estrictive	Layer (if observed):											
Type:												
Donth	(inches):							Hydric Sc	il	Yes	X	No

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 9.13.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 110

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA: LRR N Lat: 38.8516 Long: 82.9115 Datum: NAD 27
Soil Map Unit Name: OmB – Omulga silt loam, 1 to 8 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **x** No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation	Present? Yes	Х	No	Is the Sampled Area
Hydric Soils Present?	Yes	X	No	Within a Wetland? Yes X No
Wetland Hydrology Pre	ent? Yes	Х	No	Wetland 35

Remarks:

This area satisfies the three criteria necessary for a positive wetland determination. This area is a wetland.

HYDROLOGY

Wetland Hydrology Indicate	ors:							
Primary Indicators (minimum	of one is r	equi	red; ch	eck a	ll that apply)			Secondary Indicators (minimum of two required)
x Surface Water(A1) High Water Table (A2) x Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water Stained Leaves (B Aquatic Fauna (B13)		y (B7	7)	F F T	True Aquatic Plants Hydrogen Sulfide Od Dxidized Rhizosphe Presence of Reduce Recent Iron Reductic Thin Muck Surface (Other (Explain in Re	dor (Ć1) res on Liv d Iron (C4 on in Tille C7)	1)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:								
Surface Water Present?	Yes	X	No		Depth (inches):	2		
Water Table Present?	Yes		No	X	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes	X	No		Depth (inches):	1	Wetland F	Hydrology Present? Yes X No
Remarks: Wetland hydrology indicators	were obse	erved	d. This	s obse	ervation satisfies the	hydrolog	y criterion.	

30 ft

Tree Stratum (Plot size:

Acer saccharinum

Absolute

% Cover

20

Dominant

Species?

Yes

Indicator

Status

Fac

1. Acer saccnarinum		20	res	Fac	That are OBL, FACW, or FAC:	2	(A)
 3. 4. 5. 					Total Number of Dominant Species Across All Strata:	2	(B)
Sapling/Shrub Stratum (Plot size:	15 ft)		= Total Cove	er	Percent of Dominant Species That are OBL, FACW, or FAC:	100	(A/B)
 1. 2. 3. 4. 5. Herb Stratum (Plot size: 5 ft)		= Total Cov	er	OBL Species × FACW Species × FAC Species × FACU Species ×	Multiply by: 1 = 2 = 3 = 4 = 5 =	
 Leersia oryzoides Eupatorium perfoliatum Impatiens capensis 		70 10 10	Yes No No	obl facw facw	Column Totals: (A	A) -	(B)
 Boehmeria cylindrica Boehmeria cylindrica Company of the company of t		10	No	facw	Hydrophytic Vegetation Indica 1 - Rapid Test for Hydrophy x 2 - Dominance Test is > fifty 3 - Prevalence Index is ≤3.0 4 - Morphological Adaptation supporting data in Remarks sheet) Problematic Hydrophytic Ve	ators: tic Vegetation percent or (Provide or on a separa	ate
Woody Vine Stratum (Plot size:	30 ft)	80	= Total Cov	er	¹Indicators of hydric soil and we must be present, unless disturbe	ed or problema	
1. 2. 3. 4. 5. 6. 7. 8. 9.			= Total Cov	er	Definitions of Four Vegetation Tree – Woody plants, excluding or more in diameter at breast he of height Sapling/Shrub – Woody plants less than 3 in. DBH and greater Herb – All herbaceous (non-worregardless of size, and woody ptall. Woody vine – All woody vines theight.	vines, 3 in. (7 pight (DBH), re , excluding vin than 3.28 ft (1 ody) plants, lants less than	egardless nes, I m) tall.
					Hydrophytic	Y No	

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

The Dominance Test is greater than fifty percent. This observation satisfies the vegetation criterion.

Vegetation Present?

Χ

No

Yes

SOIL Sampling Point: 110

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

Depth	Matrix		Redox Fe	eatures								
inches)	Color (moist)	%	Color (m	noist)	%	Type ¹	Loc ²	Texture	Rema	arks		
18	10YR 5/2	95	10YR3/4		5	С	PL	SiL				
ype: C=C	Concentration, D=De	pletion, RN	/l=Reduced	d Matrix, MS	= Maske	d Sand G	irains.	² Location: F				
ydric Soi	I Indicators:									blematic H		ioils ³ :
Histoso	ol (A1)			Dark Surfa				2 cm N	/luck (A1	0) (MLRA 1	47)	
Histic E	Epipedon (A2)			Polyvalue Below Surface (S8) (MLRA 147, 148)				Coast Prairie Redox (A16) (MLRA 136, 147)				
Black H	Histic (A3)			Thin Dark	Surface	(S9) (MLF	RA 147, 148)	Piedm 148)	ont Flood	Iplain Soils	(F19) (MLRA 147,
Hydrogen Sulfide (A4) Loamy			Loamy Gle	yed Mat	rix (F2)		,	arent Ma	terial (TF2)			
	ed Layers (A5)		Х							ark Surface		2)
	luck (A10) (LRR N) ed Below Dark Surfa	oco (Δ11)		Redox Dar Depleted D				Other	(Explain	n Remarks)		
	Dark Surface (A12)	ice (ATT)		Redox Der		` ,						
	Mucky Mineral (S1)	(LRR N, M	ILRA				2) (LRR N,					
147, 14				MLRA 136								
Sandy	Gleyed Matrix (S4)						A 136, 122) (19) (MLRA					
Sandy	Redox (S5)			148)	looupia	11 30113 (1	19) (IVILINA					
Strippe	d Matrix (S6)			,								
										phytic vege		
										gy must be I or problem		τ,
estrictive	Layer (if observed):											
Type:												
	(inches):							Hydric Sc	il	Yes	X	No

The soils in this area correspond to the Depleted Matrix (F3) hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation satisfies the soils criterion.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: SCI-823 City/County: Portsmouth/Scioto Co. Sampling Date: 9.13.11

Applicant/Owner: Ohio Department of Transportation State: OH Sampling Point: 111

Investigator(s): Len Mikles, Jason Earley, and Richard Paul

Landform (hillslope, terrace, etc.): Road Embankment Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA: LRR N Lat: 38.8516 Long: 82.9114 Datum: NAD 27 Soil Map Unit Name: OmB – Omulga silt loam, 1 to 8 percent slopes NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area
Hydric Soils Present?	Yes	No	X	Within a Wetland? Yes No X
Wetland Hydrology Present?	Yes	No	X	Out Point for Wetland 35

Remarks:

This area satisfies none of the three criteria necessary for a positive wetland determination. This area is not a wetland.

HYDROLOGY

Wetland Hydrology Indicat	ors:					
Primary Indicators (minimum	of one is req	uired; ch	eck a	Ill that apply)		Secondary Indicators (minimum of two required)
Surface Water(A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Water Stained Leaves (E Aquatic Fauna (B13)		B7)		Frue Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	,	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	Χ	Depth (inches):		
Water Table Present?	Yes	No	X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	Wetland H	lydrology Present? Yes No X
	eam gauge, r	monitorin	g wel	I, aerial photos, previous inspec	tions), if availa	able:
Remarks:						

Wetland hydrology indicators were not observed. This observation does not satisfy the hydrology criterion.

30 ft

Tree Stratum (Plot size:

2. 3.

6.

7.

8. 9.

10.

Sapling/Shrub Stratum (Plot 15 ft) size: 1. 2. 3.		= Total Cover
4. 5. Herb Stratum (Plot size: 5 ft) 1. Festuca elatior 2. Sorghum halepense 3. Polygonum cuspidatum 4. Impatiens capensis 5. 6. 7.	40 40 10 10	= Total Cover Yes FACU Yes FACU No facu No FACW
9. 10. 11 Woody Vine Stratum (Plot size: 30 ft) 1. 2. 3. 4. 5.	100	= Total Cover

Absolute

% Cover

Dominant

Species?

= Total Cover

Indicator

Status

Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:**

Column Totals:

1 - Rapid Test for Hydrophytic Vegetation

(A)

(B)

X

- 2 Dominance Test is > fifty percent
- 3 Prevalence Index is ≤3.01
- 4 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic

Vegetation Present? Yes No

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

The Dominance Test is not greater than fifty percent. This observation does not satisfy the vegetation criterion.

SOIL Sampling Point: 111

Depth	Matrix		Redox Features								
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
-1	Impenetrable Fill						Fill				
		oletion, RM	=Reduced Matrix, MS	S= Maske	ed Sand G	rains.		PL=Pore Lining, M=Mat			
•	il Indicators:		Davida Occurs	(07)				for Problematic Hyd			
	ol (A1) Epipedon (A2)		Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148)			2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 13			,		
Black	Histic (A3)						Piedmont Floodplain Soils (F19) (MLRA 147 148)				
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4)		Depleted I Redox Da Depleted I Redox De Iron-Mang MLRA 136 Umbric Su	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122)			Red P Very S Other	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Sandy	andy Redox (S5) Piedmont Floodplain Soils (F19) (148)		19) (NILKA	A							
Strippe	ed Matrix (S6)		,				wetland	of Hydrophytic vegeta I hydrology must be pr disturbed or problemat	esent,		
Restrictive	Layer (if observed):										
Type:							1				
	(inches):						Hydric So Present?	oil Yes	No	,	

The soils in this area do not correspond to any of the hydric soil indicator presented in the Field Indicators of Hydric Soils in the United States, Version 7.0 (2010). This observation does not satisfy the soils criterion.

Appendix 4
Agency Data Requests

POTENTIAL INDIANA BAT HABITAT CHARACTERIZATION WORKSHEET FOR LV1 (MOA) LEVEL ECOLOGICAL SURVEYS OR MINOR LV2 ESR

Which Indiana bat Management Unit (see map) does the project	Which Indiana bat Management Unit (see map) does the project					
primarily occur within?	S	Х			Е	
Are there any known or suspected hittage natabase records)?	e proje	ct	Υ		N	Х
If yes, list the total number and the distance to the closest re	cord.		#:			mi.
Are there any known Indiana bat capture records within 5 miles of the (DNAP - Natural Heritage Database records)?	ct	Υ		N	X	
If yes, list the total number and the distance to the closest re		#:			mi.	
Total number of potential Indiana bat habitat <u>roost trees</u> impacted by project.	y the		#:	U	nknow	'n
Number of these trees that are considered <u>isolated</u> .			#:	U	nknow	'n
Total number of potential Indiana bat habitat <u>maternity roost trees</u> by the project.	#:	#: Unknown				
Number of these trees that are considered <u>isolated</u> .		#:	U	nknow	'n	
Total amount of impact to forested areas as a result of the project					' -	ac.

 ${\color{red} \underline{\bullet} \hspace{-0.05in}} {\color{black} Stop}$ if the project is located within the ${\bf NE},\,{\bf E},\,{\rm or}\,\,{\bf S}$ Management Units.

©Continue with form if the project is located within the W or C Management Units.

Are the impacted potential roost trees located within a forested area?	Υ	N	
 If yes, what is the approximate size of the forested area in acres (include areas not impacted)? 			ac.
Are the impacted potential <u>roost trees</u> connected to a forest area via a tree line (row of 2 or more wide)?	Υ	N	
 If yes, what is the size of the connected forested area? 			ac.
Is there a perennial water sources within 0.5 mile of the impacted potential <u>roost</u> <u>trees</u> ?	Υ	N	
Will the project remove all or a portion of a potential Indiana bat travel corridor?	Υ	N	
Will the project remove more than 10% of the forest area it is within (or connected to)?	Υ	N	

Definitions for **bold** words located in the ODOT Ecological Manual section 203.2.3.



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

DAVID MUSTINE, DIRECTOR

Ohio Division of Wildlife

David B. Lane, Chief 2045 Morse Rd., Bldg. G Columbus, OH 43229-6693 Phone: (614) 265-6300

July 7, 2011

Jason Earley ASC Group, Inc. 800 Freeway Dr. North, Suite 101 Columbus, OH 43229

Dear Mr. Earley:

Per your request, I have e-mailed you a set of ArcView shape files for the SCI-823-0.00 Portsmouth Bypass (PID 19415) project, including a one mile radius, in Scioto County, and on the Minford and New Boston Quads. The files are projected in NAD83 Ohio State Plane South. The units are feet. This data will not be published or distributed beyond the scope of the project description on the data request form without prior written permission of the Biodiversity Database Program.

Our standard search covers the project area you indicated in your request plus a one mile radius. Every feature in the database is included in this search, so you may receive as many as five layers of data: "data" with rare species and significant natural features records, "ma" with managed areas boundaries, "sr" showing scenic rivers, "sites" for conservation sites, and "ib" for an extended Indiana Bat search beyond the standard one mile radius (and which is only provided upon your specific request). If you do not receive some of these layers it is because none of those features were found in the search performed for your project. Only the layers that are pertinent to your search results will be addressed further below.

Records included in the "data" layer may be for rare and endangered plants and animals, geologic features, high quality plant communities and animal assemblages. Fields included are scientific and common names, state and federal statuses, as well as managed area and date of the most recent observation. State and federal statuses are defined as: E = endangered, T = threatened, P = potentially threatened, SC = species of concern, SI = special interest, FE = federal endangered, FT = federal threatened and A=recently added to inventory, status not yet determined.

I have performed a search for Indiana Bat (*Myotis sodalis*, state endangered, federal endangered) capture sites within a five mile radius and hibernacula within a ten mile radius. If any records were found, this layer will be included and labeled "ib". If the layer is not included it means no records were found.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Please note that although we inventory all types of plant communities, we only maintain records on the highest quality areas.

Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,
Manualla

Debbie Woischke, Ecological Analyst Ohio Biodiversity Database Program From: <u>Tibbels, Andrea</u>
To: <u>Jason Earley</u>

Subject: RE: Bald Eagle Location Request for ODOT Level 2 ESR

Date: Friday, July 29, 2011 4:37:19 PM

Jason,

The nearest bald eagle nest is 6.97 miles WSW of the intersection of Flower Ison Rd and Lucasville-Minford Rd. Thanks!

Andrea Tibbels
Wildlife Research Technician
Ohio Division of Wildlife-Crane Creek Research
13229 West State Route 2
Oak Harbor, Ohio 43449
419-898-0960 Ext. 25
419-898-4017 (Fax)
Andrea.Tibbels@dnr.state.oh.us
WWW.WildOhio.com

Keep the Wild in Ohio, learn how you can help! @ wildohiostamp.com

----Original Message-----

From: Jason Earley [mailto:jearley@ascgroup.net]

Sent: Thursday, July 28, 2011 11:54 AM To: Sherman, Dave; Tibbels, Andrea

Subject: Bald Eagle Location Request for ODOT Level 2 ESR

Andrea and Dave:

ASC Group is completing a Level 2 Ecological Survey for the proposed Portsmouth Bypass Project, in Scioto County. Per the ODOT Ecological Manual

we are required to provide the location information of the nearest known bald eagle nesting site(s). The proposed project footprint is provided on

the attached USGS map of the New Boston and Minford quadrangles to assist

you with our request. The northern terminus of the project is northwest of

Lucasville-Minford Road and the southern terminus of the project is located

just south of Shumway Hollow Road.

Thanks in advance, and please do not hesitate to contact me should you need

an additional information to process this request.

Thank you in advance.

Sincerely,

Jason M. Earley Senior Environmental Specialist ASC Group, Inc. 800 Freeway Drive North, Suite 101 Columbus, Ohio 43229 Work: (614)643-3205 Cell: (614)787-3454 jearley@ascgroup.net



To: Noel Alcala/Environmental/CEN/ODOT, Jennifer Townley/RdwySafetyMobility/CEN/ODOT, Kaye Humble/Planning/D09/ODOT, Greg Manson/Planning/D09/ODOT,

CC:

Subject: SCI--0.00 (PID19415) Portsmouth Bypass -- Timber Rattlesnake

ΑII

Attached below is a concurrence letter sent by this office to ODNR-DOW on November 26, 2003, and signed by DOW on December 18, 2003 stating that ODNR agrees that it is unlikely that the state endangered Timber Rattlesnake (*Crotalus horridus horridus*) is present within the survey area for this project. Please include, discuss, and appropriately reference this concurrence letter in the environmental document.

Fred Steck has been working on this project, but is on leave due to a foot operation. This is why this has been sent by me. He should be back to answer questions by the end of the month.

If you have any questions, please contact me.

Megan Michael, Environmental Specialist ODOT-CO-OES Ecological Section 1980 West Broad Street, Floor 3 Columbus, Ohio 43223 (614) 644-7099/megan.michael@dot.state.oh.us

c. File



SCI-823-0.00 (19415) Timber Rattler concurrence from D



OHIO DEPARTMENT OF TRANSPORTATION INTEROFFICE COMMUNICATION

Office of Environmental Services

DATE:

November 26, 2003

JAN 0 7 2004

TO:

Steven A. Gray, Chief, Division of Wildlife, ODNR

ttention: Joe Mion

OFFICE OF **ENVIRONMENTAL SERVICES**

FROM:

Hill, Administrator, Office of Environmental Services

SUBJECT: Timber Rattlesnake Survey Report

PROJECT: SCI-823-0.00 (PID 19415), Portsmouth Bypass

Enclosed for your review is a survey report for the timber rattlesnake (Crotalus horridus) prepared for the Portsmouth Bypass project in Scioto County. The survey was performed by herpetologist Doug Wynn from March 24 through September 27, 2003, along the alternative corridors for the project. He found no individuals of the species. While he did find potentially suitable habitat, he found that the proximity of humans has caused significant disturbance of the area. He also states that the proximity of humans suggests that if the species were present in the area, sightings would be common and often reported, which he did not find to be the case. It is his professional opinion that it is very unlikely that the species inhabits or utilizes the surveyed area. We are requesting your concurrence with that opinion.

The enclosed report will be included in the appendices of the Ecological Survey Report for the project. If you have any questions, please call Fred Steck, Environmental Supervisor, at 466-1937.

TMH:WRC:FKS:fs

Enclosure

c: Noel Alcala - Jennifer Townley - Kaye Humble, District 9 - Susan Swartz, TranSystems Corp. -File - Reading File



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services 4625 Morse Road, Suite 104 Columbus, Ohio 43230 (614) 416-8993 / FAX (614) 416-8994

Federally Listed Species by Ohio Counties August 23, 2011

COUNTY	SPECIES
ADAMS	Indiana bat (E), running buffalo clover (E), fanshell (E), pink mucket pearly mussel (E), rayed bean (PE), sheepnose (PE), snuffbox (PE), timber rattlesnake (SC)
ALLEN	Indiana bat (E), rayed bean (PE), bald eagle (SC)
ASHLAND	Indiana bat (E), bald eagle (SC), eastern hellbender (SC)
ASHTABULA	Indiana bat (E), Kirtland's warbler (E), piping plover (E), clubshell (E), snuffbox (PE), eastern massasauga (C), bald eagle (SC)
ATHENS	Indiana bat (E), American burying beetle (E), fanshell (E), pink mucket pearly mussel (E), sheepnose (PE), snuffbox (PE), timber rattlesnake (SC)
AUGLAIZE	Indiana bat (E), rayed bean (PE)
BELMONT	Indiana bat (E), sheepnose (PE), snuffbox (PE), bald eagle (SC), eastern hellbender (SC)
BROWN	Indiana bat (E), running buffalo clover (E), fanshell (E), pink mucket pearly mussel (E), rayed bean (PE), sheepnose (PE), snuffbox (PE), bald eagle (SC)
BUTLER	Indiana bat (E), rayed bean (PE), bald eagle (SC)
CARROLL	Indiana bat (E)
CHAMPAIGN	Indiana bat (E), rayed bean (PE), eastern massasauga (C)
CLARK	Indiana bat (E), rayed bean (PE), eastern prairie fringed orchid (T), eastern massasauga (C)
CLERMONT	Indiana bat (E), running buffalo clover (E), fanshell (E), pink mucket pearly mussel (E), rayed bean (PE), sheepnose (PE), snuffbox (PE), bald eagle (SC)
CLINTON	Indiana bat (E), rayed bean (PE), eastern massasauga (C)
COLUMBIANA	Indiana bat (E), sheepnose (PE), snuffbox (PE), eastern massasauga (C), bald eagle (SC), eastern hellbender (SC)
COSHOCTON	Indiana bat (E), clubshell (E), fanshell (E), purple cat's paw pearly mussel (E), rayed bean (PE), sheepnose (PE), snuffbox (PE), rabbitsfoot (C), bald eagle (SC), eastern hellbender (SC)
CRAWFORD	Indiana bat (E), rayed bean (PE), eastern massasauga (C), bald eagle (SC)
CUYAHOGA	Indiana bat (E), Kirtland's warbler (E), piping plover (E), bald eagle (SC)

DARKE	Indiana bat (E), rayed bean (PE)
DEFIANCE	Indiana bat (E), clubshell (E), northern riffleshell (E), white cat's paw pearly mussel (E), rayed bean (PE), copperbelly water snake (T), bald eagle (SC)
DELAWARE	Indiana bat (E), clubshell (E), rayed bean (PE), snuffbox (PE), bald eagle (SC)
ERIE	Indiana bat (E), Kirtland's warbler (E), piping plover (E/CH), Lakeside daisy (T), eastern massasauga (C), bald eagle (SC), Lake Erie watersnake (SC)
FAIRFIELD	Indiana bat (E), clubshell (E), rayed bean (PE), eastern massasauga (C), bald eagle (SC)
FAYETTE	Indiana bat (E), rayed bean (PE), eastern massasauga (C)
FRANKLIN	Indiana bat (E), Scioto madtom (E), clubshell (E), northern riffleshell (E), rayed bean (PE), snuffbox (PE), rabbitsfoot (C), bald eagle (SC)
FULTON	Indiana bat (E), rayed bean (PE)
GALLIA	Indiana bat (E), fanshell (E), pink mucket pearly mussel (E), sheepnose (PE), snuffbox (PE), timber rattlesnake (SC)
GEAUGA	Indiana bat (E), bald eagle (SC)
GREENE	Indiana bat (E), clubshell (E), rayed bean (PE), snuffbox (PE), eastern massasauga (C)
GUERNSEY	Indiana bat (E), American burying beetle (E), bald eagle (SC)
HAMILTON	Indiana bat (E), running buffalo clover (E), fanshell (E), pink mucket pearly mussel (E), rayed bean (PE), sheepnose (PE), snuffbox (PE), bald eagle (SC)
HANCOCK	Indiana bat (E), clubshell (E), rayed bean (PE), bald eagle (SC)
HARDIN	Indiana bat (E), clubshell (E), rayed bean (PE), copperbelly water snake (T), eastern massasauga (C), bald eagle (SC)
HARRISON	Indiana bat (E), bald eagle (SC)
HENRY	Indiana bat (E), rayed bean (PE), bald eagle (SC)
HIGHLAND	Indiana bat (E), rayed bean (PE), bald eagle (SC), timber rattlesnake (SC)
HOCKING	Indiana bat (E), American burying beetle (E), running buffalo clover (E), northern monkshood (T), small whorled pogonia (T), timber rattlesnake (SC), bald eagle (SC)
HOLMES	Indiana bat (E), eastern prairie fringed orchid (T), bald eagle (SC), eastern hellbender (SC)
HURON	Indiana bat (E), eastern massasauga (C), bald eagle (SC)
JACKSON	Indiana bat (E), timber rattlesnake (SC)
JEFFERSON	Indiana bat (E), sheepnose (PE), snuffbox (PE), bald eagle (SC), eastern hellbender (SC)
KNOX	Indiana bat (E), bald eagle (SC), eastern hellbender (SC)
LAKE	Indiana bat (E), Kirtland's warbler (E), piping plover (E/CH), snuffbox (PE), bald eagle (SC)

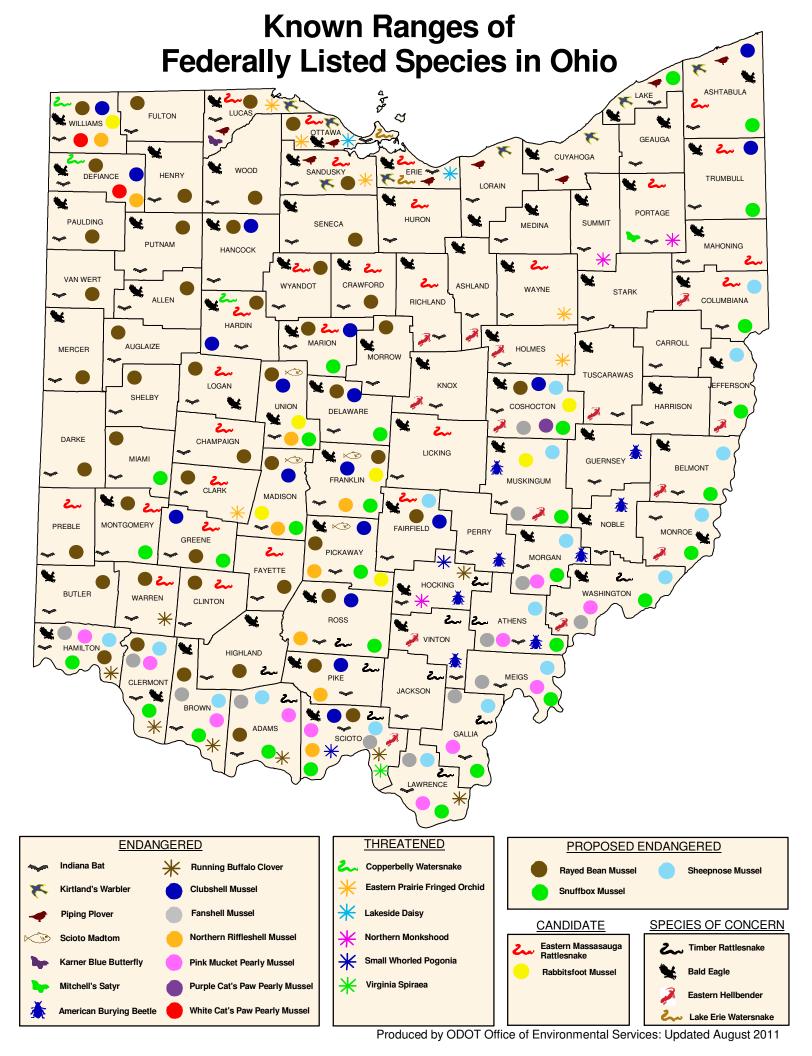
LAWRENCE	Indiana bat (E), running buffalo clover (E), fanshell (E), pink mucket pearly mussel (E), sheepnose (PE), snuffbox (PE), timber rattlesnake (SC)
LICKING	Indiana bat (E), eastern massasauga (C), bald eagle (SC)
LOGAN	Indiana bat (E), rayed bean (PE), eastern massasauga (C), bald eagle (SC)
LORAIN	Indiana bat (E), Kirtland's warbler (E), piping plover (E), bald eagle (SC)
LUCAS	Indiana bat (E), Karner blue butterfly (E), Kirtland's warbler (E), piping plover (E), rayed bean (PE), eastern prairie fringed orchid (T), eastern massasauga (C), bald eagle (SC)
MADISON	Indiana bat (E), Scioto madtom (E), clubshell (E), northern riffleshell (E), rayed bean (PE), snuffbox (PE), rabbitsfoot (C)
MAHONING	Indiana bat (E), eastern massasauga (C), bald eagle (SC)
MARION	Indiana bat (E), clubshell (E), rayed bean (PE), snuffbox (PE), eastern massasauga (C), bald eagle (SC)
MEDINA	Indiana bat (E), bald eagle (SC)
MEIGS	Indiana bat (E), fanshell (E), pink mucket pearly mussel (E), sheepnose (PE), snuffbox (PE)
MERCER	Indiana bat (E), rayed bean (PE), bald eagle (SC)
MIAMI	Indiana bat (E), rayed bean (PE), snuffbox (PE)
MONROE	Indiana bat (E), sheepnose (PE), snuffbox (PE), bald eagle (SC), eastern hellbender (SC)
MONTGOMERY	Indiana bat (E), rayed bean (PE), snuffbox (PE), eastern massasauga (C), bald eagle (SC)
MORGAN	Indiana bat (E), American burying beetle (E), fanshell (E), pink mucket pearly mussel (E), sheepnose (PE), snuffbox (PE), bald eagle (SC)
MORROW	Indiana bat (E), rayed bean (PE), bald eagle (SC)
MUSKINGUM	Indiana bat (E), American burying beetle (E), fanshell (E), sheepnose (PE), snuffbox (PE), rabbitsfoot (C), bald eagle (SC), eastern hellbender (SC)
NOBLE	Indiana bat (E), American burying beetle (E), bald eagle (SC)
OTTAWA	Indiana bat (E), Kirtland's warbler (E), piping plover (E), rayed bean (PE), Lakeside daisy (T), eastern prairie fringed orchid (T), eastern massasauga (C), bald eagle (SC), Lake Erie watersnake (SC)
PAULDING	Indiana bat (E), rayed bean (PE), bald eagle (SC)
PERRY	Indiana bat (E), American burying beetle (E)
PICKAWAY	Indiana bat (E), Scioto madtom (E), clubshell (E), northern riffleshell (E), rayed bean (PE), snuffbox (PE), rabbitsfoot (C), bald eagle (SC)
PIKE	Indiana bat (E), clubshell (E), northern riffleshell (E), rayed bean (PE), bald eagle (SC), timber rattlesnake (SC)
PORTAGE	Indiana bat (E), Mitchell's satyr (E), northern monkshood (T), eastern massasauga (C), bald eagle (SC)

PREBLE	Indiana bat (E), rayed bean (PE), eastern massasauga (C)
PUTNAM	Indiana bat (E), rayed bean (PE), bald eagle (SC)
RICHLAND	Indiana bat (E), eastern massasauga (C), bald eagle (SC), eastern hellbender (SC)
ROSS	Indiana bat (E), clubshell (E), northern riffleshell (E), rayed bean (PE), snuffbox (PE), bald eagle (SC), eastern hellbender (SC), timber rattlesnake (SC)
SANDUSKY	Indiana bat (E), Kirtland's warbler (E), piping plover (E), rayed bean (PE), eastern prairie fringed orchid (T), eastern massasauga (C), bald eagle (SC)
SCIOTO	Indiana bat (E), running buffalo clover (E), clubshell (E), fanshell (E), northern riffleshell (E), pink mucket pearly mussel (E), rayed bean (PE), sheepnose (PE), snuffbox (PE), small whorled pogonia (T), Virginia spiraea (T), bald eagle (SC), eastern hellbender (SC) timber rattlesnake (SC)
SENECA	Indiana bat (E), rayed bean (PE), bald eagle (SC)
SHELBY	Indiana bat (E), rayed bean (PE)
STARK	Indiana bat (E), bald eagle (SC)
SUMMIT	Indiana bat (E), northern monkshood (T), bald eagle (SC)
TRUMBULL	Indiana bat (E), clubshell (E), snuffbox (PE), eastern massasauga (C), bald eagle (SC)
TUSCARAWAS	Indiana bat (E), bald eagle (SC), eastern hellbender (SC)
UNION	Indiana bat (E), Scioto madtom (E), clubshell (E), northern riffleshell (E), rayed bean (PE), snuffbox (PE), rabbitsfoot (C), bald eagle (SC)
VAN WERT	Indiana bat (E), rayed bean (PE)
VINTON	Indiana bat (E), American burying beetle (E), bald eagle (SC), eastern hellbender (SC), timber rattlesnake (SC)
WARREN	Indiana bat (E), running buffalo clover (E), rayed bean (PE), eastern massasauga (C)
WASHINGTON	Indiana bat (E), fanshell (E), pink mucket pearly mussel (E), sheepnose (PE), snuffbox (PE), bald eagle (SC), eastern hellbender (SC), timber rattlesnake (SC)
WAYNE	Indiana bat (E), eastern prairie fringed orchid (T), eastern massasauga (C), bald eagle (SC)
WILLIAMS	Indiana bat (E), clubshell (E), northern riffleshell (E), white cat's paw pearly mussel (E), rayed bean (PE), copperbelly water snake (T), rabbitsfoot (C), bald eagle (SC)
WOOD	Indiana bat (E), rayed bean (PE), bald eagle (SC)
WYANDOT	Indiana bat (E), rayed bean (PE), eastern massasauga (C), bald eagle (SC)

IMPORTANT NOTE: This list reflects data available as of August 23, 2011, and will change as new data become available. For this reason, searches for listed species should not necessarily be limited to the counties noted above. Any decisions in that regard should be made only after calling the USFWS (614/416-8993) for guidance.

E = Endangered C = Candidate

 $\begin{array}{ll} PE = Proposed \ Endangered \\ T = Threatened \end{array} \quad \begin{array}{ll} SC = Species \ of \ Concern \\ CH = Critical \ Habitat \end{array}$



ACONITUM UNCINATUM L. Southern Monkshood

- FAMILY: Ranunculaceae
- HABIT: Herbaceous perennial from a tuberous-thickened root, 0.2-1 m.; flowering late August-September.
- SIMILAR SPECIES: Very similar to *A. noveboracense*. The rachis of the inflorescence in *A. uncinatum* is glabrous to sparsely pilose, while that of *A. noveboracense* is hirsute. *A. uncinatum* also blooms slightly later than *A. noveboracense*.
- TOTAL RANGE: Sw. PA to s. IN, s. to n. GA, w. SC, c. TN, and n. AL.
- STATE RANGE (as of 2006): Post-1980 records from Scioto County.
- HABITAT: In deep shade of a cool, moist sandstone rock shelter. In other parts of its range, it grows in a variety of mesic woodland situations.
- HAZARDS: Drying of habitat by removal of forest canopy; soil compaction.
- RECOVERY POTENTIAL: Probably very poor; seed and transplant experiments with the related *A. noveboracense* have not produced positive results.
- INVENTORY GUIDELINES: Note presence of tubers and root connectives; avoid overcollecting.
- COMMENTS: When not in bloom, this species may be easily overlooked. However, it seems to be extremely rare in Ohio owing to the limited availability of the habitat. It should be sought in suitable habitats throughout unglaciated Ohio.
 - Hardin (1964) splits *A. uncinatum* into two subspecies. If this concept is accepted, the Ohio material conforms to the typical subspecies.

SELECTED REFERENCES:

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- Jensen, H.W. 1950. Meiosis in an unusual form of *Aconitum uncinatum* L. Am. Midl. Nat. 84: 17-22.

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Created: 11/1983 Allison W. Cusick

CASTANEA DENTATA (Marsh.) Borkh. American Chestnut

FAMILY: Fagaceae

HABIT: Large tree to 35 m; flowers June-July, fruits Sept-Oct.

SIMILAR SPECIES: This species may be mistaken for the often planted Chinese chestnut (*C. mollissima*) which has leaves which are tomentose on the underside. The leaves of young sprouts of *C. dentata* may also be confused with those of beech *F. grandifolia*). However, chestnut leaves have longer teeth and veins that are more glabrous.

TOTAL RANGE: S. ME to se. MI, s. to DE, KY and IL and s. in the mountains to AL.

STATE RANGE (as of 2008; fruiting trees only): There are post-1980 records from Ashtabula, Columbiana, Cuyahoga, Erie, Hocking, Huron, Jefferson, Knox, Lake, Lawrence, Lorain, Lucas, Mahoning, Medina, Perry, Pike, Portage, Richland, Scioto, Stark, Summit, and Vinton Counties. There are pre-1980 records from Adams, Ashland, Athens, Belmont, Carroll, Coshocton, Fairfield, Gallia, Geauga, Guernsey, Hamilton, Henry, Highland, Holmes, Jackson, Licking, Monroe, Montgomery, Pickaway, Trumbull, Washington, and Wayne. Braun (1961) reports it from Clermont, Delaware, Franklin, Harrison, Morrow, Muskingum, Tuscarawas, and Wood counties.

HABITAT: Mostly acid soils in rich mesic sites, also on dry ridges and rocky slopes.

HAZARDS: The chestnut blight could lead to the eventual extinction of the species if young re-sprouted trees continue to die before they can reproduce.

RECOVERY POTENTIAL: Not good unless resistant trees can be bred or some form of biological control of the fungus can be found.

INVENTORY GUIDELINES: Collect mature flowers or fruit if present.

COMMENTS: Chestnut was formerly a dominant species of the Oak-Chestnut Forest region, especially throughout the Appalachian Highlands and Interior Low Plateau (Braun 1961). The species was decimated by the fungus *Endothia parasitica* that was accidentally introduced into the United States in 1904. This fungus killed nearly every adult chestnut tree throughout its range. However, this species exhibits a remarkable ability to re-sprout. Numerous sprouts occur at the base of dead stumps. However, the fungus also affects these sprouts after they attain a certain threshold size.

SELECTED REFERENCES:

Barnes, B.V. and W.H. Wagner. 1981. Michigan Trees. A guide to the trees of Michigan and the Great Lakes region. Univ. of Mich. Press, Ann Arbor. 383 pp.

- Braun, E.L. 1961. The woody plants of Ohio. The Ohio State Univ. Press, Columbus OH. 362 pp.
- Brewer, L.G. 1982. The present status and future prospect for the American Chestnut in Michigan. Mich. Bot. 21: 117-128.
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Created: 4/1993 Greg Schneider

VIOLA PRIMULIFOLIA L. Primrose-leaved Violet

- FAMILY: Violaceae
- HABIT: Stemless perennial herb to 1.7 dm.; flowering early May-early June; fruiting June-August.
- SIMILAR SPECIES: *Viola primulifolia* is very similar and closely related to *V. lanceolata*. *V. primulifolia* can generally be distinguished by its usually ovate leaf blades. The leaf blades of *V. lanceolata* are lanceolate to linear. However, leaf shape in *V. primulifolia* exhibits considerable variation, and thus technical characters are used to distinguish these species. Fernald (1949) states that after the spring flowering season, *V. primulifolia* is easily distinguished by its habit of sending out prostrate stolons that are essentially leafless and sterile. The prostrate stolons of *V. lanceolata* have well-developed leaves and bear many cleistogamous flowers.
- TOTAL RANGE: FL to e. TX, n. to ME, PA, OH, MI, IN, and OK.
- STATE RANGE: There are post-1980 records from Ashtabula, Jackson and Portage counties. There is a pre-1980 record from Scioto County.
- HABITAT: In moist, open situations, usually on sandy soil: meadows, edges of ponds, streams, marshes, and swamps.
- HAZARDS: Overshading by woody species as a result of succession; overdrying of the habitat.
- RECOVERY POTENTIAL: Unknown, but possibly good due to its variety of habitat.
- INVENTORY GUIDELINES: Mature flowering or fruiting material is needed for positive identification.
- COMMENTS: *V. primulifolia* may be more frequent in Ohio than current records indicate. It could easily be overlooked due to its small size and similarity to *V. lanceolata*. It should be sought in suitable habitats throughout the state.

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Ohio Department of Natural Resources Division of Natural Areas and Preserves

Created: 11/1983 Barbara K. Andreas