

LARGE FILING SEPERATOR SHEET

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sedges (FAC-OBL), box elder (FAC+), soft rush (FACW+), white grass (FACW), withered viburnum (FACW), and spotted touch-me-not (FACW). The hydrologic regime of these wetlands ranges from irregularly inundated or saturated (≥ 5 percent-12.5 percent of the growing season) to seasonally inundated or saturated (>12.5 percent-25 percent of the growing season) (Environmental Laboratory, 1987).

Field investigations identified two wetlands, totaling 0.25 acres, as PEM/PSS. The locations of these wetlands (AN-W1 and W1) are shown on Figures 3A and 3C. These wetlands occur on soils that meet the hydric soil criterion, while also revealing primary and/or secondary hydrology indicators and a dominance of hydrophytic vegetation.

Palustrine Emergent/Forested (PEM/PFO): Wetlands classified as palustrine emergent/forested are characterized by grasslike plants, broad-leaved plants, rushes, and woody vegetation 20 feet tall or taller (Cowardin *et al.*, 1979). These areas are dominated by wetland plants such as reed canary grass (FACW), deer-tongue (FAC+), American sycamore (FACW-), green ash (FACW), silver maple (FACW), sedges (FAC-OBL), spotted joe-pye weed (FAC), sensitive fern (FACW), small-flowered agrimony (FAC), soft rush (FACW+), and woolgrass (FACW+). The hydrologic regime of this wetland ranges from irregularly inundated or saturated (5 percent to 12.5 percent of the growing season) to seasonally inundated or saturated (>12.5 percent to 25 percent of the growing season) (Environmental Laboratory, 1987).

Field investigations identified two wetlands, totaling 0.18 acres, as PEM/PFO. The locations of these wetlands (D3 and D4) are shown on Figure 3A through 3C. These wetlands occur on soils that meet the hydric soil criterion, while also revealing primary and/or secondary hydrology indicators and a dominance of hydrophytic vegetation.

Palustrine Open Water (POW): Wetlands classified as palustrine open water are shallow, open water plant communities that generally have water depths of less than 6.6 feet (2 meters). Submergent, floating and floating-leaved aquatic vegetation including pondweeds, water-lilies, water milfoil, coontail, and duckweeds characterize this wetland type. Size can vary from a one-quarter acre pond, to a long oxbow of a river or shallow bay of a lake. Floating vegetation may or may not be present depending upon the effects of the season, wind, availability of nutrients, and aquatic weed control efforts. The hydrologic regime of these wetlands are generally regularly to permanently inundated (Environmental Laboratory, 1987).

Field investigations identified one wetland, totaling 0.18 acres, as POW. The location of this wetland (WB-1) is shown on Figure 3A through 3C. These wetlands occur on soils that meet the hydric soil criterion, while also revealing primary and/or secondary hydrology indicators and a dominance of hydrophytic vegetation.

Palustrine Open Water/Emergent (POW/PEM): Wetlands identified as palustrine open water/emergent are shallow, mixed emergent/open water plant communities that generally have water depths of less than 6.6 feet (2 meters). Submergent, floating and floating-leaved aquatic vegetation including pondweeds, water-lilies, water milfoil, coontail, and duckweeds along with grasslike plants, true grasses, rushes and broad-leaved plants characterize this wetland type. The dominant vegetation that was observed in these two wetlands located onsite includes *Potamogeton spp.* (OBL), broadleaf and narrowleaf cattails (OBL), sedges (FAC-OBL), soft rush (FACW+), ricecut grass (OBL), woolgrass (FACW+), purple leaf willowherb (OBL), and white turtlehead (OBL). The hydrologic regime of these wetlands are generally regularly to permanently inundated (Environmental Laboratory, 1987).

Field investigations identified two wetlands, totaling 0.17 acres, as POW/PEM. The location of these wetlands (BM-W4 and D-6) are shown on Figure 3A through 3C. These wetlands occur on soils that meet the hydric soil criterion, while also revealing primary and/or secondary hydrology indicators and a dominance of hydrophytic vegetation.

3.1.5 U.S. Army Corps of Engineers Section 404 Requirements

Section 404 of the Clean Water Act requires authorization from the Secretary of the Army, acting through the ACOE, for the discharge of dredged or fill material into all waters of the United States. As a consequence of direct connection or adjacency to surface drainageways to the Ohio River, all wetlands delineated at the project site are considered non-isolated.

3.2 OEPA ORAM V5.0 WETLAND EVALUATION

The ORAM scores for the wetlands identified within the limits of the project area ranged from a low of 8/100 (Wetland AFS-W1) to a high of 44/100 (Wetlands D-4 and W-1). These wetlands typically formed along surface drainageways, in areas of surface water retention, at the base of slopes, and adjacent to roadways. Copies of the ORAM scoring sheets for each delineated wetland are provided in Appendix B.

Six Category 1 wetlands with emergent, scrub-shrub, and/or forested components were identified at the project site. These wetlands were small in size, ranging from 0.02 to 0.18 acre. These wetlands typically exhibited limited plant community development with a moderate to high percentage of invasive species, poor plant community interspersions, generally recovering or recent or no recovery to natural hydrology, substrate, and habitat, and narrow upland buffers with low to moderately high surrounding land uses.

Fifteen Category 2 wetlands with emergent, scrub-shrub, forested, and/or open water components were identified at the project site. These wetlands ranged in size from 0.01 to 0.33 acre. These Category 2 wetlands generally exhibited moderate to high quality plant communities with few invasives, moderate to good plant community interspersions, low to high intensity surrounding land, and recovered and/or no modification to natural hydrology and habitat.

No Category 3 wetlands were identified at the project site.

3.3 OEPA PRIMARY HEADWATER HABITAT EVALUATION

Sixty-seven primary headwater habitat evaluations (HHEI) were conducted on the streams identified within the limits of the study area. These streams were identified using USGS topographic maps, NAIP aerial photography, *The Soil Survey of Meigs County, Ohio*, and field reconnaissance. The locations of all sixty-seven primary headwater habitat evaluation (HHEI) areas are shown on Figures 3A through 3D. Copies of the HHEI data sheets are provided in Appendix C. Selected color photographs are provided in Appendix D.

The survey identified the following HHEI stream classes: 23 Class I streams, 7 Modified Class I stream, 19 Class II streams, 7 Modified Class II streams, and 11 Class III streams. Note that each HHEI evaluation was conducted on a representative reach of each headwater stream. Some of the first, second, and third order streams at the Site were not evaluated using the HHEI methodology. During the site investigation, it was determined that the character and class of these particular stream segments did not differ significantly from each of their mainstem streams (i.e. the streams to which they drain).

SUMMARY TABLE OF HEADWATER STREAMS AT THE SITE

Stream Identifier	HHEI Score	HHEI Class	Stream Identifier	HHEI Score	HHEI Class
an-s1	42	Class II	bs-9	13	Class I
as-s1	41	Modified Class II	bs-10	54	Class II
as-s2	41	Modified Class II	bs-11	55	Class III
bm-s1	32	Class II	bs-12	43	Class II
bm-s2	11	Class I	bs-13	86	Class III
bm-s3	11	Class I	bs-14	49	Class II
bm-s4	12	Class I	bs-15	40	Class II
bm-s5	21	Class I	bs-16	47	Class II
bm-s6	41	Class II	cs-1	25	Class I
bm-s7	17	Class I	cs-1-2	69	Class III
bm-s8	11	Class I	cs-2	42	Class II
bm-s9	53	Class II	cs-3-1	47	Class II
bm-s10	16	Class I	cs-3-2	58	Class III
bm-s11	23	Class I	cs-4	34	Modified Class II
bm-s12	36	Class II	cs-4-2	77	Class III
bm-s13	81	Class III	cs-5-2	23	Modified Class I
bm-s14	55	Class III	cs-6	21	Class I
bm-s15	23	Class I	ds-1-5	45	Modified Class II
bm-s16	40	Class II	ds-1-11	22	Class I
bm-s17	35	Class II	ds-2-2	40	Class II
bm-s18	24	Class I	ds-2-5	59	Class III
bm-s19	24	Class I	ds-2-10	52	Class III
bm-s20	33	Class II	ds-3a	17	Modified Class I
bm-s21	23	Class I	ds-3b	17	Modified Class I
bs-1	28	Modified Class I	ds-3c	17	Modified Class I
bs-1-2	40	Modified Class II	ds-4	31	Modified Class II
bs-1-3	29	Modified Class I	s-1	27	Class I
bs-2	48	Modified Class II	s-2	68	Class III
bs-2-2	43	Class II	s-3	81	Class III
bs-3	23	Class I	s-4	37	Class II
bs-4	15	Class I	s-5	64	Class II
bs-5	19	Class I	s-6	12	Class I
bs-6	11	Class I	s-7	12	Class I
bs-8	16	Modified Class I			

Class I Headwater Streams – Twenty-three Class I headwater streams were identified during the November and December field investigation with scores ranging from a low of 11 to a high of 27. The substrate composition of these streams was generally limited to sand, silt, clay, leaf pack/woody debris, and muck. The maximum pool depth was less than 5 centimeters and the bank full width generally did not exceed 1.0 meter.

Modified Class I Headwater Streams – Seven Modified Class I headwater streams were identified during the November and December field investigation with scores ranging from a low of 16 to a high of 29. All seven of these streams showed indications of stream channel modifications, such as channelization, culverting, moderate to severe bank erosion, and filling. These modifications resulted in these streams scored a modified Class I designation. Similar to Class I headwater streams, the substrate of these streams was generally sand, silt, muck, leaf pack/woody debris, and clay. The maximum depth on all seven streams was less than 5 centimeters with a bank full width not exceeding 1.5 meters.

Class II Headwater Streams – Nineteen Class II headwater streams were identified during the November and December field investigation with scores ranging from a low of 32 to a high of 64. The substrate composition of these streams was generally dominated by sand, clay, silt, leaf pack/woody debris, and gravel. Cobble, boulder, and boulder slabs were also noted as less dominant substrate types in this Class of stream. With the exception of Streams BM-S9 and S-5, the maximum pool depth was less than 10 centimeters. The bank full width for this group of streams was generally between 1.5 and 3.0 meters.

Modified Class II Headwater Streams – Seven Modified Class II headwater streams were evaluated during the November and December field investigation with scores ranging from a low of 31 to a high of 48. Generally, the most dominant substrate types for these modified streams are sand, sand, silt, and leaf pack/woody debris. Boulder, boulder slab, cobble, and gravel were also noted as less dominant substrate types. The maximum pool depth ranged from a slightly moist channel to a maximum pool depth of 1 inch for Stream DS-1-5. The average bank full width for these streams was generally between 1.0 and 3.0 meters, with the exception of Streams AS-S1 and AS-S2 which had bank full width's greater than 4.0 meters. All seven of these headwater streams showed

indications of stream channel modification (e.g. channelization, culverting, etc.), which in turn resulted in a modified class designation.

Class III Headwater Streams – Eleven Class III headwater streams were evaluated during the November and December field investigation with scores ranging from a low of 52 to a high of 86. The main features of these streams that generally distinguish them from Class I and II streams include a natural channel (i.e. no indication of stream channel modification), generally high percentages of boulder, boulder slab, cobble, and gravel, maximum pool depths ranging from 0 to approximately 52 centimeters, and a bank full width generally between 1.5 and 4 meters.

3.4 THREATENED AND ENDANGERED SPECIES HABITAT SURVEY

The Ohio Department of Natural Resources – Division of Natural Areas and Preserves (ODNR-DNAP) was contacted regarding the potential for occurrence of rare, threatened, and endangered species within the project study area. URS also performed a literature review of available USFWS resources regarding species of concern in the project vicinity.

In a letter response dated May 10, 2004, the ODNR-DNAP reported 10 records of rare or endangered species in the vicinity of the project study area. These ten species include:

Scientific Name	Common Name	State Status
<i>Cicindela marginipennis</i>	Cobblestone Tiger Beetle	Threatened
<i>Heteranthera reniformis</i>	Mud-plantain	Endangered
<i>Hiodon alosoides</i>	Goldeye	Endangered
<i>Macrhybopsis aestivalis</i>	Speckled Chub	Endangered
<i>Obliquaria reflexa</i>	Threehorn Wartyback	Threatened
<i>Obliquaria reflexa</i>	Threehorn Wartyback	Threatened
<i>Opuntia humifusa</i>	Common Prickly Pear	Potentially Threatened
<i>Percina copelandi</i>	Channel Darter	Threatened
<i>Scaphiopus holbrookii</i>	Eastern Spadefoot Toad	Endangered
<i>Spermacoce glabra</i>	Smooth Buttonweed	Potentially Threatened

The USFWS literature review indicated that the proposed project is located within the range of the federally endangered Indiana bat (*Myotis sodalis*) and three federally endangered species of mussels. These mussel species include the pink mucket pearly mussel (*Lampsilis orbiculata*), the fanshell mussel (*Cyprogenia stegaria*), and the sheepsnose mussel (*Plethobasus cyphus*).

A discussion of each state and federally listed species will be presented in the following sections. A list of animal species identified or likely to occur in the vicinity of the study site is shown in Table 2. A comprehensive list of plant species in the vicinity of the study site is shown in Table 3.

3.4.1 Plants

Three records of plant species of concern were identified in the vicinity of the project study area and include the mud-plantain (*Heteranthera reniformis*), the common prickly pear (*Opuntia humifusa*), and the smooth buttonweed (*Spermacoce glabra*).

Mud-plantain (*Heteranthera reniformis*): This perennial aquatic herb is known to occur submersed or floating in ponds, ditches or rivers, or creeping along muddy river margins. The potential hazard to this species of concern is generally limited to impacts or disturbances to the aquatic habitat. ~~Note about possible habitat on site.~~ This plant species of concern was not identified during the August field investigation.

Common Prickly Pear (*Opuntia humifusa*): This hardy cactus with oblong, flattened pads was previously recorded in the southwestern portion of the study area, in the vicinity of the Letart Falls cemetery. This species of concern prefers areas of full sun on well-drained soils, such as sandy fields and hillsides. The primary hazard to this species of concern is overgrowth by woody species as a consequence of succession. Low to moderate quality habitat was observed in the sandy and sandy loam fields and field borders on the western and southwestern portion of the study area. This plant species of concern was not identified during the August field investigation.

Smooth Buttonbush (*Spermacoce glabra*): This perennial herb is most commonly found on the muddy shores and low banks of the Ohio River, but is also found in swamps and wet woods. Low quality habitat for this species of concern was identified along the right descending bank of the Ohio River. Appropriate habitat for this species of concern does not generally exist on the eastern portion of the study area as a consequence of either, 1) changes in site headwater stream flow conditions as a consequence of weather events or 2) as a result of overshading by second growth and mature woody vegetation throughout much of the central and eastern portion of the study area. This plant was not identified during the August field investigation.

3.4.2 Aquatic species

Habitats for aquatic species of concern including fish, crustaceans, and mussels were not assessed during this survey. ODNR-DNAP reported records of one threatened mussel species and three fish species of concern within the vicinity of the project study area. These species include the Threehorn Wartyback mussel (*Obliquaria reflexa*), the Channel Darter (*Percina copelandi*), the Goldeye (*Hiodon alosoides*), and the Speckled Chub (*Macrhybopsis aestivalis*). In addition, URS also conducted a literature review of available USFWS resources regarding species of concern in the project vicinity. The USFWS identified the study site to be in the historic range of three state and federally endangered species of mussels. These species include the pink mucket pearly mussel (*Lampsilis orbiculata*), the fanshell mussel (*Cyprogenia stegaria*), and the sheepnose mussel (*Plethobasus cyphus*).

3.4.3 Amphibians

The Eastern Spadefoot Toad (*Scaphiopus holbrookii*), the only toad identified on Ohio's endangered species list, was previously recorded by ODNR immediately north of the project study area, as illustrated on Figure 3A. This amphibian typically occurs in brush-covered, forested, and/or cultivated areas that consist of loose sediments such as gravel, sand, and sandy loam. With the exception of emerging from the soil to eat or possibly reproduce, the Eastern Spadefoot generally remains burrowed underground. Potential habitat for this species of concern exists on the project study site.

3.4.4 Reptiles

No reptile species of concern were identified in any agency correspondence. No suitable habitat for reptile species of concern was observed within the project study area.

3.4.5 Birds

No bird species of concern were identified in any agency correspondence. No suitable habitat for bird species of concern was observed within the project study area.

3.4.6 Mammals

Indiana bat (*Myotis sodalis*): The Indiana bat is considered to be an endangered species by the federal government and the State of Ohio. This species is a possible inhabitant of

Meigs County. The Indiana bat is a migratory species, wintering in a few limestone cave hibernacula principally located in Indiana, Kentucky and Missouri. Summer roosting and foraging areas are typically farther north in the glaciated regions of Indiana, Illinois, and Ohio. Males and gravid females may arrive in northern regions in April and remain until October. The bat typically roosts under the exfoliating (loose) bark of live or dead trees of various rough-barked tree species. The 8- to 10-inch size classes of several species of hickory (*Carya* spp.), oak (*Quercus* spp.), ash (*Fraxinus* spp.), and elm (*Ulmus* spp.) are utilized in live form as roost trees. These tree species and many others may be used when dead, if there are adequately sized patches of loosely adhering bark or open cavities. The structural configuration of forest stands favored for roosting includes; (1) a mixture of favored loose-barked trees with 60 to 80 percent canopy closure and (2) a low density sub-canopy (less than 30 percent between about 6 feet high and the base canopy).

The vegetation throughout much of the wooded portion of the eastern half of the project area consists of mature, second growth tree species. In particular, the wooded portions along Streams BS-13, BS-14, and BS-15 likely provides high quality habitat for the Indiana Bat. This general area contains many oaks (*Quercus* spp.) and elms (*Ulmus* spp.) of an appropriate class size along with exfoliating American sycamore (*Plantanus occidentalis*) and black cherry (*Prunus serotina*) individuals. Additional Indiana bat habitat advantages in this area include snags, numerous tree cavities or hollow portions of tree boles and limbs, a generally open subcanopy, and close proximity to several mapped streams, as illustrated on Figure 3B.

The wooded area in the vicinity of Streams S-4 and S-5 along with the wooded area in the extreme southeast portion of the Site provides moderate to high quality Indiana bat habitat. Similar to the high quality Indiana Bat habitat discussed above, these two areas contain oaks (*Quercus* spp.) of an appropriate class size along with exfoliating black cherry (*Prunus serotina*) and American sycamore (*Plantanus occidentalis*) individuals. Proximity to water in the form of nearby wetland areas, stream channels, and backwater areas and a relative lack of understory growth throughout indicate excellent foraging potential for the Indiana Bat.

The wooded portions along Stream DS-2-10, as shown on Figure 3C, is likely to provide low to moderate quality habitat for the Indiana Bat. This portion of the study area contains many exfoliating hickory (*Carya* spp.) individuals that may be potentially used

for roosting. This area also contains some tree cavities as well as a relatively open subcanopy along the reach of Stream DS-2-10.

Specific Indiana Bat surveys were not performed during the field reconnaissance, as it was not in the scope of this siting study.

This mammal was not identified during the November and December field investigation.

3.4.7 Insects

Cobblestone Tiger Beetle (*Cicindela marginipennis*): ODNR-DNAP reported previous records of this arthropod within a 5-mile radius of the project study area. This rare beetle is typically restricted to cobblestone islands and deltas in large rivers. Suitable habitat for this species of concern was not observed within the immediate project area. This insect was not identified during the November and December field investigation.

4.0 SUMMARY

URS conducted a jurisdictional wetland delineation, stream assessment, and threatened and endangered species survey of an approximately 1,000-acre site, located in the Letart Falls area, Meigs County, Ohio. AMP Ohio is proposing construction of a 1,000 megawatt (MW), coal fired electric generating facility at the Site along with a coal combustion by-products landfill, and a barge dock and unloading facility. Site delineation and assessment work began November 28, 2005 and was completed December 2, 2005.

Twenty-one wetlands, including 5 different Cowardin wetland types were identified within the project study area, including 14 palustrine emergent wetlands, 2 palustrine emergent/scrub-shrub wetlands, 2 palustrine emergent/forested wetlands, 1 palustrine open water wetland, and 2 palustrine open water/emergent wetlands. Identified wetlands were evaluated utilizing ORAM v5.0 qualitative evaluation method for categorizing wetlands. The ORAM scores for the wetlands indicated the following: 5 Category 1 emergent wetlands, 1 Category 1 wetland with emergent and forested components, 9 Category 2 emergent wetlands, 2 Category 2 wetlands with emergent and scrub-shrub components, 1 Category 2 wetland emergent and forested components, 1 Category 2 open water wetland, and 2 Category 2 mixed emergent/open water wetlands. No Category 3 wetlands were identified during the November and December field investigation.

Sixty-seven primary headwater habitat evaluations (HHEI) were conducted on the streams identified within the limits of the study area. The survey identified the following HHEI stream classes: 23 Class I streams, 7 Modified Class I stream, 19 Class II streams, 7 Modified Class II streams, and 11 Class III streams.

ODNR-DNAP reported 10 records of rare or endangered species within 5 miles of the Site. Of these ten species records, ODNR identified records of the Eastern Spadefoot Toad (*Scaphiopus holbrookii*) and the Common Prickly Pear (*Opuntia humifusa*) in the immediate project vicinity. The USFWS literature review indicated that the proposed project is located within the range of the federally endangered Indiana bat (*Myotis sodalis*) and three federally endangered species of mussels. These mussel species include the pink mucket pearly mussel (*Lampsilis orbiculata*), the fanshell mussel (*Cyprogenia stegaria*), and the sheepnose mussel (*Plethobasus cyphus*). None of these species of concern were identified during the November and December field investigation. However, potential habitat for the Indiana Bat, Eastern Spadefoot Toad, and several aquatic species of concern were identified during the field investigation.

5.0 REFERENCES

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TABLE 1
ANIMAL SPECIES IDENTIFIED OR LIKELY TO OCCUR IN
THE STUDY AREA

Amphibians	Reptiles	Birds	Mammals
American toad	Black rat snake	American crow	Big brown bat
Bullfrog	Broad-headed skink	American kestrel	Coyote
Dusky salamander	Copperhead	American redstart	Deer mouse
Fowler's toad	Eastern box turtle	American robin	Eastern chipmunk
Gray treefrog	Eastern garter snake	American woodcock	Eastern cottontail rabbit
Green frog	Eastern hognose snake	Baltimore oriole	Eastern gray squirrel
Jefferson salamander	Eastern milk snake	Belted kingfisher	Eastern mole
Longtail salamander	Eastern worm snake	Blue jay	Eastern pipistrel
Marbled salamander	Five-lined skink	Broad-winged hawk	Fox squirrel
Mountain chorus frog	Ground skink	Brown thrasher	Gray fox
Northern leopard frog	Midland painted turtle	Brown-headed cowbird	Hairytail mole
Northern red salamander	Northern black racer	Carolina chickadee	Hoary bat
Northern slimy salamander	Northern brown snake	Carolina wren	House mouse
Northern spring peeper	Northern fence lizard	Common flicker	Least weasel
Northern spring salamander	Northern ring-necked snake	Downy woodpecker	Little brown bat
Pickeral frog	Northern water snake	Eastern bluebird	Long-tailed weasel
Ravine salamander	Rough green snake	Eastern kingbird	Meadow jumping mouse
Redback salamander	Timber rattlesnake	Eastern meadowlark	Meadow vole
Red-spotted newt		European starling	Opossum
Southern tow-lined salamander		Hairy woodpecker	Pine vole
Spotted salamander		House sparrow	Pygmy shrew
Wood frog		Indigo bunting	Raccoon
		Kentucky warbler	Red bat
		Killdeer	Red fox
		Mockingbird	Red squirrel
		Mourning dove	Short-tailed shrew
		Northern cardinal	Silver-haired bat
		Osprey	Southern flying squirrel
		Pileated woodpecker	Striped skunk
		Red-eyed vireo	White-footed mouse
		Red-tailed hawk	White-tailed deer
		Red-winged blackbird	Woodchuck
		Rock dove	
		Ruffed grouse	
		Tufted titmouse	
		Turkey vulture	
		Whip-poor-will	
		White-breasted nuthatch	
		Wild turkey	
		Wood thrush	
		Yellow warbler	
		Yellow-throated vireo	

TABLE 2

**WETLAND VEGETATION AND INDIVIDUAL
SPECIES WETLAND DESIGNATION FROM
AMP-OHIO POWER PLANT SITE
MEIGS COUNTY, OHIO**

Scientific Name	Common Name	Wetland Status	Upland	Wetland
<i>Acer negundo</i>	Box elder	FAC+	X	X
<i>Acer rubrum</i>	Red maple	FAC	X	X
<i>Acer saccharinum</i>	Silver maple	FACW	X	X
<i>Achillea millefolium</i>	Yarrow	FACU	X	
<i>Acorus calamus</i>	Calamus	OBL		X
<i>Agrimonia parviflora</i>	Small-flowered agrimony	FAC	X	X
<i>Agrostis alba (gigantea)</i>	Redtop	FACW	X	X
<i>Ailanthus altissima</i>	Tree of heaven	NI	X	
<i>Alliaria petiolata</i>	Garlic mustard	FACU-	X	
<i>Allium canadense</i>	Wild onion	FACU	X	
<i>Amaranthus retroflexus</i>	Redroot amaranth	FACU	X	
<i>Ambrosia artemisiifolia</i>	Common ragweed	FACU	X	
<i>Ambrosia trifida</i>	Giant ragweed	FAC	X	X
<i>Andropogon virginicus</i>	Broomsedge	FACU	X	
<i>Aristida spp.</i>	Wiregrass	NO	X	X
<i>Artemisia vulgaris</i>	Wormwood	UPL	X	
<i>Asclepias incarnata</i>	Swamp milkweed	OBL		X
<i>Asclepias syriaca</i>	Common milkweed	FACU-	X	
<i>Aster spp.</i>	Heath aster	NI	X	
<i>Bidens frondosa</i>	Devil's beggartick	FACW	X	X
<i>Boehmeria cylindrica</i>	False nettle	FACW+	X	X
<i>Brassica rapa</i>	Field mustard	NI	X	
<i>Calamagrostis canadensis</i>	Bluejoint	FACW+	X	X
<i>Carex blanda</i>	Eastern woodland sedge	FAC	X	
<i>Carex canosa</i>	Longhair sedge	FACW		X
<i>Carex frankii</i>	Frank's sedge	OBL		X
<i>Carex lurida</i>	Shallow sedge	OBL		X
<i>Carex spp.</i>	Sedges	FAC-OBL		X
<i>Carex stricta</i>	Upright sedge	OBL		X
<i>Carya cordiformis</i>	Bitternut hickory	FACU+	X	
<i>Carya glabra</i>	Pignut hickory	FACU-	X	
<i>Carya ovata</i>	Shagbark hickory	FACU-	X	
<i>Celtis occidentalis</i>	Hackberry	FACU	X	
<i>Centaurea maculosa</i>	Spotted knapweed	NI	X	
<i>Cephalanthus occidentalis</i>	Buttonbush	OBL		X
<i>Cercis canadensis</i>	Redbud	FACU-	X	
<i>Chelone glabra</i>	White turtlehead	OBL		X
<i>Chenopodium album</i>	Lambsquarter	FACU+	X	
<i>Chrysanthemum leucanthemum</i>	Oxeye daisy	NI	X	
<i>Cichorium intybus</i>	Chicory	NI	X	
<i>Cirsium arvense</i>	Canada thistle	FACU	X	
<i>Cirsium vulgare</i>	Bull thistle	FACU-	X	
<i>Convolvulus sepium</i>	Hedge bindweed	FAC	X	X
<i>Cornus stolonifera</i>	Flowering dogwood	NI	X	
<i>Cyperus esculentus</i>	Yellow nutsedge	FACW	X	X
<i>Dactylis glomerata</i>	Orchardgrass	FACU	X	
<i>Daucus carota</i>	Queen Anne's lace	NI	X	
<i>Dipsacus sylvestris</i>	Teasel	NI	X	
<i>Elaeagnus umbellata</i>	Autumn olive	NI	X	
<i>Eleocharis acicularis</i>	Needle spikerush	OBL		X

TABLE 2 - CONTINUED

**WETLAND VEGETATION AND INDIVIDUAL
SPECIES WETLAND DESIGNATION FROM
AMP-OHIO POWER PLANT SITE
MEIGS COUNTY, OHIO**

Scientific Name	Common Name	Wetland Status	Upland	Wetland
<i>Eleocharis obtusa</i>	Blunt spikerush	OBL		X
<i>Epilobium coloratum</i>	Purple leaf willowherb	OBL		X
<i>Erigeron annuus</i>	Fleabane	FACU	X	
<i>Eupatorium maculatum</i>	Spotted joeypeweed	FACW	X	X
<i>Eupatorium perfoliatum</i>	Common boneset	FACW+	X	X
<i>Eupatorium purpureum</i>	Sweetscented joeypeweed	FAC	X	X
<i>Eupatorium sessilifolium</i>	Upland boneset	NO	X	
<i>Fagus grandifolia</i>	American beech	FACU	X	
<i>Festuca arundinacea</i>	Tall fescue	FACU	X	
<i>Festuca pratensis</i>	Meadow ryegrass	FACU	X	
<i>Festuca subverticillata</i>	Nodding fescue	FACU	X	
<i>Fragaria virginiana</i>	Virginia strawberry	FACU	X	
<i>Fraxinus pennsylvanica</i>	Green ash	FACW	X	X
<i>Galium aparine</i>	Catchweed bedstraw	FACU	X	
<i>Geum canadense</i>	White avens	FACU	X	
<i>Glechoma hederacea</i>	Ground ivy	FACU	X	
<i>Gleditsia triacanthos</i>	Honeylocust	FAC-	X	
<i>Glycine max</i>	Soybean	NI	X	
<i>Impatiens capensis</i>	Jewelweed	FACW	X	X
<i>Juglans nigra</i>	Black walnut	FACU	X	
<i>Juncus effusus</i>	Soft rush	FACW+	X	X
<i>Juncus tenuis</i>	Path rush	FAC-	X	
<i>Leersia oryzoides</i>	Ricecut grass	OBL		X
<i>Leersia virginica</i>	White grass	FACW	X	X
<i>Lemna minor</i>	Common duckweed	OBL		X
<i>Ligustrum vulgare</i>	Privet	FACU	X	
<i>Lindera benzoin</i>	Northern spicebush	FACW-	X	X
<i>Liriodendron tulipifera</i>	Tuliptree	FACU	X	
<i>Lolium multiflorum</i>	Italian ryegrass	FACU-	X	
<i>Lolium perenne</i>	Perennial ryegrass	FACU-	X	
<i>Lonicera japonica</i>	Japanese honeysuckle	FAC-	X	
<i>Lonicera spp.</i>	Honeysuckle	FAC to FACU	X	
<i>Ludwigia alternifolia</i>	Seedbox	FACW+	X	X
<i>Ludwigia palustris</i>	Marsh seedbox	OBL		X
<i>Lysimachia nummularia</i>	Creeping jenny	OBL		X
<i>Lythrum salicaria</i>	Purple loosestife	FACW+	X	X
<i>Malva neglecta</i>	Common mallow	NI	X	
<i>Medicago sativa</i>	Alfalfa	NO	X	
<i>Melilotus officinalis</i>	Yellow sweetclover	FACU	X	
<i>Mentha spicata</i>	Spearmint	FACW+	X	X
<i>Nymphaea odorata</i>	American white waterlily	OBL		X
<i>Oenothera biennis</i>	Common evening primrose	FACU-	X	
<i>Onoclea sensibilis</i>	Sensitive fern	FACW	X	X
<i>Panicum dichotomiflorum</i>	Fall panicgrass	FACW-	X	X
<i>Panicum spp.</i>				
<i>Panicum virgatum</i>	Switchgrass	FAC	X	X
<i>Parthenocissus quinquefolia</i>	Virginia creeper	FACU	X	
<i>Penthorum sedoides</i>	Ditch stonecrop	OBL		X
<i>Phalaris arundinacea</i>	Reed canary grass	FACW+	X	X

TABLE 2 - CONTINUED

**WETLAND VEGETATION AND INDIVIDUAL
SPECIES WETLAND DESIGNATION FROM
AMP-OHIO POWER PLANT SITE
MEIGS COUNTY, OHIO**

Scientific Name	Common Name	Wetland Status	Upland	Wetland
<i>Phleum pratense</i>	Timothy	FACU	X	
<i>Phytolacca americana</i>	Common pokeweed	FACU+	X	
<i>Plantago lanceolata</i>	Common plantain	UPL	X	
<i>Plantago major</i>	Broadleaf plantain	FACU	X	
<i>Platanus occidentalis</i>	Eastern sycamore	FACW-	X	X
<i>Poa pratensis</i>	Kentucky bluegrass	FACU	X	
<i>Polygonum hydropiperoides</i>	Swamp smartweed	OBL		X
<i>Polygonum pennsylvanicum</i>	Pennsylvania smartweed	FACW	X	X
<i>Polygonum persicaria</i>	Spotted ladythumb	FACW	X	X
<i>Polygonum sagittatum</i>	Arrowleaf tearthumb	OBL		X
<i>Populus deltoides</i>	Cottonwood	FAC	X	X
<i>Potamogeton spp.</i>		OBL		X
<i>Prunus serotina</i>	Black cherry	FACU	X	
<i>Quercus alba</i>	White oak	FACU-	X	
<i>Quercus macrocarpa</i>	Bur oak	FAC-	X	
<i>Quercus palustris</i>	Pin oak	FACW	X	X
<i>Quercus rubra</i>	Northern red oak	FACW-	X	X
<i>Rhus radicans</i>	Poison Ivy	FAC	X	X
<i>Robinia pseudoacacia</i>	Black locust	FACW-	X	X
<i>Rosa carolina</i>	Pasture rose	UPL	X	
<i>Rosa multiflora</i>	Multiflora rose	FACU	X	
<i>Rubus allegheniensis</i>	Allegheny blackberry	FACU-	X	
<i>Rumex acetosella</i>	Sheep sorrel	UPL	X	
<i>Rumex crispus</i>	Yellow curlydock	FACU	X	X
<i>Rumex obtusifolius</i>	Bitter Dock	FACU-	X	
<i>Salix nigra</i>	Black willow	FACW+	X	X
<i>Sambucus canadensis</i>	Elderberry	FACW-	X	X
<i>Scirpus atrovirens</i>	Green bulrush	OBL		X
<i>Scirpus cyperinus</i>	Woolgrass	FACW+	X	X
<i>Scirpus validus</i>	Softstem bulrush	OBL		X
<i>Setaria glauca</i>	Pearl millet (foxtail)	FAC	X	X
<i>Setaria spp.</i>	Foxtail	FAC	X	X
<i>Sisyrinchium angustifolium</i>	Narrowleaf blue-eyed grass	FACW-	X	X
<i>Smilax rotundifolia</i>	Roundleaf greenbrier	FAC	X	X
<i>Solidago altissima</i>	Shorthair goldenrod	FACU-	X	
<i>Solidago canadensis</i>	Canada goldenrod	FACU	X	
<i>Solidago nitida</i>	Flat-topped goldenrod	FAC	X	X
<i>Solidago spp.</i>	Goldenrod	FACU	X	
<i>Sorghum halepense</i>	Johnsongrass	FACU	X	
<i>Taraxacum officinale</i>	Common dandelion	FACU-	X	
<i>Toxicodendron radicans</i>	Poison ivy	FAC	X	
<i>Trifolium hybridum</i>	Alsike clover	FACU-	X	
<i>Trifolium pratense</i>	Red clover	FACU-	X	
<i>Typha angustifolia</i>	Narrow leaf cattail	OBL		X
<i>Typha latifolia</i>	Broad leaf cattail	OBL		X
<i>Ulmus rubra</i>	Slippery elm	FAC	X	X
<i>Urtica dioica</i>	Stinging nettle	FACU	X	
<i>Verbascum thapsus</i>	Common mullein	NI	X	
<i>Verbesina alternifolia</i>	Wingstem	FAC	X	X
<i>Vernonia gigantea</i>	Giant ironweed	FAC	X	X

TABLE 2 - CONTINUED

**WETLAND VEGETATION AND INDIVIDUAL
SPECIES WETLAND DESIGNATION FROM
AMP-OHIO POWER PLANT SITE
MEIGS COUNTY, OHIO**

Scientific Name	Common Name	Wetland Status	Upland	Wetland
<i>Vicia cracca tenuifolia</i>	Cow vetch	NO	X	
<i>Viola papilionacea</i>	Common blue violet	FAC	X	X
<i>Vitis aestivalis</i>	Summer grape	FACU	X	
<i>Vitis riparia</i>	River grape	FACW	X	X
<i>Vitis labrusca</i>	Fox grape	FACU	X	
<i>Xanthium strumarium</i>	Common cocklebur	FAC	X	X
<i>Zea Mays</i>	Corn	NI	X	

Obt = Occurs in wetlands almost always (>99 percent) under favorable conditions

Facw = Usually occurs in wetlands (67 - 99 percent) but occasionally found in non-wetlands

Fac = Equally likely to occur in wetlands and non-wetlands (34 - 66 percent)

Facu = Usually occurs in non-wetlands (67 - 99 percent) but occasionally found in wetlands

Upl = Occurs in uplands almost always (>99 percent) under favorable conditions

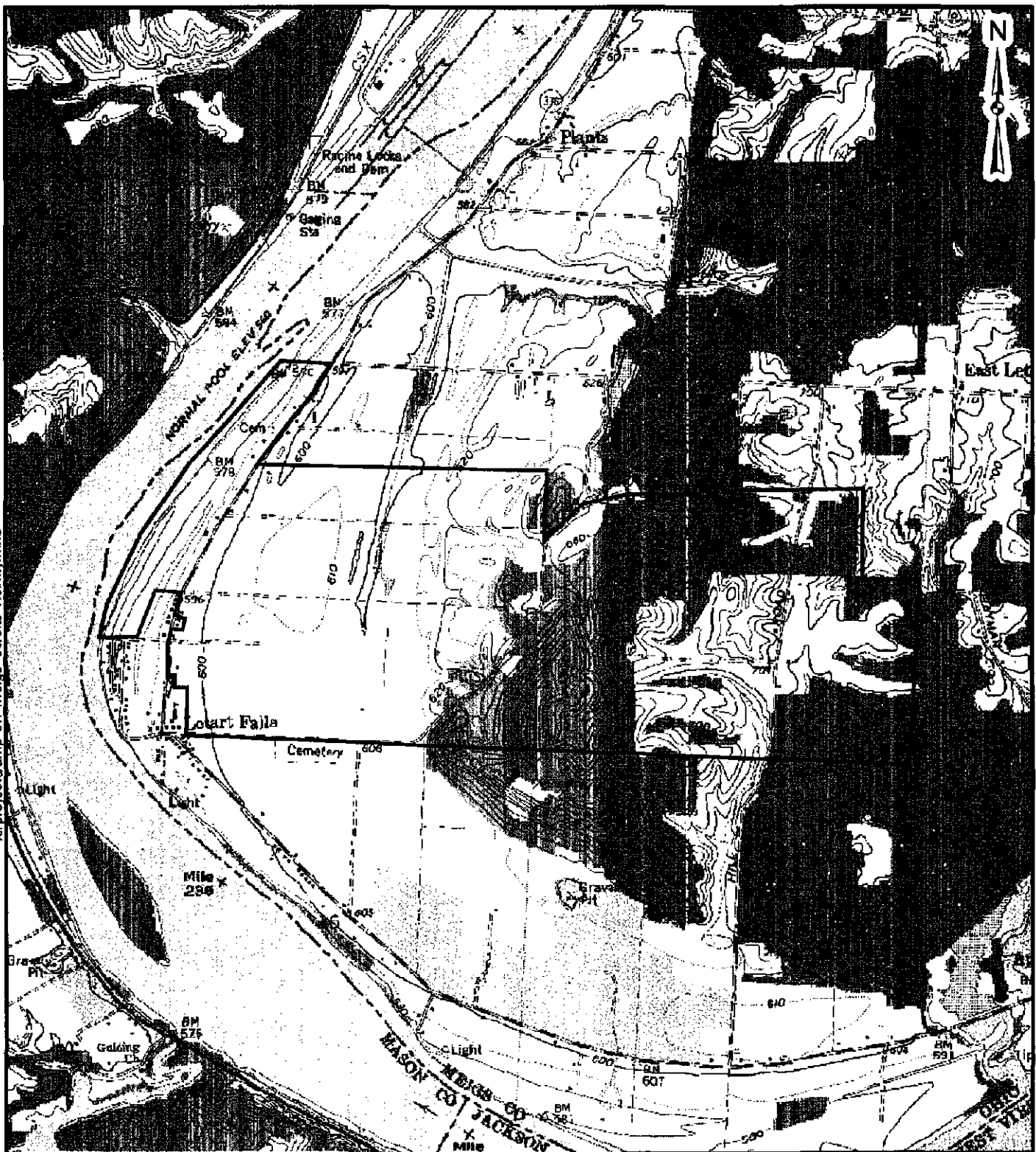
NI = Not indicated (no agreement as to designation)

NO = No listings

National Wetlands Inventory, U.S. Fish and Wildlife Service, Biological Report 88(24)

Region 1 listings

x:\projects\amp-oh-meigs-co\site-vicinity.mxd



LEGEND:

 Extents of Ecological Survey

0 2,000 4,000

Scale in Feet

BASE MAP SOURCE:

USGS 7.5-minute topographic quadrangle
New Haven, WV-OH (1968, photorevised 1987)

AMP - OHIO
MEIGS COUNTY, OHIO

FIGURE 1
SITE VICINITY MAP

JOB NO. 14946376

URS



LEGEND:



Extents of Ecological Survey



National Wetland Inventory Designated Area

0 2,000 4,000

Scale in Feet

BASE MAP SOURCE:

USGS 7.5-minute topographic quadrangle

New Haven, WV-OH (1968, photorevised 1987)









AMP - OHIO

MEIGS COUNTY, OHIO

FIGURE 2
NATIONAL WETLAND INVENTORY MAP

JOB NO. 14946376

URS

 Extents of Ecological Survey
 Delineated Wetland
 HHEI Location
 Stream
 Pond
 Non-jurisdictional Ditch
 ODNR Species Record Location
 Soil Core Test Location

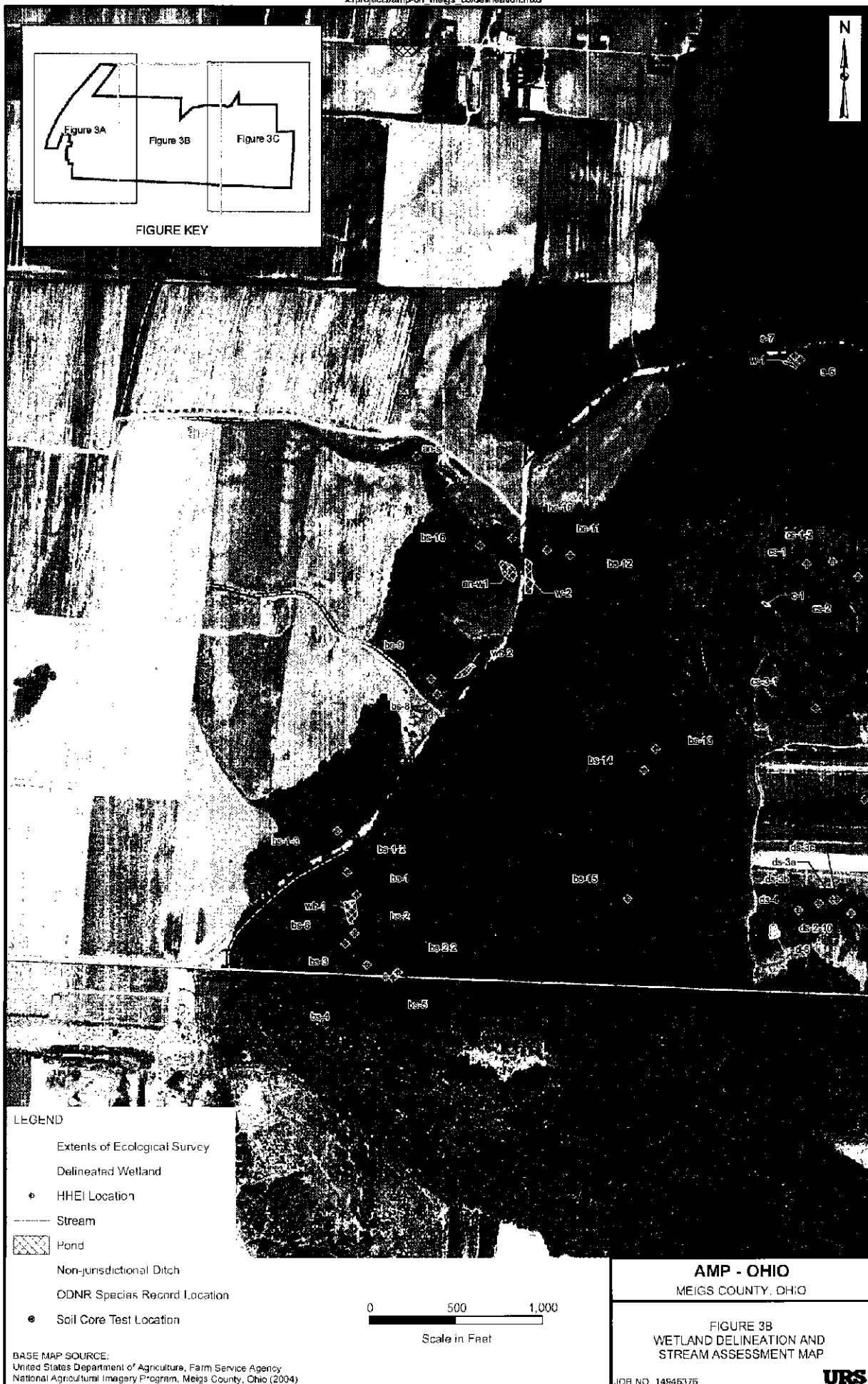
BASE MAP SOURCE:
United States Department of Agriculture, Farm Service Agency
National Agricultural Imagery Program, Meigs County, Ohio (2004)

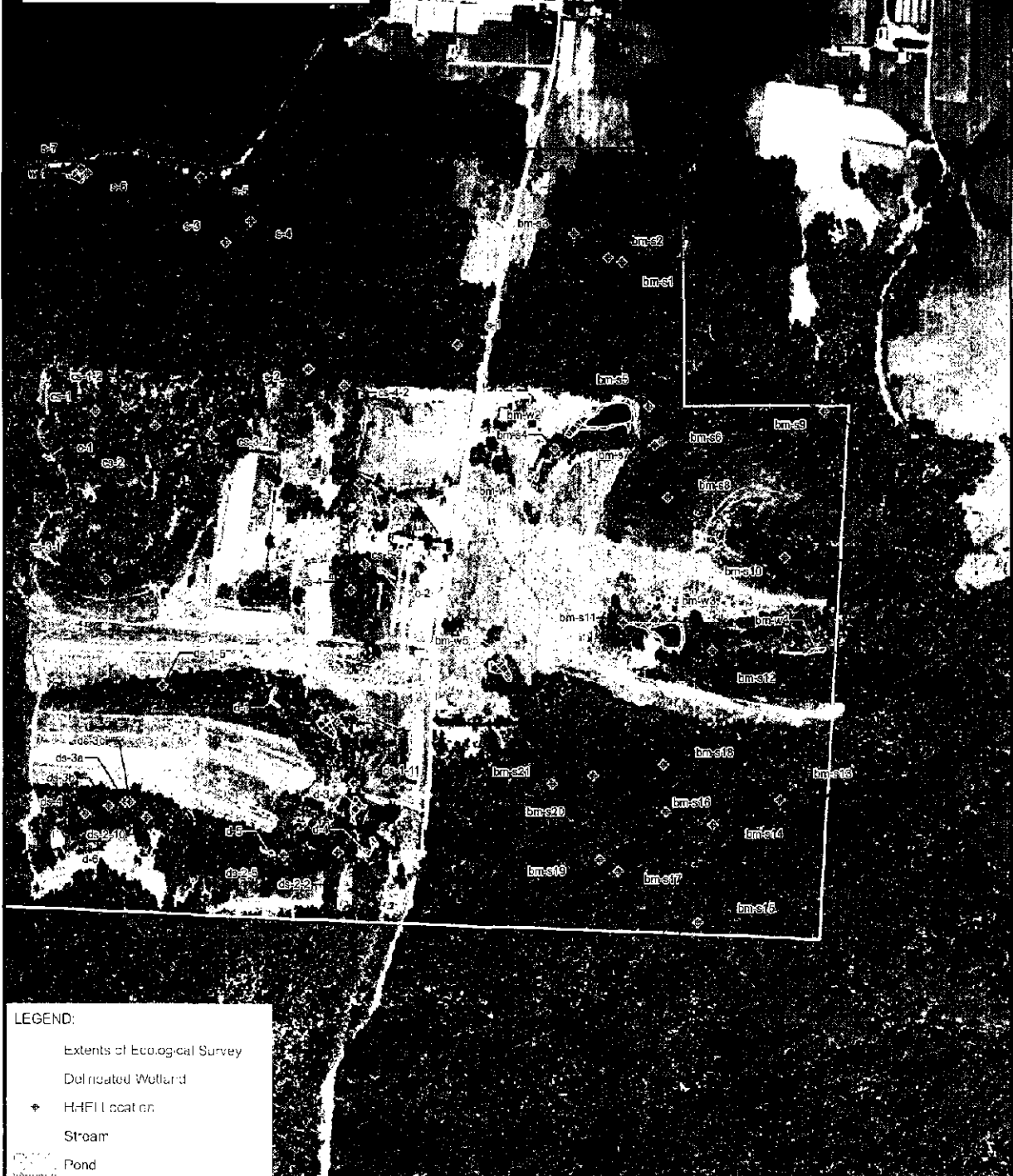
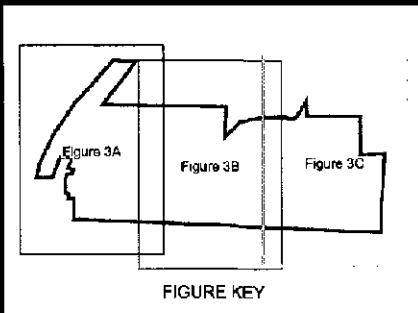
AMP - OHIO
MEIGS COUNTY, OHIO

FIGURE 3A
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 14946376

URS





- LEGEND:
- Extents of Ecological Survey
 - Delineated Wetland
 - HHEI Location
 - Stream
 - Pond
 - Non-jurisdictional Ditch
 - ODNR Species Record Location
 - Soil Core Test Location

0 500 1,000
Scale in Feet

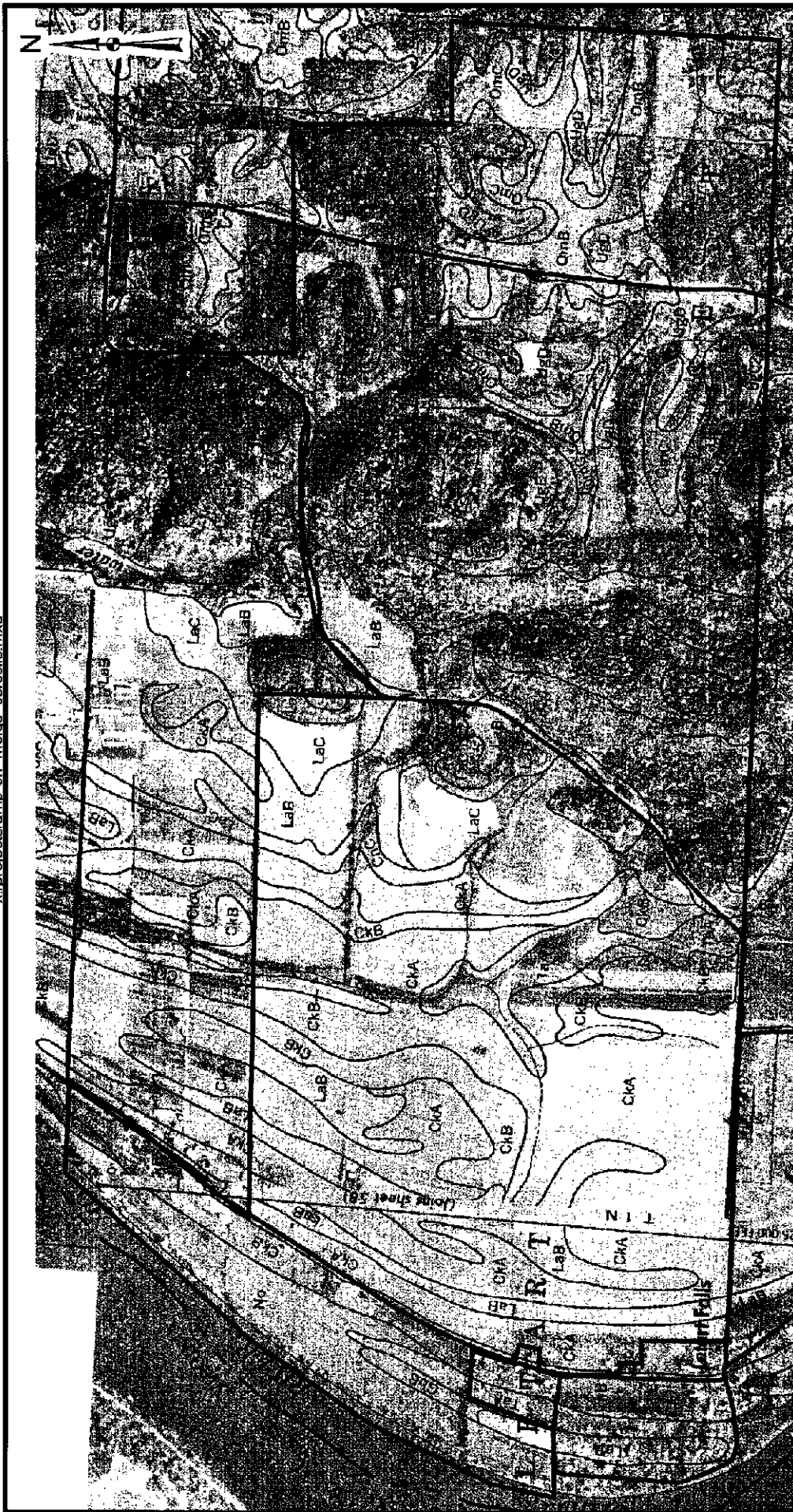
BASE MAP SOURCE:
United States Department of Agriculture, Farm Service Agency
National Agricultural Imagery Program, Meigs County, Ohio (2004)

AMP - OHIO
MEIGS COUNTY, OHIO


FIGURE 3C
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

JOB NO. 14946376

URS



LEGEND:

-  Extents of Ecological Survey



AMP - OHIO
MEIGS COUNTY, OHIO

FIGURE 4
SITE SOILS MAP

BASE MAP SOURCE:
Soil Survey of Meigs County, Ohio
Sheets 53 and 58

JOB NO. 14946376

URS

APPENDIX A

**U.S. ARMY CORPS OF ENGINEERS
WETLAND DELINEATION FORMS**

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>Van Dine / Koser</u>	Date: <u>11/28/05</u> County: <u>Meigs</u> State: <u>OHIO</u>
Do Normal Circumstances Exist on the site? Yes <input type="radio"/> No <input type="radio"/> Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: <u>-</u> Plot ID: <u>ag-1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Panicum dichotomiflorum</u>	<u>H</u>	<u>FACW-</u>	9. _____	_____	_____
2. <u>Glycine max</u>	<u>H</u>	<u>NI</u>	10. _____	_____	_____
3. <u>Rumex obtusifolius</u>	<u>H</u>	<u>FACU-</u>	11. _____	_____	_____
4. <u>Cellisio petiolata</u>	<u>H</u>	<u>FACU-</u>	12. _____	_____	_____
5. <u>Mea maye</u>	<u>H</u>	<u>NI</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~ 20%

Remarks: upland vegetation

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs (<u>potential wetland</u>) <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated (<u>inundated in disturbed areas</u>) <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Naural Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>0</u> (in.) Depth to Free Water in Pit <u>>14"</u> (in.) Depth to Saturated Soil <u>>14"</u> (in.)	Remarks: <u>none observed; disturbed areas with tile cuts are inundated; surrounding area actively farmed with tomatoes</u>

SOILS

ag-1

Map Unit Name (Series and Phase): <u>CKA - Cidermill salt loam, 0-2% slope</u>		Drainage Class: <u>well drained</u>	
Taxonomy (Subgroup): <u>mesic ultic hapludalfs</u>		Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14"	A	10YR 4/3	-	-	sandy loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
---	---

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	No <input checked="" type="radio"/> (Circle)	
Wetland Hydrology Present?	Yes	No <input checked="" type="radio"/> (Circle)	
Hydric Soils Present?	Yes	No <input checked="" type="radio"/> (Circle)	
			Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>

Remarks:

upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>Van Abbe / Kooser</u>	Date: <u>11/28/05</u> County: <u>Meigs</u> State: <u>Ohio</u>						
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input type="radio"/></td> </tr> </table>	Yes <input type="radio"/>	No <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>	Yes <input type="radio"/>	No <input type="radio"/>
Yes <input type="radio"/>	No <input type="radio"/>						
Yes <input type="radio"/>	No <input type="radio"/>						
Yes <input type="radio"/>	No <input type="radio"/>						
Community ID: <u>upland</u> Transect ID: <u>-</u> Plot ID: <u>ag-2</u>							

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Ranuncium dichotomiflorum</u>	<u>H</u>	<u>FACW-</u>	9. _____	_____	_____
2. <u>Oblivaria petiolata</u>	<u>H</u>	<u>FACU-</u>	10. _____	_____	_____
3. <u>Mea maye</u>	<u>H</u>	<u>NI</u>	11. _____	_____	_____
4. <u>Helyene max</u>	<u>H</u>	<u>NI</u>	12. _____	_____	_____
5. <u>Rumex obtusifolius</u>	<u>H</u>	<u>FACU-</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~ 20%

Remarks: upland vegetation

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs (<u>potential wetland</u>) <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated (<u>inundated in disturbed areas</u>) <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>0</u> (in) Depth to Free Water in Pit <u>>12"</u> (in) Depth to Saturated Soil <u>>12"</u> (in)	Remarks: <u>none observed; disturbed areas with tire ruts are inundated</u>

SOILS

ag-2

Map Unit Name

(Series and Phase): CKA - Cedar mill silt loam, 0-2%

Drainage Class: well drained

Taxonomy (Subgroup): mesic, Ultic, Hapluudalfs

Field Observations

Confirm Mapped Type? ☒ Yes ☐ No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12"	A	10YR 4/3	-	-	sandy loam

Hydric Soil Indicators

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes

☒

(Circle)

Wetland Hydrology Present? Yes

☒

(Circle)

Hydric Soils Present? Yes

☒

Is this Sampling Point Within a Wetland?

Yes

☒ No

Remarks

upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letest Falls Area</u> Applicant/Owner: <u>AMP- OH</u> Investigator: <u>Van Schaik/Kooser</u>	Date: <u>11/28/05</u> County: <u>Meigs</u> State: <u>OH</u>						
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> </table>	Yes <input type="radio"/>	No <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Yes <input type="radio"/>	No <input type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Community ID: <u>upland</u> Transect ID: <u>-</u> Plot ID: <u>ag-3</u>							

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Xanthoxylum</u>	<u>H</u>	<u>FAC</u>	9		
2. <u>Poa pratensis</u>	<u>H</u>	<u>FACU</u>	10		
3. <u>Plantago major</u>	<u>H</u>	<u>FACU</u>	11		
4. <u>Antennaria vulgaris</u>	<u>H</u>	<u>NI</u>	12		
5. <u>Panicum dichotomiflorum</u>	<u>H</u>	<u>FACW</u>	13		
6. <u>Cyperus esculentus</u>	<u>H</u>	<u>FACW</u>	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~50%

Remarks: upland vegetation barely

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs (<u>potential wetland</u>) <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water: <u>0</u> (in) Depth to Free Water in Pit: <u>>14"</u> (in) Depth to Saturated Soil: <u>>14"</u> (in)	
Remarks: <u>no hydrology; inundation in disturbed rutted areas</u>	

SOILS

ag-3

Map Unit Name

(Series and Phase): CKA - Cidermill silt loam, 0-2%Drainage Class: well drained

Field Observations

Taxonomy (Subgroup): mesic Ustic HaplustalfsConfirm Mapped Type? (Yes) No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14"	A	10YR ⁴ /3	-	-	silty clay loam

Hydric Soil Indicators

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="radio"/>	
Hydric Soils Present? Yes <input checked="" type="radio"/>	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No
Remarks: upland sampling location	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls Area</u>	Date: <u>11/28/05</u>
Applicant/Owner: <u>AMP-OH</u>	County: <u>Meigs</u>
Investigator: <u>Van Dine/Korner</u>	State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <u>Yes</u> <u>No</u>	Community ID: <u>upland</u> Transect ID: <u>-</u> Plot ID: <u>ag-4</u>
Is the site significantly disturbed (Atypical Situation)? <u>Yes</u> <u>No</u>	
Is the area a potential Problem Area? <u>Yes</u> <u>No</u> (If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Cyperus esculentus</u>	<u>H</u>	<u>FACW</u>	9		
2. <u>Poa pratensis</u>	<u>H</u>	<u>FACU</u>	10		
3. <u>Asterias vulgaris</u>	<u>H</u>	<u>NI</u>	11		
4. <u>Xanthum strumarum</u>	<u>H</u>	<u>FAC</u>	12		
5. <u>Panicum dichotomiflorum</u>	<u>H</u>	<u>FACW</u>	13		
6. <u>Plantago major</u>	<u>H</u>	<u>FACU</u>	14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~50%

Remarks: upland vegetation barely

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs (<u>potential wetland</u>) <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>0</u> (in.) Depth to Free Water in Pit <u>>14"</u> (in.) Depth to Saturated Soil <u>>14"</u> (in.)	
Remarks: <u>upland hydrology</u>	

SOILS

ag-4

Map Unit Name (Series and Phase): CKA - Cidermill silt loam, 0-2% slope Drainage Class: well drained
 Taxonomy (Subgroup): mesic Udic Hapludalfs Field Observations: generally
 Confirm Mapped Type? ☒ Yes ☐ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-7"	A	10YR 4/3	-	-	sandy loam
7-14"	B	10YR 4/3	5YR 4/6	few/faint	sandy loam

Hydric Soil Indicators

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No	
Hydric Soils Present? Yes <input checked="" type="radio"/> No	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No

Remarks:

upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Lt. St. Falls Area</u> Applicant/Owner: <u>AMP- OH</u> Investigator: <u>Van Shanh / Koster</u>	Date: <u>11/28/05</u> County: <u>Muga</u> State: <u>Ohio</u>				
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>				
Yes <input type="radio"/> No <input checked="" type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>				
Community ID: <u>upland</u> Transect ID: <u>-</u> Plot ID: <u>ag-5</u>					

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Xanthoxylum</u>	<u>H</u>	<u>FAC</u>	9. _____	_____	_____
2. <u>Cyperus esculentus</u>	<u>H</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Panicum dichotomiflorum</u>	<u>H</u>	<u>FACW-</u>	11. _____	_____	_____
4. <u>Populus deltoides</u>	<u>S</u>	<u>FAC</u>	12. _____	_____	_____
5. <u>Plantago major</u>	<u>H</u>	<u>FACU</u>	13. _____	_____	_____
6. <u>Salix nigra</u>	<u>S</u>	<u>FACW+</u>	14. _____	_____	_____
7. <u>Solidum multiflorum</u>	<u>H</u>	<u>FACU</u>	15. _____	_____	_____
8. <u>Malva neglecta</u>	<u>H</u>	<u>NI</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 62.5%

Remarks: wetland vegetation

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks) _____ Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs (<u>potential wetland</u>) _____ Other _____ No Recorded Data Available	Wetland hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input checked="" type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>0</u> (in.) Depth to Free Water in Pit <u>>14"</u> (in.) Depth to Saturated Soil <u>>14"</u> (in.)	Remarks: <u>upland hydrology</u>

SOILS

ag-5

Map Unit Name		CKA - Cidermill silt loam, 0-2% slope		CKA - well drained	
(Series and Phase):		Ta A - Jaggart silt loam, 0-2% slope		Drainage Class: Ta A - somewhat poorly drained	
Taxonomy (Subgroup):		CKA - mesic Ultic Kapsledalfe		Field Observations	
		Ta A - mesic arenic Ochraqualfe		Confirm Mapped Type? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → see remarks	

Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14"	A	10YR4/3	-	-	sandy loam

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)

Remarks: <div style="text-align: center; font-size: 1.2em;"> field confirmed upland soil, soil profile more closely reflects the Cidermill series </div>

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Circle) Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Circle) Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Circle)	Is this Sampling Point Within a Wetland? Yes <input checked="" type="checkbox"/> No (Circle)
Remarks: <div style="text-align: center; font-size: 1.2em;"> upland sampling location </div>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls Area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>Van Schaik/Kooner</u>	Date: <u>11/28/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: <u>-</u> Plot ID: <u>ag-6</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Xanthoxylum strumarum</u>	<u>H</u>	<u>FAC</u>	9. _____	_____	_____
2. <u>Panicum dichotomiflorum</u>	<u>H</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Plantago major</u>	<u>H</u>	<u>FACU</u>	11. _____	_____	_____
4. <u>Lolium multiflorum</u>	<u>H</u>	<u>FACU</u>	12. _____	_____	_____
5. <u>Malva neglecta</u>	<u>H</u>	<u>NI</u>	13. _____	_____	_____
6. <u>Cyperus esculentus</u>	<u>H</u>	<u>FACW</u>	14. _____	_____	_____
7. <u>Populus deltoides</u>	<u>S</u>	<u>FAC</u>	15. _____	_____	_____
8. <u>Salix nigra</u>	<u>S</u>	<u>FACW+</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~ 62.5%

Remarks: wetland vegetation

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs (<u>potential wetland</u>) <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>>13"</u> (in.) Depth to Saturated Soil: <u>>13"</u> (in.)	Remarks: <u>upland hydrology; inundation in rutted disturbed areas of the sampling location</u>

SOILS

ag-6

Map Unit Name (Series and Phase): <u>TaA-Taggart silt loam, 0-2%</u>		Drainage Class: <u>poorly drained</u> ^{somewhat}	
Taxonomy (Subgroup): <u>TaA-mesic aeric ochragalfs</u> ^{slope}		Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/>	

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-13"	A	10YR 4/3	5YR 4/6	few/faint	sandy loam

Hydric Soil Indicators

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Hydric Soils Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Remarks:

upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls Area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>McCloskey / VanSteele / Rooser</u>	Date: <u>28 Nov. 2005</u> County: <u>Meigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? Yes <input checked="" type="radio"/> No <input type="radio"/> Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: Plot ID: <u>upland-a</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Phalaris arundinacea</u>	<u>1+</u>	<u>FACW</u>	9		
2. <u>Alliaria petiolata</u>	<u>1+</u>	<u>FACU</u>	10		
3. <u>Polygonum lapath</u>	<u>4</u>	<u>FACU</u>	11		
4. <u>Rumex crispus</u>	<u>4</u>	<u>FAC</u>	12		
5. <u>Taraxacum officinale</u>	<u>1+</u>	<u>FACU</u>	13		
6. <u>Urtica dioica</u>	<u>1+</u>	<u>FACU</u>	14		
7. <u>Rumex obtusifolius</u>	<u>1+</u>	<u>FACU</u>	15		
8			16		

Percent of Dominant Species that are OBL FACW or FAC (excluding FAC-) ~ 28 %

Remarks: upland vegetation dominates, localized areas of reed canary grass

HYDROLOGY

___ Recorded Data (Describe in Remarks) ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations Depth of Surface Water <u> </u> (in.) Depth to Free Water in Pit <u>> 9"</u> (in.) Depth to Saturated Soil <u>> 9"</u> (in.)	
Remarks: <u>No evidence of primary or secondary hydrology indicators. However, wetland hydrology is assumed as a result of proximity to the Ohio River and percentage of the year the area is underwater.</u>	

SOILS

upland - a

Map Unit Name (Series and Phase): No - Nolin silt loam, frequently flooded Drainage Class: well drained
 Taxonomy (Subgroup): Dystic Fluventic Entrochrepts Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR 8/2	5YR 7/6	Few/Faint	Sandy loam
8-9	B	10YR 4/1	5YR 4/6	Few/Faint	Sandy loam
8-9	B	10YR 4/2			Sandy loam

Hydric Soil Indicators

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Suffidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: sandy soils along Ohio River, soils are borderline hydric as one core had a chroma of 1/1 with mottling and the second core had a chroma of 1/2 with no mottling.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	(Circle)
Hydric Soils Present? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)
Remarks: <u>disturbed upland terrace adjacent to the Ohio River</u>	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-ON</u> Investigator: <u>Kosser/Lauffer</u>	Date: <u>11/29/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: <u>-</u> Plot ID: <u>upland-b</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Carex spp.</u>	<u>H</u>	<u>OBL</u>	9		
2. <u>Rosa multiflora</u>	<u>S</u>	<u>FACU</u>	10		
3. <u>Oblivaria petiolata</u>	<u>H</u>	<u>FACU</u>	11		
4. <u>Impatiens capensis</u>	<u>H</u>	<u>FACW</u>	12		
5. <u>Duchesnea indica</u>	<u>H</u>	<u>FACU</u>	13		
6. <u>Thlasium arvense</u>	<u>H</u>	<u>FACU</u>	14		
7. _____			15		
8. _____			16		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~ 33 %

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks) ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations Depth of Surface Water _____ (in) Depth to Free Water in Pit _____ (in) Depth to Saturated Soil _____ (in)	
Remarks: <u>upland hydrology</u>	

SOILS

upland - b

Map Unit Name: <u>LaD - Rahin loamy fine sand,</u>		Drainage Class: <u>excessively well drained</u>	
(Series and Phase): <u>12 to 18 % slopes</u>		Field Observations	
Taxonomy (Subgroup): <u>mesic alfic Udipsamments</u>		Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/>	

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4"	A	10YR 3/2	-	-	silty sand
4-12"	B	10YR 5/2	7.5YR 4/6	few / distinct	silty sand

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
--	--

Remarks: field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Hydric Soils Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>

Remarks: upland sampling location, soils look hydric but no signs of hydrology after heavy morning rains.

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. Rauffer</u>	Date: <u>11/28/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>-</u> Plot ID: <u>AFS-W1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typha sp.</u>	<u>H</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Scirpus cyperinus</u>	<u>H</u>	<u>FACW+</u>	10. _____	_____	_____
3. <u>Carex frankii</u>	<u>H</u>	<u>OBL</u>	11. _____	_____	_____
4. <u>Acer saccharinum</u>	<u>S</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Phalaris arundinacea</u>	<u>H</u>	<u>FACW</u>	13. _____	_____	_____
6. <u>Juncus effusus</u>	<u>H</u>	<u>FACW</u>	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 100%

Remarks: wetland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water _____ (in.) Depth to Free Water in Pit. _____ (in.) Depth to Saturated Soil _____ (in.)	
Remarks: <u>wetland hydrology</u>	

SOILS

AFS-WI

Map Unit Name
(Series and Phase): No - Nolin silt loam, frequently flooded Drainage Class: well drained
Taxonomy (Subgroup): Dystic Fluventic Entrochrepts Field Observations
Confirm Mapped Type? Yes ☐ No ☒

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4	A	10YR 4/3	-	-	sandy loam
4-16	B	10YR 5/1	10YR 4/2	F/F	sandy loam

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks:

9 flags

all three wetland criteria satisfied;
therefore this area is wetland

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. Kauffer</u>	Date: <u>11/28/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: _____ Plot ID: <u>UPL-AFS-10</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Solidago canadense</u>	<u>H</u>	<u>FACU</u>	9. _____	_____	_____
2. <u>Rumex crispus</u>	<u>H</u>	<u>FACU</u>	10. _____	_____	_____
3. <u>Philadelphus flandera</u>	<u>H</u>	<u>UPL</u>	11. _____	_____	_____
4. <u>Festuca pratensis</u>	<u>H</u>	<u>FACU</u>	12. _____	_____	_____
5. <u>Lolium perenne</u>	<u>H</u>	<u>FACU</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 07.

Remarks: upland vegetation

HYDROLOGY

_____ Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge _____ Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: _____ Inundated _____ Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines _____ Sediment Deposits _____ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): _____ Oxidized Root Channels in Upper 12" _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>none observed</u>	

SOILS

UPL-AFS-W1

Map Unit Name

(Series and Phase): NO - Nolin silt loam, frequently floodedDrainage Class: well drainedTaxonomy (Subgroup): Dystic Fluventic EntoschreptsField Observations Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5"	A	10YR 5/3	—	—	sandy loam
5-16"	B	10YR 4/2	—	—	sandy loam
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes No (Circle)
 Wetland Hydrology Present? Yes No (Circle)
 Hydric Soils Present? Yes No (Circle)

(Circle)
 Is this Sampling Point Within a Wetland? Yes No

Remarks:

upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls Area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>Kroeger / Van Shraik</u>	Date: <u>11/28/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM/PS</u> Transect ID: <u>-</u> Plot ID: <u>AN-W1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Carex lasiocarpa</u>	<u>H</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Carex stricta</u>	<u>H</u>	<u>OBL</u>	10. _____	_____	_____
3. <u>Acer negundo</u>	<u>S</u>	<u>FAC+</u>	11. _____	_____	_____
4. <u>Rosa multiflora</u>	<u>V/S</u>	<u>FACU</u>	12. _____	_____	_____
5. <u>Juncus effusus</u>	<u>H</u>	<u>FACW+</u>	13. _____	_____	_____
6. <u>Sagittaria arifolia</u>	<u>H</u>	<u>FACW</u>	14. _____	_____	_____
7. <u>Valeriana racemosa</u>	<u>S</u>	<u>FACW</u>	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC+): ~86%

Remarks: wetland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1 1/2"</u> (in.) Depth to Free Water in Pit: <u>surface</u> (in.) Depth to Saturated Soil: <u>surface</u> (in.)	Remarks: <u>strong wetland hydrology</u>

SOILS

AN-W1

Map Unit Name

(Series and Phase):

LaB - Lahiri loamy fine sand, 1-6% slope

LaB -

excessively well

LaD - Lahiri loamy fine sand, 12-18% slope

Drainage Class:

LaD -

excessively well drained

Taxonomy (Subgroup):

LaB - mesic siltic udipsamments
LaD - mesic siltic udipsamments

Field Observations

Confirm Mapped Type? Yes

(No)

Profile Description:

Depth

(inches)

Horizon

Matrix Color

(Munsell Moist)

Mottle Colors

(Munsell Moist)

Mottle

Abundance/Contrast

Texture, Concretions,

Structure, etc.

0-4"

A

2.5Y4/1

-

-

silty clay

4-15"

B

5Y4/1

7.5Y4/6

few/faint

silty clay

Hydric Soil Indicators

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

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

Remarks

- field confirmed hydric soil
 - the majority of the mapped soil unit is LaB, only the wetland is mapped as LaD

WETLAND DETERMINATION

Hydrophytic Vegetation Present?

(Yes)

No (Circle)

(Circle)

Wetland Hydrology Present?

(Yes)

No

Hydric Soils Present?

(Yes)

No

Is this Sampling Point Within a Wetland?

(Yes)

No

Remarks:

~12 flags
 wetland area in low-lying area adjacent
 to road and stream/drainage way

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-CH</u> Investigator: <u>Kaiser/Van Hook</u>	Date: <u>11/28/05</u> County: <u>Meigs</u> State: <u>Ohio</u>						
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;"><u>Yes</u></td> <td style="text-align: center;"><u>No</u></td> </tr> <tr> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><u>No</u></td> </tr> <tr> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><u>No</u></td> </tr> </table>	<u>Yes</u>	<u>No</u>	Yes	<u>No</u>	Yes	<u>No</u>
<u>Yes</u>	<u>No</u>						
Yes	<u>No</u>						
Yes	<u>No</u>						
Community ID: <u>upland</u> Transect ID: _____ Plot ID: <u>UPI-AN-11</u>							

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Malva neglecta</u>	<u>H</u>	<u>NI</u>	9. _____	_____	_____
2. <u>Festuca pratensis</u>	<u>H</u>	<u>FACU-</u>	10. _____	_____	_____
3. <u>Galium canadense</u>	<u>H</u>	<u>FACU</u>	11. _____	_____	_____
4. <u>Duchesnea indica</u>	<u>H</u>	<u>FACU-</u>	12. _____	_____	_____
5. <u>Rumex crispus</u>	<u>H/V</u>	<u>FAC-</u>	13. _____	_____	_____
6. <u>Juncus tenuis</u>	<u>H</u>	<u>FAC-</u>	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

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

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks) ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required) ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>0</u> (in.) Depth to Free Water in Pit <u>>15"</u> (in.) Depth to Saturated Soil <u>>15"</u> (in.)	
Remarks: <u>none observed</u>	

SOILS

UPL-AN-WI

Map Unit Name (Series and Phase): <u>LaD - Lakin loamy fine sand</u>		Drainage Class: <u>excessively well drained</u>	
Taxonomy (Subgroup): <u>mesic alfic Udeptsamma</u>		Field Observations: <u>12-18% slope</u>	
		Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5"	A	10YR 5/4	-	-	silty loam
5-15"	B	10YR 5/8	-	-	silty clay

Hydric Soil Indicators

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
---	---

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No (Circle) Wetland Hydrology Present? Yes <input checked="" type="radio"/> No (Circle) Hydric Soils Present? Yes <input checked="" type="radio"/> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No
Remarks: <p style="text-align: center; font-size: 1.2em;">upland sampling location</p>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls Area</u> Applicant/Owner: <u>AMP Ohio</u> Investigator: <u>BCM</u>	Date: <u>11-30-05</u> County: <u>Meigs</u> State: <u>OH</u>			
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Yes <input checked="" type="radio"/> No <input type="radio"/>				
Yes <input type="radio"/> No <input checked="" type="radio"/>				
Yes <input type="radio"/> No <input checked="" type="radio"/>				
Community ID: <u>PEM</u> Transect ID: <u>W1</u> Plot ID: <u>BM-W1</u>				

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Epilobium coloratum</u>	<u>HE</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Ludwigia alternifolia</u>	<u>HE</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Carex spp.</u>	<u>HE</u>	<u>FACW</u>	11. _____	_____	_____
4. <u>Leersia oryzoides</u>	<u>HE</u>	<u>OBL</u>	12. _____	_____	_____
5. <u>Sparganium angustifolium</u>	<u>HE</u>	<u>OBL</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves ___ Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u>Surface</u> (in.) Depth to Saturated Soil: <u> </u> (in.)	
Remarks: <u>wetland hydrology</u>	

SOILS

BM-W1

Map Unit Name UgD- Upshur-Helpm complex,
 (Series and Phase): 15 to 25% slopes
 Taxonomy (Subgroup): mesic Typic Hapludolls

Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☐ No ☒

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 4/3	10YR 5/8	F/F	Silty loam
3-16	B	2.5Y 4/1	10YR 5/8	F/F	Silty loam

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks:	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls Area</u> Applicant/Owner: <u>AMP Ohio</u> Investigator: <u>BSM</u>	Date: <u>11-30-05</u> County: <u>Meigs</u> State: <u>OH</u>			
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <u>(X)</u> No</td> </tr> <tr> <td style="text-align: center;">Yes <u>(X)</u> No <u>(X)</u></td> </tr> <tr> <td style="text-align: center;">Yes <u>(X)</u> No <u>(X)</u></td> </tr> </table>	Yes <u>(X)</u> No	Yes <u>(X)</u> No <u>(X)</u>	Yes <u>(X)</u> No <u>(X)</u>
Yes <u>(X)</u> No				
Yes <u>(X)</u> No <u>(X)</u>				
Yes <u>(X)</u> No <u>(X)</u>				
Community ID: <u>Newfallow</u> Transect ID: <u>UPL</u> Plot ID: <u>UPL-BM-1</u>				

VEGETATION

Adjacent

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Lonicera japonica</u>	<u>He</u>	<u>FAC-</u>	9. <u>Dichanthelium clandestinum</u>	<u>He</u>	<u>FAC+</u>
2. <u>Daucus carota</u>	<u>He</u>	<u>NI</u>	10. _____	_____	_____
3. <u>Rosa multiflora</u>	<u>He</u>	<u>FACU</u>	11. _____	_____	_____
4. <u>Rubus allegheniensis</u>	<u>He</u>	<u>FACU-</u>	12. _____	_____	_____
5. <u>Eriophorum spp.</u>	<u>He</u>	<u>NI</u>	13. _____	_____	_____
6. <u>Cirsium arvense</u>	<u>He</u>	<u>FACU</u>	14. _____	_____	_____
7. <u>Taraxacum officinale</u>	<u>He</u>	<u>FACU-</u>	15. _____	_____	_____
8. <u>Solidago canadensis</u>	<u>He</u>	<u>FACU</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~11%

Remarks: upland vegetation

HYDROLOGY

<p>___ Recorded Data (Describe in Remarks):</p> <p style="margin-left: 20px;">___ Stream, Lake, or Tide Gauge</p> <p style="margin-left: 20px;">___ Aerial Photographs</p> <p style="margin-left: 20px;">___ Other</p> <p>___ No Recorded Data Available</p>	<p>Wetland hydrology Indicators:</p> <p>Primary Indicators:</p> <p>___ Inundated</p> <p>___ Saturated in Upper 12 Inches</p> <p>___ Water Marks</p> <p>___ Drift Lines</p> <p>___ Sediment Deposits</p> <p>___ Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p>___ Oxidized Root Channels in Upper 12"</p> <p>___ Water-Stained Leaves</p> <p>___ Local Soil Survey Data</p> <p>___ FAC-Neutral Test</p> <p>___ Other (Explain in Remarks)</p>
<p>Field Observations:</p> <p>Depth of Surface Water: <u>—</u> (in.)</p> <p>Depth to Free Water in Pit: <u>> 14"</u> (in.)</p> <p>Depth to Saturated Soil: <u>> 14"</u> (in.)</p>	
<p>Remarks: <u>hydrology criterion not met</u></p>	

SOILS

VPL-BM-W1

Map Unit Name V3D - Upshur-Helpin complex,
 (Series and Phase): 15 to 25% slopes
 Taxonomy (Subgroup): mesic Typic Hapludalfs
 Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 4/3	—	—	
3-14	B	10YR 4/2	—	—	

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No	
Hydric Soils Present? Yes <input checked="" type="radio"/> No	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No
Remarks: upland sampling location	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart falls area</u> Applicant/Owner: <u>AMP Ohio</u> Investigator: <u>BGM</u>	Date: <u>11-30-05</u> County: <u>Meigs</u> State: <u>OH</u>				
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input type="radio"/></td> <td style="text-align: center;">Yes <input type="radio"/> No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input type="radio"/></td> <td style="text-align: center;">Yes <input type="radio"/> No <input type="radio"/></td> </tr> </table>	Yes <input type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/>
Yes <input type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/>				
Yes <input type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input type="radio"/>				
Community ID: <u>PEM</u> Transect ID: <u>Wet</u> Plot ID: <u>BGMN2</u>					

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Verisla Onyzoides</u>	<u>He</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Juncus effusus</u>	<u>He</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Scirpus Cyperinus</u>	<u>He</u>	<u>FACW</u>	11. _____	_____	_____
4. <u>Phalaris arundinacea</u>	<u>He</u>	<u>FACW</u>	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: wetland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated (in areas) <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>wetland hydrology</u>

SOILS

BM-W2

Map Unit Name: UgE - upshur - Hesper complex,
 (Series and Phase): 25 to 50 % slopes
 Taxonomy (Subgroup): mesic Typic Hapludalfs
 Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☒ No

Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4	A	2.5Y 5/3	10YR 3/6	—	
4-16	B	2.5Y 5/2	10YR 3/6	—	

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks: emergent wetland fringe around pond	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP Co. O</u> Investigator: <u>BERN</u>	Date: <u>11-30-05</u> County: <u>Meigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>WCT</u> Plot ID: <u>BM-W3</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Scirpus cyperinus</u>	<u>He</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Juncus effusus</u>	<u>He</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Juncus tenuis</u>	<u>He</u>	<u>FACW</u>	11. _____	_____	_____
4. <u>Carex lasiocarpa</u>	<u>He</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Typha latifolia</u>	<u>He</u>	<u>OBL</u>	13. _____	_____	_____
6. <u>Eleocharis obtusa</u>	<u>He</u>	<u>OBL</u>	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>Surface</u> (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>wetland hydrology</u>

SOILS

BM-W3

Map Unit Name UgD - Upshur - Helpin complex, 15 to 25 % slopes UgD - well drained
 (Series and Phase): UgE - upshur - Helpin complex, 25 to 50 % slopes Drainage Class: UgE - well drained
 Taxonomy (Subgroup): mesic Typic Hapludalfs Field Observations: Confirm Mapped Type? Yes ☐ No ☒

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 4/3	10YR 3/6	C/D	
3-16	B	10YR 5/1	10YR 3/4	C/D	

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks: emergent wetland	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls Area</u> Applicant/Owner: <u>Firm D Ohio</u> Investigator: <u>BEM</u>	Date: <u>11-30-05</u> County: <u>Meigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>New Farm</u> Transect ID: <u>UPL</u> Plot ID: <u>UPL-BM-W3</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Lonicera japonica</u>	<u>He</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Dichanthelium clandestinum</u>	<u>He</u>	<u>FAC+</u>	10. _____	_____	_____
3. <u>Eriophorum spp.</u>	<u>He</u>	<u>NI</u>	11. _____	_____	_____
4. <u>Rubus alleghaniensis</u>	<u>He</u>	<u>FACU-</u>	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~25%

Remarks: upland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>>16"</u> (in.) Depth to Saturated Soil: <u>>16"</u> (in.)	
Remarks: <u>No hydrology criterion present</u>	

SOILS

UPL-BM-W3

Map Unit Name UgE - Upton - Hesper complex,
(Series and Phase): 25 to 50% slopes

Drainage Class: well drained

Taxonomy (Subgroup): mesic Typic Hapludalfs

Field Observations

Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 4/2	1-1	—	
2-16	B	10YR 4/3	10YR 7/6	C/D	

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <u>No</u> (Circle)	(Circle)
Wetland Hydrology Present? Yes <u>No</u>	
Hydric Soils Present? Yes <u>No</u>	Is this Sampling Point Within a Wetland? Yes <u>No</u>
Remarks: upland sampling location	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>AMP Ohio</u> Applicant / Owner: <u>AMP Ohio</u> Investigator: <u>BEM</u>	Date: <u>12-1-05</u> County: <u>Meigs</u> State: <u>OH</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>POW/PEM</u> Transect ID: <u>WET</u> Plot ID: <u>BMW 4</u>

VEGETATION

Adj. 20 ft. x 4 ft.

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Carex lurida</u>	<u>He</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Carex stricta</u>	<u>He</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Loerisia arizones</u>	<u>He</u>	<u>OBL</u>	11. _____	_____	_____
4. <u>Scirpus cyperinus</u>	<u>He</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Chelone alabra</u>	<u>He</u>	<u>OBL</u>	13. _____	_____	_____
6. <u>Epilobium catagatum</u>	<u>He</u>	<u>OBL</u>	14. _____	_____	_____
7. <u>Typha latifolia</u>	<u>He</u>	<u>OBL</u>	15. _____	_____	_____
8. <u>Typha angustifolia</u>	<u>He</u>	<u>OBL</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100%

Remarks:
wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12" <input checked="" type="checkbox"/> Water Marks ___ Drift Lines ___ Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: <u>16</u> (in.) Depth to Free Water in Pit: <u>Surface</u> (in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators: <input checked="" type="checkbox"/> Oxidized Roots Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves <input checked="" type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test ___ Other (Explain in Remarks)
Remarks: <u>wetland hydrology</u>	

SOILS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Ampe Ohio</u> Applicant / Owner: <u>Ampe Ohio</u> Investigator: <u>REM</u>	Date: <u>12-1-05</u> County: <u>Meigs</u> State: <u>OH</u>
Do normal circumstances exist on the site? Yes <u>X</u> No <u> </u> Is the site significantly disturbed (Atypical situation)? Yes <u> </u> No <u>X</u> Is the area a potential problem area? Yes <u> </u> No <u>X</u> (explain on reverse if needed)	Community ID: <u>OPL-BM-w4</u> Transect ID: <u>UPL</u> Plot ID: <u>OPL-BM-w4</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Rosa multiflora</u>	<u>SH</u>	<u>FACU</u>	9. <u> </u>	<u> </u>	<u> </u>
2. <u>Lonicera japonica</u>	<u>SH</u>	<u>FAC-</u>	10. <u> </u>	<u> </u>	<u> </u>
3. <u>Fragaria virginiana</u>	<u>TR</u>	<u>FACU</u>	11. <u> </u>	<u> </u>	<u> </u>
4. <u>Verbesina alternifolia</u>	<u>H</u>	<u>FAC</u>	12. <u> </u>	<u> </u>	<u> </u>
5. <u>Quercus macrocarpa</u>	<u>T</u>	<u>FAC-</u>	13. <u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	14. <u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	15. <u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	16. <u> </u>	<u> </u>	<u> </u>

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 20%

Remarks:
upland vegetation

HYDROLOGY

<p><u> </u> Recorded Data (Describe in Remarks):</p> <p style="margin-left: 20px;"><u> </u> Stream, Lake, or Tide Gauge</p> <p style="margin-left: 20px;"><u> </u> Aerial Photographs</p> <p style="margin-left: 20px;"><u> </u> Other</p> <p><u> </u> No Recorded Data Available</p> <p>Field Observations:</p> <p>Depth of Surface Water: <u> </u> (in.)</p> <p>Depth to Free Water in Pit: <u>>16"</u> (in.)</p> <p>Depth to Saturated Soil: <u>>16"</u> (in.)</p>	<p>Wetland Hydrology Indicators</p> <p>Primary Indicators:</p> <p><u> </u> Inundated</p> <p><u> </u> Saturated in Upper 12"</p> <p><u> </u> Water Marks</p> <p><u> </u> Drift Lines</p> <p><u> </u> Sediment Deposits</p> <p><u> </u> Drainage Patterns in Wetlands</p> <p>Secondary Indicators:</p> <p><u> </u> Oxidized Roots Channels in Upper 12"</p> <p><u> </u> Water-Stained Leaves</p> <p><u> </u> Local Soil Survey Data</p> <p><u> </u> FAC-Neutral Test</p> <p><u> </u> Other (Explain in Remarks)</p>
Remarks: <u>No hydrology criterion present</u>	

SOILS

Map Unit Name UgE - upland - Hilpin
 (Series and Phase): complex, 25 to 50% slopes Drainage Class: well drained
 Taxonomy (Subgroup): mesic Typic Hapludalfs Confirm Mapped Type? Yes ☐ No ☒

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4	A	10YR 3/2	NA	—	silt loam
4-16	B	10YR 4/4	NA	—	silt loam

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed On Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☒
 Wetland Hydrology Present? Yes ☐ No ☒
 Hydric Soils Present? Yes ☐ No ☒

Is the Sampling Point
 Within a Wetland? Yes ☐ No ☒

Remarks:

upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Antart Falls area</u> Applicant / Owner: <u>AMP-OH</u> Investigator: <u>Hoover / Macloskey</u>	Date: <u>1 Dec. 05</u> County: <u>DeWitt</u> State: <u>Ohio</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>PEM</u> Transect ID: <u>1 of 2</u> Plot ID: <u>BM-W5</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Phalaris arundinacea</u>	<u>H</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Juncus effusus</u>	<u>H</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Carex striata</u>	<u>H</u>	<u>OBL</u>	11. _____	_____	_____
4. <u>Carex lasiocarpa</u>	<u>H</u>	<u>OBL</u>	12. _____	_____	_____
5. <u>Poa pratensis</u>	<u>H</u>	<u>FACW</u>	13. _____	_____	_____
6. <u>Polygonum sagittatum</u>	<u>H</u>	<u>OBL</u>	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). ~83%

Remarks:
wetland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations:	Wetland Hydrology Indicators Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands
Depth of Surface Water: <u>1-2</u> (in.) Depth to Free Water in Pit: <u>—</u> (in.) Depth to Saturated Soil: <u>—</u> (in.)	Secondary Indicators: <input checked="" type="checkbox"/> Oxidized Roots Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: <u>wetland hydrology</u>	

SOILS

Map Unit Name VgD-upshore - Gulfport
 (Series and Phase): complex, 15 to 25% slope Drainage Class: well drained
 Taxonomy (Subgroup): maric Typic Hapludolls Confirm Mapped Type? Yes ☐ No ☒

Profile Description:					
Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-7	A	2.5Y 3/1	—	—	Silty loam
7-18	B	2.5Y 4/2	7.5YR 5/8	Few Dist	Clay loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed On Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampling Point
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soils Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks: PEM

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Retart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>McLachry/Kooser</u>	Date: <u>12/1/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>2 of 2</u> Plot ID: <u>BM-W5</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Sagittaria virginica</u>	<u>H</u>	<u>FACW</u>	9. <u>Ludwigia alternifolia</u>	<u>H</u>	<u>FACW+</u>
2. <u>Cephalanthus occidentalis</u>	<u>S</u>	<u>OBL</u>	10. _____	_____	_____
3. <u>Sagittaria</u>	<u>T</u>	<u>FACW+</u>	11. _____	_____	_____
4. <u>Ludwigia palustris</u>	<u>H</u>	<u>OBL</u>	12. _____	_____	_____
5. <u>Sagittaria spp.</u>	<u>H</u>	<u>-</u>	13. _____	_____	_____
6. <u>Polygonum sagittatum</u>	<u>H</u>	<u>OBL</u>	14. _____	_____	_____
7. <u>Oxycoccus sensibilis</u>	<u>H</u>	<u>FACW</u>	15. _____	_____	_____
8. <u>Carex lunata</u>	<u>H</u>	<u>OBL</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~89%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves <input checked="" type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>2-3"</u> (in.) Depth to Free Water in Pit: <u>-</u> (in.) Depth to Saturated Soil: <u>-</u> (in.)	Remarks: <u>wetland hydrology</u>

SOILS

BM-W5
2 of 2

Map Unit Name (Series and Phase): <u>UgD - Upchurch-Helpm complex,</u> <u>15 to 25% slopes</u>		Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/>			
Taxonomy (Subgroup): <u>mesic Typic Hapludalfs</u>					
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4"	A	10YR ⁴ / ₃	—	—	silty loam
4-18"	B	5Y 4/1	10YR ⁶ / ₈	few/faint	clay loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
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Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)
Remarks:	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Determination Manual)

Project / Site: <u>Retort Falls area</u> Applicant / Owner: <u>AMP-ON</u> Investigator: <u>Nichols / Hooser</u>	Date: <u>1 Dec. 05</u> County: <u>Meigs</u> State: <u>OH</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>upland</u> Transect ID: <u>1</u> Plot ID: <u>UPL-BM-W5</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Dactylis glomerata</u>			9. _____		
2. <u>Juncus effusus</u>			10. _____		
3. <u>Poa pratensis</u>			11. _____		
4. <u>Dicentra uniflora</u>			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Wetland Hydrology Indicators Primary Indicators: ___ Inundated ___ Saturated in Upper 12" ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators: ___ Oxidized Roots Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Remarks: <u>No evidence of wetland by hydrology</u> <u>7 Flags</u>	

SOILS

Map Unit Name UgD - Upland - Helpin complex
 (Series and Phase): IS to 25% slopes Drainage Class: well drained
 Taxonomy (Subgroup): mesic Typic Hapludalfs Confirm Mapped Type? Yes ☐ No ☒

Profile Description:					
Depth (Inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6	A	10YR 4/4	10YR 4/8	Many/Faint	Silt loam
6-18	B	10YR 5/6	—	—	Silt loam

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed On Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampling Point	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soils Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

Remarks:

upland

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>Joy Van Shaik / Matt Lauffer</u>	Date: <u>11/30/05</u> County: <u>MG5</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>-</u> Plot ID: <u>C-1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Polygonum sagittatum</u>	<u>A</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Xanthium strumarium</u>	<u>A</u>	<u>FAC</u>	10. _____	_____	_____
3. <u>Dichanthelium clandestinum</u>	<u>A</u>	<u>FAC</u>	11. _____	_____	_____
4. <u>Juncus effusus</u>	<u>H</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Scirpus validus</u>	<u>H</u>	<u>FACW</u>	13. _____	_____	_____
6. <u>Carex sp.</u>	<u>H</u>	<u>FACW</u>	14. _____	_____	_____
7. <u>Aster rugosus</u>	<u>S</u>	<u>FAC</u>	15. _____	_____	_____
8. <u>Phalaris arundinacea</u>	<u>L</u>	<u>FACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 100%

Remarks: wetland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>-</u> (in) Depth to Free Water in Pit <u>>14</u> (in) Depth to Saturated Soil <u>>14</u> (in)	Remarks: <u>wetland hydrology</u>

SOILS

C-1

Map Unit Name: <u>UgD - Upshur-Helpm complex, 15 to 25% slopes</u> <u>UgD - well drained</u> (Series and Phase): <u>UgE - Upshur-Helpm complex, 25 to 50% slopes</u> Drainage Class: <u>UgE - well drained</u> Taxonomy (Subgroup): <u>mesic Typic Hapludalfs</u> Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/>					
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 3/2	—	—	loam
2-14	B	10YR 4/1	7.5YR 3/4	F/D	clay

Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
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Remarks:

oxidized rhizosphere, field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks: <p style="text-align: center; font-size: 1.5em;">9 flags</p>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Levant Falls area</u> Applicant/Owner: <u>AMP-CH</u> Investigator: <u>JAV/MBL</u>	Date: <u>11/30/05</u> County: <u>MASS</u> State: <u>MA</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>NW</u> Transect ID: Plot ID: <u>UL-L-1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Eriogon phillyphicus</u>	<u>H</u>	<u>UPL</u>	9. _____	_____	_____
2. <u>Pharus amabilis</u>	<u>H</u>	<u>PACW</u>	10. _____	_____	_____
3. <u>Dichanthelium clandestinum</u>	<u>H</u>	<u>PAC</u>	11. _____	_____	_____
4. <u>Veronum gigantea</u>	<u>H</u>	<u>PAC</u>	12. _____	_____	_____
5. <u>Rosa multiflora</u>	<u>S</u>	<u>FACU</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

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

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required) ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations Depth of Surface Water: _____ (in) Depth to Free Water in Pit: <u>216"</u> (in) Depth to Saturated Soil: <u>216"</u> (in)	Remarks: <u>None observed</u>

SOILS

VPL-C-1

Map Unit Name (Series and Phase): <u>UgE - Upshur - Helpin complex,</u> <u>25 to 50% slopes</u>		Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Taxonomy (Subgroup): <u>mesic Typic Hapludalfs</u>					
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 7/3	—	—	(silt)
2-16	B	10YR 7/6	10YR 5/8	F/F	clay

Hydric Soil Indicators:	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input type="radio"/> Yes <input checked="" type="radio"/> No Hydric Soils Present? <input type="radio"/> Yes <input checked="" type="radio"/> No	Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <p style="text-align: center; font-size: 1.2em;">upland sampling location</p>	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. Lamber</u>	Date: <u>11/30/05</u> County: <u>Delaware</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>wetland</u> Plot ID: <u>C-2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Phalaris arundinacea</u>	<u>H</u>	<u>PACW</u>	9. _____	_____	_____
2. <u>Carex lasiocarpa</u>	<u>H</u>	<u>OBL</u>	10. _____	_____	_____
3. <u>Juncus effusus</u>	<u>H</u>	<u>PACW</u>	11. _____	_____	_____
4. <u>Phytolacca sp.</u>	<u>H</u>	<u>OBL</u>	12. _____	_____	_____
5. <u>Sparganium angustifolium</u>	<u>H</u>	<u>PAC</u>	13. _____	_____	_____
6. <u>Sagittaria arifolia</u>	<u>H</u>	<u>PACU</u>	14. _____	_____	_____
7. <u>Typha latifolia</u>	<u>H</u>	<u>PAC</u>	15. _____	_____	_____
8. <u>Rumex crispus</u>	<u>S</u>	<u>PACU</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 6/8 = ~75%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u>-</u> (in.) Depth to Saturated Soil: <u>-</u> (in.)	
Remarks: <u>wetland fed by spring</u>	

SOILS

C-2

Map Unit Name: VgD - Upshur-Halpin complex,
 (Series and Phase): 15 to 25% slopes
 Taxonomy (Subgroup): mesic Typic Hapludalfs
 Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☐ No ☒

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14	MB	Gray 13/10Y	—	—	sandy silty loam

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input checked="" type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Remarks: Adjacent, 10 Acre	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Antant Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>JAV</u>	Date: <u>12/19/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: <u>1</u> Plot ID: <u>WPL-C-2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Solidago canadensis</u>	<u>H</u>	<u>FACU</u>	9		
2. <u>Rubus allegheniensis</u>	<u>H</u>	<u>FACU-</u>	10		
3. <u>Eupatorium maculatum</u>	<u>H</u>	<u>FACW</u>	11		
4. <u>Festuca pratensis</u>	<u>H</u>	<u>FACU-</u>	12		
5. _____	_____	_____	13		
6. _____	_____	_____	14		
7. _____	_____	_____	15		
8. _____	_____	_____	16		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 25%

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks) ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations Depth of Surface Water <u> </u> (in.) Depth to Free Water in Pit <u>>14"</u> (in.) Depth to Saturated Soil <u>>14"</u> (in.)	
Remarks: <u>none observed</u>	

VPL-C-2

WETLAND DETERMINATION

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letort Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. Lamb</u>	Date: <u>2/2/85</u> County: <u>mus</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>DEM</u> Transect ID: <u>Wet</u> Plot ID: <u>C-3</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Carex frankii</u>	<u>H</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Plantago occidentalis</u>	<u>T</u>	<u>PACW</u>	10. _____	_____	_____
3. <u>Dichanthelium clandestinum</u>	<u>A</u>	<u>PAC+</u>	11. _____	_____	_____
4. <u>Rosa multiflora</u>	<u>S</u>	<u>PACU</u>	12. _____	_____	_____
5. <u>Carex deppeana</u>	<u>A</u>	<u>PACW</u>	13. _____	_____	_____
6. <u>Carex lyrida</u>	<u>H</u>	<u>OBL</u>	14. _____	_____	_____
7. <u>Juncus effusus</u>	<u>A</u>	<u>PACW</u>	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~71%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1"</u> (in.) Depth to Free Water in Pit: <u>-</u> (in.) Depth to Saturated Soil: <u>-</u> (in.)	
Remarks: <u>wetland hydrology</u>	

SOILS

Map Unit Name: UgE - Upper - Hilpin complex,
 (Series and Phase): 2S to 50%
 Taxonomy (Subgroup): meric Typic Hapludalfs

Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 6/6	—	—	silt
3-20	B	2.5 Y 4/2	7.5YR 4/5	m/d	silt
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input checked="" type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

eromow amount of oxidized horizon

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No (Circle)
 Wetland Hydrology Present? ☒ Yes ☐ No
 Hydric Soils Present? ☒ Yes ☐ No

(Circle)
 Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks:

Adjacent, 6 flags

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-ON</u> Investigator: <u>M. Luffe</u>	Date: <u>11/30/05</u> County: <u>May</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No Is the area a potential Problem Area? Yes <input type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland meadow</u> Transect ID: _____ Plot ID: <u>UPL-C-3</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Dichanthelium clandestinum</u>	<u>H</u>	<u>PAC+</u>	9. _____	_____	_____
2. <u>Lonicera japonica</u>	<u>IF</u>	<u>PACU</u>	10. _____	_____	_____
3. <u>Rosa multiflora</u>	<u>S</u>	<u>PACU</u>	11. _____	_____	_____
4. <u>Salix candensis</u>	<u>H</u>	<u>PACU</u>	12. _____	_____	_____
5. <u>Poa annua</u>	<u>H</u>	<u>FACU</u>	13. _____	_____	_____
6. <u>Festuca pratensis</u>	<u>H</u>	<u>FACU-</u>	14. _____	_____	_____
7. <u>Rubus allegheniensis</u>	<u>H</u>	<u>PACU</u>	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~14%

Remarks: _____

HYDROLOGY

_____ Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge _____ Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland hydrology indicators: Primary indicators: _____ Inundated _____ Saturated in Upper 12 inches _____ Water Marks _____ Drift Lines _____ Sediment Deposits _____ Drainage Patterns in Wetlands Secondary indicators (2 or more required): _____ Oxidized Root Channels in Upper 12" _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>>14"</u> (in.) Depth to Saturated Soil: <u>>14"</u> (in.)	
Remarks: <u>none observed</u>	

SOILS

UPL-C-3

Map Unit Name UgE - Upshur - Hilpin complex,
 (Series and Phase): 25 to 50% slopes
 Taxonomy (Subgroup): mesic Typic Kaphudalfs
 Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 3/3	—	—	silty loam
3-14	B	10YR 5/3	10YR 5/6	F/F	silty clay
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Hydric Soil Indicators:

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

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

Remarks:

Concretions, field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/>	
Hydric Soils Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/>	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/>
Remarks: upland sampling location	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP- OH</u> Investigator: <u>P. Lauffer</u>	Date: <u>11/30/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>wet</u> Plot ID: <u>C-4</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Carex frankii</u>	<u>H</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Polygonum persicaria</u>	<u>H</u>	<u>OBL</u>	10. _____	_____	_____
3. <u>Juncus effusus</u>	<u>H</u>	<u>FACW</u>	11. _____	_____	_____
4. <u>Epilobium coloratum</u>	<u>H</u>	<u>OBL</u>	12. _____	_____	_____
5. <u>Veronica virginica</u>	<u>A</u>	<u>FAC</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: wetland vegetation

HYDROLOGY

_____ Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge _____ Aerial Photographs _____ Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): _____ Oxidized Root Channels in Upper 12" _____ Water-Stained Leaves _____ Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1"</u> (in.) Depth to Free Water in Pit: <u>—</u> (in.) Depth to Saturated Soil: <u>—</u> (in.)	Remarks: <u>strong wetland hydrology</u>

SOILS

Map Unit Name: VgD - Upshur-Helipon complex,
(Series and Phase): 15 to 25% slopes
Taxonomy (Subgroup): mesic Typic Hapludalfs

Drainage Class: well drained
Field Observations
Confirm Mapped Type? Yes ☐ No ☒

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
<u>D-20</u>	<u>A10</u>	<u>2.5Y 3/2</u>	<u>6.5Y 1 2.5/6</u>	<u>F10</u>	<u>Silty clay</u>

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks:
field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes	No	(Circle)	Is this Sampling Point Within a Wetland?	<input checked="" type="radio"/> Yes	No
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes	No				
Hydric Soils Present?	<input checked="" type="radio"/> Yes	No				
Remarks:						
10 Algae, as, acent						

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Katant Falls area</u> Applicant/Owner: <u>AMP OH</u> Investigator: <u>M. Lanthier</u>	Date: <u>11/30/05</u> County: <u>May</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland meadows</u> Transect ID: <u>upland</u> Plot ID: <u>UPL-C-4</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Festuca sp.</u>	<u>H</u>	<u>PACU</u>	9. _____	_____	_____
2. <u>Solidago canadensis</u>	<u>H</u>	<u>PACU</u>	10. _____	_____	_____
3. <u>Rubus alleghaniensis</u>	<u>H</u>	<u>PACU</u>	11. _____	_____	_____
4. <u>Small-flowered agrimony</u>	<u>H</u>	<u>PACU</u>	12. _____	_____	_____
5. <u>Lonicera japonica</u>	<u>H</u>	<u>PACU</u>	13. _____	_____	_____
6. <u>Rosa multiflora</u>	<u>S</u>	<u>PACU</u>	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~17%

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other _____ ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>—</u> (in.) Depth to Free Water in Pit: <u>>16</u> (in.) Depth to Saturated Soil: <u>>12</u> (in.)	Remarks: <u>upland hydrology</u>

SOILS

VPL-C-4

Map Unit Name

(Series and Phase):

Ugd - Upshur-Hilipm complex,

15 to 25 % slopes

Drainage Class:

Field Observations

Confirm Mapped Type? Yes

No

Taxonomy (Subgroup):

mesic Typic Hapludalfs

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6	A	10YR 5/3	10YR 5/5	M/F	loamy clay
6-12	B	10YR 4/5	-	-	loamy clay

Hydric Soil Indicators:

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

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

Remarks:

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Hydric Soils Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	
upland sampling location	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Retort Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. LARRO</u>	Date: <u>12/1/05</u> County: <u>Mays</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>1</u> Plot ID: <u>D-1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Plantago occidentalis</u>	<u>T</u>	<u>PACW-</u>	9. <u>Scirpus validus</u>	<u>H</u>	<u>OBL</u>
2. <u>Juniperus communis</u>	<u>H</u>	<u>PACW+</u>	10. <u>Bidens frondosa</u>	<u>H</u>	<u>PACW</u>
3. <u>Carex hirsuta</u>	<u>H</u>	<u>OBL</u>	11. _____	_____	_____
4. <u>Solidago nitida</u>	<u>H</u>	<u>PAC</u>	12. _____	_____	_____
5. <u>Solidago canadensis</u>	<u>H</u>	<u>PACU</u>	13. _____	_____	_____
6. <u>Agrimonia parviflora</u>	<u>H</u>	<u>PAC</u>	14. _____	_____	_____
7. <u>Vernonia gigantea</u>	<u>H</u>	<u>PAC</u>	15. _____	_____	_____
8. <u>Eupatorium maculatum</u>	<u>H</u>	<u>PACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 90%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u> </u> (in.) Depth to Free Water in Pit: <u>>20</u> (in.) Depth to Saturated Soil: <u>>90</u> (in.)	Remarks: <u>wetland hydrology</u>

SOILS

D-1

Map Unit Name Ug D - upshur - Hilpin complex,
 (Series and Phase): 15 to 25% slopes

Drainage Class: well drained
 Field Observations

Taxonomy (Subgroup): mesic Typic Hapludalfs

Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	A	10YR 4/4	—	—	silty clay
12-16	B	10YR 5/2	10YR 4/5	C/F	clay
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Hydric Soil Indicators:

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

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

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes No	
Hydric Soils Present? <input checked="" type="radio"/> Yes No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes No
Remarks: 9 flags adjacent	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Retart Falls area</u> Applicant/Owner: <u>AMP-ON</u> Investigator: <u>M. Law</u>	Date: <u>12/1/05</u> County: <u>Meigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <u>Yes</u> <u>No</u> Is the site significantly disturbed (Atypical Situation)? <u>Yes</u> <u>NO</u> Is the area a potential Problem Area? <u>Yes</u> <u>No</u> (If needed, explain on reverse.)	Community ID: <u>haberm</u> Transect ID: <u>upland</u> Plot ID: <u>UPL-D-1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Solidago canadensis</u>	<u>H</u>	<u>PACU</u>	9. _____	_____	_____
2. <u>Rubus allegheniensis</u>	<u>H</u>	<u>PACU</u>	10. _____	_____	_____
3. <u>Solidago nitida</u>	<u>H</u>	<u>PAC</u>	11. _____	_____	_____
4. <u>Eupatorium maculatum</u>	<u>H</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Rosa multiflora</u>	<u>S</u>	<u>PACU</u>	13. _____	_____	_____
6. <u>Limonium spicata</u>	<u>H</u>	<u>PACU</u>	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ~ 33 %

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u> </u> (in.) Depth to Free Water in Pit: <u>>16"</u> (in.) Depth to Saturated Soil: <u>>16"</u> (in.)	
Remarks: <u>None observed</u>	

SOILS

UPL-D-1

Map Unit Name UgD - Upland - Helpin complex,
(Series and Phase): 15 to 25% slopes

Drainage Class: well drained
Field Observations
Confirm Mapped Type? Yes ☒ No

Taxonomy (Subgroup): mesic Typic Hapludalfs

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-10	A	10YR 4/3	-	-	silty clay
10-16	B	10YR 5/4	-	-	clay

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> (Circle)	(Circle)
Hydric Soils Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> (Circle)
Remarks: upland sampling point	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>28th St Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. Lamb</u>	Date: <u>10/1/05</u> County: <u>Meigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>wetland</u> Plot ID: <u>D-2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Solidago nitida</u>	<u>H</u>	<u>FAC</u>	9. <u>Larix laricina</u>	<u>H</u>	<u>FACU</u>
2. <u>Eupatorium maculatum</u>	<u>H</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Vernonia gigantea</u>	<u>H</u>	<u>FAC</u>	11. _____	_____	_____
4. <u>Carex spp.</u>	<u>H</u>	<u>FAC-OBL</u>	12. _____	_____	_____
5. <u>Cyperus esculentus</u>	<u>H</u>	<u>FACW</u>	13. _____	_____	_____
6. <u>Juncus effusus</u>	<u>H</u>	<u>FACW+</u>	14. _____	_____	_____
7. <u>Agrimonia parviflora</u>	<u>H</u>	<u>FAC</u>	15. _____	_____	_____
8. <u>Scirpus validus</u>	<u>H</u>	<u>OBL</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 90%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>—</u> (in.) Depth to Free Water in Pit: <u>> 18</u> (in.) Depth to Saturated Soil: <u>> 18</u> (in.)	Remarks: <u>wetland hydrology</u>

SOILS

D-2

Map Unit Name UgD - Upshur-Kalpin complex,
(Series and Phase): 15 to 25% slopes

Drainage Class: well drained

Taxonomy (Subgroup): mesic Typic Hapludalfs

Field Observations
Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6	A	10YR 3/3	-	-	loam
8-14	B	10YR 5/2	10YR 4/6	F/D	loamy clay

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks: Adjacent	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Latent Fields area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. Lank</u>	Date: <u>12/10/05</u> County: <u>Mus</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: <u>upland</u> Plot ID: <u>UPL Plot 2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Robinia pseudoacacia</u>	<u>T</u>	<u>PAU</u>	9. _____	_____	_____
2. <u>Rosa multiflora</u>	<u>S</u>	<u>PAU</u>	10. _____	_____	_____
3. <u>Corn sp.</u>	<u>H</u>	<u>FAC-OBL</u>	11. _____	_____	_____
4. <u>Fern sp.</u>	<u>A</u>	<u>FAU</u>	12. _____	_____	_____
5. <u>Agrimonia parviflora</u>	<u>H</u>	<u>PAU</u>	13. _____	_____	_____
6. <u>Philadelphus Amore</u>	<u>H</u>	<u>FACU</u>	14. _____	_____	_____
7. <u>Solidago canadensis</u>	<u>H</u>	<u>PAU</u>	15. _____	_____	_____
8. <u>Leonurus japonicus</u>	<u>A</u>	<u>PAU</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~25%

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u> </u> (in.) Depth to Free Water in Pit: <u>>20"</u> (in.) Depth to Saturated Soil: <u>>20"</u> (in.)	
Remarks: <u>upland hydrology</u>	

SOILS

UPL-D-2

Map Unit Name VgD - upshur - Helpin complex,
 (Series and Phase): 15 to 25% slopes

Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☒ No

Taxonomy (Subgroup): mesic Typic Hapludalfs

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR 4/3	-	-	loam
8-14	B	10YR 4/3	10YR 5/6	F/F	loam/clay

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No (Circle)
 Wetland Hydrology Present? Yes ☒ No (Circle)
 Hydric Soils Present? Yes ☒ No (Circle)

(Circle)
 Is this Sampling Point Within a Wetland? Yes ☒ No

Remarks:

upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Levant Falls area</u> Applicant/Owner: <u>AMP OH</u> Investigator: <u>M. L. M.</u>	Date: <u>12/1/05</u> County: <u>Mayes</u> State: <u>OK</u>				
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>				
Yes <input type="radio"/> No <input checked="" type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>				
Community ID: <u>PEM/PP</u> Transect ID: <u>1-1</u> Plot ID: <u>D-3</u>					

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Phalaris arundinacea</u>	<u>H</u>	<u>FACW</u>	9. <u>Agrimonia parviflora</u>	<u>H</u>	<u>FAC</u>
2. <u>Dichanthelium clandestinum</u>	<u>H</u>	<u>FAC+</u>	10. _____	_____	_____
3. <u>Sagittaria arifolia</u>	<u>H</u>	<u>FACU</u>	11. _____	_____	_____
4. <u>Plantanus occidentalis</u>	<u>T</u>	<u>FACW-</u>	12. _____	_____	_____
5. <u>Carex sp.</u>	<u>H</u>	<u>FAC-OBL</u>	13. _____	_____	_____
6. <u>Rosa multiflora</u>	<u>S</u>	<u>FACU</u>	14. _____	_____	_____
7. <u>Eupatorium maculatum</u>	<u>H</u>	<u>FAC</u>	15. _____	_____	_____
8. <u>Oenothera sensibilis</u>	<u>H</u>	<u>FACU</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~77%

Remarks: Dominated by Phalaris

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>>16</u> (in.) Depth to Saturated Soil: <u>>16</u> (in.)	Remarks: <div style="text-align: center; font-size: 1.2em; margin-top: 20px;"> <u>wetland hydrology</u> </div>

SOILS

D-3

Map Unit Name UgD - Upshur-Hilpin complex, 15 to 25% slopes UgD - well drained
 (Series and Phase): UgE - Upshur-Hilpin complex, 25 to 50% slopes Drainage Class: UgE - well drained
 Taxonomy (Subgroup): mesic Typic Hapludalfs Field Observations Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6	A	10YR 4/4	-	-	loam
6-18	B	10YR 5/2	7.5YR 4/4	C/D	loamy clay

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes No	
Hydric Soils Present? <input checked="" type="radio"/> Yes No	
Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes No	
Remarks: 12 flags, adjacent	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Antart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>MLand</u>	Date: <u>12/1/05</u> County: <u>Wing</u> State: <u>OH</u>						
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/></td> <td style="text-align: center;">No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> </table>	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Yes <input checked="" type="radio"/>	No <input type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Community ID: <u>meadow</u> Transect ID: <u>pland</u> Plot ID: <u>UPL-0-3</u>							

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Festuca pratensis</u>	<u>A</u>	<u>PACU-</u>	9. _____	_____	_____
2. <u>Phlox arbutifolia</u>	<u>A</u>	<u>PACU</u>	10. _____	_____	_____
3. <u>Solidago canadensis</u>	<u>A</u>	<u>PACU</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 13 = ~33%

Remarks: dominated by Solidago

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>>20"</u> (in.) Depth to Saturated Soil: <u>>20'</u> (in.)	
Remarks: <u>none observed</u>	

SOILS

JPL-D-3

Map Unit Name UgD - upshun - selpin complex,
 (Series and Phase): 15 to 25% slopes
 Taxonomy (Subgroup): mesic Typic Hapshidalfs

Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR 4/3	—	—	loam
8-20	B	10YR 5/2	10YR 5/6	C/D	gravelly, loam
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed hydric
soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/>	
Hydric Soils Present? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/>	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/>
Remarks: Meadow to East	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Leland Fields area</u> Applicant/Owner: <u>AMP-ON</u> Investigator: <u>JAV</u>	Date: <u>12/1/05</u> County: <u>Meigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM/PC</u> Transect ID: <u>wetland</u> Plot ID: <u>D-4</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Juncus effusus</u>	<u>H</u>	<u>FACW+</u>	9. _____	_____	_____
2. <u>Scirpus cyperinus</u>	<u>H</u>	<u>FACW+</u>	10. _____	_____	_____
3. <u>Plantanus occidentalis</u>	<u>T</u>	<u>FACW-</u>	11. _____	_____	_____
4. <u>Eupatorium maculatum</u>	<u>H</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Rubus alleghaniensis</u>	<u>S</u>	<u>FACU-</u>	13. _____	_____	_____
6. <u>Dichanthelium clandestinum</u>	<u>H</u>	<u>FAC+</u>	14. _____	_____	_____
7. <u>Carex spp.</u>	<u>H</u>	<u>FAC-OB</u>	15. _____	_____	_____
8. <u>Oenothera sensibilis</u>	<u>H</u>	<u>FACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 87.5%

Remarks: wetland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>>14"</u> (in.) Depth to Saturated Soil: <u>>14"</u> (in.)	Remarks: <u>wetland hydrology</u>

SOILS

D-4

Map Unit Name Ug D - upshur - Hulpin complex, 15 to 25% slopes Ug D - well drained
 (Series and Phase): Ug E - upshur - Hulpin complex, 25 to 50% slopes Drainage Class: Ug E - well drained
 Taxonomy (Subgroup): mesic Typic Hapludalfs 50% slope Field Observations Confirm Mapped Type? Yes No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3"	A	10YR ⁶ /2	7.5YR ⁵ /6	many/distinct	clay loam
3-14"	B	10YR ⁶ /2	7.5YR ⁵ /8	common/distinct	clay loam

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks

field confirmed hydric soil
 - oxidized rhizospheres in A and B horizon

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <u>Yes</u> No (Circle)	Is this Sampling Point Within a Wetland? <u>Yes</u> No
Wetland Hydrology Present? <u>Yes</u> No	
Hydric Soils Present? <u>Yes</u> No	
Remarks: all three wetland criteria have been satisfied as this sampling location	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP - OH</u> Investigator: <u>JAV</u>	Date: <u>12/1/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: _____ Plot ID: <u>UPL-W-4</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Rubus allegheniensis</u>	<u>S</u>	<u>FACU-</u>	9. _____	_____	_____
2. <u>Solidago canadensis</u>	<u>H</u>	<u>FACU</u>	10. _____	_____	_____
3. <u>Festuca pratensis</u>	<u>H</u>	<u>FACU-</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

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

Remarks: upland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>5</u> (in.) Depth to Free Water in Pit <u>>14"</u> (in.) Depth to Saturated Soil <u>>14"</u> (in.)	Remarks: <u>none observed</u>

SOILS

UPL-W-4

Map Unit Name UgE - Upshur - Hilpin complex,
 (Series and Phase): 25 to 50% slopes
 Taxonomy (Subgroup): mesic Typic Hapludalfs
 Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes (No)

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3"	A	10YR ⁶ /2	—	—	salty clay loam
3-14"	B	10YR ⁵ /3	7.5YR ⁵ /6	few/faint	salty clay loam
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <u>(No)</u> (Circle)	(Circle)
Wetland Hydrology Present? Yes <u>(No)</u>	
Hydric Soils Present? Yes <u>(No)</u>	Is this Sampling Point Within a Wetland? Yes <u>(No)</u>

Remarks:

upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Retort Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. L. L. L.</u>	Date: <u>12/1/05</u> County: <u>Wayne</u> State: <u>OH</u>		
Do Normal Circumstances Exist on the site? is the site significantly disturbed (Atypical Situation)? is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;"> <input checked="" type="radio"/> Yes <input type="radio"/> No </td> <td style="text-align: center;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </td> </tr> </table>	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Community ID: <u>PEM</u> Transect ID: <u>wetland</u> Plot ID: <u>D-5</u>			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Phalaris arundinacea</u>	<u>A</u>	<u>PACW</u>	9. _____	_____	_____
2. <u>Dichanthium clandestinum</u>	<u>A</u>	<u>PAC+</u>	10. _____	_____	_____
3. <u>Juncus effusus</u>	<u>A</u>	<u>PACW+</u>	11. _____	_____	_____
4. <u>Cyperus esculentus</u>	<u>A</u>	<u>PACW</u>	12. _____	_____	_____
5. <u>Carex sp.</u>	<u>A</u>	<u>FAC-OBL</u>	13. _____	_____	_____
6. <u>Agriemonia parviflora</u>	<u>A</u>	<u>PAC</u>	14. _____	_____	_____
7. <u>Lonicera japonica</u>	<u>A</u>	<u>PACU</u>	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~86%

Remarks: mostly Phalaris

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>21"</u> (in.) Depth to Free Water in Pit: <u>—</u> (in.) Depth to Saturated Soil: <u>surface</u> (in.)	Remarks: <u>First 7" saturated, below that dry / Anegale</u>

SOILS

D-5

Map Unit Name U₃E - Upshur-Helpin complex,
 (Series and Phase): 25 to 50 % slopes
 Taxonomy (Subgroup): mesic Typic Hapludalfs

Drainage Class: well drained
 Field Observations
 Confirm Mapped Type? Yes ☐ No ☒

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-7	A	10YR 4/2	10YR 5/6	C/D	Silty clay loam
7-16	B	10YR 6/2	10YR 5/2	M/F	clay loam

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input checked="" type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

A layer has many concretions

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No (Circle)
 Wetland Hydrology Present? ☒ Yes ☐ No
 Hydric Soils Present? ☒ Yes ☐ No

(Circle)
 Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks:

Adjacent 7 flags

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Ketart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. L. [unclear]</u>	Date: <u>12/1/85</u> County: <u>Alleg</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>Forest</u> Transect ID: <u>upland</u> Plot ID: <u>UPL-D-5</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Monarda occidentalis</u>	<u>S/T</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Solidago canadensis</u>	<u>H</u>	<u>FACU</u>	10. _____	_____	_____
3. <u>Rosa multiflora</u>	<u>S</u>	<u>PACU</u>	11. _____	_____	_____
4. <u>Linnaea japonica</u>	<u>S</u>	<u>PACU</u>	12. _____	_____	_____
5. <u>Allium canadense</u>	<u>H</u>	<u>PACU</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 20%

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>216"</u> (in.) Depth to Saturated Soil: <u>216"</u> (in.)	
Remarks: <u>none observed</u>	

SOILS

UPL-D-5

Map Unit Name: UgE - Upshur-Helpin complex,
 (Series and Phase): 25 to 50% slopes
 Drainage Class: well drained
 Field Observations: _____
 Taxonomy (Subgroup): mesic Typic Hapludalfs
 Confirm Mapped Type? Yes ☐ No ☒

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-10	A	10YR 3/3	—	—	clay loam
10-16	B	10YR 4/3	—	—	clay loam

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)	(Circle)
Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)	
Hydric Soils Present? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)
Remarks: upland sampling location	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Retreat Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. Lauffer</u>	Date: <u>12/1/09</u> County: <u>DeWitt</u> State: <u>OH</u>						
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/></td> <td style="text-align: center;">No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> </table>	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Yes <input checked="" type="radio"/>	No <input type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Community ID: <u>POW/DEM</u> Transect ID: <u>wetland</u> Plot ID: <u>D-6</u>							

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Potamogeton spp.</u>	<u>Floating</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Hydrophyllum</u>	<u>H</u>	<u>OBL</u>	10. _____	_____	_____
3. <u>Juncus effusus</u>	<u>H</u>	<u>FACW+</u>	11. _____	_____	_____
4. <u>Salix nigra</u>	<u>S</u>	<u>FACW+</u>	12. _____	_____	_____
5. <u>Carex sp.</u>	<u>H</u>	<u>FAC-OBL</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other _____ ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12-Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>51'</u> (in.) Depth to Free Water in Pit: <u>-</u> (in.) Depth to Saturated Soil: <u>-</u> (in.)	
Remarks: <u>wetland hydrology</u>	

SOILS

D-6

Map Unit Name VgE - Upshur - Sulpin complex,
 (Series and Phase): 25 to 50% slope

Drainage Class: well drained
 Field Observations

Taxonomy (Subgroup): mesic Typic Hapludalfs

Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	O				
2-10	A	5Y 4/6			silty clay
10-20	B	5Y 4/2	5Y 4/4	M/F	silty clay

Hydric Soil Indicators:

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

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

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks: mapped from aerial, emergent wetland fringe around pond	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>JAV</u>	Date: <u>12/1/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: <u>upland</u> Plot ID: <u>up-D-6</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>allium canadense</u>	<u>H</u>	<u>FACU</u>	9. _____	_____	_____
2. <u>Festuca pratensis</u>	<u>H</u>	<u>FACU</u>	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

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

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drill Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required) ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>—</u> (in) Depth to Free Water in Pit <u>> 14"</u> (in) Depth to Saturated Soil <u>> 14"</u> (in)	Remarks: <u>none observed</u>

SOILS

UPL-D-6

Map Unit Name (Series and Phase): <u>UgE - upland Hilsen complex,</u> <u>25 to 50% slopes</u>		Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/>			
Taxonomy (Subgroup): <u>mesic Typic Hapludalfs</u>					
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4"	A	10YR 5/3	—	—	loam
4-14"	B	10YR 5/3	—	—	sandy loam

Hydric Soil Indicators:	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)

Remarks

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle) Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soils Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle)
Remarks: <p style="text-align: center; font-size: 1.2em;">upland sampling location</p>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Retort Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>JAV</u>	Date: <u>11/29/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM/RSS</u> Transect ID: <u>-</u> Plot ID: <u>W-1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Acer negundo</u>	<u>S</u>	<u>FAC+</u>	9		
2. <u>Quercus effusus</u>	<u>H</u>	<u>FACW+</u>	10		
3. <u>Rubus allegheniensis</u>	<u>S</u>	<u>FACU-</u>	11		
4. <u>Carex spp.</u>	<u>H</u>	<u>FAC-OBL</u>	12		
5. <u>Impatiens capensis</u>	<u>H</u>	<u>FACU</u>	13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~ 80%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks) ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water: <u>1/2"</u> (in) Depth to Free Water in Pit: <u>surface</u> (in) Depth to Saturated Soil: <u>surface</u> (in)	
Remarks: <u>strong wetland hydrology</u>	

SOILS

W-1

Map Unit Name (Series and Phase): <u>UgE - upshore Hilpini complex,</u> <u>25 to 50 % slopes</u>		Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/>			
Taxonomy (Subgroup): <u>mesic Typic Hapludalfs</u>					
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3"	A	10YR 4/2	2.5YR 4/6	common/distinct	silty clay loam
3-16"	B	10YR 6/1	2.5YR 3/6	many/prominent	silty clay loam

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)

Remarks

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	(Circle)
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks: <div style="text-align: center; font-size: 1.5em;">11 flags</div>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letant Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>JAV</u>	Date: <u>11/29/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: <u>-</u> Plot ID: <u>UPL-W+1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 <u>Carya laciniosa</u>	<u>T</u>	<u>FAC</u>	9 _____	_____	_____
2 <u>Rosa multiflora</u>	<u>S</u>	<u>FACU</u>	10 _____	_____	_____
3 <u>Quercus rubra</u>	<u>T</u>	<u>FACU</u>	11 _____	_____	_____
4 _____	_____	_____	12 _____	_____	_____
5 _____	_____	_____	13 _____	_____	_____
6 _____	_____	_____	14 _____	_____	_____
7 _____	_____	_____	15 _____	_____	_____
8 _____	_____	_____	16 _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~33%

Remarks: upland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks) ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required) ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations Depth of Surface Water <u>0</u> (in.) Depth to Free Water in Pit <u>>14"</u> (in.) Depth to Saturated Soil <u>>14"</u> (in.)	
Remarks: <u>none observed</u>	

UPL-W-1

WETLAND DETERMINATION

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Latent Falls area</u> Applicant/Owner: <u>AMP Ohio</u> Investigator: <u>BERN</u>	Date: <u>11-29-05</u> County: <u>meigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: <u>2</u> Plot ID: <u>W-2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Impatiens capensis</u>	<u>HC</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Carex spp</u>	<u>HC</u>	<u>FAC-OBL</u>	10. _____	_____	_____
3. <u>Lysimachia nummularia</u>	<u>HC</u>	<u>FACW</u>	11. _____	_____	_____
4. <u>Epilobium coloratum</u>	<u>HC</u>	<u>OBL</u>	12. _____	_____	_____
5. <u>Solidago canadensis</u>	<u>HC</u>	<u>FACU</u>	13. _____	_____	_____
6. <u>Rosa multiflora</u>	<u>SH</u>	<u>FACU</u>	14. _____	_____	_____
7. <u>Acer negundo</u>	<u>S</u>	<u>FAC+</u>	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~ 71%

Remarks: wetland vegetation

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>2"</u> (in.) Depth to Free Water in Pit: <u>surface</u> (in.) Depth to Saturated Soil: <u>surface</u> (in.)	Remarks: <u>wetland hydrology</u>

SOILS

W-2

Map Unit Name LAD- Lakem loamy fine
 (Series and Phase): sand, 12 to 18% slopes
 Taxonomy (Subgroup): mesic alfic Udipsamments
 Drainage Class: excessively well drained
 Field Observations
 Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 2/2	-	-	sandy loam
2-12	B	10YR 3/1	-	-	sandy loam

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks: all three wetland criteria satisfied at this sampling location.	

DATA FORM
ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP Ohio</u> Investigator: <u>BERM</u>	Date: <u>11/29/05</u> County: <u>mcigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.) 	Community ID: <u>upland forest</u> Transect ID: <u> </u> Plot ID: <u>UPL-W-2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Lonicera japonica</u>	<u>HL</u>	<u>FACU</u>	9. <u> </u>	<u> </u>	<u> </u>
2. <u>Rosa multiflora</u>	<u>HL</u>	<u>FACU</u>	10. <u> </u>	<u> </u>	<u> </u>
3. <u>Polystichum acrostichoides</u>	<u>HL</u>	<u>FACU</u>	11. <u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	12. <u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	13. <u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	14. <u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	15. <u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	16. <u> </u>	<u> </u>	<u> </u>

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

Remarks: upland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u> </u> (in.) Depth to Free Water in Pit: <u>>14"</u> (in.) Depth to Saturated Soil: <u>>14"</u> (in.)	Remarks: <u>No hydrology criterion present</u>

SOILS

UPL-W-2

Map Unit Name LaD- Lakin loamy fine
 (Series and Phase): sand, 12 to 18% slopes
 Taxonomy (Subgroup): mesic alfic Udypsamments
 Drainage Class: occasionally well drained
 Field Observations
 Confirm Mapped Type? Yes ☒ No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 4/3	-	-	sandy loam
2-14	B	10YR 4/2	-	-	sandy loam

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

field confirmed upland soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No	
Hydric Soils Present? Yes <input checked="" type="radio"/> No	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No
Remarks: upland sampling location	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letort Falls area</u>		Date: <u>11/29/05</u>
Applicant/Owner: <u>AMP- OH</u>		County: <u>Meigs</u>
Investigator: <u>M. Lauffer / J. Koser</u>		State: <u>Ohio</u>
Do Normal Circumstances Exist on the site?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: <u>POW</u>
Is the site significantly disturbed (Atypical Situation)?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Transect ID: <u>-</u>
Is the area a potential Problem Area?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Plot ID: <u>WB-1</u>
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Juncus effusus</u>	<u>H</u>	<u>FACW+</u>	9. _____	_____	_____
2. <u>Acer negundo</u>	<u>T</u>	<u>FAC+</u>	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): ~100%

Remarks: wetland vegetation

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input checked="" type="checkbox"/> Other <u>Topographic maps</u> <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>5"</u> (in.) Depth to Free Water in Pit: <u>-</u> (in.) Depth to Saturated Soil: <u>-</u> (in.)	
Remarks: <u>wetland hydrology</u> <u>- open water area</u>	

SOILS

WB-1

Map Unit Name <u>UgE - Upshur Gulch complex,</u> (Series and Phase): <u>25-50% slopes</u>		Drainage Class: <u>well drained</u> Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/>			
Taxonomy (Subgroup): <u>muskeg Typic Hapludalfs</u>					
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-20+	A/B	7.5YR 4/2	7.5YR 4/4	M/D	clay

Hydric Soil Indicators:	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)

Remarks: <div style="font-family: cursive; font-size: 1.2em; padding: 10px;"> field confirmed hydric soil - non red streaking </div>

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks: <div style="font-family: cursive; font-size: 1.2em; padding: 10px;"> 8 flags, adjacent B2 at B3 = 31 B3 = 30, 29 B4 = 32 </div>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>M. Lauffer</u>	Date: <u>11/29/05</u> County: <u>Meigs</u> State: <u>OH</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland forest</u> Transect ID: _____ Plot ID: <u>UPL-WB-1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Acer negundo</u>	<u>T</u>	<u>FAC+</u>	9. _____	_____	_____
2. <u>Lonicera sp.</u>	<u>H</u>	<u>FACU</u>	10. _____	_____	_____
3. <u>Rosa multiflora</u>	<u>S/V</u>	<u>FACU</u>	11. _____	_____	_____
4. <u>Vitis riparia</u>	<u>V</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Rubus allegheniensis</u>	<u>S</u>	<u>FACU-</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~ 40%

Remarks: upland vegetation, mostly rose

HYDROLOGY

___ Recorded Data (Describe in Remarks) ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland hydrology Indicators Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12" ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations Depth of Surface Water: <u> </u> (in.) Depth to Free Water in Pit: <u> </u> (in.) Depth to Saturated Soil: <u>> 24"</u> (in.)	Remarks: <u>none observed</u>

SOILS

UPL-WB-1

Map Unit Name UgE - Upshur Hilpin complex,
(Series and Phase): 25-50% slopes Drainage Class: well drained
Field Observations
Taxonomy (Subgroup): mesic Typic Hapludalfs Confirm Mapped Type? Yes No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3"	A	7.5YR ⁴ /3	—	—	clay
3-20"	B	7.5YR ⁵ /3	—	—	clay, concretions
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input checked="" type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: field confirmed upland soil with concretions

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <u>No</u> (Circle)	(Circle)
Wetland Hydrology Present? Yes <u>No</u>	
Hydric Soils Present? Yes <u>No</u>	Is this Sampling Point Within a Wetland? Yes <u>No</u>

Remarks: upland sampling location

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>Kroser</u>	Date: <u>11/29/05</u> County: <u>Meigs</u> State: <u>Ohio</u>			
Do Normal Circumstances Exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Yes <input checked="" type="radio"/> No <input type="radio"/>				
Yes <input type="radio"/> No <input checked="" type="radio"/>				
Yes <input type="radio"/> No <input checked="" type="radio"/>				
Community ID: <u>PEM</u> Transect ID: <u>-</u> Plot ID: <u>WB-2</u>				

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Carex lurida</u>	<u>H</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Sagittaria arifolia</u>	<u>H</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Carex stricta</u>	<u>H</u>	<u>OBL</u>	11. _____	_____	_____
4. <u>Circaea arifolia</u>	<u>H</u>	<u>OBL</u>	12. _____	_____	_____
5. <u>Polygonum perfoliatum</u>	<u>H</u>	<u>FACW</u>	13. _____	_____	_____
6. <u>Sagittaria arifolia</u>	<u>H</u>	<u>FACW+</u>	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 100%

Remarks: wetland vegetation

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>wetland hydrology</u>	

SOILS

WB-2

Map Unit Name LaD - Lakin loamy fine sand,
 (Series and Phase): 12 to 18% slopes
 Taxonomy (Subgroup): mesic alfic Udepsamma
 Drainage Class: excessively well drained
 Field Observations
 Confirm Mapped Type? Yes (No)

Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 5/3	-	-	
3-16	B	10YR 4/2	5YR 4/6	many/distinct	

Hydric Soil Indicators

- | | |
|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks

field confirmed hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<u>Yes</u> No (Circle)	(Circle)
Wetland Hydrology Present?	<u>Yes</u> No	
Hydric Soils Present?	<u>Yes</u> No	Is this Sampling Point Within a Wetland? <u>Yes</u> No

Remarks

PEM, 11 flags

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Letart Falls area</u> Applicant/Owner: <u>AMP-OH</u> Investigator: <u>Konser</u>	Date: <u>11/29/05</u> County: <u>Meigs</u> State: <u>Ohio</u>
Do Normal Circumstances Exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>upland</u> Transect ID: _____ Plot ID: <u>WPL-WB-2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Acer rubrum</u>	<u>T</u>	<u>FAC</u>	9. _____	_____	_____
2. <u>Acer negundo</u>	<u>T</u>	<u>FAC+</u>	10. _____	_____	_____
3. <u>Lonicera japonica</u>	<u>V</u>	<u>FAC-</u>	11. _____	_____	_____
4. <u>Celastrus petiolata</u>	<u>H</u>	<u>FACU-</u>	12. _____	_____	_____
5. <u>Rosa multiflora</u>	<u>S</u>	<u>FACU</u>	13. _____	_____	_____
6. <u>Plantanus occidentales</u>	<u>T</u>	<u>FACW-</u>	14. _____	_____	_____
7. <u>Heum canadense</u>	<u>H</u>	<u>FACU</u>	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) ~ 43 %

Remarks: upland vegetation

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations Depth of Surface Water <u> </u> (in.) Depth to Free Water in Pit <u>> 16"</u> (in.) Depth to Saturated Soil <u>> 16"</u> (in.)	Remarks: <u>no evidence of wetland hydrology</u>

SOILS

UPL - WB-2

Map Unit Name (Series and Phase): <u>LaD - Lakin loamy fine sand,</u> <u>12 to 18% slopes</u>		Drainage Class: <u>well drained</u> Field Observations <u>generally</u> Confirm Mapped Type? <u>(Yes)</u> No			
Taxonomy (Subgroup): <u>meric alfic Uspammanta</u>					
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6"	A	10YR 4/3	-	-	loamy sand
6-16"	B	10YR 5/6	-	-	loamy sand

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)

Remarks

field confirmed upland soil

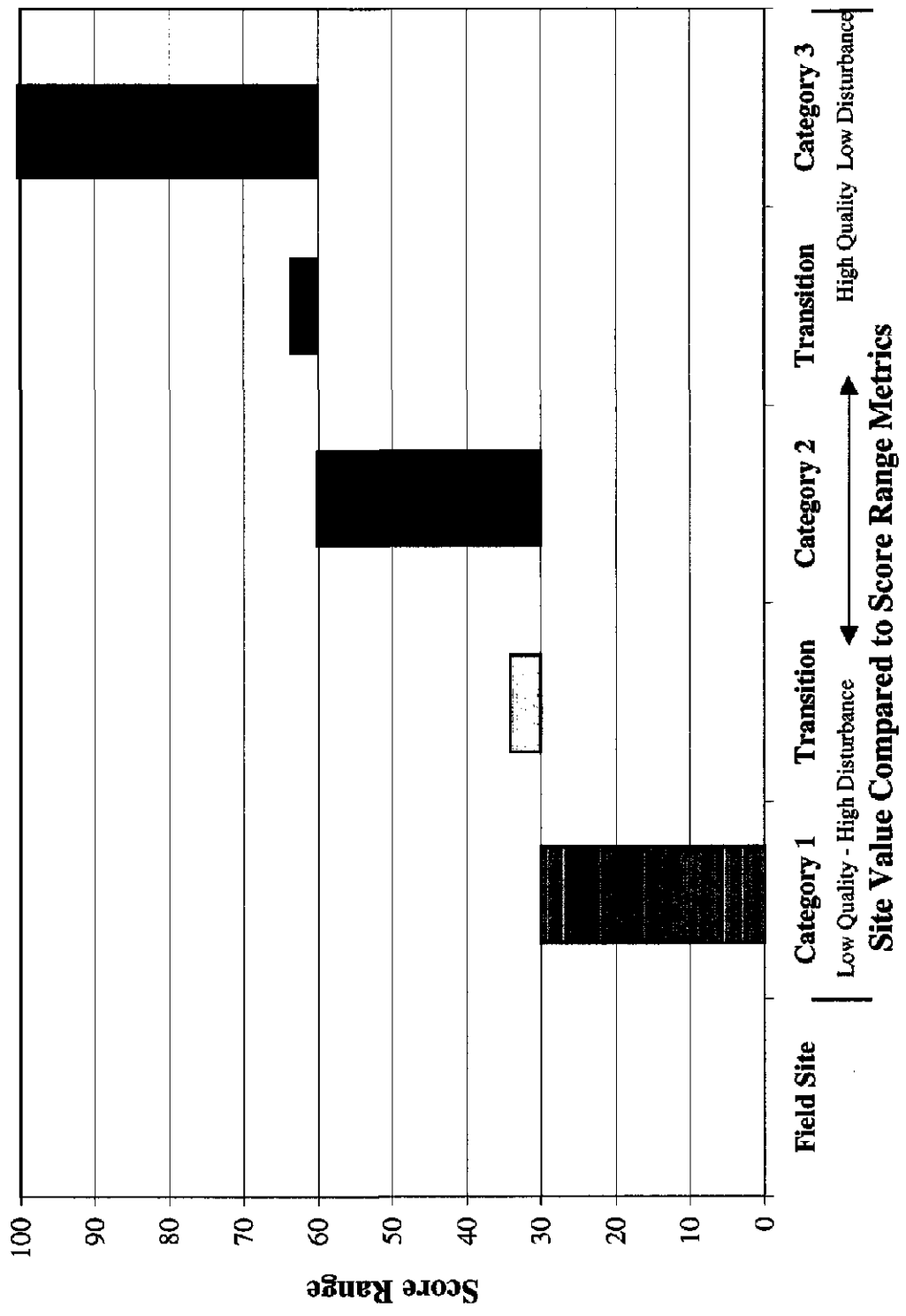
WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <u>(No)</u> (Circle) Wetland Hydrology Present? Yes <u>(No)</u> (Circle) Hydric Soils Present? Yes <u>(No)</u> (Circle)	Is this Sampling Point Within a Wetland? Yes <u>(No)</u> (Circle)
Remarks: <p style="font-size: 1.2em; margin-top: 20px;">field confirmed upland sampling location</p>	

APPENDIX B

**OHIO EPA OHIO RAPID ASSESSMENT METHOD (ORAM)
FOR WETLANDS V5.0 FORMS AND GRAPH**

Ohio Rapid Assessment Method



Site: <u>AFS-W1</u>	Rater(s): <u>M. Lawler</u>	Date: <u>11/20/05</u>
---------------------	----------------------------	-----------------------

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

- Select 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)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

- 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), shrubland, 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)

8	9
max 30 pts.	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- ☐ High pH groundwater (5)
 - ☐ Other groundwater (3)
 - ☒ Precipitation (1)
 - ☒ Seasonal/intermittent surface water (3)
 - ☒ Perennial surface water (lake or stream) (5)
- 3b. 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)
- 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)
- 3d. 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 check and average.
- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input type="checkbox"/> Recovering (3) <input checked="" type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input <input type="checkbox"/> point source (nonstormwater) <input type="checkbox"/> filling/grading <input checked="" type="checkbox"/> road bed/RR track <input checked="" type="checkbox"/> dredging <input type="checkbox"/> other |
|---|--|

3	12
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

- 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.
- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input type="checkbox"/> Recovering (3) <input checked="" type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input checked="" type="checkbox"/> dredging <input checked="" type="checkbox"/> farming <input checked="" type="checkbox"/> nutrient enrichment |
|--|--|

12
subtotal this page

Site: AFS-W1

Rater(s):

Date:

12

subtotal first page

0 12

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Prairies (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-4

8

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.**6a. Wetland Vegetation Communities.**

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
☒ Emergent
☐ Shrub
☐ Forest
☐ Mudflats
☐ Open water
☐ Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☐ 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 (-3)
☐ Sparse 5-25% cover (-1)
☐ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/mounds
☒ Coarse woody debris >15cm (6in)
☐ Standing dead >25cm (10in) dbh
☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47
2	Moderate 1 to <4ha (2.47 to
3	High 4ha (9.88 acres) or more

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 and of highest quality

8

GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/daw/401/401.html>
 last revised 1 February 2001 jim

category 1

Site: ANW-1 Rater(s): Van Shauk / Konec Date: 11/28/05

max 6 pts. subtotal

Metric 1. Wetland Area (size).

Select 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) (2 pts)
- ☒ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (0.04ha) (0 pts)

max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ Seasonal/intermittent surface water (3) (adj stream)
- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input
- ☐ point source (nonstormwater)
- ☐ filling/grading
- ☒ road bed/RR track
- ☐ dredging
- ☒ other tree cutting

max 30 pts. subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- ☐ None or none apparent (4)
- ☐ Recovered (3)
- ☒ Recovering (2) tree cutting
- ☐ 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)

Check all disturbances observed

- ☐ mowing
- ☐ grazing
- ☐ clearcutting
- ☐ selective cutting
- ☐ woody debris removal
- ☐ toxic pollutants
- ☐ shrub/sapling removal
- ☐ herbaceous/aquatic bed removal
- ☐ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

31
subtotal this page

Site: AN-WI

Rater(s):

Date:

31

subtotal first page

0

31

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

7

38

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.**6a. Wetland Vegetation Communities.**

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☒ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. horizontal (plan view) interspersions.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ 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 (-3)
- ☒ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ Vegetated hummocks/mounds
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88)
3	High 4ha (9.88 acres) or more

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 and of highest quality

38

GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.sps.state.oh.us/dsw/401401.html>
last revised 1 February 2001 jjm

Category 2

Site: BM-W1

Rater(s): BEm

Date: 11-30-05

2	2
max 8 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (8 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)

Adjacent

7	19
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

9	18
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input

- ☐ point source (nonstormwater)
- ☐ filling/grading
- ☒ road bed/RR track
- ☐ dredging
- ☐ other

8	26
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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 (5)
- ☐ 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 (8)
- ☒ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed

- ☐ mowing
- ☐ grazing
- ☐ clearcutting
- ☒ selective cutting
- ☐ woody debris removal
- ☐ toxic pollutants

- ☐ shrub/sapling removal
- ☒ herbaceous/aquatic bed removal
- ☐ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

26
subtotal this page

Site: BM-W1 Rater(s): BEM Date: 11/30/05

26

subtotal first page

0 26

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Quantitative Rating (-10)

1 27

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflat
- ☐ Open water
- ☐ Other

6b. Horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ 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 (-3)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/tussocks
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

27 GRAND TOTAL (max 100 pts)

category 1

Site: Amph Ohio Rater(s): BEM Date: 11-30-08

2	2
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Metric 1. Wetland Area (size).

Adjacent

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (8 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) (2 pts)
- ☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (0.04ha) (0 pts)

8	10
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Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

12	22
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Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☐ Seasonal/intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3b. 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)

3c. Modifications 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)

3d. 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)

3e. Duration inundation/saturation. Score one or double check.

- ☒ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☐ Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input
- ☐ point source (nonstormwater)
- ☐ filling/grading
- ☒ road bed/RR track
- ☐ dredging
- ☐ other

9	31
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Metric 4. Habitat Alteration and Development.

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 (5)
- ☐ Good (3)
- ☒ 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)

Check all disturbances observed

- ☒ mowing
- ☐ grazing
- ☐ clearcutting
- ☒ selective cutting
- ☐ woody debris removal
- ☐ toxic pollutants
- ☐ shrub/sapling removal
- ☐ herbaceous/aquatic bed removal
- ☒ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

31

subtotal this page

Site: BM-W2 Rater(s): _____ Date: _____

31

subtotal first page

0 31

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Quantitative Rating (-10)

4 35

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☒ Open water
- ☐ Other

6b. Horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ 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 (-3)
- ☒ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/mounds
- ☒ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

35 GRAND TOTAL (max 100 pts)

Cont 2

Site: AmP Ohio Rater(s): BEM Date: 11-30-05

2 2
max 8 pts. subtotal

Metric 1. Wetland Area (size).

Select 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)

Adjacent
BM-W3

9 11
max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☒ WIDE. Buffers average 60m (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), shrubland, 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)

15 26
max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☐ Seasonal/intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3b. 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)

3c. Modifications 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)

3d. 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)

3e. Duration inundation/saturation. Score one or double check.

- ☒ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☐ Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ well
- ☐ stormwater input
- ☐ point source (nonstormwater)
- ☐ filling/grading
- ☐ road bed/RT track
- ☐ dredging
- ☒ other Surrounding Area

Mined

7 33
max 20 pts. subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed

- ☒ mowing
- ☐ grazing
- ☐ clearcutting
- ☐ selective cutting
- ☐ woody debris removal
- ☐ toxic pollutants
- ☐ shrub/sapling removal
- ☐ herbaceous/aquatic bed removal
- ☐ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

33
subtotal this page

Site: **BM-W3** Rater(s): _____ Date: _____

33

subtotal first page

max 10 pts. subtotal **33**

Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

6

39

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. Horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ Moderately low (2)
- ☒ Low (1)
- ☐ None (0)

6c. Coverage of invasive plants. Refer to Table 1 GRAM long form for list. Add or deduct points for coverage

- ☐ Extensive >75% cover (-5)
- ☐ Moderate 25-75% cover (-3)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/mounds
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

39 GRAND TOTAL (max 100 pts)

Category 2

Site: B.M-W4 Rater(s): Bem Date: 2-1-05

2 2
max 6 pts. subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (8 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)

Adjacent 20 flags
Bmw4

11 13
max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

11 24
max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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 (27.8in) (3)
- ☒ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☐ <0.4m (<15.7in) (1)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input
- ☐ point source (nonstormwater)
- ☐ filling/grading
- ☐ road bed/RR track
- ☐ dredging
- ☒ other beaver dam

13 37
max 20 pts. subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed

- ☐ mowing
- ☐ grazing
- ☒ clearcutting
- ☒ selective cutting
- ☐ woody debris removal
- ☐ toxic pollutants
- ☐ shrub/sapling removal
- ☐ herbaceous/aquatic bed removal
- ☐ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

37
subtotal this page

Site: **BM-W4** Rater(s): **BEM** Date: **12-1-05**

87

subtotal first page

max 10 pts. **0** subtotal **37**

Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

0

max 20 pts. **6** subtotal **43**

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☒ Open water
- ☐ Other

3

6b. Horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ Moderately low (2)
- ☒ Low (1)
- ☐ None (0)

6

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)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ Vegetated hummocks/tussocks
- ☐ Coarse woody debris >15cm (6in)
- ☒ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

2

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

43

GRAND TOTAL (max 100 pts)

Category 2

Site: <u>Wet 5 (BM-W5)</u>	Rater(s): <u>Kooser / No. Clagney</u>	Date: <u>1 Dec. 05</u>
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1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select 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) (2 pts)
- ☒ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (0.04ha) (0 pts)

2	3
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

17	20
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☒ 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)

3e. Modifications 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)

3b. 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)

3d. Duration inundation/saturation. Score one or double check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☒ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☐ Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed

- | | |
|---|---|
| <input checked="" type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input type="checkbox"/> tile | <input type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input checked="" type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input checked="" type="checkbox"/> other <u>mining</u> |

10	30
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed

- | | |
|--|---|
| <input checked="" type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input type="checkbox"/> clearcutting | <input type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input checked="" type="checkbox"/> woody debris removal | <input checked="" type="checkbox"/> farming |
| <input checked="" type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

30
subtotal this page

Site: BM-WS	Rater(s):	Date:
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30	
subtotal first page	
0	0
max 10 pts.	subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

8	38
max 10 pts.	subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☒ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. Horizontal (plan view) Interspersion.
Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ 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 (-3)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☒ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/tussocks
- ☒ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

38	GRAND TOTAL (max 100 pts)
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category 2

Site: C-1 AMP	Rater(s): MBL	Date: 11/30/05
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0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

C-1

Select 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) (2 pts)
- ☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☒ <0.1 acres (0.04ha) (0 pts)

8	8
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

10	18
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed

- | | |
|---|---|
| <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input type="checkbox"/> tile | <input type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input type="checkbox"/> other |

7	25
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed

- | | |
|--|---|
| <input checked="" type="checkbox"/> mowing | <input checked="" type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input type="checkbox"/> clearcutting | <input type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input checked="" type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

25
subtotal this page

Site: C-1

Rater(s): MBL

Date: 11/30/05

25

subtotal first page

0

25

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Prairies (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-1

24

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.**6a. Wetland Vegetation Communities.**

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
☒ Emergent
☐ Shrub
☐ Forest
☐ Mudflats
☐ Open water
☐ Other

6b. horizontal (plan view) interspersions.
Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☐ 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 (-3)
☐ Sparse 5-25% cover (-1)
☐ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ Vegetated hummocks/mounds
☐ Coarse woody debris >15cm (6in)
☐ Standing dead >25cm (10in) dbh
☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88)
3	High 4ha (9.88 acres) or more

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 and of highest quality

24

GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401M01.htm>
 last revised 1 February 2001 jjm

category 1

Site: <u>C-2</u>	Rater(s): <u>MBL/JAV</u>	Date: <u>11/30/05</u>
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0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select 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) (2 pts)
- ☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☒ <0.1 acres (0.04ha) (0 pts)

5	5
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

17	22
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ Seasonal/intermittent surface water (3) *(fed by spring)*
- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed	
<input type="checkbox"/> ditch <input type="checkbox"/> levee <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input	<input checked="" type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <i>(adjacent hydro connected)</i> <input checked="" type="checkbox"/> road bed/RR track <input checked="" type="checkbox"/> dredging <input checked="" type="checkbox"/> other <i>field stream channel</i>

11	33
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed	
<input checked="" type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input checked="" type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants	<input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment

33
subtotal this page

Site: C-2

Rater(s):

Date:

33

subtotal first page

0

33

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Prairies (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

4

37

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.**6a. Wetland Vegetation Communities.**

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
☐ Emergent
☒ Shrub
☐ Forest
☐ Mudflats
☐ Open water
☐ Other

6b. Horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☐ 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 (-3)
☒ Sparse 5-25% cover (-1)
☐ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ Vegetated hummocks/mounds
☐ Coarse woody debris >15cm (6in)
☐ Standing dead >25cm (10in) dbh
☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88)
3	High 4ha (9.88 acres) or more

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 and of highest quality

37

GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401401.html>
 last revised 1 February 2001 jim

Category 2

Site: C-3	Rater(s): MBL	Date: 11/30/05
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0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

- Select 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	3
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

- 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), shrubland, 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)

11	14
max 30 pts.	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- ☐ High pH groundwater (5)
 - ☐ Other groundwater (3)
 - ☒ Precipitation (1)
 - ☒ Seasonal/intermittent surface water (3)
 - ☐ Perennial surface water (lake or stream) (5)
- 3b. 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)
- 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)
- 3d. 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 check and average.
- ☐ None or none apparent (12)
 - ☒ Recovered (7)
 - ☒ Recovering (3)
 - ☐ Recent or no recovery (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input	<input type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <input type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____

12.5	26.5
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

- 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 (5)
 - ☒ Recovering (3)
 - ☐ Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input checked="" type="checkbox"/> selective cutting <input checked="" type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants	<input checked="" type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input checked="" type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment

26.5
subtotal this page

Site: C-3

Rater(s): MBL

Date: 11/30/05

26.5

subtotal this page

0

26.5

Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

6

32.5

Metric 6. Plant communities, interspersions, microtopography.

max 20 pts.

subtotal

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☒ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☒ 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 (-3)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/tussucks
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

32.5

GRAND TOTAL(max 100 pts)

Category 2

Site: C-4	Rater(s): M. Lanier	Date: 11/30/09
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1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select 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)

Wet C-4

1	2
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, young second growth forest. (5)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, cow cropping mining, construction. (1)

11	13
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed	
<input checked="" type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input	<input type="checkbox"/> point source (nonstormwater) <input type="checkbox"/> filling/grading <input type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____

7	20
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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 (5)
- ☐ 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)

Check all disturbances observed	
<input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input checked="" type="checkbox"/> selective cutting <input checked="" type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants	<input checked="" type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input type="checkbox"/> sedimentation <input checked="" type="checkbox"/> dredging <input checked="" type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment

20
subtotal this page

Site: C-4

Rater(s): M. Lauffer

Date: 11/30/05

20

subtotal this page

0 20

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Prairies (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 23

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.**6a. Wetland Vegetation Communities.**

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
☒ Emergent
☐ Shrub
☐ Forest
☐ Mudflats
☐ Open water
☐ Other

6b. horizontal (plan view) interspersions.

Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☐ 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 (-3)
☐ Sparse 5-25% cover (-1)
☒ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ Vegetated hummocks/tussocks
☐ Coarse woody debris >15cm (6in)
☐ Standing dead >25cm (10in) dbh
☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

23

GRAND TOTAL(max 100 pts)

category 1

Site: D-1 Rater(s): MAJ Date: 12/1/05

1 1
max 6 pts. subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- 1
- ☐ >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)

9 10
max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- 4
- ☒ 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.

- 5
- ☒ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - ☒ LOW. Old field (>10 years), shrubland, 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)

13 23
max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- 4
- ☐ 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.

- 1
- ☐ >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 regime. Score one or double check and average.

- 5
- ☐ None or none apparent (12)
 - ☒ Recovered (7)
 - ☒ Recovering (3)
 - ☐ Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 1
- ☒ 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)

3d. Duration inundation/saturation. Score one or dbl check.

- 2
- ☐ Semi- to permanently inundated/saturated (4)
 - ☒ Regularly inundated/saturated (3)
 - ☒ Seasonally inundated (2)
 - ☐ Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

10.5 33.5
max 20 pts. subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- 3
- ☐ None or none apparent (4)
 - ☒ Recovered (3)
 - ☐ Recovering (2)
 - ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- 3
- ☐ 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.

- 4.5
- ☐ None or none apparent (9)
 - ☒ Recovered (6)
 - ☒ Recovering (3)
 - ☐ Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> mowing	<input checked="" type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input checked="" type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input checked="" type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input checked="" type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

33.5
subtotal this page

Site: D+1 Rater(s): MBL Date: 12/1/05

33.5

subtotal this page

0 33.5

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Prairies (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

6 39.5

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
☒ Emergent
☐ Shrub
☐ Forest
☐ Mudflats
☐ Open water
☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☒ 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 (-3)
☐ Sparse 5-25% cover (-1)
☒ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ Vegetated hummocks/tussocks
☐ Coarse woody debris >15cm (6in)
☐ Standing dead >25cm (10in) dbh
☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

39.5

GRAND TOTAL(max 100 pts)

category 2

Site: D-2 Rater(s): M. Lammert Date: 10/1/05

2 2
max 6 pts. subtotal

Metric 1. Wetland Area (size).

Select 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)

2

Wet D-2
1/2 plgs, adjacent

9 11
max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

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)

4

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), shrubland, 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)

5

13 24
max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ Seasonal/Intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

4

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)

1

3e. Modifications 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)

5

3b. 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)

3d. 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)

2

Check all disturbances observed

- ☒ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input

- ☐ point source (nonstormwater)
- ☒ filling/grading
- ☐ road bed/RR track
- ☐ dredging
- ☐ other

10 34
max 20 pts. subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- ☒ None or none apparent (4)
- ☒ Recovered (3)
- ☒ Recovering (2)
- ☐ Recent or no recovery (1)

2.5

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)

3

4c. Habitat alteration. Score one or double check and average.

- ☐ None or none apparent (9)
- ☒ Recovered (6)
- ☒ Recovering (3)
- ☐ Recent or no recovery (1)

4.5

Check all disturbances observed

- ☐ mowing
- ☐ grazing
- ☐ clearcutting
- ☒ selective cutting
- ☒ woody debris removal
- ☐ toxic pollutants

- ☒ shrub/sapling removal
- ☒ herbaceous/aquatic bed removal
- ☒ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

34
subtotal this page

Site: D-2

Rater(s): M. Lauffer

Date: 12/1/05

34

subtotal this page

0

34

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 hydrology (10)
☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Praires (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

4

38

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.**6a. Wetland Vegetation Communities.**

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
☒ Emergent
☐ Shrub
☐ Forest
☐ Mudflats
☐ Open water
☐ Other

2

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☐ Moderately low (2)
☒ Low (1)
☐ None (0)

1

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)
☐ Sparse 5-25% cover (-1)
☒ Nearly absent <5% cover (0)
☐ Absent (1)

X

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/tussocks
☐ Coarse woody debris >15cm (6in)
☐ Standing dead >25cm (10in) dbh
☐ Amphibian breeding pools

1

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

38

GRAND TOTAL(max 100 pts)

Category 2

Site: D-3	Rater(s): <i>M. Lavender</i>	Date: <i>12/1/05</i>
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2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select 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)

2

Wet D-3

11	6
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

3

11	17
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3

3b. 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)

3d. 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)

2

Check all disturbances observed	
<input checked="" type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input checked="" type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input checked="" type="checkbox"/> other <i>cultural</i>

8	25
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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)

3

4c. Habitat alteration. Score one or double check and average.

- ☐ None or none apparent (9)
- ☐ Recovered (6)
- ☒ Recovering (3)
- ☐ Recent or no recovery (1)

3

Check all disturbances observed	
<input type="checkbox"/> mowing	<input checked="" type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input checked="" type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input checked="" type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input checked="" type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

25
subtotal this page

Site: D-3	Rater(s): M. Leuffer	Date: 12/1/05
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25

subtotal this page

122

max 10 pts.

subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

<input type="checkbox"/>	Bog (10)
<input type="checkbox"/>	Fan (10)
<input type="checkbox"/>	Old growth forest (10)
<input type="checkbox"/>	Mature forested wetland (5)
<input type="checkbox"/>	Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
<input type="checkbox"/>	Lake Erie coastal/tributary wetland-restricted hydrology (5)
<input type="checkbox"/>	Lake Plain Sand Prairies (Oak Openings) (10)
<input type="checkbox"/>	Relict Wet Prairies (10)
<input type="checkbox"/>	Known occurrence state/federal threatened or endangered species (10)
<input type="checkbox"/>	Significant migratory songbird/water fowl habitat or usage (10)
<input type="checkbox"/>	Category 1 Wetland. See Question 1 Qualitative Rating (-10)

2

subtotal

Metric 6. Plant communities, interspersion, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

☐ Aquatic bed
☐ Emergent
☐ Shrub
☐ Forest
☐ Mudflats
☐ Open water
☐ Other

6b. horizontal (plan view) interspersion.

Select only one.

☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☒ 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 (-3)
☐ Sparse 5-25% cover (-1)
☐ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

<input type="checkbox"/>	Vegetated hummocks/tussucks
<input type="checkbox"/>	Coarse woody debris >15cm (6in)
<input type="checkbox"/>	Standing dead >25cm (10in) dbh
<input type="checkbox"/>	Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

5-

GRAND TOTAL(max 100 pts)

category 1

Site: D-4	Rater(s): JAV	Date: 12/1/05
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1	1
max 5 pts.	subtotal

Metric 1. Wetland Area (size).

- Select 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)

11	12
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

- 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), shrubland, 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)

15	27
max 30 pts.	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- ☐ High pH groundwater (5)
 - ☐ Other groundwater (3)
 - ☒ Precipitation (1)
 - ☒ Seasonal/intermittent surface water (3)
 - ☐ Perennial surface water (lake or stream) (5)
- 3b. 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)
- 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)
- 3d. 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 check and average.
- ☐ None or none apparent (12)
 - ☒ Recovered (7)
 - ☐ Recovering (3)
 - ☐ Recent or no recovery (1)

Check all disturbances observed

<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input checked="" type="checkbox"/> other <i>adjacent access path</i>

11	38
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- ☐ None or none apparent (4)
 - ☒ Recovered (3) *adjacent access path*
 - ☐ 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)

Check all disturbances observed

<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

38
subtotal this page

Site: D-4

Rater(s): JAV

Date: 12/1/05

38

subtotal first page

0

38

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Prairies (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

6

44

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.**6a. Wetland Vegetation Communities.**

Score all present using 0 to 3 scale.

- ☒ 0 Aquatic bed
☒ 2 Emergent
☒ 0 Shrub
☒ 3 Forest (only a few sycamores)
☒ 0 Mudflats
☒ 0 Open water
☒ 0 Other

6b. horizontal (plan view) Interspersion.
Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☒ 2 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 (-3)
☒ -1 Sparse 5-25% cover (-1)
☐ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ 2 Vegetated hummocks/mounds
☒ 1 Coarse woody debris >15cm (6in)
☒ 0 Standing dead >25cm (10in) dbh
☒ 0 Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88)
3	High 4ha (9.88 acres) or more

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 and of highest quality

44

GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.nh.us/dsw/401/401.html>
 last revised 1 February 2001 jfm

category 2

Site: D-5 Rater(s): M. Lander Date: 10/1/18

0 0
max 6 pts. subtotal

Metric 1. Wetland Area (size).

Wet A-5

Select 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)

10 10
max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

15 25
max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3b. Connectivity. Score all that apply.

- ☒ 400 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)

3d. 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)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input
- ☐ point source (nonstormwater)
- ☒ filling/grading
- ☐ road bed/RR track
- ☐ dredging
- ☐ other

12 37
max 20 pts. subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed

- ☐ mowing
- ☐ grazing
- ☐ clearcutting
- ☒ selective cutting
- ☒ woody debris removal
- ☐ toxic pollutants
- ☐ shrub/sapling removal
- ☐ herbaceous/aquatic bed removal
- ☐ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

37
subtotal this page

Site: 05 Rater(s): M. Lawler Date: 12/1/05

37

subtotal this page

0 37

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
- ☒ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

0 37

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☒ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ 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 (-3)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ Vegetated hummocks/mounds
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

37

GRAND TOTAL(max 100 pts)

category 2

Site: D-6 Rater(s): M. Laufer Date: 12/1/05

2 2
max 6 pts. subtotal

Metric 1. Wetland Area (size).

Select 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)

Wet D-6

4 6
max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

14 20
max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed

- ☒ ditch
- ☐ tile
- ☒ dike
- ☐ weir
- ☐ stormwater input
- ☐ point source (nonstormwater)
- ☐ filling/grading
- ☒ road bed/RR track
- ☒ dredging
- ☐ other

8 08
max 20 pts. subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed

- ☐ mowing
- ☐ grazing
- ☐ clearcutting
- ☐ selective cutting
- ☒ woody debris removal
- ☐ toxic pollutants
- ☒ shrub/sapling removal
- ☒ herbaceous/aquatic bed removal
- ☐ sedimentation
- ☐ dredging
- ☒ farming
- ☐ nutrient enrichment

28
subtotal this page

Site: D-6	Rater(s): M. Lauffer	Date: 12/1/05
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28

subtotal this page

0	68	max 10 pts. subtotal
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Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

4	32	max 20 pts. subtotal
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Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☒ Open water
- ☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ 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 (-3)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/mounds
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☒ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

32

GRAND TOTAL(max 100 pts)

Site: W-1 Rater(s): JAV Date: 11/29/05

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select 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) (2 pts)
- ☒ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (0.04ha) (0 pts)

9	10
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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) (*adjacent road only existing buffer*)
- ☐ 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), shrubland, young second growth forest (5)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) (*adj. road*)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

16	26
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ Seasonal/intermittent surface water (3) (*adj. stream*)
- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed

- | | |
|---|---|
| <input checked="" type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input type="checkbox"/> tile | <input type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input checked="" type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input checked="" type="checkbox"/> other <i>nearby culvert</i> |

12	38
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed

- | | |
|---|---|
| <input type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input type="checkbox"/> clearcutting | <input type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

38
subtotal this page

→ maintained along adjacent roadway and ditch

Site: W-1

Rater(s): JAV

Date: 11/29/05

38

subtotal first page

38

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
☒ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Prairies (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

6

44

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.**6a. Wetland Vegetation Communities.**

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
☐ Emergent
☐ Shrub
☒ Forest
☐ Mudflats
☐ Open water
☐ Other

3

6b. Horizontal (plan view) Interspersion.
Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☒ Moderately low (2)
☐ Low (1)
☐ None (0)

2

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)
☐ Sparse 5-25% cover (-1)
☒ Nearly absent <5% cover (0)
☐ Absent (1)

0

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/mounds
☐ Coarse woody debris >15cm (6in)
☐ Standing dead >25cm (10in) dbh
☐ Amphibian breeding pools

1

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88)
3	High 4ha (9.88 acres) or more

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 and of highest quality

44

GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.pa.us/dsw/401401.html>
 last revised 1 February 2001 jlm

Category 2

Site: W-2	Rater(s): BGM	Date: 11-29-05
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2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select 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)

2

4	15
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, 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)

25 4 175
100ft

9	15
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed

- | | |
|---|---|
| <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input type="checkbox"/> tile | <input type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input type="checkbox"/> other _____ |

3	18
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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)

Check all disturbances observed

- | | |
|---|---|
| <input type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

18
subtotal this page

Site: W-2 Rater(s): BEM Date: 11/24/05

18
subtotal this page

0 18
max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

0

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 21
max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ 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 (-3)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☒ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/mounds
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

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 and of highest quality

21 GRAND TOTAL(max 100 pts)

category 1

Site: WB-1

Rater(s): M. Lauffer

Date: 11/29/05

2

2

Metric 1. Wetland Area (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 <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 2 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)

12

14

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), shrubland, 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)

19

33

Metric 3. Hydrology.

max 30 pts.

subtotal

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed

- ☒ ditch
- ☐ tile
- ☒ dike
- ☐ weir
- ☐ stormwater input
- ☐ point source (nonstormwater)
- ☐ filling/grading
- ☐ road bed/RR track
- ☐ dredging
- ☐ other

7.5

40.5

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)
- ☐ 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 removal
- ☐ herbaceous/aquatic bed removal
- ☒ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

40.5

subtotal this page

40.5

subtotal first page

0 40.5

max 10 pts.

subtotal

Metric 5. Special Wetlands.

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 hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 43.5

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☒ Open water
- ☐ Other _____

6b. horizontal (plan view) interspersions.

Select only one.

- ☐ High (5)
- ☐ Moderately high (4)
- ☐ Moderate (3)
- ☐ 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 (-3)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☒ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/tussocks
- ☐ Coarse woody debris >15cm (6in)
- ☒ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88)
3	High 4ha (9.88 acres) or more

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 and of highest quality

43.5 **GRAND TOTAL (max 100 pts)**

Category 2

Site: WB-2

Rater(s): Kooser

Date: 11/29/05

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select 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) (2 pts)
☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
☐ <0.1 acres (0.04ha) (0 pts)

7	7
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

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), shrubland, young second growth forest (5)
☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation village, new fallow field. (3)
☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

13	20
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ 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)

3e. Modifications 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)

3b. 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)

3d. 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)

Check all disturbances observed	
<input checked="" type="checkbox"/> ditch	<input type="checkbox"/> point source (nonslownwater)
<input checked="" type="checkbox"/> tile	<input type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other

11.5	31.5
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

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 (8)
☐ 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)

Check all disturbances observed	
<input type="checkbox"/> mowing	<input checked="" type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input type="checkbox"/> sedimentation
<input checked="" type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input checked="" type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

31.5
subtotal this page

Site: WB-2

Rater(s): Noesen

Date: 11/29/05

31.5

subtotal first page

0

31.5

Metric 5. Special Wetlands.

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 hydrology (10)
☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
☐ Lake Plain Sand Prairies (Oak Openings) (10)
☐ Relict Wet Prairies (10)
☐ Known occurrence state/federal threatened or endangered species (10)
☐ Significant migratory songbird/water fowl habitat or usage (10)
☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

2

33.5

Metric 6. Plant communities, interspersions, microtopography.

max 20 pts.

subtotal

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
☒ Emergent
☐ Shrub
☐ Forest
☐ Mudflats
☐ Open water
☐ Other

6b. horizontal (plan view) Interspersions.
Select only one.

- ☐ High (5)
☐ Moderately high (4)
☐ Moderate (3)
☐ 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 (-3)
☐ Sparse 5-25% cover (-1)
☒ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/mounds
☐ Coarse woody debris >15cm (6in)
☐ Standing dead >25cm (10in) dbh
☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	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
2	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
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	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
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, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to
3	High 4ha (9.88 acres) or more

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 and of highest quality

33.5

GRAND TOTAL (max 100 pts)

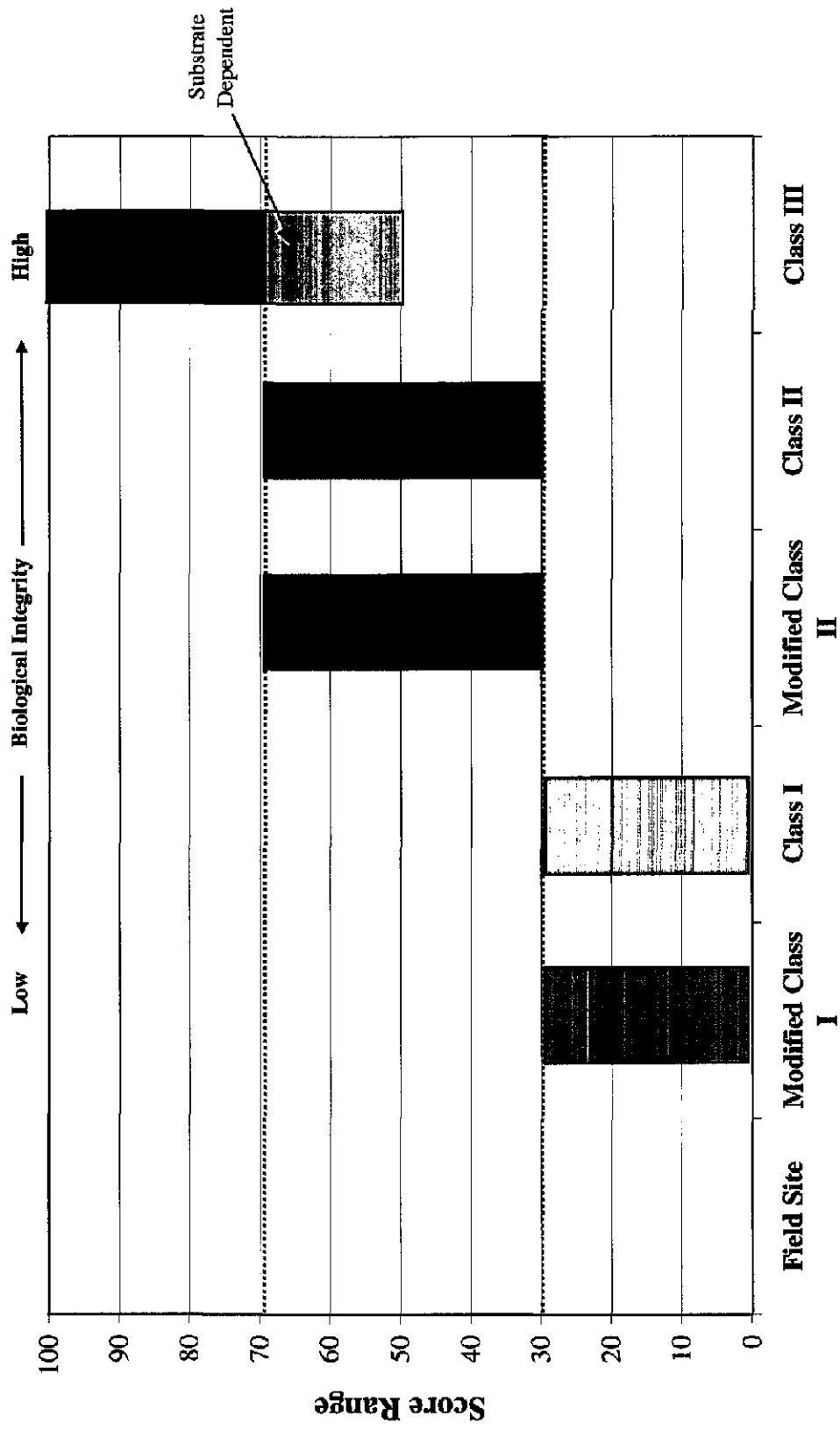
Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401401.html>
 last revised 1 February 2001 jfm

category 2

APPENDIX C

**OHIO EPA HEADWATER HABITAT EVALUATION INDEX (HHEI)
STREAM CHANNEL ASSESSMENT FORMS AND GRAPH**

Headwater Habitat Evaluation Index



Site Value Compared to HHEI Score Metrics

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

42

SITE NAME/LOCATION APP-08

SITE NUMBER AN-SI RIVER BASIN _____

DRAINAGE AREA (mi²) < 1

LENGTH OF STREAM REACH (ft) 200 LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____

DATE 28 Nov 05 SCORER JOK/JS COMMENTS lots of deer carcasses

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL ☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY
MODIFICATIONS:

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]		<input checked="" type="checkbox"/> SILT [3 pts]	25
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]		<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	40
<input type="checkbox"/> BEDROCK [16 pts]	5	<input type="checkbox"/> FINE DETRITUS [3 pts]	10
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	5	<input type="checkbox"/> CLAY or HARDPAN [0 pts]	
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]		<input type="checkbox"/> MUCK [0 pts]	15
<input type="checkbox"/> SAND (<2 mm) [6 pts]		<input type="checkbox"/> ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 10

(A) 6

(B) 4

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI Metric Points

Substrate Max = 40

12

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input checked="" type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

15

Pool Depth Max = 30

15

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input checked="" type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

15

Bankfull Width Max=30

15

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream

RIPARIAN WIDTH

L	R	(Per Bank)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wide >10m
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Moderate 5-10m
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m
<input type="checkbox"/>	<input type="checkbox"/>	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
<input type="checkbox"/>	<input type="checkbox"/>	Mature Forest, Wetland
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	Fenced Pasture

L	R	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input checked="" type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)**DOWNSTREAM DESIGNATED USE(S)**

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATIONUSGS Quadrangle Name: New Warren, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____County: Meigs Township / City: Letart Falls, Ohio area**MISCELLANEOUS**Base Flow Conditions? (Y/N): Y Date of last precipitation: _____ Quantity: _____Photograph Information: yesElevated Turbidity? (Y/N): N Canopy (% open): 40Were samples collected for water chemistry? (Y/N): 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): Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATIONPerformed? (Y/N): 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)

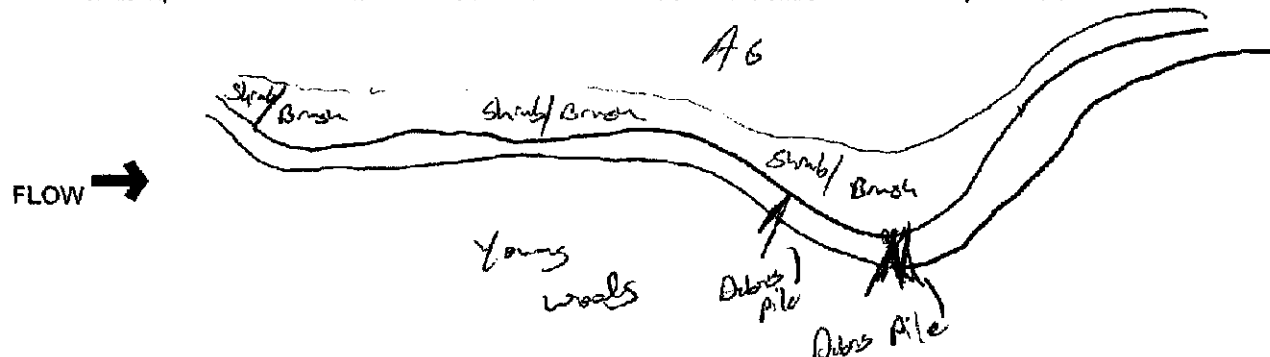
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N

Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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



end of channel?

HHEI Score (sum of metrics 1, 2, 3):

41

SITE NAME/LOCATION AMP-OhioStreamSITE NUMBER AS-51

RIVER BASIN _____

DRAINAGE AREA (mi²) >1mi²

LENGTH OF STREAM REACH (ft) _____

LAT. _____

LONG. _____

RIVER CODE _____

RIVER MILE _____

DATE 11-28-05SCORER Ben

COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL

☐ NONE / NATURAL CHANNEL☐ RECOVERED☒ RECOVERING☐ RECENT OR NO RECOVERY

MODIFICATIONS: _____

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input type="checkbox"/> SILT [3 pts]	_____
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<input checked="" type="checkbox"/>
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input type="checkbox"/> CLAY or HARDPAN [0 pts]	_____
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input type="checkbox"/> MUCK [0 pts]	_____
<input checked="" type="checkbox"/> SAND (<2 mm) [6 pts]	<input checked="" type="checkbox"/>	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock 0%

(A)

9

(B)

2

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

0

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input checked="" type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 7" - 9' 8") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

30HHEI
Metric
PointsSubstrate
Max = 4011

A + B

Pool Depth
Max = 300Bankfull
Width
Max=3030

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN 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	
<input type="checkbox"/>	<input type="checkbox"/>	Wide >10m	<input type="checkbox"/>	<input type="checkbox"/>	Mature Forest, Wetland	<input type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Moderate 5-10m	<input type="checkbox"/>	<input type="checkbox"/>	Immature Forest, Shrub or Old Field	<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m	<input type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Open Pasture, Row Crop
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Fenced Pasture	<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input checked="" type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

<input type="checkbox"/> Flat (0.5 ft/100 ft)	<input type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input checked="" type="checkbox"/> Moderate to Severe	<input type="checkbox"/> Severe (10 ft/100 ft)
---	---	---	--	--

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)**DOWNSTREAM DESIGNATED USE(S)**

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATIONUSGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____County: Meigs County Township / City: Retart Falls, Ohio area**MISCELLANEOUS**Base Flow Conditions? (Y/N): Y Date of last precipitation: 11-28-05 Quantity: unknownPhotograph Information: YElevated Turbidity? (Y/N): N Canopy (% open): 95%Were samples collected for water chemistry? (Y/N): 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) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATIONPerformed? (Y/N): 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)

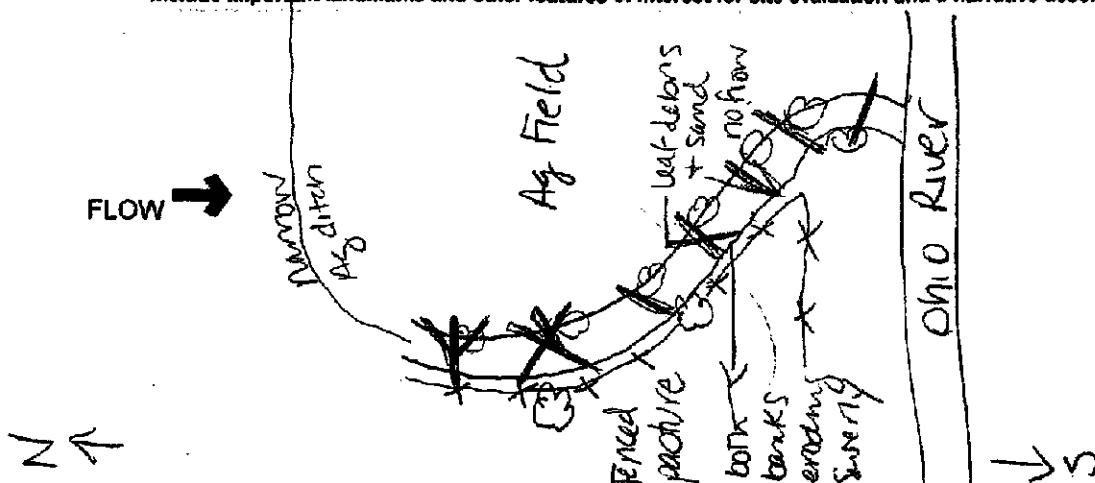
Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____

Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



SITE NAME/LOCATION AMP-08
Stream SITE NUMBER A8-S2 RIVER BASIN _____ DRAINAGE AREA (mi²) 71mi²
 LENGTH OF STREAM REACH (ft) _____ LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____
 DATE 11-28-05 SCORER Ben COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☒ RECOVERING ☐ RECENT OR NO RECOVERY

MODIFICATIONS:

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]		<input type="checkbox"/> SILT [3 pts]	
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]		<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	
<input type="checkbox"/> BEDROCK [16 pts]		<input type="checkbox"/> FINE DETRITUS [3 pts]	
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]		<input type="checkbox"/> CLAY or HARDPAN [0 pts]	
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]		<input type="checkbox"/> MUCK [0 pts]	
<input checked="" type="checkbox"/> SAND (<2 mm) [6 pts]		<input type="checkbox"/> ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0%

(A)

9

(B)

2

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI Metric Points

Substrate Max = 40

11

A + B

Pool Depth Max = 30

0

Bankfull Width Max=30

30

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS

MAXIMUM POOL DEPTH (centimeters):

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input checked="" type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> < 1.0 m (< 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS

AVERAGE BANKFULL WIDTH (meters):

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN 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	
<input type="checkbox"/>	<input type="checkbox"/>	Wide >10m	<input type="checkbox"/>	<input type="checkbox"/>	Mature Forest, Wetland	<input type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Moderate 5-10m	<input type="checkbox"/>	<input type="checkbox"/>	Immature Forest, Shrub or Old Field	<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m	<input type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Open Pasture, Row Crop
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	<input type="checkbox"/>	<input type="checkbox"/>	Fenced Pasture	<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

COMMENTS

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input checked="" type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS

- SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)**DOWNSTREAM DESIGNATED USE(S)**

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Meigs County Township / City: Letart Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 11-28-05 Quantity: unknown

Photograph Information: Y

Elevated Turbidity? (Y/N): N Canopy (% open): 100%

Were samples collected for water chemistry? (Y/N): 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) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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)

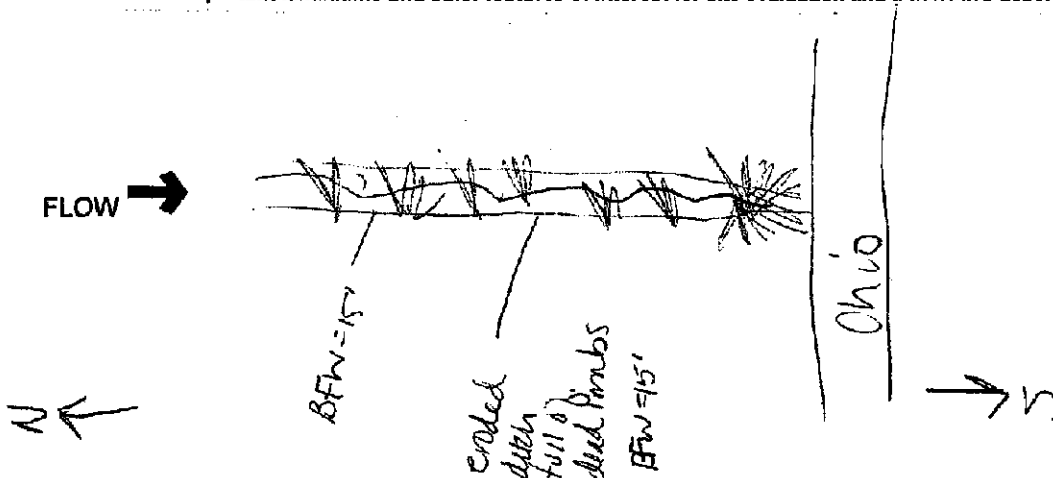
Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____

Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



HHEI Score (sum of metrics 1, 2, 3):

32

SITE NAME/LOCATION AMP 6L5SITE NUMBER BH-S1

RIVER BASIN _____

DRAINAGE AREA (mi²) _____LENGTH OF STREAM REACH (ft) 200

LAT. _____

LONG. _____

RIVER CODE _____

RIVER MILE _____

DATE 30 Nov.SCORER Kooser

COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for instructions

STREAM CHANNEL

☒ NONE / NATURAL CHANNEL☐ RECOVERED☐ RECOVERING☐ RECENT OR NO RECOVERY

MODIFICATIONS

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 pts]

COBBLE (65-256 mm) [12 pts]

GRAVEL (2-64 mm) [9 pts]

SAND (<2 mm) [6 pts]

PERCENT

1525

TYPE

☐☒☐☐☐☐

SILT [3 pts]

LEAF PACK/WOODY DEBRIS [5 pts]

FINE DETRITUS [3 pts]

CLAY or HARPAN [0 pts]

MUCK [0 pts]

ARTIFICIAL [3 pts]

PERCENT

35

25

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock 15

(A)

12

(B)

4

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

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]

> 22.5 - 30 cm [30 pts]

> 10 - 22.5 cm [25 pts]

☐☐☐☐

> 5 cm - 10 cm [15 pts]

< 5 cm [5 pts]

NO WATER OR MOIST CHANNEL [0 pts]

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]

> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]

> 1.5 m - 3.0 m (> 4' 7" - 9' 7") [20 pts]

☐☐☒

> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]

< 1.0 m (< 3' 3") [5 pts]

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

HHEI
Metric
PointsSubstrate
Max = 4012

A + B

Pool Depth
Max = 3015Bankfull
Width
Max = 305

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

NOTE: River Left (L) and Right (R) as looking downstream

RIPARIAN WIDTH

FLOODPLAIN QUALITY

L R

☒ ☒

(Per Bank)

Wide >10m

☐☐

Moderate 5-10m

☐☐

Narrow <5m

☐

None

L R

☐☐☒☐☐

(Most Predominant per Bank)

Mature Forest, Wetland

Immature Forest, Shrub or Old

Field

Residential, Park, New Field

Fenced Pasture

L R

☐☐☐☐☐

Conservation Tillage

Urban or Industrial

Open Pasture, Row

Crop

Mining or Construction

COMMENTS Recently logged - many snags, Rubus + Rose

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

☐☐☐

Stream Flowing

Subsurface flow with isolated pools (Interstitial)

☒☐

Moist Channel, isolated pools, no flow (Intermittent)

Dry channel, no water (Ephemeral)

COMMENTS Heavy rain on 29 Nov.

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

☐☐

None

0.5

☐☐

1.0

1.5

☒☐

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)

ADDITIONAL STREAM INFORMATION (This information must also be completed):QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)**DOWNSTREAM DESIGNATED USE(S)**

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Mingo Township / City: Retart Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 29 Nov. 2005 Quantity: unknown

Photograph Information: #62 BMS-2 = 61

Elevated Turbidity? (Y/N): Y Canopy (% open): 70

Were samples collected for water chemistry? (Y/N): 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): Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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)

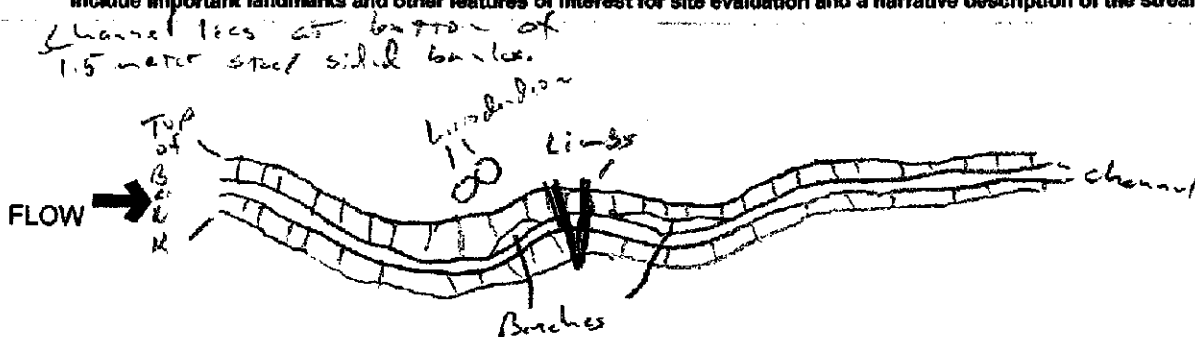
Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____

Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



SITE NAME/LOCATION AMP Ohiostream SITE NUMBER BM-S2 RIVER BASIN _____ DRAINAGE AREA (mi²) 4.1mi²LENGTH OF STREAM REACH (ft) 150 LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____DATE 11-30-05 SCORER BEM COMMENTS drains into stream 1

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL ☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

MODIFICATIONS _____

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input type="checkbox"/> SILT [3 pts]	<u>30%</u>
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<u>30%</u>
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input type="checkbox"/> CLAY or HARDPAN [0 pt]	_____
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input checked="" type="checkbox"/> MUCK [0 pts]	<u>50%</u>
<input type="checkbox"/> SAND (<2 mm) [8 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0%(A) 3(B) 3

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> < 1.0 m (< 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 7" - 9' 7") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters):

HHEI
Metric
PointsSubstrate
Max = 406

A + B

Pool Depth
Max = 300Bankfull
Width
Max=305

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

L/R	(Per Bank)
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Wide >10m
<input type="checkbox"/> <input type="checkbox"/>	Moderate 5-10m
<input type="checkbox"/> <input type="checkbox"/>	Narrow <5m
<input type="checkbox"/> <input type="checkbox"/>	None

COMMENTS _____

FLOODPLAIN QUALITY

L/R	(Most Predominant per Bank)
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Mature Forest, Wetland
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Immature Forest, Shrub or Old Field
<input type="checkbox"/> <input type="checkbox"/>	Residential, Park, New Field
<input type="checkbox"/> <input type="checkbox"/>	Fenced Pasture

L/R	
<input type="checkbox"/> <input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/> <input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/> <input type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/> <input type="checkbox"/>	Mining or Construction

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input checked="" type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

<input type="checkbox"/> Flat (0.5 ft/100 ft)	<input type="checkbox"/> Flat to Moderate	<input checked="" type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input type="checkbox"/> Severe (10 ft/100 ft)
---	---	--	---	--

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)**DOWNSTREAM DESIGNATED USE(S)**

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV- OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Meigs County Township / City: Stant Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 11-29-05 Quantity: unknown

Photograph Information: Y - photo # 61

Elevated Turbidity? (Y/N): N Canopy (% open): 50%

Were samples collected for water chemistry? (Y/N): 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): Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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)

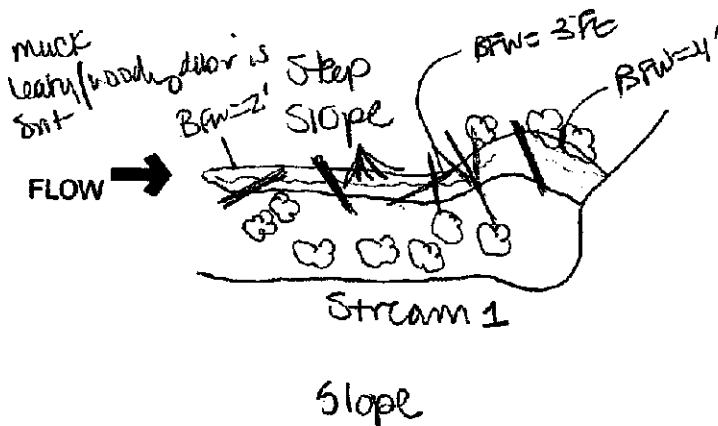
Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____

Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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





Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

class I

11

SITE NAME/LOCATION AMP Ohio
Stream SITE NUMBER Bm-53 RIVER BASIN _____ DRAINAGE AREA (mi²) <1 mi²
LENGTH OF STREAM REACH (ft) _____ LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____
DATE 11-30-05 SCORER BEV COMMENTS drains into stream Bm 51

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY
MODIFICATIONS

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS (16 pts)	_____	<input type="checkbox"/> SILT (3 pts)	_____
<input type="checkbox"/> BOULDER (>256 mm) [15 pts]	_____	<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS (3 pts)	<u>40%</u>
<input type="checkbox"/> BEDROCK (16 pts)	_____	<input type="checkbox"/> FINE DETRITUS (3 pts)	_____
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input type="checkbox"/> CLAY or HARDPAN (0 pts)	_____
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input checked="" type="checkbox"/> MUCK (0 pts)	<u>40%</u>
<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL (3 pts)	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0%(A) 3(B) 3

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI
Metric
PointsSubstrate
Max = 406

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

Pool Depth
Max = 300

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> < 1.0 m (< 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 7" - 9' 7") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

Bankfull
Width
Max=305

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH		FLOODPLAIN QUALITY			
L	R	L	R	L	R
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> (Per Bank)		<input type="checkbox"/> <input checked="" type="checkbox"/> (Most Predominant per Bank)		<input type="checkbox"/> <input type="checkbox"/>	
<input checked="" type="checkbox"/> Wide >10m		<input checked="" type="checkbox"/> Mature Forest, Wetland		<input type="checkbox"/> <input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/> Moderate 5-10m		<input checked="" type="checkbox"/> Immature Forest, Shrub or Old Field		<input type="checkbox"/> <input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/> Narrow <5m		<input type="checkbox"/> Residential, Park, New Field		<input type="checkbox"/> <input type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/> None		<input type="checkbox"/> Fenced Pasture		<input type="checkbox"/> <input type="checkbox"/>	Mining or Construction

COMMENTS _____

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input checked="" type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

- SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5
		<input type="checkbox"/> 3.0
		<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)**DOWNSTREAM DESIGNATED USE(S)**

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Meigs County Township / City: Letart Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 11-29-05 Quantity: unknown

Photograph Information: Y - photo #1

Elevated Turbidity? (Y/N): N Canopy (% open): 100%

Were samples collected for water chemistry? (Y/N): 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) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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)

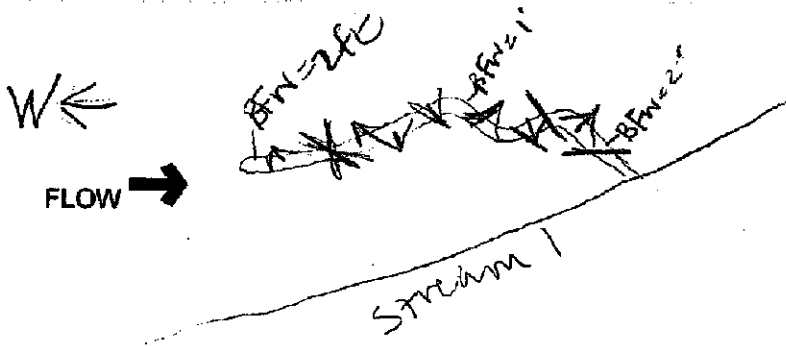
Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____

Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



SITE NAME/LOCATION Amph Ohio
Stream SITE NUMBER Bm - 34 RIVER BASIN _____ DRAINAGE AREA (mi²) 21 mi²
 LENGTH OF STREAM REACH (ft) 150' LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____
 DATE 11-30-05 SCORER Bern COMMENTS connects Wetlands Bmw 1 + 2

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL: ☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

MODIFICATIONS:

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDG SLABS [16 pts]	_____	<input checked="" type="checkbox"/> SILT [3 pts]	_____
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	_____
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input checked="" type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pts]	_____
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input checked="" type="checkbox"/> MUCK [0 pts]	_____
<input type="checkbox"/> SAND (<2 mm) [8 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock 0%

(A) 3

(B) 4

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI
Metric
Points

Substrate
Max = 40

7

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

0

Pool Depth
Max = 30

0

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 8' 7" - 4' 8") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

1.5

Bankfull
Width
Max=30

5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

L	R	(Per Bank)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wide >10m
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Moderate 5-10m
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m
<input type="checkbox"/>	<input type="checkbox"/>	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
<input type="checkbox"/>	<input type="checkbox"/>	Mature Forest, Wetland
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Immature Forest, Shrub or Old Field
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	Fenced Pasture

L	R	
<input type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

BM-54

QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
 County: Meigs County Township / City: Retart Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 11-29-05 Quantity: unknown
 Photograph Information: Y
 Elevated Turbidity? (Y/N): N Canopy (% open): 30%
 Were samples collected for water chemistry? (Y/N): 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): Y If not, please explain: _____

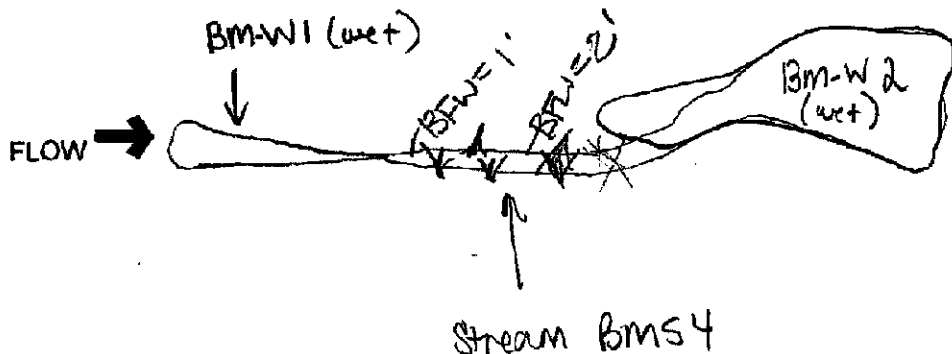
Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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) _____
 Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____
 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





Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

class I

21

SITE NAME/LOCATION AMP-04SITE NUMBER BM-SS RIVER BASIN _____DRAINAGE AREA (mi²) _____LENGTH OF STREAM REACH (ft) 100

LAT. _____

LONG. _____

RIVER CODE _____

RIVER MILE _____

DATE 30 Nov. 05SCORER JBK/BM

COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERYMODIFICATIONS: Dam construction

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS (16 pts)		<input type="checkbox"/> SILT (3 pts)	
<input type="checkbox"/> BOULDER (>256 mm) (16 pts)		<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS (3 pts)	<u>30</u>
<input type="checkbox"/> BEDROCK (16 pts)		<input type="checkbox"/> FINE DETRITUS (3 pts)	
<input checked="" type="checkbox"/> COBBLE (65-256 mm) (12 pts)		<input type="checkbox"/> CLAY or HARDPAN (0 pts)	<u>20</u>
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) (8 pts)	<u>30</u>	<input type="checkbox"/> MUCK (0 pts)	
<input type="checkbox"/> SAND (<2 mm) (6 pts)	<u>20</u>	<input type="checkbox"/> ARTIFICIAL (3 pts)	

Total of Percentages of
Blkr Slabs, Boulder, Cobble, Bedrock0

(A)

12

(B)

4

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI
Metric
PointsSubstrate
Max = 4016

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):

<input type="checkbox"/> > 30 centimeters (20 pts)	<input type="checkbox"/> > 5 cm - 10 cm (15 pts)
<input type="checkbox"/> > 22.5 - 30 cm (30 pts)	<input type="checkbox"/> < 5 cm (5 pts)
<input type="checkbox"/> > 10 - 22.5 cm (25 pts)	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL (0 pts)

Pool Depth
Max = 300

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

0

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') (30 pts)	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") (15 pts)
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') (25 pts)	<input checked="" type="checkbox"/> < 1.0 m (< 3' 3") (5 pts)
<input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") (20 pts)	

Bankfull
Width
Max=305

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

0.5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

L	R	(Per Bank)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wide >10m
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Moderate 5-10m
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m
<input type="checkbox"/>	<input type="checkbox"/>	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
<input type="checkbox"/>	<input type="checkbox"/>	Mature Forest, Wetland
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	Fenced Pasture

L	R	
<input type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Open Pasture, Row Crop <u>Pond</u>
<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input checked="" type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):

BM-SS

QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Morgan Township / City: Gettysburg, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 29 Nov. 05 Quantity: unknown

Photograph Information: yes

Elevated Turbidity? (Y/N): N Canopy (% open): 75

Were samples collected for water chemistry? (Y/N): 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) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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)

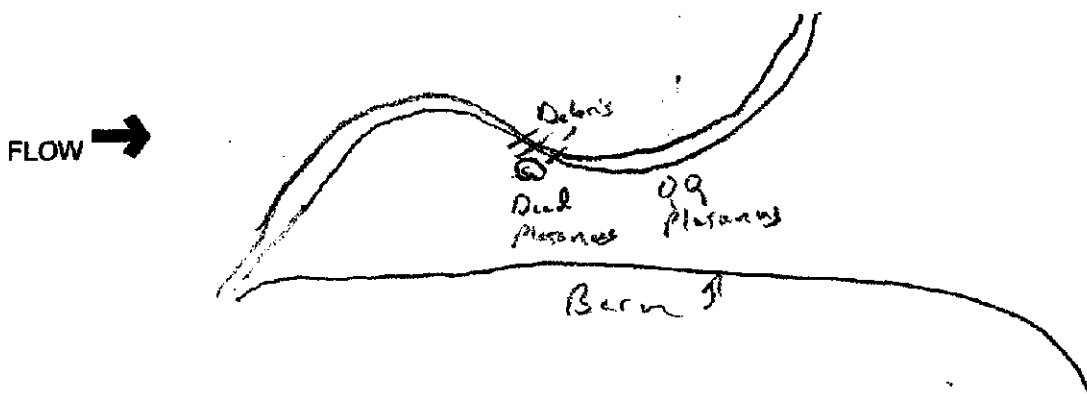
Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____

Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



SITE NAME/LOCATION AMP-001SITE NUMBER BM-56

RIVER BASIN _____

DRAINAGE AREA (mi²) _____LENGTH OF STREAM REACH (ft) 200

LAT. _____

LONG. _____

RIVER CODE _____

RIVER MILE _____

DATE 30 Nov 05 SCORER JCK/DEM COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY
 MODIFICATIONS _____

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input checked="" type="checkbox"/> SILT [3 pts]	<u>60</u>
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<u>25</u>
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	<u>5</u>
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input type="checkbox"/> CLAY or HARDPAN [0 pts]	<u>5</u>
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<u>5</u>	<input type="checkbox"/> MUCK [0 pts]	_____
<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _____

(A) 6(B) 5

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: _____

TOTAL NUMBER OF SUBSTRATE TYPES: _____

HHEI
Metric
PointsSubstrate
Max = 4011

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input checked="" type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters): _____

Pool Depth
Max = 3015

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input checked="" type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [16 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [8 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters) _____

Bankfull
Width
Max=3015

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

L	R	(Per Bank)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Wide >10m
<input type="checkbox"/>	<input type="checkbox"/>	Moderate 5-10m
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m
<input type="checkbox"/>	<input type="checkbox"/>	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Mature Forest, Wetland
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	Fenced Pasture

L	R	
<input type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

- SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input checked="" type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

BM-S6

QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
 County: Mingo Township / City: Ketchikan Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 29 Nov. 05 Quantity: unknown
 Photograph Information: #67 + 68
 Elevated Turbidity? (Y/N): Y Canopy (% open): 60%
 Were samples collected for water chemistry? (Y/N): 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) N If not, please explain: _____

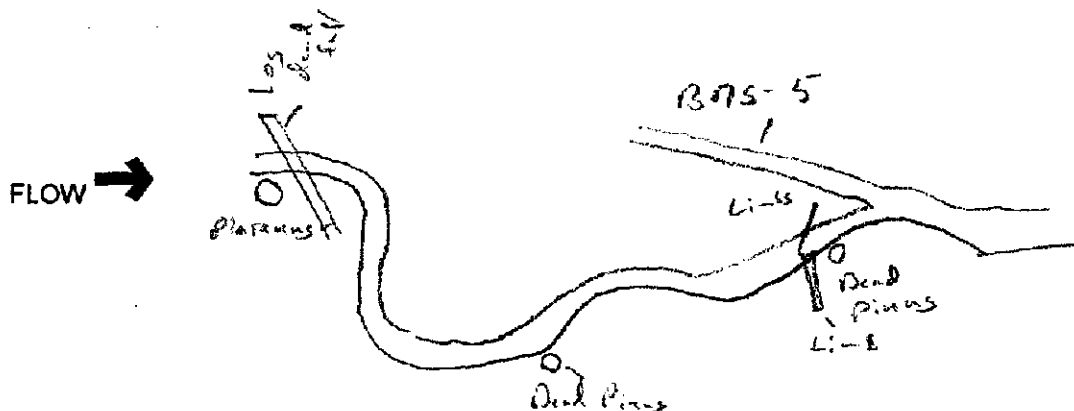
Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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) _____
 Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____
 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



SITE NAME/LOCATION AMP-ONSITE NUMBER BM-57

RIVER BASIN _____

DRAINAGE AREA (mi²) _____

LENGTH OF STREAM REACH (ft) _____

LAT. _____

LONG. _____

RIVER CODE _____

RIVER MILE _____

DATE 29 Nov 05SCORER JOE / JEM

COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL

☒ NONE / NATURAL CHANNEL☐ RECOVERED☐ RECOVERING☐ RECENT OR NO RECOVERY

MODIFICATIONS

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input type="checkbox"/> SILT [3 pts]	<u>15</u>
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<u>35</u>
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	<u>10</u>
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pts]	<u>40</u>
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input type="checkbox"/> MUCK [0 pts]	_____
<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock 0

(A)

3

(B)

4HHEI
Metric
PointsSubstrate
Max = 407

A + B

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input checked="" type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

3Pool Depth
Max = 305

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 5' 7" - 9' 8") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

0.6Bankfull
Width
Max=305

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

L	R	(Per Bank)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Wide >10m
<input type="checkbox"/>	<input type="checkbox"/>	Moderate 5-10m
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m
<input type="checkbox"/>	<input type="checkbox"/>	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Mature Forest, Wetland
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	Fenced Pasture

L	R	
<input type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

- SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

BM-57

QHEI PERFORMED? - ☒ Yes ☐ No QHEI Score 20 (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-04 NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
 County: Mingo Township / City: Detont Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 24 Nov 05 Quantity: unknown
 Photograph Information: 69
 Elevated Turbidity? (Y/N): N Canopy (% open): 50
 Were samples collected for water chemistry? (Y/N): 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) N If not, please explain: _____

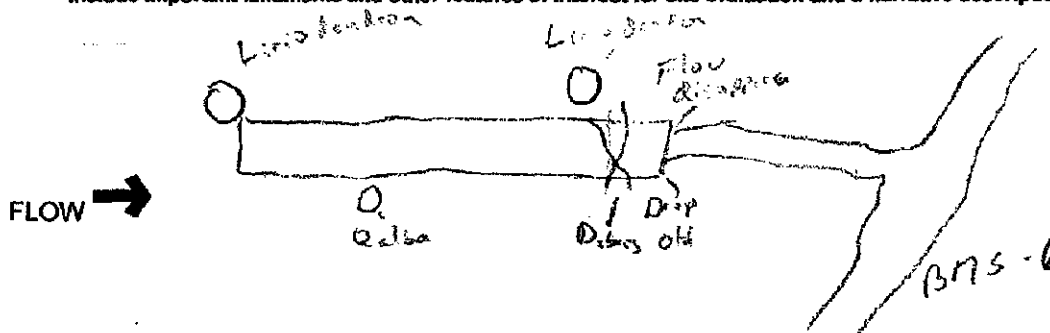
Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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) _____
 Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____
 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



SITE NAME/LOCATION Amponio
Stream SITE NUMBER BM-SB RIVER BASIN _____ DRAINAGE AREA (mi²) <1 mi²
 LENGTH OF STREAM REACH (ft) 300 LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____
 DATE 11-30-05 SCORER BEM COMMENTS flows into stream

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY
 MODIFICATIONS:

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDG SLABS [16 pts]		<input checked="" type="checkbox"/> SILT [3 pts]	<u>15%</u>
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]		<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<u>35%</u>
<input type="checkbox"/> BEDROCK [16 pts]		<input type="checkbox"/> FINE DETRITUS [3 pts]	
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]		<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pts]	<u>50%</u>
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]		<input type="checkbox"/> MUCK [0 pts]	
<input type="checkbox"/> SAND (<2 mm) [8 pts]		<input type="checkbox"/> ARTIFICIAL [3 pts]	

Total of Percentages of
 Bldg Slabs, Boulder, Cobble, Bedrock 0%

(A) 3

(B) 3

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI
Metric
Points

Substrate
Max = 40

6
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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10' - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS

MAXIMUM POOL DEPTH (centimeters):

0

Pool Depth
Max = 30

0

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	

COMMENTS

AVERAGE BANKFULL WIDTH (meters)

3.2

Bankfull
Width
Max = 30

5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

L	R	(Per Bank)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Wide >10m
<input type="checkbox"/>	<input type="checkbox"/>	Moderate 5-10m
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m
<input type="checkbox"/>	<input type="checkbox"/>	None

COMMENTS

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Mature Forest, Wetland
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	Fenced Pasture

L	R	
<input type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS

- SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input checked="" type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

BM-58

QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV- OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Meigs County Township / City: Retort Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 11-29-05 Quantity: unknown

Photograph Information: Y - photo 70-Condard camera

Elevated Turbidity? (Y/N): N Canopy (% open): 60%

Were samples collected for water chemistry? (Y/N): 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) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

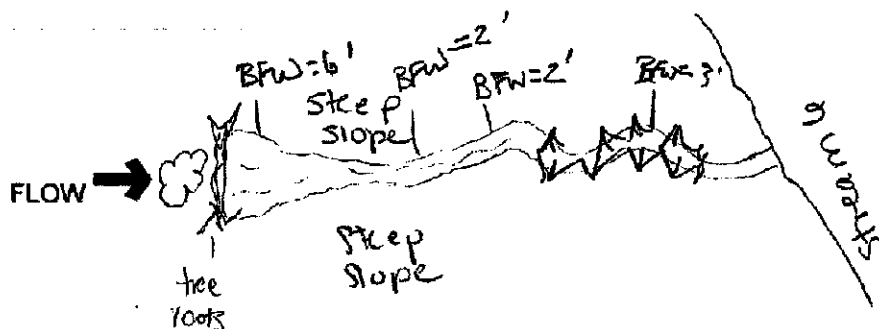
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____
 Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



SITE NAME/LOCATION AMP-04Stream SITE NUMBER BM-S9 RIVER BASIN _____ DRAINAGE AREA (mi²) 4.1LENGTH OF STREAM REACH (ft) 200' LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____DATE 11-30-05 SCORER SEM COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY
MODIFICATIONS: _____

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDG SLABS [16 pts]		<input type="checkbox"/> SILT [3 pts]	
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	<u>50%</u>	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<u>20%</u>
<input type="checkbox"/> BEDROCK [16 pts]		<input type="checkbox"/> FINE DETRITUS [3 pts]	
<input checked="" type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<u>35%</u>	<input checked="" type="checkbox"/> CLAY or HARDPAN [10 pts]	<u>40%</u>
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) [9 pts]		<input type="checkbox"/> MUCK [0 pts]	
<input type="checkbox"/> SAND (<2 mm) [6 pts]		<input type="checkbox"/> ARTIFICIAL [3 pts]	

Total of Percentages of
Blgr Slabs, Boulder, Cobble, Bedrock50%

(A)

9

(B)

4

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI
Metric
PointsSubstrate
Max = 4013

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input checked="" type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

12"Pool Depth
Max = 3025

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input checked="" type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> < 1.0 m (< 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

4.1Bankfull
Width
Max=3015

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

FLOODPLAIN QUALITY

L	R	(Per Bank)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Wide >10m
<input type="checkbox"/>	<input type="checkbox"/>	Moderate 5-10m
<input type="checkbox"/>	<input type="checkbox"/>	Narrow <5m
<input type="checkbox"/>	<input type="checkbox"/>	None

L	R	(Most Predominant per Bank)
<input type="checkbox"/>	<input type="checkbox"/>	Mature Forest, Wetland
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/>	Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	Fenced Pasture

L	R	
<input type="checkbox"/>	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	Mining or Construction

COMMENTS _____

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input checked="" type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

<input type="checkbox"/> Flat (0.5 ft/100 ft)	<input checked="" type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input type="checkbox"/> Severe (10 ft/100 ft)
---	--	---	---	--

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

BM-S9

QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Meigs County Township / City: Retart Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 11-29-05 Quantity: unknown

Photograph Information: Y-71-72

Elevated Turbidity? (Y/N): N Canopy (% open): 40%

Were samples collected for water chemistry? (Y/N): 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) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

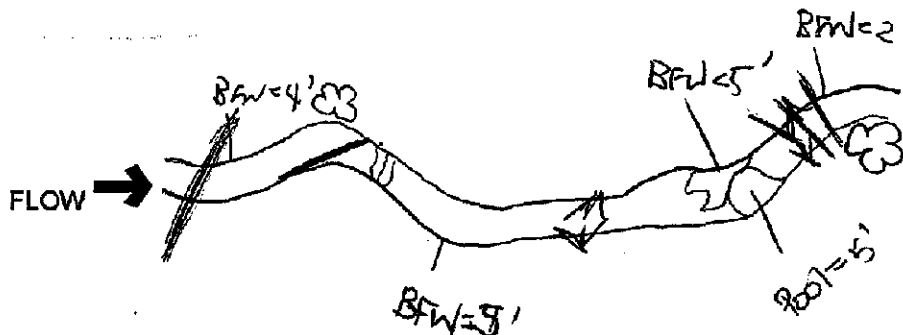
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____
 Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



SITE NAME/LOCATION AMP-Ohio SITE NUMBER BM-S10 RIVER BASIN _____ DRAINAGE AREA (mi²) _____
 LENGTH OF STREAM REACH (ft) 100 LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____
 DATE 30 Nov. 05 SCORER JGK/BEM COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY
 MODIFICATIONS: _____

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDG SLABS [16 pts]	_____	<input type="checkbox"/> SILT [3 pts]	<u>10</u>
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<u>15</u>
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input checked="" type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<u>10</u>	<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pts]	<u>40</u>
<input type="checkbox"/> GRAVEL (2-64 mm) [8 pts]	_____	<input type="checkbox"/> MUCK [0 pts]	_____
<input checked="" type="checkbox"/> SAND (<2 mm) [6 pts]	<u>25</u>	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock 10

(A) 6

(B) 5

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI
Metric
Points

Substrate
Max = 40

11

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

0

Pool Depth
Max = 30

0

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> < 1.0 m (< 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 8' 7" - 4' 8") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

0.5

Bankfull
Width
Max=30

5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

FLOODPLAIN QUALITY

L R (Per Bank)
☒ Wide >10m
☐ Moderate 5-10m
☐ Narrow <5m
☐ None

L R (Most Predominant per Bank)
☒ Mature Forest, Wetland
☒ Immature Forest, Shrub or Old Field
☐ Residential, Park, New Field
☐ Fenced Pasture

L R
☐ Conservation Tillage
☐ Urban or Industrial
☐ Open Pasture, Row Crop
☐ Mining or Construction

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

☐ Stream Flowing ☒ Moist Channel, isolated pools, no flow (Intermittent)
☐ Subsurface flow with isolated pools (Interstitial) ☐ Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

☐ None ☐ 1.0 ☒ 2.0 ☐ 3.0
☐ 0.5 ☐ 1.5 ☐ 2.5 ☐ >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

BM-S10

QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Mingo Township / City: Letart Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 29 Nov. 05 Quantity: unknown

Photograph Information: Photo # 73

Elevated Turbidity? (Y/N): N Canopy (% open): _____

Were samples collected for water chemistry? (Y/N): 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) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

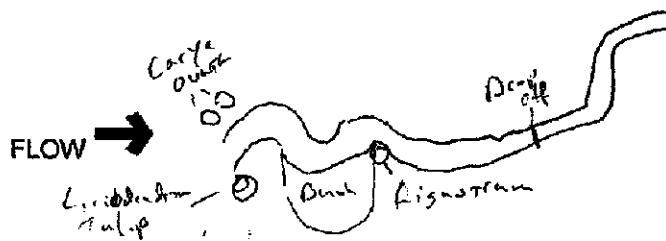
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) _____ Voucher? (Y/N) _____ Salamanders Observed? (Y/N) _____ Voucher? (Y/N) _____
 Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

23

SITE NAME/LOCATION AMP- OH

SITE NUMBER BM-S11 RIVER BASIN _____

DRAINAGE AREA (mi²) _____

LENGTH OF STREAM REACH (ft) 100

LAT. _____

LONG. _____

RIVER CODE _____

RIVER MILE _____

DATE 12/1/05

SCORER KanSec

COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL

☐ NONE / NATURAL CHANNEL

☒ RECOVERED

☐ RECOVERING

☐ RECENT OR NO RECOVERY

MODIFICATIONS:

ditching, ponding

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	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]	_____
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____
<input type="checkbox"/> BEDROCK [16 pts]	_____
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<u>10</u>
<input checked="" type="checkbox"/> SAND (<2 mm) [6 pts]	<u>20</u>

TYPE	PERCENT
<input checked="" type="checkbox"/> SILT [3 pts]	<u>60</u>
<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	_____
<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input type="checkbox"/> CLAY or HARDPAN [0 pts]	<u>10</u>
<input type="checkbox"/> MUCK [0 pts]	_____
<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 30

(A) 9

(B) 4

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

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]

☐ > 22.5 - 30 cm [30 pts]

☐ > 10 - 22.5 cm [26 pts]

☒ > 5 cm - 10 cm [15 pts]

☐ < 5 cm [5 pts]

☐ NO WATER OR MOIST CHANNEL [0 pts]

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]

☐ > 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]

☐ ≤ 1.0 m (≤ 3' 3") [5 pts]

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

HHEI Metric Points

Substrate Max = 40

13

A + B

Pool Depth Max = 30

5

Bankfull Width Max=30

5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

NOTE: River Left (L) and Right (R) as looking downstream

RIPARIAN WIDTH

L R (Per Bank)

☐ ☐ Wide >10m

☒ ☒ Moderate 5-10m

☐ ☐ Narrow <5m

☐ ☐ None

FLOODPLAIN QUALITY

L R (Most Predominant per Bank)

☐ ☐ Mature Forest, Wetland

☐ ☐ Immature Forest, Shrub or Old Field

☐ ☐ Residential, Park, New Field

☐ ☐ Fenced Pasture

L R

☐ ☐ Conservation Tillage

☐ ☐ Urban or Industrial

☒ ☒ Open Pasture, Row Crop

☐ ☐ Mining or Construction

COMMENTS _____

- FLOW REGIME** (At Time of Evaluation) (Check ONLY one box):

☒ Stream Flowing

☐ Subsurface flow with isolated pools (interstitial)

☐

Moist Channel, isolated pools, no flow (intermittent)

☐

Dry channel, no water (Ephemeral)

COMMENTS very little flow

- SINUOSITY** (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box)

☒ None

☐ 0.5

☐ 1.0

☐ 1.5

☐ 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 (5 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This information must also be completed):QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)**DOWNSTREAM DESIGNATED USE(S)**

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATIONUSGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____County: Mingo County Township / City: Retart Falls, Ohio area**MISCELLANEOUS**Base Flow Conditions? (Y/N): Y Date of last precipitation: 11-29-05 Quantity: unknownPhotograph Information: yesElevated Turbidity? (Y/N): N Canopy (% open): 99Were samples collected for water chemistry? (Y/N): 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) Y If not, please explain: _____

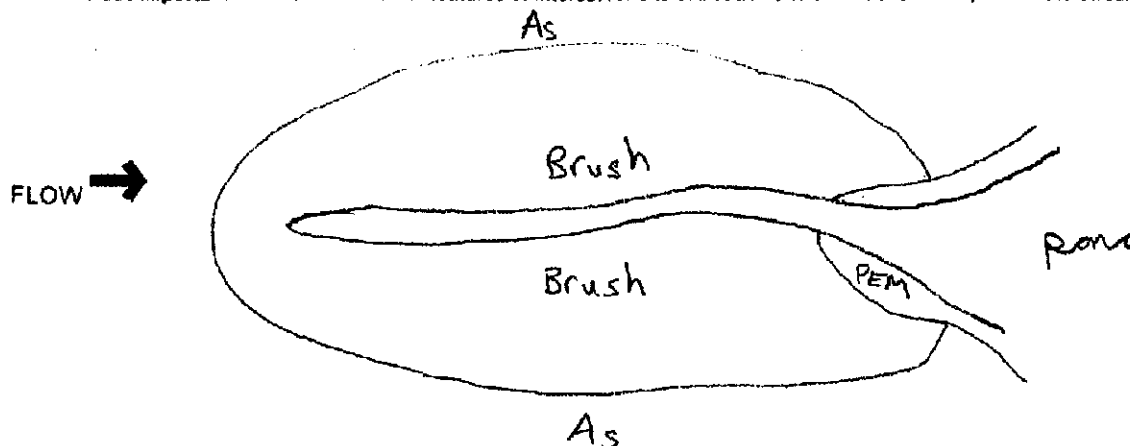
Additional comments/description of pollution impacts: _____

BIOTIC EVALUATIONPerformed? (Y/N): 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) _____
Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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



SITE NAME/LOCATION Am Poni
Stream SITE NUMBER Bm-S12 RIVER BASIN _____ DRAINAGE AREA (mi²) 4 mi²
 LENGTH OF STREAM REACH (ft) _____ LAT. _____ LONG. _____ RIVER CODE _____ RIVER MILE _____
 DATE 12-1-05 SCORER BEW COMMENTS drains Wetland Bmw 3

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL ☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY
 MODIFICATIONS: _____

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	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDG SLABS [16 pts]	_____	<input checked="" type="checkbox"/> SILT [3 pts]	<u>30%</u>
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<u>25%</u>
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input type="checkbox"/> CLAY or HARDPAN [0 pts]	_____
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input checked="" type="checkbox"/> MUCK [0 pts]	<u>45%</u>
<input type="checkbox"/> SAND (<2 mm) [8 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of
 Bldg Slabs, Boulder, Cobble, Bedrock 0%

(A) 3

(B) 3

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

TOTAL NUMBER OF SUBSTRATE TYPES:

HHEI
Metric
Points

Substrate
Max = 40

6

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):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters):

0

Pool Depth
Max = 30

0

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):

<input checked="" type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters)

16.1

Bankfull
Width
Max=30

30

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH

FLOODPLAIN QUALITY

L/R (Per Bank)
☒ ☒ Wide >10m
☐ ☐ Moderate 5-10m
☐ ☐ Narrow <5m
☐ ☐ None

L R (Most Predominant per Bank)
☐ ☐ Mature Forest, Wetland
☒ ☒ Immature Forest, Shrub or Old Field
☐ ☐ Residential, Park, New Field
☐ ☐ Fenced Pasture

L R
☐ ☐ Conservation Tillage
☐ ☐ Urban or Industrial
☐ ☐ Open Pasture, Row Crop
☐ ☐ Mining or Construction

COMMENTS _____

- FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS _____

- SINUOSITY (Number of bands per 61 m (200 ft) of channel) (Check ONLY one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >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)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

BM-512

QHEI PERFORMED? - ☐ Yes ☒ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTEAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: New Haven, WV-OH NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
 County: Meigs County Township / City: Latart Falls, Ohio area

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 11-29-05 Quantity: unknown

Photograph Information: Y - Photo 76 - Concord, Ohio

Elevated Turbidity? (Y/N): N Canopy (% open): 80%

Were samples collected for water chemistry? (Y/N): 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): Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): 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) _____
 Frogs or Tadpoles Observed? (Y/N) _____ Voucher? (Y/N) _____ Aquatic Macroinvertebrates Observed? (Y/N) _____ Voucher? (Y/N) _____

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

