Large Filing Separator Sheet

Case Number: 09-1066-EL-BGN

File Date: 12/21/09

Section: 4

Number of Pages: 199

Description of Document: Application

Volume 2

Blue Creek Wind Farm September-October 2009

Scientific Name	Common Name	Successional Woodland/ Hedgerows	Scrub	Open Field/ Ag Field/ Roadside	Wetland
Abutilon theophrasti	Velvet leaf		Х	X	
Acer negundo	Box elder	х			
Acer saccharinum	Silver maple	х			х
Acer saccharum	Sugar maple	х			
Achillea milli iollum	Yarrow			х	
Aesculus glabra	Ohio buckeye	х			
Agrimonia parviflora	Small-flowered agrimony	х			
Alisma plantago-aquatica (Alisma subcordatum)	Water plantain				х
Alliaria petiolata	Garlic mustard	х			
Allium vineale	Field gartic			х	
Amaranthus hybridus	Green amaranth			х	
Ambrosia artemisiifolia	Common ragweed	х	х	Х	
Ambrosia trifida	Giant ragweed			х	
Andropogon gerardii	Big bluestern			Х	
Andropogon virginicus	Broom sedge			х	
Apocynum cannbinum	Indian hemp	х			Х
Arctium minus	Burdock			х	
Asarum canadense	Wild ginger	х			
Asclepias incarnata	Swamp milkweed				Х
Asclepias syriaca	Common milkweed			х	
Aster cordifolius	Heart-leaved aster	x			
Aster novae-angliae	New England aster			х	
Aster pilosus	Hairy white oldfield aster			х	
Aster simplex	White panicle aster	х			
Aster umbellatus	Comle-leaf whitetop			Х	
Bromus intermis	Japanese brome			Х	
Bromus tectorum	Brome grass			х	
Carex frankil	Frank's sedge				Х
Carex pennsylvanica	Pennsylvania sedge	х			
Carex tribuloides	Sedge				Х
Carex vesicaria	Blister sedge	х			Х
Carex vulpinoidea	Fox sedge				Х
Carya laciniosa	Shellbark hickory	х			

1

Blue Creek Wind Farm September-October 2009

Scientific Name	Common Name	Successional Woodland/ Hedgerows	Scrub	Open Field/ Ag Field/ Roadside	Wetland
Carya ovata	Shagbark hickory	X			
Celtis occidentalis	Hackberry	х			
Cephalanthus occidentalis	Buttonbush				Х
Chenopodium album	Lamb's quarters			х	
Cichorium intybus	Chickory			х	
Cinna arundinacea	Wood reed				х
Cirsium arvense	Canada thistle	х	х	х	
Coreopsis sp.	Coreopsis			х	
Cornus amomum	Silky dogwood				Х
Cornus racemosa	Gray dogwood	х	х		
Crataegus sp.	Hawthorn	х			
Cyperus strigosus	Yellow nutsedge			х	
Cyperus esculentus	Chufa			х	
Dactylis glomerata	Orchard grass			х	
Datura stramonium	Jimsonweed			х	
Daucus carota	Queen Anne's lace			х	
Digitaria sanguinalis	Crabgrass			Х	
Dipsacus sylvestris	Teasel			х	х
Echinochloa crus-galli	Barnyard grass			х	х
Echinochioa muricata	Barnyard grass			х	
Elaeagnus umbellata	Autumn olive		х		
Eleocharis obtusa	Spikerush				х
Elymus riparius	Riparian wild rye	x			
Elymus virginicus	Virginia wild rye	x			
Euonymus obovatus	Running strawberry bush	х			
Festuce arundinacea	Kentucky fescue			х	
Fragaria virginiana	Wild strawberry	x			
Fraxinus pennsylvanica	Green ash	x			Х
Geum macrophyllum	Avens	x			
Glechoma hederacea	Ground ivy	х			
Gleditsia triacanthos	Honey locust	х			
Glycəria striata	Fowi manna grass				Х
Glycine max	Soybean			х	

Blue Creek Wind Farm September-October 2009

Scientific Name Common Name		Successional Woodland/ Hedgerows	Scrub	Open Field/ Ag Field/ Roadside	Wetland
Hibiscus trionum	Flower-of-an-hour			X	
Hordeum jubatum	Squirrel tail grass			х	
lpomoea purpurea	Common morning glory			х	
Juglans nigra	Black walnut	х			
Juncus tenuis	Path rush	x			
Lactuca sp.	Wild lettuce			х	
Lamium purpureum	Self heal			х	
Leersia oryzoides	Rice cutgrass				х
Leersia virginica	Virginia rice cutorass	х			
Lespedeza	Lespedeza			х	
Ligustrum vulgare	Common privet	х			
Lonicera japonica	Japanese honeysuckle			х	
Lonicera maackii	Amur honeysuckle	х	х		
Ludwigia palustris	Marsh seedbox				х
Lycopus americanus	Cutleaf water horehound				х
Lysimachia nummularia	Moneywort				Х
Maclura pomifera	Osage orange	х			
Melilotus officinalis	Yellow sweet clover			х	
Morus rubra	Mulberry	х	х	х	
Oenethera biennis	Evening primrose			х	
Oxalis stricte	Sorrel			х	
Panicum sp.	Panic grass			х	
Parthenocissus guinquefolia	Virginia creeper	х	х		
Penthorum sedoides	Ditch stonecrop				Х
Pastinaca sativa	Meadow parsnip			х	
Phalaris arundinacea	Reed canary grass			х	Х
Phieum pratense	Timothy			х	
Phytolacca americana	Pokeweed	х		х	
Plantago lanceolata	English plantain			х	
Plantago major	Plantain			х	
Platanus occidentalis	Sycamore	x	X		
Poa pratensis	Kentucky bluegrass			х	
Polygonum pennsylvanicum	Pennsylvania knotweed				х

.

Scientific Name	Common Name	Successional Woodland/ Hedgerows	Scrub	Open Field/ Ag Field/ Roadside	Wetland
Polygonum persicaria	Lady's thumb	······································			X
Polygonum virginianum	Virginia knotweed	х			
Populus deltoides	Eastern cottonwood	х			х
Prunella vulgaris	Seif-heal			х	
Prunus serotina	Biack cherry	х			
Quercus palustris	Pin cak	х			
Quercus bicolor	Swamp white oak	x			х
Quercus muhlenbergii	Chinquapin oak	х			
Quercus rubra	Northern red oak	Х			
Quercus macrocarpa	Bur oak	х			
Rhamnus frengula	Buckthorn	х			
Ribes americanum	Wild black currant	` X			
Robinia pseudoacacía	Black locust	x	X		
Rosa multiflora	Multiflora rose	х		Х	
Rosa setigera	Pasture rose	х			
Rubus allegeniensis	Blackberry		Х		
Rubus occidentalis	Black raspberry		х		
Rudbeckia hirta	Black-eyed susan			х	
Rumex crispus	Curly dock			Х	
Salix exigua	Sandbar willow				Х
Salix nigra	Black willow				Х
Sambucus canadensis	Elderberry	х			Х
Sanicule gregaria	Snakeroot	х			
Schoenoplectus tabernaemontani (Scirpus validus)	Soft stem bulrush				х
Scirpus atrovirens	Dark green buirush				Х
Scirpus cyperinus	Woolgrass				Х
Scirpus fluviatilis	River buirush				Х
Setaria faberiì	Japanese bristiegrass			Х	
Setaria glauca	Yellow foxtail			Х	
Smilax rotundifolia	Common greenbriar	x			
Solanum carolinense	Carolina horsenettle			Х	
Solidago canadensis	Canada goldenrod			Х	
Solidago gigantea					Х

4

.

Blue Creek Wind Farm September-October 2009

Scientific Name	Common Name	Successional Woodland/ Hedgerows	Scrub	Open Field/ Ag Field/ Roadside	Wetland
Solidago graminfolia	Narrow leaf goldenrod				Х
Sorghastrum nutans	Indian grass			х	
Taraxacum officinale	Dandelion			х	
Tilia emericana	Basswood	х			
Toxicodendron radicans	Poison ivy				Х
Tridens flevus	Purple top grass			х	
Trifolium pratense	Red clover			Х	
Trifolium repens	White clover			Х	
Typha angustifolia	Narrow leaf cattail				х
Typha latifolia	Common cattail				х
Ulmus americana	American eim	х			
Ulmus rubra	Slippery elm	х			
Verbascum thapsus	Wooly mullein			х	
Vernonia gigantea	Tall ironweed			х	
Vibummum dentatum	Arrowwood	х			
Viburnum acerifolium	Mapleleaf viburnum	х			
Viburnmum prunifolium	Black haw	x			
Viola sp.	Violets	x			
Vitis aestivalis	Summer grape	х			
Xanthium strumarium	Ciotbur			х	Х
Xanthoxylum americanum	Prickly ash	x			
Zea mays	Com			х	

.

-,

Wetland and Waterbody Delineation Report

Blue Creek Wind Farm

Paulding and Van Wert Counties, Ohio

Prepared for Heartland Wind, LLC

> 201 King of Prussia Road Suite 500 Radnor, Pennsylvania 19087

> > November 2009

Prepared by CH2MHILL 1 South Main Street Suite 1100 Dayton, Ohio 45402

Contents

1 Introductio) n)	1-1
2 Wetland an	nd Waterbody Delineations	2-1
	Project Location	
	2.1.1 Project Relationship to Traditional Navigable Waters	2 - 1
	2.1.2 Background Information	2-2
2.2	Methodology	2-5
	sults	
3.1	Wetland Site Descriptions	3-2
3.2	Waterbody Site Descriptions	3-3
	ns	
5 References		5-1

Tables

- 2-1 Watersheds and Streams in the Project Area
- 2-2 Soils in the Project Area
- 2-3 Precipitation in the Project Area, 2009
- 3-1 Existing Wetland Resources Identified within the Project Area
- 3-2 Existing Waterbody Resources Identified within the Project Area

Appendices

- A Exhibits
- B Datasheets and Photographic Documentation

AEP	American Electric Power
Certificate	Certificate of Environmental Compatibility and Public Need
EWH	exceptional warmwater habitat
Facility FEMA	350-megawatt capacity wind power facility Federal Emergency Management Agency
GPS	global positioning system
HHEI Heartland	Headwater Habitat Evaluation Index Heartland Wind, LLC
kV	kilovolt
LRW	limited resource water
MW	megawatt
MWH	modified warmwater habitat
NHD	National Hydrography Dataset
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
O&M	operations and maintenance
OAC	Ohio Administrative Code
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
O&M	Operations and Maintenance
OHWM	ordinary high water mark
OPSB	Ohio Power Siting Board
ORAM	Ohio Rapid Assessment Method
OWI	Ohio Wetland Inventory
PEM	palustrine emergent marsh
PFO	palustrine forested
PHWH	primary headwater habitat
PJM	PJM Interconnection LLC
Project	Blue Creek Wind Farm
PSS	palustrine scrub-shrub

QHEI	Qualitative Habitat Evaluation Index
Report RPW RTO	Wetland and Waterbody Delineation Report relatively permanent water regional transmission organization
SODAR	sonic detection and ranging
TNW USACE USEPA USGS UT	traditional navigable water United States Army Corps of Engineers United States Environmental Protection Agency United States Geological Survey unnamed tributary
WWH	warmwater habitat

SECTION 1 Introduction

Heartland Wind, LLC (Heartland), a Limited Liability Company whose sole member and manager is Iberdrola Renewables, Inc., has proposed to construct, own and operate the Blue Creek Wind Farm (Project), an up to 350-megawatt (MW) capacity wind power facility (Facility) in Paulding and Van Wert Counties, Ohio (Exhibit 1). The proposed Project is located within an approximate 36,350-acre area in Benton, Blue Creek, and Latty townships in Paulding County and Tully, Union, and Hoaglin townships in Van Wert County, Ohio. The Project area was selected based primarily upon the wind resource, transmission access, land availability, community support, site accessibility, and minimal environmental, ecological, and agricultural impact risk.

As shown in Exhibit 1, this Project would include the following:

- 167 wind-powered turbine generators;
- An electrical collection system using underground and aboveground 34.5 kilovolt (kV) lines;
- Some aboveground 115 kV electrical lines;
- Two intra-project collection substations;
- An interconnection substation;
- Gravel access roads;
- A temporary staging and construction laydown area;
- A permanent meteorological facility, consisting of a "met tower" and a sonic detection and ranging (SODAR) facility;
- A temporary concrete batch plant; and
- An operations and maintenance (O&M) building.

An additional eight turbines may be added to the Project during final design. This request includes six of the eight potential additional turbine locations. Two additional turbine sites may be added during the micro-siting in 2010. The wind turbine model to be utilized for the Project has not yet been selected; however, each turbine would have a nameplate capacity rating of 1.5 to 2.4 MW, which would result in a total generating capacity of up to 350 MW.

Four new substations would be required for the Project. The first (the Interconnection Substation) would function to gather the generated power and connect the Facility to American Electric Power's (AEP's) existing 345 kV transmission line for delivery of the power to the PJM Interconnection transmission grid system. PJM Interconnection LLC (PJM) is a regional transmission organization (RTO) that is part of the Eastern Interconnection grid, operating one of the leading and most efficient, regional transmission systems in the country. The area required for this substation would be approximately 5 acres in the southeastern corner of the Project area (Exhibit 1). Immediately adjacent to the Interconnection Substation is a Project collection substation, which would gather the power from the turbines at 115 kV and transform it to 345 kV for interconnection. The area required for this substation would be approximately 5 acres. The third and fourth substations would each gather power from wind turbines and transform the voltage from 34.5 kV to 115 kV for delivery to the Project collection substation located adjacent to the PJM Interconnection Substation. The proposed locations is of these substations are shown on Exhibit 1; final locations would be determined as a part of final electrical design.

A permanent O&M building would be constructed as part of the Project and would be located on a 10-acre parcel in the southeastern portion of the Project area adjacent to the Project collection and PJM Interconnection Substation. A temporary staging and construction laydown area and temporary concrete batch plant would be located on the same parcel of land that would house the O&M building.

This Wetland and Waterbody Delineation Report (Report) summarizes the results of the wetland and waterbody delineation surveys conducted in the Project area. These surveys were completed to determine the extent and jurisdiction of wetlands and waterbodies within the Project area. Results of the surveys will be utilized during Project planning and construction to minimize potential construction impacts to wetlands and waterbodies, where practicable and feasible.

This study supports the Applicant's submittal to the Ohio Power Siting Board (OPSB) for a Certificate of Environmental Compatibility and Public Need ("Certificate"), in accordance with Chapter 4906-17 of the Ohio Administrative Code (OAC), Application Filing Requirements for Wind-Powered Electric Generating Facilities. Preparation of the OPSB Certification Application began in August 2009 and will continue into early December 2009. Site-specific geotechnical studies will be conducted from April to May 2010, with the final geotechnical report to be submitted in June 2010. It is anticipated that the Certificate would be issued by August 2010. The final design drawings for the Project would be prepared beginning in August 2010. Phase I Facility Construction is anticipated to begin in September 2010 and extend through November 2011. Phase I of the facility would be placed into service in December 2012. Phase II of the facility would be placed into service in December 2012.

Points of Contact for the Project include the following:

Current Property Owner & Applicant (Project Contact)

Heartland Wind, LLC Dave De Caro, PWS 201 King of Prussia Road, Suite 500 Radnor, PA 19087 (610) 230-0333 <u>ddecaro@iberdrolausa.com</u>

Waters Delineator

CH2M HILL Robert Hook, PWS One South Main Street, Suite 1100 Dayton, Ohio 45402 (937)-220-2967 robert.hook@ch2m.com

Appendix A contains nine exhibits, which show the proposed turbine locations, access roads, electrical collector lines, substation, and the locations of identified wetlands and waters. These exhibits include a series of United States Geological Survey (USGS) topographic maps with National Hydrography Dataset (NHD) (USGS-mapped streams), National Wetland Inventory (NWI), and Ohio Wetland Inventory (OWI) wetland overlays. A second series shows Natural Resource Conservation Service (NRCS) soils overlay data on a 2008 aerial photo.

Appendix B contains United States Army Corps of Engineers (USACE) wetland determination data forms and Ohio Rapid Assessment Method (ORAM) scoring forms for each of the wetlands identified. Also in Appendix B are Ohio Environmental Protection Agency (OEPA) Headwater Habitat Evaluation Index (HHEI) and Qualitative Habitat Evaluation Index (QHEI) datasheets that were completed for the streams identified in the Project area, as well as photographic documentation of the wetlands and waterbodies delineated.

SECTION 2 Wetland and Waterbody Delineations

This section of the Report describes the Project area and methodology used during the wetland and waterbody delineations.

2.1 Project Location

The Project area is located within Paulding and Van Wert Counties, Ohio and encompasses approximately 5,700 acres in the Townships of Benton, Blue Creek, and Latty in Paulding County and the Townships of Hoaglin, Tully, and Union in Van Wert County. The Project lies in the north-central portion of Van Wert County, approximately 3.0 miles north of the City of Van Wert, and in south-central portion of Paulding County, approximately 8.0 miles south of the Village of Paulding. The Project area stretches generally in a southwesterly to northeasterly direction from State Route 30 just northeast of the Village of Convoy.

The Project area for this survey was defined as a 250-foot radius surrounding the proposed locations of the turbines, access roads and collector lines, plus substation locations (Appendix A, Exhibits 2A-2D). The perimeter area was surveyed to allow the designers flexibility to avoid and minimize impacts to wetlands and waters where possible. The Project layout underwent some changes during the course of the field studies. Some properties that fell within the 250-foot radius survey area had not been leased for the Project at the time of the field studies; therefore, the survey area is somewhat irregular. The approximate center point of the Project area has the latitude and longitude of 40.9733 and 84.613422.

2.1.1 Project Relationship to Traditional Navigable Waters

The Project area is located just north of the Lake Erie-Ohio River drainage divide and is situated within the Maumee River Drainage Basin (HUC 04100007) (Ohio Department of Natural Resources [ODNR], 2009a). The Maumee River is designated as a traditional navigable water (TNW) by the USACE from the mouth at Lake Erie near Toledo, Ohio, to Hosey Dam near Fort Wayne, Indiana. The Project area is within the Auglaize River Watershed (HUC 04100007-080). The Auglaize River, a tributary to the Maumee River, is approximately 102 miles in length and drains approximately 2,435 square miles. (ODNR, 2009b)

Neither the Auglaize River nor the Maumee River (nor any other navigable waterway) is located within the Project area; however, several named tributaries to the Auglaize River are present (USGS, 1973a; USGS, 1973b; USGS, 1980; USGS, 1988; Geology.com, 2009; TerraServer-USA, 2009). The USGS-mapped streams within the Project area include Blue Creek, Dry Creek, Hagerman Creek, Hoaglin Creek, Hog Run, Maddox Creek, Pottawatomie Creek, Prairie Creek, Middle Creek, and Upper Prairie Creek, as shown in Table 2-1. These tributaries flow into the Auglaize River approximately 9 miles northeast of the Project area.

Blue Creek Wind	Farm		
8-Digit HUC	10-Digit HUC	12-Digit HUC	Description
04100007 Aug	aize River		· · · · · ·
	04100007-07 Pi	airie Creek	
		04100007-0701	Hagerman Creek
		04100007-0702	West Branch Prairie Creek
			Includes: Hoaglin Creek
			Pottawatomie Creek
			Hog Run
		04100007-0703	Prairie Creek above Hagerman Creek
			Includes: Dry Creek
	04100007-08 Li	ttle Auglaize River (al	oove Dog Creek except Prairie Creek)
		04100007-0803	Maddox Creek
	04100007-10 A	uglaize River (below l	ittle Auglaize River to above Flatrock Creek)
		04100007-1001	Upper Prairie Creek
			Includes: Middle Creek
	<u></u>	04100007-1003	Blue Creek below Upper Prairie Creek to below Cunningham Creek

TABLE 2-1 Watersheds and Streams in the Project Area Blue Crock Wind Earm

None of the streams within the Project area, as listed above, are designated as "high quality waters" by the OAC, Chapter 3745-1 *Water Quality Standards*. The reach of the Auglaize River receiving flow from the Project area is designated a "state resource water" per the *Water Quality Standards*. (OAC, 2009) The reach of the Maumee River receiving flow from the Auglaize River is designated an "outstanding state water" based on recreational values.

2.1.2 Background Information

The Project area is located within the Maumee Lake Plains subsection of the Huron-Erie Lake Plains section of the Central Lowland physiographic province. The area is generally characterized by topography with very low relief that includes beach ridges, bars, dunes, deltas, and clay flats, and is slightly dissected by present day streams (ODNR, 2009c). Topography within the Project area is nearly level, ranging in elevation from about 730 feet above sea level in the northeast corner to about 775 feet above sea level in the southwest corner, a distance of approximately 10 miles (Appendix A, Exhibits 2A-2D).

Land use and habitat types observed within the Project area are predominantly cultivated crops, with some isolated areas of deciduous forest and wooded or shrubby riparian buffers along streams (Appendix A, Exhibits 3A-3D). The predominant crops are corn and soybeans, with very few pastures or alfalfa fields. Small, developed villages, occasional

livestock operations (cattle and hogs) are also present within the Project area. The turbines have been sited to be a minimum of 1,640 feet (500 meters) from any woodlots. Access roads and collector lines have been sited to avoid woodlots, although in a few cases woodlots are located within the 250-foot radius survey area.

Prior to conducting the field investigation, CH2M HILL reviewed the following resources to identify the potential locations and extent of wetlands and waterbodies within the Project area:

- USGS topographic maps NHD (USGS mapped streams)
- Aerial photo-based maps
- NWI
- OWI

ŕ

- Federal Emergency Management Agency (FEMA) 100-year floodplains
- NRCS Soil Surveys

The USGS topographic maps show intermittent and perennial streams and a few ponds. The NHD mapped streams indicate the network of drainages, many linear, leading to the named tributaries that drain the area. These maps do not identify any wetlands in the Project area.

A review of recent (Spring 2008) aerial photography of the project area shows the predominant agricultural land use (mostly row crops) which occupies more than 90 percent of the project area (Appendix A, Exhibits 3A-3D). Scattered woodlots are also visible on the aerial. The vast majority of the agricultural areas appear to be effectively drained. In some locations, some surface water can be seen in plowed fields on the aerials. The ponding was compared to historical aerials (2003 to 2006) available on-line through Google Earth to attempt to determine the extent and periodicity of regular ponding. Relatively few features were found in the comparison that appear to represent areas that are consistently wet, that is, farmed wetlands.

The NWI data shows few wetlands in the project area (Appendix A, Exhibits 2A-2D). The largest wetlands are palustrine forested (PFO) wetlands located along Blue Creek northwest of the project area. Otherwise, there are scattered palustrine, unconsolidated bottom ponds in the general Project vicinity.

The OWI shows many of the woodlots in the Project area as "woods on hydric soil." Otherwise, there are a few farmed wetlands and open water wetlands in the Project vicinity. Scrub-shrub, marsh and wet meadow wetlands are very few and small.

In the Project vicinity, FEMA has mapped narrow 100-year floodplains along Blue Creek, the lower reach of Prairie Creek, Hoaglin Creek, and Maddox Creek.

The NRCS soil surveys of Paulding and Van Wert Counties show 10 soil series and 27 soil unit types within the Project area (Table 2-2 and Appendix A, Exhibits 3A-3D). Hydric soils comprise approximately 94 percent of the Project area.

Soils in the Project Area Blue Creek Wind Farm

Symbol	Soil Description	Drainage Class	Hydric/ Inclusion	Proportion o Study Area
BnA	Blount loam, 0 to 2 percent slopes	Somewhat poorly drained	Inclusion	0.1%
BnB	Biount loam, 2 to 6 percent slopes	Somewhat poorly Inclusion drained		0.2%
Сх	Cut and fill land			0.0%
DmB	Digby loam, 2 to 6 percent slopes	Somewhat poorly drained	Inclusion	0.1%
HnA	Haskins loam, 0 to 2 percent slopes	Somewhat poorly Inclusion drain e d		0.5%
HnB	Haskins loam, 2 to 6 percent slopes	Somewhat poorly Inclusion drained		<0.1%
Но	Hoytville silty clay loam, 0 percent slopes (flats)	Very poorly drained		
Hs	Hoytville silty clay loam, moderately shallow variant (flats)	Very poorly drained	Hydric	0.6%
Ht	Hoytville silty clay, 0 percent slopes (flats)	Very poorly drained	Hydric	65. 5%
Hv	Hoytville clay, 0 percent slopes (flats)	Very poorly drained	Hydric	3.6%
La	Latty silty clay loam, 0 percent slopes (flats)	Very poorly drained	Hydric	0.1%
Lb	Latty silty clay, 0 percent slopes (flats)	Very poorly drained	Hydric	5.4%
Lc	Latty clay, 0 percent slopes (flats)	Very poorly drained	Hydric	12.9%
Md	Mermill silt loam, 0 percent slopes (beach ridges)	Very poorly drained	Hydric	<0.1%
NaA	Nappanee loam, 0 to 2 percent slopes	Somewhat poorly drained	Inclusion	<0.1%
NnA	Nappanee loam, 0 to 2 percent slopes	Somewhat poorly drained		
NpA	Nappanee silt loam, 0 to 2 percent slopes	Somewhat poorly Inclusion drained		2.7%
ΝрВ	Nappanee silt loam, 2 to 6 percent slopes	Somewhat poorly drained	Inclusion	0.2%
NpB2	Nappanee silty clay loam, 2 to 6 percent slopes	Somewhat poorly drained	Inclusion	<0 .1%
NtA	Nappanee silty clay loam, 0 to 2 percent slopes	Somewhat poorly drained	Inclusion	1.9%

TABLE 2-2
Soils in the Project Area
Blue Creek Wind Farm

Symbol	Soil Description	Drainage Class	Hydric/ Inclusion	Proportion of Study Area
NtB2	Nappanee silty clay loam, 2 to 6 percent slopes (moderately eroded)	Somewhat poorly drained	Inclusion	0.1%
Qu	Quarry		_	0.3%
Sb	Saranac silty clay loam, occasionally flooded	Poorly drained	Hydric	0.2%
То	Toledo silty clay	Very poorly drained	Hydric	0.3%
Wa	Wabasha silty clay loam	Poorly drained	Hydric	0.3%
Wb	Wabasha silty clay loam, moderately shallow variant	Poorly drained	Hydric	0.2%
Wh	Wabasha silty clay	Poorly drained	Hydric	0.2%

Source: NRCS, 2009

2.2 Methodology

CH2M HILL conducted wetland and waterbody delineation surveys for the Project on September 16 to 21, 2009 and October 14 to 15, 2009 in accordance with applicable Federal and State regulations and guidance. Wetland boundaries were field delineated according to the routine onsite methodology described in the Technical Report Y-87-1 *Corps of Engineers' Wetlands Delineation Manual* (USACE, 1987), and subsequent guidance documents (USACE, 1992). While it was confirmed with USACE Buffalo District Office prior to beginning the field surveys that the wetlands in the Project area could be delineated using the 1987 manual, elements of the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, such as identification of farmed wetlands, were also utilized and referenced (USACE, 2008).

Field data collection utilized handheld global positioning system (GPS) units to map wetlands and waterbody boundaries as well as to collect information (vegetation, hydrology, soils, adjacent land issues, and general observations) about the features. Shapefiles of the Project boundary were pre-loaded onto Trimble Pathfinder® ProXT[™] GPS units to facilitate navigation within the study area. Two (2) two-person field crews utilized two data dictionary files that were pre-loaded onto the GPS units to record information The data dictionary files prompt the field crews to enter specific information in order to automate data collection as modeled on information required in the Routine Wetland Delineation Data Forms and the Approved Jurisdictional Determination Form.

The outer boundaries of each wetland and waterbody within the 250-foot radius Project survey area were delineated and recorded using the GPS unit to sub-meter accuracy. For all waterbodies, the ordinary high water mark (OHWM) was recorded as the jurisdictional

boundary. As wetland and waterbody features were collected, they were assigned a FEATURE_ID with the format of FNNNXY, where:

- F = Feature Type (W for wetland, U for upland, S for stream, P for pond, M for man-made, and N for natural)
- NNN = Nearest Turbine (001 173)
- X = Facility Type (that is, A for access road, C for collector line, and T for turbine site)
- Y = Feature Number (A X for each wetland or stream feature sited at each facility).

The naming convention varies slightly for features along "main" collector lines that serve many turbines. In these cases, a truncated name of the roadway that the line follows was substituted for the turbine number. The name "MAIN" was used for features along an old railroad bed running south from the village of Scott.

Wetland delineation data are reported on routine wetland determination data forms consistent with the 1987 manual, as confirmed with the USACE Buffalo District Office prior to initiating field investigations. In addition, each of the identified wetlands was evaluated in accordance with the ORAM (Version 5.0), developed by the OEPA. Categorization was conducted in accordance with the latest quantitative score calibration (OEPA, 2000).

According to recent guidance from the United States Environmental Protection Agency (USEPA) and the USACE, wetlands that are adjacent to or have a significant nexus to TNWs are regulated under Sections 401 and 404 of the Clean Water Act (USACE and USEPA, 2007). A significant nexus must meet a number of criteria that indicate the wetland provides biological, physical, or chemical benefits to the TNW. Typically, a significant nexus requires a surface water connection to the TNW or a relatively permanent water (RPW) that is tributary to the TNW. Each wetland was evaluated for significant nexus to RPWs according to these directives. Those wetlands with no apparent surface nexus to a RPW or TNW were considered "isolated."

Jurisdictional streams were identified as those waters that had an OHWM, a defined channel, and an open water feature, such as surface water or at least a non-vegetated area through the channel that indicated periodic flowing water. Defined channels that were dominated by hydrophytes, without an open water feature, and otherwise met the definition of wetlands according the USACE 1987 manual methodology were considered linear wetlands. Those streams in the Project area that run generally perpendicular or diagonal to the alignment of the roadway and that have definable beds and banks were included as jurisdictional. In addition, channels that were apparently created in hydric soil units were included as jurisdictional waters. Channels that parallel the roadway, do not have an identifiable OHWM, are dominated by upland vegetation, and do not represent a relocation of a natural channel were eliminated as jurisdictional.

Each stream was categorized in regards to its flow regime as perennial, intermittent, or ephemeral, as defined by the USACE (USACE, 2007). Perennial streams with a drainage area of greater than one square mile were evaluated using the OEPA's QHEI. The QHEI assessment examines a number of stream characteristics and yields a score ranging from 0 to

100. Based on the QHEI score, an Aquatic Use Designation was assigned in accordance with OEPA, 1989. A score of 60 typically indicates a stream has the physical characteristics needed to support diverse macroinvertebrate and fish populations and attain the warmwater habitat (WWH) designation. Scores of 32 to 60 may be indicative of a modified warmwater habitat (MWH), meaning a WWH that has been disturbed but could potentially recover. Scores less than 32 typically indicate a limited resource water (LRW). Scores that are greater than 75 are indicative of a possible exceptional warmwater habitat (EWH). Scores obtained in the field were compared to the use designations assigned by statute in the Water Quality standards for those streams that have been so designated.

Streams with drainage areas less than one square mile were evaluated using the OEPA HHEI, which is used to determine the status of smaller streams as one of three classes of primary headwater habitats (PHWH). The method scores streams on a range of 0 to 80 based on physical characteristics. Scores less than 30 indicate a Class I PHWH (typically ephemeral streams), scores 30 to 50 indicate a Class II PHWH (intermittent, warm water streams), scores greater than 50 can be either Class II or Class III depending on their conditions, and Scores 70 or greater indicate a Class III PHWH (perennial, cool water streams).

As shown in Table 2-3, rainfall recorded in Van Wert County for 2009 was higher than normal in April, slightly less than normal in June and July, and less than normal August through September. Rainfall was considerably higher than normal in October, as approximately 3.4 inches of rain fell between October 1 and October 13 before the second field investigation.

	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2009	1.52	2.95	1.75	5.52	3.15	3.14	2.24	1.41	1.58	6.36	-	-
Average 1970-2000	2.03	1.84	2.62	3.47	3.81	4.33	3.9	3.42	2.85	2.59	3.05	2.75

TABLE 2-3 Precipitation in the Project Area, 2009 Blue Creek Wind Farm

Source: National Oceanic and Atmospheric Administration, 2009



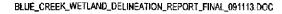
Survey Results

The dominant agricultural land use in the Project area has led to extensive drainage of the widespread native hydric soils using a network of open drainage ditches. These ditches are largely manmade and maintained (periodically dredged), and in keeping with their intended purpose of drainage, they are continuous to RPWs within and outside of the Project area. Many of the natural, named streams have been modified as well to accommodate the drainage.

A total of 76 wetland and 41 waterbody sites were delineated within the Project area, many of which are agricultural drainage features. Combined, they total approximately 37.2 acres or about 0.5 percent of the 6,982-acre Project survey area. Not all of these sites represent independent features; many represent several locations along the same waterbody or wetland ditch that cross the survey area at multiple locations.

Drainage features were determined to be wetlands or waterbodies based on the site characteristics at the location where the proposed Project component (turbine, access road, collector line) crossed the feature. The linear, defined channels/ditches where hydrophytes dominate the entire channel with little or no indication of a lentic (flowing) water character, and otherwise met the definition of wetlands according the USACE 1987 manual, were considered linear wetlands. Ditches that contained open water or indication of recent flooding that excluded hydrophytes were considered to be streams, even though many of these also supported a fair amount of wetland vegetation. Most reaches of the named streams had sustained flow and were considered streams. However, by this definition, even a substantial, headwater length of the aptly named Dry Creek, which has been extensively modified, was identified as wetland (W151CA). One ditch (S048CA) would likely have been a typical linear wetland except for the sustained flow and extensive backwater feature created by dewatering from the nearby gravel quarry. In more than one case was a continuous ditch considered to be wetland at one location and stream at another (usually downstream of the wetland). Thus, this designation is largely dependent on the site conditions found in the survey area at the time of the survey. At other times of the year, when the vegetation is dormant and the water table is high, more ditches might be considered streams. The dominance of many ditches with hydrophytes is also dependent on the lack of a riparian canopy, which led to some, equally manipulated ditches to be called streams. Therefore, the differentiation of wetlands and streams in the Project area is sometimes problematic.

Tables 3-1 and 3-2 contain summaries of the characteristics for each wetland and waterbody feature delineated during the surveys. Appendix A, Exhibits 2A to 2D provide an overview map of the Project area and the relationships of the identified waters to the tributary system and to the proposed wind energy facilities. Individual site details are provided in the field datasheets, evaluation forms (QHEI and HHEI forms for streams; ORAM forms for wetlands), and detail maps and photos in Appendix B.



3.1 Wetland Site Descriptions

All wetlands delineated within the Project area are within mapped hydric soil units. As noted above, the majority of the identified wetlands were linear drainage ditches, along roadsides or through agricultural fields. Consequently, the wetlands delineated within the Project area were primarily palustrine emergent marsh (PEM). These linear wetlands appeared to be seasonally or periodically flooded or saturated, and hydrology was often indicated by the presence of saturated soils, small areas of inundation, water marks, and/or drainage patterns. Hydric soils were confirmed at all linear ditch wetlands. Plant species commonly observed in linear drainage ditches included broadleaf cattail (Typha latifolia), narrowleaf cattail (Typha angustifolia), Pennsylvania smartweed (Polygonum pennsylvanica), rice cutgrass (Leersia oryzoides), green bulrush (Scirpus atrovirens), softstem bulrush (Scirpus validus), water plantain (Alisma subcordatum), indeterminant sedge species (Carex spp.), giant goldenrod (Solidago gigantea), and rough barnyard grass (Echinochloa muricata). The linear wetlands were consistently documented as being Category 1 wetlands based on the ORAM score (ranging from 19 to 28), in accordance with rule 3745-1-54 of the OAC. These wetlands typically had minimal to no natural buffers, with the surrounding land use typically consisting of existing paved roads and/or active agricultural fields. Further, they exhibited little or no habitat diversity or interspersion, and the habitat is not likely to naturally succeed because of periodic dredging and/or mowing.

Farmed wetlands were identified based hydrology indicators, typically substantial crop suppression and rack lines of crop stubble in depressions, and the presence of invasive wetland indicator plants. While the identified farmed wetlands retained some of the planted row crops, other vegetation including barnyard grass (Echinochloa sp.) and smartweeds (Polygonum spp.) had also become established through the growing season. As described in the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (USACE, 2008), barnyard grass and smartweed are often found in and considered indicative of cropped areas that are retaining wetland hydrology, i.e., farmed wetlands. Areas with suppressed crop but found to largely support more upland species such as Japanese bristlegrass (Setaria faberi) and velvetleaf (Abutilon theophrasti) were not considered wetlands, also consistent with the guidance in the Midwest Regional manual. While velvetleaf and bristlegrass were sometimes found in the identified farmed wetlands, farmed wetlands were delineated based on the greater dominance of barnyard grass and smartweed in conjunction with crop suppression. Given the recurrent disturbance and lack of any buffer, the farmed wetlands were also categorically determined to be Category 1 wetlands, with ORAM scores of 12 to 16. Most of the farmed wetlands were considered isolated, since they had no surface connections to streams. The exception was W038AB and W038AD, which are adjacent to a wooded wetland and were rated in unison with that wetland. Combined, these three wetlands were rated as a Modified Category 2 wetland.

In total, only 10 Category 2 wetlands were identified. All Category 2 wetlands were located within remnant woodlots. Many woodlots in the project vicinity appear to be effectively drained by the surrounding agricultural tile drainage system, based on the lack of hydrophytes (particular in the understory and at the ground layer) and lack of hydrologic indicators, and therefore were not considered wetlands.

W026AA is a relatively large wetland at more than 8 acres. Many of the woodlots are bordered by active agricultural fields, and artificial drainage within these agricultural fields appears to affect adjacent woodlots by modifying their hydrology. This appears to be true for W026AA, although at least portions of this wetland exhibited water marks and waterstained leaves that indicated the area retained wetland hydrology. Hydric soil conditions were also confirmed. Plant species commonly observed within this wetland included pin oak (*Quercus palustris*), swamp white oak (*Quercus bicolor*), green ash (*Fraxinus pennsylvanica*), and occasional shagbark hickory (*Carya ovata*). The wetland appears to have a shallow connection to the roadside ditch that connects to the tributary system. It is a Modified Category 2 wetland.

W038AC is also in a remnant woodlot and relatively large (6 acres). This woodland also appears to be affected to some extent by drainage of the surrounding agricultural lands. It has a similar canopy composition to W026AA with pin oak, swamp white oak, and ash. The ground layer is dominated by indicator species, notably *Carex vesicaria* (OBL). This vegetation, as well as two areas of farmed wetlands (W038AB and W038AD) adjacent to the woodland, indicates that the area retains wetland hydrology. For the purposes of the ORAM evaluation, the farmed wetlands and the wooded wetland were considered a single wetland. The area appears to have no surface connections to any RPWs and therefore appears to be isolated. It is a Modified Category 2 wetland.

Several of the wooded wetlands are remnant drainage swales along the old railroad embankment that runs south from the village of Scott (WMAINCD, WMAINCE, WMAINCG, WMAINCH, and WMAINCI). These wetlands are nearly identical in that they exhibit wetland hydrology as water stained leaves and water marks, and most are dominated by green ash with very little ground layer or understory. Two of these are isolated (WMAINCD and WMAINCE), while the others are located in the floodplain of Hoaglin Creek and therefore are considered adjacent to this stream. All are Modified Category 2 wetlands.

The most notable wetlands in the project area are WMAINCF and WMAINCK. Both of these wetlands are located in a mature, predominantly upland forest adjacent to Hoaglin Creek. Both exhibit wetland hydrology as water marks and water stained leaves, and are dominated by mature trees such as pin oak and green ash. By virtue of their buffer, depth of flooding, and habitat features, these wetlands have the highest ORAM scores of all wetlands in the project area. WMAINCF is Category 2; WMAINCK is larger, and its ORAM score is in the Category 2 to 3 gray zone.

Finally, WMAINCJ is a small depression in the woodlands adjacent to Hoaglin Creek. It also contains typical wetland species such as green ash with an ample growth of sedges (*Carex vesicaria*, OBL) in the ground layer. It is a Modified Category 2 wetland.

3.2 Waterbody Site Descriptions

As noted above, the tributary system throughout the Project area has been extensively modified to improve drainage. This modification includes most of the larger named streams, as well as smaller drainages and ditches.

A majority of the identified waterbodies were linear drainage ditches flowing along roadsides or through agricultural fields. These ditches had well-vegetated (planted grasses) and usually stable banks, where they had not been recently dredged. The beds often contained a collection of hydrophytes similar to that recorded in the linear drainage wetlands. Few ephemeral, non-RPW streams were identified within the Project area, as these features typically were dominated by hydrophytes and therefore identified as wetlands. The OHWM in these waterbodies was exhibited by matted vegetation, shelving, water lines, and changes in the vegetation.

Those linear ditches with drainage areas less than one square mile were evaluated using the OEPA's HHEI, which consistently classified these streams as Modified Class I or Modified Class II headwaters (HHEI score 21 to 59). These headwater streams primarily had manipulated or artificial channels that ran relatively straight. Riparian corridors were limited or absent due to adjacent roads and active agricultural lands. Open water, when present, was typically shallow and slow moving, creating glide habitats, and no riffle/ pool complexes. Some linear ditches delineated as waterbodies had no water present at the time the surveys were conducted.

A majority of the larger, named streams were observed to be of medium quality with wide, deep trapezoidal channels that varied from straight to somewhat meandering. The water depth of the main channels ranged from 6 to 12 inches, while the water width ranged between 10 to 20 feet. Several of these streams had a primary substrate of cobbles, although many had substrates that were embedded with fine sand and silt. The water observed within these main channels was generally clear, with some areas exhibiting slight turbidity, at generally slow to moderate velocity. These streams were generally typified by glide habitats; riffles and pools typically occurred at manmade features, such as fords or where riprap/bank stabilization had been installed. Some of the larger streams appear to be recovering more natural stream habitat characteristics, such as Blue Creek, Hagerman Creek, and Prairie Creek, although woody riparian vegetation is largely absent. Small fish and frogs were commonly observed within the main channels; mussel shells (dead) were found in several streams as well.

Prairie Creek, Hagerman Creek, Blue Creek, Dry Creek and Hoaglin Creek are all designated MWHs in the Water Quality standards. For the most part, the QHEI scores were consistent with that use designation (most scores in the range of 22 to 55). In two areas in the lower reach of Prairie Creek in the Project area, the stream habitat QHEI score approached or exceeded the WWH criterion (QHEI \geq 60). Blue Creek also had a relatively higher score, just below the WWH criterion. The other larger streams had QHEI scores consistent with MWHs.

SUS SECTION 3 - SURVEY RE-

TABLE 3-1 Existing Wetland Resources Identified within the Project Area

-													
	Hydrological Connection	None (isolated)	Adjacent to Upper Prairie Creek	Adjacent to UT to Prairie Creek	Adjacent to UT to Prairie Creek	Continuous with W003CA; adjacent to Upper Prairie Creek	None (Isolated)	None (isolated)	None (isolated)				
	12-Digit HUC	041000071001	041000071001	041000071001	041000071001	041000071001	041000071001	041000071003	041000071003	041000071001	041000071001	041000071001	041000071001
	General Condition	Farmed	Drainage ditch	Farmed	Farmed	Farmed							
	OEPA Wetland Category ²	1	1	1	1	-	-	1	-	1	1	٢	,
	ORAM Score	15	23.5	17	27	21.5	23.5	21.5	21	22.5	13.5	14	16
	Area within Project Boundary	0.14	0.07	10.0	0.25	0.03	0.03	0.07	0.23	60.0	0.45	0.05	69'0
	Cowardin Classification	PEM	PEM	PEM	PEM	PEM	PEM	PEM	PEM	PEM	MBd	PEM	ЫЭd
	Latitude/ Longitude	40.9748/ 84.6887	40.9742/ 84.6826	40.9895/ 84.6878	40.9823/ 84.6882	40.9815/ 84.6826	40.9895/ 84.6795	40.9826/ 84.6675	40.9677 <i>)</i> 84.6748	40.9605/ 84.6954	40.953/ 84.6951	40.9461/ 84.6952	40.95/ 84.6951
	County	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert
Blue Creek Wind Project	Feature ID	WOO3AA	WOO3CA	W004AA	W005CA	W005CB	W007AA	W009AA	WO13AA	W015AA	W015CD	W017AA	W017AB
Blue Creek	No. of Wetland	-	8	m	4	υ,	۵	2	တ	თ	9		5

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_091113.DOC

VIETLAND AND WATERBODY DELINEATION REPORT • BLUE CREEK WIND FARM

!

	7
5	
Ч	1
1	-
7	-

TABLE 3-1 Existing Wetland Resources Identified within the Project Area

Blue Creek Wind	Blue Creek Wind Project										1
					Area within		OEPA	-		-	
No. of Wetland	Feature ID	County	Latitude/ Longitude	Cowardin Classification ¹	Project Boundary	ORAM Score	Wetland Category ²	Condition	12-Digit HUC	Hydrological Connection	
13	W017AC	Van Wert	40.9501/ 84.6947	PEM	0.23	15	~	Farmed	041000071001	None (isolated)	
14	W018AA	Van Wert	40.9459/ 84.6962	PEM	0.22	23.5	~	Drainage ditch	041000071001	Continuous with W003CA; adjacent to Upper Prairie Creek	
15	W018CA	Van Wert	40.9459/ 84.6929	PEM	0.07	52	~	Drainage ditch	041000071001	Adjacent to W003CA to Upper Prairie Cr ee k	
16	W020CA	Van Wert	40.9314/ 84.6882	PEM	0.06	13	-	Farmed	041000071001	None (isolated)	
17	W021CA	Van Wert	40.9428/ 84.6827	PEM	0.11	21	-	Drainage ditch	041000070703	Adjacent to UT to Prairie Creek	
18	W021CB	Van Wert	40.9423/ 84.6772	PEM	20'0	20	+	Drainage ditch	041000070703	Adjacent to Prairie Creek	
19	W023AA	Van Wert	40.9495/ 84.6677	PEM	0.15	22.5		Drainage ditch	041000070703	Adjacent to Prairie Creek	
20	W026AA	Van Wert	40.9351/ 84.6706	PF01	2.44	41.5	Madified 2	Wooded	041000070703	Adjacent to roadside ditch to S021CB to Prairie Creek	
21	W027CB	Van Wert	40.9314/ 84.6772	PEM	0.03	20	*	Drainage ditch	041000070703	Continuous with W021CB, adjacent to Prairie Creek	
53	W031CA	Van Wert	40.9578/ 84.6676	PEM	0.25	24	-	Drainage ditch	041000070703	Adjacent to Prairie Creek	

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_091113.DOC

3-6 9-6

SLTS SECTION 3 - SURVEY RE

.

TABLE 3-1 Existing Wettand Resources Identified within the Project Area

		7	(l I							
	Hydrological Connection	Continuous with W053AA: adjacent to UT to Prairie Creek	Continuous with W035CA; adjacent to UT to Prairie Creek	Abuts UT to Hagerman Creek	None (isolated)	None (isolated)	None (isolated)	Adjacent to UT to Hagerman Creek	None (isolated)	Adjacent to Hagerman Creek	Adjacent to Hoaglin Creek
	12-Digit HUC	041000070703	041000070703	041000070701	041000070701	041000070701	041000070701	041000070701	041000070701	041000070701	041000070702
	General Condition	Drainage ditch	Narrow wetland swale between woodland and cropland	Drainage ditch	Famed	Wooded	Farmed	Farmed	Drainage ditch	Drainage ditch	Drainage ditch
	OEPA Wetland Category ²	~	~	~~	Madified 2	Modified 2	Modified 2	L	1	1	l
	ORAM Score	23	5	23.5	4	4	4	13	22	21.5	23.5
	Area within Project Boundary	0.64	0.02	0.44	0.28	1.37	0.45	0.19	0.05	0.10	0.07
	Cowardin Classification	PEM	PEM	PEM	PEM	PF01	PEM	WEd	PEM	PEM	PEM
	Latitude/ Longitude	40.9458/ 84.6528	40.9427/ 84.6582	40.9327/ 84.6675	40.9333/ 84.6609	40.9329/ 84.6622	40.9331/ 84.6624	40.9366/ 84.6582	40.9378/ 84.6397	40.9239/ 84.6487	40.9167/ 84.6576
	County	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert
Blue Creek Wind Project	Feature ID	W035CA	W036CA	W038AA	W038AB	W038AC	W038AD	W03BCA	W039CB	W042AA	W043AA
Blue Creek	No. of Wetland	23	24	25	26	27	28	29	30	31	32

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_091113.DOC

WETLAND AND WATERBODY DELINEATION REPORT - BLUE CREEK WIND FARM

Щ	
₹	

TABLE 3-1 Existing Wetland Resources Identified within the Project Area

No. of Wettand								Í	-	
	Feature ID	County	Latitude/ Longitude	Cowardin Classification	Area within Project Boundary	ORAM Score	OEPA Wetland Category ²	General Condition	12-Digit HUC	Hydrological Connection
е е	W050AA	Van Wert	40.9642/ 84.6394	PEM	0.11	23.5	-	Drainage ditch	041000070703	Adjacent to Prairie Creek
45	W053AA	Van Wert	40.9565/ 84.6486	PEM	0.28	13	1	Drainage ditch	041000070703	Adjacent to UT to Prairie Creek
35	W053CA	Van Wert	40.9603/ 84.6441	PEM	0.02	21	*-	Drainage ditch	041000070703	Continuous with W050AA; adjacent to Prairie Cr eek
ę	W062CA	Van Wert	40.9533/ 84.622	PEM	0.19	28	+	Drainage ditch	041000070703	Adjacent to UT to Prairie Creek
37	W070AA	Paulding	40.9996/ 84.6497	PEM	0.10	20.5	1	Drainage ditch	041000071003	Adjacent to Blue Creek
ŝ	W072CA	Van Wert	40.9894/ 84.6482	PEM	60.0	21	F	Drainage ditch	041000070703	Continuous with WRICHCB; adjacent to UT to Prairie Creek
30	W073CA	Paulding	41.004/ 84.6398	PEM	0.24	20	£	Drainage ditch	041000071003	Continuous with W075CA; adjacent to UT to Blue Creek
40	W075CA	Paulding	41.0041/ 84.6353	PEM	0.31	22	-	Drainage ditch	041000071003	Adjacent to UT to Blue Creek
41	W080AA	Van Wert	40.9787/ 84.6304	PEM	0.06	19	ł	Drainage ditch	041000070703	Adjacent to Prairie Creek
42	W085AA	Van Wert	40.9895/ 84.6188	PEM	60.0	21	£	Drainage ditch	041000070703	Continuous with W097AA; adjacent to Prairie Creek
43	WOBECA	Van Wert	40.9801/ 84.6113	PEM	0.11	19		Drainage ditch	041000070703	Adjacent to Prairie Creek

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_091113.DOC

Ż

89 89

ac iS SECTION 3 - SURVEY RE-

Existing Wetland Resources Identified within the Project Area

Γ							-		¥			
	Hydrological Connection	Adjacent to UT to Blue Creek	Adjacent Blue Creek	Continuous with W142CA; adjacent to Prairie Creek	Adjacent to Prairie Creek	Adjacent to UT to Prairie Creek	Continuous with W100CA; adjacent to UT to Prairie Creek	Continuous with WELMCB; adjacent to Prairie Creek	Adjacent to Pottawatomie Creek	None (isolated)	None (isolated)	Adjacent to Prairie Creek
	12-Digit HUC	041000071003	041000071003	041000070703	041000070703	041000070703	041000070702	041000070703	041000070702	041000070702	041000070701	041000070703
	General Condition	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Farmed	Farmed	Drainage ditch
	OEPA Wetland Category ²	1	+	1	1	1	F	-	4	1	1	+
	ORAM Score	53	23.5	19	21	20	21	19	26	14	12	23
	Area within Project Boundary	0.04	0.17	0.06	0.12	0.12	0.03	0.07	1.12	0.05	0.02	0.22
	Cowardin Classification'	PEM	PEM	PEM	PEM	PEM	PEM	PEM	PEM	PEM	PEM	PEM
	Latitude/ Longitude	41.0151/ 84.6211	41.0062/ 84.6113	41.0043/ 84.6067	40.9896/ 84.6062	40.9765/ 84.6015	40.9751/ 84.6063	40.9632/ 84.5918	40.9397/ 84.6016	40.9392/ 84.5868	40.9681/ 84.5743	41.0045/ 84.592
	County	Paulding	Paulding	Paulding	Van Wert	Van Wert	V an Wert	Van Wert	Van Wert	Van Wert	Van Wert	Paulding
Blue Creek Wind Project	Feature ID	W087AA	W090CA	W093CA	W097AA	W100CA	W105AA	W110CA	W119CA	W122AA	W136CA	W142CA
Blue Creek	No. of Wetland	44	45	46	47	48	46	20	51	52	53	54

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_091113.DOC

WETLAND AND WATERBODY DELINEATION REPORT - BLUE CREEK WIND FARM

	•
3-1	
Щ	•
ABLI	•
F	1

Existing Wetland Resources Identified within the Project Area

	Hydrological Connection	Adjacent to Prairie Creek	None (isolated)	Adjacent Hagerman Creek	Abuts Dry Creek	Adjacent Hagerman Creek	Adjacent to Hog Run	Adjacent to UT to Hagerman Creek	Adjacent to Hoaglin Creek	Abuts Dry Creek	Adjacent to Prairie Creek	None (isolated)	Adjacent to Hagerman Creek
	12-Digit HUC	041000070703	041000070703	041000070703	041000070703	041000070701	041000070702	041000070701	041000070702	041000070703	041000070703	041000070703	041000070701
	General Condition	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Drainage ditch	Wooded, old railroad embankment drainage
	OEPA Wetland Category ²	t	1-2	1	-	F	-	-	Ŧ	1	1	۲	-
	ORAM Score	23.5	31	17	20	22.5	20	17	17	22	19	23	29
	Area within Project Boundary	0.07	0.01	0.20	0.75	0.52	0.12	0.06	0.09	0.29	0.21	0.01	0.19
	Cowardin Classification	PEM	PSS1	PEM	PEM	PEM	PEM	PEM	PEW	PEM	PEM	PEM	PF01
	Latitude/ Longitude	41.0069/ 84.5729	40.986/ 84.5823	40.9899/ 84.5663	40.9863/ 84.5786	41.0045/ 84.544	41.0045/ 84.5221	40.9805/ 84.5338	40.9751/ 84.5453	40.9753/ 84.5836	40.9755/ 84.592	40.9756/ 84.5823	40.9624/ 84.5821
	County	Paulding	Van Wert	Van Wert	Van Wert	Paulding	Paulding	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert
Blue Creek Wind Project	Feature ID	W147CA	W150CA	W151AA	W151CA	W160CA	W167AA	W168AA	W169AA	WELMCA	WELMCB	WMAINCA	WMAINCC
Blue Creek	No. of Wetland	55	56	57	58	20	60	61	62	63	64	65	99

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_091113.DOC

SECTION 3 - SURVEY READETS

TABLE 3-1 Existing Wetland Resources Identified within the Project Area Blue Creek Wind Protect

Ξ	Blue Creek Wind Project				Area						
Feature ID	e D	County	Latitude/ Longitude	Cowardin Classification	within Project Boundary	ORAM Score	OEPA Wetland Category ²	General Condition	12-Digit HUC	Hydrological Connection	
WMAINCD	NCD	Van Wert	40.9561/ 84.5821	PF01	0.12	42	Modified 2	Wooded, old railroad embankment drainage	041000070701	None (isolated)	
WMAINCE	NCE	Van Wert	40.9562/ 84.5819	PF01	0.06	42	Modified 2	Wooded, old railroad embankment drainage	041000070701	None (isolated)	
AMM	WMAINCF	Van Wert	40.9371/ 84.5815	PF01	0.10	95	N	Wooded floodplain wetland	041000070702	Adjacent to Hoaglin Creek (floodplain)	
MM	WMAINCG	Van Wert	40.9358/ 84.5819	PF01	0.15	42	Modified 2	Wooded, old railroad embankment drainage	041000070702	Adjacent to Hoaglin Creek (floodplain)	
MM	WMAINCH	Van Wert	40.9358/ 84.5819	PF01	0.11	42	Modified 2	Wooded, old railroad embankment drainage	041000070702	Adjacent to Hoaglin Creek (floodplain)	
MM	WMAINCI	Van Wert	40.9352/ 84.5817	PF01	0.08	42	Modified 2	Wooded, old railroad embankment drainage	041000070702	Adjacent to Hoaglin Creek (floodplain)	
MM	WMAINCJ	Van Wert	40.9364/ 84.5821	PF01	0.03	40	Modified 2	Wooded floodplain wetland	041000070702	Adjacent to Hoaglin Creek (floodplain)	
WW	WMAINCK	Van Wert	40.9381/ 84.581	PF01	0.32	64	2-3	Wooded floodplain wettand	041000070702	Adjacent to Hoaglin Creek (floodplain)	· · · · · · · · · · · · · · · · · · ·
ļ											

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_09/113.DOC

TABLE 3-1

Existing Wetland Resources Identified within the Project Area

ļ	
ect	
I Proj	
N M	
Blue Creek Wind Project	
Blue	

No. of Wetland	Feature ID County	County	Latitude/ Longitude	Cowardin Classification	Area within Project Boundary	ORAM Score	OEPA Wetland Category ²	General Condition	12-Dight HUC	Hydrological Connection
75	WRICHCA Van Wer	Van Wert	40.9858/ 84.6486	PEM	0.08	23	1	Drainage ditch	041000070703	041000070703 Adjacent to UT to Prairie Creek
76	WSUBA	Van Wert	40.9314/ 84.5597	PEM	0.07	12	Ť	Farmed	D41000070703 None (isolated)	None (isolated)
									•	

Footnotes:

- PEM palustrine emergent marsh
- PFO1 palustrine forested, deciduous
- PSS palustrine scrub-shrub
- Wetland Category determined based on ORAM score, in accordance with OEPA, 2000.

3

3 UT unnamed tributary



SECTION 3 - SURVEY RE-

ŝ

TABLE 3-2 Existing Waterbody Resources Identified within the Project Area Blue Creek Wind Project

14.8	Ferennial 13.1 1,137 04100070703 Perennial 14.8 2,083 041000070703 Perennial 17.1 3,230 041000070703 Perennial 17.5 977 041000070703	Prairie Creek Perennial 14.8 2,083 041000070703 W Prairie Creek Perennial 17.1 3,230 041000070703 Prairie Creek Perennial 17.1 3,230 041000070703 Prairie Creek Perennial 17.5 977 041000070703	40.362 Frairie Creek Perennial 13.1 1,137 04100070703 84.6132 84.6035 Prairie Creek Perennial 14.8 2,083 041000070703 84.6035 84.6035 Prairie Creek Perennial 17.1 3,230 041000070703 84.5901 71 977 041000070703 17.5 977 041000070703 84.5824 Prairie Creek Perennial 17.5 977 041000070703	Var 40.362/ Wert Fraire Creek Perennial 13.1 1,10,1 04100070703 Van 40.9858/ Wert 84.6132 Prairie Creek Perennial 14.8 2,083 041000070703 Vert 84.6035 Prairie Creek Perennial 14.8 2,083 041000070703 Paulding 40.9988/ 84.5901 Prairie Creek Perennial 17.1 3,230 041000070703 Paulding 40.9988/ 84.5901 Prairie Creek Perennial 17.1 3,230 041000070703 Paulding 41.007/ Prairie Creek Perennial 17.5 977 041000070703
14.8 2,083 17.1 3,230 17.5 977	Perennial14.82,083Perenniai17.13,230Perenniai17.5977	% Prairie Creek Perennial 14.8 2,083 % Prairie Creek Perenniai 17.1 3,230 % Prairie Creek Perenniai 17.5 977	40.9858/ Prairie Creek Perennial 14.8 2,083 84.6035 84.6035 17.1 3,230 84.5001 94.5901 17.1 3,230 84.5501 Prairie Creek Perenniai 17.1 3,230 84.5501 84.5501 7.7 977 977 84.5824 Prairie Creek Perenniai 17.5 977	Van 40.9858/ 84.6035 Prairie Creek Perennial 14.8 2,083 Wert 84.6035 Prairie Creek Perenniai 17.1 3,230 Paulding 40.9988/ 84.5901 Prairie Creek Perenniai 17.1 3,230 Paulding 41.007/ Prairie Creek Perenniai 17.5 977
13.1 14.8 17.1 17.5	Perennial 13.1 Perennial 14.8 Perennial 17.1 Perennial 17.5	 Prairie Creek Perennial 13.1 Prairie Creek Perennial 14.8 Prairie Creek Perennial 17.1 Prairie Creek Perennial 17.5 	84.6253 84.6253 40.982/ Prairie Creek Perennial 40.9858/ Prairie Creek Perennial 84.6132 Prairie Creek Perennial 40.9858/ Prairie Creek Perennial 84.6035 Prairie Creek Perennial 17.1 84.5901 17.5 84.5824 Prairie Creek Perennial	Wert 84.6253 Prairie Creek Perennial 13.1 Van 40.982/ Prairie Creek Perennial 13.1 Wert 84.6132 Prairie Creek Perennial 13.1 Van 40.9858/ Prairie Creek Perennial 14.8 Van 40.9988/ Prairie Creek Perennial 14.8 Paulding 40.9988/ Prairie Creek Perennial 17.1 Paulding 84.5901 Prairie Creek Perennial 17.5 Paulding 84.5824 Prairie Creek Perennial 17.5
Perennial Perennial Perennial		Prairie Creek	40.30/ 84.6253 Fraine Creek 40.982/ 84.6132 Prairie Creek 84.6132 Prairie Creek 84.6035 Prairie Creek 84.5001 Prairie Creek 84.5901 Prairie Creek 84.5901 Prairie Creek 84.5901 Prairie Creek	Wert 84.6253 Van 40.982/ Prairie Creek Van 40.982/ Prairie Creek Wert 84.6132 Prairie Creek Van 40.9858/ Prairie Creek Vert 84.6035 Prairie Creek Paulding 40.9888/ Prairie Creek Paulding 41.007/ Prairie Creek Paulding 84.5901 Prairie Creek
	Prairie Creek Prairie Creek Prairie Creek Prairie Creek		40.982/ 84.6253 84.6132 84.6132 84.6035 84.6035 84.6035 84.5901 84.5824	Werr 84.6253 Van 40.982/ Van 40.9858/ Van 40.9858/ Vert 84.6035 Paulding 40.9988/ Paulding 40.9988/ Paulding 40.9988/ Paulding 84.5901 Paulding 84.5824

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_09(113.DOC

WETLAND AND WATERBODY DELINEATION REPORT - BLUE CREEK WIND FARM

TABLE 3-2 Existing Waterbody Resources Identified within the Project Area Blue Creek Wind Project

Provisional Stream PHWH Class/Use Designations ³ Connection		Modified Tributary to Class II Prairie Creek, and Auglaize River	Modified Tributary to Class I Prairie Creek, and Auglaize River	Modified Tributary to Class II Prairie Creek, and Auglaize River	Modified Tributary to Class II Prairie Creek, and Auglaize River	Modified Tributary to Class I Prairie Creek, and Auglaize River	Modified Tributary to Class I Prairie Creek, and Auglaize River
Prov Store HHEI Class		46 Mo CI	22 Mo CI	59.0 Mo Cl	37 Mo	27.0 Mo CI	27.0 Mo CI
QHEI Score S		ł	1	1	1	1	1
RPW or Non- RPW ²		RPW	Non- RPW	RPW	КРW	RPW	Non- RPW
12-Digit HUC		0410000703	041000070703	041000070703	041000070703	041000070703	041000070703
Length within Project Area (ft)		884	1,074	5,270	230	631	2,086
Drainage Area (sq. mi)		0.2	0.1	0.5	0.4	0.9	1.0
Flow Regime ¹		Intermittent	Ephemeral	Intermittent (flow from gravel quarry dewatering)	Ephemeral	Ephemeral	Ephemeral
Stream Name		Prairie UT 1	Prairie UT 2	Prairie UT 3	Prairie UT 4	Prairie UT 5	Prairie UT 6
Latitude/ Longitude	e Creek	40.9458/ 84.6858	40.9458/ 84.6868	40,966/ 84.6486	40.9531/ 84.6493	40.9845/ 84.6214	40.9825/ 84.6015
County	() to Prairie	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert	Van Wert
Feature	Unnamed Tributaries (UT) to Prairie Creek	S021AA	S021CA	S048CA	SRICHCB	S081CA	SOBBAA
No. of Waterbody	Unnamed T	თ	6	£	12	13	4

SECTION 3 - SURVEY R

CI3

:

TABLE 3-2 Existing Waterbody Resources Identified within the Project Area

No. of Waterbody	Feature ID	County	Latitude/ Longitude	Stream Name	Flow Regime ¹	Drainage Area (sq. ml)	Length within Project Area (ft)	12-Digit HUC	RPW or Non- RPW ²	QHEI Score	HHEI Score	Provisional Stream PHWH Class/Use Designations ³	TNW Connection
15	S143CB	Paulding	41.0073/ 84.5823	Prairie UT 7	Intermittent	1.5	189	041000070703	RPW	30.0	1	LRW	Tributary to Prairíe Creek, and Auglaize River
Upper Prairie Creek	e Creek												
16	S005CA	Van Wert	40.9822/ 84.6827	Upper Prairie Creek	Perennial	8.7	2,602	041000071001	RРW	39.5	1	HMM	Tributary to Blue Creek, and Auglaize River
Hagerman Creek	reek												
17	S019AA	Van Wert	40.9366/ 84.693	Hagerman Creek	Perennial	2.3	2,049	041000070701	RPW	39.0	I	₩WH	Tributary to Prairie Creek, and Auglaize River
18	S028AA	Van Wert	40.9258/ 84.681	Hagerman Creek	Perennial	2.9	1,796	041000070701	RPW	37.5	I	WWH⁴	Tributary to Prairíe Creek, and Auglaize River
19	S059CA	Van Wert	40.9386/ 84.6332	Hagerman Creek	Perennial	5.5	2,518	041000070701	MdA	41.0	I	₩WH ⁴	Tributary to Prairie Creek, and Auglaize River
20	S064CA	Van Wert	40.9423/ 84.6249	Hagerman Creek	Perennial	7.2	1,084	041000070701	RPW	N/A	I	^+WWH	Tributary to Prairie Creek, and Auglaize River

TABLE 3-2 Existing Waterbody Resources Identified within the Project Area

····· 1				1	
TNW Connection	Tributary to Prairie Creek, and Auglaize River				
Provisional Stream PHWH Class/Use Designations ³	MWH⁴	MWH ⁴	MWH⁴	WWH⁴	∿wH
HHEI Score	1	I]	1	1
QHEI Score	N/A	N/A	N/A	44.5	55.0
RPW or Non- RPW ²	RPW	Wda	КРW	RPW	RPW
12-Digit HUC	041000070701	041000070701	041000070701	041000070701	041000070701
Length within Project Area (ft)	525	507	3,340	978	2,470
Drainage Area (sq. mi)	7.8	8.5	0 .7	4	13.6
Flow Regime	Perennial	Perennial	Perennial	Perennial	Perennial
Stream Name	Hagerman Creek	Hagerman Creek	Hagerman Creek	Hagerman Creek	Hagerman Creek
Latitude/ Longitude	40.9513/ 84.5982	40.9585/ 84.5865	40.9626/ 84.5819	40.9681/ 84.5759	41.0014/ 84.5466
County	Van Wert	Van Wert	Van Wert	Van Wert	Paulding
Feature ID	S115CA	S126CA	SMAINCA	S136CA	S160CA
No. of Featur Waterbody ID	21	52	23	24	25

3-16

.

st is SECTION 3 - SURVEY RE

TABLE 3-2 Existing Waterbody Resources Identified within the Project Area

	eč eč
,	Project
	k Wind I
	Ñ
>	99
	Blue (
	ā

	<u>; </u>	<u></u>]	
TNW Connection		Tributary to Hageman Creek, Prairie Creek, and Auglaize River	Tributary to Hageman Creek, Prairie Creek, and Auglaize River	Tributary to Hagernan Creek, Prairie Creek, and Auglaize River	Tributary to Hageman Creek, Prairie Creek, and Auglaize River		Tributary to Auglaize River
Provisional Stream PHWH Class/Use Designations ³		Modified Class I	Modified Class I	Modified Class II	Modified Class I		MWH ⁴
HHEI Score		21.0	27.0	41.0	22.0		ł
QHEI Score		ł	1	28.0	I		57.25
RPW or Non- RPW ²		RPW	Non- RPW	RPW	RPW		RPW
12-Digit HUC		041000070701	041000070701	041000070701	041000070703		041000071003
Length within Project Area (ft)		1,928	466	1,568	1,057		1,883
Drainage Area (sq. ml)		0.5	4.0	0.2	0.0		42.5
Flow		Intermittent	Ephemeral	Intermittent	Intermittent		Perenníal
Stream		Hagerman UT 1	Hagerman UT 2	Hagerman UT 3	Hagerman UT 4		Blue Creek
Latitude/ Longitude	Creek	40.9387/ 84.6485	40.9658/ 84.5822	41.0092/ 84.5343	40.9639/ 84.6301		41.0064/ 84.6564
County	lagerman	Van Wert	Van Wert	Paulding	Van Wert		Paulding
Feature ID	Unnamed Tributaries to Hagerman Creek	S039CA	SMAINCB	S163AA	S052AA		SO69CA
No. of Waterbody	Unnamed Tr	26	27	58	29	Blue Creek	30

WETLAND AND WATERBODY DELINEATION REPORT - BLUE CREEK WIND FARM

TABLE 3-2 Evision Waterbody Resources Identified within the Project Area

Blue Creek Wind Project						Lenath					Provisional	
Feature		Latitude/	Stream	Flow	Drainage Area	Project		RPW or Non-	OHEI 0	HEI	Stream PHWH Class/Use	TNW
_	County	Longitude	Name	Regime'	(sq. mi)	Ê	12-Digit HUC	RPW ⁻	Score	Score	Designations	Connection
	Van Werf	40.9454/ 84.5918	Pottawatomie Creek	Perennial	2,4	560	041000070702	RPW	N/A	ł		Tributary to Hageman Creek, Prairie Creek, and Auglaize River
SMAINCC	Van Wert	40.9475/ 84.5821	Pottawatomie Creek	Perennial	2.7	470	041000070702	КРW	29.5	I	LRW	Tributary to Hageman Creek, Prairie Creek, and Auglaize River
1 🗠	Unnamed Tributaries to Pottawatomie Creek	nie Creek										
	Van Wert	40.9445/ 84.5964	Pottawatomie UT 1	Intermittent	0.1	875	041000070702	RPW	I	46	Modified Class II	Tributary to Pottawatomie Creek, Hageman Creek, Prairie Creek, and Augtaize River
	Van Wert	40.9387/ 84.5917	Pottawatomie UT 2	Intermittent	0.2	2,171	041000070702	WMA		27	Modified Class I	Tributary to Pottawatomie Creek, Hageman Creek, Prairie Creek, and Auglaize River

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_091113.DOC

3-18

octs SECTION 3 - SURVEY R

TABLE 3-2 Existing Waterbody Resources Identified within the Project Area

Blue Creek Wind Project	Vind Project				-								
No. of Waterbody	Feature ID	County	Latitude/ Longitude	Stream Name	Flow Regime ¹	Drainage Area (sq. mi)	Length within Project Area (ft)	12-Digit HUC	RPW or Non- RPW ²	QHEI Score	HHEI Score	Provisional Pream PHWH Class/Use Designations ³	TNW Connection
Dry Creek													
35	S149CA	Van Wert	40.9929/ 84.5709	Dry Creek	Perenniat	1.5	1,502	041000070703	RPW	31.0	ł	MWH ⁴	Tributary to Prairie Creek, and Auglaize River
36	S158CA	Paulding	41.0117/ 84.5528	Dry Creek	Intermittent	3.4	682	041000070703	RPW	30.5	1	MWH ⁴	Tributary to Prairie Cr ec k, and Auglaize River
Jnnamed Ti	Unnamed Tributaries to Dry Creek	Dry Creek											
37	S153AA	Paulding	41.0063/ 84.5678	Dry UT 1	Intermittent	0.1	1,599	041000070703	RPW	24.5	37.0	Modified Class II	Tributary to Dry Creek, Prairie Creek, and Auglaize River
38	S158CB	Paulding	41.0117/ 84.5534	Dry UT 1	Intermittent	0.6	156	041000070703	RPW	27.0	22.0	Modified Class I	Tributary to Dry Creek, Prairie Creek, and Auglaize River
Maddox Creek	sek												
39	S172TA	Van Wert	40.9556/ 84.5265	Maddox Creek	Perennial	28.0	507	041000070803	RPW	44.5	ł	MWH	Tributary to Little Auglaize River, and Auglaize River

BLUE_CREEK_WETLAND_DELINEATION_REPORT_FINAL_091113.DOC

3-19

WETLAND AND WATERBODY DELINEATION REPORT - BLUE CREEK WIND FARM

TABLE 3-2

Existing Waterbody Resources Identified within the Project Area Blue Creek Wind Project

No. of Waterbody	Feature ID	County	Latitude/ Latitude/ Longitude	Stream Name	Flow Regime ¹	Drainage Area (sq. mi)	Length within Project Area (ft)	12-Digit HUC	RPW or Non- RPW ²	QHEI Score	HHEI Score	Provisional Stream PHWH Class/Use Designations ³	TNW Connection
Hoaglin Creek	ek												
40	SMAINCD	Van Wert	40.9368/ 84.5816	Hoaglin Creek	Perennial	33.0	435	041000070702	RPW	43.5	l	MWH ⁴	Tributary to Hageman Creek, Prairie Creek, and Auglaize River
41	S139CA	Van Wert	40.9456/ 84.5678	Hoaglin Creek	Perennial	34.1	762	041000070702	RPW	N/A	ſ	MWH ⁴	Tributary to Hageman Creek, Prairie Creek, and Auglaize River
Footnotes:													· · · · · ·

- Flow regime is defined as perennial, intermittent, or ephemeral.
- Intermittent and perennial streams were recorded as RPWs, while ephemeral streams were recorded as non-RPWs 2
- Provisional Use designations score for streams with watersheds greater than one square mile are defined based on the QHEI score, as WWH (warmwater habitat), MWH (modified warmwater habitat), and LRW (limited resource water). Primary headwater habitat class for streams with watersheds less than one square mile is defined based on HHEI score according to OEPA, 2002. ŝ
 - 4 Use designation specified in Ohio Water Quality Standards, OAC 3745-1-11.

SECTION 4

The Project area is more than 90 percent row croplands with a network of drainage ditches leading to larger, relatively permanent waters. The drainage ditches are considered either streams or wetlands, depending on the predominant condition of the ditch. As these ditches were largely, if not entirely, excavated through hydric soils and had a continuous connection to relatively permanent waters (named streams which connect to the Auglaize and Maumee Rivers), they were considered to have a nexus to traditionally navigable waterways and therefore to be jurisdictional. There are a few isolated waters, mostly small, farmed wetlands, wooded depressions or remnant wet woodlands with no apparent surface connections to relatively permanent waters.

No wetlands or waterbodies were delineated near any of the proposed turbine locations; therefore, the construction of the turbines is not anticipated to impact wetlands or other waters. However, potential impacts to wetlands or waters within the Project area may occur during the installation of the proposed collector lines and access roads.

The construction of the proposed access roads will require the installation of culverts across some ditches and would result in localized, permanent impacts to the wetlands or streams crossed. Access roads have been sited to avoid larger stream crossings and any impacts to woodlands.

Most collector lines will be installed underground generally utilizing an open-cut method. Where the collector lines cross wetlands, the wetlands would be restored to their preconstruction conditions following installation, so that the impacts to wetlands from the installation of the collector lines will be temporary. At larger stream crossings, such as Blue Creek, Dry Creek, or Hagerman Creek, the collector lines will be installed using horizontal directional drilling to avoid impacts to these streams.

Overhead electrical lines will be installed on poles with localized impacts. It is expected that these lines can be installed with minimal or no impact to wetlands.

Consequently, the culverting of linear, roadside ditches at the proposed access roads would constitute the majority of the permanent impacts to wetlands and waters from the Project. It is anticipated that wooded wetlands will be avoided. In total, it is the intent of Heartland Wind to minimize impacts to wetlands, and to keep total impacts to less than 0.5 acres total, in keeping with the Nationwide Permit allowance.

SECTION 5 References

Geology.com. 2009. *Ohio State Map Collection – Ohio Rivers Map*. <u>http://geology.com/state-map/ohio.shtml</u>. Accessed on October 28, 2009.

National Oceanic and Atmospheric Administration. 2009. NOAA Online Weather (NOW) Data, Northern Indiana, National Weather Service Forecast Office, <u>http://www.weather.gov/climate/xmacis.php?wfo=iwx</u> Accessed on November 9, 2009.

Natural Resource Conservation Service (NRCS). 2009. Official Soil Series Descriptions (OSD). U.S. Department of Agriculture, Soils, Technical References. <u>http://soils.usda.gov/technical/classification/osd/index.html</u>. Accessed on October 28, 2009.

Ohio Department of Natural Resources (ODNR). 2009a. Ohio Portion of the Lake Erie-Ohio River Drainage Divide.

http://www.dnr.state.oh.us/Portals/7/watersheds/whole_lerie_oriver.jpg. Accessed on October 28, 2009.

ODNR. 2009b. *Gazetteer of Ohio Streams*, Second Edition. August 2001. Division of Water. <u>http://www.dnr.state.oh.us/Portals/7/pubs/pdfs/GAZETTEER_OF_OHIO_STREAMS.p</u> <u>df</u>. Accessed on November 3, 2009.

ODNR. 2009c. *Physiographic Regions of Ohio*. Division of Geological Survey. <u>http://www.dnr.state.oh.us/Portals/10/pdf/physio.pdf</u>. Accessed on October 28, 2009.

Ohio Environmental Protection Agency (OEPA). 1989. The Qualitative Habitat Evaluation Index (QHEI): Rationale, Methods, and Application. Columbus, Ohio.

OEPA. 2000. ORAM v. 5.0 Quantitative Score Calibration. Columbus, Ohio.

OEPA. 2002. Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams. Final Version 1.0. September 2002.

Ohio Administrative Code (OAC). Chapter 3745-1, *Water Quality Standards.* <u>http://codes.ohio.gov/oac/3745-1</u>. Accessed on October 30, 2009.

TerraServer-USA. 2009. TerraServer-USA. <u>http://www.terraserver.com/</u>. Accessed on October 28, 2009.

United States Army Corps of Engineers (USACE). 1987. Technical Report Y-87-1, Corps of Engineers' Wetlands Delineation Manual.

USACE. 1992. Technical Report Y-87-1 U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual.

USACE. 2007. Jurisdictional Determination Form Instructional Guidebook.

USACE. 2008. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. Wetland Regulatory Program. <u>http://el.erdc.usace.army.mil/elpubs/pdf/trel08-27.pdf</u>. Accessed on November 3, 2009.

USACE. 2009. Draft Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. Wetland Regulatory Program. <u>http://www.usace.army.mil/CECW/Documents/cecwo/reg/int_nc_ne_supp.pdf</u>. Accessed on October 29, 2009.

United States Geological Survey (USGS). 1973a. "Payne Quadrangle, Ohio – Paulding Co., 7.5 Minute Series (Topographic)." U.S. Department of the Interior, Washington, D.C.

USGS. 1973b. "Latty Quadrangle, Ohio – Paulding Co., 7.5 Minute Series (Topographic)." U.S. Department of the Interior, Washington, D.C.

USGS. 1980. "Convoy Quadrangle, Ohio – Van Wert Co., 7.5 Minute Series (Topographic)." U.S. Department of the Interior, Washington, D.C.

USGS. 1988. "Scott Quadrangle, Ohio – Paulding Co., 7.5 Minute Series (Topographic)." U.S. Department of the Interior, Washington, D.C.

USEPA and USACE, 2007. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States.

Appendix A Exhibits

Appendix B Datasheets and Photographic Documentation

•

í,











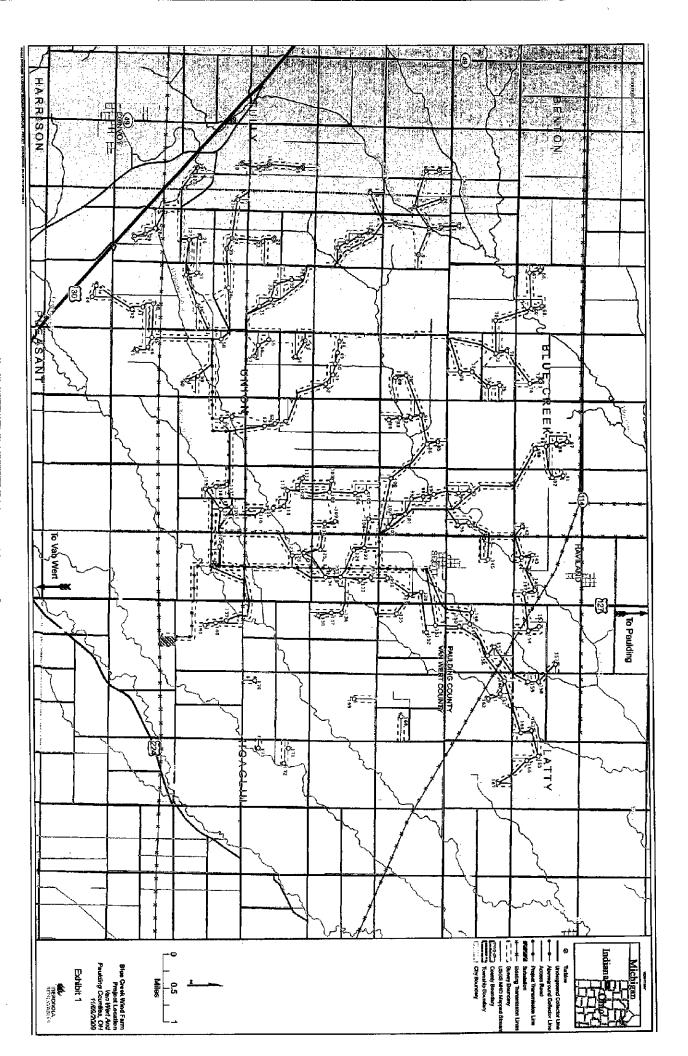


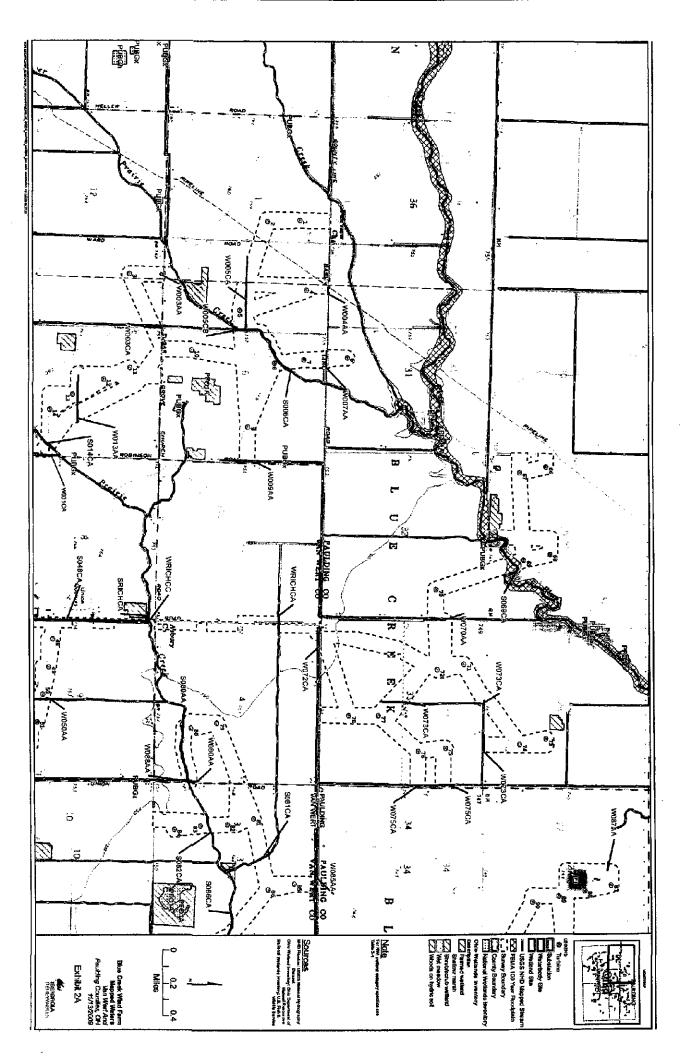


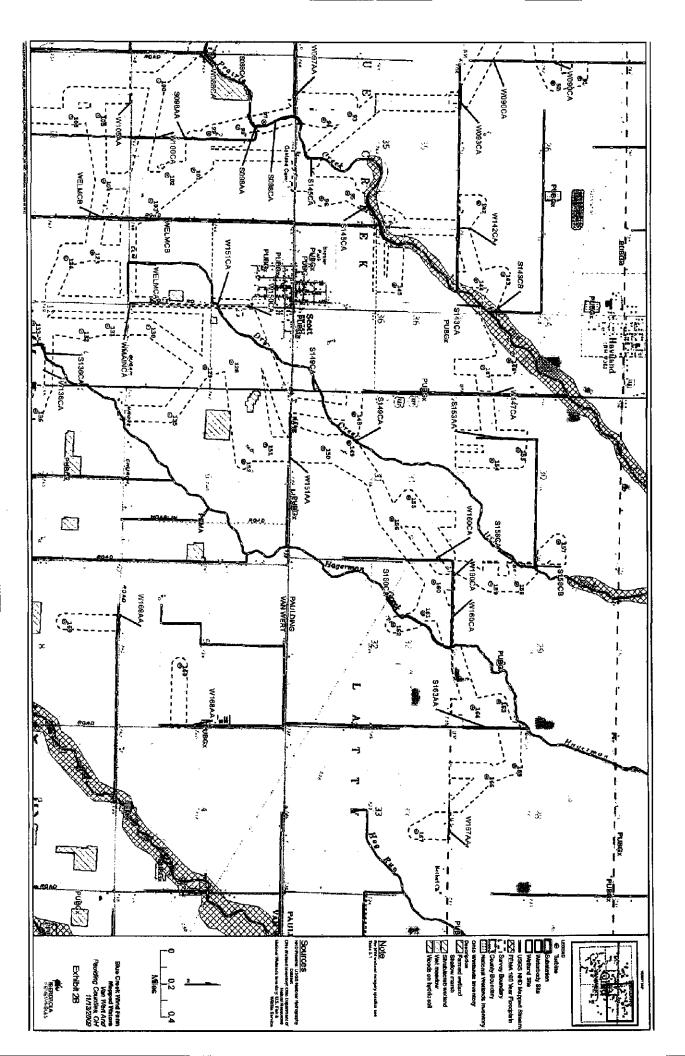


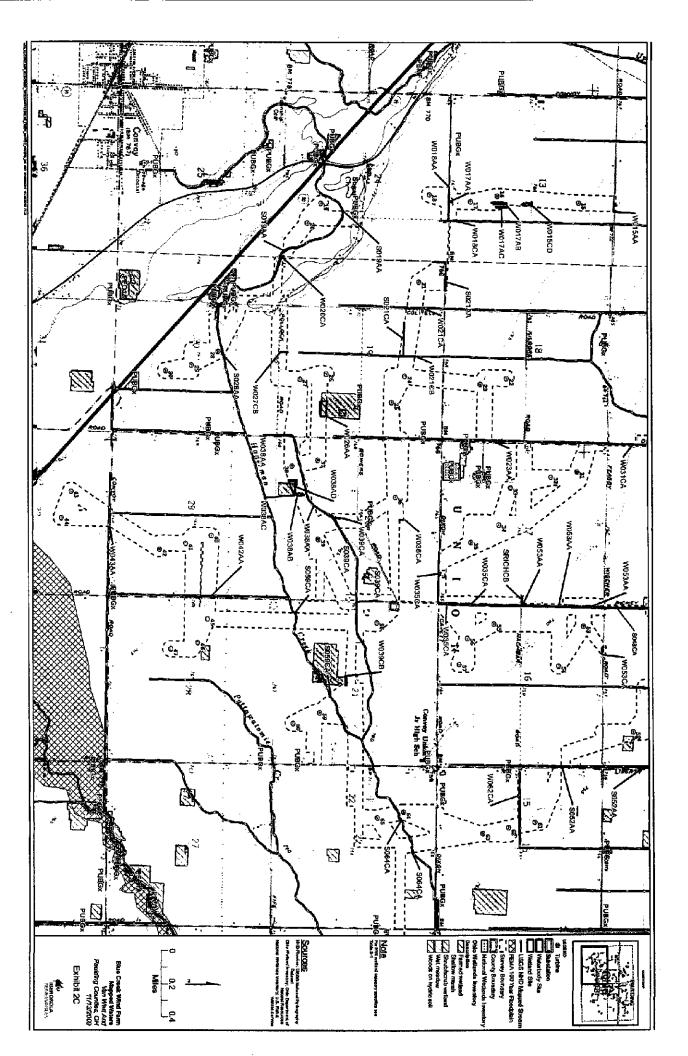


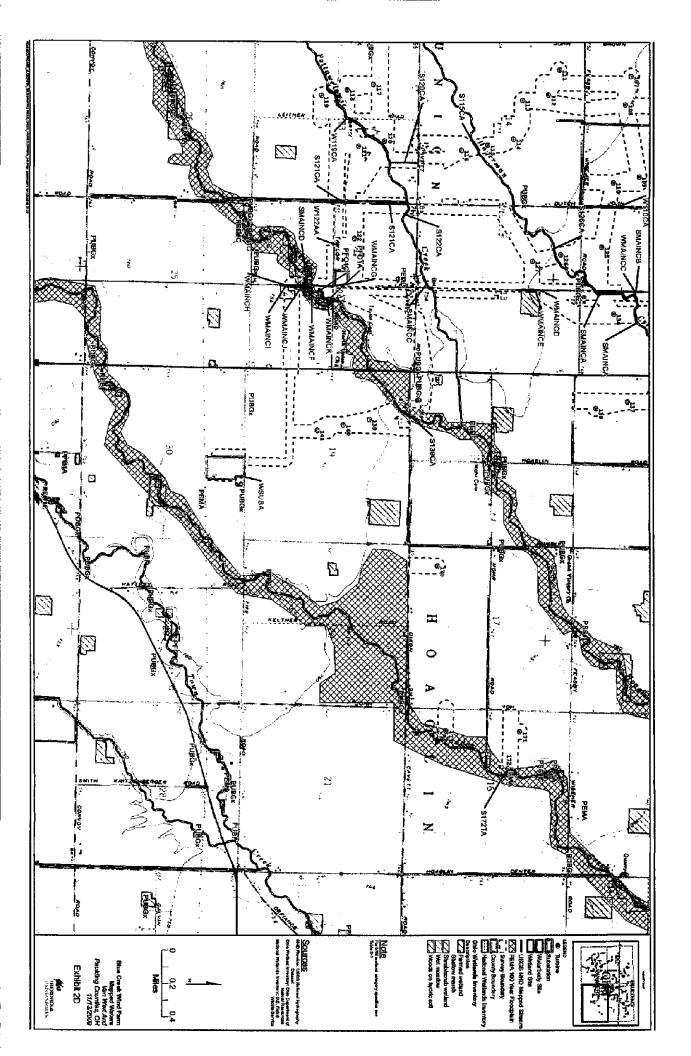


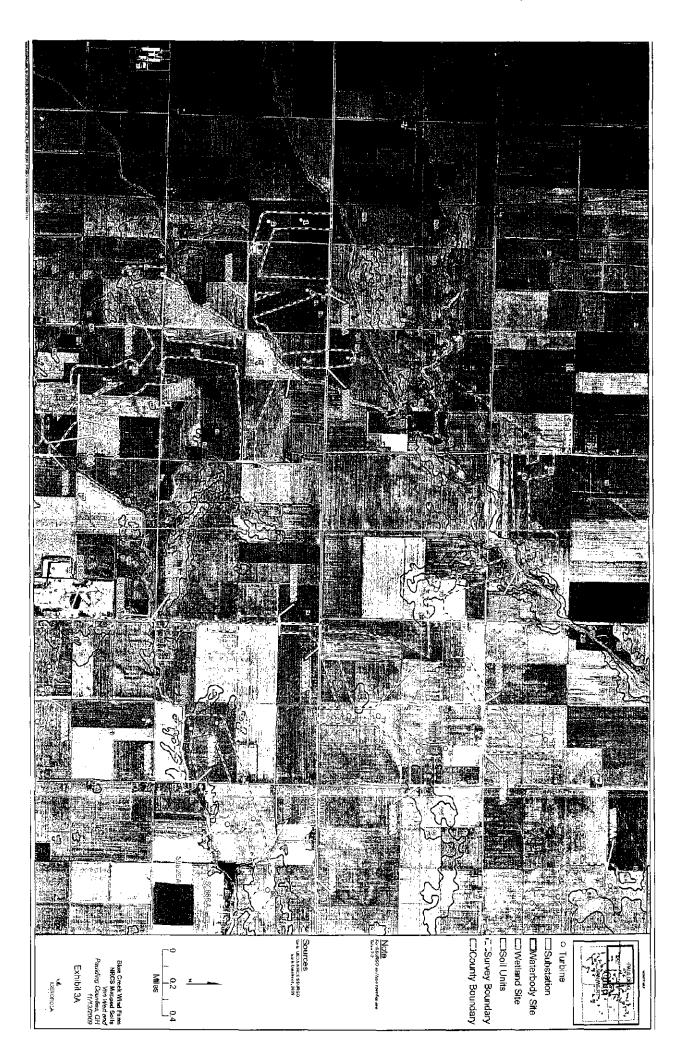


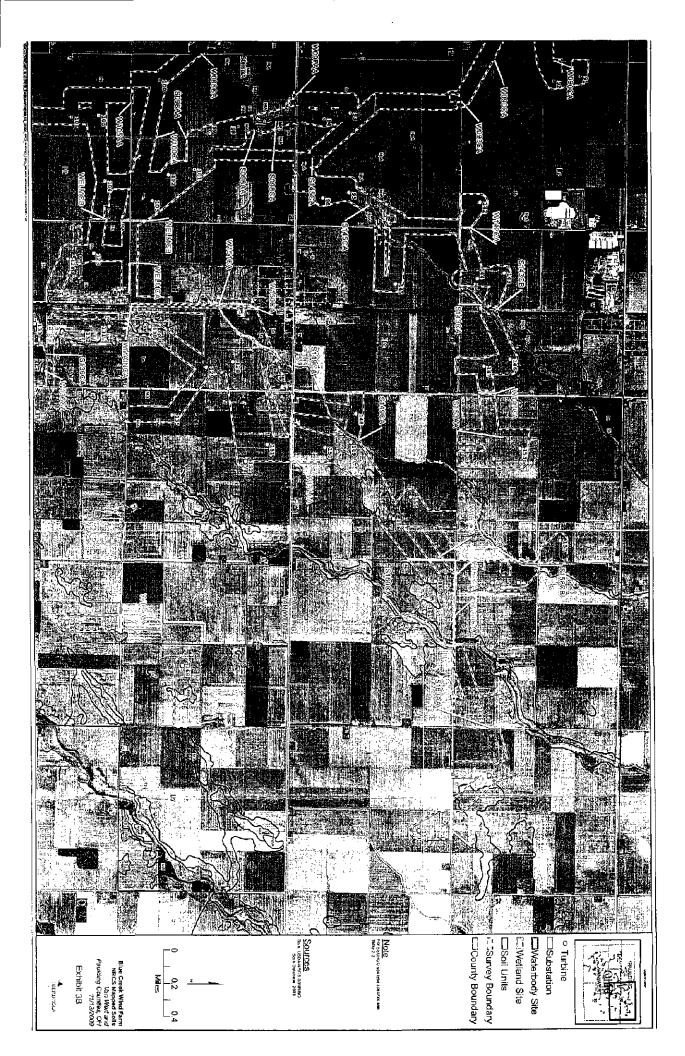


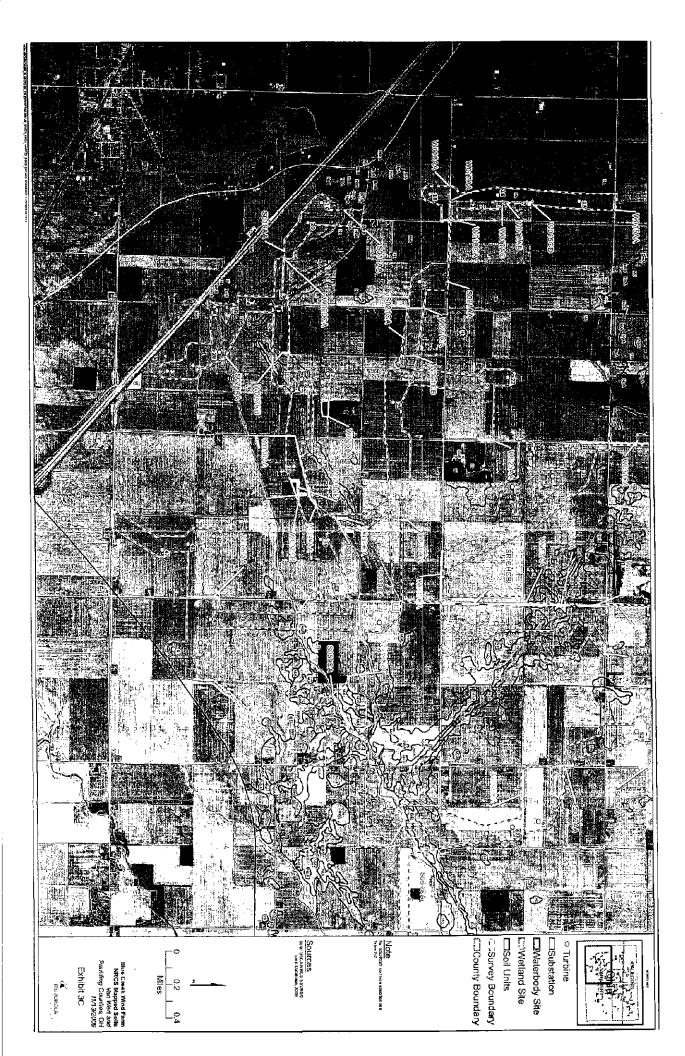


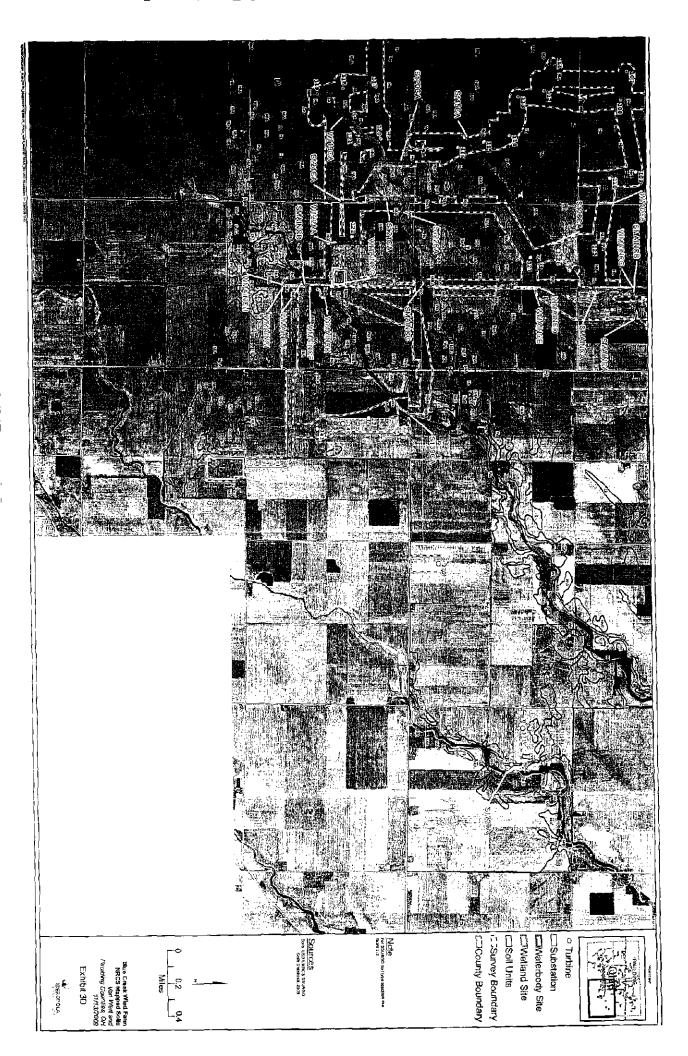


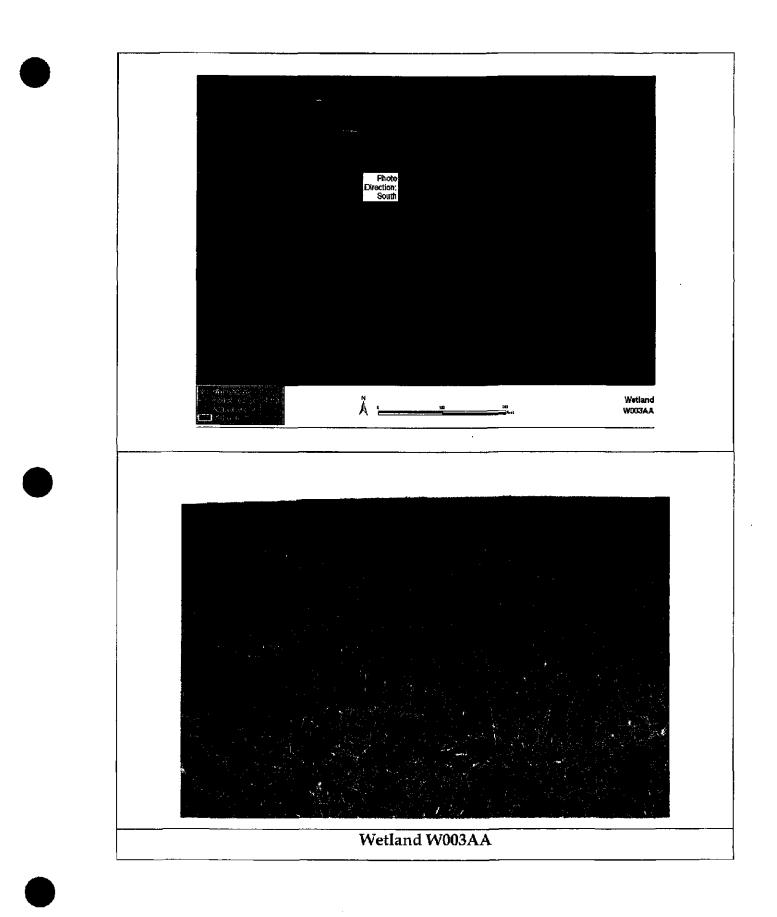






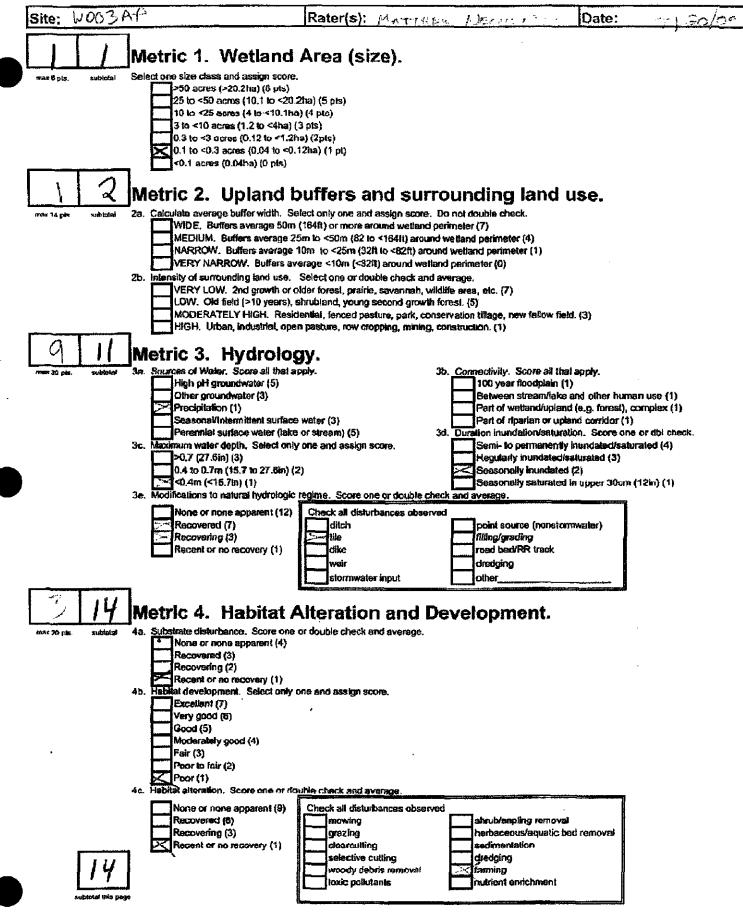






ROUTINE WETLAND DELINEATION DATA FORM (19	987 COE METHODOLOGY)
--------------------------------------------------	----------------------

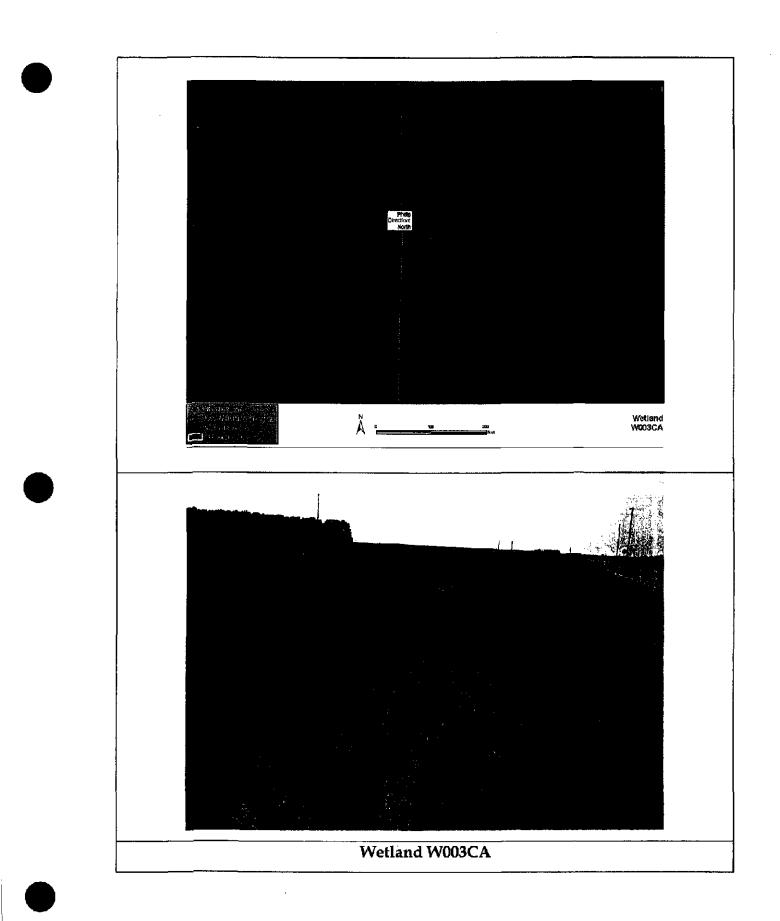
SURVEY TYPE: Blue	Creek Wind Fa	um			ND ID NO.: TED STREAM ID			
DATE: 09/20/2009		CLIENT/PROJECT NAM	и: Heartlan				`	
INVESTIGATORS: Hook		STATE/COUNTY: Ohi			· · · · · · · · · · · · · · · · · · ·	RAH090920.cor	<u> </u>	
					ROVER FILE.			
HUC 12 CODE: 0410000710	001	TOWNSHIP: Tully			Рното No.:			
WETLAND QUALITY: LOW		· · · · · · · · · · · · · · · · · · ·) TYPE: Palu: Emergent	strine			
	PLANT SPECIES		S	TRATUM	Îne	CATOR	PERCENT COVER	
1. Setaria glauca 2. Glycine max				erbaceous erbaceous	Ŧ	Fac Ipland	<u>20 %</u> 30 %	
3.				erpaceous			<u>%</u>	
<u>4.</u> 5.	······						<u> % </u>	
6.		J						
PERCENT OF DOMINANT 5	SPECIES THAT ARE OBL,	FACW, FACW+, FAC	W-, FAC+, or	FAC (EXCLU	DING FAC-): 5	0		
VEGETATION REMARKS:	farmed wet							
			HYDR	OLOGY				
RECORDED DATA?		Describe:						
DEPTH OF SURFACE WAT	er: N/A (in)		וס	EPTH TO SAT	JRATED SOIL;	>16 (în)		
DEPTH TO FREE WATER IN	PTT: None (in)							
PRIMARY WETLAND INDI	CATORS:		Se	CONDARY W	ETLAND INDIC.	ATORS:		
Drift Lines				cal Soil Surv				
REMARKS: farmed wet, :	suppressed crop							
			So	n. LS				
MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) DRAINAGE CLASS: Very poorty drained								
TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?								
		P	ROFILE D	ESCRIPT	ION			
DEPTH (INCHES)	Horizon		MATRIX COLOR MOTTLE COLOR TEXTURE, CONCRETIONS, (MUNSELL MOIST) (MUNSELL MOIST) STRUCTURE, ETC.					
0-6	Α	10YR 4	/2				Silt Loam	
6+	B	10YR 4					Clay	
HYDRIC SOIL INDICATORS	5:							
Listed Hydri	ic	Gleyed						
Remarks:								
		WET	LAND DE	TERMIN	ATION			
HYDROPPTYTIC VEGETATI	on Present? No	Is This	SAMPLING PO	INT WITHIN	AWETLAND?	(es		
WETLAND HYDROLOGY P		Is This	AN ISOLATED	WETLAND?	Yes			
HYDRIC SOILS PRESENT?	Yes							
NORMAL CIRCUMSTANCE			CANTLY DISTU				ROBLEM AREA? Yes	
	ESCRIPTION OF	WETLAND CR	OSSING]	YPES AN	ND WETL	AND QUAL	ITY CRITERIA	
are characteristic of the sp MODERATE QUALITY hydrology and/ or soil ch and aren't significantly di LOW QUALITY WETLA affected plant species - co hydroperiod - mechanica	pecific community type WETLAND: mild to n naracteristics - provide isturbed. ND: severe disturbanc mmunity composition a lateration of plant sp	- provides suitable ha noderate disturbances s suitable habitat for w res have caused signifi- has changed - noticea	abltat for wild have caused al riddlife and ver cant changes to ble stress or d from livestoch	life – high qu lterations in : getation – as: o vegetation, eath of plant c – channeliz	ality perennia immediately a sociated peren soils, or hydra species - soil	l streams are oft djacent areas – si nial or intermitte blogy – hydrope subsidence may	on types – hydrologic and soil indicators ten observed. lightly altered natural vegetation, ent streams are of relatively good quality priod alterations, if present, have directly have occurred in areas with decreased hing – little suitable habitat for wildlife	



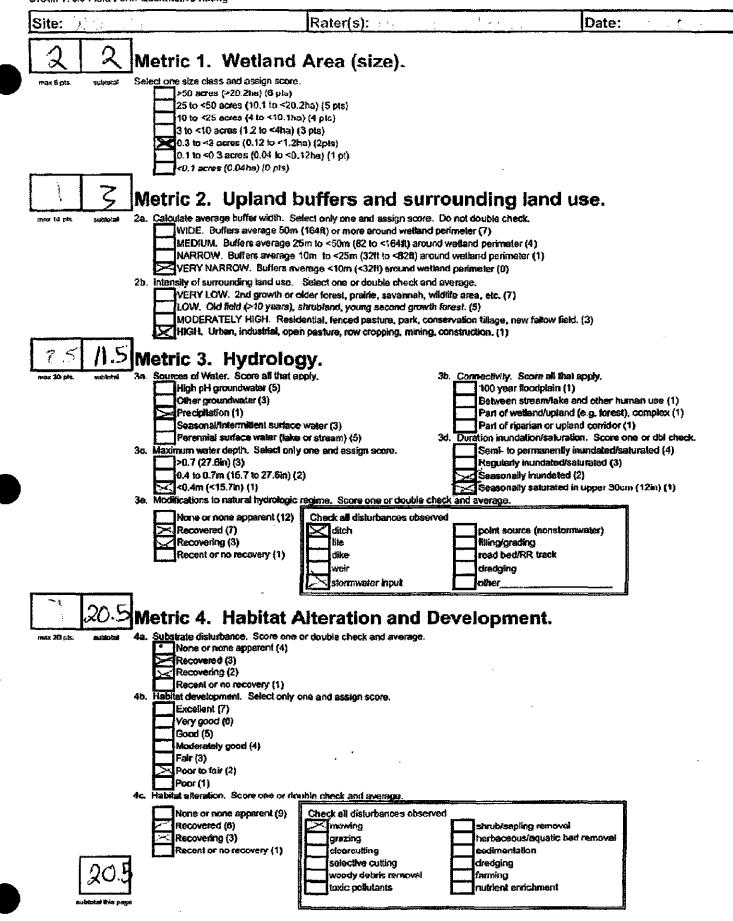
ORAM v. 5.0 Field Form Quantitative Rating

ite:		Rater(s):	Date:	• •
r	7			
]			
subtolat \$n\$ 30	9°			
	Matrice E. Consciol M	(atlanda		
	Metric 5. Special W			
t 10 pts. sublotal	Check all that apply and score as indicale	d.		
	80g (10) Fen (10)			
	Old growth forest (10)			
	Mature forested wetland (5)			
	Lake Erie coastal/tributary wetla	and-unrestricted hydrolog	v (10)	
	Lake Erie coastal/tributary wetla	and-restricted hydrology (5}	
	Lake Plain Sand Prairies (Oak	Openings) (10)		
	Relict Wet Praires (10)			
	Known occurrence state/(edera Significant migratory songbird/			
	Category 1 Wetland. See Ques	•		
		The second s	(-10)	
	Metric 6. Plant corr	imunitles, ir	nterspersion, microtopog	iraphy.
20 pts. subrotal	6a. Wetland Vegetation Communities	Vegetation Comm	• •	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0, the (0.2471 acres) col	Niguous area
	Aquatic bod	1	Present and either comprises small port of woth	ondia
	O Emergent		vegetation and is of moderate quality, or com	prises a
	Shrub	<u> </u>	significant part but is of low quality	a section of a
	Forest OFMudflats	2	Present and either comprises significant part of vegetation and is of moderate quality or comp	-
	C Open water		part and is of high quality	A STREAM
	Other	3	Present and comprises significant part, or more	, of wottand's
	6b. hodzontal (plan view) Interspersion.		vegetation and is of high quality	
	Select only one.			
	High (5)	Narrative Descript	ion of Vegetation Quality	······································
	Moderately high(4)	low	Low spp diversity and/or predominance of nonr	ative of
	Moderate (3) Moderately low (2)	mod	disturbance interant native species Native spp are dominant component of the veg	
	Low (1)	1160	although nonnative and/or disturbance tolora	-
				••
	None (0)		-	
			can also be present, and species diversity ma moderatoly high, but generally w/o presence of	
	None (0) Ge. Coverage of invesive plants. Refer to Table 1 ORAM long form for list. Add		can also be present, and species diversity me moderatoly high, but generallyw/o presence of threatened or endangered spp	र्श स्वाइ
	None (0) Ge. Coverage of invesive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage	high	can also be present, and species diversity me moderatoly high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnet	of raus Weispp
	None (0) Ge. Coverage of invesive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5)	high	can also be present, and species diversity mo moderatory high, but generallyw/o presence of threatened or andangered spp A predominance of native species, with nonnel and/or disturbance tolerant native spp absent	of race Ivel spp : or virtually
	None (0) Ge. Coverage of invesive 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)	high	can also be present, and species diversity me moderatory high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but	of race ive spp : or virtually not always,
	None (0) Ge. Coverage of invesive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5)	high	can also be present, and species diversity mo moderatory high, but generallyw/o presence of threatened or andangered spp A predominance of native species, with nonnel and/or disturbance tolerant native spp absent	of race ive spp : or virtually not always,
	None (0) Ge. Coverage of invesive 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)		can also be present, and species diversity me moderatory high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but	of race ive spp : or virtually not always,
	None (0) Ge. Coverage of invesive 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) Nearty absent <5% cover (0)		can also be present, and species diversity me moderatoly high, but generallyw/w presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endanger Water Class Quality Absent <0.1ha (0.247 ecres)	ve spp tor virtually not always,
	None (0) Ge, Coverage of invesive 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. Microlopography. Score all present using 0 to 3 scale.	Mucillat and Open 0 1	can also be present, and species diversity me moderatoly high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnel and/or disturbance tolerant netwe spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endanger Water Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)	ve spp tor virtually not always,
	None (0) Ge, Coverage of invesive 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. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks	Mucillat and Open 0 1 2	can also be present, and species diversity me moderatory high, but generallywe presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endange Water Class Quality Absent <0.1ta (0.247 ecres) Low 0.1 to <1ha (0.247 ecres) Moderate 1 to <4ha (2.47 to 9.88 ecres)	ve spp tor virtually not always,
	None (0) Ge. Coverage of invesive 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. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/tuseucks Coarse woody clebris >15cm (6)	Mudillat and Open 0 1 a 2 Sin) 3	can also be present, and species diversity me moderatoly high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnel and/or disturbance tolerant netwe spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endanger Water Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)	of race ive spp : or virtually not always,
	Kone (0) Ge. Coverage of invesive 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)	Mucillat and Open 0 1 1 3 3 3 3 bh	can also be present, and species diversity me moderatory high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endange Water Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9 68 acres) or more	of race ive spp : or virtually not always,
	None (0) Ge. Coverage of invesive 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. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/tuseucks Coarse woody clebris >15cm (6)	Mudillat and Open 0 1 a 2 Sin) 3	can also be present, and species diversity me moderatory high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endange Water Class Quality Absent <0.1ha (0.247 ecres) Low 0.1 to <1ha (0.247 ecres) Low 0.1 to <1ha (0.247 to 2.47 ecres) High 4ha (9 RB acres) or more	of race ive spp : or virtually not always,
	Kone (0) Ge. Coverage of invesive 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)	Mucillat and Open 0 1 1 3 3 3 3 bh	can also be present, and species diversity me moderatory high, but generallywo presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endange Water Class Quality Absent <0.1ta (0.247 acres) Low 0.1 to <1ha (0.247 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9 R8 acres) or more Cover Scele	of race Ne spp : or virtually not always, red spp
	Kone (0) Ge. Coverage of invesive 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)	Mucillat and Open 0 1 3 1 3 1 3 1 1 3 bh Microtopography (0	can also be present, and species diversity me moderatory high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant netive spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endange Water Class Quality Absent <0.1ha (0.247 ecres) Low 0.1 to <1ha (0.247 to 2.47 ecres) Noderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9 88 acres) or more Cover Scele Absent Present very small amounts or if more common	of race Ne spp : or virtually not always, red spp
	Kone (0) Ge. Coverage of invesive 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)	Mucillat and Open 0 1 3 1 3 1 3 1 1 3 bh Microtopography (0	can also be present, and species diversity me moderatory high, but generallywo presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endange Water Class Quality Absent <0.1ta (0.247 acres) Low 0.1 to <1ha (0.247 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9 R8 acres) or more Cover Scele	of race we spp : or virtually not always, red spp
	Kone (0) Ge. Coverage of invesive 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)	Mucilitat and Open 0 1 2 3 3 3 3 bh Microtopography 4 0 1 2	can also be present, and species diversity me moderatory high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endange Water Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) High 4ha (9 8B acres) or more Cover Scele Absent Present very small amounts or if more common of merginal quality Present in moderate emounts, but not of highes quality or in smalt amounts of highest quality	of race we spp : or virtually not always, red spp
	Kone (0) Ge. Coverage of invesive 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)	Mucilitat and Open 0 1 2 3 3 3 3 bh Microtopography (0 1	can also be present, and species diversity me moderatory high, but generallyw/o presence of threatened or endangered spp A predominance of native species, with nonnet and/or disturbance tolerant native spp absent absent, and high spp diversity and often, but the presence of rare, threatened, or endange Water Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9 88 acres) or more Cover Scele Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highes	of race we spp or virtually not always, red spp

Refer to the most recent ORAM Score Culturation Report for the accord investigations between websert rating view of anoming archiver in high human operation of multiswish 1441 http://

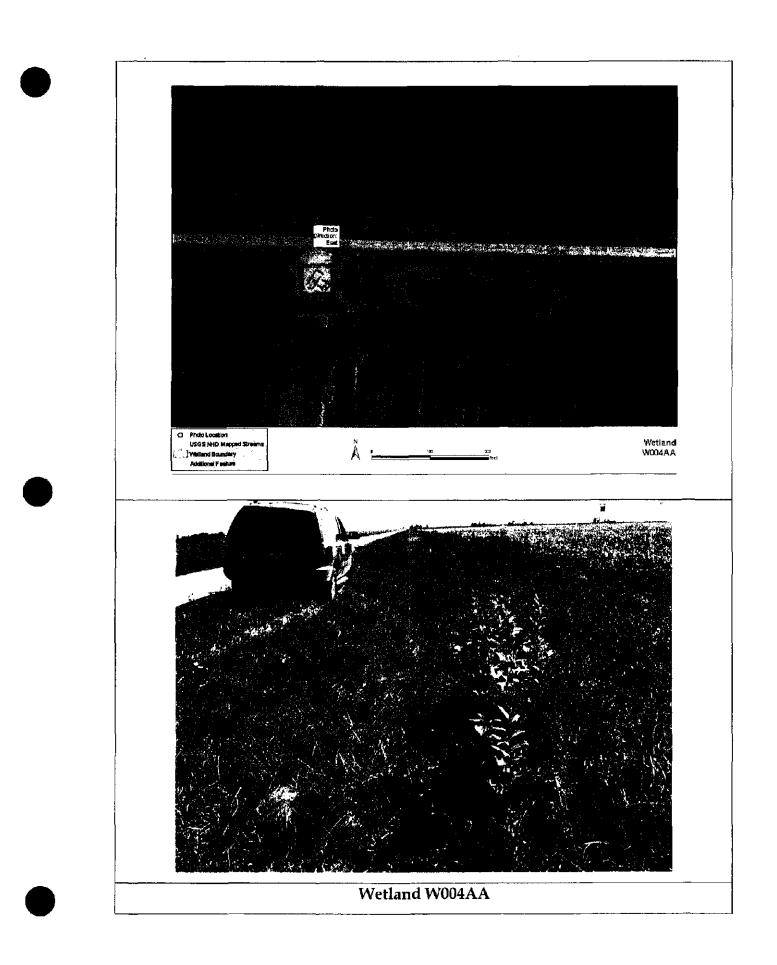


Ro	DUTINE WETL	AND DE	LINEATIC	ON DA	TA FORM	м (198 7		ETHC	DDOLÓGY)
SURVEY TYPE: Blue	e Creek Wind F	arm			WETLAN	DID No.	W003CA		
							D NO: N/A		
DATE: 09/20/2009		CLIENT/PR	oject Name: H	Teartlan			eek Wind Far	rm	
INVESTIGATORS: Hook		STATE/COL	JNTY: Ohio/Va	an Wert		Rover Fill	e: RAH090920.	cor	QUAD NAME: Convoy
Huc 12 Code: 04100007	1001	TOWNSHIP	: Union			Рното No	.:		
WETLAND QUALITY: LOW	Ÿ	4			D TYPE: Palus : Emergent	trine			
	PLANT SPECIES		-	S	TRATUM	IN	DICATÓR		PERCENT COVER
1. Scirpus atrovirens				Н	erbaceous		Obligate		50 %
2. Leersia oryzoides 3.				<u> </u>	lerbaceous		Obligate		<u>50 %</u>
4.						_			
5									
6			<u> </u>		· · · ·	i		L	%
PERCENT OF DOMINANT		, FACW, FAC	W+, FACW-, I	FAC+, OR	FAC (EXCLUD	NNG FAC-):	1 <u>00</u>	,	
VEGETATION REMARKS:	roadside drainage								
				Hydr	OLOGY				
RECORDED DATA?		1	Describe:						
DEPTH OF SURFACE WAT	TER: N/A (in)			D	EPTH TO SATU	RATED SOIL:	>16 (in)		
DEPTH TO FREE WATER 1	N PIT: None (in)								
PRIMARY WETLAND IND	ICATORS:			SE	CONDARY WI	ETLAND INDI	CATORS:		
Drift Lines				Lo	ocal Soil Surve	ev		Ox	i Root Channels
Water Marks				FÆ	AC Neutral T	est			
REMARKS: roadside dr	ainage	····				<u> </u>			
· · · · · · · · · · · · · · · · · · ·									
				SC	NLS				
MAP UNIT NAME (SERIE:	5 AND PHASE): Hoytvil	le silty clay, (percent slope	s (flats)				DRAIN	AGE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	:	Field	OBSERVATION	s Confir	m Mapped Ty	pe. If No, Sc	IL TYPE ENCOU	NTEREL	o?
			Proi	FILE D	ESCRIPTI	ION			
DEPTH (INCHES)	HORIZON		IATRIX COLC IUNSELL MOI			OTTLE CON			TEXTURE, CONCRETIONS, STRUCTURE, ETC.
0-4	В		10YR 3/2						Silt Loam
4+	с		10YR 4/4		10Y	R 6/1 ped su	ITÍACES		Clay
HYDRIC SOIL INDICATOR	35:								
Listed Hyd								T	
REMARKS: Deep exceve	tion into substratum. I	Dominance by	OBL species.	•					······································
			WETLA	ND DE	TERMIN	ATION			
HYDROPPIYTIC VEGETAT	ION PRESENT? Yes		IS THIS SAM	IPLING PO	MITHIN A	WETLAND?	Yes		
WETLAND HYDROLOGY	PRESENT? Yes		IS THIS AN	ISOLATED	WETLAND?]	No			
HYDRIC SOILS PRESENT?	Yes						····		
NORMAL CIRCUMSTANC	E5? Yes		SIGNIFICAN	TLY DIST	URBED: No		POTENTIAL	L PROBI	LEM AREA? NO
D	ESCRIPTION O	F WETLA	ND CROS	SING]	LYPES AN	ID WETI	AND QUA	ALITY	CRITERIA
are characteristic of the s MODERATE QUALITY hydrology and/ or soil a and aren't significantly LOW QUALITY WETL affected plant species - of	pecific community typ (WETLAND: mild to tharacteristics - provid disturbed. AND: severe disturbar community compositio ral alteration of plant sp	e - provides : moderate dist es suitable ha ices have caus n has changed pectes or soils	suitable habita turbances have bitat for wildli sed significant d - noticeable s - grazing from	t for wild caused a ife and ve changes t stress or d n livestoc	life – high qu lterations in i getation – ass to vegetation, leath of plant k – channeliza	ality perenn immediately sociated pere soils, or hyd species – so:	ial streams are adjacent areas mnial or interm hology - hydro il subsidence m	often o - slight uttent s operiod ay hav	ppes – hydrologic and soil indicators beerved. thy altered natural vegetation, streams are of relatively good quality alterations, if present, have directly be occurred in areas with decreased g – little suitable habitat for wildlife



9 <u>:100027</u>	· · · · · · · · · · · · · · · · · · ·	Rater(s):	ma harenn m Date: Correction ?
	7		
			•
L]		
Butstofal bus pa	26 7		
\sim \sim		B	
	Metric 5. Special	Netlands.	
lo pis. subsocial	Check all that apply and score as indic;	aled.	
	Bog (10)		
	Fen (10)		
	Old growth forest (10)		
	Mature forested wetland (5) Lake Erie coastal/tribulary we	allandmostocted budgelong	(10)
	Lake Erie coasta//ributary w		
	Lake Plain Sand Prairies (Oa		
	Relict Wet Preires (10)		
	Known occurrence state/fede	and threatened or endangered	i apecica (10)
	Significent migratory songbine	d/water fowl habitat or usage	(10)
	Calogory 1 Wetland. See Qu	uestion 1 Qualitative Rating (10)
-			· · · · · · · · · · · · · · · · · · ·
	JMetric 6. Plant co	mmunities, in	terspersion, microtopography.
AU UNA ANNO 128	8a. Welland Vegetation Communities.		
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1he (0.2471 acres) contiguous area
	2 Aquatic bod 2 Emergent	1	Present and other comprises small part of welland's vegetation and is of moderate quality, or comprises a
	Shub		significant part but is of how quality
	Forest	2	Present and either comprises significant part of wetland's
	C Mudflats		vegetation and is of moderate quality or comprises a small
	Open water	<u> </u>	part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizonial (plan view) interspersion	n	vegetation and is of high quality
	Select only one.		
	High (5) Moderately high(4)	icw	Low spp diversity end/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1)		although nonnative and/or disturbance toterant native app
	None (0)		can also be present, and species diversity moderate to
	Cc. Coverage of invasive plants. Refe		moderately high, but generallyw/o presence of rare
	to Table 1 ORAM long form for list. Ad	······································	threatened or endangered spp
	or deduct points for coverage Extensive >75% cover (-5)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spo
	Nearly absent <5% cover (0)		
	[7]	Mudillat end Open V	
	Absent (1)		Absent <0.1ha (0.247 acres)
	5d. Microlopography.	0	
	6d. Microtopography. Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	6d. Microtopography. Score all present using 0 to 3 scale.	<u>1</u>	Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres)
	6d. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussue Coarse woody riebds >15cm		Low 0.1 to <1ha (0.247 to 2.47 acres)
	5d. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussur Coarse woody riebris >15cm Standing deed >25cm (10in)	1 (Sin) 2 (Sin) 3 dbh	Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9 88 acres) or more
	6d. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussue Coarse woody riebds >15cm		Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9 88 acres) or more
	5d. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussur Coarse woody riebris >15cm Standing deed >25cm (10in)	(6in) 3 dbh Mierotopography C	Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more sover Scole
	5d. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussur Coarse woody riebris >15cm Standing deed >25cm (10in)	(6in) 2 (6in) 3 dbh <u>Microtopography C</u> 0	Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more over Scolo Absent
	5d. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussur Coarse woody riebris >15cm Standing deed >25cm (10in)	(6in) 2 (6in) 3 dbh <u>Microtopography C</u> 0	Low 0.1 to <1ha (0.247 to 2.47 acres)
	5d. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussur Coarse woody riebris >15cm Standing deed >25cm (10in)	cks 2 (6in) 3 dbh <u>Microtopography C</u> 0 1 2	Low 0.1 to <1ha (0.247 to 2.47 acres)
	5d. Microlopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussur Coarse woody riebris >15cm Standing deed >25cm (10in)	cks 2 (6in) 3 dbh <u>Microtopography C</u> 0 1	Low 0.1 to <1ha (0.247 to 2.47 acres)

Refer to the most recent ORAM Score Californian Report to the serving breakpoints between welland categories at the following address: http://www.epastate.uk.ucatew/an1/dols.hom



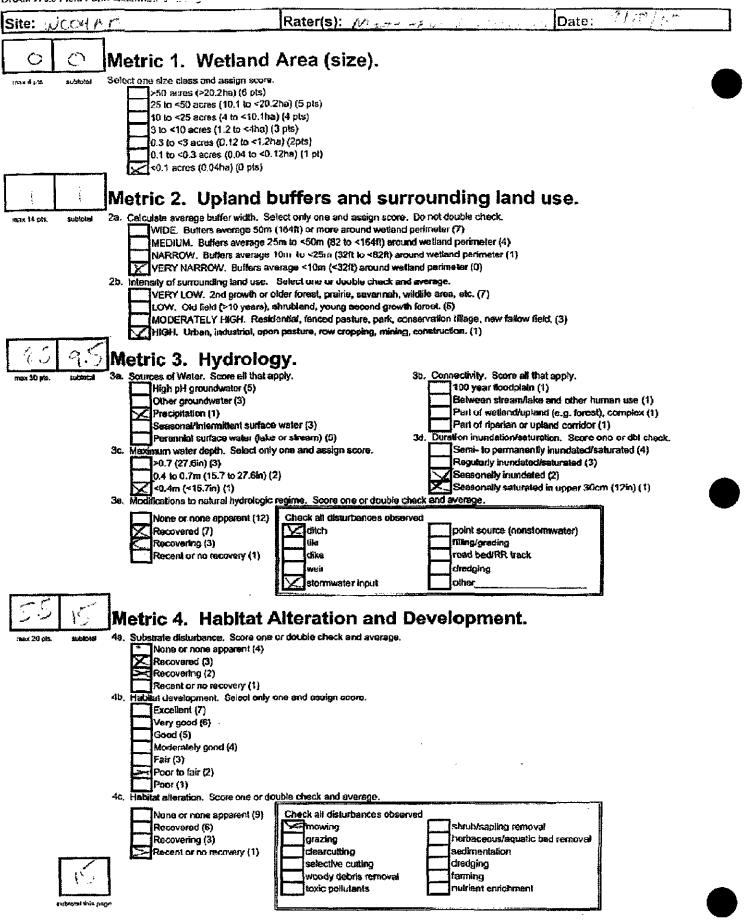
ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

D D D	1. TAT	- 1 F		•••••••			147004 A A	_	
SURVEY TYPE: Blue	Creek W	ing Parm					D.: W004AA ID No: N/A	L	
DATE: 09/18/2009		CLIENT	PROJECT NAME:	Heartlar			reek Wind Far	m	
INVESTIGATORS: D.West	14 Ni-tructul		COUNTY: Ohio/				LE: R091809ADV		QUAD NAME CONVOY
			·	van wert				V.COF	QUAD NAME CONVOY
HUC 12 CODE: 041000071	001	Towns	HIP: Union		1	PHOTO N	o.: 004A15E		
WETLAND QUALITY: LOW					ND TYPE: Palus E: Emergent	trine			•
	PLANT SPE	CIES			STRATUM	_ 1	NDICATOR		PERCENT COVER
1. Scirpus atrovirens					lerbaceous		Obligate		60 %
 Polygonum pensylvar Carex vulpinoidea 	ucum				<u>lerbaceous</u> lerbaceous		Fac Wet Obligate		<u> </u>
4.	· · ·								%
5									<u>%</u>
6	-			<u> </u>			l		<u> </u>
PERCENT OF DOMINANT S			· · · · · · · · · · · · · · · · · · ·			UNG FAC-)	100		· · · ·
VEGETATION REMARKS:	roadside ditch,	linear wetland;	existing rd to N,	-					
				HYDR	ROLOGY				
RECORDED DATA?			DESCRIBE:						······································
DEPTH OF SURFACE WAT		4 (in)			DEPTH TO SATU	JRATED SOI	L: >16 (in)		
DEPTH TO FREE WATER IN		1e (in)						·	
PRIMARY WETLAND INDI	CATORS:				BCONDARY W		ICATORS:	Т	
Drainage Patterns				-	ocal Soil Surv			+	
			NI 8-11 (AC Neutral T	est		1	
REMARKS: roadside dite	ch, linéar wetla	nd; existing rd K	o N, ag neid (soy	bean) to S					
				S	OILS				
MAP UNIT NAME (SERIES	AND PHASE): 1	Hoytville silty <i>c</i> la	y, 0 percent slop	xes (flats)				DRAIN	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP):		F	ELD OBSERVATEO	NS CONFLE	MAPPED TY	(PE. IF NO, 5	OIL TYPE ENCOU	NTEREL)?
			Pro	FILE D	ESCRIPT	ION			
Depth (Inches)	Horizo	N N	MATRIX CON (MUNSELL MO			IOTTLE CO			TEXTURE, CONCRETIONS, STRUCTURE, ETC.
0-8	A		10YR 4/1			2% 10YR 4	16		Silty Clay Loam
8-12+	B		10YR 6/2			30% 10YR			Silty clay loam
	······				_	00,0 10			
HYDRIC SOIL INDICATOR	s:								· · · · · · · · · · · · · · · · · · ·
Listed Hydr	ic		Gleyed						···
REMARKS:									
			WETLA	AND D	ETERMIN	ATION			
HYDROPHYTIC VEGETATI	ON PRESENT?	íes			OINT WITHIN		? Yes		
WETLAND HYDROLOGY F	RESENT? Yes		IS THIS A	N ISOLATE	D WETLAND?	No			
HYDRIC SOILS PRESENT?	Yes								
NORMAL CIRCUMSTANCE	s? Yes	-	SIGNIFICA	NTLY DIST	TURBED: Yes		POTENTIA	PROB	EM AREA? No
D	ESCRIPTIC	N OF WET	LAND CRO	SSING	TYPES AN	ND WEI	LAND QUA	LITY	CRITERIA
are characteristic of the ap MODERATE QUALITY hydrology and/ or soil el and aren't significantly d LOW QUALITY WETLA affected plant species - co	pecific commu WETLAND: n haracteristics – isturbed. ND; severe dis ommunity com al alteration of j	nity type – provin nild to moderate provides suitable sturbances have position has char plant species or a	des suitable habi disturbances hav e habitat for wild caused significar nged – noticeabl oils – grazing fro	itat for wil ve caused illife and v at changes e stress or om livesto	dlife - high qu alterations in regetation - as to vegetation, death of plant ck - channeliz	uality peren immediatel sociated pe , soils, or hy t species - s	nial streams are y adjacent areas rennial or interm rdrology - hydro oil subsidence m	often o – slight ittent s period ay hav	ppes - hydrologic and soil indicators bserved. Ity altered natural vegetation, treams are of relatively good quality alterations, if present, have directly e occurred in areas with decreased - little suitable habitat for wildlife

ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue Creek WETLAND ID NO.: U004AA ASSOCIATED WETLAND ID NO: WO04AA DATE: DATE: 09/18/2009 CLIENT/PROJECT NAME Heartland Wind LLC / Blue Creek Wind Farm INVESTIGATORS: DWest, M.Neckvatal STATE/COUNT: Ohio/Paulding QUAD NAME: Convey HUC: 12 Code: 041000071001 TOWNSHIP: Blue Creek Photo No:: DMAME: WETLAND QUALITY: N/A WETLAND TYPE N/A SUBTORE DMAME: DMAME: DMAME: WETLAND QUALITY: N/A WETLAND TYPE N/A SUBTORE DMAME: DMAME: DMAME: WETLAND QUALITY: N/A WETLAND TYPE N/A SUBTORE DMAME: DMAME	ICENT COVER	
DATE: 09/18/2009 CLIENT/PROJECT NAME Heartland Wind LLC./ Blue Creek Wind Farm INVESTIGATORS: D.West, M.Nechvatal STATE/COUNTY: Ohio/Paulding QUAD NAME: Coavoy HUC 12 CODE: 041000071001 TOWNSHIP: Blue Creek PHOTO NO: 004A16W WETLAND QUALITY: N/A VETLAND TYPE: N/A SUBTYPE: Upland PLANT SPECIES STRATUM INDICATOR PERM TATUM INDICATOR PERM To Downmant Species THAT ARE OBL, FACW, FACW, FACH, or FAC (excluding FAC-): 0 VgGETATION REMARKS: PHOTO SURFACE WATER: N/A (in) DEFTH TO SATURATED SOIL: (in) PEIMARY WETLAND INDICATORS: None REMARKS: SOILS MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) TAXONOMY (SUBGROUP): PELD OBSERVATIONS CONFIRM MAPPED TYPE, IP NO, SOIL TYPE ENCOUNTERED?	25NT COURS	
INVESTIGATORS: D.West, M.Nechvatal STATE/COUNTY: Ohio/Paulding QUAD NAME: Couvoy HUC 12 CODE: 041000071001 TOWNSHIP: Blue Creek PHOTO NO: D04A16W WETLAND QUALITY: N/A WETLAND TYPE: N/A SUBTYPE: Upland FLANT SPECIES STRATUM INDICATOR PERC 1. Trifolium pratense Herbaceous Pac Up - 2. Daucus carola Herbaceous Pac Up - 3. Daucus carola Herbaceous Fac Up - 4. S 5 6 7 7 7 7 7 7 7 7	VENT COURS	
HUC 12 CODE: 041000071001 TOWNSHIF: Blue Creek PHOTO NO.: 004A16W WETLAND QUALITY: N/A WETLAND TYPE: N/A SUBTYPE: Upland NOKCATOR PERK 1. Trifolium pratense Herbaceous Pac Up - 2 2. Daucus carola Herbaceous Upland - 3. Pos sp. Herbaceous Fac Up - - 4. - - - 5. - - - 6. - - - PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW, FACW, FAC+, on FAC (excluding FAC-): 0 - VeGETATION REMARKS: - - HYDROLOGY RECORDED DATA? DESCRIBE: - Describe: SOILS MAR UNT NAME (SERIES AND	VENT COURS	
WETLAND QUALITY: N/A WETLAND TYPE N/A SUBTYPE Upland PLANT SPECTES STRATUM INDICATOR PERC 1. Trifolium pratense. Herbsceous Fac Up 2. Daucus carota Herbsceous Fac Up 3. Pou sp. Herbsceous Fac Up 4. Status Fac Up 5. Image: Status Fac Up 6. Image: Status Fac Up 7. Status Fac Up Status 6. Image: Status Fac Up 7. Status Fac Up Status Hydrocous Fac Up Status Hydrocous Fac Up Status Hydrocous Fac Up Status Hydrocous Fac Up Status Hydrocous Fac Up Upland Status Hydrocous Fac Up Status Hydrocous Deprin to Back Water: N/A (in) Deprin to Satus to Satus <td colspa<="" td=""><td>CENT COVER</td></td>	<td>CENT COVER</td>	CENT COVER
SUBTYFE Upland SUBTYFE Upland PLANT SPECTES STRATUM INDICATOR PERM 1. Trifolium pratense Herbaceous Pac Up - - 2. Daucus carola Herbaceous Upland - 3. Poa sp. Herbaceous Upland - 4. - - - - 5. - - - - - 6. - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	CENT COVER	
1. Trifolium pratense Herbaceous Fac Up 2. Daucus carota Herbaceous Upland 3. Poa sp. Herbaceous Upland 4. Herbaceous Fac Up 4. Herbaceous Fac Up 5. Image: Second Control Dominant Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent of Dominant Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent of Dominant Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent of Dominant Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent of Dominant Species that are OBL, FACW, FACW+, FAC+, on FAC (excluding FAC-): 0 Vecent Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent Species that are OBL, FACW, FACW+, FACW-, FAC+, on FAC (excluding FAC-): 0 Vecent Species that are oblic thare oblic thare oblic thare oblic thare oblic thare oblic	VENT COVER	
2. Daucus carota Herbaccous Upland 3. Poa sp. Herbaccous Fac Up 4. S. S. 5. S. S. 6. PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW, FACW, FAC, on FAC (Excluding FAC-): 0 VEGETATION REMARKS: HYDROLOGY RECORDED DATA? DEFTH OF SURFACE WATER: N/A (in) DEFTH TO SATURATED SOIL: (in) DEFTH TO FREE WATER IN PTI: (in) PRIMARY WETLAND INDICATORS: None SECONDARY WETLAND INDICATORS: None SOILS MAP UNIT NAME (SERIES AND PHASE): Hoytville stilty clay, 0 percent slopes (flats) TAXONOMY (SUBGROUP):	ALIVE COYES	
3. Poa sp. Herbaceous Fac Up 4.	20 %	
4. 5. 	<u>10 %</u>	
6. PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW+, FACW-, FAC+, OR FAC (EXCLUDING FAC-): 0 VEGETATION REMARKS: HYDROLOGY RECORDED DATA? DESCRIBE: DEPTH OF SURFACE WATER: N/A (in) DEPTH TO SATURATED SOIL: (in) DEPTH TO FREE WATER IN PTT: (in) PRIMARY WETLAND INDICATORS: None REMARKS: SOILS MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?	<u>%</u>	
PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW, FACW, FACW, FAC, OR FAC (EXCLUDING FAC-): 0 VEGETATION REMARKS: HYDROLOGY RECORDED DATA? DEPTH OF SURFACE WATER: N/A (in) DEPTH TO SATURATED SOIL: (in) DEPTH TO SATURATED SOIL: (in) DEPTH TO FREE WATER IN PTT: (in) PRIMARY WETLAND INDICATORS: NONE SOILS MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) DEALNAGE CLASS: '	×	
VEGETATION REMARKS: HYDROLOGY RECORDED DATA? DEPTH OF SURFACE WATER: N/A (in) DEPTH TO SATURATED SOIL: (in) DEPTH TO FREE WATER IN PTI: (in) DEPTH TO SATURATED SOIL: (in) PRIMARY WETLAND INDICATORS: SECONDARY WETLAND INDICATORS: None Image: Colspan="2">Image: Colspan="2" Image: Colspan="2">Image: Colspan="2" Image: Colspa		
RECORDED DATA? DESCRIBE: DEPTH OF SURFACE WATER: N/A (in) DEPTH TO SATURATED SOIL; (in) DEPTH TO FREE WATER IN PTT: (in) Image: Constant of the second and the sec		
DEPTH OF SURFACE WATER: N/A (in) DEPTH TO SATURATED SOIL: (in) DEPTH TO FREE WATER IN PIT: (in) SECONDARY WETLAND INDICATORS: PRIMARY WETLAND INDICATORS: SECONDARY WETLAND INDICATORS: None Image: Comparison of the second action		
DEPTH TO FREE WATER IN PIT: (in) PRIMARY WETLAND INDICATORS: SECONDARY WETLAND INDICATORS: Nome Image: Contract of the second and th		
PRIMARY WETLAND INDICATORS: SECONDARY WETLAND INDICATORS: None Image: Contract of the second and the secon		
None SOILS REMARKS: SOILS MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) DRAINAGE CLASS: Y TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?		
REMARKS: SOILS MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?		
SOILS MAP UNIT NAME (Series and Phase): Hoytville silty clay, 0 percent slopes (flats) DRAINAGE CLASS: 1 TAXONOMY (SUBGROUP): Field Observations Confirm Mapped Type. If No, Soil Type Encountered?		
MAP UNIT NAME (Series and Phase): Hoytville silty clay, 0 percent slopes (flats) DRAINAGE CLASS: 1 TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?		
MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) DRAINAGE CLASS: 1 TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	<u></u>	
TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?		
	very poony arained	
PROFILE DESCRIPTION		
DEPTH (INCHES) HORIZON	E, CONCRETIONS, JCTURE, ETC.	
no soils pit dug		
no soils pit dug		
HYDRIC SOIL INDICATORS:		
REMARKS:		
WETLAND DETERMINATION		
HYDROPHYTIC VEGETATION PRESENT? No Is This Sampling Point Within a Wetland? No		
WETLAND HYDROLOGY PRESENT? No Is This An Isolated Wetland? N/A		
HYDRIC SOILS PRESENT? No		
NORMAL CIRCUMSTANCES? Yes SIGNIFICANTLY DISTURBED; NO POTENTIAL PROBLEM AREA? I		
DESCRIPTION OF WETLAND CROSSING TYPES AND WETLAND QUALITY CRITE	No	
HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydro are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed. MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered na hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of and aren't significantly disturbed. LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suita and vegetation – associated perennial or intermittent streams significantly disturbed.		

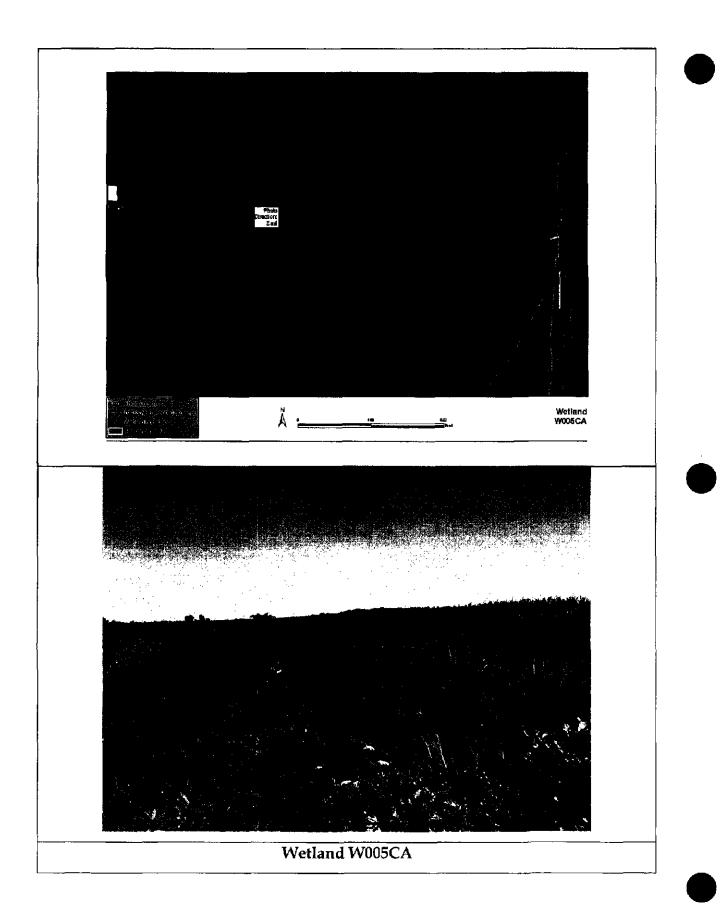
٠



te:WCO4A	<u>m</u>	tater(s):	Date:
] Metric 5. Special We	etlands	
HAT TO DOS. SUNICIPAL	Check all that apply and score as indicated		
10 (KS. SUPPORT	Bop (10) Fen (10) Old growth lorest (10) Mature forested wetland (5) Lake Eric coastal/tributary wetlan Lake Eric coastal/tributary wetlan Lake Plain Gand Prairies (Oak O Relict Wet Praires (10) Known occurrence state/federal Significant migratory songbird/wa Category 1 Wetland. See Quest	nd-unrestricted hydrology (nd-restricted hydrology (5) panings) (10) threatened or endangered aler fowi habitat or usage (species (10) (10)
2 2			terspersion, microtopography.
and a second s	Ga. Wetland Vagetation Communities.	Vegetation Commun	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	C Aquatic bed	1	Present and either comprises small part of weiland's
	Emergent		vegetation and is of moderate quality, or comprises a
	C) Shrub () Forest	2	significant part but is of low quality Present and either comprises significant part of welfand's
	C. Mudflats	•	vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	C- Other	3	Present and comprises significant part, or more, of welland's
	5b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one.		
	High (5)		n of Vegetation Quality
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance indexed paties standard
	Moderately low (2)		disturbance tolerant native species Native spp are dominant component of the vegetation,
			although nonnative and/or disturbance loterant native spo
	Low (1)		
	Low (1) None (0)		can also be present, and species diversity moderate to
	None (0) 6c. Coverage of invasive plants. Refer		· · ·
	None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangened spp
	None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage	high	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered spp A predominance of native species, with nonnative spp
	None (0) 5c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5)	high	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered spp A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually
	None (0) 5c. 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)	high	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered spp 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,
	None (0) 5c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5)	high	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered spp A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually
	None (0) 5c. 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)	high Mudilat and Open W	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered app A predominance of native species, with nonnative spp and/or disturbance tolerant native app absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, throatened, or endangered spp
	None (0) 5c. 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) X Absent (1) 6d. Microtopography.	Mudilat and Open W Q	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered app 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, throatened, or endangered spp atter Class Quality Absent <0.1hs (0.247 acres)
	None (0) 5c. 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) X Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.	<u>Mudilat and Open W</u> C 1	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangend spp 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, throatened, or endangered spp atter Class Quality Absent <0.1hs (0.247 acres) Low 0.1 to <1hs (0.247 to 2.47 ecree)
	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. Vogelated hummucks/iussucks	Mudilat and Open W C 1 2	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered spp 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, throatened, or endangered spp atter Class Quality Absent <0.1 to <1 tha {0.247 acres} Low 0.1 to <1 tha {0.247 to 2.47 ecres} Moderate 1 to <4 tha {2.47 to 9.88 acres}
	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. Vogetaled hummucks/iussucks Coarse woody debris >15cm (6h	Mudilat and Open W C 1 2 n) 3	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangend spp 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, throatened, or endangered spp atter Class Quality Absent <0.1hs (0.247 acres) Low 0.1 to <1hs (0.247 to 2.47 ecree)
	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. Vogelated hummucks/tussucks Coarse woody debris >15cm (6in Standing dead >25cm (10in) dbl	Mudilat and Open W 0 1 2 n) 3	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered spp A predominance of native species, with normative 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 later Class Quality Absent <0.1he (0.247 acres) Low 0.1 to <1he (0.247 to 2.47 ecree) Moderate 1 to <4he (2.47 to 9.88 acres) (high 4he (9.88 acres) or more
	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. Vogetaled hummucks/iussucks Coarse woody debris >15cm (6h	Mudilat and Open W C 1 2 n) 3	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangered spp A predominance of native species, with normative 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 later Class Quality Absent <0.1he (0.247 acres) Low 0.1 to <1he (0.247 to 2.47 ecree) Moderate 1 to <4he (2.47 to 9.88 acres) (high 4he (9.88 acres) or more
	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. Vogelated hummucks/tussucks Coarse woody debris >15cm (6in Standing dead >25cm (10in) dbl	Mudilat and Open W 0 1 2 n) 3 Microtopography Co	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangend spp A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, throatened, or endangered spp later Class Quality Absent <0.1he (0.247 acres) Low 0.1 to <1he (0.247 to 2.47 ecree) Moderate 1 to <4he (2.47 to 9.88 acres) (high 4he (9.88 acres) or more
	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. Vogelated hummucks/tussucks Coarse woody debris >15cm (6in Standing dead >25cm (10in) dbl	Mudilat and Open W 0 1 2 n) 3 Microtopography Co 0	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangend spp A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, throatoned, or endangered spp atter Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 scree) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more over Scale Absent Present very small amounts or if more common of marginal quality
	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. Vogelated hummucks/tussucks Coarse woody debris >15cm (6in Standing dead >25cm (10in) dbl	Mudilat and Open W 0 1 2 n) 3 Microtopography Co 0	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangend spp A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, throatened, or endangered spp atter Class Quality Absent <0.1 hs (0.247 acres) Low 0.1 hs <1 hs (0.247 to 2.47 ecres) Moderate 1 to <4 hs (2.47 to 9.88 acres) High 4hs (9.88 acres) or more over Scale Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest
	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. Vogelated hummucks/tussucks Coarse woody debris >15cm (6in Standing dead >25cm (10in) dbl	Mudilat and Open W 0 1 2 n) 3 Microtopography Co 0 1	can also be present, and species diversity moderate to moderately high, bul generallyw/o presence of rare throatened or endangend spp A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, throatoned, or endangered spp atter Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 scree) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more over Scale Absent Present very small amounts or if more common of marginal quality

GRAND TOTAL(max 100 pts)

Huder to the most retainin ORAM docum Cambration Report FX the sending, preakpokes palweer werend relationers with boowing address: http://www.epad.esaid.com/util/hit/find



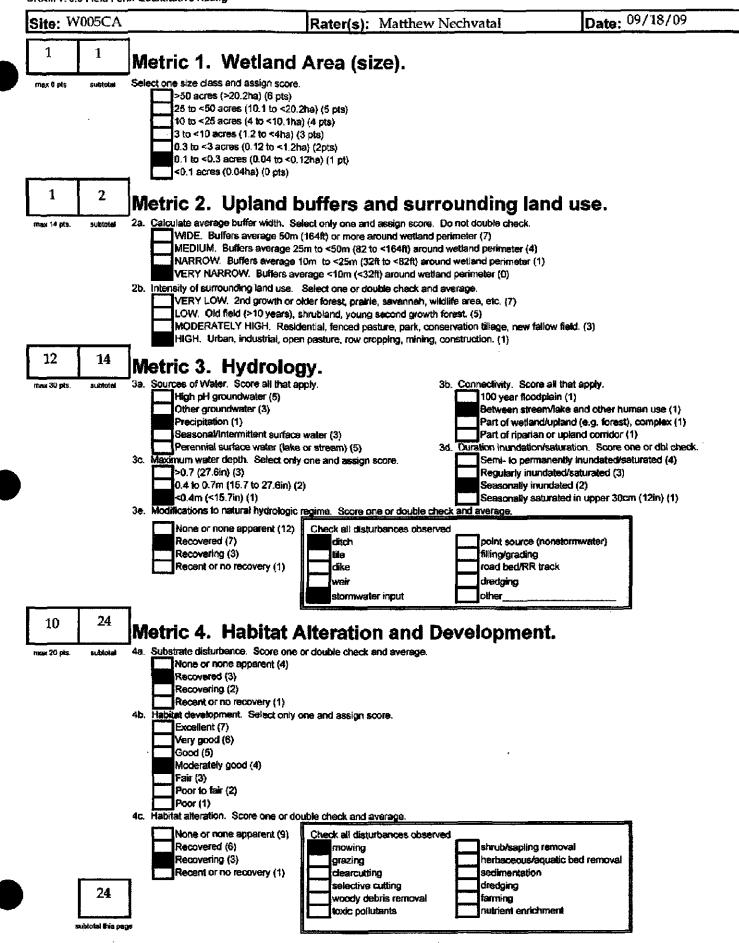
ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

		_							······································
SURVEY TYPE: Blue	e Creek Wi	nd Fa	arm				No.: W0050		
		-					EAM ID NO: SOO		
DATE: 09/18/2009			CLIENT/PROJECT NAME:	Heartland	Wind LL	C./ Blu	ue Creek Wind	Farm	
INVESTIGATORS: D.West	, M. Nechvatal		STATE/COUNTY; Ohio/	Van Wert		Rovi	ER FILE: R0918094	DW.cor	QUAD NAME: CORVOY
HUC 12 CODE: 041000071	001		TOWNSHIP: Tully		·	Рнот	TO NO.: 005C25W,	, 005C26E	
WETLAND QUALITY: LOW	,			WETLAND SUBTYPE	TYPE: Falus Emergent	trine			<u>, , , , , , , , , , , , , , , , , , , </u>
	PLANT SPEC	TES			RATUM	1	INDICATOR	T	PERCENT COVER
1. Scirpus atrovirens					rbaceous		Obligate		10 %
2. Leersia oryzoides					rbaceous		Obligate		20 %
3. Scirpus validus					rbaceous		Obligate		10 %
4. Typha latifolia 5. Solidago gigantea					rbaceous rbaceous		Obligate Fac Wet		<u> </u>
6. Aster umbellatus		-			rbaceous		FACW	-	10 %
	SPECIES THAT AR	EOBL.	FACW, FACW+, FACW-			NNG FA			
			vetland; ag fields directly	· · · · · · · · · · · · · · · · · · ·					
				HYDRC	DLOGY				
RECORDED DATA?			DESCRIBE:						
DEFTH OF SURFACE WAT		<u> </u>		De	PTH TO SAR	JRATED	SOIL: >16 (in)		·····
DEPTH TO FREE WATER I		e (in)					·		
PRIMARY WETLAND INDI	CATORS:			SEC	ONDARY W	ETLAND	INDICATORS:		·····
Drainage Patterns				Loc	al Soil Surv	ey			
REMARKS: drainage dit	ch, linear wetlar	id; ag fi	ields directly adj to N & S		C Neutral T			I	·····
No User bloom (C	The cost of		11. 1. 0	SO					
TAXONOMY (SUBGROUP):		oytvill	e silty clay, 0 percent slop			me To N	lo Con Turr Eur	L.,,	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP):			FIELD OBSERVATIO	FILE DE			O, SOIL TYPE ENC	JUNTERED	
			T		1				
DEPTH (INCHES)	Horizon	4	MATRIX COL (MUNSELL MO				E COLOR L MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.
0-8	A		10YR 4/2			2% 10	YR 5/6		Silty Clay Loam
Rock refusal									
HYDRIC SOIL INDICATOR	5:		<u> </u>		<u> </u>			l	
Listed Hydr	ic		Gleyed						
REMARKS:		I							
			WETLA	ND DET	FERMIN	ATIO	N		· · · · · · · · · · · · · · · · · · ·
HYDROPHYTIC VEGETATI	ON PRESENT? Y	29		MPLING POU					
WETLAND HYDROLOGY P				ISOLATED V					
HYDRIC SOILS PRESENT?	Yes								
NORMAL CIRCUMSTANCE	157 Yes		SIGNIFICA	NTLY DISTUR	RBED: NO		POTEN	ial Probu	em Area? No
Di	ESCRIPTIO	N OF	WETLAND CROS	SSING T	YPES AN	ID W	ETLAND Q	UALITY	CRITERIA
are characteristic of the sp MODERATE QUALITY hydrology and/ or soil cl and aren't significantly d LOW QUALITY WETLA affected plant species - cc	pecific communi WETLAND: mi naracteristics - p isturbed. ND: severe dist ommunity comp	ty type Id to n rovide urbanc osition	 provides suitable habit oderate disturbances hav s suitable habitat for wild es have caused significan has changed – noticeable 	tat for wildli ve caused alt llife and veg t changes to stress or de	fe – high qu erations in i etation – ass vegetation, ath of plant	ality pe mmedi sociated soils, o species	erennial streams a ately adjacent are l perennial or inte r hydrology – hyd s – soil subsidence	re often ob as – slight) rmittent st droperiod : may have	pes - hydrologic and soil indicators iserved. ly altered natural vegetation, reams are of relatively good quality alterations, if present, have directly eccurred in areas with decreased - little suitable habitat for wildlife

and vegetation - associated perennial or intermittent streams significantly disturbed.

ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) ~ UPLAND POINT

SURVEY TYPE: Blu	e Creek	· · · · · · · · · · · · · · · · · · ·		WETLAN	ID ID NO.:	U005C/	
				Associat	ED WETLAND I	D No: WO	05CA
DATE: 09/18/2009		CLIENT/PROJECT NAM	E: Heartland	Wind LL	C./ Blue Cre	ek Wind F	arm
INVESTIGATORS: D.Wes	t, M.Nechvatal	STATE/COUNTY: Ohio	/Van Wert		QUAD NAME	î: Convoy	
HUC 12 CODE: 04100007	1001	TOWNSHIP: Union			PHOTO NO.:	005C31E	
WETLAND QUALITY: N/A			WETLAND				
	PLANT SPECIES		STI	RATUM	IND	ACATOR	PERCENT COVER
1. Trifolium repens		·······	Her	baceous	Fa	ac Up -	10 %
2. Poa sp. 3. Seteria sp.				baceous baceous		ac Up lac Up	<u> </u>
4.			rier	Daceous	E	ac op	%
5.							<u>%</u>
6.							<u> </u>
VEGETATION REMARKS:	SPECIES THAT ARE ODD	, FACW, FACW+, FACW	/- <u>,</u> FACT, OK F2		ING PAC-J: U		
		·····	Hydro	LOCY			
RECORDED DATA?		DESCRIBE:	ALL DRU	2001			· · · · · · · · · · · · · · · · · · ·
DEPTH OF SURFACE WAT	TER: N/A (in)		Durre	TH TO \$47	IRATED SOIL:		
DEPTH TO FREE WATER					ANN S CHOUL	- 10 (11)	
· · · · · · · · · · · · · · · · · · ·							
PRIMARY WETLAND IND	ICATORS:		SECO	DNDARY W	ETLAND INDIC	ATOR5:	
None							
Remarks:							
			Son	LS			
MAP UNIT NAME (SERIE	AND PHASE): Hoytvi	lle silty clay, 0 percent slo	pes (flats)				DRAINAGE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	:	FIELD OBSERVATE	ON5 CONFIRM I	MAPPED TY	PE IF NO, SOI	L TYPE ENCO	UNTERED?
		PR	OFILE DES	SCRIPT	ION		
Depth (Inches)	Horizon	MATRIX CC (MUNSELL M			IOTTLE COLO		TEXTURE, CONCRETIONS, STRUCTURE, ETC.
no soils pit dug		no soils pit	dug	I			
no soils pit dug							
HYDRIC SOIL INDICATOR	LS:			I			
Remarks:	<u></u>						•
		WETL	AND DET	ERMIN	ATION		· · · · · · · · · · · · · · · · · · ·
HYDROPHYTIC VEGETAT			AMPLING POIN			No	
WETLAND HYDROLOGY		Is Thus A	IN ISOLATED W	ETLAND?	N/A		
HYDRIC SOILS PRESENT?	No			+-			
NORMAL CIRCUMSTANC		1 -		BED: No.		I POTENTU	L PROBLEM AREA? No
U			ANTLY DISTUR				
		SIGNIFIC FWETLAND CRO			ID WETL		ALITY CRITERIA
are characteristic of the s MODERATE QUALITY hydrology and/ or soil c and aren't significantly c LOW QUALITY WETLA affected plant species - c hydroperiod - mechanic	ESCRIPTION O AND: no indication o pecific community typ WETLAND: mild to haracteristics - provid listurbed. AND: severe disturbar ommunity compositic al alteration of plant sp	FWETLAND CRC f stress or disturbance in the - provides suitable hab moderate disturbances ha tes suitable habitat for wil trees have caused significa on has changed - noticeab	wetland or adjusted for wildlife ave caused alter Idlife and vege ant changes to vote stress or dear rom livestock -	YPES AN accent area e - high qu rations in i tation - ass vegetation, ath of plant	- diverse and 1 hality perennia immediately ac sociated perent soils, or hydro species - soil :	mature vege l streams ar djacent area nial or inter ology – hydi subsidence	station types - hydrologic and soil indicators



Site:]F	Rater(s):	Date:
	3 biotal this par		×	
0	0	Metric 5. Special We	etlands.	
ax 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 coasta/tributary wetlan	id-unrestricted hydrolog	v (10)
		Lake Erie coastal/tributary wetlan		· •
		Lake Plain Sand Prairies (Oak O	penings) (10)	
•		Relict Wet Praires (10)		
		Known occurrence state/federal t	-	
		Significant migratory songbird/wa	•	
<u> </u>		Category 1 Wetland. See Questi	on i Gualicadve Rating	(*10)
3	3	Metric 6. Plant com	munities, iz	nterspersion, microtopography
nax 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation Comm	
		Score all present using 0 to 3 scale.	Q	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's
		2 Emergent		vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Forest Mudifiats	2	Present and either comprises significant part of wettand's vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present end comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one.		• • • • • • • • • • • • • • • • • • •
		High (5)	Narrative Descript	ion of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2) Low (1)	mod	Native spp are dominant component of the vegetation, although nominative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of Invasive plants. Refer		moderately high, but generallyw/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
		Absent (1)	Mudflat and Open	Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in		High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopography	Covar Scala
			microcopograpny	Absent
			1	Present very small amounts or if more common
			-	of marginal quality
			z	Present in moderate amounts, but not of highest
				quality or in small amounts of highest quality

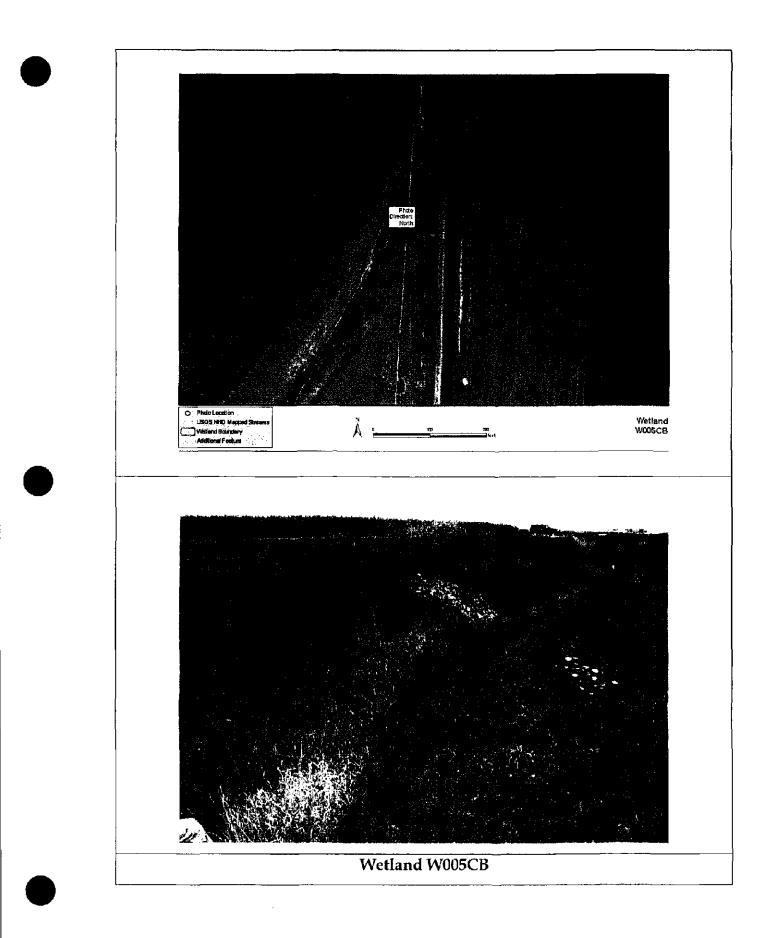
27 GRAND TOTAL(max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breekpoints between weitend calegones at the following address: http://www.eps.state.oh.us/disw/401/401.html

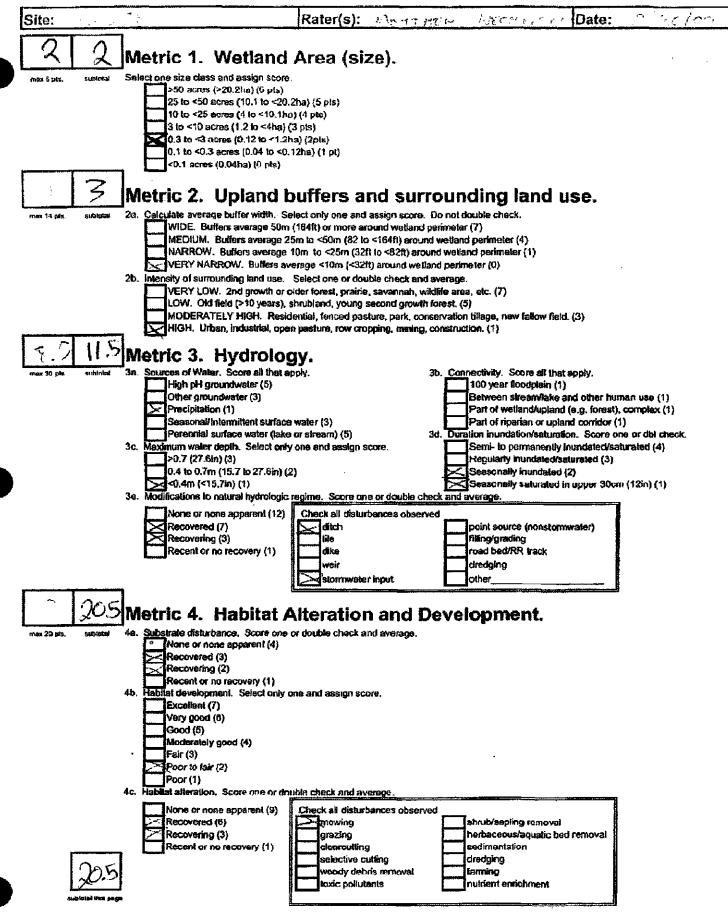
3

Present in moderate or greater amounts

and of highast quality



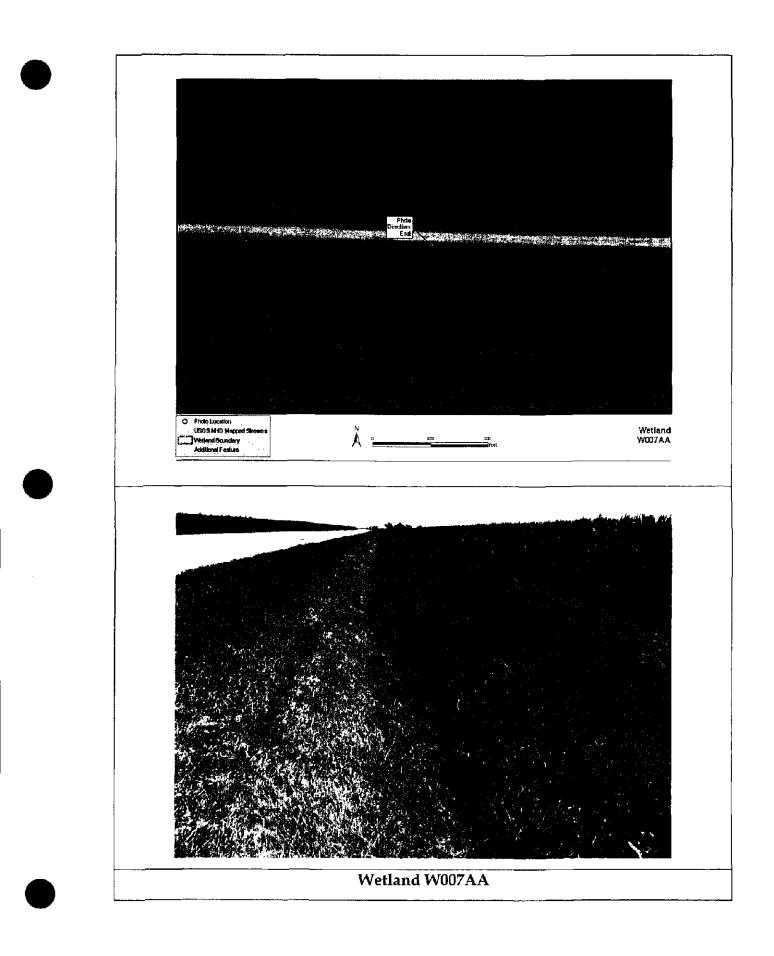
SURVEY TYPE: Blu	e Creek Wind F		WETLAND ID NO.: W005CB Associated Stream ID No: S005CA						
DATE: 09/20/2009		CLIENT/PROJECT NAME	Heartland						
INVESTIGATORS: Hook		STATE/COUNTY: Ohio/	Van Wert	<u></u>	ROVER FILE:	RAH090920.c	OF QUAD N	- VAME: Convoy	
HUC 12 CODE: 04100007	.001	TOWNSHIP: Union		Рното No.:					
WEILAND QUALITY: LOV	₩.	<u> </u>	WETLAND	D TYPE: Palustrine					
	PLANT SPECIES		+	RATUM	INE	CATOR	Pe	RCENT COVER	
1. Phalaris arundinacea				baceous		ac Wet	·	50 %	
 Scirpus atrovirens Euthamia graminifoli 				rbaceous rbaceous	0	bligate Fac	<u>50 %</u>		
4.								%	
5. 6.								×	
PERCENT OF DOMINANT	SPECIES THAT ARE OBL	, FACW, FACW+, FACW-	FAC+, OR F	AC (EXCLU	DING FAC-): 1	00			
VEGETATION REMARKS:	roadside drainage								
			HYDRO	LOGY					
RECORDED DATA?									
DEPTH OF SURFACE WAY	rea: N/A (in)	_	DET		JRATED SOIL:			······	
DEPTH TO FREE WATER									
FRIMARY WETLAND IND		·····	SEC		ETLAND INDIC	TORS			
Water Marks				al Soil Surv			Oxi Root Cha	annels	
Drift Lines				FAC Neutral Test					
REMARKS: roadside drainage									
			SOI	LS					
MAP UNIT NAME (SERIE	s and Phase): Hoytvil	le silty clay, 0 percent slop	oes (flats)			Ľ	RAINAGE CLASS	 Very poorly drained 	
TAXONOMY (SUBGROUP)	ç	FIELD OBSERVATIO	NS CONFIRM	MAPPED TY	PE. IF NO, SOI	L TYPE ENCOUN	ITERED?		
		PRO	FILE DE	SCRIPT	ION				
DEPTH (INCHES)	Horizon	MATRIX COL (MUNSELL Me			IOTTLE COLO		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-6	В	10YR 4/2					Silt Loam		
6+	С	10YR 4/2					Clay		
HYDRIC SOIL INDICATOR	······								
Listed Hydr Remarks:	ric	Gleyed			·		<u> </u>		
		TA7	A DETA DA				<u></u> _		
Ibono-ware View	TOM Dancas 2		AND DET			(
HYDROPHYTIC VEGETAT WEILAND HYDROLOGY			MPLING POIN N ISOLATED W		WEILAND?	es			
HYDRIC SOILS PRESENT?			130121165 1						
NORMAL CIRCUMSTANC		SIGNIFICA	NTLY DISTUR	BED: No		POTENTIAL	PROBLEM AREA?	? No	
the second s		WETLAND CRO			ID WETL	£			
HIGH QUALITY WETI are characteristic of the s MODERATE QUALITY hydrology and/ or soil c and aren't significantly c LOW QUALITY WETL affected plant species - c hydroperiod - mechanic	AND: no indication of pecific community typ (WETLAND: mild to r haracteristics - provid listurbed. AND: severe disturban community composition al alteration of plant sp	stress or disturbance in w e – provides suitable habi noderate disturbances hav es suitable habitat for wild	vetland or adj tat for wildlif ve caused alte diffe and vege at changes to e stress or des om livestock	jacent area fe - high qu arations in i atation - as vegetation, ath of plant	- diverse and : ality perennia immediately a sociated peren soils, or hydn species - soil	mature vegeta: l streams are o djacent areas – nial or intermi plogy – hydrop subsidence ma	tion types – hyd ften observed. slightly altered ttent streams ar period alteration by have occurred	rologic and soil indicators natural vegetation, e of relatively good quality as, if present, have directly d in areas with decreased	



last revised 1 February 2001 jim

Site:		Rater(s):	Date:
			
Subtolar tr			
\circ C	Metric 5. Special W	etlands.	
Nos 10 pts. subto			
	Bog (10)		
	Fen (10)		
	Old growth forest (10)		
	Mature forested wetland (5) Lake Erie coastel/tributary wetla	nd-unrestricted hydrology (30	A
	Lake Erie coastel/tributary wells		,
	Lake Plain Sand Prairies (Oak G		
	Relict Wet Praires (10)		
	Known occurrence state/lederal	• •	· ·
	Significant migratory songbird/w		•
<u> </u>	Category 1 Wetland. See Ques	alon i cicanadve kanng (-10)	
	Metric 6. Plant con	nmunities, inte	erspersion, microtopography.
rrax 20 pts. subtr		Vegetation Community	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1hs (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	2 Emergent		vegetation and is of moderale quality, or comprises a
	Ú Shrub		significant part but is of low quality
	○ Forest ○ Mudilats	2	Present and either comprises significant part of welland's
	Open water		vegetation and is of moderate quality or comprises a small part and is of high quality
	Other	3	Present and comprises significant part, or more, of welland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one.		
	, High (5)	Narrative Description of	
	Moderately high(4)	low/	Low spp diversity and/or predominance of nonnalive or
	Moderate (3) Moderately low (2)	mod	disturbance tolerant native species Native sop are dominant component of the vegetation.
	Low (1)	enco .	although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5) Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually absent, and high sop diversity and often, but not always.
	Sparse 5-25% cover (-1)		the presence of rare, lingatened, or endangered spp
	Nesrly absent <5% cover (0)		
	Absent (1)	Mudflat and Open Wat	
	6d. Microsopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.	2	Low 0.1 to <1ha (0.247 to 2.47 cores) Moderate 1 to <4ha (2.47 ko 9.88 acres)
	Vegetaled hummucks/tussucks		High 4ha (9.88 agres) or more
		in) <u>3</u>	High 4ha (9.88 acres) or more
	Vegetaled hummucks/tussucks	in) <u>3</u>	<u> </u>
	Vegetaled hummucks/tucsucks Coarse woody debris >15cm (6 Standing dead >25cm (10in) dt	in) <u>3</u> hh <u>Microtopography Cove</u> 0	r Scale Absent
	Vegetaled hummucks/tucsucks Coarse woody debris >15cm (6 Standing dead >25cm (10in) dt	in) 3 h Microtopography Cove	r Scale Absent Present very small amounts or if more common
	Vegetaled hummucks/tucsucks Coarse woody debris >15cm (6 Standing dead >25cm (10in) dt	in) <u>3</u> h <u>Microtopography Cove</u> <u>0</u> 1	r Scale Absent Present very small amounts or if more common of marginal quality
	Vegetaled hummucks/tucsucks Coarse woody debris >15cm (6 Standing dead >25cm (10in) dt	in) <u>3</u> hh <u>Microtopography Cove</u> 0	r Scale Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest
	Vegetaled hummucks/tucsucks Coarse woody debris >15cm (6 Standing dead >25cm (10in) dt	in) <u>3</u> h <u>Microtopography Cove</u> <u>0</u> 1	r Scale Absent Present very small amounts or if more common of marginal quality
	Vegetaled hummucks/tucsucks Coarse woody debris >15cm (6 Standing dead >25cm (10in) dt	in) 3 Microtopography Cove 0 1 2	r Scale Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Refer to the most recent GRAM Score Calibration Report for the scoring intrakpoints bolivean weicard categories to the fellowing seducus; http://www.epo.etaile.ch weicer/4014401.html



.

ROUTINE WETLAND DELINEATION DATA FORM	(1987 COE METHODOLOGY)
----------------------------------------------	------------------------

SURVEY TYPE: Blue	Creek Wind F	arm		WETLAND ID NO.: W007AA					
·		.		· · · · · · · · · · · · · · · · · · ·	STREAM ID				
DATE: 09/18/2009		CLIENT/PROJECT NAME:	Heartland	Wind LLC.	/ Blue Cree	ek Wind Farm			
INVESTIGATORS: D.West	, M. Nechvatal	STATE/COUNTY: Ohio/	Van Wert		ROVER FILE:	R091809ADW.c	OF QUAD NAME: CONVOY		
HUC 12 CODE: 041000071	001	TOWNSHIP: Union		PHOTO NO.: 004A18W, 004A19E					
WETLAND QUALITY: LOW	1		WETLAND T SUBTYPE: BI	YPE: Palustr nergent	rine				
	PLANT SPECIES			ATUM	IND	ICATOR	PERCENT COVER		
1. Scirpus atrovirens	· · · ·			aceous		oligate	80 %		
 Polygonum pensylvar Rubus sp. 	nicum			Daceous	Fa	E Wet	<u>10 %</u>		
4			TRS	SACCOUS			%		
5.	· · · · · · · · · · · · · · · · · · ·						<u>%</u> %		
	SPECIES THAT ADD ORI	, FACW, FACW+, FACW-		C (evenue)	NC FAC.): 10		<u>ro</u>		
		wetland; existing rd to N,			101AC), 10				
	····		Hydro	LOGY					
RECORDED DATA?	······	DESCRIBE:							
DEPTH OF SURFACE WAT	er: N/A (in)		DEFI	TH TO SATUR	ATED SOIL:	>16 (in)			
DEPTH TO FREE WATER I	N PIT: None (in)								
PRIMARY WETLAND INDI	CATORS:		SECO	NDARY WEI	LAND INDIC/	TORS:			
Drainage Patterns			Loca	l Soil Survey	γ` <u> </u>				
			FAC	Neutral Tes	it				
REMARKS: roadside ditch, linear wetland; existing rd to N, ag field (corn) to S									
			Son	S					
MAP UNIT NAME (SERIES	AND PHASE): Hoytvil	le silty clay, 0 percent slop	pes (flais)			Dr	AINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP):		FIELD OBSERVATIO	ONS CONFIRM N	MAPPED TYP	E IF NO, SOII	TYPE ENCOUNT	ERED?		
	· · · · · · · · · · · · · · · · · · ·	PRO	OFILE DES	SCRIPTIC	ÓN		· · · · · ·		
Depth (Inches)	HORIZON	MATRIX CO (Munsell M				TTLE COLOR TEXTURE, CONCRETIONS, NSELL MOIST) STRUCTURE, ETC.			
0-8	Α	10YR 3/1			No mottles		Silt loam		
8-12+	B	10YR 5/1		2	0% 10YR 6/6		Clay loam		
		T							
HYDRIC SOIL INDICATOR	5:								
Listed Hydı	ic	Gleyed							
Remarks:									
		WETLA	AND DET	ERMINA	TION		· · · · · · · · · · · · · · · · · · ·		
HYDROPHYTIC VEGETAT			AMPLING POIN			es			
WETLAND HYDROLOGY I		Is This A	N ISOLATED W	ETLAND? N	0		······································		
HYDRIC SOILS PRESENT?									
NORMAL CIRCUMSTANCE			INTLY DISTURE				ROBLEM AREA? No		
<u> </u>	ESCRIPTION O	FWETLAND CRO	SSING TY	PES AN	D WETLA	ND QUAL	ITY CRITERIA		
are characteristic of the s MODERATE QUALITY hydrology and/ or soil c and aren't significantly d LOW QUALITY WETLA affected plant species - c hydroperiod - mechanica	pecific community typ WETLAND: mild to haracteristics - provid isturbed. ND: severe disturbar ommunity compositio al alteration of plant sp	e – provides suitable habi moderate disturbances ha es suitable habitat for with ces have caused significan n has changed – noticeabl pecies or soils – grazing fr	itat for wildlift ve caused alte dlife and veget nt changes to v e stress or dea om livestock -	e – high qua rations in in tation – asso vegetation, s th of plant s	lity perennia nmediately a ciated peren coils, or hydro pecies – soil	l streams are off djacent areas – s nial or intermitt ology – hydrope subsidence may	on types - hydrologic and soil indicators en observed. lightly altered natural vegetation, ent streams are of relatively good quality mod alterations, if present, have directly have occurred in areas with decreased hing - little suitable habitat for wildlife		
and vegetation - associat	ed perennial or intern	uittent streams significant	ly disturbed.		=				

ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue	e Creek				WETLAND ID NO.: U007AA Associated Wetland ID No: W007AA					
DATE: 09/18/2009		CLIENT/PF	ROJECT NAME: H	Heartland						
INVESTIGATORS: D.West	, M.Nechvatal		UNITY: Ohio/Pa				AE: Convoy			
Huc 12 Cope 041000071	001	Townshi	Blue Creek		Photo No.: 007A20E					
WETLAND QUALITY: N/A				WETLAND	TYPE: N/A				· · · · · · · · · · · · · · · · · · ·	
				SUBTYPE U						
	PLANT SPECIE	5			RATUM		DICATOR		PERCENT COVER	
1. Trifolium pratense					baceous		Fac Up Upland		<u>10 %</u> 20 %	
2. Daucus carota 3. Poa sp.					baceous baceous		Fac Up		<u> </u>	
4. Seteria sp.					baceous		Fac Up		10 %	
5.									%	
6.									%	
PERCENT OF DOMINANT	Species that are C	BL, FACW, FAC	CW+, FACW-, H	FAC+, or FA	AC (EXCLUI	DING FAC-):	0			
Vegetation Remarks:										
Hydrology										
RECORDED DATA? DESCRIBE:										
DEPTH OF SURFACE WAT	DEP	th to Satu	IRATED SOIL:	(in)						
DEPTH TO FREE WATER IN	і Ргт: (in)									
PRIMARY WETLAND INDI	SECO	NDARY W	ETLAND INDI	CATORS:						
None					4—					
Remarks:	Remarks:									
				SOI	LS				· · · · · · · · · · · · · · · · · · ·	
MAP UNIT NAME (SERIES	AND PHASE): Hoy	tville silty clay, () percent slopes	s (flats)				DRAINAGE	CLASS: Very poorly drained	
TAXONOMY (SUBGROUF);		FIELD	OBSERVATIONS	S CONFIRM I	MAPPED TY	PE, IF NO, SO	IL TYPE ENCO	UNTERED?		
			PROF	ILE DE	SCRIPT	ION				
Depth (Inches)	Horizon		MATRIX COLO IUNSELL MOI		MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
no soils pit dug			no soils pit dug	3						
no soils pit dug										
		·····			İ					
HYDRIC SOIL INDICATOR	<u>s</u>									
Remarks:										
			WETLAN	ND DET	ERMIN	ATION				
HYDROPHYTIC VEGETATI	ON PRESENT? No		IS THIS SAM	PLING POIN	T WITHIN A	WETLAND?	No			
WETLAND HYDROLOGY P			Is Thus An I						· · · · · · · · · · · · · · · · · · ·	
HYDRIC SOILS PRESENT?										
NORMAL CIRCUMSTANCI			SIGNIFICANI					al Problem		
D	ESCRIPTION	OF WETLA	ND CROSS	SING TY	PES AN	ID WETL	AND QU	ALITY C	CRITERIA	
are characteristic of the sp MODERATE QUALITY hydrology and/ or soil ch and aren't significantly di LOW QUALITY WETLA affected plant species - co	ectfic community WETLAND: mild aaracteristics – pro isturbed. ND; severe distur ommunity composi 1 alteration of plan	type – provides to moderate dis vides suitable ha pances have caus tion has changes t species or soils	suitable habitat turbances have abitat for wildiff sed significant o d - noticeable s a - grazing from	t for wildlik caused alte: fe and veget changes to v tress or dea 1 livestock -	e – high qu rations in i tation – ass regetation, th of plant	ality perenni mmediately sociated peres soils, or hyd: species - soi	al streams are adjacent areas nnial or inter rology – hydr l subsidence r	e often obser s – slightly a mittent strea roperiod alte may have oo		

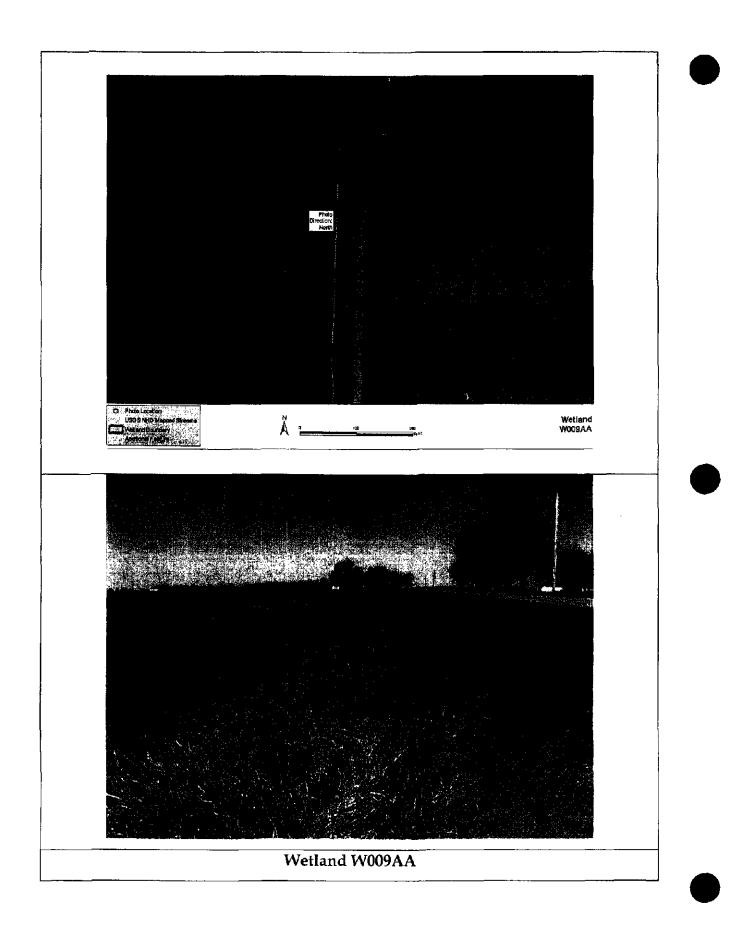
25

	Rater(s):	- A Star Star	Date: 111111
I I Metric 1. Wetland	Area (size).		
max 0 pix. sectoral \$cloct one bize close and design been >50 acres (>20.2ha) (6 pis) >50 acres (>20.2ha) (6 pis) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1t) 3 to <10 acres (1.2 to <4ha) 0.3 to <3 acres (0.12 to <1.2to <4ha) 0.1 to <0.3 acres (0.04 to <1000) <0.1 acres (0.04ha) (0 pis)	o. 1.2ha) (5 pts) (a) (4 pts) (3 pts) (ha) (2pts)		
Metric 2. Upland	buffers and s	surrounding land	lise
men 14 pts. sutnoize 28. Calculate average buttler width. 3 WIDE. Buttlers average 500 MEDIUM. Buttlers average NARROW. Buttlers average VERY NARROW. Buttlers average VERY NARROW. Buttlers average VERY LOW. 200 growth on LOW. Old field (>10 years)	ielect only one and assign : a (1648) or more around we 25m to <50m (82 to <1648) : 10m to <25m (328 to <82 verage <10m (<328) aroun Select one or double che older lorest, prane, savani , shrubland, young second idential, fenced pasture, pa	score. Do not double check. atland perimeter (7)) around wetland perimeter (4) (1) around wetland perimeter (1) d wetland perimeter (0) ck and average. nan, widiwe area, etc. (7) growth forest. (5) irk, conservation Uilage, new failow f	
9.5 11.5 Metric 3. Hydroid			
max 30 ptx subtable 3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonai/Intermittant surface Perennial surface water (ial	apply. ce water (3) ce or stream) (5)	Part of wetland/upla Part of riparian or u 3d. Duration inundation/satu	(1) ke and other human use (1) and (e.g. forest), complex (1) pland corridor (1) ration. Score one or dbi check.
3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) 255 <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologi	(2)	Regularly inundated Seasonally inundated Seasonally saturated	
None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances ditch dite dite weir Stormwater input	observed point source (nonst filling/grading road bed/RR track dredging other	omwater)
Metric 4. Habitat		d Development.	
None or none apperent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or	y one and assign score.	•••	
None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances mowing grazing clearcuiting selective cutting	shrub/sapiling remo herbaceous/aquati sedimentation dredging	
2(.5 subtatial this sage	woody dabris rem toxic pollutante	familing nutrient onrichmeni	

	74A R	ater(s): <u>Akare</u>	ere distance	Date:
	-1			
1	·			
sublatat the	oade			
D 0	Manania E Committa 1984a	حام محام		
VIV	_Metric 5. Special We	uanos.		
max 10 pks. – subbatal				
	Bog (10)			
	Fen (10)			
	Old growth forest (10)			
	Mature forested wetland (5) Lake Ene coastal/indulary wetland	Linnantiniad hutaniaau (17 FB3	
	Lake Erie coastal/tributary wetland		• •	
	Lake Plain Sand Prairies (Oak Op			
	Relict Wet Praires (10)			
	Known occurrence state/lederal th	reatened or endangered	species (10)	
	Significant migratory songbird/wat	_	• • •	
	Category 1 Wetland. See Questio	n 1 Qualitative Rating (-1	10)	
~ n				
~ L	Metric 6. Plant comr	nunities, inf	terspersion, mi	crotopography.
max 20 pis. subtola		Vegetation Commun		
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha	(0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprise	s small part of wetland's
	Z. Emergent			rate quality, or comprises a
	<u>(2)</u> Shrub	······	significant part but is of low	
	C. / Forest	2		s significant part of wetland's
	() Mudflats		1 -	rate quality or comprises a small
	⊘ Open water ⊘ Other	3	part and is of high quality	ficant part, or more, of wetland's
	6b. horizontal (plan view) interspersion.	3	vegelation and is of high o	• •
	Select only one.		ragaiseon and a a high c	and and a second se
	High (5)	Narrative Descriptio	n of Vegetation Quality	
	Moderately high(4)	low	Low sop diversity and/or pre	dominance of nonnative or
	Moderale (3)		disturbance tolerant native	Species
	Moderale (3) Moderalely kw (2)	mod	disturbance tolerant native Native spp are dominant cor	
		mod	Native spp are dominant cor	
	Moderately low (2)	mod	Native spp are dominant cor atthough nonnative and/or	nponent of the vegetation,
	Moderately low (2)	mod	Native spp are dominant cor atthough nonnative and/or	nponent of the vegetation, disturbance tolerant netive spp species diversity moderate to
	Moderately low (2) Low (1) Gc. Coverage of Invasive plants. Refer to Table 1 ORAM long form for list. Add		Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railywko presence of rare spp
	Moderately low (2) Low (1) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage	mod 	Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered A predominance of native sp	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to rallywio presence of rare spp secies, with nonnative spp
	Moderately low (2) Low (1) Solution Coverage of Invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5)		Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered A predominance of native sp ansfor disturbance toleran	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare spp secies, with nonnative spp t native spp absent or virtuelly
·	Moderately low (2) Low (1) Source (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)		Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered A preclominance of native sp ans/or disturbance toleran absent, and high spp diver	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railywic presence of rare app becies, with nonnative spp t native spp absent or virtuelly raily and often, but not always,
·	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)		Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered A predominance of native sp ans/or disturbance toleran absent, and high spp diver	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare spp secies, with nonnative spp t native spp absent or virtuelly
	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 (-3) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	high	Native spp are dominant cor although nonnative and/or can also be present, and a moderately high, but gene thrastened or endangered A predominence of native sp ant/or disturbance toleran absent, and high spp diver the presence of rare, three	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare app becies, with nonnative spp t native spp absent or virtuelly rsity and often, but not always,
	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 (-3) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1)	high Mudflat and Open W	Native spp are dominant cor although nonnative and/or can also be present, and a moderately high, but gene threatened or endangered A predominence of native sp ant/or disturbance toleran absent, and high spp dive the presence of rare, threat fater Class Quality	nponent of the vegetation, disturbance tolerant native spp species: diversity moderate to railywico presence of rare spp becies, with nonnative spp t native spp absent or vistually raity and often, but not always, stened, or and angered spp
	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 (-3) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography.	high Mudflat and Open W 0	Native spp are dominant cor although nonnative and/or can also be present, and a moderately high, but gene threatened or endangered A predominance of native sp ant/or disturbance toleran absent, and high spp diver the presence of rare, threa /ater Class Quality Absent <0.1ha (0.247 acres	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare spp becies, with nonnative spp t native spp absent or virtually reity and often, but not always, atened, or endangered spp
	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.	high Mudflat and Open W	Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered A predominance of native sp anti/or disturbance toleran absent, and high spp diver the presence of rare, threa (ater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2)	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare app becies, with nonnative spp t native spp absent or vistually reity and often, but not always, stened, or endangered spp
	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 (-3) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography.	high Mudflat and Open W 0 1 2	Native spp are dominant cor although nonnative and/or can also be present, and a moderately high, but gene threatened or endangered A predominance of native sp ant/or disturbance toleran absent, and high spp diver the presence of rare, threa /ater Class Quality Absent <0.1ha (0.247 acres	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare app becies, with nonnative spp t native spp absent or vistually reity and often, but not always, stened, or endangered spp
	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 (-3) 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 hummucks/tussucks	high Mudflat and Open W 0 1 2	Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered A predominance of native sp anti/or disturbance toleran absent, and high spp diver the presence of rare, threa later Class Quality Absent <0.1ha (0.247 acres Low 0.1 to <1ha (0.247 to 2. Moderate 1 to <4ha (2.47 to	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare app becies, with nonnative spp t native spp absent or vistually reity and often, but not always, stened, or endangered spp
	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 (-3) 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 hummucks/tussucks Coarse woody debris >15cm (6in)	high Mudflat and Open W 0 1 2	Native spp are dominant cor although nonnative and/or can also be present, and a moderately high, but gene threatened or endangered A preclominance of native ag anti/or disturbance toleran absent, and high spp diver the presence of rare, threa later Class Quality Absent <0.1ha (0.247 acres Low 0.1 to <1ha (0.247 to 2. Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mo	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare app becies, with nonnative spp t native spp absent or vistually reity and often, but not always, stened, or endangered spp
	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 (-3) 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 hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead'>25cm (10in) dbh	high Mudifiat and Open W 0 1 2 3	Native spp are dominant cor although nonnative and/or can also be present, and a moderately high, but gene threatened or endangered A preclominance of native ag anti/or disturbance toleran absent, and high spp diver the presence of rare, threa later Class Quality Absent <0.1ha (0.247 acres Low 0.1 to <1ha (0.247 to 2. Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mo	nponent of the vegetation, disturbance tolerant native spp species diversity moderate to railyw/o presence of rare app becies, with nonnative spp t native spp absent or vistually reity and often, but not always, stened, or endangered spp
	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 (-3) 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 hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead'>25cm (10in) dbh	high Mudflat and Open W 0 1 2 3 Microtopography Co	Native spp are dominant cor although nonnative and/or can also be present, and a moderately high, but gene threatened or endangered A preclominance of native ag anti/or disturbance toleran absent, and high spp diver the presence of rare, threa later Class Quality Absent <0.1ha (0.247 acres Low 0.1 to <1ha (0.247 to 2. Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mo	nponent of the vegetation, disturbance tolerant native spp pacies diversity moderate to railyw/o presence of rare app becies, with nonnative spp t native spp absent or vistually raity and often, but not always, stened, or endangered spp
	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 (-3) 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 hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead'>25cm (10in) dbh	high Mudifiat and Open W 0 1 2 3 Microtopography Co 0	Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered A preclominance of native sp anti/or disturbance toteran absent, and high spp diver the presence of rare, threat the presence of rare, threat Low 0.1 to <1ha (0.247 acress Low 0.1 to <1ha (0.247 to 2. Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mo over Scale Absent Present very small amounts of marginal quality	nponent of the vegetation, disturbance tolerant native spp pacies diversity moderate to railywico presence of rare spp becies, with nonnative spp it native spp absent or virtually raity and often, but not always, itened, or endangered spp 1) 47 acres) 9.88 acres) re or if more common
	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 (-3) 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 hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead'>25cm (10in) dbh	high Mudifiat and Open W 0 1 2 3 Microtopography Co 0	Native spp are dominant correlations although nonnative and/or can also be present, and a moderately high, but gene threatened or endangered A prectominance of native against/or disturbance toleran absent, and high spp divertible presence of rare, threater Class Quality Absent <0.1hs (0.247 acres)	nponent of the vegetation, disturbance tolerant native spp pacies diversity moderate to railyw/o presence of rare spp becies, with nonnative spp it native spp absent or virtually raity and often, but not always, intened, or endangered spp 47 acres) > 9.88 acres) re or if more common is, but not of highest
	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 (-3) 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 hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead'>25cm (10in) dbh	high Mudflat and Open W 0 1 2 3 Microtopography Co 0 1	Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered A preclominance of native sp anti/or disturbance toteran absent, and high spp diver the presence of rare, threat the presence of rare, threat Low 0.1 to <1ha (0.247 acress Low 0.1 to <1ha (0.247 to 2. Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mo over Scale Absent Present very small amounts of marginal quality	nponent of the vegetation, disturbance tolerant native spp pecies diversity moderate to railyw/o presence of rare spp pecies, with nonnative spp it native spp absent or virtually raity and often, but not always, itened, or endangered spp the spectrum of the spectrum of the spectrum or if more common is, but not of highest a of highest quality

23.5 GRAND TOTAL(max 100 pts)

Refer to the much recent ORAM Score Calibration Report for the ecoring Developints between weiland categories at the following address: http://www.epa.state.ch.us/dow/401/401.html



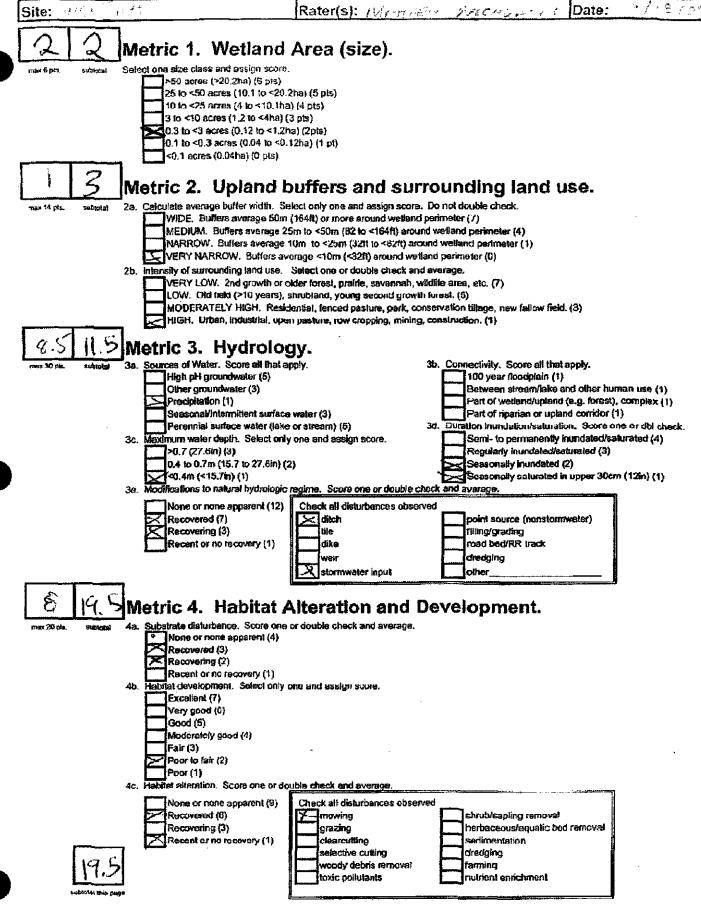
ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

SURVEY TYPE: Blue	RVEY TYPE: Blue Creek Wind Farm						WETLAND ID NO.: W009AA					
						ED STREAM ID		, ,				
DATE: 09/18/2009		CLIENT/PR	OJECT NAME:	Heartland	d Wind LL	C./ Blue Cre	ek Wind Farm	<u> </u>				
INVESTIGATORS: D.West,	, M. Nechvatal	STATE/CO	UNTY: Ohio/	Van Wert		Rover File:	R091809ADW.cor	QUAD NAME: CONVOY				
HUC 12 CODE: 041000071	003	TOWNSHIP	": Union			Рното No.:	PHOTO NO.: 009A32N, 009A33S					
WEILAND QUALITY: LOW	r				nd Type: Palustrine E: Emergent							
	PLANT SPECIES			S	TRATUM	INC	ICATOR	PERCENT COVER				
1. Scirpus atrovirens	·			He	erbaceous		bligate	70 %				
2. Leersia oryzoides				He	erbaceous	0	bligate	<u>30 %</u>				
<u>3.</u> 4.	<u> </u>		·· _/			_		%				
5.								%				
6.				L				<u> </u>				
PERCENT OF DOMINANT S							10					
VEGETATION REMARKS:	roadside ditch, linea	r wetland; ag f	ield directly a	adj to W, exi	sting rd to E							
		<u> </u>		HYDR	DLOGY							
RECORDED DATA?		1	DESCRIBE									
DEPTH OF SURFACE WAT		DE	PTH TO SATU	RATED SOIL:	>16 (in)							
DEPTH TO FREE WATER IN	PIT: None (in)											
PRIMARY WETLAND INDI				Se	CONDARY WI	TLAND INDIC		Manu , , , , , , , , , , , , , , , , , , ,				
Drainage Patterns			cal Soil Surv									
					C Neutral T	•	<u>+</u>	· · · · · · · · · · · · · · · · · · ·				
REMARKS: roadside dite	:h, linear wetland; aş	field directly	adj to W, exis									
N N N N N N N N N N				So	ILS							
MAP UNIT NAME (SERIES			<u> </u>					VAGE CLASS: Very poorly drained				
TAXONOMY (SUBGROUP):		FIELD					TYPE ENCOUNTER	ED?				
			PRO	FILE DE	SCRIPTI	ON						
DEPTH (INCHES)	HORIZON		MATRIX COL IUNSELL MC			MOTTLE COLOR (MUNSELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.				
0-10	A		10YR 4/1			No mottles		Clay loam				
10-12+	В		5B 4/1			10% 10YR 6/6		Clay loam				
HYDRIC SOIL INDICATOR	s:											
Listed Hydri	ic	(Gleyed				<u>\</u> _					
Remarks:												
	······	·····	WETLA	ND DE	TERMIN	ATION						
HYDROPHYTIC VEGETATIO						WETLAND? Y	es					
WETLAND HYDROLOGY P			Is This An	I ISOLATED V	WETLAND?	Vo		······				
HYDRIC SOILS PRESENT?												
NORMAL CIRCUMSTANCE			<u> </u>	NTLY DISTU			POTENTIAL PRO	and the second secon				
D	ESCRIPTION C	F WETLA	ND CROS	SSING T	YPES AN	ID WETLA	ND QUALIT	Y CRITERIA				
are characteristic of the sp MODERATE QUALITY hydrology and/ or soil ch and aren't significantly di LOW QUALITY WETLA	ecific community ty WETLAND: mild to naracteristics – provi Isturbed. ND: severe disturba	pe provides moderate dist des suitable ha nces have caus	suitable habit turbances hav bitat for wild sed significan	tat for wild! ve caused alt llife and veg tt changes to	ife – high qu terations in i retation – ass vegetation,	ality perennia mmediately a ociated peren soils, or hydro	l streams are often ljacent areas – sligj nial or intermittent llogy – hydroperio	types – hydrologic and soil indicators observed. htly altered natural vegetation, streams are of relatively good quality d alterations, if present, have directly ve occurred in areas with decreased				

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

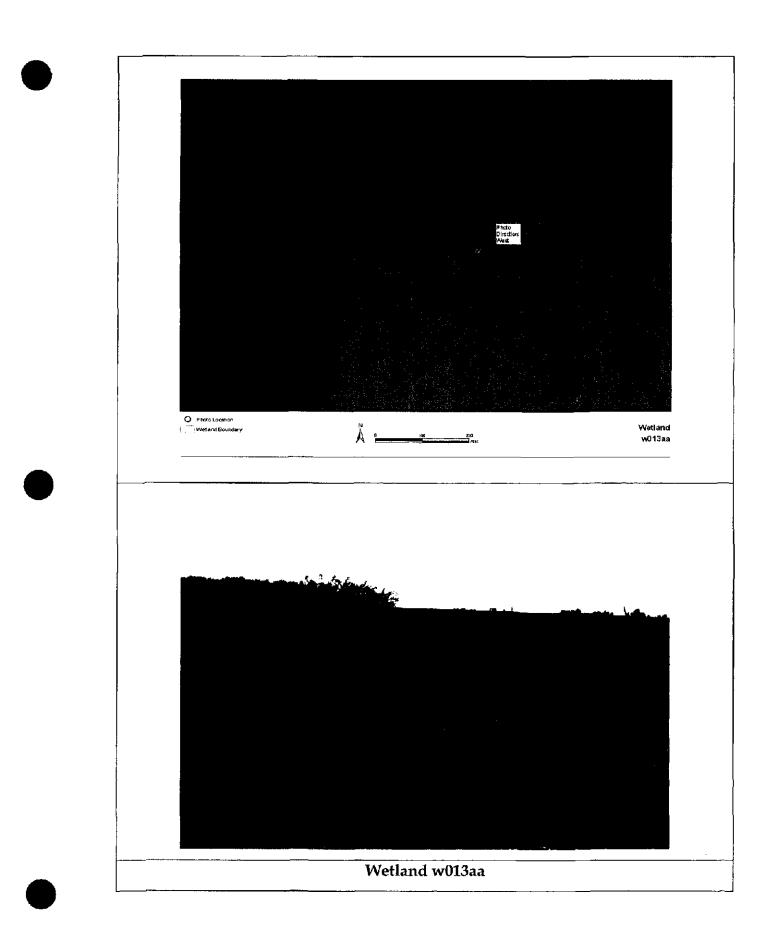
ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blu	e Creek				WETLA	WETLAND ID NO.: U009AA				
						ASSOCIATED WETLAND ID NO: W009AA				
Date: 09/18/2009		Ci	lient/Project Nam	ie: Heai	rtland Wind LL	.C./	Blue Creek Wind H	Farm		
INVESTIGATORS: D.Wes	t, M.Nechvatal	St	TATE/COUNTY: Ohi	o/Van W	/ert	Q	UAD NAME: CORVOY			
Huc 12 Code: 04100007	1003	То	OWNSHIP: Union			PHOTO NO.: 009A35N				
WETLAND QUALITY: N/	1		· · · · · · · · · · · · · · · · · · ·		ILAND TYPE: N/A TYPE: Upland					
	PLANT SPE	CIES			STRATUM		INDICATOR	PERCENT COVER		
1. Taraxacum officinale 2. Poa sp.					Herbaceous Herbaceous		Fac Up - Fac Up	<u>10 %</u> 60 %		
2. Foa sp. 3. Seteria sp.					Herbaceous		Fac Up	30 %		
<u>4.</u>								%		
6								%		
PERCENT OF DOMINANT	SPECIES THAT A	REOBL, FAG	CW, FACW+, FACT	DING	FAC-): 0					
Vegetation Remarks:										
HYDROLOGY										
RECORDED DATA? DESCRIBE:										
DEPTH OF SURFACE WA	TER: N/	A (in)			DEPTH TO SAT	URAT	red Soil: >16 (in)			
DEPTH TO FREE WATER	NOI	ne (in)			ļ					
PRIMARY WETLAND INC			SECONDARY W	VETLA	NO INDICATORS:					
None	None									
REMARKS:		<u> </u>			_					
					SOILS					
MAP UNIT NAME (SERIE	s and Phase): 1	Hoytville sil	lty clay, 0 percent sl	opes (fla	ts)			DRAINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP):		FIELD OBSERVAT	IONS CO	NFIRM MAPPED T	YPE. I	IF NO, SOIL TYPE ENC	OUNTERED?		
			Pr	OFILI	E DESCRIPT	101	N			
DEPTH (INCHES)	Horizo	N	Matrix C (Munsell N				TLE COLOR SELL MOIST)	TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
no soils pit dug			no soils pi	t dug						
no soils pit dug										
HYDRIC SOIL INDICATO	RS:	- r								
Remarks:					l					
			WET	LAND	DETERMIN	IAT	ION			
HYDROPHYTIC VEGETAT		No			G POINT WITHIN					
WETLAND HYDROLOGY			Is Trus	AN ISOL	ATED WETLAND?	N/A	1			
HYDRIC SOILS PRESENT			6 court	~ A > *** > * *	DISTURBED: No		Borrer	IAL PROBLEM AREA? NO		
						NID		UALITY CRITERIA		
HIGH QUALITY WETI are characteristic of the a MODERATE QUALITY hydrology and/ or soil and aren't significantly LOW QUALITY WETL affected plant species -	AND: no indic specific community (WETLAND: r characteristics - disturbed. AND: severe di community com- cal alteration of	ation of stre nity type – p nild to mode provides su sturbances h position has plant species	ess or disturbance in provides suitable ha erate disturbances l uitable habitat for w have caused signific s changed – noticea so or soils – grazing	wetland bitat for nave caus rildlife ar cant char ble stress from live	d or adjacent area wildlife – high q sed alterations in nd vegetation – an nges to vegetation s or death of plan estock – channeli	n – div uality imm ssocia u, soil u, soil	verse and mature veg y perennial streams as aediately adjacent area ated perennial or inte ls, or hydrology – hyd cties – soil subsidence	etation types - hydrologic and soil indicators		

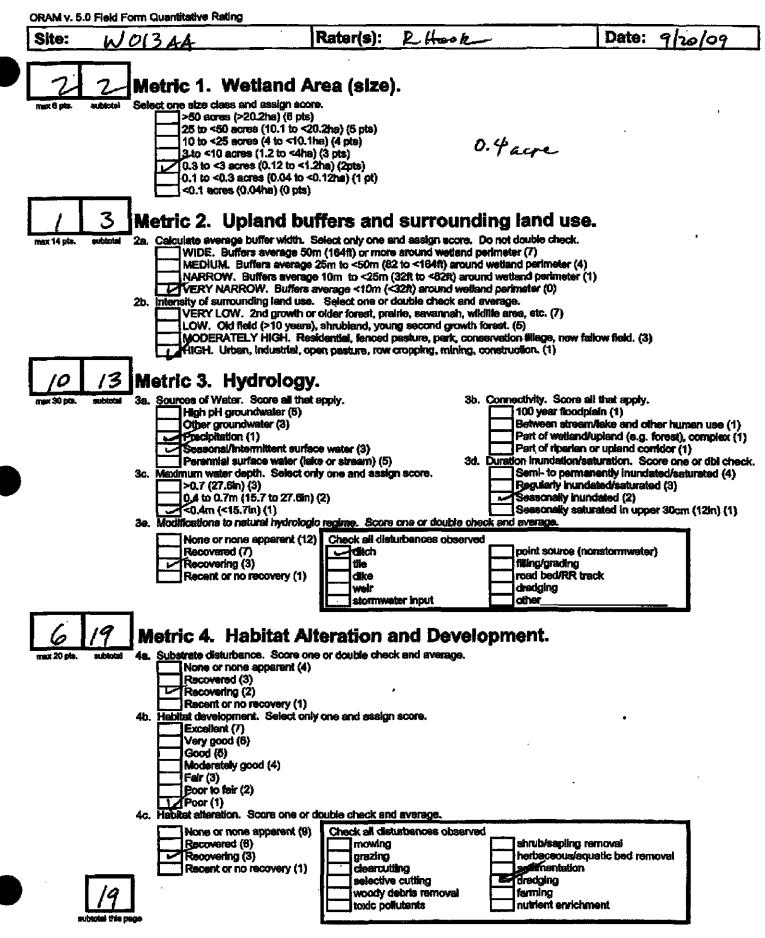


	Rater(s):/	Date:
subhitat thus page		
) () Metric 5. S	pecial Wetlands.	
ets. subtoral Check all that apply and	score as indicated	
Bog (10) Fen (10)		
Qid growth fa	rest (10)	
Mature forest	ed wetland (5)	
jeeneriji (stal/inibutary weiland-unrestricted hydrol	
	istal/tributary welland-restricted hydrolog and Prainles (Oak Opensings) (10)	y (3)
Relict Wet Pr	• • • • • •	
	rence state/toderal livrealened or endang	
and the second se	gratory songbird/water low! habitat or us	
Category 1 V	letland. See Question 1 Qualitative Ratio	vg (-10)
2 Z Metric 6 P	lant communities	interspersion, microtopography.
o pis. svalotar Ga. Wetland Vegetation	-	munity Cover Scale
Score all present using		Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed	1	Present and either comprises small part of wetland's
Emergen		vegetation and is of moderate quality, or comprises a
O Shrub O Forest	2	significant part but is of low quality Present and either comprises significant part of welland's
C Mudifats	-	vegetation and is of moderate quality or comprises a small
Open water		part and is of high quality
Other	3	Present and comprises significant part, or more, of welland's
6b horizontal (plan vie	ew) Interspersion	vegetation and is of high quality
Selact only one.	Narrative Desor	Iption of Vegetation Quality
Moderately I		Low spp diversity and/or predominance of nonnative or
Moderate (3)		disturbance tolerant native species
Moderately k	ow (2) mod	Native spp are dominant component of the vegetation,
Low (1)		eithough nonnative and/or disturbance loterant native spp can also be present, and species diversity moderate to
6c. Coverage of invas	ive plants. Refer	moderately high, but generallyw/o presence of rare
to Table 1 ORAM long		threatened or endangered spp
or deduct points for co	- •	A predominance of native species, with nonnative spp
	5% cover (-5) -75% cover (-3)	and/or disturbance tolerant native spp absent or virtually absent, and high spp divensity and often, but not always,
Sparse 5-25		the presence of rare, threatened, or endangered spp
	nt <5% cover (0)	
		en Water Class Quality
	0	Absent <0.1ha (0.247 acres)
6d. Microtopography.	0 to 3 scale.	
6d. Microtopography. Score all present using	1 0 to 3 scole. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Moderate 1 to <4ha (2.47 to 9.68 acres)
6d. Microtopography. Score all present using		
6d. Microtopography. Score all present using Vegetated hi Coarse wood O Standing det	ummucka/tussucks 2 fy debris >15cm (ûin) 3 ed >25cm (10in) dbh	Moderate t to <4ha (2.47 to 9.68 acres) High whe (9.88 acres) or more
6d. Microtopography. Score all present using Collegatated he Coarse wood Coarse wood Coarse wood	ummucks/tussucks 2 ty debris > 15km (ĉin) 3 sd >25cm (10in) dbh reeding pools <u>Microtopograph</u>	Moderate t to <4ha (2.47 to 9.68 acres) (High whe (9.88 acres) or more by Cover Scale
6d. Microtopography. Score all present using Vegetated hi C Coarse wood V Standing det	ummucka/tussucks 2 fy debris >15cm (ûin) 3 ed >25cm (10in) dbh	Moderate t to <4ha (2.47 to 9.68 acres) (High whe (9.88 acres) or more
6d. Microtopography. Score all present using Vegetated hi Coarse wood O Standing det	ummucks/tussucks 2 ty debris > 15km (ĉin) 3 ed >25cm (10in) dbh reeding pobls: <u>Microtopograph</u> 0	Moderate t to <4ha (2.47 to 9.68 acres) High High (9.88 acres) or more by Cover Scale Absent
6d. Microtopography. Score all present using Vegetated h Coarse wood V Standing det	ummucks/tussucks 2 ty debris > 15km (ĉin) 3 ed >25cm (10in) dbh reeding pobls: <u>Microtopograph</u> 0	Moderate 1 to <4ha (2.47 to 9.68 acres)
6d. Microtopography. Score all present using Vegetated hi Coarse wood O Standing det	ummucks/tussucks 2 fy debris >15cm (ûin) 3 ad >25cm (10in) dbh reeding pools <u>Microtopograph</u> 0 1	Moderate 1 to <4ha (2.47 to 9.88 acres)
6d. Microtopography. Score all present using Vegetated hi C Coarse wood V Standing det	ummucks/tussucks 2 fy debris > 15cm (ûin) 3 ed > 25cm (10in) dbh reeding pools <u>Microtopograph</u> 0 1	Mcderate to <4ha (2.47 to 9.68 acres)

Rufur to the mask recent CRAM Score Calibration Report for the strong crussports between wettern categories of the theory of states the University Score Calibration (1914) 11:11

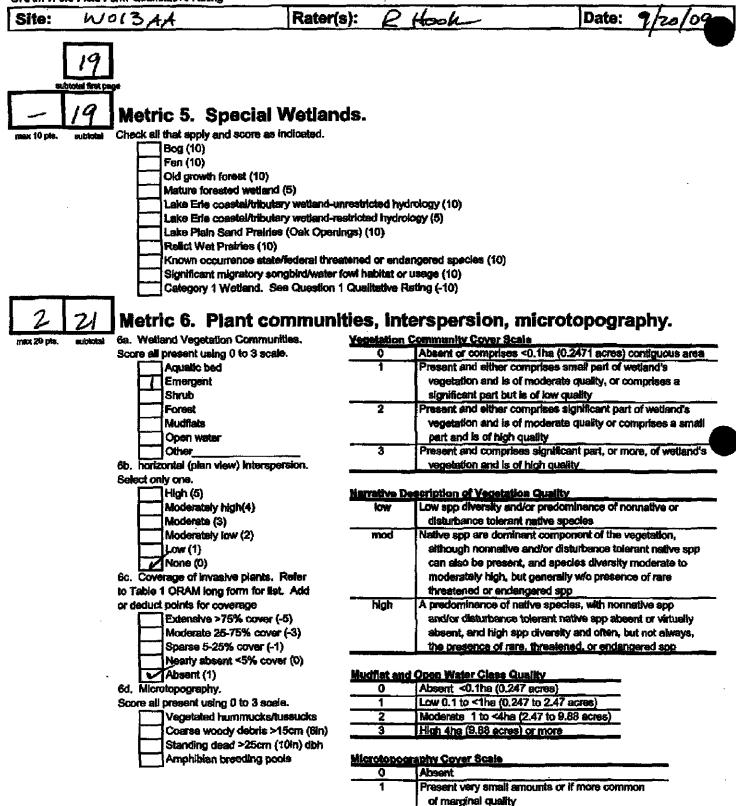


SURVEY TYPE: Blue			WETLAND ID NO.: W013AA							
					Associated Stream ID No: N/A					
DATE: 09/20/2009		CLIENT/I	ROJECT NAME:	Heartland	Wind LL	C./ Blue (Creek Wind F	arm		
INVESTIGATORS: Hook		STATE/C	ounty: Ohio/V	/an Wert		Rover F	ILE RAH09092	0.cor	QUAD NAME: Convoy	
HUC 12 CODE: 041000070	703	Townsh	IP: Union		Рното No.:					
WETLAND QUALITY: LOW				WETLAND SURTYPE	ND TYPE: Palustrine Te Emergent					
	PLANT SPEC	ËS		ST	RATUM	INDICATOR			PERCENT COVER	
1. Typha latifolia	·	<u></u>		He	rbaceous		Obligate		70 %	
2. Scirpus atrovirens				He	rbaceous		Obligate		30 %	
3.			·			— -		+	%%	
5,					· · · · · ·				%	
б	6								_%	
PERCENT OF DOMINANT S	SPECIES THAT ARI	OBL, FACW, FA	CW+, FACW-,	FAC+, OR F	AC (EXCLUI	DING FAC-)	: 100			
VEGETATION REMARKS: a	ag drainage									
				HYDRC	DLOGY		·			
RECORDED DATA?			DESCRIBE:							
DEPTH OF SURFACE WAT	Der	PTH TO SAIT	JRATED SO	11.: >16 (in)						
DEPTH TO FREE WATER IN	PIT: None	(in)								
PRIMARY WETLAND INDI	SEC	ONDARY W	ETLAND IN	DICATORS:						
Water Marks	/ater Marks					Local Soil Survey				
Sediment Deposits				FA	C Neutral T	est				
REMARKS: ag drainage										
				Sol	LS					
MAP UNIT NAME (SERIES	and Phase): H	oytville silty clay	, 0 percent slope	es (flats)				DRAINA	GE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP):		Fiet	D OBSERVATION	S CONFIRM	MAPPED TY	PE. IF NO,	SOIL TYPE ENCO	JUNTEREC	»?	
			Pro	FILE DE	SCRIPT	ION				
DEPTH (INCHES)	Horizon		MATRIX COL MUNSELL MO			IOTTLE C IUNSELL M			TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-4	В		10YR 4/2						Silt Loam	
4+	С		10YR 4/4		10y	r 6/1 ped s	surfaces	_	Clay	
HYDRIC SOIL INDICATORS	S:									
Listed Hydri	ic		Gleyed							
REMARKS: Deep excavat	ion into substrat	um. Dominance	by OBL species.						· · ·	
	_		WETLA	ND DE	FERMIN	ATION		····		
HYDROPHYTIC VEGETATI	ON PRESENT? Ye	5	IS THIS SAM	MPLING POI	NT WITHIN	A WETLANI)? Yes		· · · · · · · · · · · · · · · · · · ·	
WETLAND HYDROLOGY P	RESENT? Yes		Is This An	ISOLATED V	NETLAND?	No				
HYDRIC SOILS PRESENT?	Yes									
NORMAL CIRCUMSTANCE	5? Yes		SIGNIFICAN	TLY DISTUR	BED: No		POTENTI	AL PROBL	em Area? No	
Di	ESCRIPTIO	N OF WETL	AND CROS	SSING T	YPES AN	ID WET	LAND QU	JALIT	CRITERIA	
HIGH QUALITY WETL. are characteristic of the sp MODERATE QUALITY hydrology and/ or soil cl and aren't significantly di LOW QUALITY WETLA affected plant species - oc hydroperiod - mechanica	AND: no indicat pecific communi WETLAND: mi naracteristics – p isturbed. .ND: severe dist mmunity comp il alteration of pl	ion of stress or d ty type – provide ld to moderate d rovides suitable urbances have ca osition has chanf	isturbance in we es suitable habits isturbances hav habitat for wildl used significant ged - noticeable ils - grazing from	etland or ad at for wildli e caused alf life and veg t changes to stress or de an livestock	ljacent area ife - high qu terations in : etation - as vegetation, with of plant	- diverse a sality perer immediate sociated pe soils, or hy species - s	nd mature veg mial streams at ly adjacent area rennial or inter ydrology – hyd mil subsidence	etation ty re often of as – slight mittent s roperiod may hav	pes - hydrologic and soil indicators	



tast revised 1 February 2001 jim

ORAM v. 5.0 Field Form Quantitative Rating





Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between weitend categories at the following address: http://www.ept.state.oh.uv/isw/401/401.html last revised 1 February 2001 iim

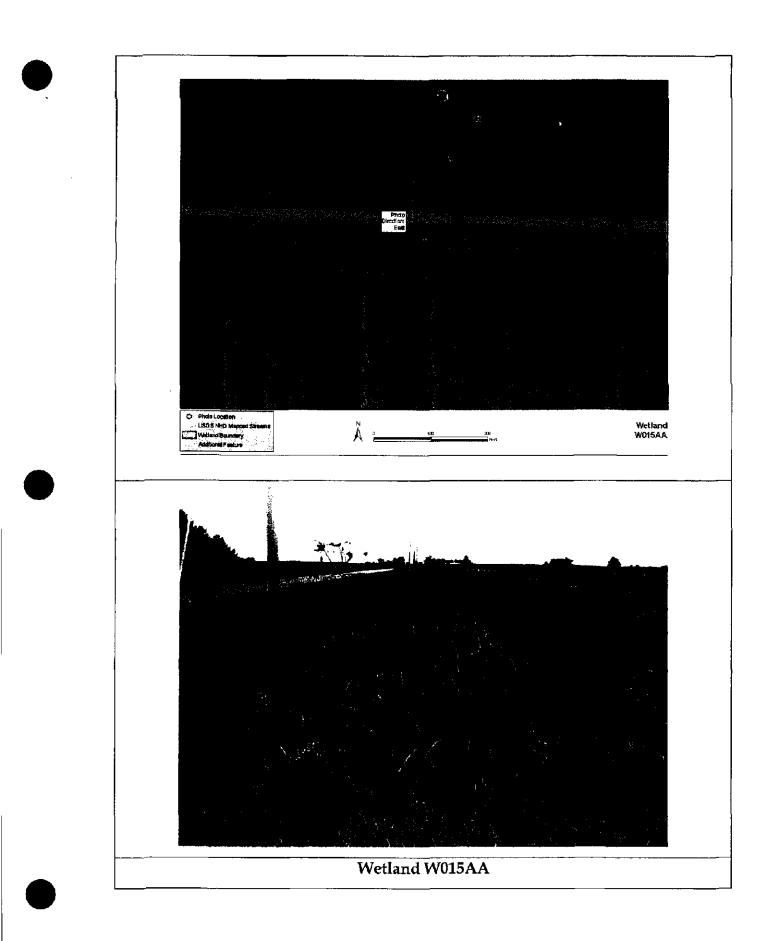
2

3

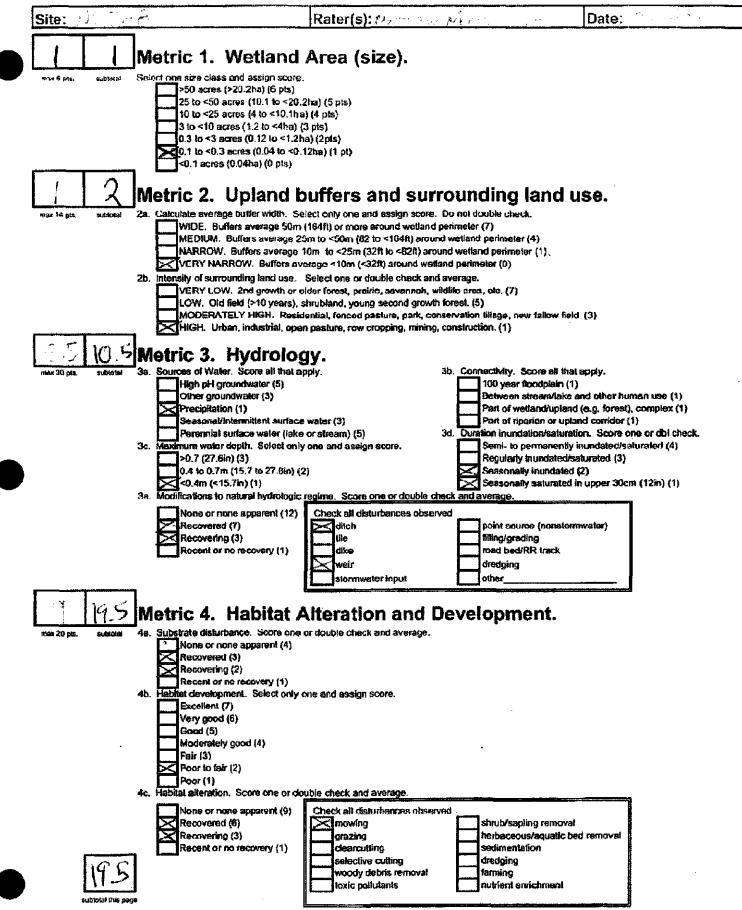
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

and of highest quality



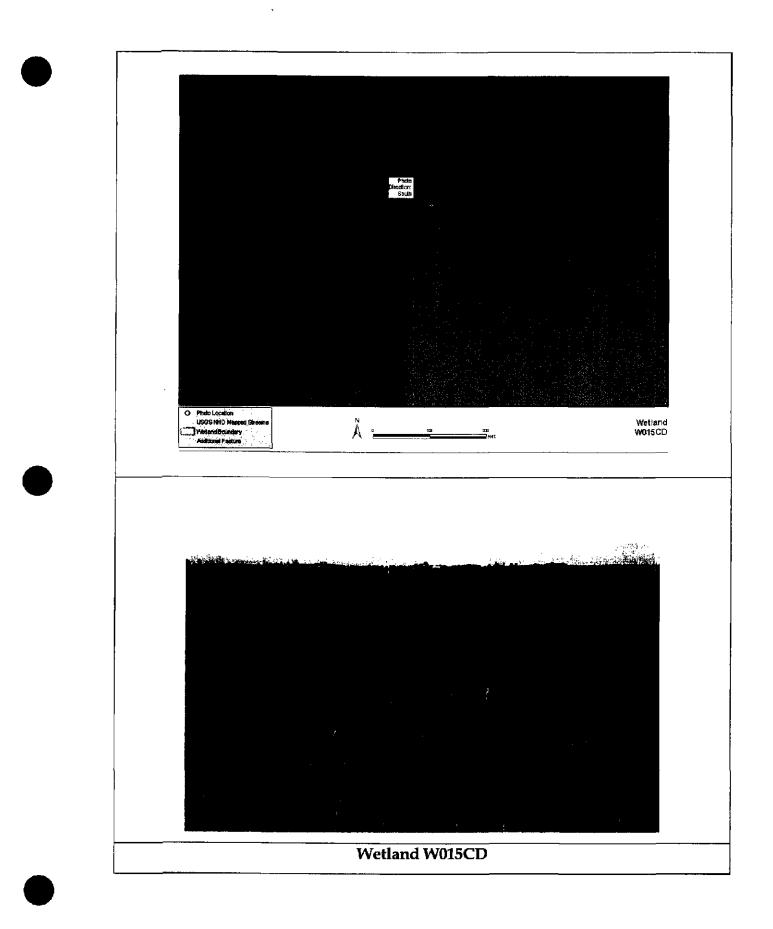
SURVEY TYPE: Blu	e Creek Wind	Farm			WETLAND ID NO.: W015AA Associated Stream ID No: N/A				
DATE: 09/21/2009	·	CLIENT/PROJ	JECT NAME		Wind LLC./ Blue Creek Wind Farm				
INVESTIGATORS; Hook		STATE/COUN					TILE: RAH090921	T	QUAD NAME: CONVOY
HUC 12 CODE: 04100007	1001	Township:				Рното	No.:	<u> </u>	
WETLAND QUALITY: LOY	*			WEILAND T		trine			
	PLANT SPECIES			SUBTYPE: E	mergent LATUM		INDICATOR	<u> </u>	PERCENT COVER
1. Typha latifolia	TEANI OFFICIES				Daceous	Obligate			90 %
<u>2.</u> 3.									<u> </u>
4.			_						%
<u>5.</u>									×%
PERCENT OF DOMINANT	SPECIES THAT ARE OF	L, FACW, FACV	N+, FACW-,	FAC+, or FA		ING FAC	·): 100		
VEGETATION REMARKS:	roadside ditch								
				HYDRO	LOGY				
RECORDED DATA?		D	ESCRIBE:						
DEPTH OF SURFACE WA	Der	TH TO SATU	RATED SC						
Depth 1'0 Free Water									
PRIMARY WETLAND INC	ICATORS:		SECC	NDARY WI	STLAND IN	DICATORS:			
Water Marks	Water Marks							Oxi	Root Channels
Drift Lines				FAC	Neutral To	st			
REMARKS: roadside ditch									
				Son	LS				
MAP UNIT NAME (SERIE	S AND PHASE): Hoytv	ille silty clay, 0 p	percent slope	es (flats)				DRAINA	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP	:	Field C	DESERVATION	NS CONFIRM N	MAPPED TY	fe. If No,	SOIL TYPE ENCO	UNTERED	?
			Pro	FILE DES	SCRIPTI	ON			
Depth (Inches)	Horizon	1	ATRIX COL JNSELL MO			OTTLE C		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-12	A		10YR 3/1		5YR 4	R 4/6 2% and Oxidized Rhizospheres		Silt Loam	
12-14+	В		10YR 4/2		•	10YR 5/4			Silty Clay Loam
HYDRIC SOIL INDICATO	I	T falas	J The Jul-	<u> </u>					
Concretion Remarks:	15	Lister	d Hydric			Gley	yed.	<u>_</u>	
REMARKS.									
			WETLA	ND DET	ERMIN.	ATION			
HYDROPHYTIC VEGETAT	ION PRESENT? Yes		Is This Sal	MPLING POIN	T WITHIN A	WETLAN	D? Yes		
WETLAND HYDROLOGY			Is This An	ISOLATED W	ETLAND? I	No			
HYDRIC SOILS PRESENT									4 9 by
NORMAL CIRCUMSTANC			_	NTLY DISTUR					EM AREA? NO
D	ESCRIPTION C	F WETLAN	ID CROS	SSING TY	PES AN	D WE	TLAND QU	ALITY	CRITERIA
are characteristic of the e MODERATE QUALITY hydrology and/ or soil d and aren't significantly o LOW QUALITY WETL affected plant species - d	specific community ty Y WETLAND: mild to characteristics - provi disturbed. AND: severe disturbe community compositi cal alteration of plant:	pe provides su moderate distu des suitable hab nces have cause on has changed species or soils	uitable habit irbances hav nitat for wild ed significant – noticeable - grazing fro	at for wildlife re caused alte. life and veget t changes to v stress or dea m livestock -	e – high qu rations in i tation – ass regetation, th of plant	ality pere mmediate ociated p soils, or h species –	nnial streams are 21y adjacent areas erennial or intern nydrology – hydr soil subsidence r	e often ob s – slightl nittent st coperiod a may have	pes hydrologic and soil indicators served. It altered natural vegetation, reams are of relatively good quality alterations, if present, have directly coccurred in areas with decreased little suitable habitat for wildlife



ite: WOISA	Rater(s): MartitE	U NERMONNEL	Date: 2 2
subactal this page			
💛 📋 ڬ Metric 5. Special '	Wetlands.		
10 prs showral Check as that apply and score as indic	ated.		
Bog (10)			
Fen (10)			
Old growth forest (10)			
Mature forested wetland (5)	etland-unrestricted hydrology (10)		
	etiand-restricted hydrology (5)		
Lake Plain Sand Prairies (O			
Relict Wet Praires (10)			
Known occurrence state/fed	eral threatened or endangered spe	xies (10)	
instant and a second	rd/water fow! habitat or usage (10)		
Category 1 Wetland. See Q	uestion 1 Qualitative Rating (-10)		
2 7 1 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2			
S Metric 6. Plant co	-	•	rotopograpny.
ex 20 pis. subicitier 6a. Wetland Vegetation Communities			
Score all present using 0 to 3 scale.		bsent or comprises <0.1he (0	
Aqualic bed	i i	resent and either comprises s vegetation and is of moderate	
-> Shrub		significant part but is of low g	
Forest	2 F	resent and either comprises s	
C Mudflats		vegetation and is of moderate	
Open water		part and is of high quality	
Olher	. з р	resent and comprises signific	ant part, or more, of welland's
6b. horizontel (plan view) Interspersio	n.	vegetation and is of high qua	lity
Select only one.			
High (5)	Narrative Description of		
Moderately high(4) Moderate (3)	low I.	ow spp diversity and/or predo disturbance tolerant native sp	_
Moderately low (2)	mad N	ative spo are dominant comp	
Low (1)		although nonnative and/or dis	
None (0)		can also be present, and spe	
6c. Coverage of Invasive plants. Ref.	er	moderately high, but general	yw/o presence of mare
to Table 1 ORAM long form for list. A	dd	threatened or endangered sp	p
or deduct points for coverage	high	predominance of native spec	••
Extensive >75% cover (-5)		and/or disturbance tolerant n	
Moderate 25-75% cover (-3)	, , , , , , , , , , , , , , , , , , , ,	absent, and high spp diversity	
Sperse 5-25% cover (-1) Nearly absent <5% cover (0	······	the presence of rare, threater	neo, or endangeres spp
Absent (1)	" Mudflat and Open Water	Ciass Quality	
6d. Microlopography.		bsent <0.1ha (0.247 acres)	
Score all present using () to 3 scale.		ow 0.1 to <1ha (0.247 to 2.47	acres)
Vegelated hummucks/lussu	cks 2	loderate 1 to <4ha (2,47 to 9.	88 acres)
Coarse woody debris >15cn	n (6in) <u>3</u> H	igh 4ha (9.88 acres) or more	
Standing dead >25cm (10in)) dbh		
Amphibian breeding pools	Microtopography Cover		
	والمراجع والمراجع والمحافظ والمح	bsent	
	1 F	resent very small amounts or	IF IT CARE CONTINUES
		of marginal quality resant in moderate amounts, i	hut not of hisbost
	2 F	resent in moderate amounts, i quality or in small amounts of	
	3 F	resent in moderate or greater	

22.5 GRAND TOTAL (max 100 pts)

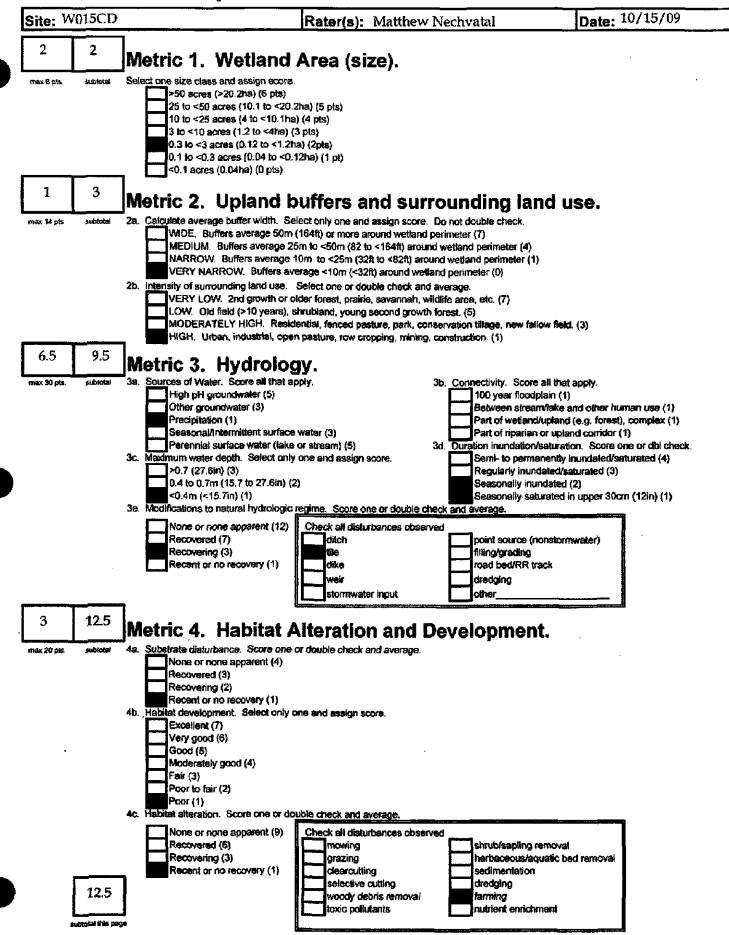
Refer to the most meant ORAM Score Calibration Report for the sporing breakpoints between wetland categories of the following address - http://www.epa.state.oh.uordsw/401401.html



Ro	UTINE V	VETLA	AND DELINEATIC	ON DA	TA FORM	м (1987)	COE METH	ODOLOGY)			
SURVEY TYPE: Blue	Creek W	/ind Fa	arm		WETLAN	ID ID No.:	W015CD				
					Associated Stream ID No: N/A						
DATE 10/15/2009			CLIENT/PROJECT NAME:	Heartlan	and Wind LLC./ Blue Creek Wind Farm						
INVESTIGATORS: AF MN	_		STATE/COUNTY: Ohio/V	/an Wert	t Rover File: R101509AFMN			QUAD NAME: Convoy			
Huc 12 Code: 041000071	LUC 12 CODE: 041000071001 TOWNSHIP: Tully				Рното No.: AF101509_036						
WETLAND QUALITY: Low					ETLAND TYPE: Pakustrine						
				SUBTYPE	Emergent	<u> </u>					
PLANT SPECIES					TRATUM		ICATOR	PERCENT COVER			
1. Glycine max 2. Polygonum sp. (dead)					lerbaceous ierbaceous		pland ac Wet	<u> </u>			
3. Echinochloa sp. (dead))				lerbaceous		Fac	20 %			
4.								%			
5.								<u>%</u>			
6. Percent of Dominant S	PECIES THAT	ARE OBL,	FACW, FACW+, FACW-,	FAC+. OR	FAC (EXCLUE	DING FAC-): 66	<u></u>	%			
VEGETATION REMARKS:			- <u></u>	•							
				Hydr	OLOGY						
RECORDED DATA?			Describe:								
DEPTH OF SURFACE WATE	er: N,	A (in)		D	EPTH TO SATL	RATED SOIL: () (in)				
DEPTH TO FREE WATER IN	1 Fix: 0 (ìn)									
PRIMARY WETLAND INDI	CATORS:			Si	SECONDARY WETLAND INDICATORS:						
Saturated Upper 12in											
			<u> </u>								
REMARK9: Farmed wet	and										
				Sc	MLS						
MAP UNIT NAME (SERIES	and Phase):	Hoytvill	e silty clay, 0 percent slope	es (flats)			DRAIN	AGE CLASS: Very poorly drained			
TAXONOMY (SUBGROUP):			FIELD OBSERVATION	NS CONFIRI	M MAPPED TY	PE, IF NO, SON	L TYPE ENCOUNTER	ED?			
			Pro	FILE D	ESCRIPT	<u>ION</u>					
Depth (Inches)	Horiz	ON	MATRIX COL (MUNSELL MO			OTTLE COLO	1	Texture, Concretions, Structure, etc.			
0-8	A		10YR 3/2					Silt Loam			
8+	В		10YR 4/1			10YR 4/6		Silty Clay Loam			
HYDRIC SOIL INDICATOR					<u> </u>						
Listed Hydr REMARKS:	IC		Gleyed	· · · ·	L						
THE ALLEY											
			WETLA	ND DE	TERMIN	ATION					
HYDROPHYTIC VEGETATE	ON PRESENT?	No				WETLAND?)	(es				
WETLAND HYDROLOGY P					WETLAND?						
HYDRIC SOILS PRESENT?											
NORMAL CIRCUMSTANCE			SIGNIFICAN	NTLY DIST	urbed: Yes		POTENTIAL PROP	BLEM AREA? Yes			
Di	SCRIPTI	ON OF	WETLAND CROS	SSING	TYPES AN	ID WETL	ND QUALIT	Y CRITERIA			
are characteristic of the sp	pecífic comm	unity typ	e – provides suitable habit	tat for wild	llife – high qu	ality perennia	l streams are often	types – hydrologic and soll indicators observed. htly altered natural vegetation,			

MODERATE QUALITY WEILAND; mild to moderate disturbances have caused alterations in immediately adjacent areas - singnuy antered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



Site:			Rater(s):	Date:
		7		
:	1			
		1		
	ubtotal this pa			
0	0	Metric 5. Special W	latiande	
ax 10 pts.	subtone	Check all that apply and score as indicate		
lan forgata.		Bog (10)		
		Fen (10)		
		Old growth forest (10)	-	
		Mature forested wetland (5)		
		Lake Erie coastal/tributary wella Lake Erie coastal/tributary wella		• • •
		Lake Plain Sand Prairies (Oak 0		5)
		Relict Wet Praires (10)		
		Known occurrence state/federal	threatened or endangen	ed species (10)
		Significant migratory songbird/w	-	• •
		Category 1 Wetland. See Ques	tion 1 Qualitative Rating	(-10)
1	1	Metric 6 Plant com	munities ir	nterspersion, microtopography.
ax 20 pts.	subtotat	6a. Wetland Vegetation Communities.	Vegetation Comm	
a co pa	SUCCES	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's
		Emergent		vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of iow quality
		Forest Mudifiats	2	Present and either comprises significant part of wetland's
		Open water		vegetation and is of moderate quality or comprises a small part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one.		
		High (5)		ion of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native spo
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o presence of rare
		to Table 1 ORAM long form for list. Add or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)	មម្នោ	and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		
		Bd. Microtopography.	Mudflat and Open 0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	<u>y</u>	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegelated hummucks/tussucks	••••••••••••••••••••••••••••••••••••••	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6	in) <u>3</u>	High_4ha (9.88 acres) or more
		Standing dead >25cm (10in) db		
		Amphibian breeding pools	Microtopography	
			01	Absent 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
			2	Oreaget is gooderate or gradier amounts

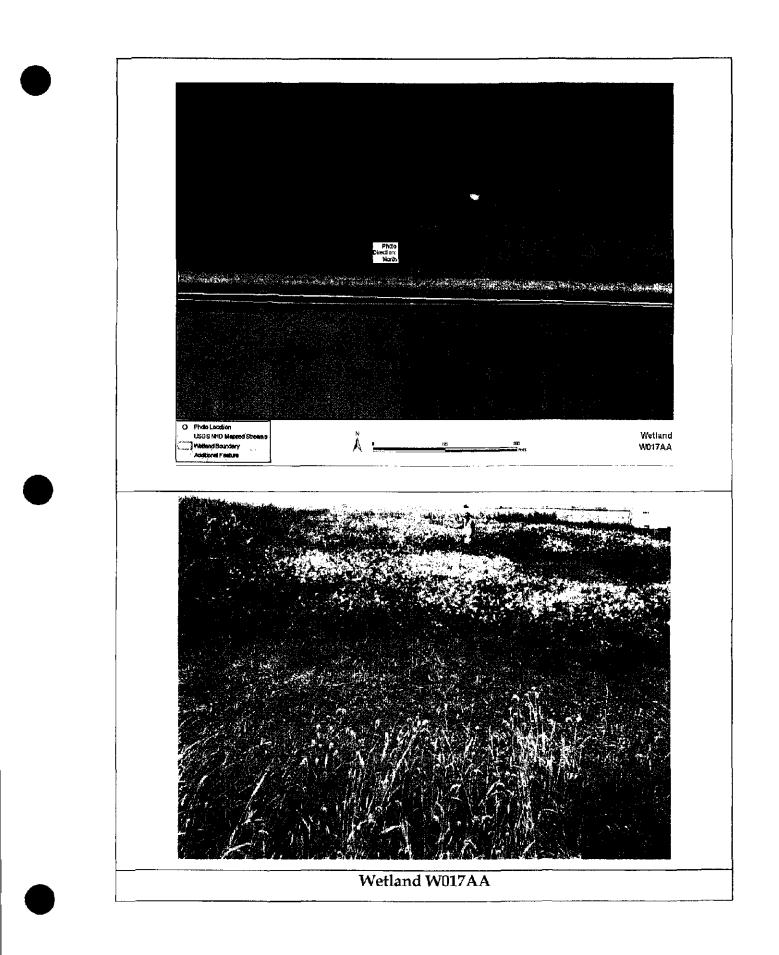
13.5 GRAND TOTAL(max 100 pts)

Refer to the most recent ORAM Score Celibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dow/401/401.html

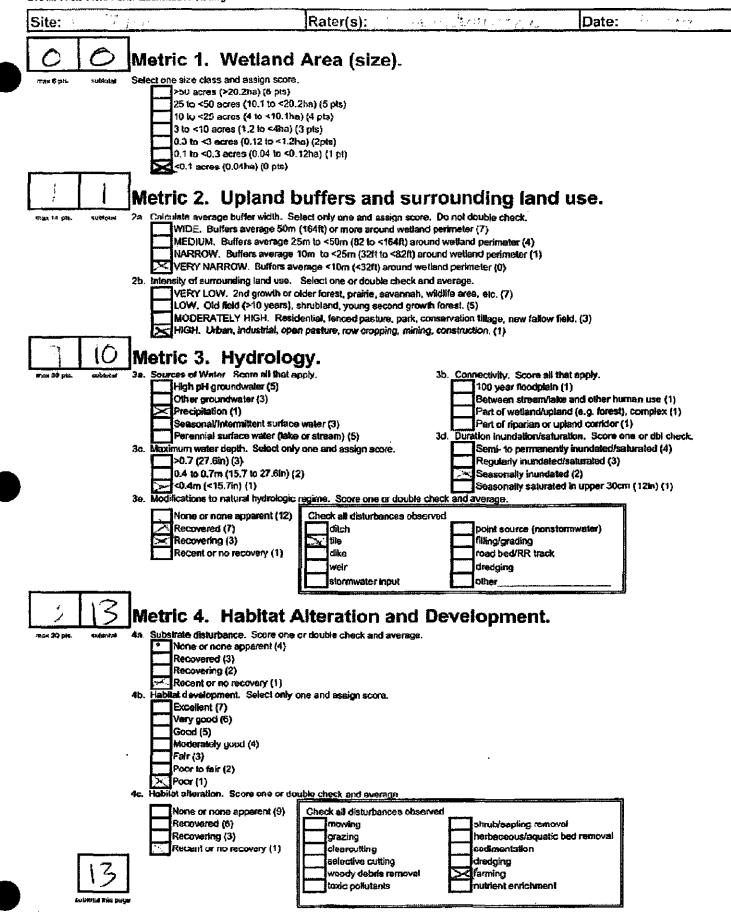
3

Present in moderate or greater amounts

and of highest quality



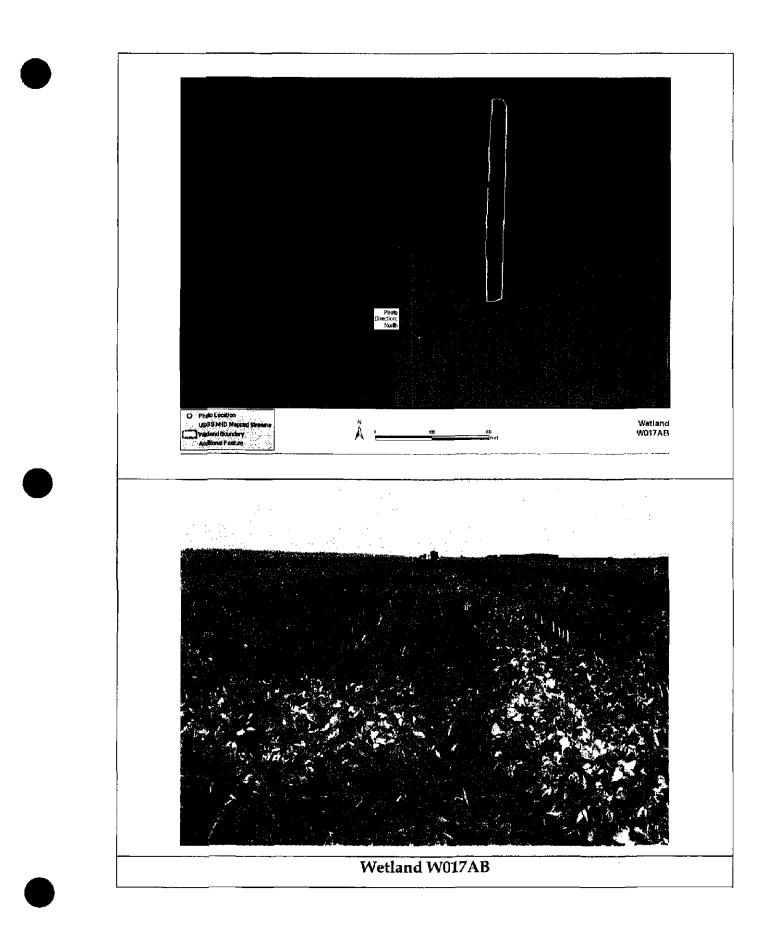
	DUTINE WETI	AND DELINEA	TION DAT	A FORM	(1987 COE N	IETHODOLOGY)			
SURVEY TYPE: Blu	e Creek Wind	Farm		WETLAND ID NO.: W017AA					
			ſ	Associated	STREAM ID NO: N/A				
DATE: 09/21/2009		CLIENT/PROJECT NAM	ME: Heartland	Wind LLC.	/ Blue Creek Wind F	arm			
INVESTIGATORS: Hook		STATE/COUNTY: Ohi	io/Van Wert	1	ROVER FILE: RAH09092	LCOT QUAD NAME: CONVOY			
HUC 12 CODE 04100007	1001	TOWNSHIP: Tully		1	•				
WETLAND QUALITY: LOV	v		WETLAND SUPTYPE: E	TYPE: Palustri mergent	ne				
	PLANT SPECIES		ST	RATUM	INDICATOR	PERCENT COVER			
1. Glycine max				baceous	Upland	20 %			
2. Setaria glauca			Her	baceous	Fac	<u>40 %</u> %			
3						<u>%</u>			
5.	······································					%			
6	· <u>····</u>					%			
PERCENT OF DOMINANT	SPECIES THAT ARE OB	L, FACW, FACW+, FAC	W-, FAC+, or F.	AC (EXCLUDIN	G FAC-): 50				
VEGETATION REMARKS:	farmed								
			HYDRC	LOGY					
RECORDED DATA?	·····	Describe:							
	<u></u>		r						
DEPTH OF SURFACE WAT	rer: N/A (in)		DEP	TH TO SATUR	ATED SOIL: >16 (in)				
DEPTH TO FREE WATER	N PIT: None (in)								
PRIMARY WETLAND IND	ICATORS:		SEC	ONDARY WET	LAND INDICATORS:				
None	I I		Loc	al Soil Survey					
			Oth	er					
REMARKS: farmed, sup	pressed crop								
			Soi	LS					
MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) DRAINAGE CLASS: Very poorly d									
In a star tank (bear	SAND PHASEJ: HOYTV	me snry clay, o percent s	liopes (liats)			and and a second ray poorly as a second			
TAXONOMY (SUBGROUP)			<u> </u>	MAPPED TYPE	. If No, Soit. Type Enc				
		Field Observa	<u> </u>						
		Field Observa	TIONS CONFIRM ROFILE DE COLOR	SCRIPTIC MO					
TAXONOMY (SUBGROUP): 	Field Observa P MATRIX (TIONS CONFIRM ROFILE DE COLOR MOIST)	SCRIPTIC MO	DN DTTLE COLOR	DUNTERED? TEXTURE, CONCRETIONS,			
TAXONOMY (SUBGROUP) DEPTH (INCHES)	Horizon	Field Observa P Matrix C (Munsell 10yr 3	TIONS CONFIRM ROFILE DE COLOR MOIST)	SCRIPTIC Mo (Mu)	DN DTTLE COLOR	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, EFC.			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6	Horizon	Field Observa P Matrix ((Munsell	TIONS CONFIRM ROFILE DE COLOR MOIST)	SCRIPTIC Mo (Mu)	DN MTTLE COLOR NSELL MOJST)	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6	HORIZON A B	Field Observa P Matrix C (Munsell 10yr 3	TIONS CONFIRM ROFILE DE COLOR MOIST)	SCRIPTIC Mo (Mu)	DN MTTLE COLOR NSELL MOJST)	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6 6+	Horizon A B RS:	Field Observa P Matrix C (Munsell 10yr 3	TIONS CONFIRM ROFILE DE COLOR MOIST)	SCRIPTIC Mo (Mu)	DN MTTLE COLOR NSELL MOJST)	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP DEPTH (INCHES) 0-6 6+ Hydric Soil Indicator	Horizon A B RS:	Field Observa P MATRIX C (MUNSELL 10YR 3 10YR 4	TIONS CONFIRM ROFILE DE COLOR MOIST)	SCRIPTIC Mo (Mu)	DN MTTLE COLOR NSELL MOJST)	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6 6+ Hydric Soil Indicator Listed Hyd	Horizon A B RS:	Field Observa P MATRIX C (MUNSELL 10YR 3 10YR 4 Gleyed	TIONS CONFIRM ROFILE DE COLOR MOIST)	SCRIPTIC MO (MU)	DN VTTLE COLOR NSELL MOJST) VYR 4/6 25%	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6 6+ Hydric Soil Indicator Listed Hyd	HORIZON A B RS: ric	Field Observa P MATRIX C (MUNSELL 10YR 3 10YR 4 Gleyed	TIONS CONFIRM ROFILE DE COLOR MOIST) 3/2 1/1	SCRIPTIC MO (MU)	DN VITLE COLOR INSELL MOJST) DYR 4/6 25%	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6 6+ Hydric Soil Indicator Listed Hyd Remarks:	HORIZON A B S: ric TION PRESENT? No	Field Observa P MATRIX C (MUNSELL 10YR 3 10YR 4 Gleyed WET Is This	TIONS CONFIRM ROFILE DE COLOR MOIST) 3/2 4/1 LAND DET	SCRIPTIC MO (MU 10 10	DN VITLE COLOR NSELL MOJST) VR 4/6 25%	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6 6+ Hydric Son Indicator Listed Hyd Remarks: Hydrophytic Vegetat	HORIZON A B IS: ric TON PRESENT? NO PRESENT? Yes	Field Observa P MATRIX C (MUNSELL 10YR 3 10YR 4 Gleyed WET Is This	TIONS CONFIRM ROFILE DE COLOR MOIST) 3/2 4/1 LAND DET S SAMPLING POIN	SCRIPTIC MO (MU 10 10	DN VITLE COLOR NSELL MOJST) VR 4/6 25%	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6 6+ HYDRIC SOIL INDICATOR Listed Hyd REMARKS: HYDROPHYTIC VEGETAT WETLAND HYDROLOGY	HORIZON A B IS: ric TION PRESENT? No PRESENT? Yes Yes	Field Observa P MATRIX C (MUNSELL 10YR 3 10YR 4 Gleyed Gleyed UET IS THIS	TIONS CONFIRM ROFILE DE COLOR MOIST) 3/2 4/1 LAND DET S SAMPLING POIN	SCRIPTIC (MU) 10 10 10 10 10 10 10 10 10 10 10 10 10	DN VITLE COLOR NSELL MOJST) VR 4/6 25% THON VETLAND? Yes s	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6 6+ Hydric Soil Indicator Listed Hyd Remarks: Hydrophytic Vegetat Wetland Hydrology Hydric Soils Present Normal Circumstanc	HORIZON A B IS: ric TION PRESENT? No PRESENT? Yes ES? Yes	Field Observa P MATRIX C (MUNSELL 10YR 3 10YR 4 Gleyed WET IS THIS IS THIS SIGNIP	TIONS CONFIRM ROFILE DE COLOR MOIST) 3/2 4/1 4/1 LAND DET 3 SAMPLING POIN 3 AN ISOLATED V 1CANTLY DISTUR	SCRIPTIC MO (MU) 10 10 10 10 10 10 10 10 10 10 10 10 10	DN VITLE COLOR NSELL MOIST) VR 4/6 25% TION VETLAND? Yes S POTENTI	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam			
TAXONOMY (SUBGROUP) DEPTH (INCHES) 0-6 6+ HYDRIC SOIL INDICATOR Listed Hyd REMARKS: HYDROPHYTIC VEGETAT WETLAND HYDROLOGY HYDRIC SOILS PRESENT: NORMAL CIRCUMSTANC D HIGH QUALITY WETT are characteristic of the m MODERATE QUALITY	HORIZON A B IS: ric PRESENT? No PRESENT? Yes ? Yes PESCRIPTION C LAND: no indication specific community by Y WETLAND: mild ta	FIELD OBSERVA PI MATRIX O (MUNSELL 10YR 3 10YR 4 Gleyed WET IS THIS IS THIS SIGNIF F WETLAND CR of stress or disturbance i pe - provides suitable h poderate disturbances	TIONS CONFIRM ROFILE DE COLOR MOIST) 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 3/2 4/1 4/1 4/1 4/1 4/1 4/1 4/1 4/1	SCRIPTIC MO (MU) 10 10 10 10 10 10 10 10 10 10 10 10 10	DN VITLE COLOR NSELL MOIST) VR 4/6 25% VR 4/6 25% VR 4/6 25% VETLAND? Yes s POTENTI D WETLAND QU tiverse and mature veg ity perennial streams a mediately adjacent are	DUNTERED? TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam Silty Clay Loam AL PROBLEM AREA? Yes JALITY CRITERIA getation types - hydrologic and soil indicators			



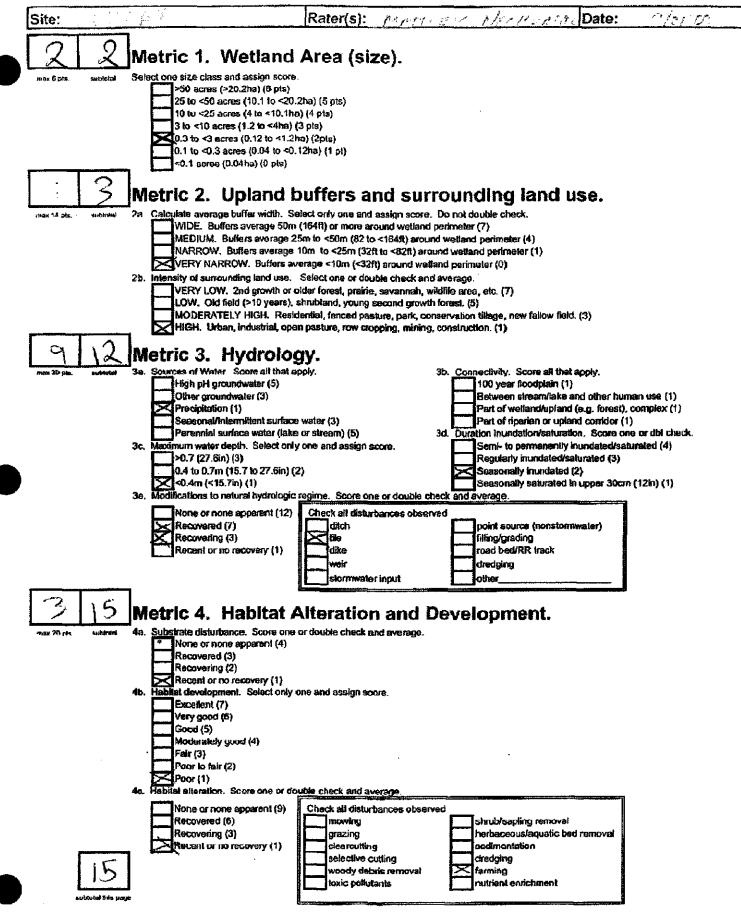
test revised 1 February 2001 jim

		Rater(s):		Date:
<u> </u>	1			
1				
subicial suis pe	<u>*</u>			
				x
	Metric 5. Special V	Netlands.		
D phil. Subsatal	Creck all that apply and score as indico			
	Bog (10)	15710.		
	Fen (10)			
	Old growth forest (10)			
	Mature forested weiland (5)			
		diaod-unrestricted hydrology (10	וה	
		tland-restricted hydrology (5)	-1	
	Lake Plain Sand Prairies (Oal			
	Relict Wet Praires (10)			
		rai litteateneti or endangeted sp	pecies (10)	
		Water low! habitat or usage (10	· · ·	
		restion 1 Qualitative Rating (-10)	•	
		•••		
I I	Metric 6. Plant co	mmunities, inte	erspersion, mic	rotopography.
icialization automotion	6a. Wetland Vogetation Communities.	Vegetation Community	-	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.	2471 acres) continuous area
	O Aqualic bed		Present and either comprises a	
	C Emergent		vegetation and is of moderate	-
	Shrub		significant part but is of low or	
	C Forest	2	Present and either comprises s	
	Mudflats		vegetation and is of moderate	
	Open water		part and is of high quality	
	Other	3	Present and comprises significa	ant part, or more, of weitand's
	6b. horizontal (plan view) interspersion	۱.	vegetation and is of high quat	
	Select only one.			
	High (5)	Narrative Description	of Vegetation Quality	
	Moderately high (4)	low	Low spp diversity and/or predor	minance of nonnative or
	Moderate (3)		disturbance tolerant native ap	ocios
	Moderately low (2)	mod	Native spp are dominant compo	onent of the vegetation,
	Low (1)		although nonnative and/or dis	turbance lolerant native spp
	None (0)		can also be present, and spec	cies diversity moderate to
				and a support of spec
	6c. Coverage of invasive plants. Refer		moderately high, but generally	• 1
	to Table † CRAM long form for list. Ad		Ihreatened or endangered sp	p
	to Table 1 ORAM long form for list. Add or deduct points for coverage		Inreatened or endangered sp A predominance of native speci	p ies, with nonnalive spp
	to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5)	d	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na	p lies, with nonnalive spp ative spp absent or virtually
	to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3)	d	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity	p lies, with nonnalive spp ative spp absent or virtually y and often, but not always,
	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)	d high	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na	p lies, with nonnalive spp ative spp absent or virtually y and often, but not always,
	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)	d high	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten	p lies, with nonnalive spp ative spp absent or virtually y and often, but not always,
	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)	d high <u>Mudflat and Open Wat</u>	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na ebsent, and high spp diversity the presence of rare, threaten er Class Quality	p lies, with nonnalive spp ative spp absent or virtually y and often, but not always,
	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.	d high <u>Mudflat and Open Wat</u> 0	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na ebsent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres)	p les, with nonnalive spp ative spp absent or virtually r and often, but not always, led, or endongered spp
	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.	d high <u>Mudflat and Open Wat</u> 0 1	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47.	p les, with nonnalive spp ative spp absent or virtually v and often, but not always, led, or endangered spp acres)
	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 (-1) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.	d high <u>Mudflat and Open Wate</u> 0 <u>1</u> ks <u>2</u>	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 Moderale 1 to <4ha (2.47 to 9)	p les, with nonnalive spp ative spp absent or virtually v and often, but not always, led, or endangered spp acres)
	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 (-1) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm	d high Mudflat and Open Wate 0 1 ks 2 (Sin) 3	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47.	p les, with nonnalive spp ative spp absent or virtually v and often, but not always, led, or endangered spp acres)
	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 (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm Standing dead >25cm (10in)	d high Mudflat and Open Wate 0 1 ks 2 (Gin) 3 dbh	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 Moderate 1 to <4ha (2.47 to 9.1 High 4ha (9.88 acres) or more	p les, with nonnalive spp ative spp absent or virtually v and often, but not always, led, or endangered spp acres)
	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 (-1) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm	d high Mudflat and Open Wate 0 1 ks 2 (6in) 3 dbh Microlupography Cove	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 Moderate 1 to <4ha (2.47 to 9.1 High 4ha (9.88 acres) or more er Scale	p les, with nonnalive spp ative spp absent or virtually v and often, but not always, led, or endangered spp acres)
	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 (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm Standing dead >25cm (10in)	d high Mudflat and Open Wate 0 1 ks 2 (6in) 3 dbh Microtupography Cove 0	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 Moderate 1 to <4ha (2.47 to 9.1 High 4ha (9.88 acres) or more er Scale Absent	p les, with nonnalive spp ative spp absent or virtually <i>y</i> and often, but not always, wed, or endongered spp acres) 88 acres)
	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 (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm Standing dead >25cm (10in)	d high Mudflat and Open Wate 0 1 ks 2 (6in) 3 dbh Microlupography Cove	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 9.1 Moderate 1 to <4ha (2.47 to 9.1 High 4ha (9.88 acres) or more er Scale Absent Present very small amounts or t	p les, with nonnalive spp ative spp absent or virtually <i>y</i> and often, but not always, wed, or endongered spp acres) 88 acres)
	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 (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm Standing dead >25cm (10in)	d high <u>Mudflat and Open Wate</u> 0 1 ks 2 (6in) 3 dbh <u>Microlupography Cove</u> 0 1	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 Moderate 1 to <4ha (2.47 to 9.1 High 4ha (9.68 acres) or more er Scale Absent Present very small amounts or to of marginal quality	p les, with nonnelive spp ative spp absent or virtually and often, but not always, ued, or endongered spp acres) 88 acres)
	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 (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm Standing dead >25cm (10in)	d high Mudflat and Open Wate 0 1 ks 2 (6in) 3 dbh Microlupography Cove 0 1	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 Moderate 1 to <4ha (2.47 to 9.1 High 4ha (9.68 acres) or more er Scale Absent Present very small amounts or to of marginal quality Present in moderate amounts, to	p les, with nonnelive spp ative spp absent or virtually and often, but not always, ued, or endongered spp acres) 88 acres) 68 acres)
	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 (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm Standing dead >25cm (10in)	d high Mudflat and Open Wate 0 1 ks 2 (6in) 3 dbh Microlupography Cove 0 1 2	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 9.1 Moderate 1 to <4ha (2.47 to 9.1 High 4ha (9.88 acres) or more er Scale Absent Present very small amounts or to of marginal quality Present in moderate amounts, to quality or in small amounts of	p les, with nonnelive spp ative spp absent or virtually and often, but not alweys, ued, or endangered spp acree) 88 acres) 68 acres) 69 acres) 60 acres) 60 acres) 60 acres) 60 acres) 61 acres) 62 acres) 63 acres) 63 acres) 64 acres) 65 acres) 66 acres) 66 acres) 67 acres) 68 acres) 66 acres) 67 acres) 68 acres) 66 acres) 67 acres) 68 acres) 66
	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 (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussue Coarse woody debris >15cm Standing dead >25cm (10in)	d high <u>Mudflat and Open Wate</u> 0 1 ks 2 (6in) 3 dbh <u>Microlupography Cove</u> 0 1	Ihreatened or endangered sp A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten er Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 Moderate 1 to <4ha (2.47 to 9.1 High 4ha (9.68 acres) or more er Scale Absent Present very small amounts or to of marginal quality Present in moderate amounts, to	p les, with nonnelive spp ative spp absent or virtually and often, but not alweys, ued, or endangered spp acree) 88 acres) 68 acres) 69 acres) 60 acres) 60 acres) 60 acres) 60 acres) 61 acres) 62 acres) 63 acres) 63 acres) 64 acres) 65 acres) 66 acres) 66 acres) 67 acres) 68 acres) 66 acres) 67 acres) 68 acres) 66 acres) 67 acres) 68 acres) 66

Refer to the most facant CRAM Score Dulgration Naport for the scaring, breakpoints between wetawat categories at the following address; http://www.epib.tites.ch.ug/dow/401/401.html

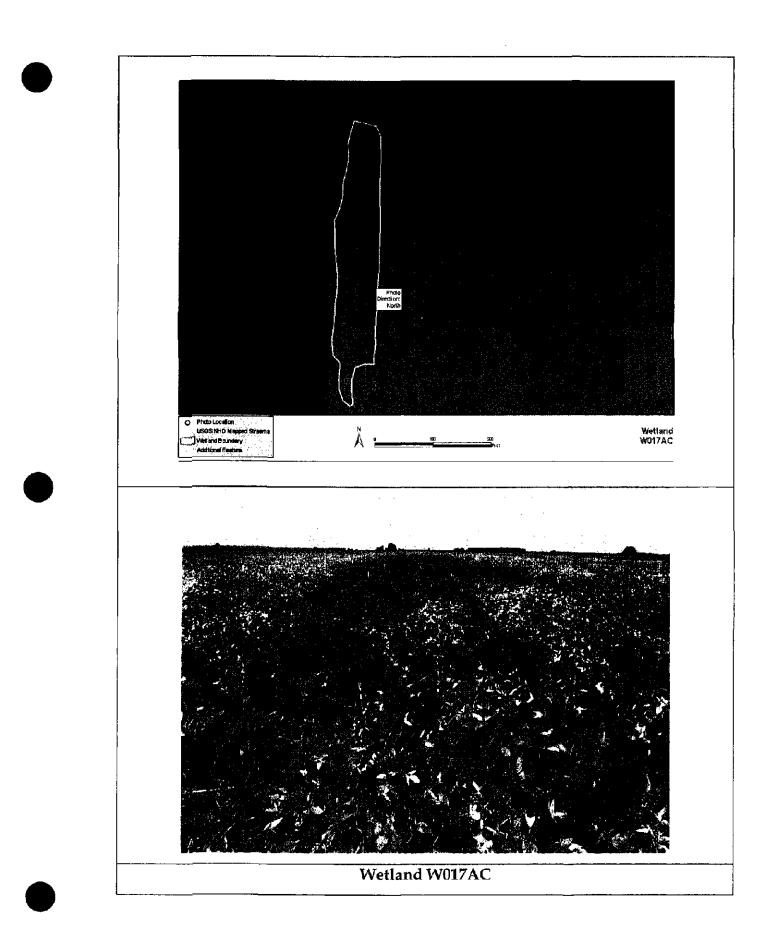


SURVEY TYPE: Blue Creek Wind Farm					WETLAND ID NO.: W017AB Associated Stream ID NO: N/A					
DATE: 09/21/2009		CLIENT/PR	OJECT NAME: 1	Heartland	nd Wind LLC./ Blue Creek Wind Farm					
INVESTIGATORS: Hook	DRS: Hook STATE/COUNTY: Ohio/Van Wert					ROVER FILE: RAH090921.cor QUAD NAME; CONVOY				
HUC 12 CODE: 04100007	1001	Township		Рното No.:						
WETLAND QUALITY: LOW WETLA						trine				
	·			SUBTYPE: E			·····			
	PLANT SPECI	ES			RATUM		DICATOR	PERCENT COVER		
 <u>Glycine max</u> <u>Polygonum sp. (dead</u>) 			rbaceous rbaceous	the second se	Upland Fac Wet	<u> </u>				
3. Echinochloa sp. (dead	Echinochloa sp. (dead)						Fac	20 %		
4								<u> </u>		
6.								%		
PERCENT OF DOMINANT	SPECIES THAT ARE	OBL, FACW, FAC	W+, FACW-, I	FAC+, OR F.	AC (EXCLU	DING FAC-):	66			
VEGETATION REMARKS:	farmed									
				Hydro	LOGY	· · ·	······································			
RECORDED DATA?			Describe:							
DEPTH OF SURFACE WAY	tea: N/A	(in)		Der	TH TO SAT	URATED SOIL	>16 (in)			
DEPTH TO FREE WATER 1	N PIT: None	(in)								
PRIMARY WETLAND IND	ICATORS:			SEC	ONDARY W	TIAND INDI	ATORS:			
None				Loc	al Soil Surv	rey				
				Oth	er					
REMARKS: farmed, sup	pressed crop									
				SOI	LS					
MAP UNIT NAME (SERIE	s and Phase): Ho	oytville silty clay, (0 percent slope	s (flats)			D	RAINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)		Field	OBSERVATION	S CONFIRM	MAPPED T	YPE, IF NO, SO	IL TYPE ENCOUNT	TERED?		
			Proi	FILE DE	SCRIPT	ION		······		
		7	MATRIX COLO	 28	- N	IOTTLE CO	OR	TEXTURE, CONCRETIONS,		
DEPTH (INCHES)	HORIZON		IUNSELL MO		1			STRUCTURE, ETC.		
0-8	А		10YR 3/2					Silt Loam		
8+	A	<u> </u>	10YR 4/1			10YR 4/6 25%		Silty Clay Loam		
	<u></u>		1011(4)1		LOYK 4/6 25% Sinty Clark					
HYDRIC SOIL INDICATOR				·····						
Listed Hyd	ric		Gleyed							
Remarks:		· · · · · · · · · · · · · · · · · · ·	- <u></u>	fin						
		<u> </u>	WETLA		ROMIN	ATION			{	
HYDROPHYTIC VEGETAT	ION PRESENT? Ye	s	1			A WETLAND?	Yes			
WETLAND HYDROLOGY			Is This And							
HYDRIC SOILS PRESENT?			1							
NORMAL CIRCUMSTANC			SIGNIFICAN	TLY DISTUR	RBED: Yes POTENTIAL PROBLEM AREA? Yes					
			ND CROS	SINGT	YPES AT	ND WRTT	AND OUAL	LITY CRITERIA		
								ion types – hydrologic and soil indica	tors	
are characteristic of the s	specific communit	ty type – provides	suitable habita	it for wildli	fe – high qı	uality perenri	al streams are of	ten observed. slightly altered natural vegetation,		
hydrology and/ or soil of	characteristics - p	rovides suitable h	abitat for wildli	ife and veg	etation - as	sociated pere	nnial or intermit	tent streams are of relatively good qu	ality	
and aren't significantly of LOW QUALITY WETL		urbances have cau	sed significant	changes to	vegetation	, soils, or hvd	rology - hydrop	eriod alterations, if present, have dire	ctly	
affected plant species - o	community comp	osition has change	d - noticeable :	stress or de	ath of plan	t species - so	l subsidence may	y have occurred in areas with decreas	ed	
hydroperiod - mechanic and vegetation - associa					- cnanneliz	ation of strea	ni courses or dit	ching – little suitable habitat for wildl	ue	

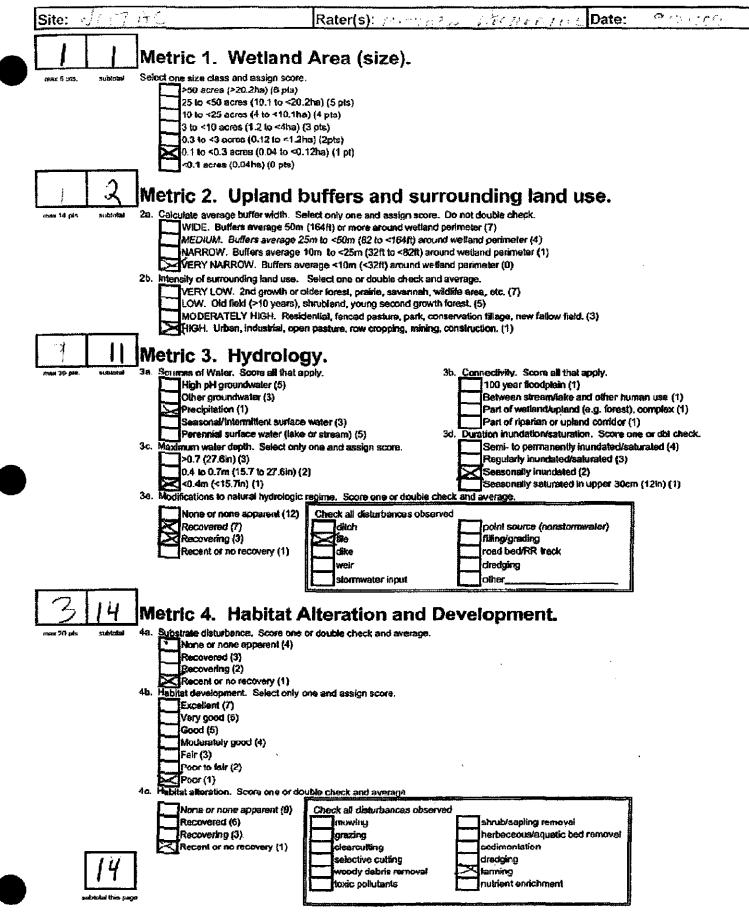


	<u>HR</u>	Rater(s): Provent	Date:
1			
dutu(otal Bris pag			
dictions are part			
$O(\alpha)$	Metric 5. Special V	Vetlands.	
nr 10 pts sublebal	Check all that apply and score as indical		
	Bog (10)	çu.	
	Fen (10)		
	Old growth forest (10)		
	Mature forested wetland (5)		
	Lake Erie coestal/inbutary wet		10)
	Lake Erie coastaMhibutary wet		
	Lake Plain Sand Prairies (Oak Relict Wet Praires (10)	Openings) (10)	
	Kirown occurrence state/feder	ai threatened or endamined :	sneules (10)
	Significant migratory songbird	_	
	Calegory 1 Wetland. See Qui	+ /	•
1 1			
	Metric 6. Plant cor	nmunities, int	erspersion, microtopography.
. 201 pils. subtoital	59, Wetland Vegetation Communities.	Vegetation Communi	ty Cover Scale
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	C Emergent C Shrub		vegetation and is of moderate quality, or comprises a
	C Forest	2	Significant part but is of low quality Present and either comprises significant part of wetland's
	U Mudilats	-	vegetation and is of moderate quality or comprises a small
	O Open water		part and is of high quality
		3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) interspersion		vegetation and is of high quality
	Select only one.		
	High (5)		of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance toterant native species
		BOW	disturbance tolerant native species Native spp are dominant component of the vegetation,
	Moderate (3) Moderately low (2)		disturbance toterant native species
	Moderate (3) Moderately low (2) Low (1)	mod	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp
	Moderate (3) Moderately low (2) Low (1) Solution (0) Gc. Coverage of invasive plants. Refer to Table 1 ORAM long form for tist. Add	mod	disturbance tolerant native species 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 generallyw/o presence of rare threatened or endangered spp
	Moderate (3) Moderately low (2) Low (1) Sc. Coverage of invasive plants. Refer to Table 1 ORAM long form for tist. Add Of deduct points for coverage	mod	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp
	Moderate (3) Moderately low (2) Low (1) Solution (0) Solution (0) S	mod	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually
	Moderate (3) Moderately low (2) Low (1) Sc. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add Of deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3)	mod	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp 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,
	Moderate (3) Moderately low (2) Low (1) Solution (0) Solution (0) S	mod	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually
	Moderate (3) Moderately low (2) Low (1) Sone (0) Gc, 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)	mod	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp 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
	Moderate (3) Moderately low (2) Low (1) Sone (0) Gc. 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)	mod	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp A predominance of native species, with nonnetive 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
	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.	mod high <u>MuctRat and Open Wi</u> 0 1	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally///o presence of rare threatened or endangered spp A predominance of native species, with nonnetive spp and/or disturbance tolerant native spp sosent or virtually absent, and high spp diversity and often, but not atways, the presence of rare, threatened, or endangered spp ater Glass Quality Absent <0.1ha (0.247 acres)
	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 hummucks/tussuct	mod high <u>MuctiBat and Open Wi</u> 0 1 (s 2	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp bosent or virtually absent, and high spp diversity and often, but not atways, the presence of rare, threatened, or endangered spp atter Class Quality Absent <0.1ha (0.247 to 2.47 acres)
	Moderate (3) Moderately low (2) Low (1) None (0) 6c, Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add of 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 hummucks/tussuel Coarse woody dobris >15cm	mod	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally///o presence of rare threatened or endangered spp 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 endengered spp ater Glass Quality Absent <0.1ha (0.247 acres)
	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 hummucks/tussuct Coarse woody dobris >15cm Standing dead >25cm (10in) of	mod high <u>Mucifiat and Open Wa</u> 0 1 (s 2 (6in) 3 Jbh	disturbance tolerant native species 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 generallyw/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp ater Class Quality Absent <0.1ha (0.247 to 2.47 acres)
	Moderate (3) Moderately low (2) Low (1) None (0) 6c, Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add of 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 hummucks/tussuel Coarse woody dobris >15cm	mod high Mucifitat and Open Wa 0 1 (S 2 (6in) 3 ibh Microtopography Co	disturbance tolerant native species Native spp are dominant component of the vegetation, attough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp 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 ater Glass Quality Absent <0.1 ha (0.247 to 2.47 acres)
	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 hummucks/tussuct Coarse woody dobris >15cm Standing dead >25cm (10in) of	mod high <u>Mucifiat and Open Wa</u> 0 1 (s 2 (6in) 3 Jbh	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp 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 ater Class Quality Absent <0.1 ha (0.247 to 2.47 acres)
	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 hummucks/tussuct Coarse woody dobris >15cm Standing dead >25cm (10in) of	mod high <u>Mucifilat and Open Wa</u> 0 1 (6 2 (6 in) 3 Jbh <u>Microtopography Co</u> 0	disturbance tolerant native species Native spp are dominant component of the vegetation, attough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp 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 ater Glass Quality Absent <0.1 ha (0.247 to 2.47 acres)
	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 hummucks/tussuct Coarse woody dobris >15cm Standing dead >25cm (10in) of	mod high <u>Mucifilat and Open Wa</u> 0 1 (6 2 (6 in) 3 Jbh <u>Microtopography Co</u> 0	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp 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 ater Class Quality Absent <0.1 ha (0.247 to 2.47 acres)
	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 hummucks/tussuct Coarse woody dobris >15cm Standing dead >25cm (10in) of	mod Mucifizet and Open Wa 0 1 (S 2 (6in) 3 1bh Microtopography Co 0 1 2	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance toterant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtuality absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp ater Glass Quality Absent <0.1ha (0.247 acres)
	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 hummucks/tussuct Coarse woody dobris >15cm Standing dead >25cm (10in) of	mod Mucifizt and Open Wa 0 1 (S 2 (6in) 3 ibh Microtopography Co 0 1	disturbance tolerant native species Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally//o presence of rare threatened or endangered spp 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 ater Glass Quality Absent <0.1 ha (0.247 acres)

Helev to the mean second ORAM Scara Calibration Report for the locating amorphisms between watand categories at the felowing address: http://www.epa.statu.ah.us/kiew/101/401.html

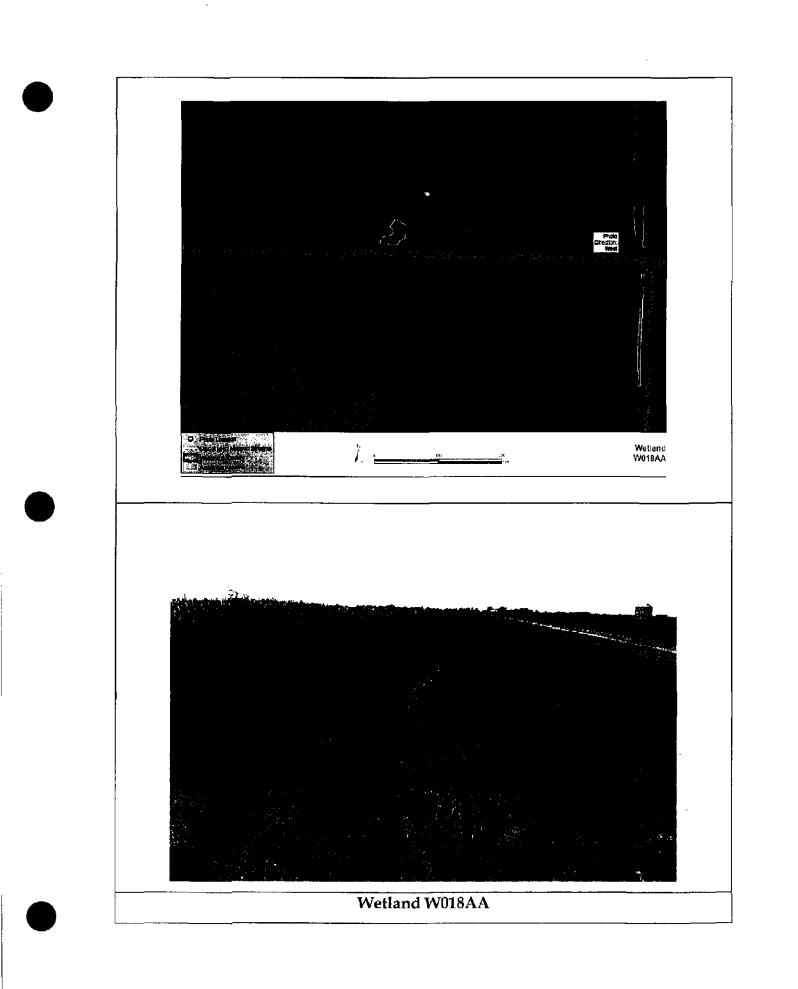


a _ 11		7 1 m								
SURVEY TYPE: Blue Creek Wind Farm						WETLAND ID NO.: W017AC Associated Stream ID NO: N/A				
DATE: 09/21/2009			CLIENT/PROJECT NAM	ME: Heat		and Wind LLC./ Blue Creek Wind Farm				
INVESTIGATORS: Hook			STATE/COUNTY: Ohi			1	FILE: RAH090921.co		NAME: Convoy	
HUC 12 CODE: 04100007	1001		COWNSHIP: Tully	1	 Рното No.:					
WEILAND QUALITY: LOW			-							
WEILAND QUALITY: LOW	v				ETLAND TYPE: Palustrine JBTYPE: Emergent					
	PLANT SPI	ECIES			STRATUM INDICATOR			P	RCENT COVER	
 Glycine max Polygonum sp. (dead 	•				Herbaceous Herbaceous				50 % 20 %	
3. Echinochloa sp. (dead)					Herbaceous		Fac		20 %	
<u>4.</u> 5.									<u> % </u>	
6.									%	
PERCENT OF DOMINANT	SPECIES THAT A	REOBL, FA	CW, FACW+, FAC	W-, FAC	+, or FAC (exclu	DING FAC	2-): 66			
VEGETATION REMARKS:	farmed									
				Hy	DROLOGY					
RECORDED DATA?			DESCRIBE:							
DEPTH OF SURFACE WAT	TER: N/	A (in)			DEPTH TO SAT	URATED S	OIL: >16 (in)		<u> </u>	
DEPTH TO FREE WATER I		ne (in)			O					
PRIMARY WETLAND IND					SECONDARY W	TT AND I				
None		Ţ			Local Soil Surv					
					Other	<u> </u>				
REMARKS: farmed, cro	p suppression	-								
					SOILS					
MAP UNIT NAME (SERIES	s and Phase):	Hoytville s	ilty clay, 0 percent s	lopes (fla		_	D	RAINAGE CLASS	× Very poorly drained	
TAXONOMY (SUBGROUP)	:		FIELD OBSERVAT	TIONS CO	NFIRM MAPPED T	YPE. IF NO	, SOIL TYPE ENCOUN			
					E DESCRIPT					
			MATRIX			AOTTLE	COLOR	TEXTUR	E, CONCRETIONS,	
DEPTH (INCHES)	Horizo	N	(MUNSELL)				INSELL MOIST) STRUCTURE, ETC.			
0-8	A		10YR 3	/2				<u> </u>	Silt Loam	
8+	B		10YR 4	/1		10YR 4/	6 25%		ty Clay Loam	
HYDRIC SOIL INDICATOR		<u> </u>						<u></u>		
Listed Hydric		1	Gleyed					1		
REMARKS:			Gicjeu							
REMARKS:										
			TA7	-		4 77	1			
The second s		11-			DETERMIN					
HYDROPHYTIC VEGETAT WETLAND HYDROLOGY		110			LING POINT WITHIN A WEILAND? Yes OLATED WEILAND? Yes					
HYDRIC SOILS PRESENT?			15 1 115		ALED TYEILAND!	105				
NORMAL CIRCUMSTANC			SIGNIE	ICANTLY	DISTURBED: Yes POTENTIAL PROBLEM AREA? Yes					
		ON OF V					TLAND QUA			
HIGH QUALITY WETL are characteristic of the s MODERATE QUALITY hydrology and/ or soil c and aren't significantly c LOW QUALITY WETL	AND: no indic pecific commu WETLAND: 1 haracteristics - listurbed. AND: severe di	cation of str nity type - mild to mod - provides s isturbances	ess or disturbance i provides suitable h lerate disturbances uitable habitat for w have caused signifi	n wetland abitat for have cau vildlife ar cant char	d or adjacent area wildlife - high quised alterations in nd vegetation - as	- diverse nality per immediat sociated j , soils, or	e and mature vegetat: ennial streams are of tely adjacent areas - perennial or intermit hydrology - hydrop	ion types – hyd ien observed, slightly altered tent streams an eriod alteration	trologic and soil indicators natural vegetation, e of relatively good quality as, if present, have directly	
hydroperiod - mechanic and vegetation - associa	al alteration of	plant speci	es or soils - grazing	; from liv	estock - channeliz	ation of s	- son subsidence maj stream courses or dit	ching - little su	d in areas with decreased litable habitat for wildlife	



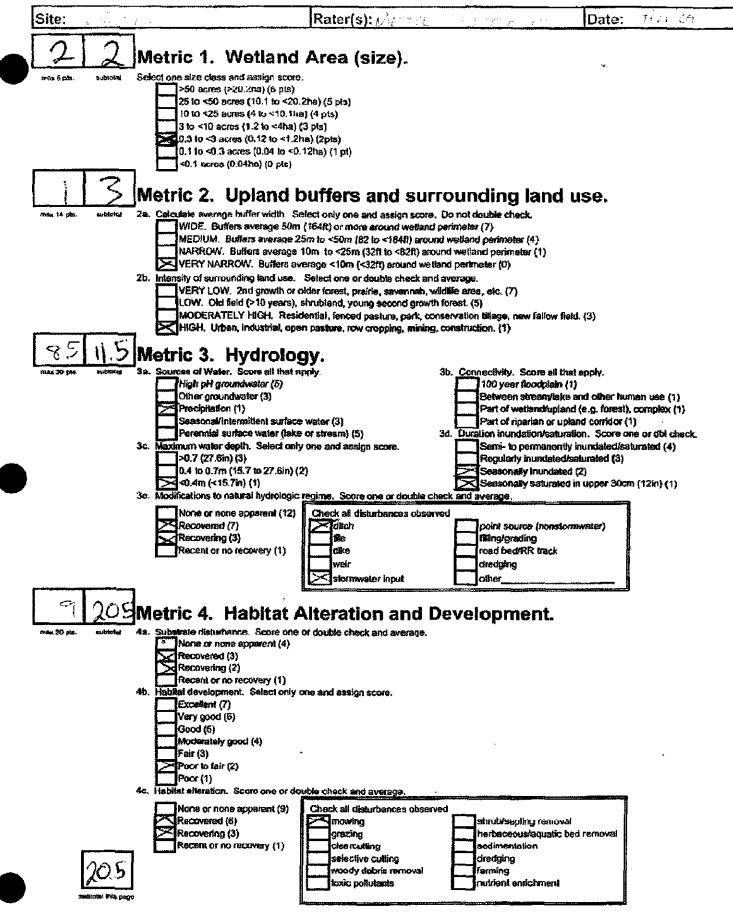
r bartest	Rater(s):	Date:
outstal bis page 0 0 Metric 5. Sp	pecial Wetlands.	
pis substation Check all that apply and a	score as indicated.	
Bog (10) Fen (10)		
Oid growth fore	est (10)	
Mature forester	• '	
	al/tributary watland-unrestricted hydrology (* tal/tributary watland-restricted hydrology (5)	10)
	nd Prairies (Oak Openings) (10)	
Relict Wet Prai		
	ance state/federal threatened or endangered	
	ratory songbird/water fowl habitat or usage (atland. See Question 1 Qualitative Rating (-1	-
		~/
Metric 6. Pi	lant communities, int	erspersion, microtopography.
20 pts. eutocial 6a. Welland Vegelation	-	
Score all present using 0		Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed Emergent	1	Present and either comprises small part of weitand's
- Cheigen		vegetation and is of moderate quality, or comprises a significant part but is of low quality
C/ Forest	2	Present and either comprises significant part of wetland's
C> Mudilats		vegetation and is of moderate quality or comprises a small
🧭 Open water		part and is of high quality
6b. horizontal (plan view	3	Present and comprises significant part, or more, of welland's
Select only one.		vegetation and is of high quality
High (5)	Narrative Description	of Vegetation Quality
Moderately hig	sh(4) low	Low spp diversity and/or predominance of nonnative or
Moderate (3)		disturbance tolerant native species
Low (1)	w (2) mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp
None (0)		can also be present, and species diversity moderate to
oc. Coverage of invasive	•	moderately high, but generallyw/o presence of rare
to Table 1 ORAM long for		threatened or endangered spp
or deduct points for cove	•	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually
Moderate 25-7	.,	absent, and high spp diversity and often, but not always.
Sparse 5-25%		the presence of rare, inreatened, or endangered spp
	<5% cover (0)	
6d. Microlopography.	Mudilat and Open Wr	Absent <0.1ha (0.247 acres)
Score all present using 0		Low 0.1 to <1ha (0.247 to 2.47 acres)
		Moderate 1 to <4ha (2.47 to 9.88 acres)
Vegetaled hun		High 4ha (9.88 acres) or more
Coarse woody		
Coarse woody	i >25cm (10in) dbh -	un Scale
Coarse woody	i >25cm (10in) dbh eding pools <u>Microtopography Co</u>	
Coarse woody	i >25cm (10in) dbh -	ver Scale Absent Present very small amounts or if more common
Coarse woody	i >25cm (10in) dbh eding pools <u>Microtopography Co</u> 0	Absent
Coarse woody	i >25cm (10in) dbh eding pools <u>Microtopography Co</u> 0	Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest
Coarse woody	i >25cm (10in) dbh ending pools <u>Microtopography Con</u> 0 1 2	Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality
Coarse woody	i >25cm (10in) dbh ending pools <u>Microtopography Co</u> <u>0</u> 1	Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest

Beller to the most recent ORath Score Califration Report for the Loaring presidents between watened calegories of the fellowing address: http://www.epa.state.shive/dev/sal/401.html



ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

SURVEY TYPE: Blue	e Creek W	ind Fa	rm	<u></u>		WETLAND ID NO.: W018AA Associated Stream ID NO: N/A						
DATE: 09/21/2009			CLIENT/PROD	RCT NAMP			Blue Creek Wind Fai					
												
INVESTIGATORS: Hook			STATE/COUN		an wert	RO	ROVER FILE: RAH090921.cor QUAD NAME: Convoy					
HUC 12 CODE: 04100007	1001		TOWNSHIP:	Tully		PI	1070 NO.:					
WETLAND QUALITY: LOV	v				WETLAND TYPE: Pa SUBTYPE: Emergen		e					
	PLANT SPE	CIES			STRATUM		INDICATOR	PERCENT COVER				
1. Scirpus atrovirens 2. Leersia oryzoides	····-				Herbaceous Herbaceous		Obligate Obligate	10 %				
3. Typha angustifolia					10 %							
 Alisma subcordatum 5. 					Herbaceous	Obligate	10 %					
6.					·, ·,			/a				
PERCENT OF DOMINANT	SPECIES THAT A	REOBL, I	ACW, FACW	V+, FACW-,	FAC+, OR FAC (EXCI	UDING	FAC-): 100					
VEGETATION REMARKS:												
		_			HYDROLOGY	,						
RECORDED DATA?			De	SCRIBE:								
DEPTH OF SURFACE WAT	TER: N/	A (in)			DEPTH TO SA	TURAT	TED SOIL: 5 (in)					
DEPTH TO FREE WATER I	м Р іт: б (іл	n)										
PRIMARY WETLAND IND	ICATORS:				SECONDARY	WETLA	ND INDICATORS:					
Water Marks					Local Soil Su	rvey_						
Saturated Upper 12in		L			FAC Neutral Test							
REMARKS: roadside/ag	g drainage											
					SOILS							
MAP UNIT NAME (SERIES	5 AND PHASE):]	Hoytville	silty clay, 0 p	ercent slope	s (flats)			DRAINAGE CLASS: Very poorly drained				
TAXONOMY (SUBGROUP)	:		Field O	BSERVATION	S CONFIRM MAPPED	TYPE, I	P NO, SOIL TYPE ENCOU	NTERED?				
				PRO	FILE DESCRIP	TION	4	······				
Depth (Inches)	Horizo	>₩ ·		ATRIX COLO			TLE COLOR SELL MOIST)	TEXTURE, CONCRETIONS, STRUCTURE, ETC.				
0-6	A			2.5Y 3/2				Silty Clay Loam				
6+	c			2.5Y 4/2		10Y	R 4/6 50%	Clay Loam				
					<u> </u>							
HYDRIC SOIL INDICATOR		-		1	<u> </u>							
Listed Hyd			Gle	eyed								
Remarks:												
				WETLA	ND DETERMI	NAT	ION					
HYDROPHYTIC VEGETAT	ION PRESENT?	Yes			APLING POINT WITH							
WEILAND HYDROLOGY					ISOLATED WETLAND			······				
HYDRIC SOILS PRESENT?												
NORMAL CIRCUMSTANC	es? Yes			SIGNIFICAN	TLY DISTURBED: No		POTENTIAL	PROBLEM AREA? No				
D	ESCRIPTIC	ON OF	WETLAN	D CROS	SING TYPES	ND	WETLAND QUA	LITY CRITERIA				
are characteristic of the s MODERATE QUALITY hydrology and/ or soil c and aren't significantly c LOW QUALITY WETL/ affected plant species - c	pecific commun (WETLAND: n haracteristics – listurbed. AND: severe di community com- ral alteration of	nity type nild to ma provides sturbance sposition l plant spe	 provides sur oderate distur suitable habit s have caused has changed - cies or soils - 	itable habita rbances have tat for wildl d significant - noticeable grazing fror	It for wildlife - high = caused alterations is ife and vegetation - changes to vegetation stress or death of pla n livestock - channe	quality n imm associa m, soil ant spe	 perennial streams are ediately adjacent areas ted perennial or interm or hydrology - hydro cies - soil subsidence m 	ation types - hydrologic and soil indicator often observed. - slightly altered natural vegetation, ittent streams are of relatively good qualit period alterations, if present, have directly ay have occurred in areas with decreased itching - little suitable habitat for wildlife				

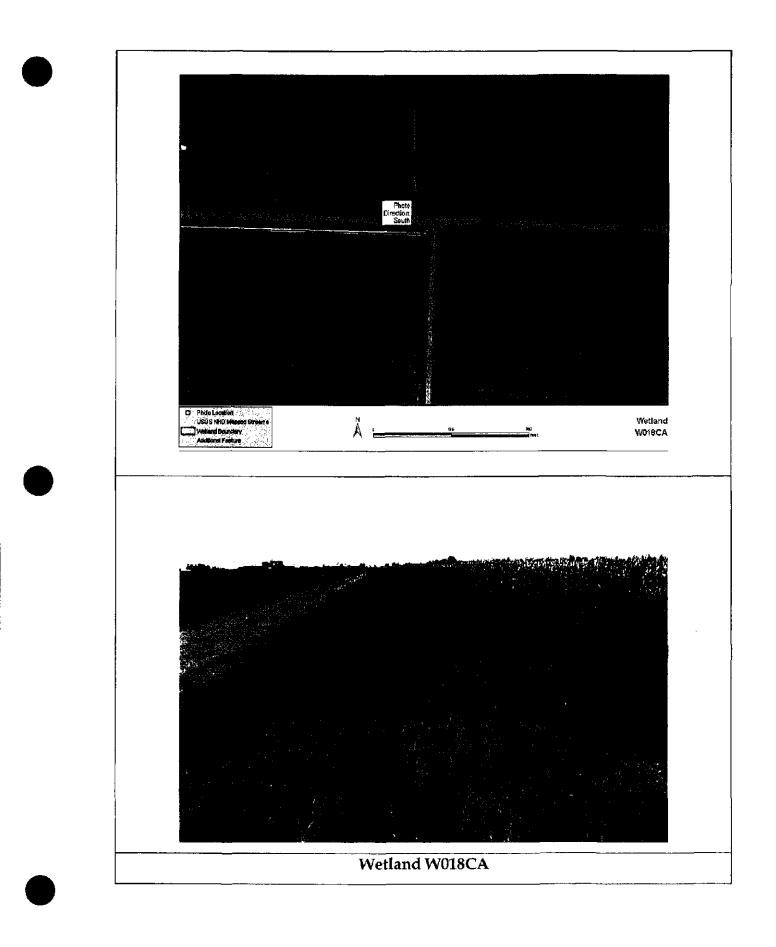


Test revised 1 February 2001 jjm

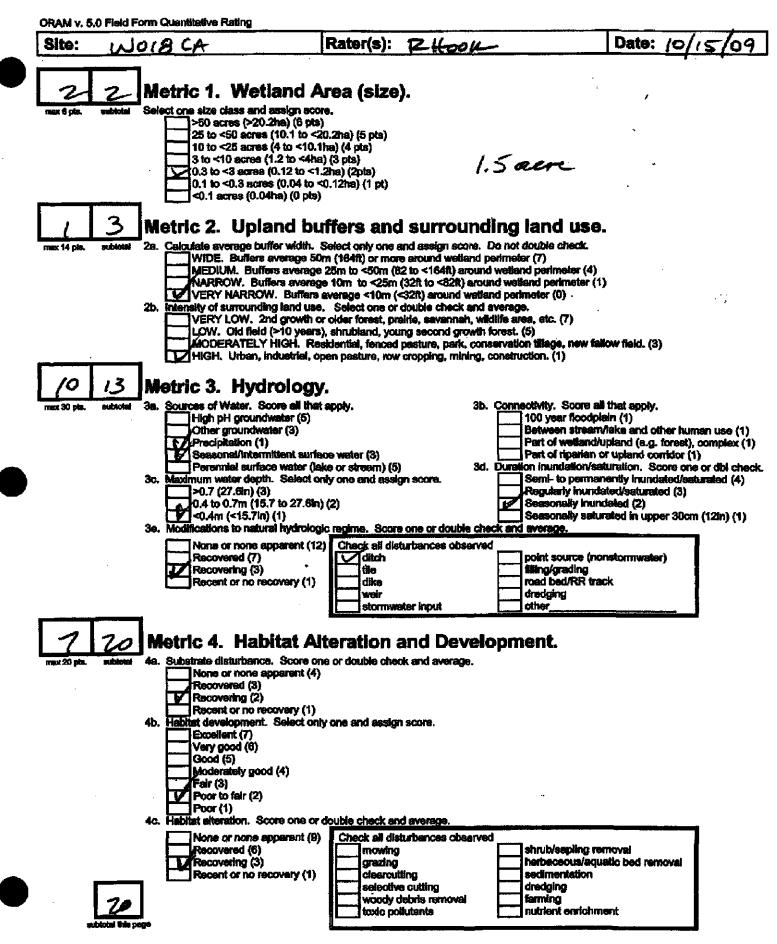
: 10018	1A	Rater(s): Mer	Marine I the other to Date:
	1		
4			
	i .		
substate in a ca			
> O	Metric 5. Special	Wetlands	
0 pts. subjotal	Check all that apply and score as ind		
	Bog (10)		
	Fen (10)		
	Old growth forest (10)		
	Mature forested wetland (5		
		weitand-unrestricted hydrology (weitand-restricted hydrology (
	Lake Plain Sand Prairies (
	Relict Wel Praires (10)		
		xteral threatened or endenger	• • •
		bird/water fowt hebitat or useg	
	Category 1 Wetland. See	Question 1 Qualitative Rating	(-10)
21 7	Metric 6 Plant c	ommunities i	nterspersion, microtopography.
tel entre Co	6a. Wetland Vegetation Communitie		
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of welland's
	2 Emergent		vegetation and is of moderate quality, or comprises a
	C Shrub	2	significant part but is of low quality
	Foresi Muditats	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Cither	3	Present and comprises significant part, or more, of welland's
	6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality
	Select only one.		· ··· · · · ·
	High (5) Moderately high(4)	Narrative Descrip	Low spp diversity and/or predominance of nonnative or
	Moderate (3)	10w	dicturbance tolorant native species
	Moderately low (2)	tom	Native spo are dominant component of the vegetation,
	Low (1)		although normative and/or disturbance tolerant native spp
	None (0)	- -	can elso be present, and species diversity moderate lo
	 bc. Coverage of Invasive plants. Re to Table 1 ORAM long form for list. 		moderately high, but generallyw/o presence of rare threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)	}	and/or disturbance lolerant native spp absent or virtually
	Moderale 25-75% cover (-	3)	absent, and high spp diversity and often, but not always,
	Sperse 5-25% cover (-1)	/R1	the presence of rare, Intentened, or endangered spp
	Nearly absent <5% cover i		Water Class Quality
	5d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale	1	Low 0.1 to <1he (0.247 to 2.47 acres)
	Q Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.68 acres)
	Coarse woody debris >150		High 4ha (9.88 acres) or more
	Standing deed >25cm (10		Prune gesta
	Amphiblan breading pools	Microtopography ()	Abseni
		V 	Present very small amounts or if more common
			of marginal quality
		2	Present in moderate amounts, but not of highest
		- <u>0-</u> 5-0	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		2	Present in moderate amounts, but not of highest

Refer to the most resent, ORAM Scare Calibration. Report for the scening, breakpoints between welfand categories at the following address. http://www.eps.state.ok.us/dou/401/401/http:

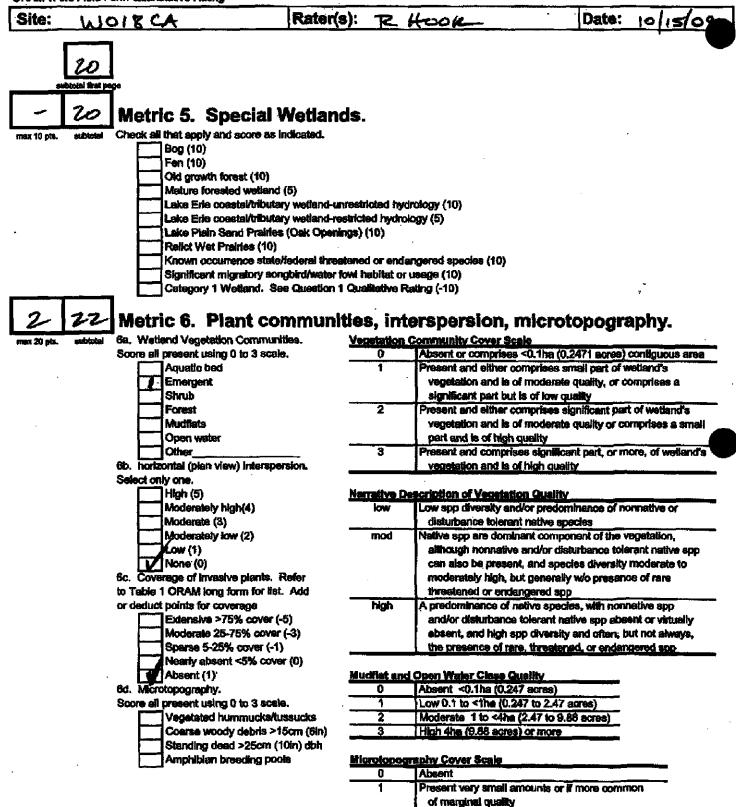
,



ROUTINE WETL	AND DELINEATI	ON DAT.	A FOR	м (1987 С	COE MET	HODOLOGY)		
SURVEY TYPE: Blue Creek Wind F	arm			ID ID NO.:				
Date: 10/15/2000	CLIENT/PROJECT NAME	I	ASSOCIATED STREAM ID NO: N/A					
DATE: 10/15/2009	·			-		QUAD NAME: CONVOY		
INVESTIGATORS: Hook	STATE/COUNTY: Ohio/1				RAH091015.cor	QUAD NAME: CORVOY		
Нис 12 Сорв: 041000071001	TOWNSHIP: Tully			PHOTO NO.:				
WETLAND QUALITY: LOW		WETLAND T SUBTYPE: EI		trine				
PLANT SPECIES		STR	ATUM	IND	CATOR	PERCENT COVER		
Scirpus atrovirens 2.		Hert	aceous	Ot	ligate	<u>100 %</u> %		
3.			· · ·			%		
<u>4,</u> 5.						<u>%</u> %		
б						%		
PERCENT OF DOMINANT SPECIES THAT ARE OBL	, FACW, FACW+, FACW-,	, FAC+, OR FA	C (EXCLUE	NING FAC-): 10	00			
VEGETATION REMARKS: drainage ditch						×		
· · · · · · · · · · · · · · · · · · ·	·	HYDRO	LOGY					
RECORDED DATA?	Describe:				_			
DEPTH OF SURFACE WATER: N/A (in)		DEPI	TH TO SATE	RATED SOIL: 3	(in)			
DEPTH TO FREE WATER IN PIT: 6 (in)	•		· · · •					
PRIMARY WETLAND INDICATORS:		SECONDARY WETLAND INDICATORS:						
Saturated Upper 12in	Oxil	Root Chan	nels					
Drainage Patterns						· · · · · · · · · · · · · · · · · · ·		
REMARKS: drainage ditch								
· · · · · · · · · · · · · · · · · · ·		Son	S		<u></u>			
MAP UNIT NAME (SERIES AND PHASE): Hoytvil	le silty clay, 0 percent slop	es (flats)			DRA	AINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP):	FIELD OBSERVATIO	N5 CONFIRM N	AAPPED TY	PE. IF NO, SOIL	Type Encounte	RED?		
	PRO	FILE DES	CRIPT	ION				
DEPTH (INCHES) HORIZON	MATRIX COI (MUNSELL MO		MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-6 0	2.5Y 3/2			7.5YR 4/6		Siliy Clay Loam		
6+ C	10YR 4/2			10YR 4/6		Clay		
HYDRIC SOIL INDICATORS:			L					
Listed Hydric	Gleyed							
Remarks:		· H						
	WETLA	ND DET	ERMIN	ATION				
HYDROPHYTIC VEGSTATION PRESENT? Yes				A WETLAND? Y	es			
WETLAND HYDROLOGY PRESENT? Yes	Is This Ar	N ISOLATED W	ETLAND?	No				
HYDRIC SOILS PRESENT? Yes	·····							
NORMAL CIRCUMSTANCES? Yes		NTLY DISTURE				OBLEM AREA? NO		
DESCRIPTION OF	WETLAND CRO	SSING TY	PES AN	ND WETLA	ND QUALI	ITY CRITERIA		
HIGH QUALITY WETLAND: no indication o are characteristic of the specific community typ MODERATE QUALITY WETLAND: mild to hydrology and/ or soil characteristics - provid and aren't significantly disturbed. LOW QUALITY WETLAND: severe disturbar affected plant species - community compositio hydroperiod - mechanical alteration of plant sp and vegetation - associated perennial or interm	e – provides suitable habi noderate disturbances hav es suitable habitat for wild ces have caused significan n has changed – nottceable recies or soils – grazing foc	tat for wildlife ve caused alte: llife and veget nt changes to v e stress or dea om livestock -	e – high qu rations in i tation as regetation, th of plant	ality perennial immediately ad sociated perenr , soils, or hydro t species – soil s	streams are ofte ljacent areas – sli ual or intermitte logy – hydroper ubsidence may	en observed. ightly altered natural vegetation, ant streams are of relatively good quality clod alterations, if present, have directly have occurred in areas with decreased		



last revised 1 February 2001 jm





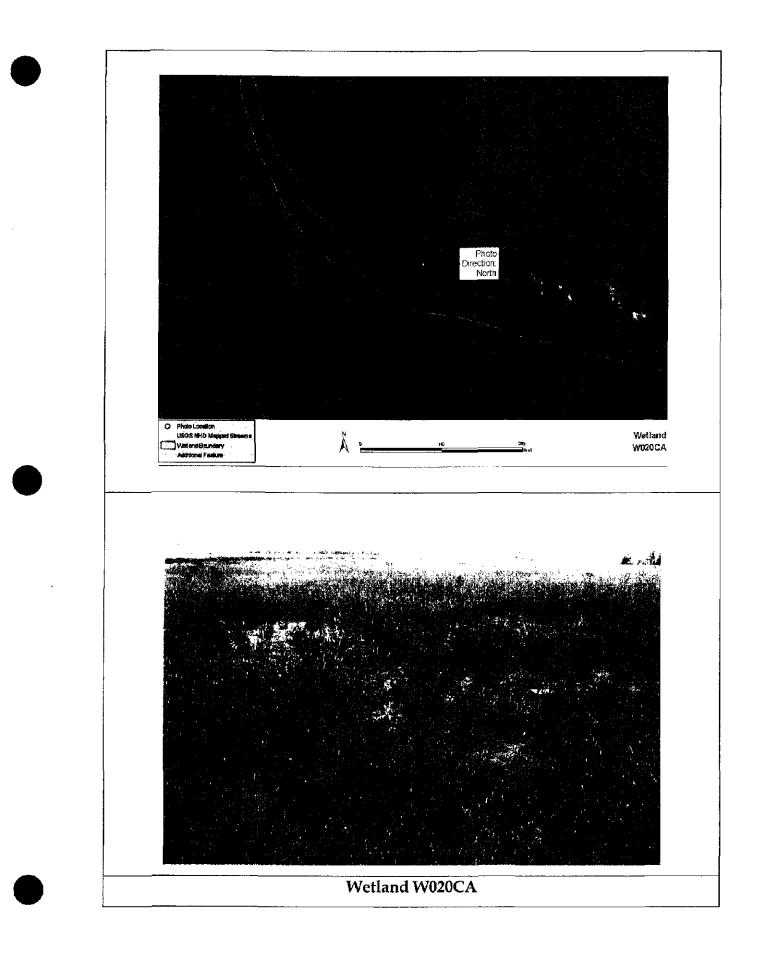
Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between variant calegories at the following address: http://www.eps.atate.ch.us/dou/401/401.html isst revised 1 February 2001 jjm

2

3

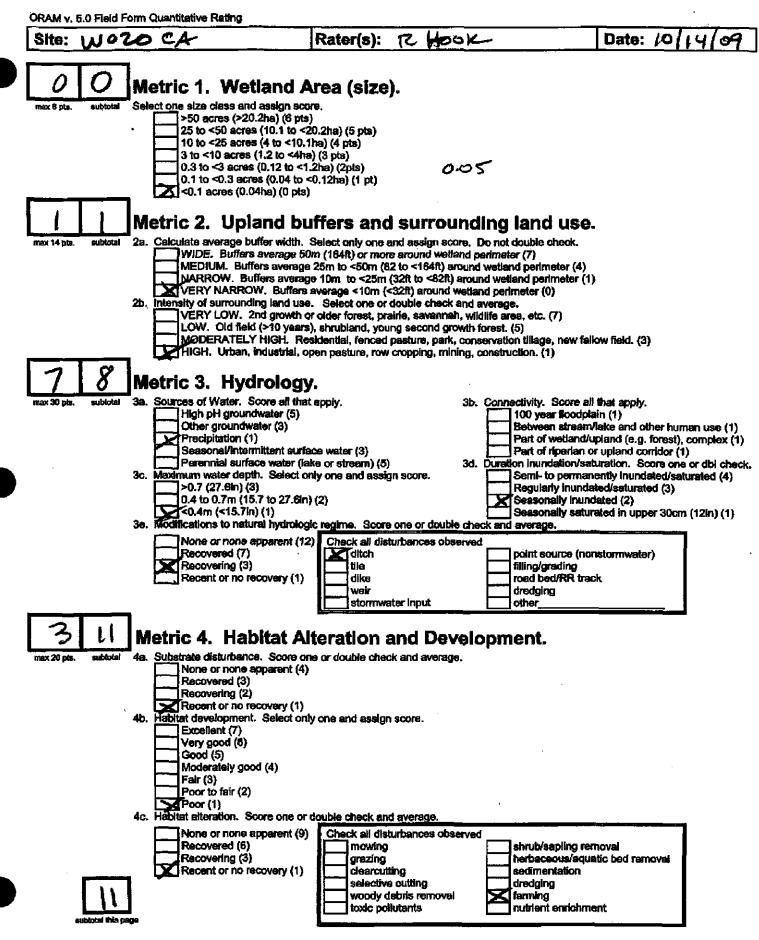
Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

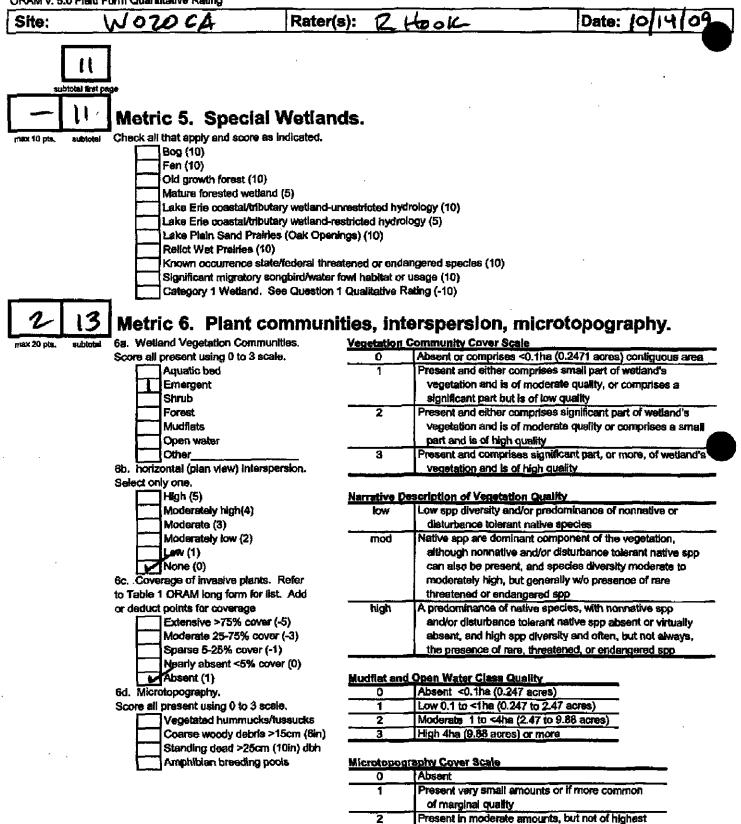


ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

SURVEY TYPE: Blu	e Creek Wii	nd Farm				the second s	: W020CA		
L							D No: S019A		
DATE: 10/15/2009		CLIENT/P	ROJECT NAME:	Heartland	Wind LL	C./ Blue C	reek Wind Fari	m	
INVESTIGATORS: Hook		STATE/CO	OUNTY: Ohio/V	Van Wert		ROVER FILE: RAH091015.cor QUAI			QUAD NAME: CONVOY
HUC 12 CODE: 04100007	0701	Townshi	P: Union		Рното No.: 010				
WEILAND QUALITY: LOV	v			WETLAND SUSTYPE	TYPE: Palus Emergent	trine			
	PLANT SPEC	ES	-:-:	ST	RATUM	IN	DICATOR		PERCENT COVER
1. Glycine max	<u> </u>		· · ·		rbaceous		Upland	<u>`</u>	40 %
2. Xanthium strumariu	n	·		·	rbaceous		Fac		10 %
3. Setaria glauca			· · ·	He	rbaceous		Fac		<u> </u>
<u>4.</u> 5.		·		······································					<u> </u>
6.	• •		······						%
PERCENT OF DOMINANT	SPECIES THAT ARI	OBL, FACW, FA	CW+, FACW-,	, FAC+, OR F	AC (EXCLUI	DING FAC-):	66		
VEGETATION REMARKS:					<u></u>				
				HYDRO	DLOĠY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WAT	rer: N/A	(in)		DE	PTH TO SAT	JRATED SOIL	: >16 (in)		
DEPTH TO FREE WATER	IN PIT: None	(in)							
PRIMARY WETLAND IND	ICATORS:	,		590	CONDARY W	ETLAND IND	CATORS:		
Sediment Deposits						<u> </u>			
REMARKS: farmed wet	, suppressed crop	•		I				<u> </u>	
				Sol	ILS				
MAP UNIT NAME (SERIE	S AND PHASE): H	oyiville silty clay	loam, 0 percen				T	RAINAG	E CLASS: Very poorly drained
TAXONOMY (SUBGROUP)						(PE, IF NO, S	DIL TYPE ENCOUN		
			PRC	FILE DE	SCRIPT	ION			
Depth (Inches)	Horizon	1 1	MATRIX COI MUNSELL MO			MOTTLE COLOR (MUNSELL MOIST)		TEXTURE, CONCRETION STRUCTURE, ETC.	
0-9	A	-	2.5Y 3/2		1				Silty Clay Loam
9+	В		10YR 4/1			10YR 4/6			Clay
HYDRIC SOIL INDICATO									
Listed Hyd	ric	·····	Gleyed						
Remarks;									
			WETLA	ND DE	TERMIN	ATION			
Hydrophytic Vegeta1	ION PRESENT? N	0				A WETLAND?	Yes		
WETLAND HYDROLOGY	PRESENT? Yes		IS THIS AN	ISOLATED	WETLAND?	No			
HYDRIC SOILS PRESENT	? Yes								
NORMAL CIRCUMSTANC	es? Yes		SIGNIFICA	NTLY DISTU	RBED: Yes		POTENTIAL	PROBLEM	a Area? Yes
D	ESCRIPTIO	N OF WETLA	AND CRO	SSING T	YPES AN	ID WET	LAND OUA	LITY	CRITERIA
HIGH QUALITY WETT are characteristic of the MODERATE QUALITY hydrology and/ or soil and aren't significantly LOW QUALITY WETL	LAND: no indicat specific communi (WETLAND: mi tharacteristics – p disturbed. AND: severe dist	ion of stress or di ty type – provide Id to moderate di rovides suitable f urbances have car	sturbance in w s suitable habit sturbances hav abitat for wild used significan	vetland or ac tat for wildli ve caused at llife and veg at changes to	ljacent area ife – high qu terations in cetation – as vegetation	- diverse an ality perenr immediately sociated per , soils, or hyd	d mature vegeta ial streams are o adjacent areas - mnial or intermi irology - hydrop	tion type often obs slightly ittent stro period al	as - hydrologic and soil indicators erved. altered natural vegetation, eams are of relatively good qualit terations, if present, have directly
	al alteration of pl	ant species or soil	ls – grazing fro	om livestock	- channeliz				occurred in areas with decreased little suitable habitat for wildlife



last revised 1 February 2001 jjm



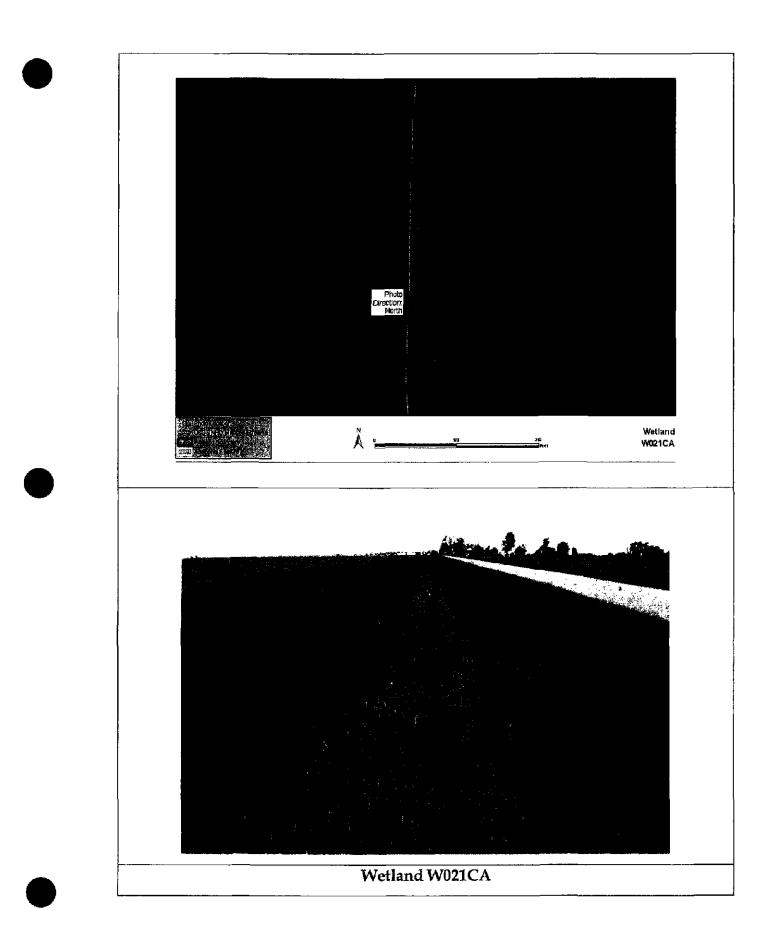


er to the most recent ORAM Score Calibration Report for the scoring breakpoints between watiand categories at the following ackness: http://www.epa.state.oh.us/dow/401/401.htm last revised 1 February 2001 jjm

3

quality or in small amounts of highest quality

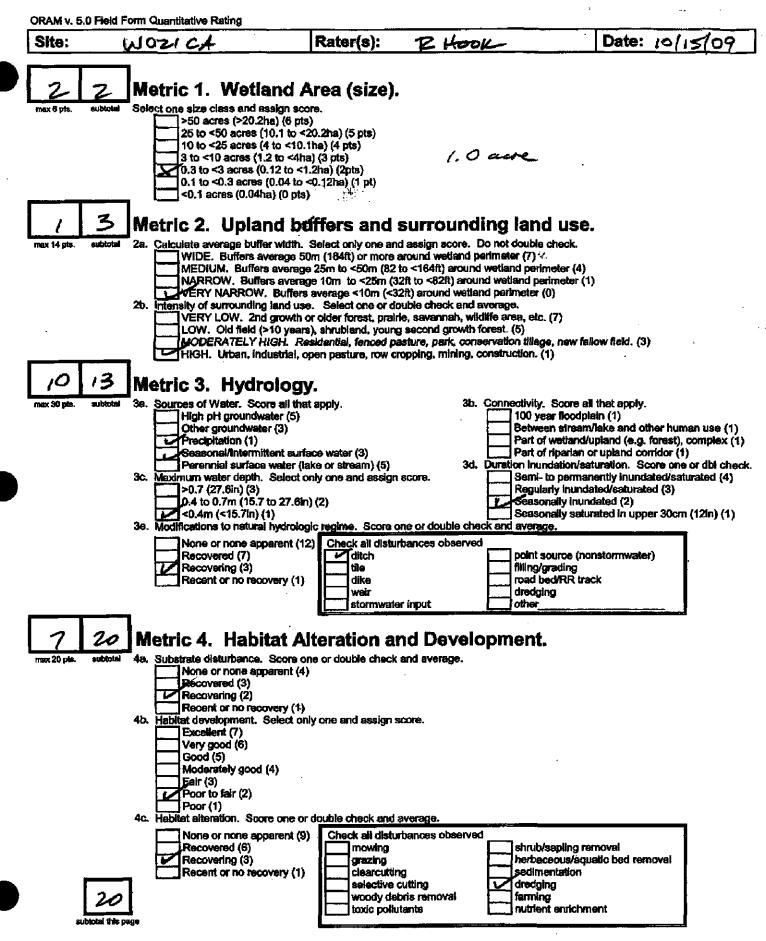
Present in moderate or greater amounts



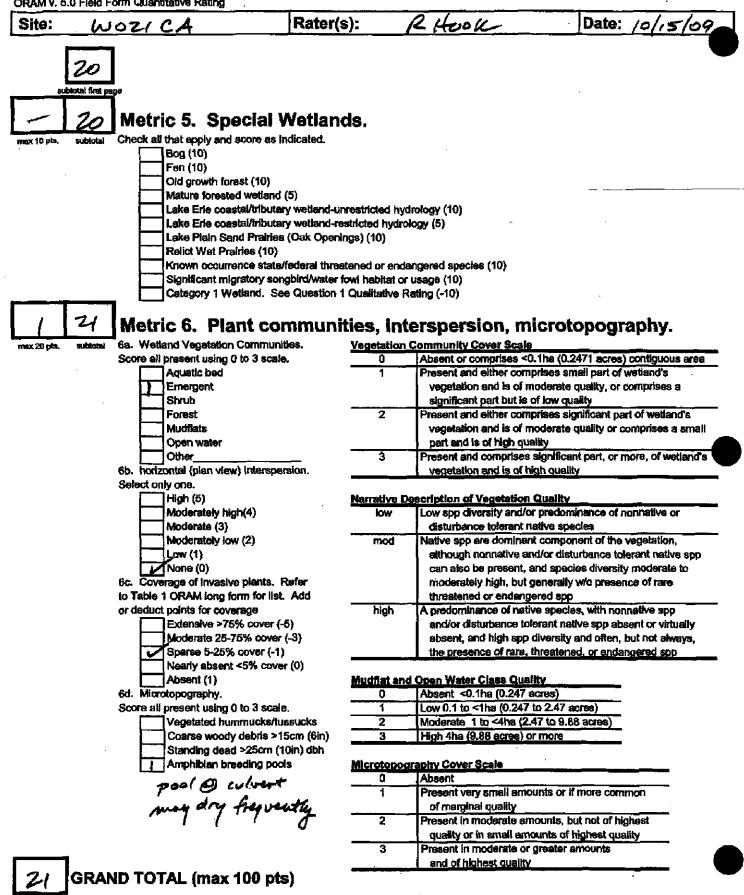
ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

.

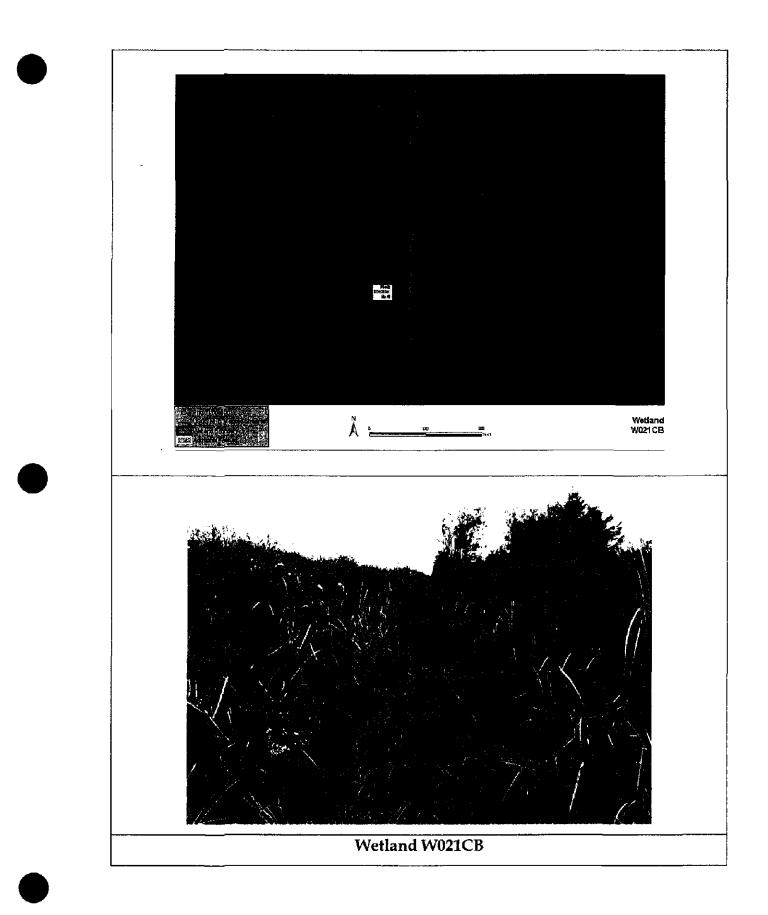
SURVEY TYPE: Blue	Creek W	ind Farm	n		WETLAND ID NO.: W021CA Associated Stream ID No: S021AA							
DATE: 10/15/2009		Ci	LIENT/PROJECT NAME:	Heartland								
Investigators: Hook			TATE/COUNTY: Ohio/1		T		RAH091015.co		ME: Convoy			
						NOVER FICE.	101110/1010.00	QUADINA				
HUC12 CODE: 0410000707	/03	To	OWNSHIP: Union			PHOTO NO.:	17					
WETLAND QUALITY: LOW				WETLAND SUBTYPE:	TYPE: Palustr Emergent	ine						
	PLANT SPE	CIES		ST	RATUM	INC	ICATOR	Perc	ENT COVER			
1. Scirpus atrovirens 2. Leersia oryzoides		·			rbaceous rbaceous		oligate		40 % 60 %			
3.				пе	rbaceous		pligate		%			
4							%					
5 6.	A								<u>%</u>			
PERCENT OF DOMINANT S	DECTES THAT AT		W FACW+ FACW-						70			
VEGETATION REMARKS: C		CODL, FA	cm, racm, racm,	TACT, OK I	AC (EXCLUDIN	NG FAC-J: 10						
		····		HYDRO	DLOGY							
RECORDED DATA?			Describe:						·····			
DEPTH OF SURFACE WATE	R: 3 (ir	ı)		DE	PTH TO SATUR	ATED SOIL:) (in)					
DEPTH TO FREE WATER IN	Р іт: 0 (іг	ı)										
PRIMARY WETLAND INDK	ATORS:			SEC	CONDARY WET	LAND INDIC	TOR9:					
Inundated Drainage Patterns					i Root Channe	ls						
Saturated Upper 12in												
REMARKS: drainage dite	h											
				SO	ILS							
MAP UNIT NAME (SERIES .	and Phase): H	loytville silt	<u> </u>						ery poorly drained			
TAXONOMY (SUBGROUP):		<u> </u>	FIELD OBSERVATIO:				TYPE ENCOUNT	TERED?				
			PRO	FILE DE	SCRIPTIC	<u>DN</u>						
Depth (Inches)	HORIZO	N	MATRIX COL (MUNSELL MC		MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETION STRUCTURE, ETC.				
0-6	0		2.57 3/2					Silty	Clay Loam			
6+	С		10YR 4/1			10YR 4/6			Clay			
HYDRIC SOIL INDICATORS		L					[
Listed Hydri		T	Gleyed									
REMARKS:								1, , , , , , , , , , , , , , , , , , ,				
			WETLA	ND DE	FERMINA	TION						
HYDROPHYTIC VEGETATIC	N PRESENT?	es			NT WITHIN A V		es					
Wetland Hydrology Pi					VETLAND? No							
HYDRIC SOILS PRESENT?	Yes											
NORMAL CIRCUMSTANCES	? Yes		SIGNIFICAT	NTLY DISTUR	RBED: No		POTENTIAL P	ROBLEM AREA? N	la			
DE	SCRIPTIC	ON OF W	ETLAND CROS	SSING T	YPES ANI	D WETLA	ND QUAI	ITY CRITE	RIA			
HIGH QUALITY WETLA are characteristic of the sp MODERATE QUALITY I hydrology and/ or soil ch and aren't significantly dis LOW QUALITY WETLA affected plant species - co	ecific commur VETLAND: n aracteristics – sturbed. ND: severe dis	uity type – p nild to mode provides sui sturbances h	rovides suitable habit erate disturbances hav itable habitat for wild nave caused significan	at for wildli re caused alt life and veg t changes to	fe – high qual terations in im etation – assoc vegetation, so	lity perennial unediately as clated perent oils, or hydro	streams are off ljacent areas s nial or intermitt slogy hydrope	en observed. lightly altered na ent streams are o rriod alterations,	tural vegetation, f relatively good quality if present, have directly			



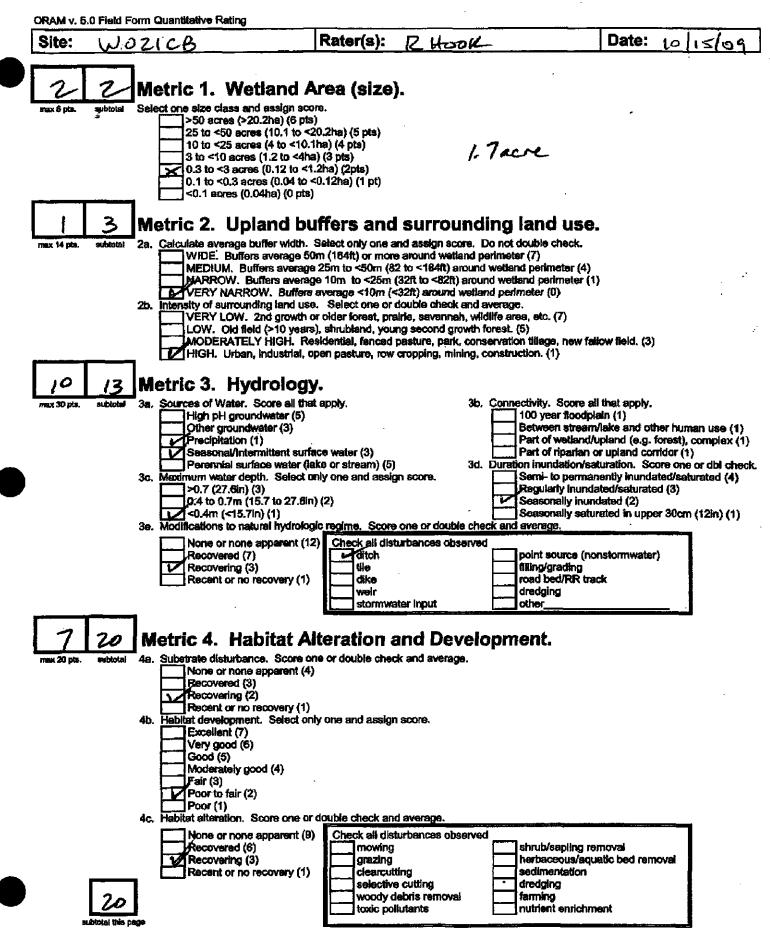
last revised 1 February 2001 jjm



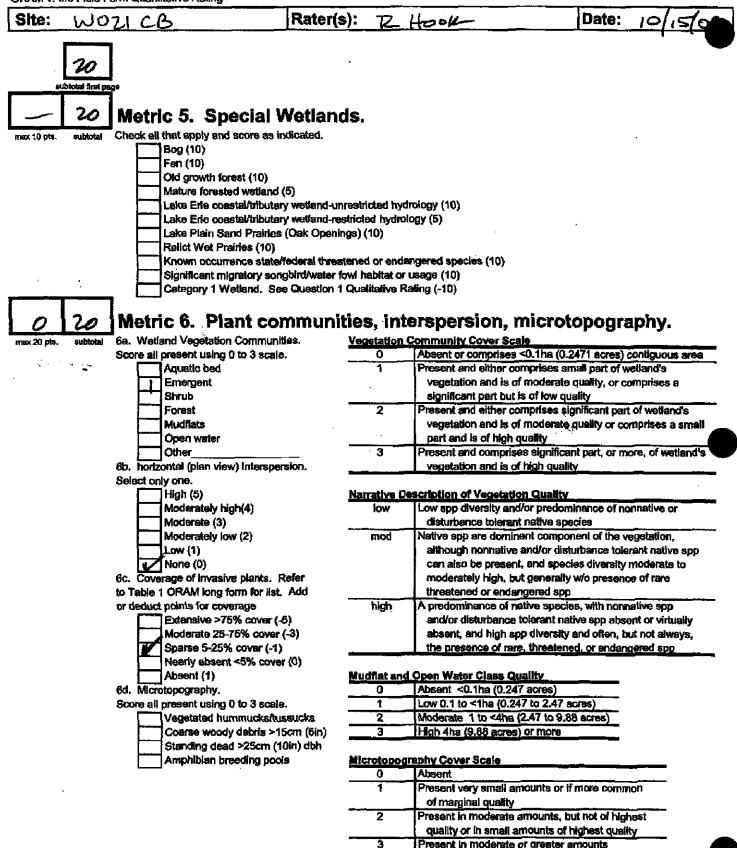
Refer to the most recent ORAM Score Calibration Report for the scoring, breakpoints between wetle nd catagories stale following address: http://www.apa.stale.ch.up/dsw/401/401.html last revised 1 February 2001 jim



Ro	UTINE W	ETLAND	Delineati	ON DA	TA FOR	м (1987	COE MET	HODOLOGY)		
SURVEY TYPE: Blue	Creek Wi	ind Farm				ID ID No.:				
					ASSOCIAT	ED STREAM IE	NO: S021CA	L		
DATE 10/15/2009		CLIEN	T/PROJECT NAME:	: Heartlan	d Wind LLC	C./ Blue Cre	ek Wind Farm	d Farm		
NVESTIGATORS: Hook		STATE	COUNTY: Ohio/	Van Wert		Rover File:	RAH091015.cor	QUAD NAME: CONVOY		
HUC 12 CODE: 0410000707	/03	Town	SHIP: Union			Рното No.:	19	· · · · · · · · · · · · · · · ·		
VETLAND QUALITY: Low		<u> </u>			D TYPE: Palus Emergent	trine		· · · · · · · · · · · · · · · · · · ·		
	PLANT SPE	CIES	<u> </u>	s	TRATUM	INI	DICATOR	PERCENT COVER		
. Alisma subcordatum					erbaceous	- C	bligate	20 %		
2. Leersia oryzoides	······			-	erbaceous		bligate	70 %		
 Typha angustifolia 				HH	erbaceous	0	bligate	10 %		
±							 	<u> % </u>		
ő.				1				%		
PERCENT OF DOMINANT S	PECIES THAT A	REOBL, FACW	FACW+, FACW-	FAC+. OR	FAC (EXCLUD	ING FAC-): 1	00			
VEGETATION REMARKS: 0		,		//1/02						
				HYDR	OLOGY					
RECORDED DATA?			DESCRIBE:							
DEPTH OF SURFACE WATE	R: 1 (in)		D	epth to Satu	RATED SOIL:	0 (in)			
Depth to Free Water in	Рлт: 0 (in)								
PRIMARY WETLAND INDI		SI	SECONDARY WETLAND INDICATORS:							
nundated Drainage Patterns					xi Root Cham	nels				
Saturated Upper 12in										
REMARKS: drainage dite	h									
				SC	ILS			······································		
MAP UNIT NAME (SERIES	AND PHASE); 1	loytville silty cl	lay, 0 percent slop	pes (flats)			Dr	AINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP):		F	IELD OBSERVATIO	INS CONFIRM	vi Mapped Ty	pe. If No, Soi	l Type Encount	ERED?		
			PRC	DFILE D	ESCRIPTI	ON				
DEPTH (INCHES)	Horizo	N	MATRIX COI (MUNSELL MO		MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETIONS, Structure, etc.		
0-6	0		2.5¥ 3/2			7.5YR 4/6		Silty Clay Loam		
6+	с		10YR 4/1			10YR 4/6		Clay		
HYDRIC SOIL INDICATORS							<u> </u>	<u>.</u>		
Listed Hydri	·		Gleyed	·	1	· · · ·				
Remarks:					I			L <u>,,</u>		
<u></u>			WETLA	AND DE	TERMIN	ATION				
HYDROPHYTIC VEGETATIC	ON PRESENT?	(es				WETLAND?	íes	······································		
WETLAND HYDROLOGY P	RESENT? Yes		IS THIS AN	N ISOLATED	WETLAND? 1	No		· · · · · · · · · · · · · · · · · · ·		
INDRIC SOILS PRESENT?	Yes									
NORMAL CIRCUMSTANCE	8? Yes		SIGNIFICA	NTLY DIST	JRBED: No		POTENTIAL PI	ROBLEM AREA? NO		
DI	SCRIPTIO	N OF WET	LAND CRO	SSING 7	YPES AN	ID WETL	AND QUAL	ITY CRITERIA		
are characteristic of the sp MODERATE QUALITY hydrology and/ or soil ch and aren't significantly di LOW QUALITY WETLA affected plant species - co hydroperiod - mechanica.	ecific commur WETLAND: # aracteristics - sturbed, ND: severe dis mmunity com l alteration of J	ity type – provi nild to moderate provides suitab sturbances have position has che plant species or	ides suitable habi e disturbances hav le habitat for wilc caused significan anged – noticeable	tat for wild ve caused a dlife and ve at changes t e stress or d om livestoci	life – high qu lterations in i getation – ass o vegetation, leath of plant k – channeliza	ality perennia nunediately a sociated peren soils, or hydr species – soil	l streams are ofte djacent areas – sl nial or intermitte ology – hydrope subsidence may	in types – hydrologic and soil indicator en observed. Lightly altered natural vegetation, ent streams are of relatively good quali riod alterations, if present, have directl have occurred in areas with decreased hing – little suitable habitat for wildlife		



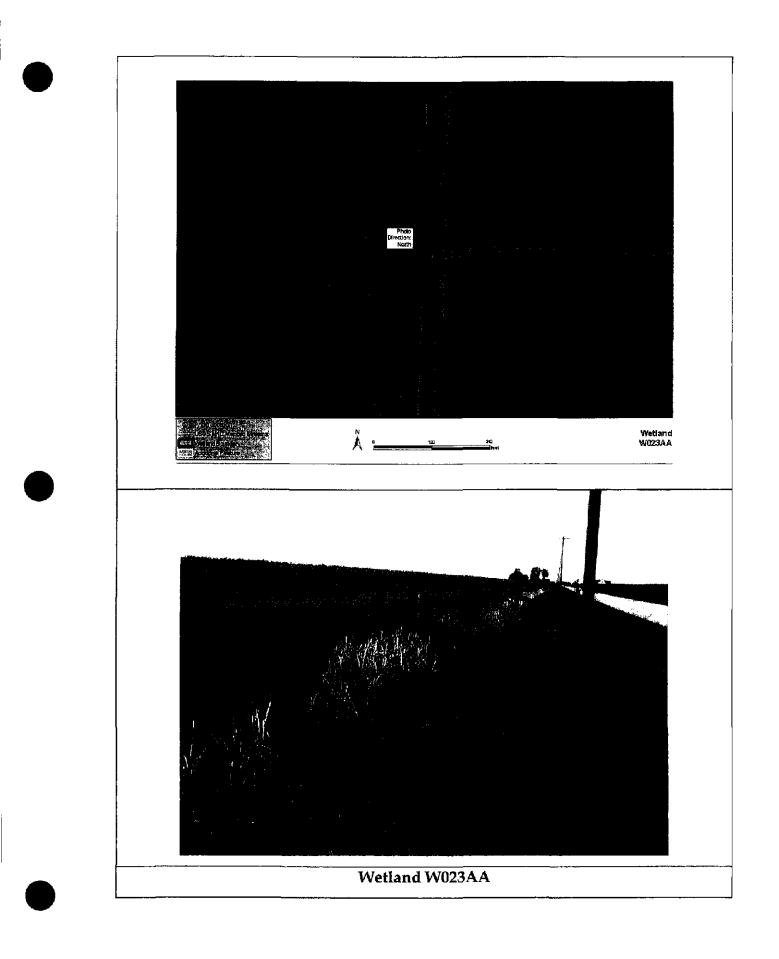
last revised 1 February 2001 jm



20 GRAND TOTAL (max 100 pts)

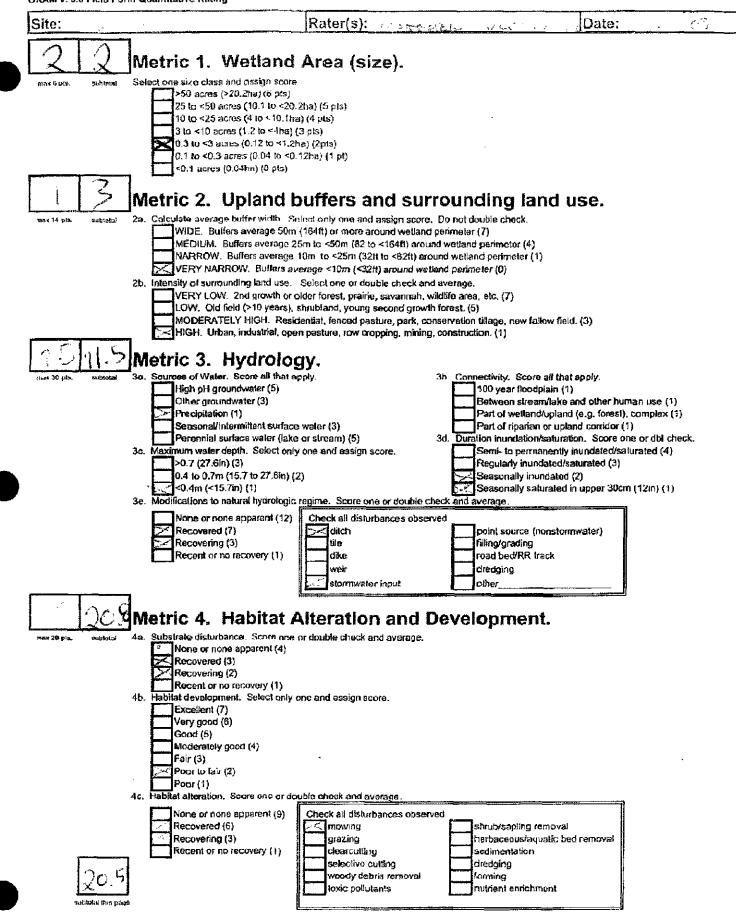
Refer to the most recent ORAM Score Calibration Report for the acoring breakpoints between wetland categories at the following address: http://www.eps.state.oh.us/dsw/401/401.html last revised 1 February 2001 jjm

Present in moderate or greater amounts



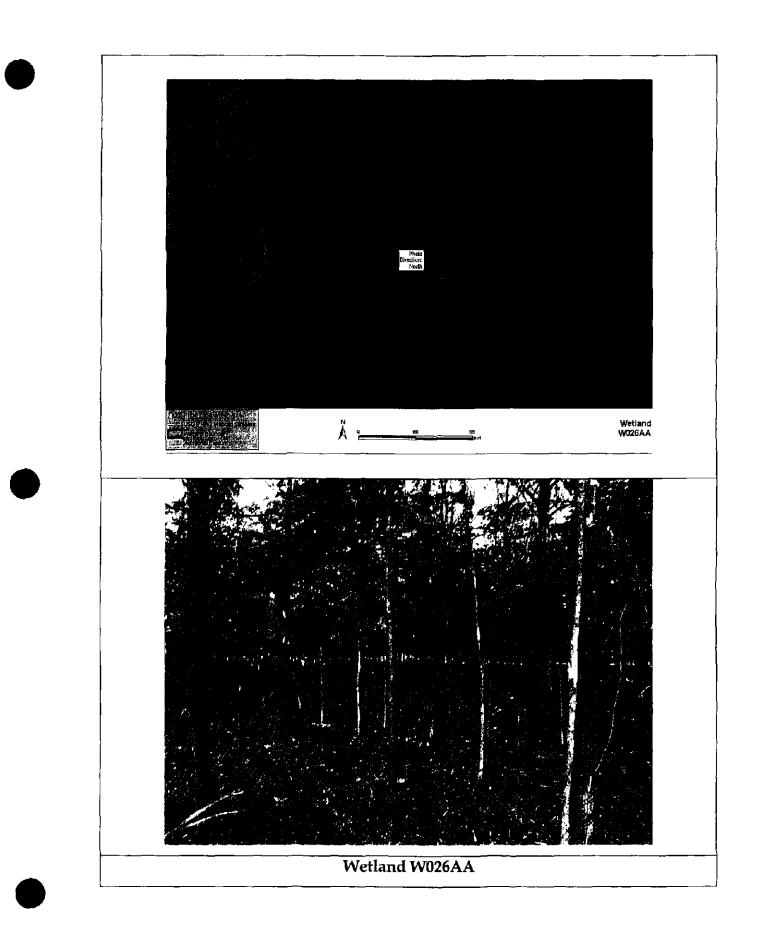
						·····					
SURVEY TYPE: Blue	Creek Wind I	arm		<u> </u>		No.: W023AA					
	<u> </u>	·	Associated Stream ID No: N/A								
DATE: 09/21/2009		CLIENT/PROJECT NAME:	Heartlanc	l Wind LL	C./ Blu	Blue Creek Wind Farm					
INVESTIGATORS: Hook		STATE/COUNTY: Ohio/V	an Wert		ROVE	R FILE: RAH090921.c	QUAD NAME: Convoy				
HUC 12 CODE: 0410000707	03	TOWNSHIP: Union			Рнот	3 No.:					
WETLAND QUALITY: Low		· · · · · · · · · · · · · · · · · · ·		TYPE: Palu: Emergent	otrine	<u> </u>					
	PLANT SPECIES			TRATUM		INDICATOR		PERCENT COVER			
1. Scirpus atrovirens	I LANT OF LORD			rbaceous	+	Obligate		10 %			
2. Leersia oryzoides			He	rbaceous		Obligate		20 %			
3. Typha angustifolia				rbaceous		Obligate		30 %			
 <u>4. Typha latifolia</u> <u>5. Alisma subcordatum</u> 				rbaceous rbaceous		Obligate		<u>40 %</u>			
6				1040003	<u>+</u> -	Ochgate		<u>%</u>			
PERCENT OF DOMINANT SI	ECIES THAT ARE OB	, FACW, FACW+, FACW-,	FAC+, OR I	AC (EXCLUI	DING FA	C-): 100					
VEGETATION REMARKS: 10			·····								
			HYDRO	DLOGY							
RECORDED DATA?	_	DESCRIBE:									
DEPTH OF SURFACE WATE	r; N/A (in)		DE	PTH TO SAT	URATED	Soil: >16 (in)					
DEPTH TO FREE WATER IN	PIT: None (in)										
PRIMARY WETLAND INDIC	ATORS:		SE	CONDARY W	ETLAND	INDICATORS:					
Water Marks							Oxil	Root Channels			
		cal Soil Surv C Neutral T			1						
REMARKS: roadside/ag o	Irainage										
	<u></u>		So	ILS							
MAP UNIT NAME (SERIES /	ND PHASE): Hoytvi	lle silty clay, 0 percent slope	es (flats)			ľ	ORAINAG	E CLASS: Very poorly drained			
TAXONOMY (SUBGROUP):				MARRENT		O, SOIL TYPE ENCOU	NTERED?				
Takonomi (bobdabol).				SCRIPT							
				1							
DEPTH (INCHES)	HORIZON	MATRIX COL (MUNSELL MO		1	MOTTLE COLOR MUNSELL MOIST)		3	EXTURE, CONCRETIONS, STRUCTURE, ETC.			
0-4	Α	10YR 4/2		-	10YR 4	/6 10%		Silty Clay Loam			
4+	С	4/N			10YR 4			Clay Loam			
				1							
Hydric Soil Indicators				<u> </u>							
Listed Hydrid	2	Gleyed									
REMARKS:	J						- 1				
		WETLA	ND DE	TERMIN	ATIO			<u></u>			
HYDROPHYTIC VEGETATIC	N PRESENT? Yes			NT WITHIN							
WETLAND HYDROLOGY PH		Is This An									
HYDRIC SOILS PRESENT?		Lo CILLO PLIN			. 10						
						Desarch PTP + 1	Bacoro	APEAT No.			
NORMAL CIRCUMSTANCES		SIGNIFICAN						M AREA? No			
DE	SCRIPTION O	F WETLAND CROS	SING T	YPES AI	NDW	ETLAND QUA	ALITY	CRITERIA			
are characteristic of the sp MODERATE QUALITY V hydrology and/ or soil ch and aren't significantly dis LOW QUALITY WETLAN affected plant species - coo hydroperiod - mechanical	ecific community ty VETLAND: mild to aracteristics – provin sturbed. ND: severe disturba mmunity compositi alteration of plant s	pe – provides suitable habit moderate disturbances hav les suitable habitat for wild nces have caused significant m has changed – noticeable	at for wildl e caused al life and veg t changes to stress or do m livestock	ife – high qu terations in getation – as o vegetation eath of plan : – channeliz	uality pe immedi sociated , soils, o t species	rennial streams are o ately adjacent areas - perennial or intermi r hydrology – hydro - soil subsidence ma	often obs – slightly littent str period a ay have	es - hydrologic and soil indicators served, v altered natural vegetation, earns are of relatively good quality literations, if present, have directly occurred in areas with decreased little suitable habitat for wildlife			

ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)



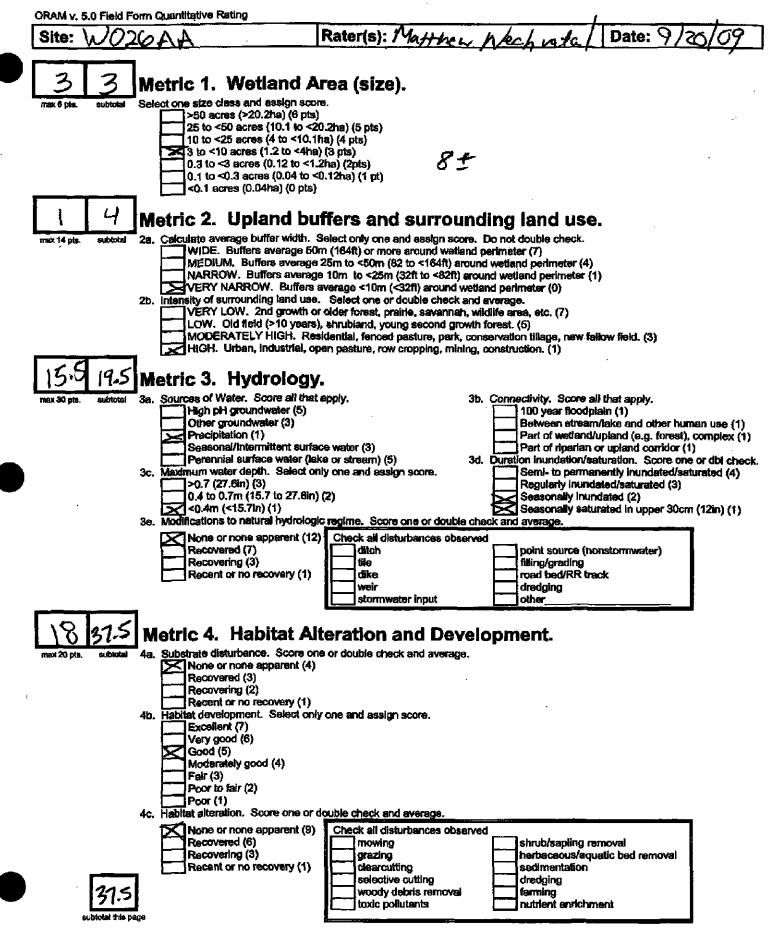
last revised 1 February 2001 jjm

Site: 11	Rater(s):	Date:
subicts this cage		
Metric 5. Special	l Wetlands.	
rax 19 #5. success Check all that apply and score as inc	sicated.	
50g (10) Fen (10)		
Old growth forest (10)		
Malure forested wetland (5)	
Lake Erie coastal/tributary	wetland-unrestricted hydrology (10)
Lake Erie coastautributary	/wetland-restricted hydrology (5)	
Lake Plain Sand Prairies ((Oak Openings) (10)	
Relict Wet Praires (10)		
	ederal threatened or endangered bird/water fowl habitat or usage (
January Contraction of the second	Question 1 Qualitative Rating (-1	•
🔄 🔍 🌽 Metric 6. Plant c	ommunities, int	erspersion, microtopography.
nux 20 pts survey 6a. Wetland Vegetation Community		-
Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 acres) contiguous area
	1	Present and either comprises small part of wetland's
つ Emergent てノ Shrub		vegetation and is of moderate quality, or comprises a
(⊉ Shrub (⊉ Forest	2	significant part but is of low quality Present and either comprises significant part of welland's
D Mudilats	-	vegetation and is of moderate quality or comprises a small
び Open water		part and is of high quality
Other	3	Present and comprises significant part, or more, of welland's
6b. horizontal (plan view) Intersperi	sion.	vegetation and is of high quality
Salect only one.		
High (5)		of Vegetation Quality
Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance to/crant native species
Moderately low (2)	mod	Native spp are dominant component of the vegetation,
Low (1)		although nonnative and/or disturbance tolerant native spp
🔀 Nonв (0)		can also be present, and species diversity moderate to
Sc. Coverage of Invasive plants. R		moderately high, but generallyw/o presence of rare
to Table 1 ORAM long form for list. or deduct points for coverage		A predominance of native species, with nonnative spp
Extensive >75% cover (-5	hig h Տե	and/or disturbance tolerant native spe absent or virtually
Moderate 25-75% cover (•	absent, and high spp diversity and often, but not always,
Sparse 5-25% cover (+1)		the presence of rare, threatened, or endangered spp
Nearly absent <5% cover		
Absent (1) 6d. Microtopegraphy.	Mudifist and Open Wa	
Score all present using 0 to 3 scale	. 0 1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)
Vegetated hummucks/tus		Moderate 1 to <4ha (2.47 to 9.88 acres)
Coerse woody debris >15		High 4ha (9.68 acres) or more
Standing dead >25cm (10	Din) dbh	· · · · · · · · · · · · · · · · · · ·
C Amphibian breeding pools	s Microtopography Co	
	<u> </u>	Absent
	٦	Present very small amounts or if more common
		of marginal quality Present in moderate amounts, but not of highest
	4	n reacht ar moustave enhydene, but not of bightst
	2	•
	2	quality or in small amounts of highest quality Present in moderate or greater amounts
		quality or in small amounts of highest quality

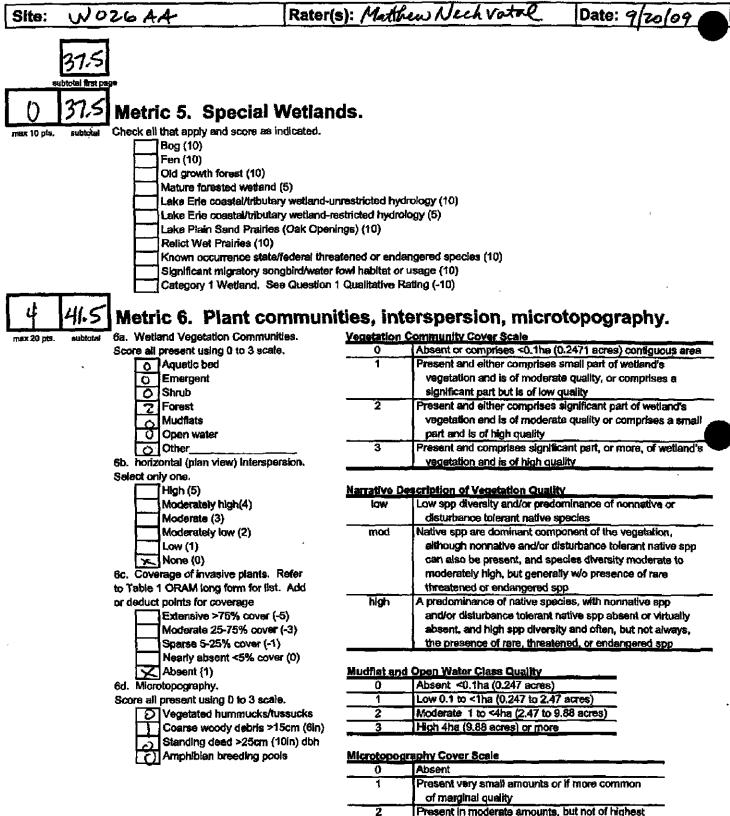


ROUTINE WETLAND DELINEATION DATA FORM	(1987 COE METHODOLOGY)
----------------------------------------------	------------------------

SURVEY TYPE: Blue	e Creek Wind I	arm	[ID ID NO.: ED STREAM ID		·····		
DATE: 09/20/2009		CLIENT/PROJECT NAMI	E: Heartland				n		
INVESTIGATORS: Hook		STATE/COUNTY: Ohio,				RAH090920.co	<u> </u>		
HUC12 CODE: 041000070	0703	Township: Union		Рното No.:					
WETLAND QUALITY: Med	10	<u></u>	WETLAND	Durge Balue	tul				
WEILAND QUALITY: WE			SUBTYPE: F						
	PLANT SPECIES			RATUM		ICATOR			
1. Quercus palutris 2. Quercus bicolor				Гтее Ггее		c Wet Wet +	40 %		
3. Fraxinus pennsylvani	ca			Ггее	F	ic Wet	10 %		
4. Carya laciniosa 5. Glyceria striata				Free baceous		Fac bligate	<u>10 %</u>		
6. Carex sp.				baceous		ac Wet	10 %		
PERCENT OF DOMINANT	SPECIES THAT ARE OB	, FACW, FACW+, FACW	/-, FAC+, or FA	AC (EXCLUE	DINC FAC-): 10	D			
VEGETATION REMARKS:	·								
			HYDRO	LOGY					
RECORDED DATA?		Describe:							
DEFTH OF SURFACE WAT	TER: N/A (in)		Dep	TH TO SATL	RATED SOIL:	>16 (in)			
DEPTH TO FREE WATER I	N PIT: None (in)								
PRIMARY WETLAND IND	ICATORS:		SECO	ONDARY WI	ETLAND INDICA	TORS:			
Water Marks			Wat	er-Stained)	Leaves		FAC Neutral Test		
			Loca	al Soil Surv	ey		······································		
Remarks:									
			SOI	LS					
MAP UNIT NAME (SERIES	S AND PHASE): Hoytvi	lle silty clay, 0 percent slo	pes (flats)			D	RAINAGE CLASS: Very poorly dra	ined	
TAXONOMY (SUBGROUP)	;	FIELD OBSERVATI	ONS CONFIRM I	MAPPED TY	PE. IF NO, SOII	TYPE ENCOUN	rered?		
		PR	OFILE DES	SCRIPTI	ION				
Depth (Inches)	Horizon	MATRIX CO (MUNSELL N		1	IOTTLE COLU UNSELL MOI	. 1	Texture, Concretions, Structure, etc.		
0-6	A	10YR 3/	1				Silt Loam		
6+	B	10YR 4/			10YR 4/6 20%		Sandy Clay Loam		
· · · · · · · · · · · · · · · · · · ·									
HYDRIC SOIL INDICATOR	.s:			·····					
Listed Hydr	tic	Gleyed				<u> </u>			
Remarks:									
		WETL	AND DET	ERMIN	ATION				
HYDROPHYTIC VEGETAT	ION PRESENT? Yes	Is This S	AMPLING POIN	T WITHIN A	WETLAND?	es			
WETLAND HYDROLOGY	PRESENT? Yes	15 THIS A	IN ISOLATED W	TETLAND? 1	No				
HYDRIC SOILS PRESENT?	Yes				<u> </u>				
NORMAL CIRCUMSTANC	ES? Yes	SIGNIFIC	ANTLY DISTUR	BED: No		POTENTIAL	ROBLEM AREA? No		
D	ESCRIPTION O	F WETLAND CRO	DSSING TY	PES AN	ID WETLA	ND QUA	LITY CRITERIA		
are characteristic of the s MODERATE QUALITY hydrology and/ or soil c and aren't significantly o LOW QUALITY WETL/ affected plant species - c hydroperiod - mechanic	pecific community typ WETLAND: mild to haracteristics - provid listurbed, AND: severe disturbat ornmunity compositio al alteration of plant s	pe – provides suitable hat moderate disturbances ha les suitable habitat for wi nces have caused significa n has changed – noticeab	pitat for wildlif ave caused alte Idlife and vege ant changes to ple stress or dea rom livestock -	e – high qu rations in i tation – ass vegetation, ith of plant	ality perennia mmediately a sociated peren soils, or hydro species – soil	l streams are of ijacent areas – nial or intermit ology – hydrop subsidence ma	ion types – hydrologic and soil in ten observed. slightly altered natural vegetation tent streams are of relatively goo eriod alterations, if present, have y have occurred in areas with dea ching – little suitable habitat for v	n, d quality directly creased	



last revised 1 February 2001 jm



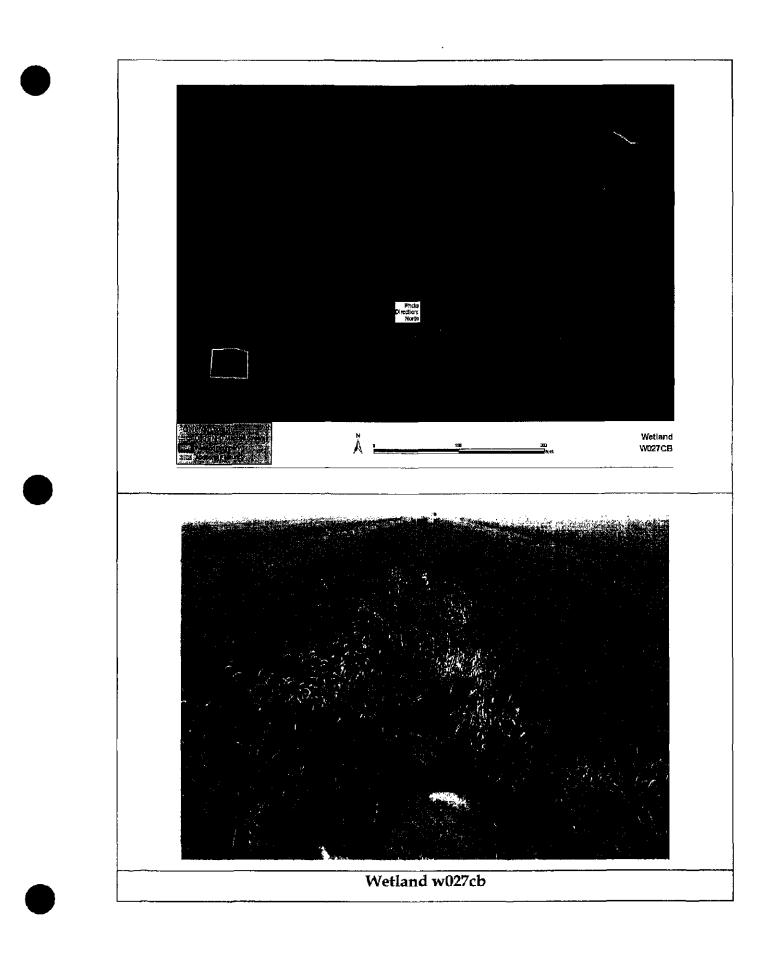
41.5 GRAND TOTAL (max 100 pts)

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

3

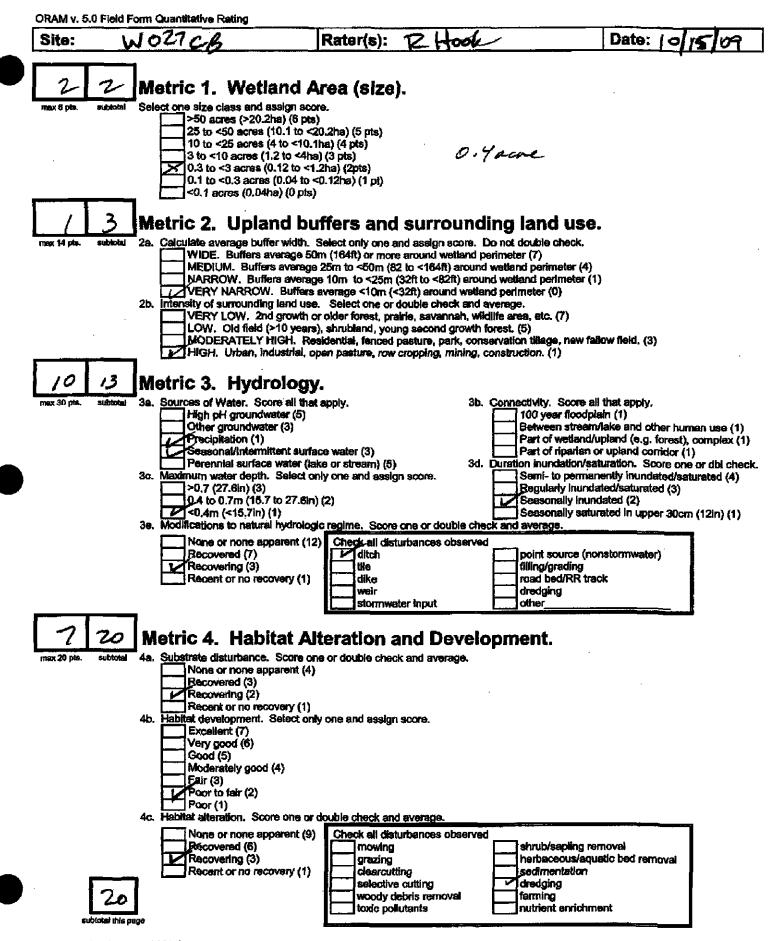
quality or in small amounts of highest quality

Present in moderate or greater amounts

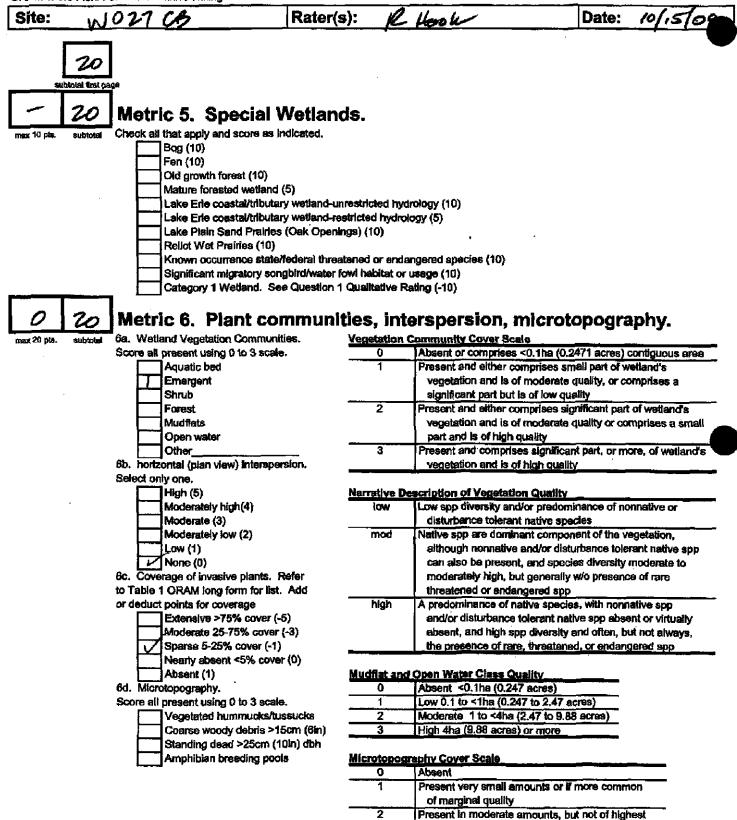


ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

SURVEY TYPE: Blue	GURVEY TYPE: Blue Creek Wind Farm							WETLAND ID NO.: W027CB Associated Stream ID No: N/A						
Date: 10/15/2009			CLIENT/PRO	JECT NAME: H	Heartland			Creek Wind Fa	arm	·····				
INVESTIGATORS: Hook			5TATE/COU	NTY: Ohio/Va	an Wert		ROVER F	ILE: RAH091015	QUAD NAME: Convoy					
Huc 12 Code: 0410000707	03	 	Township:	Union			 Рното No.: 008							
WETLAND QUALITY: LOW						Type: Palu	strine	<u></u>						
					· · · · · ·	Emergent			<u> </u>					
1. Leersia oryzoides	PLANT SPE	CIES				TRATUM Erbaceous		Obligate		PERCENT COVER 80 %				
2. Echinochloa sp.		· <u> </u>			He	erbaceous		Fac Wet		10 %				
<u>3. Polygonum sp.</u> 4.					<u> </u>	rbaceous		Fac Wet		<u>10 %</u>				
5.										<u>%</u>				
6.			PACIN PACI					- 100		%%				
PERCENT OF DOMINANT SI VEGETATION REMARKS:	PECIES THAT A	REUDL,	FACW, FAC	W+, FACW-, I	FAC+, OK I	FAC (EXCED	JING FAC-)	. 100		······				
					HYDRO	DLOGY		·						
RECORDED DATA?			a	DESCRIBE:										
DEPTH OF SURFACE WATE	R: 1 (ii	a)		·	DF	PTH TO SAT	URATED SO	IL; 0 (in)						
Depth to Free Water in		<u></u>								······································				
PRIMARY WETLAND INDIC	······					CONDARY W	TEPLAND INF	DICATORS						
Inundated Drainage Patterns						i Root Chan		DICATORS.						
Saturated Upper 12in														
REMARKS:		L				•••••								
					So	ILS								
MAP UNIT NAME (SERIES	AND PHASE): 1	Hoytville	silty clay, 0	percent slope:	s (flats)				DRAINA	GE CLASS: Very poorly drained				
TAXONOMY (SUBGROUP):			FIELD (OBSERVATION	S CONFIRM	1 MAPPED T	PE. IF NO,	SOIL TYPE ENCO	UNTERED	?				
				PROI	FILE DE	SCRIPT	ION							
DEPTH (INCHES)	Horizo	DN		IATRIX COLC UNSELL MOI		MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETION STRUCTURE, ETC.					
0-5	0		<u> </u>	10YR 4/1			7.5YR 4/6		Silty Clay Loam					
6+	С			10YR 4/6			10YR 5/			Clay				
HYDRIC SOIL INDICATORS	:								<u>-</u>					
Listed Hydri	:		G	leyed		<u> </u>	· <u></u>			<u></u>				
REMARKS:														
				WETLA	ND DE	TERMIN	ATION							
HYDROPHYTIC VEGETATIC	N P <u>rese</u> nt?	Yes		IS THIS SAM				o? Yes						
WETLAND HYDROLOGY PR				Is This An										
HYDRIC SOILS PRESENT?	Yes									·····				
NORMAL CIRCUMSTANCE	5? Yes			SIGNIFICAN	TLY DISTU	rbed: No		Potentia	AL PROBLI	em Area? No				
DE	SCRIPTIC)N OF	WETLAN	ND CROS	SING T	YPES AI	ND WEI	ILAND QU	ALITY	CRITERIA				
are characteristic of the sp MODERATE QUALITY I hydrology and/ or soil ch and aren't significantly dis LOW QUALITY WETLAN affected plant species - co	ecific commu: WETLAND: r aracteristics – sturbed. ND: severe di mmunity com alteration of	nity type nild to m provide: sturbanc sposition plant spe	2 - provides s ioderate distri s suitable hab res have cause has changed ecies or soils	uitable habita urbances have bitat for wildli ed significant l – noticeable s – grazing from	at for wildl e caused al ife and veg changes to stress or do n livestock	ife - high qu terations in getation - as b vegetation eath of plan t - channelis	iality perer immediate sociated pe , soils, or h t species - s	nnial streams are ly adjacent areas rennial or interr ydrology – hydr soil subsidence r	e often ob s – slightl mittent st roperiod : may have	pes - hydrologic and soil indicators is served. An altered natural vegetation, means are of relatively good quality alterations, if present, have directly accourted in areas with decreased - little suitable habitat for wildlife				



last revised 1 February 2001 jim



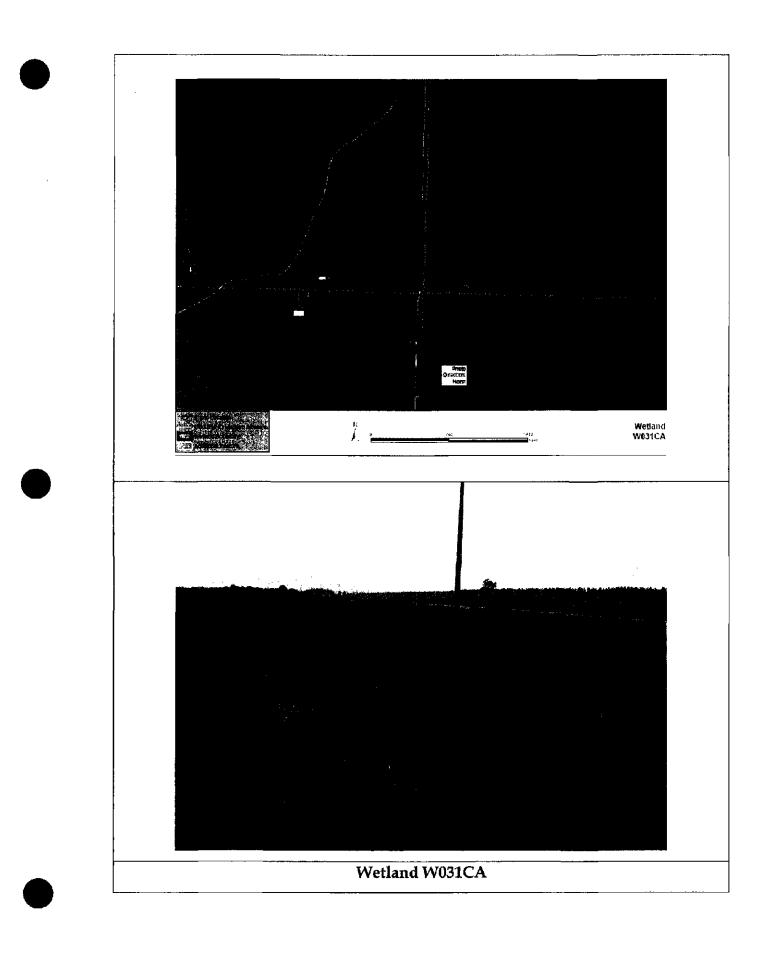


Refer to the most recent ORAM Score Calibration Report for the ecoring breakpoints between wetland categories at the following address: http://www.epa.stats.oh.ua/daw/401/401.html Last revised 1 February 2001 jjm

A.

quality or in small amounts of highest quality

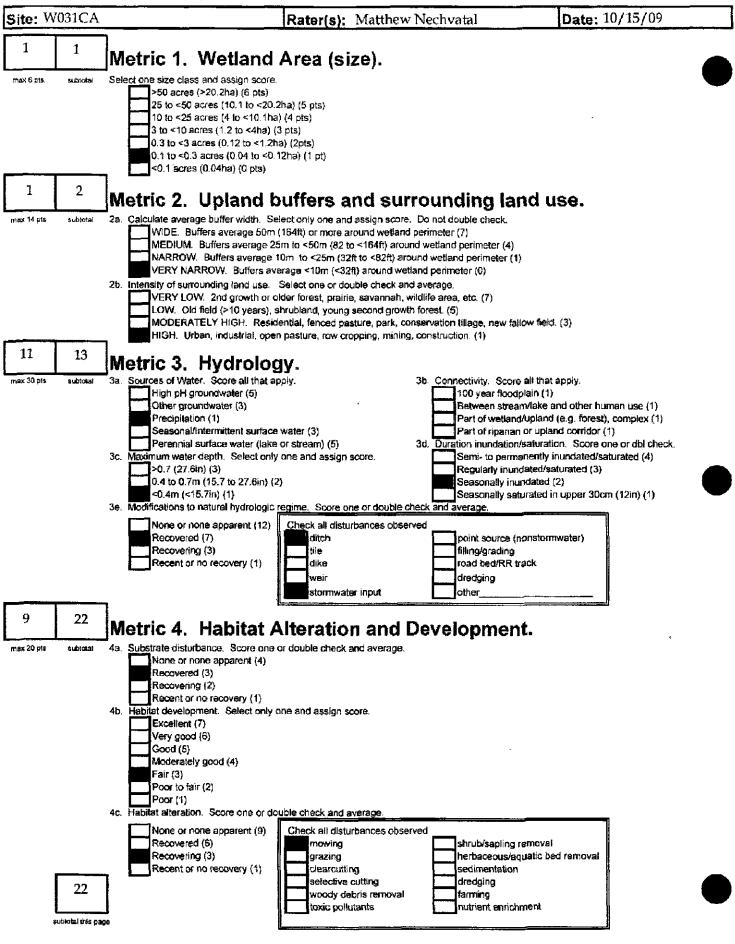
Present in moderate or greater amounts

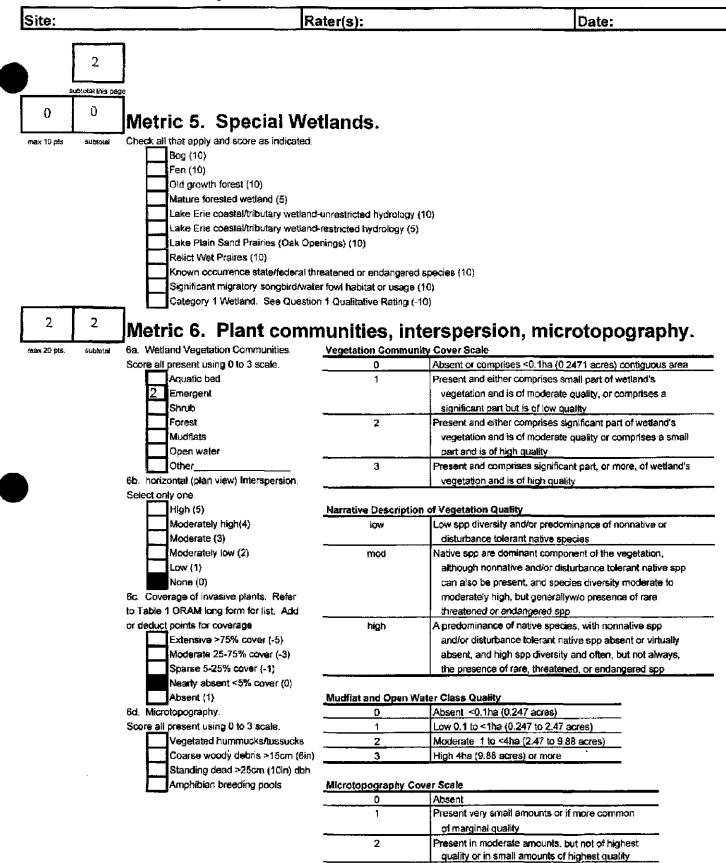


Ro	DUTINE WETL	AND DELINEATI	ON DAT	fa Fori	м (1987 (COE METH	ODOLOGY)	
SURVEY TYPE: Blue Creek Wind Farm				WETLAND ID NO.: W031CA				
Sowie The Blac Clerk White Land				Associated Stream ID No: N/A				
DATE: 10/15/2009	: Heartland Wind LLC./ Blue Creek Wind Farm							
Investigators: AF MN	STATE/COUNTY: Ohio/'			ROVER FILE: R101509AFMN.cc		QUAD NAME: Convoy		
HUC12 CODE: 041000070703 TOWNSHIP: Union					Рното No.: AF101509_019			
WETLAND QUALITY: Low			WETLAND TYPE: Palustrine Subtype: Emergent					
PLANT SPECIES			STRATUM		INDICATOR		PERCENT COVER	
1. Typha angustifolia	Herbaceous		Obligate		50 %			
 Schoenoplectus taber Leersia oryzoides 	Herbaceous Herbaceous			Obligate 10 % Obligate 30 %				
4. Alisma subcordatum				Herbaceous		oligate	20 %	
5. Scirpus atrovirens		Herbaceous		oligate	10 %			
6.							%	
PERCENT OF DOMINANT : VEGETATION REMARKS:		, FACW, FACW+, FACW-	, FAC+, OR F	AC (EXCLUE	DING FAC-): 10	0		
HYDROLOGY								
RECORDED DATA? DESCRIBE:								
DEPTH OF SURFACE WAT		PTH TO SATU	D SATURATED SOIL: 0 (in)					
DEPTH TO FREE WATER IN PIT: 1 (in)				·····				
PRIMARY WETLAND INDICATORS:				SECONDARY WEFLAND INDICATORS:				
Saturated Upper 12in								
Inundated								
REMARKS: Roadside di	tch							
Soils								
MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats) DRAINAGE CLASS: Very poorly drained								
TAXONOMY (SUBGROUP): Field Observations Confirm Mapped Type. If No, Soil Type Encountered?								
PROFILE DESCRIPTION								
DEPTH (INCHES)	Horizon	MATRIX COL (MUNSELL MG		MOTTLE COLOR (MUNSELL MOIST		· · 1	TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-2	A	10YR 4/2		_			Clay Loam	
2-16+	B	10YR 4/2		_	10Y 5/1		Clay Loam	
Hydric Soil Indicator	15:							
Gleyed Listed Hydric								
Remaaks:								
WETLAND DETERMINATION								
HYDROPHYTIC VEGETATION PRESENT? Yes IS THIS SAMPLING POINT WITHIN A WETLAND? Yes								
WETLAND HYDROLOGY PRESENT? Yes IS THIS AN ISOLATED WETLAND? No								
HYDRIC SOILS PRESENT?								
NORMAL CIRCUMSTANC				TURBED: NO POTENTIAL PROBLEM AREA? NO TYPES AND WETLAND QUALITY CRITERIA				
D	ESCRIPTION O	F WETLAND CRO	SSING 1	YPES AN	ND WETLA	ND QUALT	Y CRITERIA	
are characteristic of the s MODERATE QUALITY hydrology and/ or soil c and aren't significantly c LOW QUALITY WETL/ affected plant species - c hydroperiod - mechanic	pecific community typ WETLAND: mild to haracteristics - provid listurbed. AND: severe disturbar ommunity compositional alteration of plant sp	pe – provides suitable habi moderate disturbances hav les suitable habitat for wild nces have caused significar n has changed – noticeable	tat for wildl ve caused alt illife and veg nt changes to e stress or de om livestock	ife - high qu terations in i getation - ass o vegetation, eath of plant : - channeliz	iality perennial immediately ac sociated perend , soils, or hydro t species - soil :	streams are often ljacent areas – slig nial or intermitten slogy – hydroperic subsidence may ha	types - hydrologic and soil indicators observed. htly altered natural vegetation, it streams are of relatively good quality of alterations, if present, have directly ove occurred in areas with decreased ang - little suitable habitat for wildlife	

ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue	Creek			WETT AT	ND ID NO.: U	1031CA	······		
OURVEITHE. DIGE	CICCA				ED WETLAND ID		ICA		
DATE: 10/15/2009		CLIENT/PROJECT N	IAME: Heartla				······		
INVESTIGATORS: AF MN		STATE/COUNTY: C			QUAD NAME:				
	····==								
HUC 12 CODE: 0410000707	703	TOWNSHIP: Union	n	Рното No.: АF101509_020					
WETLAND QUALITY: N/A				ND TYPE: N/A PE: Upland					
	PLANT SPECIES		_	STRATUM	INDIC	CATOR	PERCENT COVER		
1. Poa sp				Herbaceous Herbaceous		land land	<u> </u>		
2. Glycine max 3.				nerbaceous	Up		<u> </u>		
4.							<u>%</u>		
- <u>5.</u> 6.		·					<u> </u>		
PERCENT OF DOMINANT S	PECIES THAT ARE OB	L, FACW, FACW+, FA		R FAC (EXCLUI	DING FAC-); 0				
VEGETATION REMARKS:			<u></u>			<u></u>			
			HYD	ROLOGY					
Recorded Data?		DESCRIE							
Depth of Surface Wate	:R: N/A (in)			DEPTH TO SAT	JRATED SOIL: >1	l6 (in)			
DEPTH TO FREE WATER IN	PIT: None (in)								
PRIMARY WETLAND INDIC	TATORS:			SECONDARY W	ETLAND INDICAT	ORS:			
None									
Remarks:									
			S	OILS					
MAP UNIT NAME (SERIES	AND PHASE): Hoytu	ille silty clay, 0 percen	t slopes (flats)			α	RAINAGE CLASS: Very poorly drained		
Taxonomy (Subgroup);	-	FIELD OBSERV	ATIONS CONFL	RM MAPPED T	(FE. IF NO, SOIL T	TYPE ENCOUN	ITERED?		
]	PROFILE I	DESCRIPT	ION				
		MATRO		N	OTTLE COLOR		TEXTURE, CONCRETIONS,		
DEPTH (INCHES)	Horizon	(Munsel	L MOIST)	(M	IUNSELL MOIST	т)	STRUCTURE, ETC.		
0-16+	A	10yr	3/2		2.5yr 4/6 5%		Clay Loam		
							· · · · • · · · · · · · · · · · · · · ·		
							· · · · · · · · · · · · · · · · · · ·		
HYDRIC SOIL INDICATORS	:						· [
-			<u> </u>		<u></u>	<u></u>			
Remarks:									
		WE	TLAND D	ETERMIN	ATION				
HYDROPHYTIC VEGETATIC	ON PRESENT? No	IS TH	HS SAMPLING I	OINT WITHIN	AWETLAND? No	,			
WETLAND HYDROLOGY P		Is Th	HS AN ISOLATE	D WETLAND?	N/A				
HYDRIC SOILS PRESENT?	Yes								
Normal Circumstance	s? No	SIGN	IIFICANTLY DIS	TURBED: No		POTENTIAL	PROBLEM AREA? No		
DE	SCRIPTION C	F WETLAND C	ROSSING	TYPES AN	ND WETLAN	ND QUA	LITY CRITERIA		
are characteristic of the sp MODERATE QUALITY hydrology and/ or soil ch and aren't significantly di LOW QUALITY WETLA affected plant species - co	ecific community ty WETLAND: mild to aracteristics - provi sturbed. ND: severe disturba mnunity compositi I alteration of plant	pe – provides suitable moderate disturbance des suitable habitat for nces have caused sign on has changed – noti species or soils – grazi-	habitat for wil shave caused r wildlife and v ificant changes ceable stress or ng from livesto	Idlife – high qu alterations in i vegetation – as to vegetation, death of plant ock – channeliz	ality perennial s immediately adja sociated perennia , soils, or hydrold t species – soil su	itreams are of acent areas – al or intermit ogy – hydrop ibsidence ma	tion types – hydrologic and soil indicators ften observed. slightly altered natural vegetation, ttent streams are of relatively good quality period alterations, if present, have directly by have occurred in areas with decreased tching – little suitable habitat for wildlife		



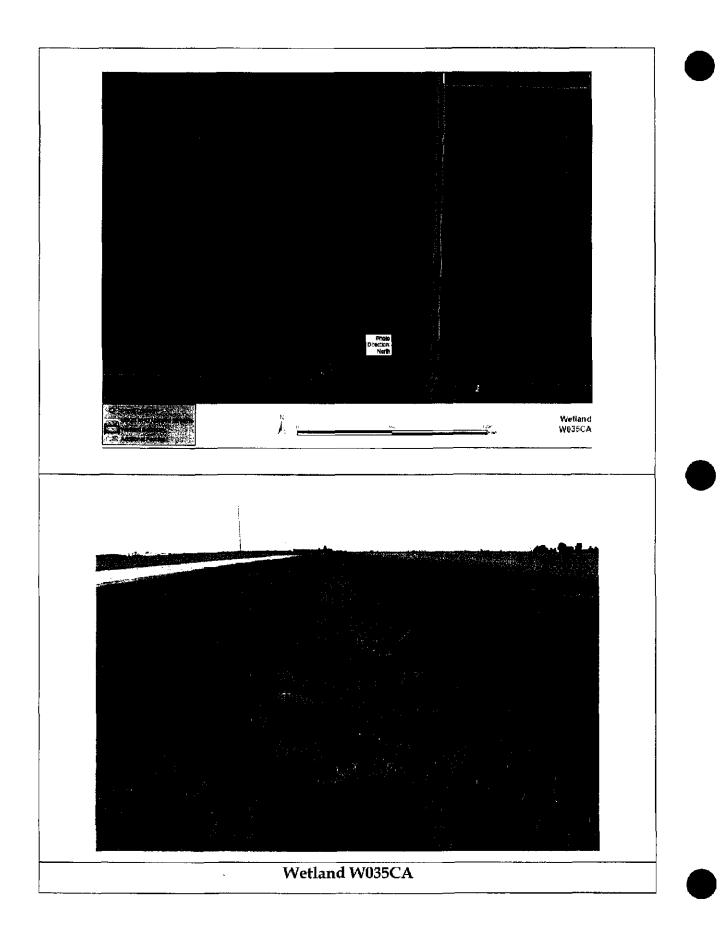


²⁴ GRAND TOTAL(max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.ch.us/dsw/4814401.html

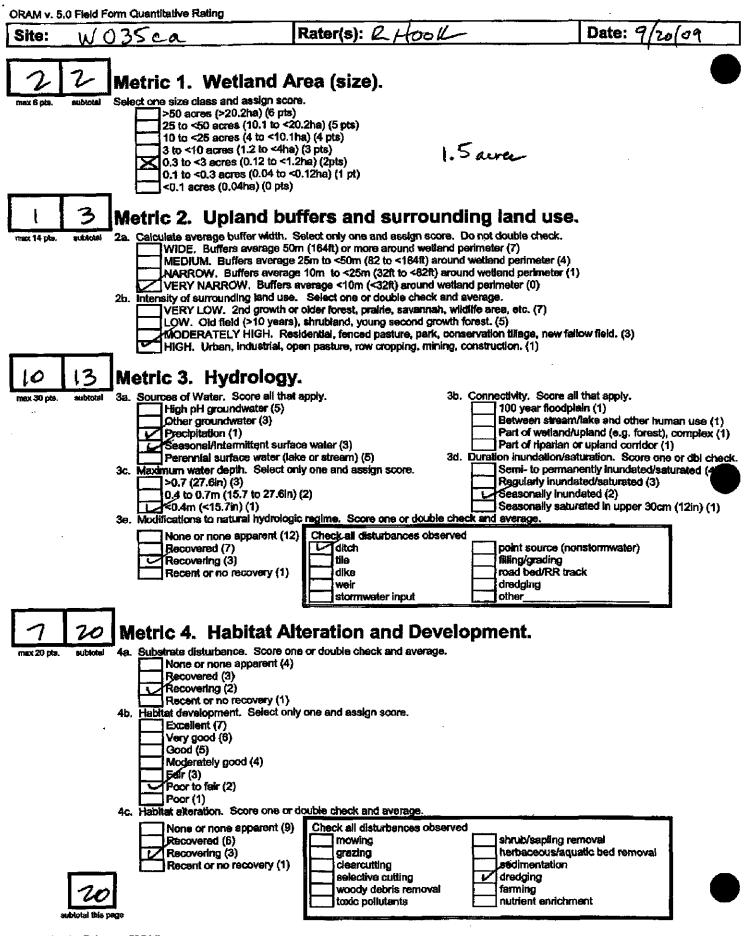
3

Present in moderate or greater amounts

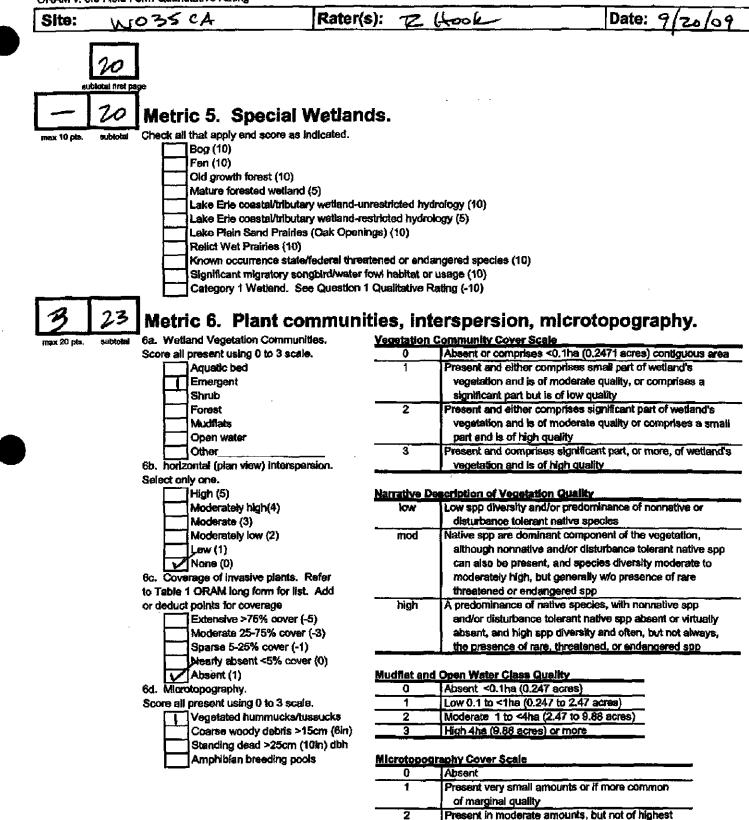


Ì

SURVEY TYPE: Blue	e Creek Wind	Farm			WETLAN	ND ID NO	D.: W035C	A	<u> </u>	
					ASSOCIAT	ED STREAM	ID No: S048	CA		
DATE 09/20/2009		CLIENT/PRO	OJECT NAME:	Heartland	Wind LL	C./ Blue (Ireek Wind F	arm		
INVESTIGATORS: Hook		STATE/COU	INTY: Ohio/	Van Wert		ROVER FILE: RAH090920		0.cor	QUAD NAME: CONVOY	
HUC 12 CODE: 041000070	703	TOWNSHIP:	: Union		Photo No.:					
WETLAND QUALITY: LOW	,,	. .				strine			·····	
	PLANT SPECIES		<u></u>		Ŭ		NDICATOR	Τ	PERCENT COVER	
1. Scirpus atrovirens				He	rbaceous		Obligate		20 %	
2. Alisma subcordatum							Obligate	— —	40 %	
3. Leersia oryzoides 4.	<u> </u>			He	rbaceous		Obligate	┼──	<u> </u>	
5,									%	
6		4in	·						%%	
		L, FACW, FAC	W+, FACW-,	, FAC+, OR F	AC (EXCLUI	DING FAC-)	: 100			
VEGETATION REMARKS: 3	ag drainage									
				HYDRC	LOGY					
Recorded Data?		Б	DESCRIBE:							
DEPTH OF SURFACE WAT	ER: N/A (in)			DE	TH TO SATI	JRATED SOL	L: >16 (in)		 	
DEPTH TO FREE WATER IN										
	······									
PRIMARY WETLAND INDI					DICATORS:					
	Vater Marks								FAC Neutral Test	
Sediment Deposits		·		Loc	al Soil Surv	ey		Oxi Root Channels		
REMARKS: ag drainage										
			<u> </u>				<u> </u>			
				Soi	LS					
MAP UNIT NAME (SERIES	AND PHASE): Hoytvi	lle silty clay, 0	percent slop	es (flats)				DRAINA	AGE CLASS: Very poorly drained	
'TAXONOMY (SUBGROUP):		Field (OBSERVATION	NS CONFIRM	MAPPED TY	PE. IF NO, S	OIL TYPE ENCO	UNTEREE)?	
			PRO	FILE DE	SCRIPTI	ION				
		м	ATRIX COL	OP.	N		NOR		TEXTURE, CONCRETIONS,	
DEPTH (INCHES)	HORIZON		UNSELL MC						STRUCTURE, ETC.	
0-6	А		10YR 4/3		10YR !				Silt Loam	
8-12+	В	·····	10YR 6/1		Herbaceous Obligati Herbaceous Obligati Herbaceous Obligati AC+, OR FAC (EXCLUDING FAC-): 100 IYDROLOGY IYDYRS/65% and Oxidizec Rhizospheres IOYR 5/6 30% IYDY				Clay Loam	
HYDRIC SOIL INDICATORS	3:	···· •							······································	
Listed Hydri	c	G	ileyed							
REMARKS:				!						
·			WETLA	ND DET	ERMIN.	ATION				
Hyprophytic Vegetatio	ON PRESENT? Yes						? Yes			
WEILAND HYDROLOGY P									***************************************	
HYDRIC SOILS PRESENT?										
NORMAL CIRCUMSTANCE			SIGNIFICAT	NTI V DISTUR	BED: No		POTENTIA		EM ÁREA? No	
	·					ID VA/me				
HIGH QUALITY WETLA are characteristic of the sp MODERATE QUALITY hydrology and/or soil ch and aren't significantly di LOW QUALITY WETLA affected plant species - co hydroperiod - mechanica	AND: no indication o secific community ty WETLAND: mild to aaracteristics – provic sturbed. ND: severe disturbaa mmunity compositio	f stress or distu pe - provides s moderate distu les suitable hal nees have cause m has changed pecies or soils -	urbance in w uitable habit urbances hav bitat for wild ed significan l – noticeable – grazing fro	retland or adj rat for wildlif re caused alto life and vego t changes to stress or dea m livestock	iacent area ie – high qu erations in i etation – ass vegetation, ath of plant	- diverse ar ality perent mmediately ociated per soils, or hy species - s	nd mature vege nial streams are y adjacent areas rennial or interr rdrology – hydr oil subsidence r	tation ty often of s - slight mittent s operiod may have	pes ~ hydrologic and soil indicators bserved. Iy altered natural vegetation, treams are of relatively good quality alterations, if present, have directly e occurred in areas with decreased	



ORAM v. 5.0 Field Form Quantitative Rating



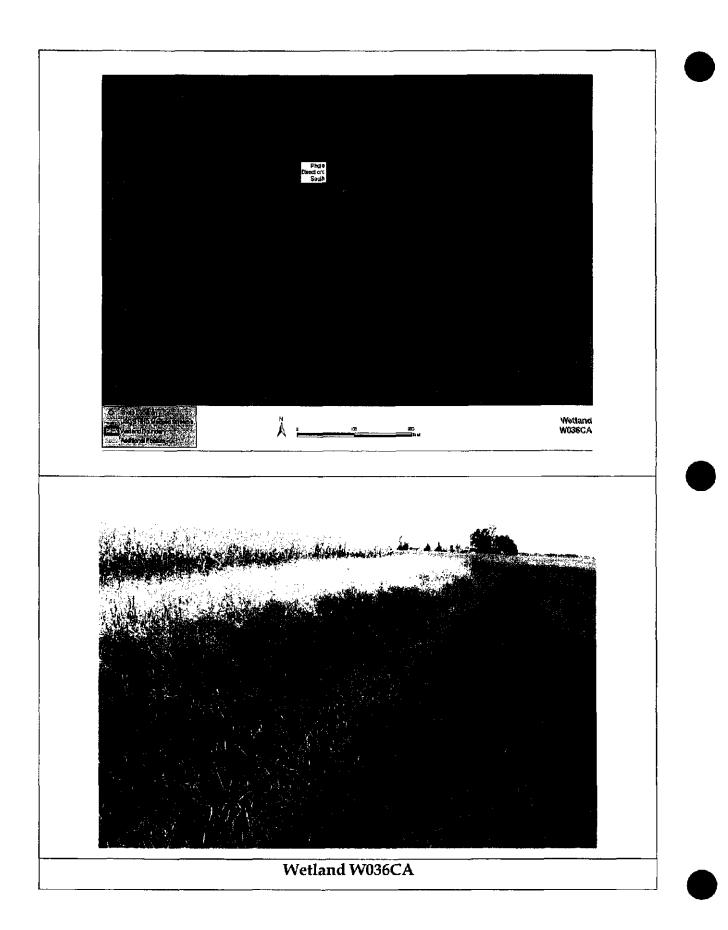
3 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Celibration Report for the scoring breakpoints between welland categories at the following address: http://www.epa.state.ok.us/daw/401/401.html last revised 1 February 2001 jjm

3

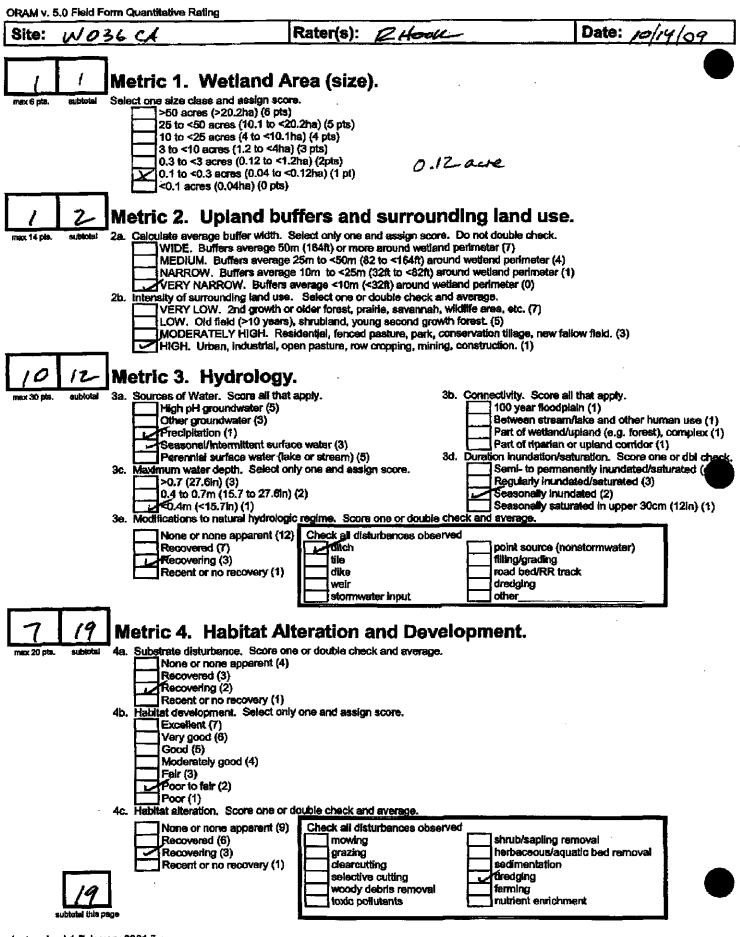
quality or in small amounts of highest quality

Present in moderate or greater amounts



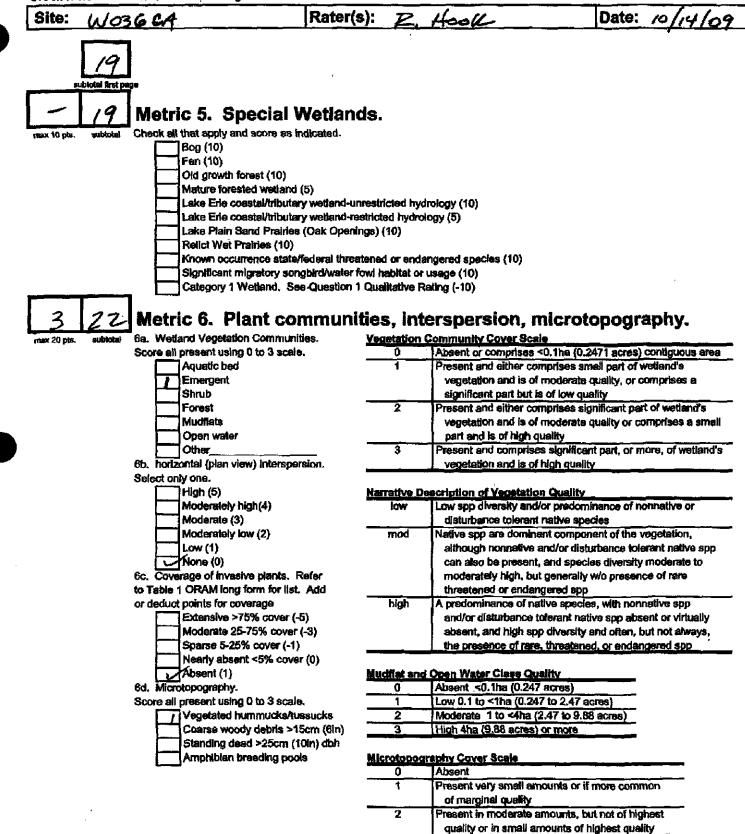
ROUTINE WETLAND DELINEATION DATA FORM	(1987 COE METHODOLOGY)
----------------------------------------------	------------------------

SURVEY TYPE: Blue Creek 1 Date: 10/14/2009 Investigators: Hook	Wind F	·····				D.: W036CA	<u> </u>		
· · · · · · · · · · · · · · · · · · ·		CLENT/PROJECT NAME		ASSOCIATI					
		CUENT/PROJECT NAME			ED STREAM	ID NO: N/A			
Investigators: Hook		CLIEN IVE NOJEL I INAMIE.	Heartland	Wind LLC	C./ Blue C	reek Wind Far	m		
		STATE/COUNTY: Ohio/	Van Wert		ROVER FILE: RAH091014A.cot			QUAD NAME: CONVOY	
Huc 12 Code: 041000070703		TOWNSHIP: Union			Рното No.: 0				
WETLAND QUALITY: LOW	<u> </u>		WETLAND SUBTYPE:]	Type: Palus Emergent	trine			<u></u>	
PLANT S	PECIES	· · · · · · · · ·	╉╌─────	RATUM		NDICATOR		PERCENT COVER	
1. Scirpus atrovirens				rbaceous		Obligate		90 %	
2. Echinochloa sp.			<u> </u>	rbaceous		Fac Wet		10 %	
3								<u>%</u>	
4. 5.								<u>%</u>	
6.								%	
PERCENT OF DOMINANT SPECIES THAT	ARE OBL	FACW, FACW+, FACW-	, FAC+, or F	AC (EXCLUD	ING FAC-):	100			
VEGETATION REMARKS: between wo				· · · · ·					
			HYDRO	DLOGY					
RECORDED DATA?		Describe:							
DEPTH OF SURFACE WATER: N	J/A (in)		Des	PTH TO SATU	RATED SOIL	L: >16 (in)			
DEPTH TO FREE WATER IN PIT: N	lone (in)								
PRIMARY WETLAND INDICATORS:			SEC	ONDARY WE	TLAND IND	ICATORS:			
Drainage Patterns	FAG	C Neutral Te	est		Ox	i Root Channels			
			Wa	ter-Stained I	Leaves		T		
REMARKS: between woods and field	ł								
			Sol	LS					
MAP UNIT NAME (SERIES AND PHASE	: Hoytvil	le silty clay, 0 percent slop	es (flats)			1	DRAINA	GE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP):		FIELD OBSERVATIO	NS CONFIRM	MAPPED TY	pe. If No, S	OIL TYPE ENCOU	NTEREL		
		Pro	FILE DE	SCRIPTI	ON				
Depth (Inches) Hori	ZON	MATRIX COL (MUNSELL MC			OTTLE CO UNSELL M			TEXTURE, CONCRETIONS, Structure, etc.	
0-10 C)	10YR 3/1			7.5YR 4/	6		Silt Loam	
10+ C	:	10YR 5/1			10YR 4/0	5		Clay Loam	
			·		·				
HYDRIC SOIL INDICATORS:								<u>2~</u>	
Gleyed									
Remarks:									
		WETLA	ND DET	ERMIN	ATION				
HYDROPHYTIC VEGETATION PRESENT	Ver		MPLING POIL			7 Vac		<u> </u>	
			MPLING POIN						
WETLAND HYDROLOGY PRESENT? Ye	3		ISULATED V	VEILAND? P	<u>U</u>				
HYDRIC SOILS PRESENT? Yes							<u> </u>		
NORMAL CIRCUMSTANCES? Yes			NTLY DISTUR		<u></u>			EM AREA? NO	
DESCRIPT	ION OI	WETLAND CROS	SSING T	YPES AN	ID WET	land Qua	LIT)	CRITERIA	
HICH OUALITY WETI AND: no inc						id mature vegeta nial streams are o		pes – hydrologic and soil indicators bserved.	



last revised 1 February 2001 jim

ORAM y. 5.0 Field Form Quantitative Rating

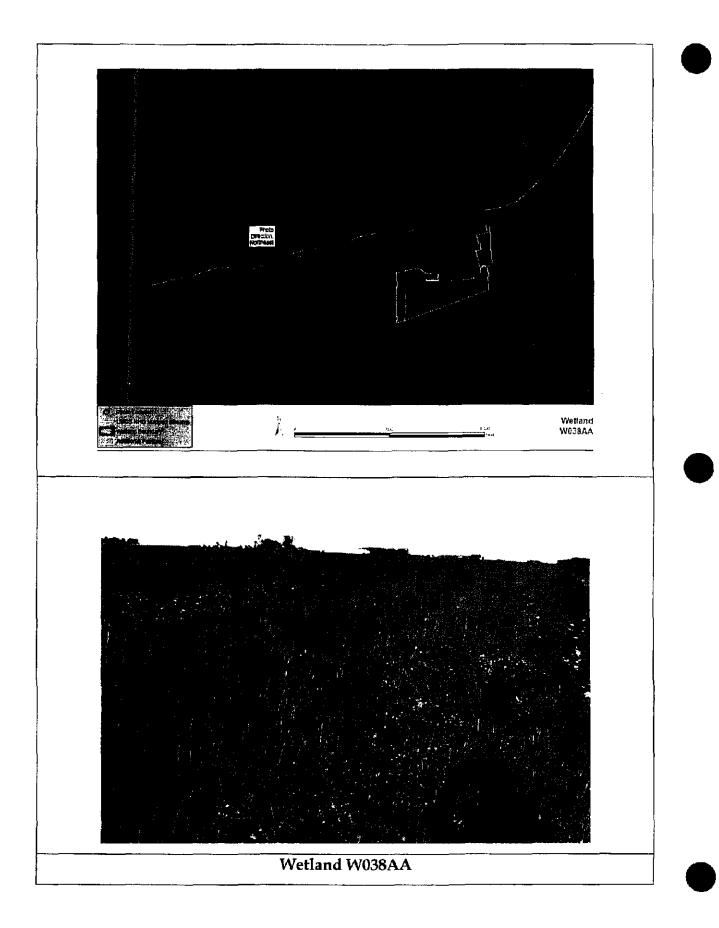


22 GRAND TOTAL (max 100 pts)

Refer to the most recent CRAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.atate.oh.ua/disw/401/401.html last revised 1 February 2001 jjm

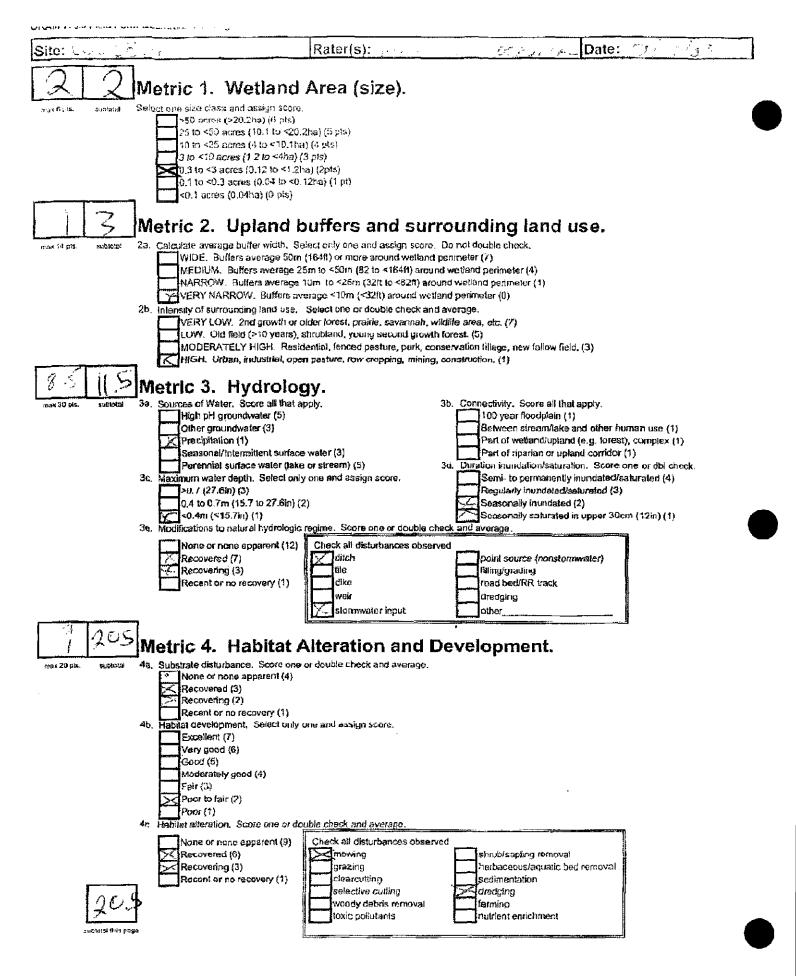
3

Present in moderate or greater amounts

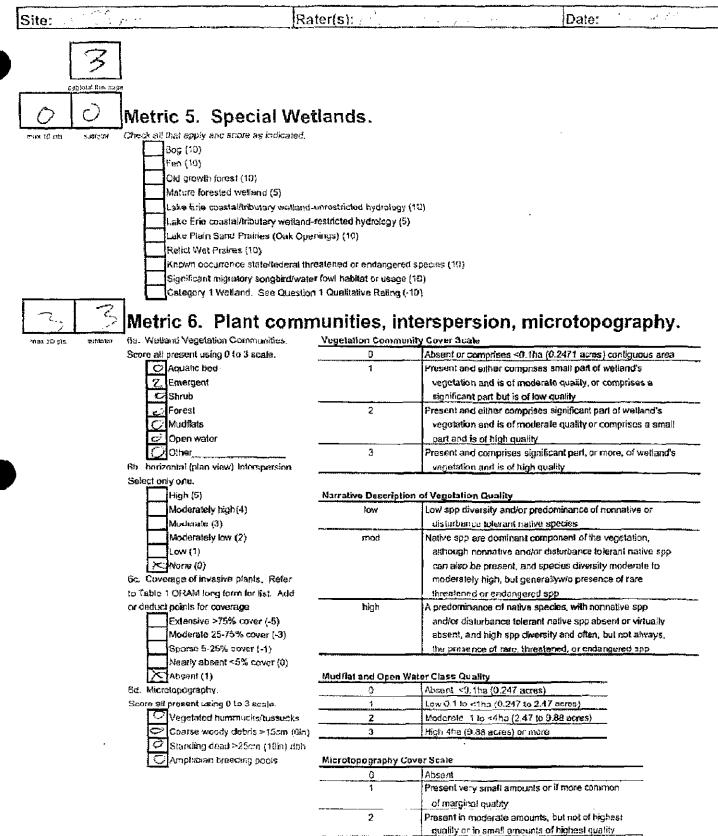


I Ì

SURVEY TYPE: Blue	Creek Wind	Farm		WETT	AND []	D No.: W038AA			
DORVET THE DIR						IREAM ID NO: N/A			
DATE: 09/19/2009	<u>.</u>	CLIENT/PR	OJECT NAME:			Blue Creek Wind Farm			
INVESTIGATORS: Hook		STATE/COL	JNTY: Ohio/V	/an Wert	Ro	ver File: RAH090919B.co	Dr QUAD NAME CONVOY		
	····								
HUC12 CODE: 041000070	201	TOWNSHIP	: Union		PH	0TO NO.: 38a1			
WETLAND QUALITY: Low	,			WETLAND TYPE: Pa SUBTYPE: Emergen					
	PLANT SPECIES			STRATUM		INDICATOR	PERCENT COVER		
1. Scirpus atrovir 2. Leersia oryzoides				Herbaceous		Obligate Obligate	<u>40 %</u> 30 %		
 Leersia oryzoides Carex vulpinoidea 				Herbaceous Herbaceous		Obligate Obligate	10 %		
4, 5							%e		
5 6.	<u>. </u>						%%		
PERCENT OF DOMINANT S	SPECIES THAT ARE O	BL, FACW, FAC	W+, FACW-,	FAC+, OR FAC (EXC	UDING	FAC-): 100			
VEGETATION REMARKS:				·					
	-			HYDROLOGY					
RECORDED DATA?		1	Describe:		_				
DEPTH OF SURFACE WAT	ER: N/A (in)		DEPTH TO S.	TURATI	ed Soil: >16 (in)			
Depth to Free Water in	v Pit: None (ir	ı)							
PRIMARY WETLAND INDI	CATORS:	· · · · · · · · · · · · · · · · · · ·		SECONDARY	WETLAN	ND INDICATORS:	····		
Drift Lines	PRIMARY WETLAND INDICATORS:				Test				
Water Marks				Local Soil Survey					
REMARKS:	· · · · · · · · · · · · · · · · · · ·								
:				SOILS					
MAP UNIT NAME (SERIES	AND PHASE): Hoyt	ville silty clay, 0	percent slope	es (flats)		Dr	AINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP):		FIELD	OBSERVATION	IS CONFIRM MAPPED	TYPE. IF	NO, SOIL TYPE ENCOUNT	ERED?		
	····		PRO	FILE DESCRIP	TION				
Depth (Inches)	Horizon	5	ATRIX COL	1		LE COLOR	Texture, Concretions,		
		(M)	UNSELL MO	nst)	MUNS	ELL MOIST)	STRUCTURE, ETC.		
0-5	<u> </u>		2.5Y 4/2		10YB	4/610%	Silty Clay Loam		
5+	В		10YR 5/1	··	1048	4/630%	Clay Loam		
HYDRIC SOIL INDICATOR	<u> </u>			1	<u> </u>				
Listed Hydr		(Cleved	<u> </u>					
REMARKS:					· · · · · · · · · · · · · · · · · · ·		I		
ALMARAS.									
			WETLA	ND De termi	NATI	<u></u>			
HYDROPHYTIC VEGETATI	ON BREEDING Ver								
WETLAND HYDROLOGY P				MPLING POINT WITH ISOLATED WETLAND		LAND: IES			
HYDRIC SOILS PRESENT?			19 1113 2414	150CATED VIELLAND					
NORMAL CIRCUMSTANCE			SIGNIFICAN	TLY DISTURBED: No		POTENTIAL P	ROBLEM AREA? No		
		OF WETLA			_	WETLAND QUAL			
HIGH QUALITY WETL, are characteristic of the sp MODERATE QUALITY hydrology and/or soil ch and aren't significantly di	AND: no indication pecific community f WETLAND: mild f Paracteristics - provisiturbed.	of stress or dist ype – provides : o moderate dist rides suitable ha	urbance in wa suitable habit, surbances hav bitat for wild!	etland or adjacent ar at for wildlife – tugh e caused alterations life and vegetation –	ea → dive quality n îmme associat	erse and mature vegetatic perennial streams are oft diately adjacent areas – s ed perennial or intermitte	on types - hydrologic and soil indicators		
affected plant species - co	ommunity composi I alteration of plan	tion has changed species or soils	l ~ noticeable - grazing fro	stress or death of pl m livestock - channe	int spec	ies – soil subsidence may	have occurred in areas with decreased hing – little suitable habitat for wildlife		



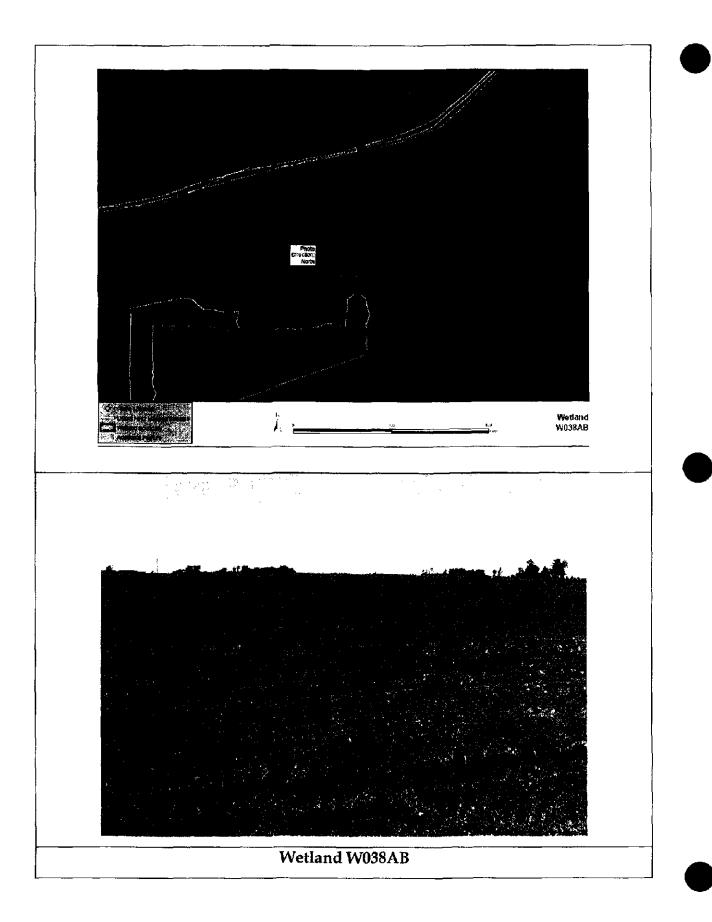
tast revised 1 February 2001 (m.



23 GRAND TOTAL (max 100 pts)

Refer to the most return ORIAN Scotts water and the Anthony streak period between weters categoing at the telewing actives in the Anthony International Contents and and a second at the second active at the second
3

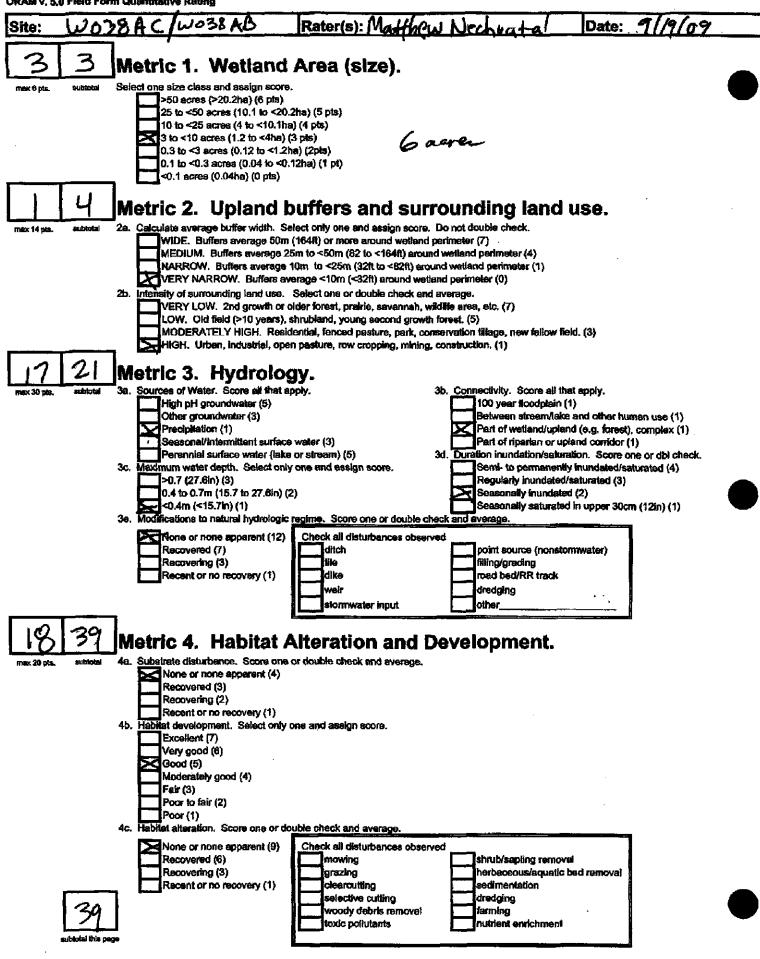
Present in moderate or greater amounts



ROUTINE WETLAND DELINEATION DATA FORM	(1987 COE METHODOLOGY)
----------------------------------------------	------------------------

SURVEY TYPE: Blue	Creek Wi	nd Fa	ırm				.: W038AB	
Date: 09/19/2009			CLIENT/PROJECT NAME:	Heartland			ID No: N/A	
								<u> </u>
INVESTIGATORS: Hook			STATE/COUNTY: Ohio/	Van Wert			LE: RAH090919B.co	QUAD NAME: Convoy
HUC 12 CODE: 0410000707	701		TOWNSHIP: Union				0.: w38ah1	
WETLAND QUALITY: LOW				WETLAND SUBTYPE: 1	TYPE: Palus Emergent	trine		
	PLANT SPEC	IES		ST	RATUM	I	NDICATOR	PERCENT COVER
1. Setaria faberi					rbaceous		Upland	10 %
 Echinochloa sp. Carex vulpinoidea 					rbaceou <u>s</u> rbaceous		Fac Wet	<u>10 %</u>
4.								%
<u>5,</u>								%
	an own d TH AG A D	- OP1	EACHI EACHIA EACHI				l	<u></u>
PERCENT OF DOMINANT S VEGETATION REMARKS: 1				/ FAC+/ OR P	AC (EXCLUT	ANG FAC-J:	<u> </u>	<u> </u>
				HYDRO	DLOGY			
RECORDED DATA?			DESCRIBE:					
Depth of Surface Wate	ir; N/A	. (in)		Dei	PTH TO SAT	RATED SOU	.: >16 (in)	
DEPTH TO FREE WATER IN	PIT: None	e (in)						
PRIMARY WETLAND INDIG	A Lines					etland Ind	ICATORS:	
Drift Lines	IMARY WETLAND INDICATORS:					ey		
Sediment Deposits								
REMARKS: farmed wetla	nd, suppressed	l crop						
	<u></u>			SO	ILS			
MAP UNIT NAME (SERIES	AND PHASE): H	loytville	silty clay, 0 percent slop	es (flats)			DR	AINAGE CLASS: Very poorly drained
TAXONOMY (SUBGROUP):			FIELD OBSERVATIO	NS CONFIRM	MAPPED TY	PE. IF NO, S	OIL TYPE ENCOUNT	ERED?
			PRO	FILE DE	SCRIPT			·
Depth (Inches)	Horizon	N	MATRIX COU (MUNSELL MG			IOTTLE CO UNSELL M		Texture, Concretions, Structure, etc.
0-5	A		2.5¥ 3/1					Silty Clay Loam
5+	В		10YR 4/1			10YR 4/4 3	0%	Clay Loam
Hydric Soil Indicators							L	
Listed Hydri		T	Gleyed	1				<u> </u>
REMARKS:		<u>. </u>		<u> </u>		<u></u>	<u> </u>	
			WETLA	AND DET	ERMIN	ΔΤΙΟΝ		
Hynpopure Verser	TAL DOFFENT? N			MPLING POL			. Yee	
<u>HYDROPHYTIC VEGETATIC</u> WETLAND HYDROLOGY P		<u></u>		MPLING POL N ISOLATED V	-		. 105	
HYDRIC SOILS PRESENT?				1 IOULATED Y	TELLAND	100		
NORMAL CIRCUMSTANCE		·-·	Erowroa	NTLY DISTUR	PRIN Var		Proposition I.	OBLEM AREA? Yes
		NOF	WETLAND CRO			ID IA/ET		
HIGH QUALITY WETL/ are characteristic of the sp MODERATE QUALITY hydrology and/or soil ch and aren't significantly di LOW QUALITY WETLA	AND: no indica becific commun WETLAND: m aracteristics - p sturbed. ND: severe dist mmunity comp	tion of s ity type ild to m provides turbance position	stress or disturbance in w - provides suitable habi oderate disturbances hav s suitable habitat for wilc es have caused significar has changed – noticeable	vetland or ac tat for wildbi ve caused alt llife and veg at changes to e stress or de	ljacent area fe – high qu erations in i etation – ass vegetation,	- diverse an ality perent immediately sociated per soils, or hy	nd mature vegetatic nial streams are oftr 7 adjacent areas – si ennial or intermitte drology – hydroper	n types - hydrologic and soil indicators

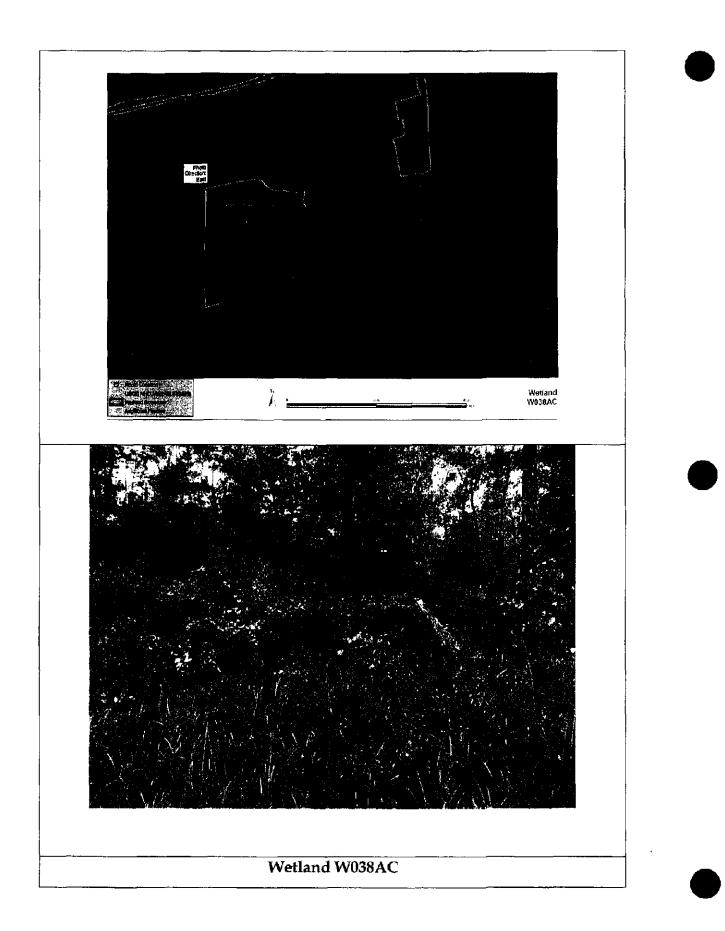
.



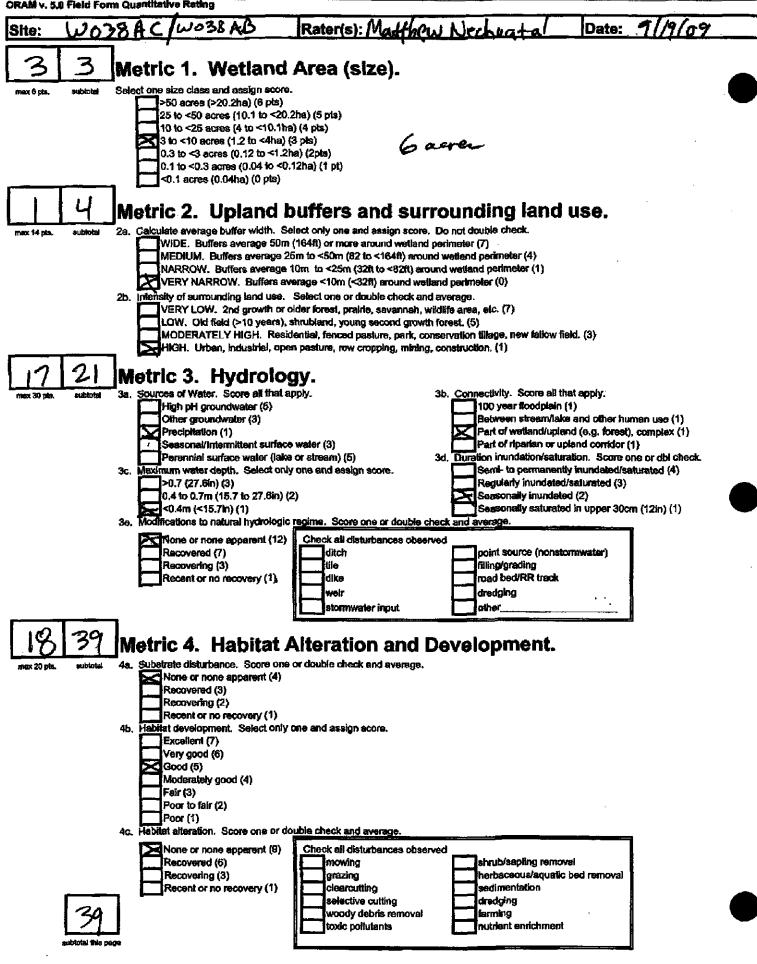
	8AC/AB	[Rater(s): Met	thew Nechrostal	Date: 8/(9/09
subtotal 4	1 39 4			- -
0 3	9 Metric 5. Specia	al Wetlands		
eox 10 pts. Subt	Check all that apply and score as Bog (10) Fen (10) Old growth forest (10) Mature forestad wetland Lake Erie coastal/tribute Lake Erie coastal/tribute Lake Plain Sand Prairies Relict Wet Praires (10) Known occurrence state Significant migratory sou	indicated.) (5) ary wetland-unrestricted hydrology ary wetland-restricted hydrology s (Oak Openings) (10) »federal threatened or endange ngbird/water fowl habitat or use	(5) ared species (10) ge (10)	
54		ee Question 1 Qualitative Ratin COMMUNITIES, I	nterspersion, m	Icrotopography
nax 20 pts. subt			nunity Cover Scale	·
	Score all present using 0 to 3 scal			a (0.2471 acres) contiguous area
	Aqualic bed Emergent Shrub	1	Present and either comprise vegetation and is of mode significant part but is of lo	rate quality, or comprises a
	Forest Mudilats	2	Present and either comprise vegetation and is of mode	es significant part of welland's nate quality or comprises a small
	6b. horizontel (plan view) interspo	3 ersion.	part and is of high quality Present and comprises sign vegetation and is of high	ificant part, or more, of wetland's scality
	Select only one. High (5)	Narrative Descrip	ption of Vegetation Quality	, 's
	Moderately high(4) Moderate (3)	low		edominance of nonnative or
	Moderately low (2) Low (1) Sone (0) 6c. Coverage of invasive plants.	mod	Native spp are dominant co although nonnative and/o	mponent of the vegetation, r disturbance tolerant native spp species diversity moderate to
	to Table 1 ORAM long form for its	it, Add	threatened or endangered	spp
	or deduct points for coverage Extensive >75% cover (Modarate 25-75% cover			pacies, with nonnative spp It native spp absent or virtually rsity and often, but not always,
	Sparse 5-25% cover (-1 Nearly absent <5% cover		the presence of rare, three	atened, or endangered spp
	Absent (1)	• •	n Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres	s)
	Score all present using 0 to 3 sca	le1	Low 0.1 to <1ha (0.247 to 2	.47 acres)
	Vegetaled hummucks/ti		Moderate 1 to <4ha (2.47 t	
	Coarse woody debris >	10in) dbh	High 4ha (9.88 acres) or mo	
	Amphibian breeding po			
		- <u> </u>	Absent Present very small amounts of merginel quality	or if more common
		2	Present in moderate amoun	
			guality or in small amount	s of highest quality

44 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wellend categories at the following address; http://www.eps.atole.oh.ua/dsw/401/401.html



SURVEY TYPE: Blue	Creek W	ind Fa	irm				ND ID NO. fed Stream I	W038AC D No:			
Date: 09/16/2009			CLIENT/PRO	DIECT NAME:	Heartland	Wind LL	C./ Blue Cr	eek Wind Fa	Farm		
INVESTIGATORS: R Hook			STATE/COU	ντη: Ολίο/Ν	/an Wert		Rover Fill	8		QUAD NAME: Convoy	
HUC 12 CODE: 0410000707	701		Townshif:	Union			Рното No.:				
WETLAND QUALITY: Med	ium		,		WETLAND Subtype: J		strine				
- <u> </u>	PLANT SPI	CIE5			ST	RATUM	IN	DICATOR	<u> </u>	PERCENT COVER	
1. Quercus palustris					Tree			Fac Wet		50 %	
2. Quercus bicolor		. <u> </u>				Tree		Obligate	[<u> </u>	
 <u>Fraxinus pennsylvanic</u> Cornus amomum 						<u>Tree</u> Shrub		Fac Wet Fac Wet		30 %	
5. Toxicodendron radical	ns					rbaceous		Fac		30 %	
6. Carex vesicaria						rbaceous		Obligate	L	30 %	
PERCENT OF DOMINANT S VEGETATION REMARKS:	PECIES THAT A	RE OBL,	FACW, FAC	W+, FACW-,	FAC+, OR F	AC (EXCLU	DING FAC-):	100			
					HYDRC	LOGY					
RECORDED DATA?				ESCRIBE:						·····	
DEPTH OF SURFACE WATE	R: N/	A (in)			דעון	THITOSAT	URATED SOIL:	>16 (in)			
DEPTH TO FREE WATER IN		ne (in)	<u>.</u>			Let to GAT		- 10 (m)		<u> </u>	
		ne (ai)									
	PRIMARY WETLAND INDICATORS:						ETLAND INDI	CATORS:			
Water Marks						ter-Stained al Soil Surv			FAC	C Neutral Test	
REMARKS:				· · · · · · · · · · · · · · · · · · ·						······································	
MAP UNIT NAME (SERIES .	AND PHASE)	Hoytville	silty clay 0	not cont slope	SOI	L <u>5</u>				GE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP):				· · · · ·	· · · ·	L + papers Th	un InNo Fo	IL TYPE ENCOU			
TAXONOMI (SUBGROUP).								IL LYPE ENCOU	IN LEKCU	(
			T	<u> </u>	FILE DE	SCRIPT					
Depth (Inches)	Horizo	אכ		LATRIX COL UNSELL MO		MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-8	A			10YR 2/1						Silt Loam	
8+	В			10YR 5/1		<u> </u>	10YR 4/6 10	%		Silty Clay Loam	
Hydric Soil Indicators	:		L					L			
Listed Hydri	c		G	leyed				<u> </u>			
Remarks:											
				WETLA	ND DEI	ERMIN	ATION				
HYDROPHYTIC VEGETATIC		Y <u>es</u>		Is This San	MPLING POIN	T WITHIN	A WETLAND?	Yes			
WETLAND HYDROLOGY PI				Is This An	ISOLATED V	VETLAND?	Yes	<u> </u>			
HYDRIC SOILS PRESENT?								т			
NORMAL CIRCUMSTANCES			TA7		TLY DISTUR					EM AREA? NO	
HIGH QUALITY WETLA are characteristic of the sp MODERATE QUALITY I hydrology and/ or soil ch and aren't significantly dis LOW QUALITY WETLAN affected plant species - co	ND: no indic ecific commu WETLAND: 1 aracteristics – sturbed. ND: severe di mmunity con l alteration of	ration of (nity type nild to m provides sturbanc position plant spe	strees or distu - provides s oderate distu s suitable hab es have cause has changed ecies or soils -	urbance in we uitable habit: urbances have bitat for wildl ed significant – noticeable – grazing from	etland or ad at for wildli e caused alte life and vege t changes to stress or dea m livestock	jacent area fe – high qu erations in station – as vegetation ath of plan	- diverse and nality perenni immediately sociated pere , soils, or hyd t species - sol	. mature vegeti al streams are adjacent areas unial or interm rology – hydro l subsidence m	ation typ often ob - slightl nittent st operiod a nay have	CRITERIA pes hydrologic and soil indicators served. y altered natural vegetation, reams are of relatively good quality alterations, if present, have directly occurred in areas with decreased - little suitable habitat for wildlife	

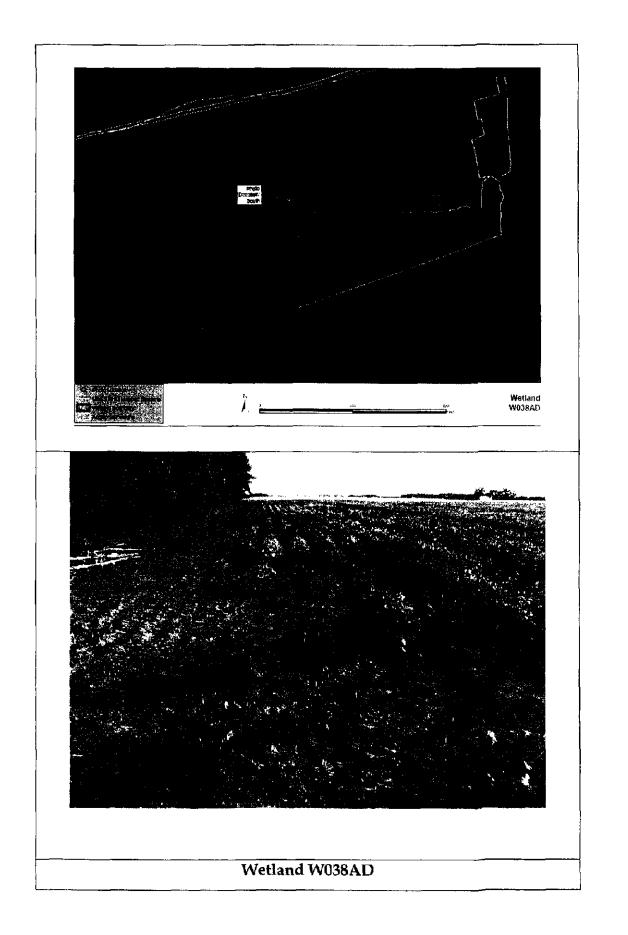


1

te: W038	AC/AB RE	ater(s): Matth	en Nechrotal	Date: 9/19/09
	129			او ب
subixtal div pa				•
0 39	Metric 5. Special We	tlands		
ox 10 pts. subtotal	Check all that apply and score as indicated.			
	Bog (10)			
	Fen (10)			
	Old growth forest (10)			
	Mature forested wetland (5)	un matriciad hydrology	(10)	
	Lake Erle coastal/inibulary weiland			
	Lake Plain Sand Prairies (Oak Ope		,	
	Refict Wet Praires (10)			
	Known occurrence state/federal that	-		
	Significant migratory songbird/wats Category 1 Wetland. See Question	•	• •	
		www.anneaver.r.au(iy (
5 44	Metric 6. Plant comn	nunities, in	terspersion, mi	crotopography
ax 20 pts. subtobal	6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.	Vegetation Commu		(0.2471 acres) contiguous area
	Aquatic bed		Present and either comprises	
	Emergent	-	vegetation and is of moder	•
	Shrub		significant part but is of low	quality
	Forest	2	Present and either comprises	
	Open water		part and is of high quality	ate quality or comprises a small
	Other	3		icant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high qu	
	Select only one.			<u> </u>
	High (5)		on of Vegetation Quality	
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or pred disturbance tolerant native	
	Moderately low (2)	mod	Native spp are dominant com	
	Low (1)			listurbance tolerant native app
	None (0)		can also be present, and sp	-
	6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but gener	
		biah	threatened or endangered s	cles, with nonnative spo
	or deduct points for coverage.	high	A predominance of native spo	ncles, with nonnative spp native spp absent or virtually
	or deduct points for coverage	high	A predominance of native sp and/or disturbance tolerant	
	or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native sp and/or disturbance tolerant	native spp absent or virtually ity and often, but not always,
	or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat	native spp absent or virtually ity and often, but not always,
	or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) X Absent (1)	high Mudfiat and Open V 0	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality	native spp absent or virtually ity and often, but not always, aned, or endangered spp
	or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	Mudifiat and Open V	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat	native spp absent or virtually ity and often, but not always, aned, or endangered spp
	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.	Mudflat and Open V	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality Absent <0.1ha (0.247 acres)	native spp absent or virtually ity and often, but not always, aned, or endangered spp 7 acres)
	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 hummucks/tussucks Coarse woody debris >15cm (6in)	Mudflat and Open V 0 1	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4	native spp absent or virtually ity and often, but not always, aned, or endangered spp 7 acres) 9.88 acres)
	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 hummucks/tussucks Coarse woody debris >15cm (6in) Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Mudifiat and Open V 0 1 2 3	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mon	native spp absent or virtually ity and often, but not always, aned, or endangered spp 7 acres) 9.88 acres)
	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 hummucks/tussucks Coarse woody debris >15cm (6in)	Mudifiat and Open V 0 1 2 3 Microtopography C	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mon cover Scale	native spp absent or virtually ity and often, but not always, aned, or endangered spp 7 acres) 9.88 acres)
	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 hummucks/tussucks Coarse woody debris >15cm (6in) Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Mudifiat and Open V 0 1 2 3	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mon	native spp absent or virtually ity and often, but not always, aned, or endangered spp 7 ocres) 9.88 acres)
	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 hummucks/tussucks Coarse woody debris >15cm (6in) Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Mudifiat and Open V 0 1 2 3 Microtopography C 0	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mon cover Scale Absent Present very small amounts of of marginal quality	native spp absent or virtually ity and often, but not always, aned, or endangered spp 7 acres) 9.88 acres) 9.88 acres) 9.88 acres) 9.88 acres)
	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 hummucks/tussucks Coarse woody debris >15cm (6in) Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Mudifiat and Open V 0 1 2 3 Microtopography C 0	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mon cover Scale Absent Present very small amounts of of marginal quality Present in moderate amounts	native spp absent or virtually ity and often, but not always, aned, or endangered spp 7 acres) 9.88 acres) 9.88 acres) 9.88 acres) 9.88 acres) 9.88 acres)
	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 hummucks/tussucks Coarse woody debris >15cm (6in) Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Mudifiat and Open V 0 1 2 3 Microtopography C 0 1	A predominance of native sp and/or disturbance tolerant absent, and high spp divers the presence of rare, threat Mater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mon cover Scale Absent Present very small amounts of of marginal quality	native spp absent or virtually ity and often, but not always, aned, or endangered spp 7 acres) 9.88 acres) 9.88 acres) 9.88 acres) 9.80 acres) 9.80 acres) 9.80 acres) 9.80 acres) 9.80 acres) 9.81 acres 9.82 acres 9.82 acres 9.83 acres 9.83 acres 9.84 acres 9.85 ac

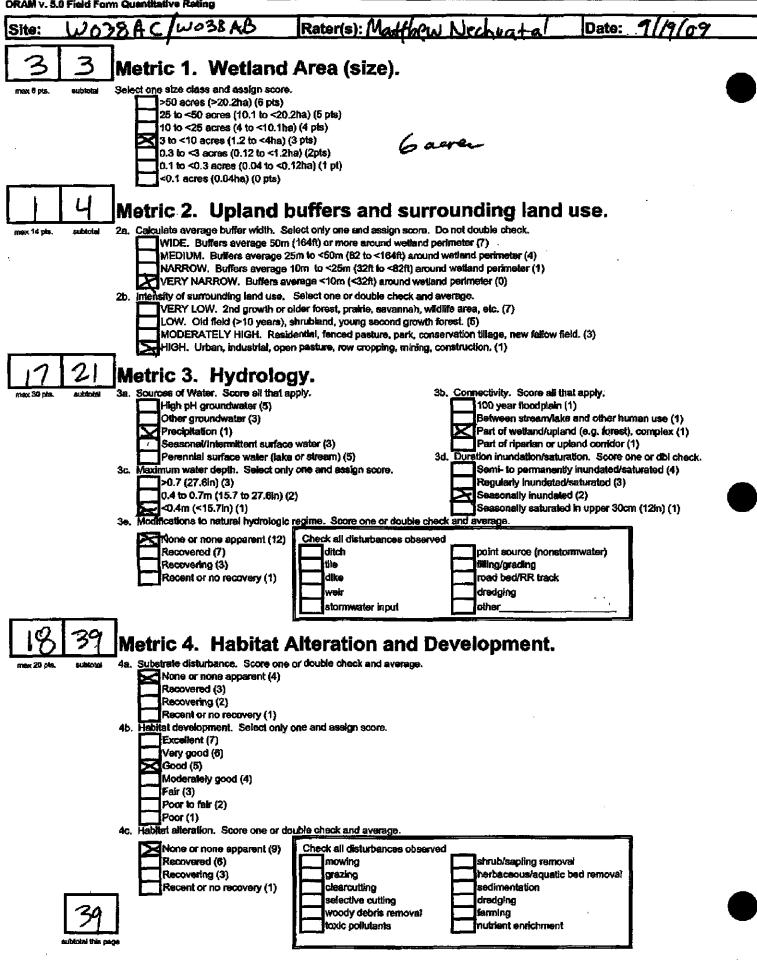
HH GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Celibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epe.state.oh.us/dsw/401/401.htm/



ł

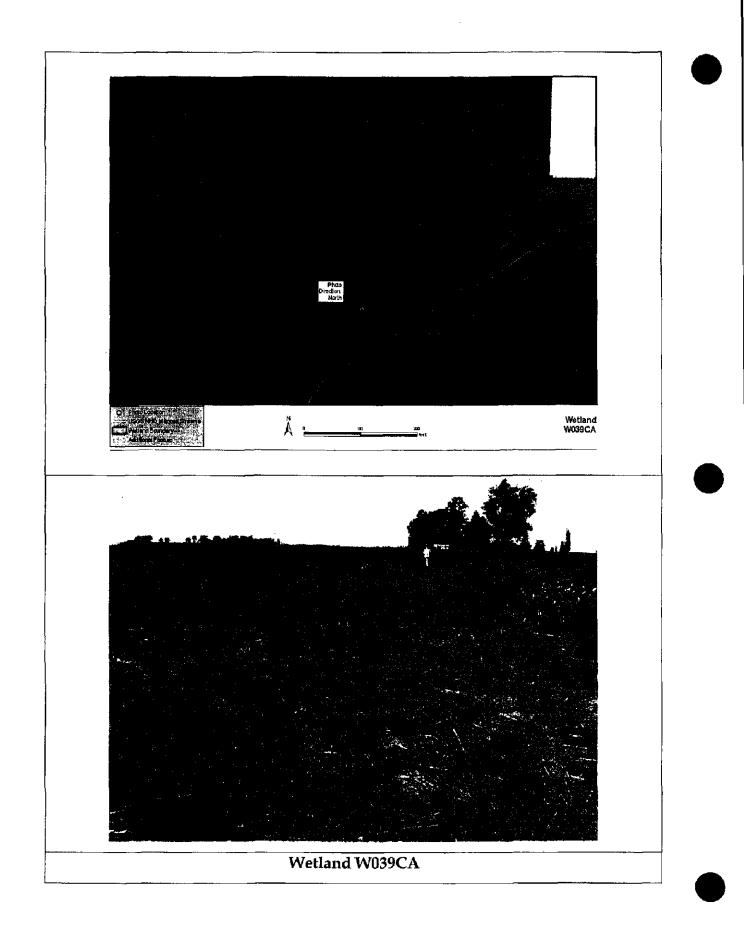
SURVEY TYPE: Blue	Creek Wi	ind Farm	1 1				W038AD		
DATE: 09/19/2009			lent/Project Name	: Heartland		ED STREAM ID			
INVESTIGATORS: Hook		51	ATE/COUNTY: Ohio/	Van Wert		KOVER FILE:	RAH090919B.co	DT QUAD NAME: CONVOY	
Huc12 Code: 041000070	701	тс	wnship: Union			Рното №.:	w38ad1		
WETLAND QUALITY: Low				WETLAND SUBTYPE	TYPE: Palus Emergent	trine			
	PLANT SPE	CIES		Si	RATUM	INC	ICATOR	PERCENT COVER	
1. Setaria faberi					rbaceous		pland	10 %	
 Echinochloa sp. J. 			·····	He	rbaceous	<u> </u>	ac Wet	<u>10 %</u>	
4.								%%	
5.								%	
6.				1				%%	
PERCENT OF DOMINANT S				-, FAC+, OR I	AC (EXCLUE	71NG FAC-): 5)	· · ·	
VEGETATION REMARKS: f	armed wetland	d, largely ba	re						
				HYDRO	DLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WATE	R: N/A	4 (in)		DE	PTH TO SAT	RATED SOIL:	>16 (in)		
Depth to Free Water in	·	ie (in)				·			
				SIZ	ONDARY W	ETLAND INDIC		<u> </u>	
Drift Lines	RIMARY WETLAND INDICATORS:				al Soil Surv		1063.		
Sediment Deposits				Lat		Ey			
REMARKS: farmed wetla	nd, suppressee	d crop					<u></u>		
				So					
MAP UNIT NAME (SERIES	and Phase): 1	Hoytville silt						AINAGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP):			FIELD OBSERVATIO				. Type Encount	ERED?	
·	8 - 1		Pro	OFILE DE	SCRIPT	ION			
DEPTH (INCHES)	Horizo	NN .	MATRIX CO (MUNSELL M			MOTTLE COLOR (MUNSELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-5	A		2.5Y 3/1			Silty Clay Loam			
5+	В		10YR 4/1			10YR 4/4 30%		Clay Loam	
Hydric Soil Indicators					.l			· · · ·	
Listed Hydri		1	Gleyed					Γ	
REMARKS:		<u> </u>		ł				J	
			WETL	AND DE	ERMIN.	ATION		·····	
HYDROPHYTIC VEGETATIC	ON PRESENT?	No				WETLAND?	es		
WETLAND HYDROLOGY P				N ISOLATED V					
HYDRIC SOILS PRESENT?									
NORMAL CIRCUMSTANCE		·	Stevine	ANTLY DISTU	CRED: Yes		POTENTIAL PI	ROBLEM AREA? Yes	
						TO WETT		ITY CRITERIA	
HIGH QUALITY WETLA are characteristic of the sp MODERATE QUALITY hydrology and/ or soil ch and aren't significantly di	ND: no indica ecific commur WETLAND: m aracteristics – sturbed. ND: severe dis	ation of stres uity type – pr hild to mode provides sui sturbances h	ss or disturbance in v rovides suitable habi rate disturbances ha itable habitat for wild ave caused significar	vetland or ad itat for wildli ve caused alt dlife and veg nt changes to	ljacent area fe – high qw erations in i etation – aso vegetation,	- diverse and i ality perennia immediately a sociated peren soils, or hydro	mature vegetatio l streams are ofte djacent areas – si nial or intermitte blogy – hydrope:	n types – hydrologic and soil indicator en observed. lightly altered natural vegetation, ent streams are of relatively good quali riod alterations, if present, have directl	



- Af	39		44. 	
	12			
aubicial and pag				
0 20				
0 39	Metric 5. Special We	tlands.		
ax 10 pts. subtotal	Check all that apply and score as indicated.			
	Bog (10)			
	Fen (10)			
	Old growth forest (10) Meture forested wetland (5)			
	Lake Erie coastal/iributary wetland	unsestricted hydrology (10))	
	Lake Erie coestal/iributary wetland	• •• •		
	Lake Plain Sand Prairies (Oak Ope	nings) (10)		
	Relict Wel Preires (10)			
	Known occurrence state/federal the			
	Significant migratory songbird/wate	÷ ·		
<u>_</u>	Category 1 Wetland. See Question	 i unamative reating (-10) 	,	
544	Metric 6 Plant comp	nunities inte	rspersion, microtopograp	h
ex 20 pts. sublotes	Ba, Weiland Vegetation Communities.	Vegetation Community		· • • •
ar 20 fust - 600075	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous	s area
	Aquatic bed	1	Present and either comprises small part of wetland's	
			vegetation and is of moderate quality, or comprises a	•
	Shrub		significant part but is of low quality	
	Forest	2	Present and either comprises significant part of wetlan	
	Mudflats		vegetation and is of moderate quality or comprises a part and is of high quality	smal
	Other	3	Present and comprises significant part, or more, of we	lland's
	6b. horizontal (plan view) Interspersion.	-	vegetation and is of high quality	
	Sele <u>ct only</u> one.		· · ·	
	High (5)	Narrative Description		
	Moderately high(4)	low ,	Low spp diversity and/or predominance of nonnative or	r
	Moderate (3) Moderately low (2)		disturbance tolerant native species Native spp are dominant component of the vegetation,	
	Low (1)	mod	although nonnative and/or disturbance tolerant native	
			can also be present, and species diversity moderate	
	6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o presence of rare	
	to Table 1 ORAM long form for list. Add		threatened or endangered spp	
	or deduct points for coverage	high	A predominance of native species, with nonnative spp	
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtu	-
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity and often, but not alwa the presence of rare, threatened, or endangered spp	
	Nearly absent <5% cover (0)		are presence or rais, unescence, or enterrigered app	
	Absent (1)	Mudflat and Open Wat	er Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acras)	
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ecres)	
	Vegetated hummucks/kussucks	Z	Moderate 1 to <4ha (2.47 to 9.88 acres)	
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
	2 Standing dead >25cm (10in) dbh		w P rain	
	Amphibian breeding pools	Microtopography Cove		
		0	Absent Present very small amounts or if more common	
		,	of marginal quality	
			Present in moderate amounts, but not of highest	
		2	Lagenral unocetate muchuts' bot tor of Lithest	

44 GRAND TOTAL (max 100 pts)

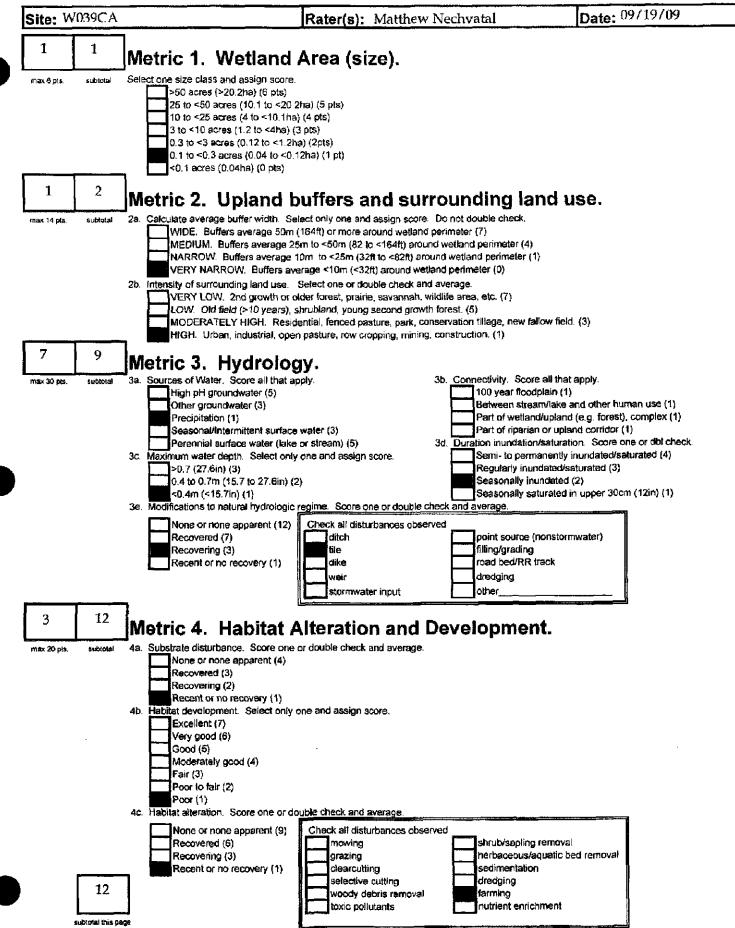
Refer to the most recent ORAM Score Celibration Report for the aconing breakpoints between welland categories at the following address: http://www.epa.state.ok.us/daw/401/401.html



SURVEY TYPE: Blue Creek W Date: 09/19/2009	ind Farm	t		_	ID ID NO.:	W039CA						
Date: 09/19/2009				WETLAND ID NO.: W039CA								
Diame: 09/19/2009	A						Associated Stream ID No: S039CA					
DATE: 07/17/ 8007	ient/Project Name:	ROJECT NAME: Heartland Wind LLC./ Blue Creek Wind Farm										
INVESTIGATORS: HOOK	ate/County: Ohio/1	UNTY: Ohio/Van Wert Rove			RAH090919B.co	r QUAD NAME; Convoy						
HUC 12 CODE: 041000070701	WNSHIP: Union	Рното No.: w36ca1			w36ca1							
WETLAND QUALITY: Low			WETLAND SUBTYPE: I	TYPE: Palus mergent	trine							
PLANT SP	CIES		├────	RATUM	INI	DICATOR	PERCENT COVER					
1. Glycine max				baceous		Jpland	10 %					
2. Echinochioa sp.				baceous		ac Wet	30 %					
3. Setaria faberi			Hei	Herbaceous Upland			20 %					
4.							<u> </u>					
<u> </u>							%%					
							/e					
PERCENT OF DOMINANT SPECIES THAT A VEGETATION REMARKS: farmed wetlan		.W, FACW+, FACW-,	FAC+, OR F	AU (EXCLUE	ING FAC-): 3							
			HYDRC	TOCY	- <u></u>							
Recorded Data?		DESCRIBE:	IIIDKC				······					
·····	A (in)		Dep		RATED SOIL:	>16 (in)						
	ne (in)			14 10 5410	KATED SOLL	210 (11)						
PRIMARY WETLAND INDICATORS:			SEC	ONDARY WI	ETLAND INDIC	ATORS:	<u> </u>					
Drift Lines			Oth	_								
	┼ ━											
Sediment Deposits		· · ··	Loc	al Soil Surv	ey							
REMARKS: farmed wetland, suppress		<u></u>	SOI	TC	<u></u>	<u> </u>						
MAP UNIT NAME (SERIES AND PHASE):	I I an a star			1.5		Day	INAGE CLASS: Very poorly drained					
TAXONOMY (SUBGROUP):	ribytvine sitt	FIELD OBSERVATION		MARET Th								
			FILE DE	_		L I TPE ENCOUNTE						
······································				1								
Depth (Inches) Horiz	DRIZON MATRIX COLOR (MUNSELL MOIST)			ſ	MOTTLE COLOR MUNSELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.					
0-8 A		10YR 4/2	·	Silt Loam								
8+ B		10YR 4/1		10YR 4/6 10%			Clay Loam					
HYDRIC SOIL INDICATORS:			·									
Listed Hydric		Gleyed				[<u>-</u>					
REMARKS:												
		WETLA	ND DET	ERMIN.	ATION							
				LING POINT WITHIN A WETLAND? Yes								
WETLAND HYDROLOGY PRESENT? Yes Is This An Isolated					TED WETLAND? No							
HYDRIC SOILS PRESENT? Yes					4 <u></u>							
NORMAL CIRCUMSTANCES? No	SIGNIFICAL											
DESCRIPTI	ON OF W	ETLAND CROS	SSING T	YPES AN	ID WETL	and Quali	TY CRITERIA					
and aren't significantly disturbed.	nity type – pr mild to mode - provides sui isturbances ha	rovides suitable habit rate disturbances hav itable habitat for wild ave caused significan	at for wildlif re caused alte life and vege t changes to	ie high qu crations in i ctation - ass vegetation,	ality perennia mmediately a sociated perer soils, or hydr	l streams are ofte djacent areas – sli nial or intermitte ology – hydroperi	n observed.					

ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

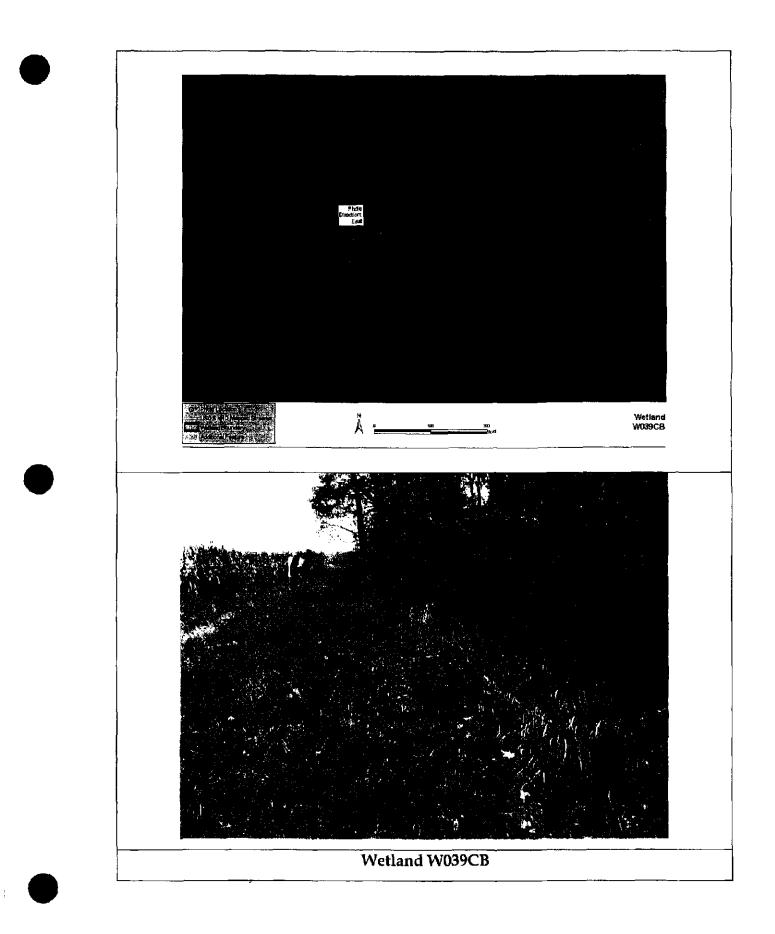
SURVEY TYPE: Blue Creek				WETLAND ID NO.: U039CB Associated Wetland ID NO: W039CB					
DATE: 10/14/2009	CUENT/PROJECT NAME:	E: Heartland Wind LLC./ Blue Creek Wind Farm							
INVESTIGATORS: Hook		STATE/COUNTY: Ohio/							
HUC12 CODE: 0410000707	TOWNSHIP: Union	Рното No.:							
WETLAND QUALITY: N/A		<u></u>	WETLAND T Subtype: U						
· · · · · · · · · · · · · · · · · · ·	PLANT SPECIES	<u></u>	STR	ATUM		ICATOR	PERCENT COVER		
 Quercus muchlenberg Tilia hetero 	<u>ii</u>		Canopy Canopy			pland ac Up	<u> </u>		
3. Quercus palustr			Canopy			ic Wet	10 %		
4. Viburnum dentatum			Shrub			Fac	20 %		
<u>.</u>	·		· · · · · · · · · · · · · · · · · · ·				<u>%</u>		
PERCENT OF DOMINANT S	PECIES THAT ARE OBL.	FACW. FACW+, FACW-	- FAC+. OR FA	C (EXCLUE	DING FAC-): 30	,			
VEGETATION REMARKS:				<u>e (Encesse</u>	<u> </u>				
			HYDRO	LOGY					
RECORDED DATA?		DESCRIBE:							
DEPTH OF SURFACE WATE	i r: N/A (in)		DEPT	TH TO SATL	RATED SOIL: 2	≥16 (in)			
DEPTH TO FREE WATER IN									
PRIMARY WETLAND INDI			Surr	NDARY W	ETLAND INDIC	TORS:			
None				AND ART PT		11043.			
1000									
Remarks:									
			Son	LS					
MAP UNIT NAME (SERIES	AND PHASE): Hoytvill	e silty clay, 0 percent slop	oes (flats)			I	DRAINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP):		FIELD OBSERVATIO	INS CONFIRM N	MAPPED T	PE. IF NO, SON	TYPE ENCOU	INTERED?		
		PRC	OFILE DES	SCRIPT	ION				
DEPTH (INCHES)	Horizon	MATRIX COL (MUNSELL MO		-	IOTTLE COLO IUNSELL MOI		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-14	A	10yr 3/2					Silty Clay Leam		
14+	В	10yr 4/2			Clay Loam				
			-						
HYDRIC SOIL INDICATORS	S:	····	·						
Remarks:									
			AND DET						
HYDROPHYTIC VEGETATIO					A WETLAND? N	10			
WETLAND HYDROLOGY P		Is This A	N ISOLATED W	ETLAND?]	N/A				
HYDRIC SOILS PRESENT? Yes									
NORMAL CIRCUMSTANCE		SIGNIFICANTLY DISTURBED: NO POTEN				TIAL PROBLEM AREA? NO			
HIGH QUALITY WETL, are characteristic of the sp MODERATE QUALITY hydrology and/ or soil cf and aren't significantly di LOW QUALITY WETLA affected plant species - cc	AND: no indication of pecific community type WETLAND: mild to n naracteristics - provide isturbed. .ND: severe disturband mmunity composition il alteration of plant sp	stress or disturbance in v e – provides suitable habi noderate disturbances ha is suitable habitat for wild res have caused significat has changed – noticeabl ecies or soils – grazing fr	vetland or adj itat for wildlif ve caused alte dlife and vege nt changes to v e stress or dea om livestock -	acent area e – high qu rations in : tation – as vegetation, ath of plant	- diverse and i pality perennia immediately a sociated peren , soils, or hydra t species - soil	mature veget l streams are djacent areas nial or intern blogy – hydro subsidence m	ation types - hydrologic and soil indicators		



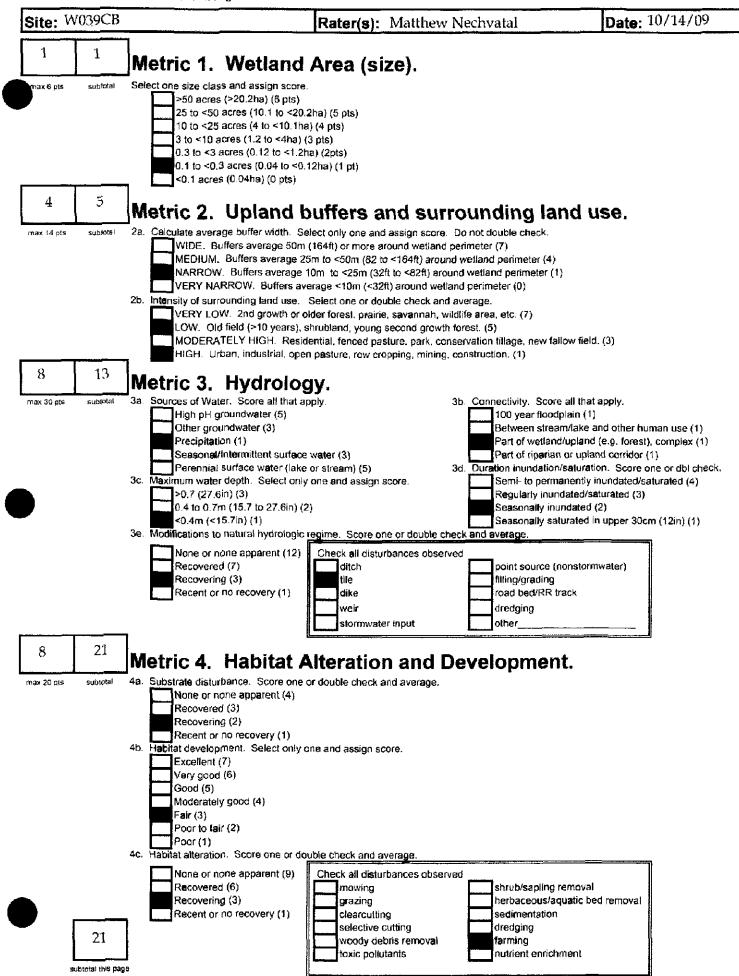
ite: Ra			Rater(s):	Date:
		1		
1	1			
tetotote:		1		
0 0)	Metric 5. Special W	letlands	
ax 10 pts. sub	btotal	Check all that apply and score as indicate		
•		Bog (10)		
		Fen (10)		
		Old growth forest (10)		
		Mature forested wetland (5)	non-patricipal hydrologi	· (10)
		Lake Erie coastal/tributary wetla		
		Lake Plain Sand Prairies (Oak (7
		Relict Wet Praires (10)		
		Known occurrence state/federal		
		Significant migratory songbird/w		
<u> </u>		Category 1 Wetland. See Ques	stion 1 Qualitative Rating	(-10)
1 1	1	Metric 6 Plant com	munitioe ir	terspersion, microtopography
ax 20 pis. sub	blotal	6a. Wetland Vegetation Communities.	Vegetation Commu	
12 20 prs. 500	080134	Score all present using 0 to 3 scale.	Vegetation Commu	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's
		Emergent		vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
		Mudflats Open water		vegetation and is of moderate quality or comprises a small
		Other	3	part and is of high quality Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.	U	vegetation and is of high quality
		Select only one.		
		High (5)	Narrative Descript	on of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3) Moderately low (2)	mod	disturbance tolerant native species Native spp are dominant component of the vegetation.
		Low (1)	5700	although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5) Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		
		Absent (1)	Mudflat and Open	Water Class Quality
		6d. Microtopography,	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks Coarse woody debris >15cm (6		Moderate 1 to <4ha (2.47 to 9.88 acres)
		Standing dead >25cm (10in) db		Tradin and ferred deleasy or more
		Amphibian breeding pools	Microtopography (over 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

13 GRAND TOTAL(max 100 pts)

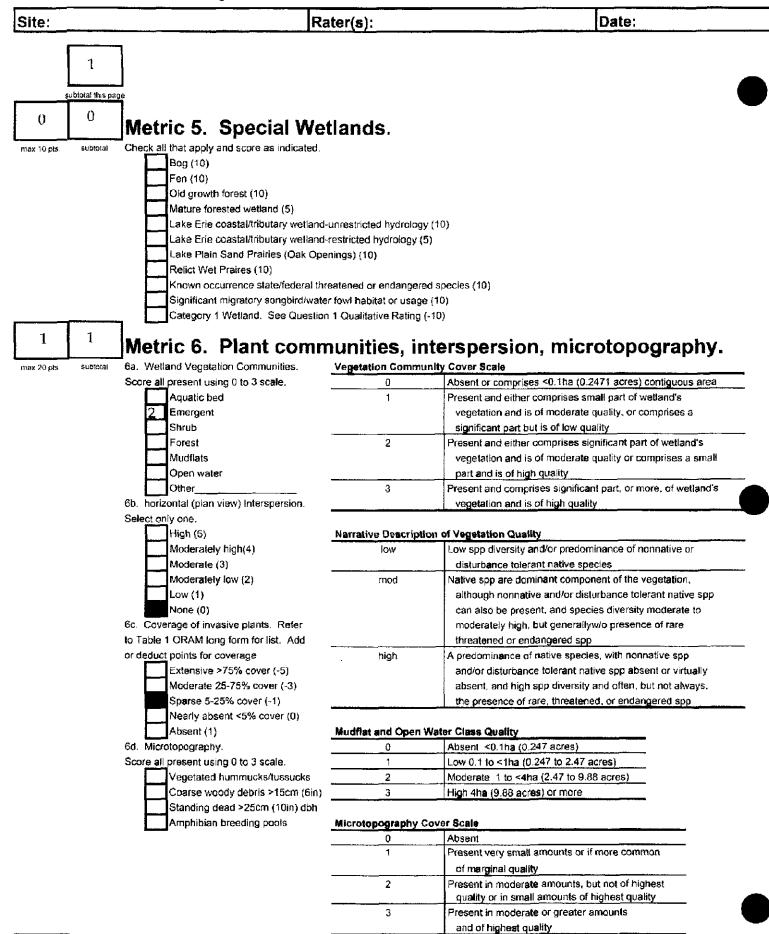
Refer to the most recent QRAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.usidawi401/401.html



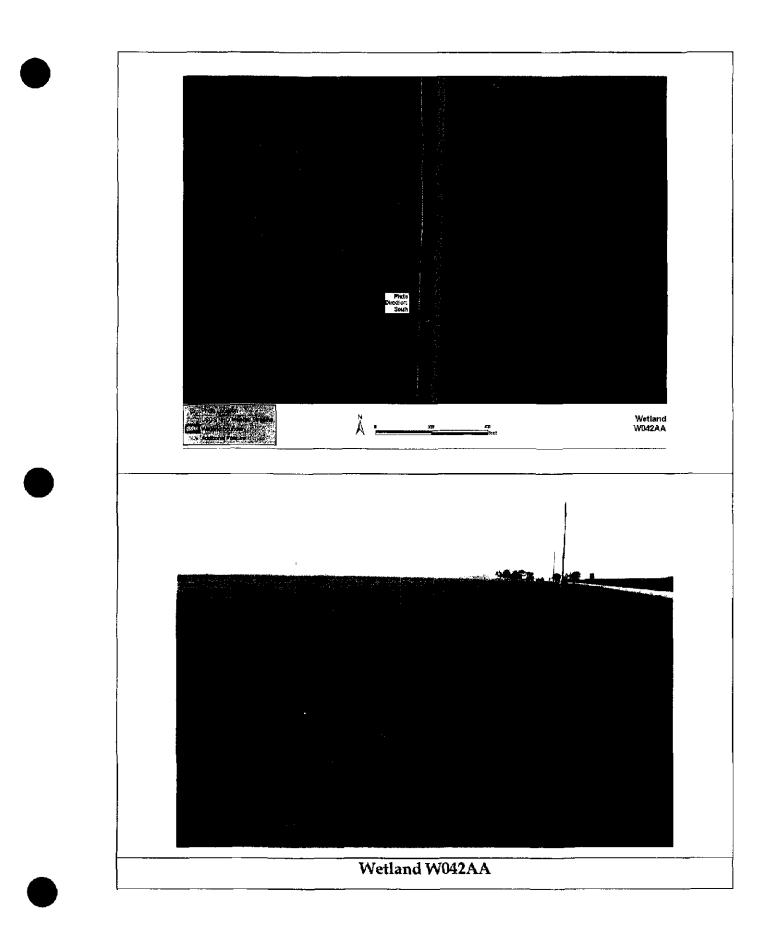
SURVEY TYPE: Blue Creek Wind Farm				WETLAND ID NO.: W039CB Associated Stream ID No: N/A					
DATE: 10/14/2009	CLIENT/PROJECT NAM	AME: Heartland Wind LLC./ Blue Creek Wind Farm							
INVESTIGATORS: Hook	o/Van Wert	······							
Huc 12 Code: 041000070	·	Рното №.: 17							
WETLAND QUALITY: LOW	WETLAND T SUBTYPE: E	TYPE Palustrin	ne			<u>,</u>			
· ····································	PLANT SPECIES			LATUM	Taylo	ICATOR	PERCENT	Cover	
1. Phalaris arundinacea		······		baceous		Wet +	20		
2. Scirpus atrovirens		Her	baceous	Obligate		20	%		
3. Carex tribuloides 4. Cornus amomum	<u></u>			baceous baceous	Obligate Fac Wet		<u>10 %</u> 10 %		
5.							9	6	
6.							<u>j</u>	6	
PERCENT OF DOMINANT: VEGETATION REMARKS:		, FACW, FACW+, FAC	W-, FAC+, or FA	AC (EXCLUDING	g FAC-): 10	10	· · · · · · · · · · · · · · · · · · ·		
			Hydro	LOGY	<u> </u>				
RECORDED DATA?		Describe:		~~~~	<u></u>				
DEPTH OF SURFACE WAT		DEGCHINE.	~		Q	16 /2 - 1			
			DEPI	TH TO SATURA	TED SOIL: >	•1 0 (11)		<u> </u>	
DEPTH TO FREE WATER II	······································								
PRIMARY WETLAND INDI	ICATORS:	 		NDARY WELL	AND INDICA	TORS:			
Drainage Patterns				Neutral Test				· · · · · · · · · · · · · · · · · · ·	
REMARKS: drainage dit	ch			er-Stained Lea					
			Son	LS			<u></u>		
MAP UNIT NAME (SERIES		and the second					AINAGE CLASS: Very	poorly drained	
TAXONOMY (SUBGROUP):		FIELD OBSERVAT				TYPE ENCOUNT	TERED?		
		PR	OFILE DES	SCRIPTIO	<u>N</u>				
Depth (Inches)	Horizon	MATRIX C (MUNSELL N					Texture, Con Structur		
0-12+	B	10YR 5,	/1	7.5YR 4/6			Clay Loam		
					····-				
HYDRIC SOIL INDICATOR	S:				_		·	<u></u>	
Gleyed			·						
REMARKS:	· ·					<u> </u>			
		WETI	LAND DET	ERMINAT	ION		^{**} _**_*		
HYDROPHYTIC VEGETATI	ION PRESENT? Yes	Is This	SAMPLING POIN	T WITHIN A W	ETLAND? Y	es			
WETLAND HYDROLOGY I		15 This	AN ISOLATED W	ETLAND? No					
HYDRIC SOILS PRESENT?									
NORMAL CIRCUMSTANCI	CANTLY DISTURE				TIAL PROBLEM AREA? No				
HIGH QUALITY WETL are characteristic of the sj MODERATE QUALITY hydrology and/ or soil cl and aren't significantly d LOW QUALITY WETLA affected plant species - co hydroperiod - mechanice and vegetation - associat	AND: no indication o pecific community ty; WETLAND: mild to haracteristics - provid isturbed. ND: severe disturbar ommunity compositic el alteration of plant sp	e – provides suitable ha moderate disturbances f es suitable habitat for w tres have caused signific n has changed – noticea pecies or soils – grazing :	wetland or adja bitat for wildhife nave caused alter ildlife and veget cant changes to v ble stress or dea from livestock	acent area – di – high qualit rations in imm ration – associa vegetation, soi th of plant spe	iverse and r ty perennial nediately ad ated perenr ils, or hydro ecies – soil s	nature vegetati streams are ofi ljacent areas – s uial or intermitt logy – hydrope rubsidence may	on types – hydrologic en observed. lightly altered natura ent streams are of rela criod alterations, if pre- have occurred in are	and soil indicators I vegetation, utively good quality esent, have directly as with decreased	



VICAN Y, S.U FICH FUTH QUANTIALIVE MALING



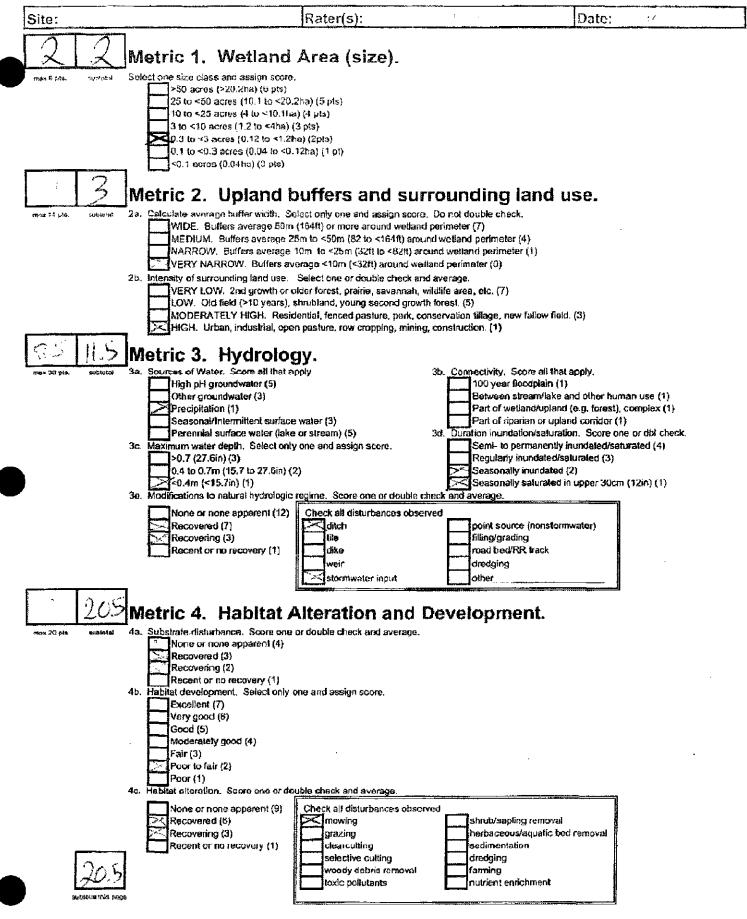
22 GRAND TOTAL(max 100 pts)



.

Ro	UTINE W	VETLAN	ND De lineati	ION DA	ATA FOR	м (19 8	7 COE MI	TH	ODOLOGY)		
SURVEY TYPE: Blue	Creek W	ind Far	m		WETLAN	VD ID NO	.: W042AA				
					Associat	ED STREAM	DNO: N/A				
DATE: 09/21/2009			CLIENT/PROJECT NAME	: Heartlar	nd Wind LL	.C./ Blue Creek Wind Farm					
INVESTIGATORS: Hook			STATE/COUNTY: Ohio/						QUAD NAME: CORVOY		
HUC 12 CODE: 041000070701 TOWNSHIP: Union					Photo No.:				J		
WETLAND QUALITY: Low					ID TYPE; Palus	strine					
<u> </u>					E: Emergent			<u> </u>			
	PLANT SPE	CIES					NDICATOR				
 Scirpus atrovirens Leersia oryzoides 				Herbaceous			Obligate Obligate		<u> </u>		
3. Typha angustifolia				1	<u>Herbaceous</u> Herbaceous		Obligate		30 %		
4.				1	101 0 0 0 0 0 U				%		
5.									%		
б				1				%%			
PERCENT OF DOMINANT S	PECIES THAT A	RE OBL, FA	ACW, FACW+, FACW-	-, FAC+, OF	R FAC (EXCLUE	DING FAC-)	: <u>1</u> 00				
VEGETATION REMARKS: 1	roadside/ag d	rainage									
				HYDR	ROLOGY				······································		
RECORDED DATA?			Describe:	<u> </u>							
DEPTH OF SURFACE WAT	er: N/	A (in)		E	Depth to Saturated Soil; >16 (in)						
DEPTH TO FREE WATER IN	PIT: No	ne (in)									
PRIMARY WETLAND INDI	s	SECONDARY WETLAND INDICATORS;									
Water Marks				L	ocal Soil Surv	ey					
					AC Neutral T	est			_		
REMARKS: roadside/ag	drainage	<u> </u>									
				S	DILS						
MAP UNIT NAME (SERIES	AND PHASE):	Hoytville s	silty clay, 0 percent slop				I	RAIN.	AGE CLASS: Very poorly drained		
FAXONOMY (SUBGROUP):			FIELD OBSERVATIO	ONS CONFIR	MAPPED TY	PE. IF NO,	Soil Type Encour	TEREI	o?		
	<u> </u>		PRO	OFILE D	ESCRIPTI	ION					
Depth (Inches)	MATRIX COLOI			LOR	MOTTLE COLOR (MUNSELL MOIST)			Texture, Concretions, Structure, etc.			
0-3	A		2.5Y 3/1						Silty Clay Loam		
3+	С		10YR 5/1		10YR 4/6 40%			Clay			
HYDRIC SOIL INDICATORS	24		<u></u>	·							
Listed Hydr		<u> </u>	Gleyed		1 -						
					<u> </u>		<u></u>		· · · · ·		
Remarks:											
			WETL	AND DI	ETERMIN.	ATION			······································		
Hydrophytic Vegetati	ON PRESENT?	Yes	Is This Sa	AMPLING P	OINT WITHIN A	A WETLANI	»? Yes				
WETLAND HYDROLOGY P	RESENT? Yes				WETLAND? 1						
HYDRIC SOILS PRESENT?	Yes										
NORMAL CIRCUMSTANCE	is? Yes		SIGNIFICA	ANTLY DIST	URBED: NO		POTENTIAL	PROB	LEM AREA? No		
Di	ESCRIPTIC	ON OF V	VETLAND CRO	SSING	TYPES AN	ND WEI	LAND QUA	LIT	Y CRITERIA		
HIGH QUALITY WETL are characteristic of the sp MODERATE QUALITY	AND: no indic pecific commu WETLAND: 1 naracteristics –	ation of st nity type - nild to mo	ress or disturbance in v provides suitable habi derate disturbances ha	vetland or : itat for wild ve caused :	adjacent area ilife – high qu alterations in i	- diverse a ality perer immediate	nd mature vegeta mial streams are o ly adjacent areas	tion ty often o - sligh	/pes - hydrologic and soil indicator		

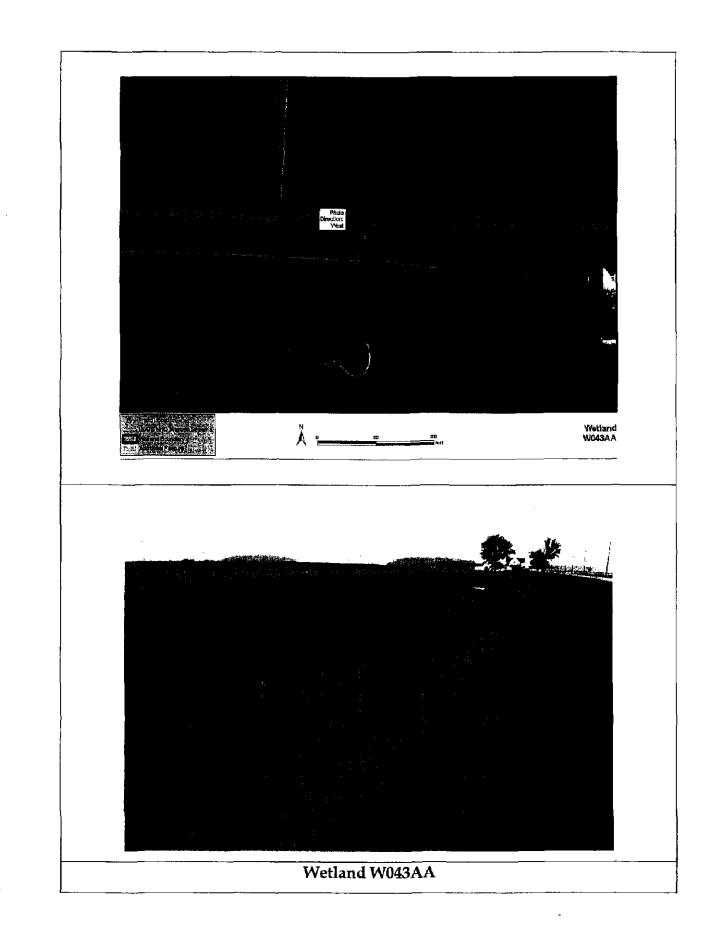
and aren't significantly disturbed. LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



te: 🗽	Ra Ra	ater(s):	Date:
[]			
হ এচবলাটো উম্বান চনজাল			
Ô C I		Al	
\sim \sim	Metric 5. Special We	tianos.	
ित होड़ इसकेल्डन	Check all that apply and score as indicated.		
	Bog (10)		
	Fen (10)		
	Old growth (prest (10)		
	Mature forested wetland (5)		
	Lake Eric coastai/tributary welland		· •
	Lake Erie coastel/tributary wetland Lake Plain Sand Prairies (Oak Ope		
	Relict Wet Prairies (10)	chingaj (10)	
	Known occurrence state/federal th	reatened or endancered	1 STRATES (10)
	Significant migratory songbird/wate		
	Category 1 Welland. See Questio		- /
	Metric 6. Plant comr	nunities. in	terspersion, microtopography.
to pine, pi	50. Wetland Vegetation Communities.	Vegetation Commu	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aqualic bed	1	Present and either comprises small part of welland's
	7, Emergent		vegetation and is of moderate quality, or comprises a
	C) Shrup		significant part but is of low quality
	C Forest	2	Present and either comprises significant part of wetland's
			vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	C Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) interspersion.		vegetation and is of high quality
	Select only one.		an - () be well of the One allow
	High (5) Moderatety high(4)	low	n of Vegetation Quality Low spp diversity and/or predominance of nonnative or
	Moderate (3)	1348	disturbance tolcront native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Earw (†)		although normalive and/or disturbance toterant native spp
	None (0)		can also be present, and species diversity moderate to
	bc. Coverage of invasive plants. Refer		moderately high, but generallyw/o presence of rare
	to Table 1 ORAM long form for list. Add	······································	threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
			absent, and high spp diversity and often, but not always,
	Moderale 25-75% cover (-3)		
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	Muddles and Control of the	
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1)	Mudflat and Open V	later Class Quality
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Store all present using 0 to 3 scala	0 t	Absent <0.1ha (0.247 acres)
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Store all present using 0 to 3 scale Vegetated hummucks/tussucks	0 1 2	Jater Class Quality Absent <0.1ha (0.247 acres)
	Store all present using 0 to 3 scala	0 1 2	Absent <0.1ha (0.247 acres)
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Store all present using 0 to 3 scale Vegetated hummucka/tussucks Coarse woody debrie >15cm (6in)	0 1 2 3	Ater Class Quality Absent <0.1ha (0.247 acres) I ov 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (0.88 acres) or more
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale Vegetated hummucks/tussucks Cearse woody debrie >15cm (6in) Coarse woody debrie >15cm (6in)	0 1 2	Ater Class Quality Absent <0.1ha (0.247 acres) I ov 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (0.88 acres) or more
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale Vegetated hummucks/tussucks Cearse woody debrie >15cm (6in) Coarse woody debrie >15cm (6in)	1 2 3 Microtopography C	Ater Class Quality Absent <0.1ha (0.247 acres) Low 8.1 to <1ha (0.247 in 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (0.88 acres) or more
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale Vegetated hummucks/tussucks Cearse woody debrie >15cm (6in) Coarse woody debrie >15cm (6in)	1 2 3 Microtopography C 0	Ater Class Quality Absent <0.1ha (0.247 acres) Low 8.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (0.88 acres) or more over Scale Absent
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale Vegetated hummucks/tussucks Cearse woody debrie >15cm (6in) Coarse woody debrie >15cm (6in)	1 2 3 Microtopography C 0	Absent <0.1ha (0.247 acres)
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale Vegetated hummucks/tussucks Cearse woody debrie >15cm (6in) Coarse woody debrie >15cm (6in)	0 1 2 3 Microtopography C 0 1 2	Absent <0.1ha (0.247 acres)
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale Vegetated hummucks/tussucks Cearse woody debrie >15cm (6in) Coarse woody debrie >15cm (6in)	1 2 3 Microtopography C 0 1	Absent <0.1ha (0.247 acres)



Ruber to the most recent ORAM Brent Culturation Report for the newsity, providential between wetland categories of the following address: http://www.epa.state.ck.us/daw/401/401.htm

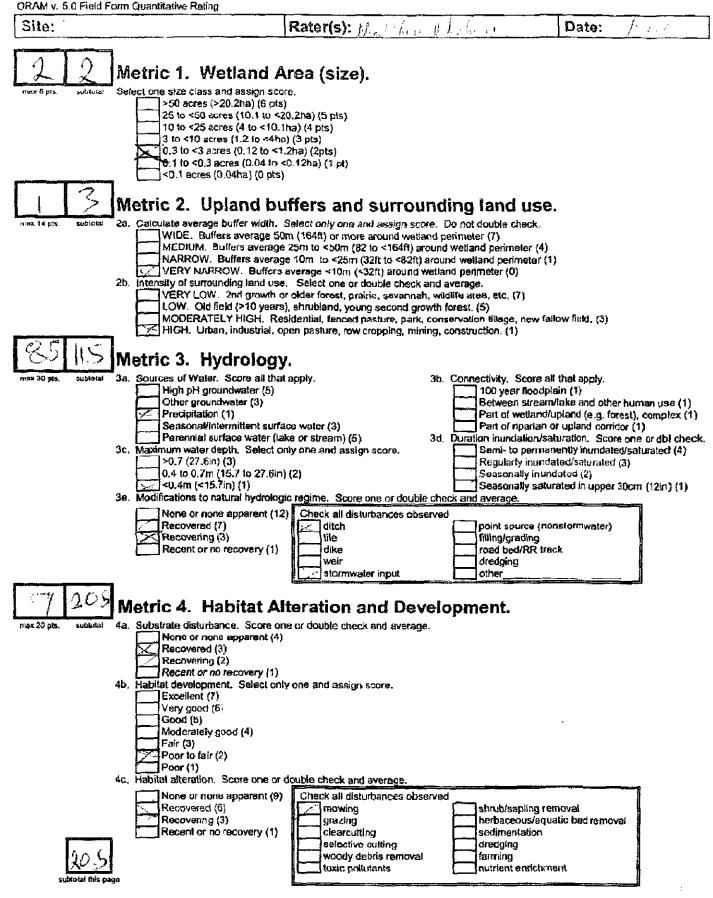


CH2MHILL

ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

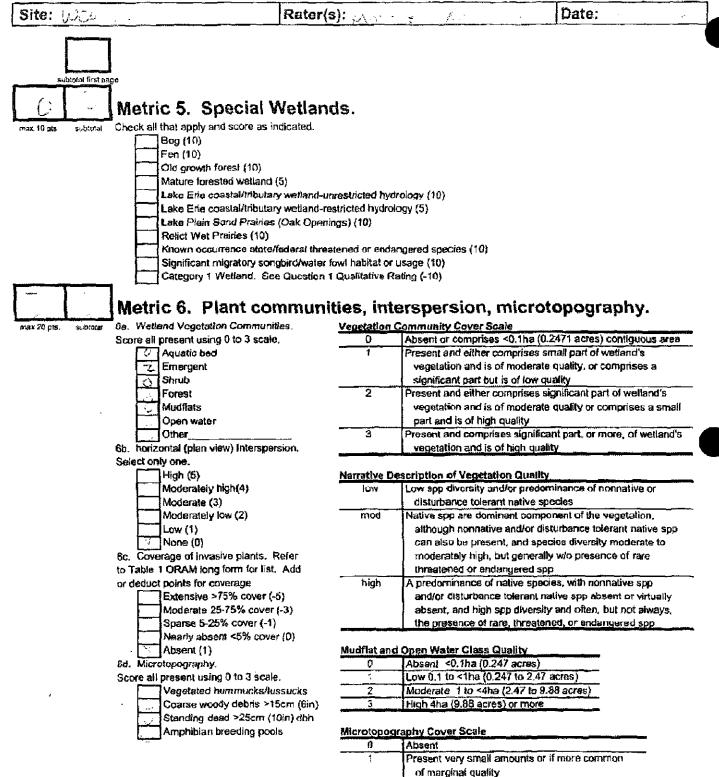
SURVEY TYPE: Blue Creek Wind Farm					WETLAND ID NO.: W043AA Associated Stream ID No: N/A					
DATE: 09/21/2009	CLIENT/PR	OJECT NAME:	Heartland	I Wind LLC./ Blue Creek Wind Farm						
INVESTIGATORS: Hook	STATE/COL	STATE/COUNTY: Ohio/Van Wert			ROVER FILE: RAH090921.cor			4E: Convoy		
HUC 12 CODE: 041000070	TOWNSHIP	TOWNSHIP: Union			Рното No.:					
WETLAND QUALITY: LOW		WETLAND TYPE: Palustrine SUBTYPE: Emergent								
PLANT SPECIES					RATUM		INDICATOR	PERCI	ENT COVER	
1. Scirpus atrovirens		Herbaceous			Obligate		20 %			
2. Leersia oryzoides 3.		He	rbaceous		Obligate		<u>80 %</u>			
4,							%			
<u>5.</u>							%			
0. PERCENT OF DOMINANT 5	PECIES THAT ADD OF	L EACINI EAC	W+ FACW-	EAC+ OF E	AC (EVCLU	UNC FAC			~	
VEGETATION REMARKS:			. <u></u>	TACTORT	FIC (EXCLO					
				HYDRC	DLOGY					
RECORDED DATA?			Describe:							
DEPTH OF SURFACE WAT	ER: N/A (in)	······································		Der	PTH TO SAT	JRATED SC	91L: >16 (in)			
DEPTH TO FREE WATER II	v PIT: None (in)									
PRIMARY WETLAND INDI	CATORS;	n		SEC	ONDARY W	ETLAND IN	DICATORS:			
Water Marks				Loc	al Soil Surv	ey				
				FAC Neutral Test						
REMARKS: roadside/ag	drainage									
				SO	ILS					
MAP UNIT NAME (SERIES	AND PHASE): Hoytv	ille silty clay, (percent slope	es (flats)			D	RAINAGE CLASS; V	ery poorly drained	
TAXONOMY (SUBGROUP):		Field	OBSERVATION	NS CONFIRM	MAPPED TI	CPE. IF NO,	SOIL TYPE ENCOUN	TERED?		
			Pro	FILE DE	SCRIPT	ION				
DEPTH (INCHES)	MATRIX COLO				MOTTLE COLOR (MUNSELL MOIST)			CONCRETIONS, TURE, ETC.		
0-4	A		10YR 4/2					Silty C	lay Loam	
4+	С		10YR 4/1			10YR 4/6	30%		y Loam	
						/				
HYDRIC SOIL INDICATOR	5;									
Listed Hydr	ic	(leyed							
REMARKS: Deep excavat	tion into substratum.	Dominance by	OBL species							
			WETLA	ND DET	TERMIN	ATION				
HYDROPHYTIC VEGETAT	ON PRESENT? Yes		T		G POINT WITHIN & WETLAND? Yes					
WETLAND HYDROLOGY I	REBENT? Yes		IS THIS AN	s An Isolated Wetland? No						
HYDRIC SOILS PRESENT?	Yes									
NORMAL CIRCUMSTANCI	NTLY DISTUR	Y DISTURBED: NO POTENTIAL PROBLEM AREA? No								
D	ESCRIPTION	F WETLA	ND CROS	SSING T	YPES AN	ND WE	TLAND QUA	LITY CRITER	IA	
HIGH QUALITY WETL are characteristic of the s MODERATE QUALITY hydrology and/ or soil cl and aren't significantly d LOW QUALITY WETLA affected plant species - oc hydroperiod - mechanica and vegetation - associat	pecific community ty WETLAND: mild to haracteristics - provi isturbed. MD: severe disturba ommunity compositi al alteration of plant	pe - provides moderate dist des suitable ha unces have caus on has change species or soils	suitable habit turbances hav bitat for wild sed significan d - noticeable - grazing fro	at for wildli re caused alt life and veg t changes to stress or de m livestock	ife - high qu terations in etation - as vegetation eath of plant - channeliz	ality pere immediati sociated p , soils, or h t species -	nnial streams are o ely adjacent areas – erennial or intermi nydrology – hydrop soil subsidence ma	ften observed. slightly altered na ttent streams are of period alterations, i y have occurred in	tural vegetation, frelatively good quality f present, have directly a areas with decreased	

ORAM v. 5.0 Field Form Quantitative Rating



last revised 1 February 2001 jjm

ORAM v. 5.0 Field Form Quantitative Rating





Refer to the most recent ORAM Scare Calibration Report for the scaring, breakpoints between weften Justogories at the following address: http://www.eps.stats.ok.us/dsw/401/401.html last revised 1 February 2001 jjm

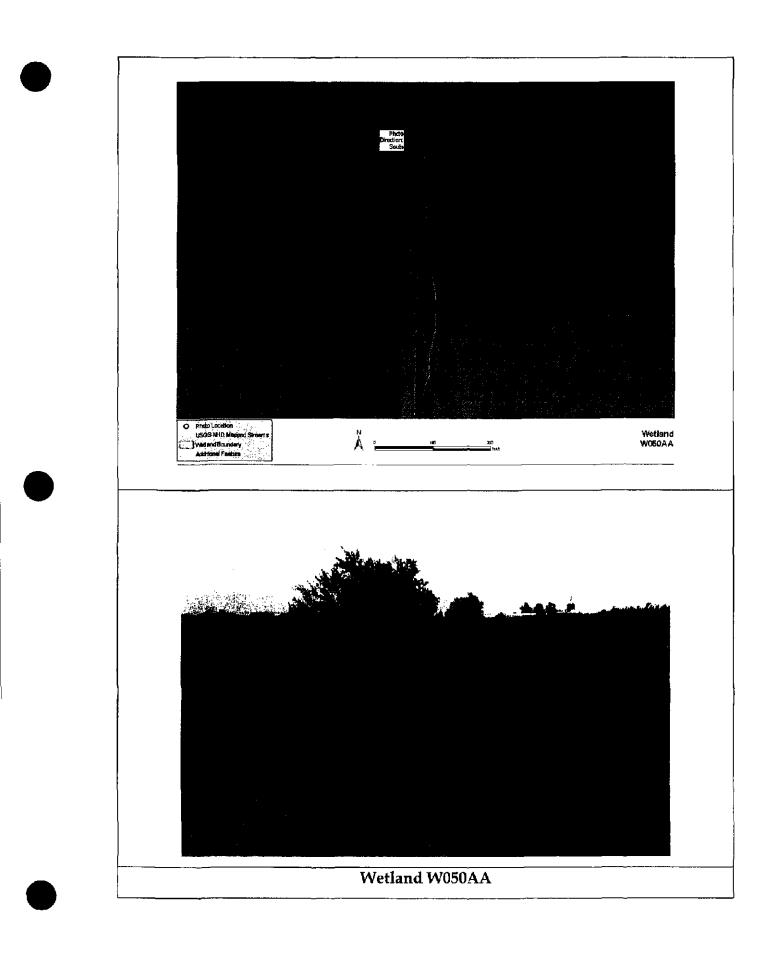
2

3

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

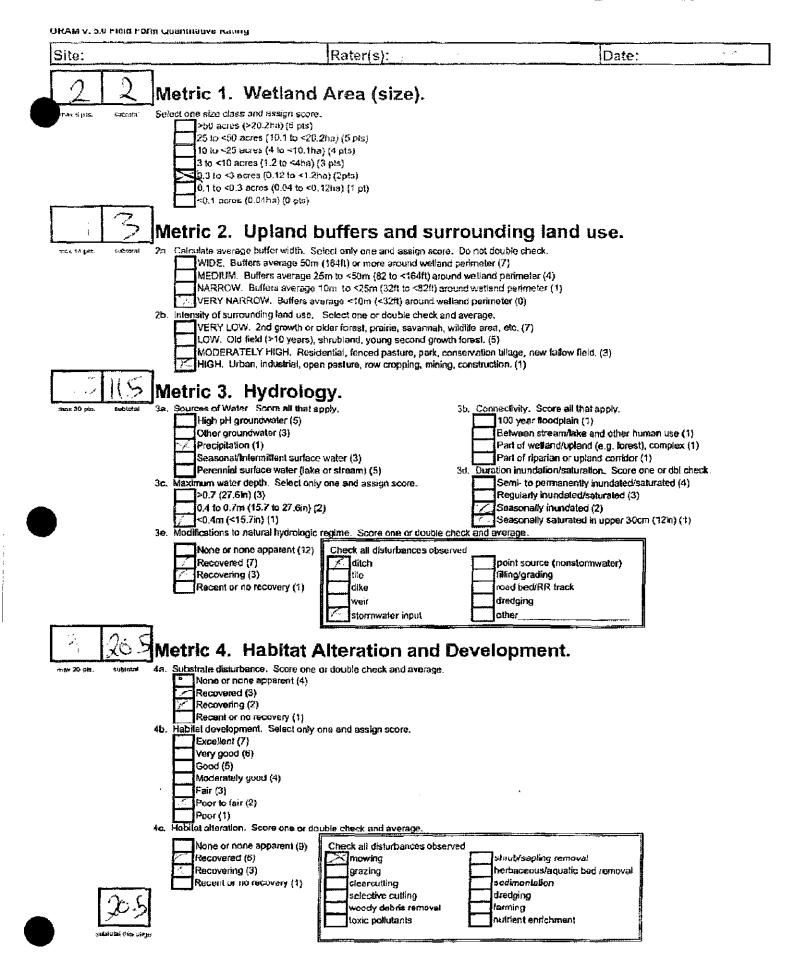
Present in moderate or greater amounts

and of highest quality

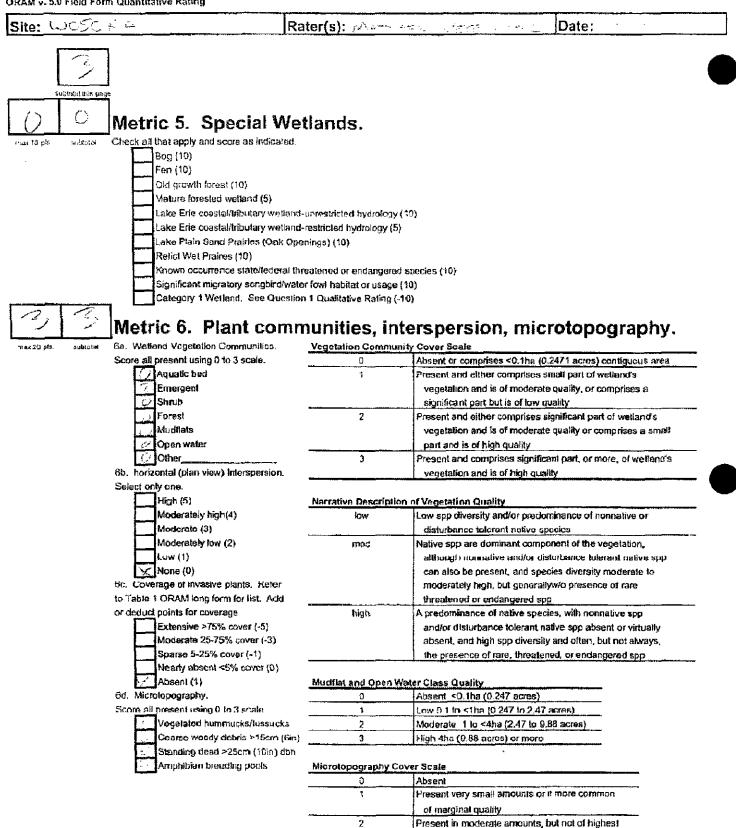


CH2MHILL

Ro	UTINE WETLA	AND DELINE	ATION D	ATA FOR	м (1987	COE MET	THODOLOGY)			
SURVEY TYPE: Blue Creek Wind Farm					WETLAND ID NO.: W050AA					
		·····	Associat							
DATE: 09/20/2009	CLIENT/PROJECT N	юјест Name: Heartland Wind LLC./ Blue Creek Wind			eek Wind Farm	Farm				
INVESTIGATORS: Hook		STATE/COUNTY: (Ohio/Van Wer	t	Rover File	: RAH090920.com	QUAD NAME: Convoy			
HUC 12 CODE: 041000070	TOWNSHIP: Unio	n		Photo No.	:					
WETLAND QUALITY: LOW	· · · · · · · · · · · · · · · · · · ·			AND TYPE: Palu PE: Emergent	strine					
	PLANT SPECIES	1.00 ¹¹	STRATUM			DICATOR	PERCENT COVER			
1. Leersia oryzoides			Herbaceous	Obligate		30 %				
2. Scirpus atrovirens			Herbaceous			Obligate	<u>20 %</u>			
3. Alisma subcordatum 4.	=			Herbaceous		Obligate	<u> </u>			
5							%			
6	· _ · · · · · · · · · · · · · · · · · ·					I	%			
PERCENT OF DOMINANT S	SPECIES THAT ARE OBL	FACW, FACW+, FA	ACW-, FAC+,	OR FAC (EXCLU	DING FAC-):	100				
VEGETATION REMARKS:	roadside drainage									
			Hyd	ROLOGY						
RECORDED DATA?		DESCRI	BE;							
DEPTH OF SURFACE WAT	ER: N/A (in)			DEPTH TO SAT	URATED SOIL:	>16 (in)				
DEPTH TO FREE WATER IN	PIT: None (in)									
PRIMARY WETLAND INDI	CATORS:	·		SECONDARY W	ETLAND INDIG	ATORS:				
Water Marks				Local Soil Sur						
Drift Lines				FAC Neutral Test						
REMARKS: roadside dra				TACINE LIZE	<u></u>					
			9	Soils						
MAP UNIT NAME (SERIES	and Phase): Hoytvil	e silty clay, 0 percer	percent slopes (flats)			DR	AINAGE CLASS: Very poorly drained			
TAXONOMY (SUBGROUP):		FIELD OBSER	VATIONS CONE	irm Mapped T	YPE. IF NO, SO	IL TYPE ENCOUNT	ERED?			
			PROFILE	DESCRIPT	ION					
DEPTH (INCHES)	DEPTH (INCHES) HORIZON MATRIX CO (MUNSELL M						TEXTURE, CONCRETIONS, STRUCTURE, ETC.			
0-6	В	10Y	R4/1		10yr 4/6 10	6	Silt Loam			
6+	С	10Y	R 4/3				Sandy Clay Loam			
HYDRIC SOIL INDICATOR				p			1			
Listed Hydr	ic .		·····				1			
REMARKS: Deep excavat	ion into substratum. I	lominance by OBL s	species.							
		W	ETLAND I	Determin	ATION					
HYDROPHYTIC VEGETATI	Is T	Is This Sampling Point Within a Wetland? Yes								
WETLAND HYDROLOGY P		Is T	IS THIS AN ISOLATED WETLAND? No							
HYDRIC SOILS PRESENT?	Yes									
NORMAL CIRCUMSTANCE			NIFICANTLY DI							
D	ESCRIPTION O	WETLAND (CROSSING	G TYPES A	ND WETI	AND QUAL	LITY CRITERIA			
are characteristic of the sp MODERATE QUALITY hydrology and/ or soil cl and aren't significantly d LOW QUALITY WETLA affected plant species - or	pecific community typ WETLAND: mild to 1 haracteristics – provid- isturbed. MD: severe disturban ommunity compositio al alteration of plant sp	e – provides suitabl noderate disturbanc 25 suitable habitat fo ces have caused sign n has changed – not vecies or soils – graz	e habitat for w ces have cause or wildlife and nificant change iceable stress of ing from livest	ildlife - high q d alterations in vegetation - as es to vegetatior or death of plan tock - channeliz	uality perenni immediately sociated pere 1, soils, or hyd t species – soi	al streams are off adjacent areas – s nnial or intermitt rology – hydrope 1 subsidence may	on types – hydrologic and soil indicators then observed. Slightly altered natural vegetation, ent streams are of relatively good quality eriod alterations, if present, have directly to have occurred in areas with decreased thing – little suitable habitat for wildlife			



last revised 1 February 2001 jim





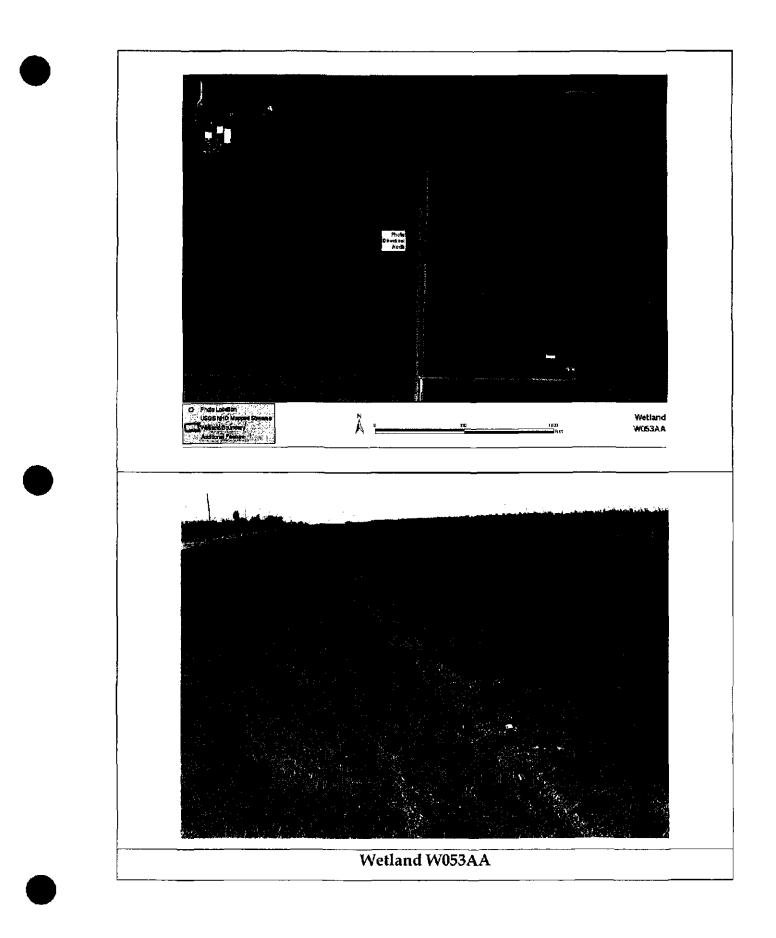
Antor in the mean result of AM Saara Calibration Report for the soning is trackpoints between a categories at the following adurants: http://www.ega.state.ck.www.int/1014/01.nkm

3

quality or in small amounts of highest quality

Present in moderate or greater amounts

and of highest quality



CH2MHILL

ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

SURVEY TYPE: Blue Creek Wind Farm						WETLAND ID NO.: W053AA Associated Stream ID No:					
DATE: 09/20/2009 CLIENT/PROJECT I				r NAME: Heartland Wind LLC./ Blue Creek Wind Farm							
INVESTIGATORS: Hook	STATE/COUN	STATE/COUNTY: Ohio/Van Wert			ROVER FILE: RAH090920.cor			QUAD NAME: Convoy			
HUC12 CODE: 041000070703 Township; Union				n			PHOTO NO .:				
WETLAND QUALITY: LOV	WETLAND TYPE: Palustrine Subtype: Emergent										
	PLANT SPECIES		STR	STRATUM INDICATOR				PERCENT COVER			
1. Scirpus atrovirens		Herbaceous Obligate				30 %					
2. Alisma subcordatum 3. Leersia oryzoides					Herbaceous Obligat Herbaceous Obligat				<u>10 %</u> 20 %		
4,		Terbaceous Obligate			%						
5							<u>%</u>				
PERCENT OF DOMINANT	SPECIES THAT ARE O	E FACW FACV		FAC+. OR FA	С (рустан	DING FA	C-): 100		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
VEGETATION REMARKS:		2,111011/110									
				HYDRO	LOGY			_			
RECORDED DATA?		D	ESCRIBE:								
DEPTH OF SURFACE WAT	ER: N/A (in)	·····		DEPT	TH TO SATE	URATED S	SOIL: >16 (in)				
DEPTH TO FREE WATER I	N PIT: None (in)									
PRIMARY WETLAND IND	ICATORS:			SECC	NDARY W	EFLAND	INDICATORS:				
Water Marks					er-Stained			FA	C Neutral Test		
Sediment Deposits				Loca	l Soil Surv	ey					
REMARKS: ag drainage											
				Son	S						
MAP UNIT NAME (SERIES	S AND PHASE): Hoyt	rille silty clay, 0 p	percent slopes	s (flats)				DRAINA	GE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)	:	FIELD C	DESERVATION	S CONFIRM N	APPED T	YPE. IF N	O, SOIL TYPE ENCO	UNTEREL	?		
			PROF	FILE DES	CRIPT	ION					
Depth (Inches)	Horizon	1	MATRIX COLOR MOTTLE COLOR (MUNSELL MOIST) (MUNSELL MOIST)					TEXTURE, CONCRETIONS, STRUCTURE, ETC.			
0-2	A		2.5Y 4/2						Silt Loam		
2-8	A	-{	 2.5Y 4/2			10YR 5	/65%		Silt Loam		
			······		10YR3		Rock Refusal				
8-10	В		10YR 5/1			after	10"		Silt Loan		
HYDRIC SOIL INDICATOR	is:		·								
Listed Hyd	ric	GI	leyed	<u> </u>							
Remarks:											
			WETLAN	ND DET	ERMIN	ATIO	N				
HYDROPHYTIC VEGETAT	ION PRESENT? Yes		Is This Sam								
WETLAND HYDROLOGY					DLATED WETLAND? No						
HYDRIC SOILS PRESENT?											
NORMAL CIRCUMSTANC	ES? Yes		SIGNIFICAN	TLY DISTURE	ED: NO		POTENTIA	L PROBL	em Area? No		
D	ESCRIPTION	OF WETLAN	ID CROS	SING TY	PES AN	ND W	ETLAND QU	ALITY	CRITERIA		
are characteristic of the s MODERATE QUALITY hydrology and/ or soil c and aren't significantly d LOW QUALITY WETLA affected plant species - c	pecific community t WETLAND: mild t haracteristics – prov listurbed. AND: severe disturb ommunity composit al alteration of plant	/pe - provides su o moderate distu- ides suitable hab unces have cause ion has changed species or soils -	nitable habitai rbances have itat for wildli d significant of - noticeable s grazing from	t for wildlife caused alter ife and veget changes to v stress or dea n livestock	e – high qu rations in i tation – ass regetation, th of plant	ality per immedia sociated , soils, or t species	rennial streams are itely adjacent areas perennial or intern hydrology – hydr – soil subsidence n	e often ol - slight nittent s operiod nay have	pes - hydrologic and soil indicators overved. In altered natural vegetation, treams are of relatively good quality alterations, if present, have directly a occurred in areas with decreased - little suitable habitat for wildlife		