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WATERS OF THE UNITED STATES DELINEATION, ENDANGERED SPECIES HABITAT & MIGRATORY BIRD HABITAT REPORT CUYAHOGA COUNTY AIRPORT CUYAHOGA COUNTY, OHIO



Prepared for:

Mead & Hunt 5900 Wilcox Place Dublin, Ohio 43016

Prepared by:

Lawhon & Associates, Inc. 1441 King Avenue Columbus, Ohio 43213 614-481-8600 (office) 614-481-8610 (fax)



SIGNATURE PAGE

Prepared by:

Chartil M. Wilam

Done & Varalita

Chantil M. Milam Environmental Scientist L&A, Inc.

Dane G. Vandewater

Sr. Ecologist L&A, Inc.

Reviewed by:

Thomas Powell Vice President, Project Manager L&A, Inc.

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EXECUTIVE SUMMARY

The Study Area is located within the Richmond Heights area of Cuyahoga and Lake Counties, Ohio, and lies in northern Cuyahoga County east of the intersection of Richmond Road (State Route 175) and Curtiss Wright Parkway. The Study Area is approximately 455 acres (ac) in size and consists of the existing Cuyahoga County Airport (CGF), which includes taxiways, segments of runway, buildings, paved parking areas, disturbed soil/fill areas, scrub-shrub, forested areas and maintained fields. In support of runway safety due to deteriorating pavement condition on the existing runway, Lawhon & Associates, Inc. (L&A) completed a routine wetland and stream delineation, endangered species habitat, and migratory bird habitat assessment of the Study Area. This report presents the professional opinion of L&A regarding the boundaries, general characteristics, and classification of waters within the Study Area. For demonstration purposes, an outline of the approximate "Project Area" (area of development for the airport) is also shown on Figures 1-8.

Wetlands were identified according to the Routine Determination method described in the *U.S. Army Corps of Engineers 1987 Wetland Delineation Manual*. Field protocols also conformed to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0* (USACE, 2012). Vegetation, soils, and hydrology were evaluated across the site and at sampling plots to determine the presence of wetland field indicators for each parameter. Ditches/Streams were identified and characterized using the Primary Headwater Habitat Evaluation form developed by the Ohio Environmental Protection Agency (OEPA).

Nineteen (19) wetland areas, nine (9) streams, and eight (8) drainage features (ditches) were identified within the Study Area. These wetlands, streams and drainage features are shown on Figures 3-8; wetlands A through S, streams 1-9, and the drainage features (ditches 1-9) are identified. USACE data forms, ORAM v. 5.0, and stream data forms are located in Appendix A, and a photolog is located in Appendix B. An Ohio Department of Natural Resources (ODNR) Natural Heritage Program response letter is located in Appendix C.

Potential presence of endangered species habitat within the Study Area was assessed during this assessment. The USFSW lists four federally protected species with known occurrences in Cuyahoga and Lake Counties; these species consisted of Indiana bat, Kirtland's warbler, Piping Plover, and snuffbox mussel. Based on review of the Study Area, limited potential habitat for the listed species was observed.

In addition to potential endangered species, the Study Area was assessed for the potential habitat for migratory birds. Based on the number of identified migratory bird species within Cuyahoga County, the potential exists for migratory birds to travel through or in the vicinity of the Study Area; however based on the continued maintenance of the Study Area there is limited opportunity for the use of the airfield for nesting and foraging activities.

1.0 INTRODUCTION

1.1 PURPOSE

The Federal Water Pollution Control Act (33 U.S.C. 1344), as amended by the United States Congress in 1972, became known as the Clean Water Act (CWA). The objective of the CWA is to maintain and restore the chemical, physical, and biological integrity of the Waters of the United States (U.S.). Section 404 of the CWA authorized the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into the "Waters of the U.S." Section 401 of the Clean Water Act allows the State to regulate waters that are isolated and are not considered "Waters of the U.S."

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-712), and amendments indicates the MBTA as "unlawful to pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg or any such bird, unless authorized under a permit issued by the Secretary of the Interior. Some regulatory exceptions apply" (USFWS, 2013). The MBTA protects hundreds of species of migratory birds, amendments to the MBTA and associated Acts indicate fines ranging from \$15,000 to \$200,000 in addition to imprisonment for takes or attempting to take migratory game birds. Additional regulations exist for to protect eagles and raptors (The Bald and Golden Eagle Protection Act, 1972) which also provides provisional take of eagles and raptors through permits.

The Endangered Species Act (ESA) recognizes "esthetic, ecological, educational, recreational, and scientific value to our Nation and it's people" (USFWS 2013a). The intent of the ESA originally passed by U.S. Congress in 1973 is to protect and recover species and habitat for that are "imperiled". Similar to the MBTA, the ESA permits are required to "take"; defined as harness, harm, pursue, hunt, shoot, wood, kill, capture, or collect, a listed species (USFWS 2013a). Coordination with USFWS is necessary to address if potential impacts to habitat or individuals of threatened and endangered species.

The Study Area is located in the Richmond Heights area of Cuyahoga County, Ohio. L&A was retained by the Mead & Hunt (Client) to conduct delineations and assessments of potentially regulated water bodies, potential migratory bird habitat, and the potential to impact threatened and endangered species habitat in the Study Area. L&A's opinion of potential migratory bird habitat, potential impacts to threatened and endangered species habitat and the jurisdictional authority for wetlands and waters potentially regulated by the federal government (waters of the U.S.) and/or the state of Ohio (waters of the State) are also included in this report. The Client has provided the "Study Area," which includes the existing fenced perimeter of the airport, along with several adjoining properties (see Figures 1-8). The Client is interested in determining any regulatory concerns within the Study Area. This report presents the professional opinion of L&A regarding the presence/absence of potentially regulated waters of the U.S. or waters of the State. Please note that the final determination of the limits and jurisdictional status of onsite waters (streams and wetlands) is under the purview of the USACE/OEPA and may require an onsite inspection with a USACE/OEPA representatives in order to finalize the jurisdictional determination.

1.2 STUDY AREA DESCRIPTION

The Study Area is comprised approximately 455 ac of the existing CGF and adjoining properties (Figure 1). The Study Area includes paved plane taxiways, segments of runway, former airport buildings, paved

parking areas, disturbed soil/fill areas, scrub-shrub, forested areas and maintained fields (Figures 2 and 3). The majority of the Study Area is located between Richmond Road and Bishop Road, with the areas outside of the perimeter fence consisting of a park, portions of a golf course, undeveloped maintained grass fields and wooded areas (Figures 2 and 3). The surrounding land uses include industrial and commercial; there is also a school and residential properties.

The property lies within the Low Lime Drift Plain section of the Erie Drift Plain region (Ohio Division of Geological Survey, 1998). Topography of the property is relatively flat, with runoff from the Study Area draining to the north and northwest (Figure 2).

Surface runoff from the property discharges into un-named tributaries to Euclid Creek (HUC code 04110003). The eastern portion of the Study Area drains to the north through Streams 5 and 9, which appear to discharge into East Branch Euclid Creek, located approximately 0.52 miles north of the Study Area. The western portion of the Study Area drains off site towards an unnamed tributary to East Branch Euclid Creek, located approximately 300 ft. west of the Study Area.

1.3 JURISDICTIONAL AUTHORITY

The USACE asserts is jurisdiction over wetlands defined as:

Those areas that are inundated or saturated by surface or ground water at a frequency and duration that are sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands includes swamps, marshes, bogs, and similar areas that are delineated in accordance with the 1987 United States Army Corps of Engineers wetland delineation manual and any other procedures and requirements adopted by the United States Army Corps of Engineers for delineating wetlands.

2.0 METHODS

2.1 ANALYSIS OF RESOURCE MATERIALS

Available resource materials and technical documents were reviewed prior to the initiation of field investigations. These documents included:

- Mayfield Heights 7.5 Minute Topographic Quadrangle
- Soil Survey of Cuyahoga County, Ohio
- National Wetland Inventory (NWI) Map (Website, 2009)
- Ohio Wetland Inventory (OWI) Map (ODNR, 1991)
- Cuyahoga County Hydric Soils list (Soil Data Mart, 2011)
- Aerial Photography (Google Earth, 1994 2012)
- FEMA Flood Zone Map (FEMA, 2012)
- United States Geological Survey (USGS) National Hydrography Dataset (NHD) (2002)

Most of these data were assembled in a GIS project to expedite analysis and facilitate graphical presentation of results. The GIS was then used for desktop analysis of site topography, soils, and

drainage at the property. Various maps were also prepared from the integrated GIS data to focus subsequent field investigations.

2.2 FIELD INVESTIGATIONS

Field work was completed between April 30 - May 2, 2013. This evaluation focused on determining the presence of potentially jurisdictional wetlands or streams, potential migratory bird habitat, and the potential threatened and endangered species habitat within the Study Area.

2.2.1 Streams

Prior to field investigations, the NHD was consulted to identify mapped streams within the Study Area. The NHD is a comprehensive set of digital spatial data representing surface waters of the U.S., including common features such as lakes, ponds, streams, rivers, canals, and oceans (Simley and Carswell, 2009). The NHD mapped data and any additional potential streams were ground-truthed during the field survey.

Two (2) NHD features (streams or ponds) were identified within the Study Area (Figure 5). Two (2) streams (East Branch Euclid Creek and an Un-named Tributary to East Branch Euclid Creek) were identified north and west outside of the Study Area, respectively.

Field observations for the streams, including substrates, fauna, flow, width, depth, and other characteristics, as available, were documented using OEPA Headwater Habitat Evaluation Index (HHEI) and Qualitative Habitat Evaluation Index (QHEI) datasheets.

2.2.2 Wetlands

Prior to field investigations, L&A conducted a review of both the 2009 National Wetlands Inventory (NWI, Figure 6) mapping and the 1991 Ohio Wetlands Inventory (OWI, Figure 7) mapping to identify areas previously mapped as wetlands.

NWI mapped wetlands are classified according to the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). The Cowardin classification is a taxonomic system that divides wetlands and deepwater habitats into five systems based on hydrologic factors. The systems are broken down into additional taxonomic groups based on vegetation and substrate. Field data were analyzed to verify NWI wetland types and to classify wetlands delineated during this investigation not previously identified by NWI mapping.

The OWI (Figure 7) classifies and maps potential wetlands according to a remote sensing analysis of satellite data (Yi et al. 1994). These satellite data reflect conditions during the specific year and season the data was obtained; all wetlands present in an area may not be readily identified by the OWI maps. The OWI and NWI provide very useful tools, and may provide insight within the Study Area to focus attention when identifying wetland areas within a given project area. However, they should not be entirely relied upon for complete identification.

Jurisdictional wetlands are determined/identified according to the "Routine Onsite Determination Method" described in the USACE Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (USACE, 2012). This procedure entails navigating the site and evaluating vegetation, soils, and hydrology at sampling plots to determine the presence of field indicators for each parameter.

According to the method, jurisdictional wetlands are those wetlands that meet prescribed criteria for all three parameters. Those criteria are explained in detail in the 1987 manual and are modified as appropriate for regional conditions in the Midwest Region United States.

Vegetation data were collected and analyzed at wetland/upland sampling plots for four strata: tree, sapling/shrub, herb, and woody vine. Dominance for tree species was based on relative basal area within a 30-foot (ft.) radius of the center of the plot. The tree stratum includes woody plants with a diameter of 3 in. or more at breast height (DBH), regardless of height. The sapling/shrub stratum consists of woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. (1 m) tall. The herb stratum includes all herbaceous (non-woody) plants, including vines, regardless of size, and woody plants less than 3.28 ft. tall. Woody vines include all woody vines greater than 3.28 ft. tall.

The following sampling plot sizes were used unless modifications were needed based on local site conditions:

- 1. Tree stratum 30 ft.
- 2. Sapling/shrub stratum 15 ft.
- 3. Herbaceous stratum 5 ft.
- 4. Woody vine stratum 30 ft.

Dominance was determined for each of the five strata. Dominant species included those that comprise 50 percent of the total dominance measure within a stratum plus any additional species comprising 20 percent or more individually of the total dominance measure of a stratum. Vegetation samples that did not meet the dominance test for hydrophytic vegetation were analyzed using the prevalence test. If vegetative plots do not meet either the dominance test or prevalence test, hydrophytic vegetation is not present. Natural wetlands were also evaluated using the Ohio Rapid Assessment Method Version 5.0 (ORAM) to determine ecological quality and function of a wetland. This method utilizes available information, visible characteristics, and professional judgment to categorize a wetland in terms of quality on a scale of 1 to 3, with 3 being the highest quality category. The following table shows the breakpoints in the ORAM v. 5.0 scoring system. Constructed, enhanced, or restored wetlands were not evaluated using the ORAM scoring system based on ORAM manual guidelines. These wetlands are noted with an asterisk (*) in the wetland summary table on page 30.

Category	ORAM v. 5.0 Score
1	0-29.9
1 or 2 gray zone	30-34.9
Modified 2	35-44.9
2	45-59.9
2 or 3	60-64.9
3	65-100

Soils data was collected at the wetland/upland sampling points to a depth of 12 inches or more using a 16-inch drain spade. Soil matrix and mottle or reduced or oxidized feature colors were determined by

visual comparison to a Munsell Soil Color Chart (Kollmorgen Corporation, Baltimore, MD, 1992). Simple measurements of surface water depths, depth to free water (water table) in soil pits, and soil saturation depths were made with a tape measure. Field observations and measurements of vegetation, hydrology, and soils were recorded on the prescribed data forms for sample points that describe each potential wetland and its adjacent upland community. All USACE field data forms are presented in Appendix A. Digital photographs of wetland areas were taken to document representative site conditions. These photographs are presented in Section 3.5 of this report.

2.2.3 Threatened & Endangered Species and Migratory Bird Habitats

Prior to field investigations, L&A conducted a review of the county records and coordinated with the Ohio Department of Natural Resources (ODNR) to obtain information from the Natural Heritage Database and listed USFWS threatened and endangered species for Cuyahoga and Lake Counties. Field staff assessed potential habitat within the Study Area, and located the habitat with a handheld GPS. Potential roost trees (PRTs) for Indiana Bat were individually recorded using a handheld GPS. In addition to review of the Study Area for potential threatened and endangered species, L&A identified potential impacts to migratory bird habitat observed within the Study Area.

3.0 RESULTS

3.1 FLOODPLAINS

The Federal Emergency Management Agency's (FEMA, 2012) electronic shapefile data containing the Study Area were reviewed. According to Figure 8 (FEMA Flood Hazard Zone Map), the majority of the Study Area lies within zone X with portions also located within the 0.2 annual chance of flood zone, A, and AE zones.

3.2 SOILS

There are eight (8) soil units mapped within the Study Area, all of which are loamy in texture (Table 1; Figure 4; NRCS, 2013). The parent material for these soils is silt-loam, high-lime, Illinoian age till with loess cap; the predominant soil series (Urban land) is unclassified and generally contains cut/fill soils.

Table 1. Mapped Soil Units within the Study Area

Map Unit	Soil Series	Drainage Class	Hydric
BrF	Brecksville silt loam, 25 to 70 percent slopes	Well drained	Partially
DaA	Darien silt loam, 0 to 2 percent slopes	Somewhat poorly drained	Not Hydric
DaB	Darien silt loam, 6 to 12 percent slopes	Somewhat poorly drained	Not Hydric
DaC	Darien silt loam, 1 to 4 percent slopes	Somewhat poorly drained	Not Hydric
MtA	Mitiwanga silt loam, 0 to 2 percent	Somewhat poorly drained	Unknown
MtB	Mitiwanga silt loam, 2 to 6 percent	Somewhat poorly drained	Not Hydric
Ua	Udnrthents, loamy	Not rated	Unknown
UdB	Udorthents, gently sloping	Not rated	Unknown

In terms of areal extent, Mitiwanga silt loam (map unit MtA), is the most prevalent soil in the Study Area (Figure 4) and is rated as somewhat poorly drained. Brecksville silt loam is rated partially hydric and well drained. Darien silt loam (DaA, DaB, DaC), are rated as somewhat poorly drained soils.

3.3 STREAMS/DITCHES

Topographic mapping (Figure 2) shows elevation contours sloping to the north and northwest; two (2) NHD-mapped streams were identified within the Study Area (Figure 5). During the field study, eight (8)

ditches and nine (9) streams were identified. Field observations for the streams, including substrates, fauna, flow, width, depth, and other characteristics, as available, were recorded on an OEPA QHEI/HHEI data sheet (Appendix A).

Drainage features identified as ditches were not recorded as streams due to maintenance and channelization completed during the use of the Cuyahoga County Airport. OEPA data for the receiving waters for runoff from the property (East Branch of Euclid Creek) suggest that if the ditches are determined to be considered streams by USACE/OEPA, they would be considered warmwater habitats (WWH; OEPA, 2012A).

Stream Name	Ditch 1
Evaluation Score/System	Not Assessed
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Vegetation, silt
Other Substrates	Not assessed
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	N/A



Ditch 1 is not mapped as a perennial or intermittent stream by the USGS (Figure 2). Ditch 1 appears to be channelized and maintained throughout the Study Area. The channel was likely created by the airport to carry runoff away from the maintained lawns. Drainage patterns from Wetland A indicate a potential seasonal connection between the wetland and Ditches 1.

^{*}Please note that the determination of each stream status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Stream Name	Ditch 2
Evaluation Score/System	Not assessed
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Silt
Other Substrates	Vegetation
Natural/Channelized	Partially channelized
Biotic Observations	None
Stream Order	N/A



Ditch 2 is not mapped as a perennial or intermittent stream by the USGS (Figure 2). Ditch 2 appears to be channelized and maintained throughout the Study Area. The channel was likely created by the airport to carry runoff away from the maintained lawns. Drainage from the adjacent property is the origin of the Ditch 2.

^{*}Please note that the determination of each stream status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Stream Name	Ditch 3
Evaluation Score/System	Not Assessed
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Silt
Other Substrates	Vegetation
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	N/A



Ditch 3 is not mapped as a perennial or intermittent stream by the USGS (Figure 2). Ditch 3 appears to be extensively channelized and maintained throughout the Study Area. The channel was likely created and maintained by the airport to carry runoff that discharges from the airport property and to prevent surface water from impacting the adjacent taxiway and runways. Ditch 3 discharges into Ditch 4 and eventually flows into a catch basin located adjacent to the runway.

Stream Name	Ditch 4
Evaluation Score/System	HHEI 57
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Gravel, silt
Other Substrates	Sand, cobble
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	N/A



Ditch 4 is not mapped as a perennial or intermittent stream by the USGS (Figure 2). Ditch 4 appears to be extensively channelized and maintained throughout the Study Area. The channel was likely created and maintained by the airport to carry runoff that discharges from the airport property and to prevent surface water from impacting the adjacent taxiway and runways. A drainage pattern from Ditch 4 and Ditch 3 flows into a catch basin located adjacent to the runway.

^{*}Please note that the determination of each stream status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Stream Name	Ditch 5
Evaluation Score/System	Not assessed
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Vegetation
Other Substrates	Silt
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	N/A



Ditch 5 is not mapped as a perennial or intermittent stream by the USGS (Figure 2). Ditch 5 appears to be extensively channelized and maintained throughout the Study Area (as observed during the field visit). The channel was likely created and maintained by the airport to carry runoff away from the adjacent taxiways and runways. This ditch appears to discharge into the local stormwater system.

Stream Name	Ditch 6
Evaluation Score/System	Not assessed
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Vegetation
Other Substrates	Silt
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	N/A



Ditch 6 is not mapped as a perennial or intermittent stream by the USGS (Figure 2). Ditch 6 appears to carry the discharge from a stormwater basin located on a property adjacent to the south side of the Study Area. The channel was likely created and maintained by the airport to carry runoff from the southern portion of the airport property and adjacent property. Ditch 6 drains to Ditch 4.

Stream Name	Ditch 7
Evaluation Score/System	Not assessed
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Vegetation
Other Substrates	Silt
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	N/A



Ditch 7 is not mapped as a perennial or intermittent stream by the USGS (Figure 2). Ditch 7 appears to be extensively channelized and maintained throughout the Study Area). The channel was likely created and maintained by the airport to carry runoff away from the adjacent taxiways and runways. This ditch likely discharge into the local stormwater system, but no direct evidence of a discharge point was observed.

Stream Name	Ditch 8
Evaluation Score/System	Not assessed
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Vegetation
Other Substrates	Silt
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	N/A



Ditch 8 is not mapped as a perennial or intermittent stream by the USGS (Figure 2). Ditch 8 appears to be extensively channelized and maintained throughout the Study Area). The channel was likely created and maintained by the airport to carry runoff away from the adjacent taxiways and the hangers located on the southern portion of the Study Area. This ditch discharges into Stream 4, which eventually discharges into a culvert.

Stream Name	Stream 1
Evaluation Score/System	QHEI/32
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Silt
Other Substrates	Gravel, Cobble
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	First



Stream 1 is not shown within the Study Area on the USGS Topographic map (Figure 2); however, based on field review of the Study Area, Stream 1 has been channelized and appears to have characteristics of an ephemeral, first-order stream. Stream 1 discharge into Stream 2 and eventually flows beneath Richmond Road into an unnamed tributary to East Branch Euclid Creek.

Stream Name	Stream 2
Evaluation Score/System	HHEI/60
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Silt
Other Substrates	Cobble
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	First



Stream 2 is not shown within the Study Area on the USGS Topographic map (Figure 2); however, based on field review of the Study Area, Stream 2 has been channelized and appears to have characteristics of an intermittent, first-order stream. Stream 2 discharges beneath Richmond Road into an unnamed tributary to East Branch Euclid Creek.

Stream Name	Stream 3
Evaluation Score/System	HHEI/52
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Silt
Other Substrates	Cobble
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	First



Stream 3 is not shown on the USGS Topographic map (Figure 2); however, based on field review of the Study Area, Stream 3 appears to have characteristics of an ephemeral, first-order stream. Stream 3 appears to be channelized and to carry runoff from within the Study Area. Stream 3 discharges into Stream 5, which is a tributary to East Branch Euclid Creek.

Stream Name	Stream 4
Evaluation Score/System	HHEI/38
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Silt
Other Substrates	Gravel, Cobble
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	First



Stream 4 is not shown on the USGS Topographic map (Figure 2); however, based on field review of the Study Area, Stream 4 appears to have characteristics of an ephemeral to intermittent, first-order stream. Stream 4 is channelized within the Study Area and located in a maintained grassy area. Stream 4 originates from a culvert at the southern boundary of the Study Area. Stream 4 receives runoff from Ditch 7 and Ditch 8, and discharges into a culvert.

Stream Name	Stream 5
Evaluation Score/System	QHEI/63.5
HUC (8-digit)	04110003
Flow Regime/Water Level	Perennial
Dominant Substrate(s)	Gravel
Other Substrates	Cobble, Silt, Sand, Boulder/Slabs
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	Second



Stream 5 is shown on the USGS Topographic map (Figure 2). Based on a field review of the Study Area, this stream appears to have characteristics of a perennial, second-order stream. Stream 5 appears to be channelized within the Study Area and located within a narrow, wooded riparian corridor. Stream 5 likely receives runoff from Streams 3, 4, 7, and 8. Several wetland areas (O, P, Q, and R) are adjacent to Stream 5. Stream 5 is an unnamed tributary to the East Branch Euclid Creek.

^{*}Please note that the determination of each stream status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Stream Name	Stream 6
Evaluation Score/System	HHEI/74
HUC (8-digit)	04110003
Flow Regime/Water Level	Perennial
Dominant Substrate(s)	Silt
Other Substrates	Cobble, Gravel, Artificial
Natural/Channelized	Channelized
Biotic Observations	Fish, bullfrog, and snapping turtle
Stream Order	First



Stream 6 is shown on the USGS Topographic map (Figure 2) as an intermittent stream. Based on a field review of the Study Area, this stream appears to have characteristics of a second order stream. This stream originates and receives runoff from the golf course located east of Bishop Road. This stream is located within a narrow wooded riparian corridor surrounded by residential properties and maintained grassy areas. A large snapping turtle was observed traveling upstream within Stream 6 during the field assessment (See Photograph 1).

Stream Name	Stream 7
Evaluation Score/System	QHEI/47
HUC (8-digit)	04110003
Flow Regime/Water Level	Perennial
Dominant Substrate(s)	Boulder/Slab
Other Substrates	Boulder, Gravel, Cobble, Silt, Artificial (Concrete)
Natural/Channelized	Channelized
Biotic Observations	fish, bullfrog, water striders
Stream Order	Second



Stream 7 is shown on the USGS Topographic map (Figure 2) as a perennial stream. Based on a field review of the Study Area, this stream has been channelized to carry the flow of the stream through the Study Area in a culvert beneath the runway and taxiway. Stream 7 originates upstream from the Study Area and receives runoff from Stream 8.

^{*}Please note that the determination of each stream status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Stream Name	Stream 8
Evaluation Score/System	HHEI/50
HUC (8-digit)	04110003
Flow Regime/Water Level	Perennial
Dominant Substrate(s)	Cobble
Other Substrates	Gravel, Silt
Natural/Channelized	Channelized
Biotic Observations	fish, water snake, macroinvertebrates
Stream Order	First



Stream 8 is not shown on the USGS Topographic map (Figure 2) as an intermittent stream; however, based on a field review of the Study Area, this stream appears to be a perennial stream. A water snake was observed within Stream 8 during the field assessment (See Photograph 2). Stream 8 enters the property through a culvert beneath Bishop Road and discharges to Stream 7 within the Study Area.

Stream Name	Stream 9
Evaluation Score/System	HHEI/57
HUC (8-digit)	04110003
Flow Regime/Water Level	Ephemeral
Dominant Substrate(s)	Silt
Other Substrates	Gravel
Natural/Channelized	Channelized
Biotic Observations	None
Stream Order	First



Stream 9 is not shown on the USGS Topographic map (Figure 2); however, based on a field review of the Study Area, this stream appears to have characteristics of a channelized ephemeral, first-order stream. Stream 9 is located within a maintained mown area within the northeastern portion of the Study Area. Stream 9 originates from a culvert adjacent to Bishop Road and receives runoff from the adjacent golf course via a culvert also beneath Bishop Road. The receiving water of Stream 9 is Stream 5, and therefore Stream 9 would also be considered an unnamed tributary to East Branch of Euclid Creek.

Table 2. Stream/Ditch Summary Table

L&A Identification	Stream Type ¹	Linear Feet ²	QHEI/ HHEI ³	Classification ⁴
Ditch 1	Ephemeral	591	N/A	Warmwater Habitat
Ditch 2	Ephemeral	610	N/A	Warmwater Habitat
Ditch 3	Ephemeral	624	N/A	Warmwater Habitat
Ditch 4	Ephemeral	705	N/A	Warmwater Habitat
Ditch 5	Ephemeral	462	N/A	Warmwater Habitat
Ditch 6	Ephemeral	170	N/A	Warmwater Habitat
Ditch 7	Ephemeral	321	N/A	Warmwater Habitat
Ditch 8	Ephemeral	1145	N/A	Warmwater Habitat
Stream 1	Ephemeral	191	32	Warmwater Habitat
Stream 2	Ephemeral	1,237	60	Warmwater Habitat
Stream 3	Ephemeral	1,088	52	Warmwater Habitat
Stream 4	Ephemeral	1,998	38	Warmwater Habitat
Stream 5	Perennial	979	63.5	Warmwater Habitat
Stream 6	Perennial	278	74	Warmwater Habitat
Stream 7	Perennial	498	47	Warmwater Habitat
Stream 8	Perennial	43	50	Warmwater Habitat
Stream 9	Ephemeral	872	57	Warmwater Habitat

^{1 –} Based on L&A site visit and review of resource materials

3.4 WILD & SCENIC RIVER EVALUATION

L&A reviewed known State and National Scenic Rivers within 5 miles of the Study Area. The Chagrin River was the only Scenic River was identified within 5 miles of the Study Area. The closest headwater to the Chagrin River is approximately 2.21 miles southeast of the Study Area. The closest segment of the mainstream channel of the Chagrin River is approximately 2.73 miles east of the Study Area. Since the nearest Scenic River is greater than 1,000 ft. from the Study Area, there would be no requirement to coordinate with the ODNR or National Park Service for anticipated.

^{2 –} Approximated linear feet

^{3 –} Preliminary evaluation based on L&A professional opinion; OEPA to confirm

^{4 –} Preliminary Classification based OEPA Use Designation of receiving water

3.5 WETLANDS

The NWI map (Figure 6) indicates no mapped wetlands within and adjacent to the Study Area. The OWI map indicates three open water wetlands within the Study Area (Figure 7). These two mapping systems should be considered preliminary assessment tools as they were developed using remote sensing techniques only. Wetlands mapped by the NWI and OWI programs are not field verified by the organizations producing the maps. These maps do, however, provide information for where wetlands are likely to occur.

Nineteen (19) potential wetland areas with some wetland characteristics were identified during the April and May 2013 field investigation. Each of these areas was determined to have a wetland plant community as well as wetland hydrology and hydric soil indicators (USACE data sheets and ORAM forms provided in Appendix A).

The delineated wetland areas shown on Figure 3 did show signs of previous soil disturbance; however, other areas did not exhibited evidence of soil disturbance. The observed disturbance was likely due to the ongoing maintenance and use of the Study Area as an active airport. There is evidence of widespread soil disturbance throughout the majority of the Study Area, including both wetland and upland areas. In the areas of no obvious disturbance, field indicators of hydric soil were easily observed (surface water, high water table, saturation, water-stained leaves, algal mat or crust, reduced iron as well as some other secondary indicators). Based on observations of undisturbed areas, it is L&A's professional opinion that areas which exhibit soil disturbance would be considered a continuation of the natural wetlands not impacted by earthwork or the installation of the stormwater management system. Based on USACE guidance, and L&A's professional opinion, several of these areas will be protected by the Clean Water Act.

USACE data sheets and ORAM forms for the sample points within wetland areas depicted on the Ecological Resource Map (Figure 3) can be found in Appendix A.

Wetland A

Size (ac)	8.269		
Location	41.556169 N, 81.497889 W		
Cowardin Classification	PSS/PFO		
Dominant Plant Species	Eastern Cottonwood (<i>Populus deltoides</i> ; FAC), silver maple (<i>Acer saccharinum</i> , FACW), northern spicebush (<i>Lindera benzoin</i> ; FACW), softstem bulrush (<i>Schoenoplectus tabernaemontani</i> ; OBL)		
Soils Map Unit	Mitiwanga silt loam		
Hydrology Indicators	High water table, saturation, presence of reduced iron, geomorphic position, FAC-Neutral Test		
Connected or Isolated*	Connected -adjacent to unnamed tributary		



Wetland A is adjacent to an unnamed tributary to East Fork Euclid Creek located outside of the Study Area. Hydrology of this wetland can be attributed to the high water table and receiving runoff of precipitation from the adjacent properties. Eastern cottonwood, silver maple, northern spicebush, and softstem bulrush dominates the vegetation community, out-competing and preventing other vegetation from growing. Wetland A is located in a depression that slopes to the north and eventually discharges into the unnamed tributary. Several broken field tiles and catch basins were observed within Wetland A, which may indicate historic manipulation to the hydrology of this wetland and adjacent upland area.

^{*}Please note that the determination of each wetland's isolated or connected status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Wetland B

Size (ac)	0.120
Location	41.558269 N, 81.499076 W
Cowardin Classification	PEM
Dominant Plant Species	softstem bulrush (<i>Schoenoplectus tabernaemontani</i> ; OBL), blue grass (<i>Poa sp</i> ; FAC), sedge (<i>Carex sp.</i> ; FACW)
Soils Map Unit	Brecksville silt loam
Hydrology Indicators	High water table, saturation
Connected or Isolated*	Isolated



Wetland B is not adjacent to any of the ditches located within the Study Area. Hydrology of this wetland can be attributed to the geomorphic position of the wetland, presence of a high water table, and saturation. Blue grass, softstem bulrush and sedges dominate the herb stratum. This area likely has remained herbaceous due to general mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland B may still be considered a regulated wetland due to the presence of all three wetland indicators.

^{*}Please note that the determination of each wetland's isolated or connected status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Wetland C

Size (ac)	0.052
Location	41.557595 N, 81.496311 W
Cowardin Classification	PEM
Dominant Plant Species	Bluegrass (Poa sp.; FACW)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Surface water, high water table, saturation, presence of reduced iron, drainage patterns, geomorphic position
Connected or Isolated*	Isolated



Wetland C is isolated and is located within the mown, maintained airport property. Hydrology of this wetland can be attributed to the adjacent elevated taxiway and elevated surrounding land use that limits the area from draining, thereby creating the geomorphic position of the wetland. Drainage patterns were observed through the wetland. The drainage begins outside the Study Area and drains into the Study Area through Wetland C. A culvert is located at the northern end of the wetland. Bluegrass dominates the herbaceous vegetation community with some interspersion of sedges. This area has likely remained herbaceous due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland C may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland D

Size (ac)	0.026
Location	41.561070 N, 81.497164 W
Cowardin Classification	PFO
Dominant Plant Species	Red Maple (<i>Acer rubrum</i> ; FAC), American elm (<i>Ulmus</i> Americana; FACW)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Saturation, water marks, drift deposits, oxidized rhizospheres on living roots, stunted plants, geomorphic position
Connected or Isolated*	Connected - Stream 2



Wetland D is located adjacent to Richmond Road and is part of a larger forested floodplain complex. Wetland D's geomorphic position (depression) and its proximity to Stream 2 contributes to the wetland's hydrology. Red maples and American elm dominate the woody vegetation community with some interspersion of dogwood and multiflora rose. Due to its proximity to Stream 2, it is likely that this area is part of the active floodplain and would be considered adjacent and hydrologically connected to Stream 2.

Wetland E

Size (ac)	0.476
Location	41.558684 N, 81.495630 W
Cowardin Classification	PEM
Dominant Plant Species	Rough barnyard grass (Echinochloa muricata; OBL), spike rush (Eleocharis sp.; OBL)
Soils Map Unit	Mitiwanga Silt Loam
Hydrology Indicators	Surface water, high water table, saturation
Connected or Isolated*	Isolated



Wetland E is a small, isolated depression wetland located within an herbaceous field in the southeast portion of the Study Area. Rough barnyard grass and spike rush dominate the vegetative community. Hydrology of this wetland can be attributed to the geomorphic position of the wetland. Wetland E also exhibits surface water, high water table, and saturation. This area likely has remained herbaceous due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland E may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland F

Size (ac)	0.217
Location	41.559992 N, 81.492925 W
Cowardin Classification	PEM
Dominant Plant Species	Bluegrass (<i>Poa sp.;</i> FACW), Rough barnyard grass (<i>Echinochloa muricata;</i> OBL)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Surface water, high water table, saturation and geomorphic position
Connected or Isolated*	Isolated



Wetland F is a small, isolated depression wetland located within an open herbaceous field. Bluegrass and rough barnyard grass dominate the herbaceous stratum. This area likely has remained herbaceous due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland F may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland G

Size (ac)	1.819
Location	41.559393 N, 81.491519 W
Cowardin Classification	PEM
Dominant Plant Species	Narrow-leaf cattail (<i>Typha angustifolia</i> ; OBL), common reed (<i>Phragmites australis</i> ; FACW), spike rush (<i>Eleocharis sp;</i> OBL)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Surface water, high water table, saturation
Connected or Isolated*	Isolated



Wetland G is a small, isolated depression wetland located within an herbaceous field. Common reed, narrow-leaf cattail, and spike rush dominate the herbaceous stratum. Similar to Wetlands B, C, E and F, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland G may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland H

Size (ac)	0.032
Location	41.562664 N, 81.488415 W
Cowardin Classification	PEM
Dominant Plant Species	Sedge (Carex sp.; FACW), spike rush (Eleocharis sp; OBL)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Saturation
Connected or Isolated*	Isolated



Wetland H is a small, isolated depression wetland located within an herbaceous field. Sedges and spike rush dominates the herbaceous stratum. Similar to Wetlands B, C, E, F and G, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland H may still be considered a regulated wetland due to the presence of all three wetland indicators.

^{*}Please note that the determination of each wetland's isolated or connected status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Wetland I

Size (ac)	0.043
Location	41.562785 N, 81.486430 W
Cowardin Classification	PEM
Dominant Plant Species	Bluegrass (Poa sp.; FACW), Sedge (Carex sp.; FACW)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Saturation, high water table
Connected or Isolated*	Isolated



Wetland I is a small, isolated depression wetland located within an herbaceous field. Bluegrass and sedges dominate the herbaceous stratum. Similar to Wetlands B, C, E, F, G and I, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland I may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland J

Size (ac)	0.031
Location	41.562996 N, 81.486265 W
Cowardin Classification	PEM
Dominant Plant Species	Bluegrass (Poa sp.; FACW), Sedge (Carex sp.; FACW)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Saturation, presence of reduced iron
Connected or Isolated*	Isolated



Wetland J is a small, isolated depression wetland located within an herbaceous field. Bluegrass and sedges dominate the herbaceous strata. Similar to Wetlands B, C, E, F, G, and I, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland J may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland K

Size (ac)	0.976
Location	41.564375 N, 81.485735 W
Cowardin Classification	PEM
Dominant Plant Species	Rough barnyard grass (<i>Echinochloa crus-galli;</i> FAC), spike rush (<i>Eleocharis sp.;</i> OBL), Sedge (<i>Carex sp.;</i> FACW)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Surface water, high water table, saturation
Connected or Isolated*	Connected - Ditch 7 to Stream 4



Wetland K is adjacent to Ditch 7 which flows into Stream 4. Hydrology of this wetland can be attributed to the adjacent ditch and surface runoff from the property. Rough barnyard grass, spike rush, and sedges dominate the herbaceous stratum. Similar to Wetlands B, C, E, F, G, I, J and K, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland K may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland L

Size (ac)	0.029
Location	41.562287 N, 81.483877 W
Cowardin Classification	PEM
Dominant Plant Species	Softstem bulrush (<i>Schoenoplectus tabernaemontani</i> ; OBL), blue grass (<i>Poa sp</i> ; FAC), sedge (<i>Carex sp.</i> ; FACW), Fescue (<i>Festuca sp.</i> ; FACU)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Saturation, Stunted or stressed plants, geomorphic position
Connected or Isolated*	Isolated



Wetland L is a small, isolated depression wetland located within an herbaceous field. Softstem bulrush, blue grass, sedges and fescue dominate the herbaceous stratum. Similar to Wetlands B, C, E, F, G, I and J, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland L may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland M

Size (ac)	0.046
Location	41.561881 N, 81.483675 W
Cowardin Classification	PEM
Dominant Plant Species	Softstem bulrush (<i>Schoenoplectus tabernaemontani</i> ; OBL), blue grass (<i>Poa sp</i> ; FAC), sedge (<i>Carex sp.</i> ; FACW), Fescue (<i>Festuca sp.</i> ; FACU)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Saturation, Stunted or stressed plants, geomorphic position
Connected or Isolated*	Isolated



Wetland M is a small, isolated depression wetland located within an herbaceous field. Softstem bulrush, sedges and fescue dominate the herbaceous strata. Similar to Wetlands B, C, E, F, G, I, J, and L, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland M may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland N

Size (ac)	0.042
Location	41.561886 N, 81.489258 W
Cowardin Classification	PEM
Dominant Plant Species	Softstem bulrush (<i>Schoenoplectus tabernaemontani</i> ; OBL), blue grass (<i>Poa sp</i> ; FAC), sedge (<i>Carex sp.</i> ; FACW), Fescue (<i>Festuca sp.</i> ; FACU)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Saturation, Stunted or stressed plants, geomorphic position
Connected or Isolated*	Isolated



Wetland N is a small, isolated depression wetland located within an herbaceous field. Softstem bulrush, sedges, and fescue dominate the herbaceous stratum. Similar to Wetlands B, C, E, F, G, I, J, L, and M, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland N may still be considered a regulated wetland due to the presence of all three wetland indicators.

Wetland O

Size (ac)	0.805
Location	41.569627 N, 81.484181 W
Cowardin Classification	PFO
Dominant Plant Species	pin oak (<i>Quercus palustris</i> ; FACW), red maple (<i>Acer rubrum</i> , FAC), northern red oak (<i>Quercus rubra</i> , FACU), multiflora rose (<i>Rosa multiflora</i> , FACU), northern spicebush (<i>Lindera benzoin</i> , FACW)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	High water table, saturation, water-stained leaves, stunted or stressed vegetation
Connected or Isolated*	Connected - surface runoff adjacent to stream 3 and stream 5



Wetland O is in the vicinity of Stream 3 and Stream 5. Hydrology of this wetland can be attributed to a high water table and surface runoff from the property. The forest stratum is the most dominant vegetation type within the wetland area, with pin oak and red maple out-competing and limiting the shrub stratum, as well as preventing the herbaceous plants from growing.

Wetland P

Size (ac)	0.182
Location	41.569681 N, 81.483062 W
Cowardin Classification	PFO-PSS
Dominant Plant Species	red maple (<i>Acer rubrum</i> , FAC), silver maple (<i>Acer saccharinum</i> , FACW), black willow (<i>Salix nigra</i> , OBL), swamp rose (<i>Rosa palustris</i> , OBL)
Soils Map Unit	Mitiwanga silt loam
Hydrology Indicators	Surface Water, high water table, saturation, stunted or stressed vegetation
Connected or Isolated*	Connected - surface runoff adjacent to Stream 3 and Stream 5



Wetland P is in the vicinity of Stream 3 and Stream 5. Hydrology of this wetland can be attributed to surface water, high-water table, and surface runoff from the property. The forest stratum is the most dominant vegetation type within the wetland area, with red maple and silver maple out-competing and limiting the shrub stratum, and preventing the herbaceous plants from growing. This wetland contains ponded water that may provide sufficient habitat for amphibian use.

Wetland Q

Size (ac)	0.033
Location	41.570005 N, 81.482658 W
Cowardin Classification	PFO
Dominant Plant Species	red maple (Acer rubrum, FAC), silver maple (Acer saccharinum, FACW),
Soils Map Unit	Darien silt loam
Hydrology Indicators	High water table, saturation
Connected or Isolated*	Connected - surface runoff adjacent to Stream 3 and Stream 5



Hydrology of this wetland can be attributed to the high-water table and surface runoff from the property. The forest stratum is the most dominant vegetation type within the wetland area, with red maple and silver maple out-competing and limiting the shrub stratum, as well as preventing the herbaceous plants from growing. Wetland Q is in the vicinity of Stream 3 and Stream 5, and appears to have a surface connection to both waterways.

Wetland R

Size (ac)	0.889
Location	41.570729 N, 81.482533 W
Cowardin Classification	PFO
Dominant Plant Species	Pin oak (Quercus palustris, FACW), northern red oak (Quercus palustris, FACU), silver maple (<i>Acer saccharinum</i> , FACW), northern spicebush (<i>Lindera benzoin</i> , FACW)
Soils Map Unit	Darien silt loam
Hydrology Indicators	Surface water, high water table, saturation, water-stained leaves, stunted or stressed plants, geomorphic position
Connected or Isolated*	Connected - surface runoff adjacent to Stream 3 and Stream 5



Hydrology indicators present for Wetland R include surface water, high water table, saturation, and several secondary indicators. The forest stratum is the most dominant vegetation type within the wetland area, with pin oak, northern red oak, silver maple, and northern spicebush out-competing and limiting herbaceous plants. Wetland R is in the vicinity of Stream 3 and Stream 5 and appears to have a surface connection to both waterways.

^{*}Please note that the determination of each wetland's isolated or connected status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Wetland S

Size (ac)	0.091
Location	41.567723 N, 81.480565 W
Cowardin Classification	PEM
Dominant Plant Species	Softstem bulrush (<i>Schoenoplectus tabernaemontani</i> ; OBL), blue grass (<i>Poa sp</i> ; FAC), sedge (<i>Carex sp.</i> ; FACW), Fescue (<i>Festuca sp.</i> ; FACU)
Soils Map Unit	Udorthents
Hydrology Indicators	High water table, saturation
Connected or Isolated*	Isolated



Wetland S is a small, isolated depression wetland located within an herbaceous field. Softstem bulrush, sedges, and fescue dominate the herbaceous stratum. Similar to Wetlands B, C, E, F, G, I, J, L, M and N, this area is also herbaceous likely due to mowing and grounds maintenance associated with the operation of the airport facility. Generally, this area is maintained by the CGF; however, Wetland S may still be considered a regulated wetland due to the presence of all three wetland indicators.

^{*}Please note that the determination of each wetland's isolated or connected status represents the professional opinion of L&A, the final determination of jurisdictional status is under the purview of the USACE.

Table 3. Wetland Summary Table

L&A Identification	Size (acreage) ^A	ORAM SCORE	ORAM Category ^B	Hydrologic Connection ^C
Wetland A	8.269	31.5	1 or 2	Connected
Wetland B	0.120	22.5	1	Isolated
Wetland C	0.052	22	1	Isolated
Wetland D	0.026	24.5	1	
				Connected
Wetland E	0.476	26	1	Isolated
Wetland F	0.217	19	1	Isolated
Wetland G	1.819	26	1	Isolated
Wetland H	0.032	19	1	Isolated
Wetland I	0.043	19	1	Isolated
Wetland J	0.031	19	1	Isolated
Wetland K	0.976	19	1	Connected
Wetland L	0.029	15	1	Isolated
Wetland M	0.046	15	1	Isolated
Wetland N	0.042	15	1	Isolated
Wetland O	0.805	41	Modified 2	Isolated
Wetland P	0.182	38	Modified 2	Connected
Wetland Q	0.033	34	1 or 2	Connected
Wetland R	0.889	41	Modified 2	Connected
Wetland S	0.091	16	1	Isolated
Total	14.178	Number of Wetlands	19	

A – Approximated acreage within the Study Area

B – Based on L&A site visit and review of resource materials (OEPA to confirm)

C – Preliminary evaluation based on L&A professional opinion; (USACE to confirm)

3.6 OTHER WATERS

One stormwater catch basin was located within the northern portion of the Study Area. This basin appears to receive surface or stormwater runoff from the adjacent paved parking areas and existing structures. None of the streams, ditches, or wetlands discharge into this catch basin. A separate catch basin was observed in the central location of the Study Area. This catch basin appears to receive surface runoff from the runway, Wetland G, Ditches 3, 4, and 6. These basins are shown on Figure 3, and are not considered to be a potential regulated natural resource due maintenance activities necessary to maintain the function of this basin.

3.7 POTENTIAL THREATENED AND ENDANGERED SPECIES HABITAT

As part of the scope, the Study Area has been investigated to determine the potential presence of endangered species habitat within the Study Area. Initial information regarding federally protected species with known occurrences in Cuyahoga and Lake Counties was obtained from the USFWS (USFWS, 2013a). The ODNR Natural Heritage Program Database was searched regarding known populations and/or individuals of both federally and state-protected species, breeding and non-breeding animal concentrations, and champion trees within a one-mile radius of the Study Area. The Natural Heritage Program was also contacted regarding the presence of known Indiana bats within five miles of the Study Area; no Indiana bat records or known hibernacula were identified in the vicinity of the Study Area (Appendix C). No formal flora or fauna survey was conducted by L&A as a part of the field survey on April 30 through May 2, 2013.

The U.S. Fish & Wildlife Service (USFWS) information reviewed for federally listed threatened or endangered species within Cuyahoga and Lake Counties (USFWS, 2013) identified the following species: Indiana bat (*Myotis sodalis*; endangered), Kirtland's warbler (*Dendroica kirtlandii*; endangered), Piping Plover (*Charadrius melodus*; endangered), and snuffbox mussel (*Epioblasma triquetra*; endangered).

The Indiana bat (*Myotis sodalis*; endangered) is federally listed as endangered in Cuyahoga and Lake Counties. Indiana bats forage in a variety of habitats. Indiana bats frequently forage in and around the tree canopy of riparian, floodplain, and upland forests; along wooded fencerows and borders of croplands; over clearings with early-successional vegetation, and over farm ponds in pastures (Gardner et al. 1991). Indiana bats use stream corridors, roads/trails, and forest openings as flight corridors from roosts to foraging areas.

During the field survey, multiple potential roost trees (PRTs) were observed throughout the wooded areas of the Study Area as identified on Figure 3. Several examples of the observed PRTs within the Study Area are provided in Appendix B.

Kirtland's warblers migrate along the Lake Erie shoreline counties (including Cuyahoga and Lake), then down though Ohio during April-May and August-October (USFWS, 2013a). Kirtland's warblers nest in young jack pine forests in Michigan and Canada (USFWS, 2013c). Limited Kirtland's warbler habitat was noted or was expected in the Study Area during fieldwork. Additionally, the majority of the Study Area consists of maintained grassy areas adjacent to an active airport, and therefore, the potential habitat for the Kirtland's warbler is limited.

The piping plover nests along the shores of Lake Erie and other Great Lakes, and winters along the southern Atlantic and Gulf Coasts of the United States (USFWS, 2013d). The Study Area, although located in counties which contain Lake Erie coastline, is not located within three miles of does not contain any Lake Erie shoreline or potential habitat for the piping plover.

The snuffbox (*Epioblasma triquetra*; endangered) mussel measures approximately 2 inches in length with a triangular shell (MNFI, 2007). The snuffbox mussel is generally found in sand, gravel, or cobble substrates in swift, small and medium-sized rivers (MNFI, 2007). Adult snuffbox mussels often burrow deep in sand, gravel, or cobble substrates (USFWS, 2013b). Potential snuffbox mussel habitat typically consists of riffles of medium and large rivers with stony or sandy bottoms, in swift currents, where this species is found usually deeply buried in the substrate (Baker, 1928). Limited potential habitat was observed within the Study Area due to the bedrock slab substrate within the majority of the streams.

The ODNR Natural Heritage Program Database did not have records of Indiana bat, Kirkland's warbler, or piping plover locations within 1 mile of the Study Area (Appendix C). The removal of PRTs from within the Study Area should be completed after coordination with the USFWS to confirm the approved clearing window (approximately late October to mid-March). Due to the limited potential habitat for the Kirkland's warbler and piping plover located within the project Study Area, any proposed construction activities are unlikely to result in displacement or disturbance to these species. Based on observations of the streams and ditches located within the Study Area, there is limited habitat located within the project Study Area for the snuffbox mussel.

3.8 MIGRATORY BIRD ANALYSIS

The Study Area consists of several upland and floodplain forest areas, forested and emergent wetlands, ditches, streams, and maintained grassy areas surrounding the hangers, taxiways, and runway. These various habitats may provide potential nesting and foraging areas for resident and migratory birds; however, these habitats have not been identified as rare or high quality based on the ODNR Natural Heritage Program review for the Study Area.

During the field survey, two large nests were observed within the golf course located on the eastern portion of the Study Area. Statements from staff and members at the golf course identified these nests had been previously used by bald eagles; however, the nests were now occupied by osprey. During L&A's field survey, no activity was observed within these nests and no ODNR Natural Heritage Program record of eagle or osprey nesting sites were identified within the vicinity of the Study Area.

Several common migratory birds identified in Cuyahoga County include great blue heron (*Ardea herodias*), green heron (*Butorides virescens*), ballpoll warbler (*Dendroica striata*), American bittern (*Botaurus lentiginosus*), henslow's sparrow (*Ammodramus helslowii*), hooded warbler (*Wilsonia citrina*), horned grebe (*Podiceps auritus*), Kirtland's warbler (*Dendroica kirklandii*), least bittern (*Ixobrychus exilis*), Nashville warbler (*Vermivora rubricapilla*), pied-billed grebe (*Podilymbus podiceps*), yellow warbler (*Dendroica petechial*), Cape May warbler (*Dendroica tigrina*), grasshopper sparrow (*Ammodramus savannarum*), magnolia warbler (*Dedroica magnolia*), and mourning warbler (*Oporornis philadelphia*) (birdnature 2013), The potential exists for the Study Area to be used during migration of numerous bird species; however, due to the continued maintenance and mowing of the majority of the Study Area, there is limited opportunity for use of the airfield for nesting and foraging activities.

4.0 SUMMARY

A routine wetland delineation was completed on approximately 455 acres in the existing Cuyahoga County Airport (CGF). Eight (8) channelized ditches, nine (9) streams and nineteen (19) wetland areas were identified within the Study Area. Based on L&A's opinion, ditches 3, 4, 6, 7; streams 1-8, and wetlands A, D, K, O, P, Q and R appear to be hydrologically connected to East Branch Euclid Creek, and fall under the Clean Water Act.

The wetland and water boundaries identified with the Study Area are based on L&A's professional opinion. Any impacts to waters of the U.S. or waters of the State identified within the Study Area and/or Project Area may require authorization under Sections 404 and 401 of the CWA. Current regulations require authorization of any impacts to regulated waters from OEPA and/or the USACE.

The Study Area is located within the range of the federally endangered Indiana bat, Kirkland's warbler, piping plover and snuffbox mussel. Two potential nesting locations for bald eagles or osprey were indicated; however, no direct observations or records confirmed visible nests as active nesting locations. There was limited potential habitat observed within the Study Area for state and federally listed species, but if disturbance or development is proposed to impact known habitat for these species, coordination with USFWS may be necessary. The Study Area has several habitats that may be used by migratory birds; however, due to the continual maintenance of the airport facility, impact to rare or high quality habitat is not anticipated.

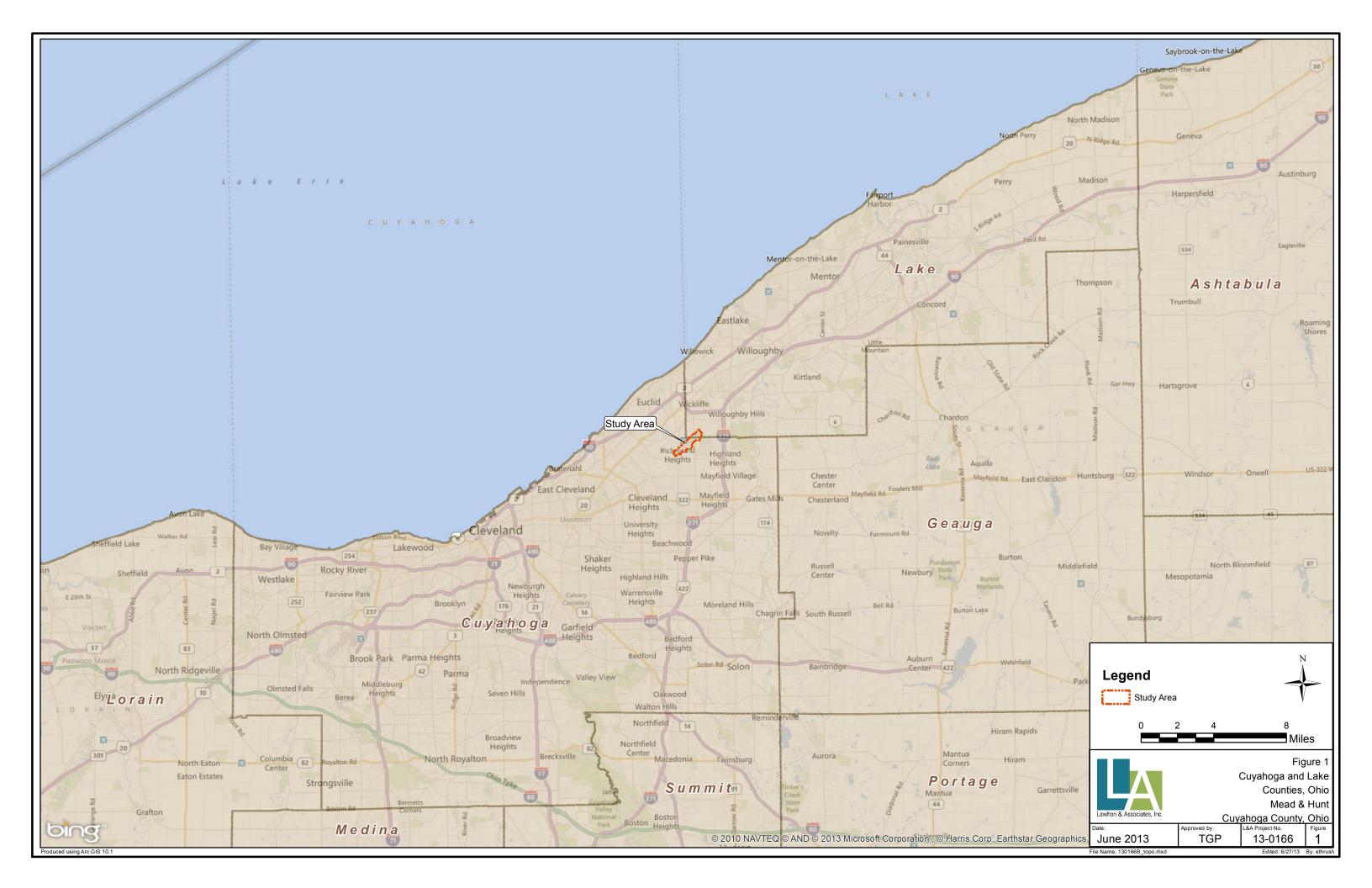
5.0 LITERATURE CITED

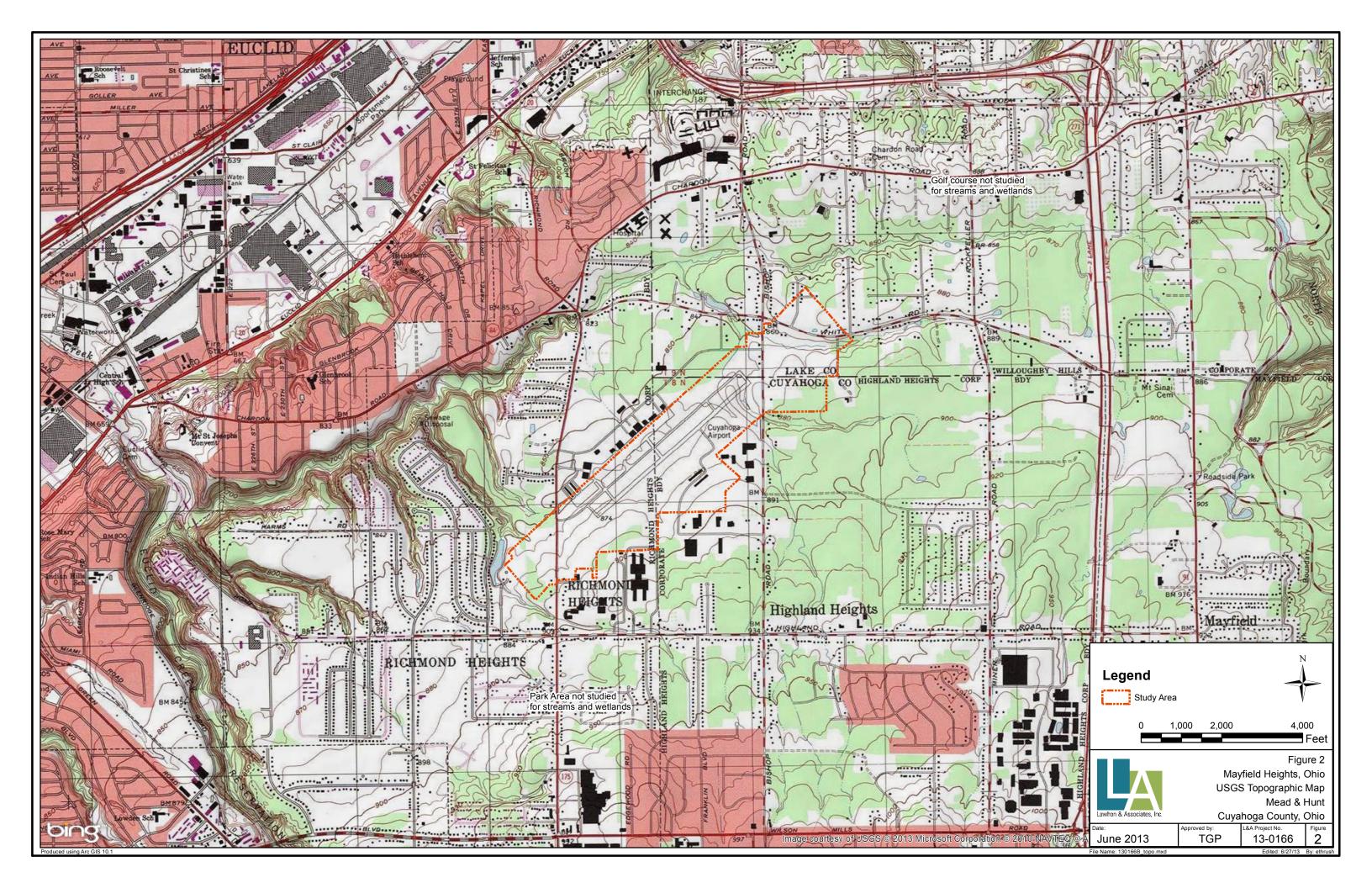
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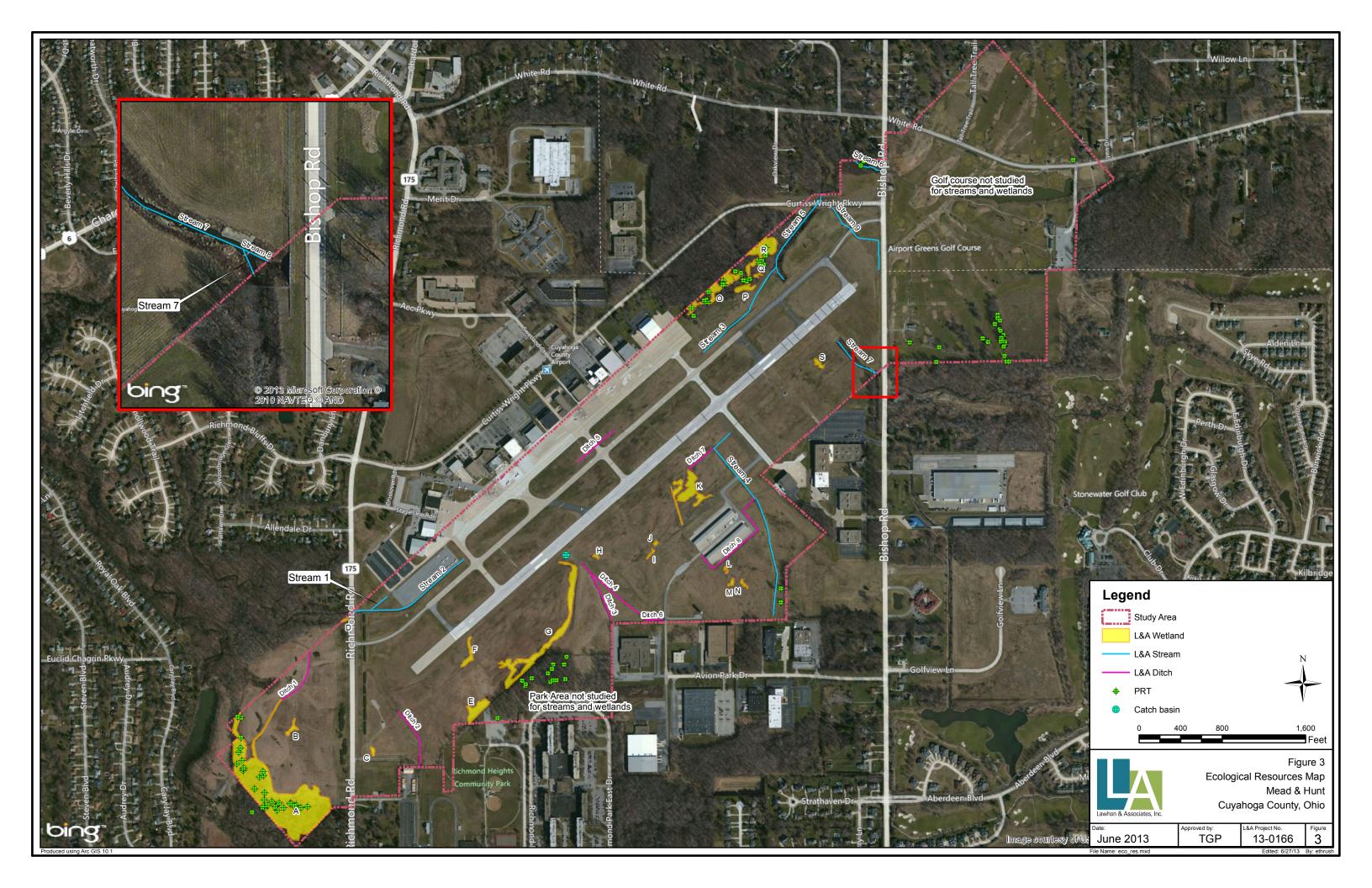
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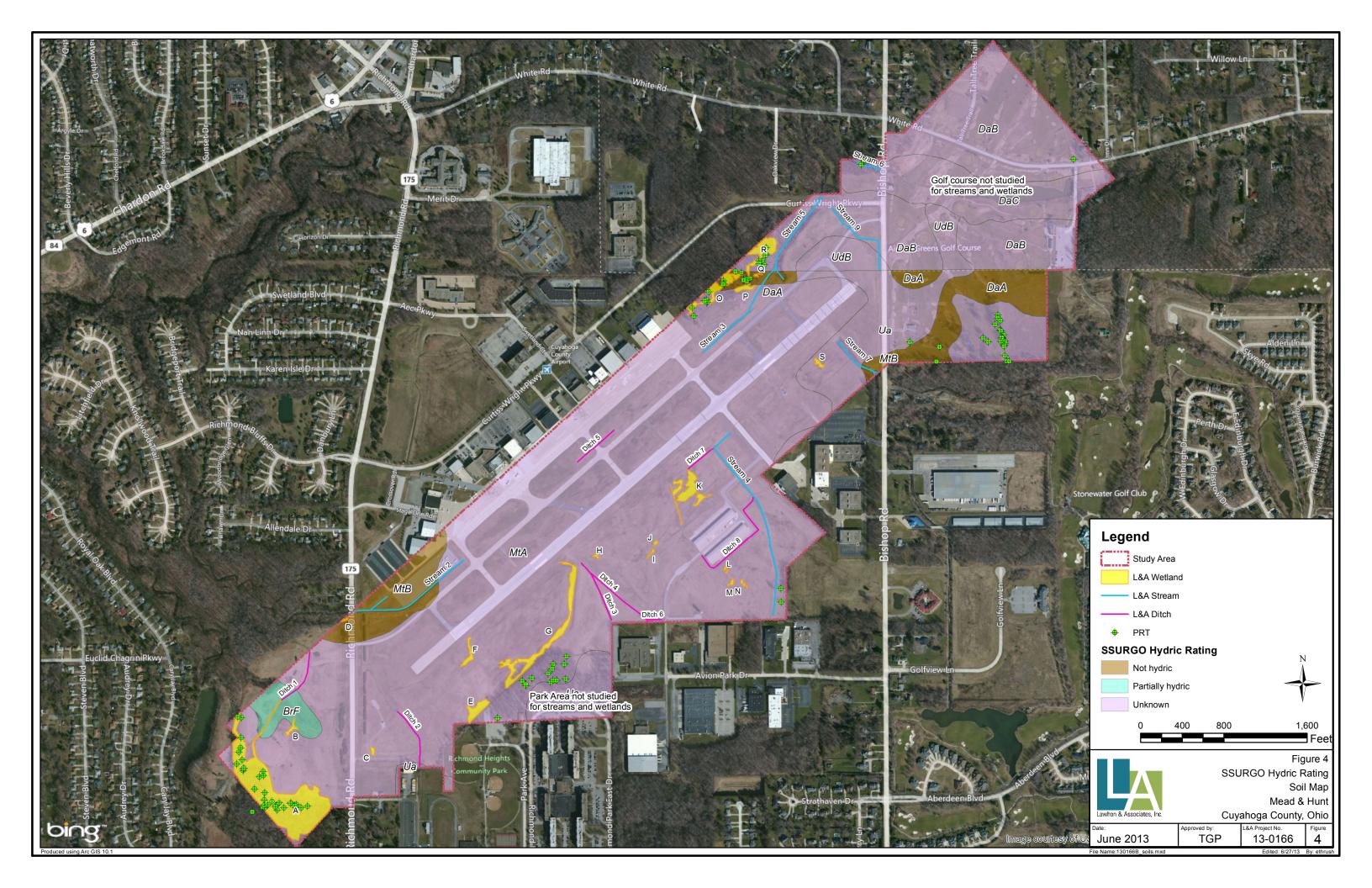
FIGURES

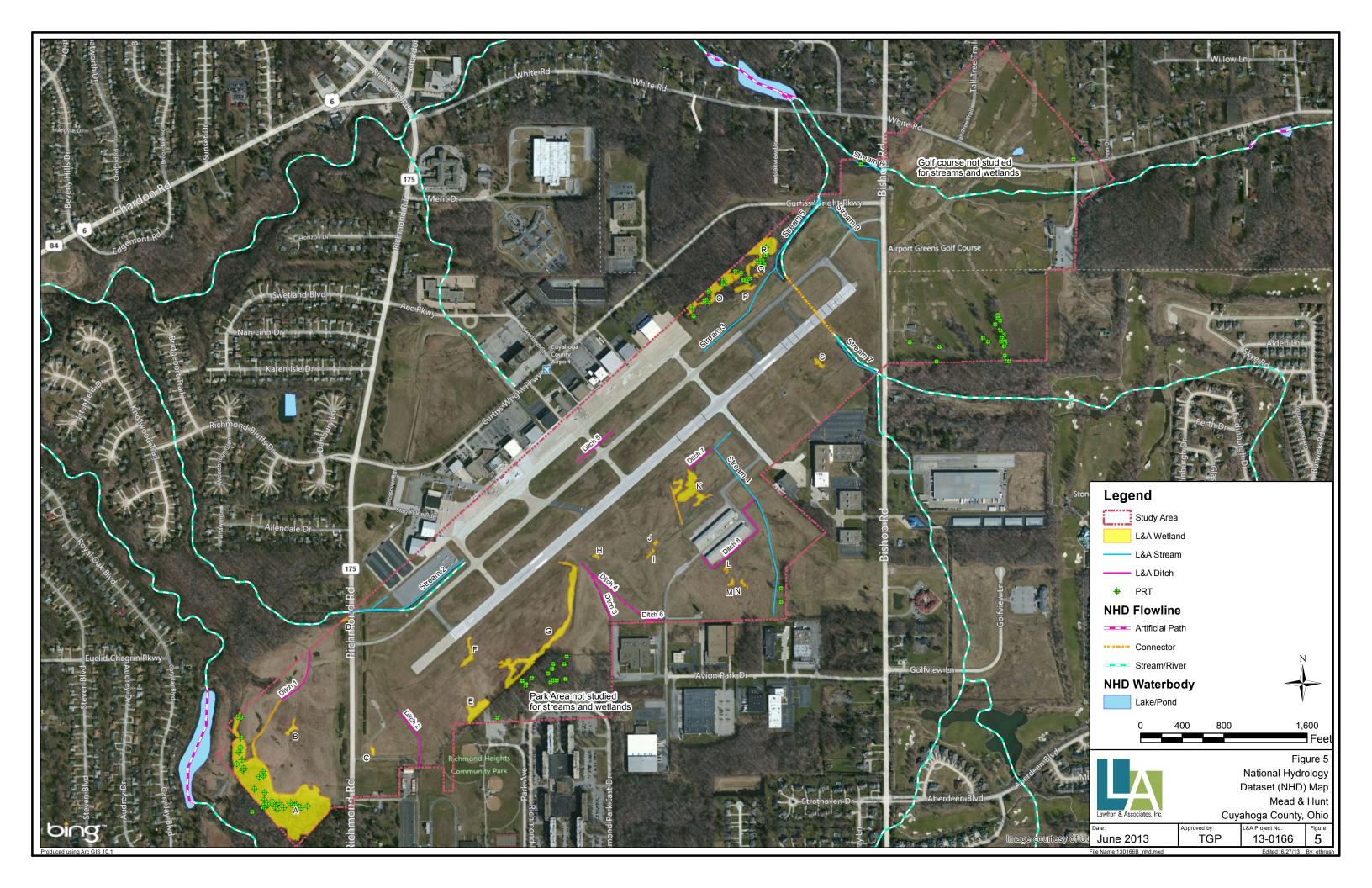
Lawhon & Associates, Inc. PN: 13-0166

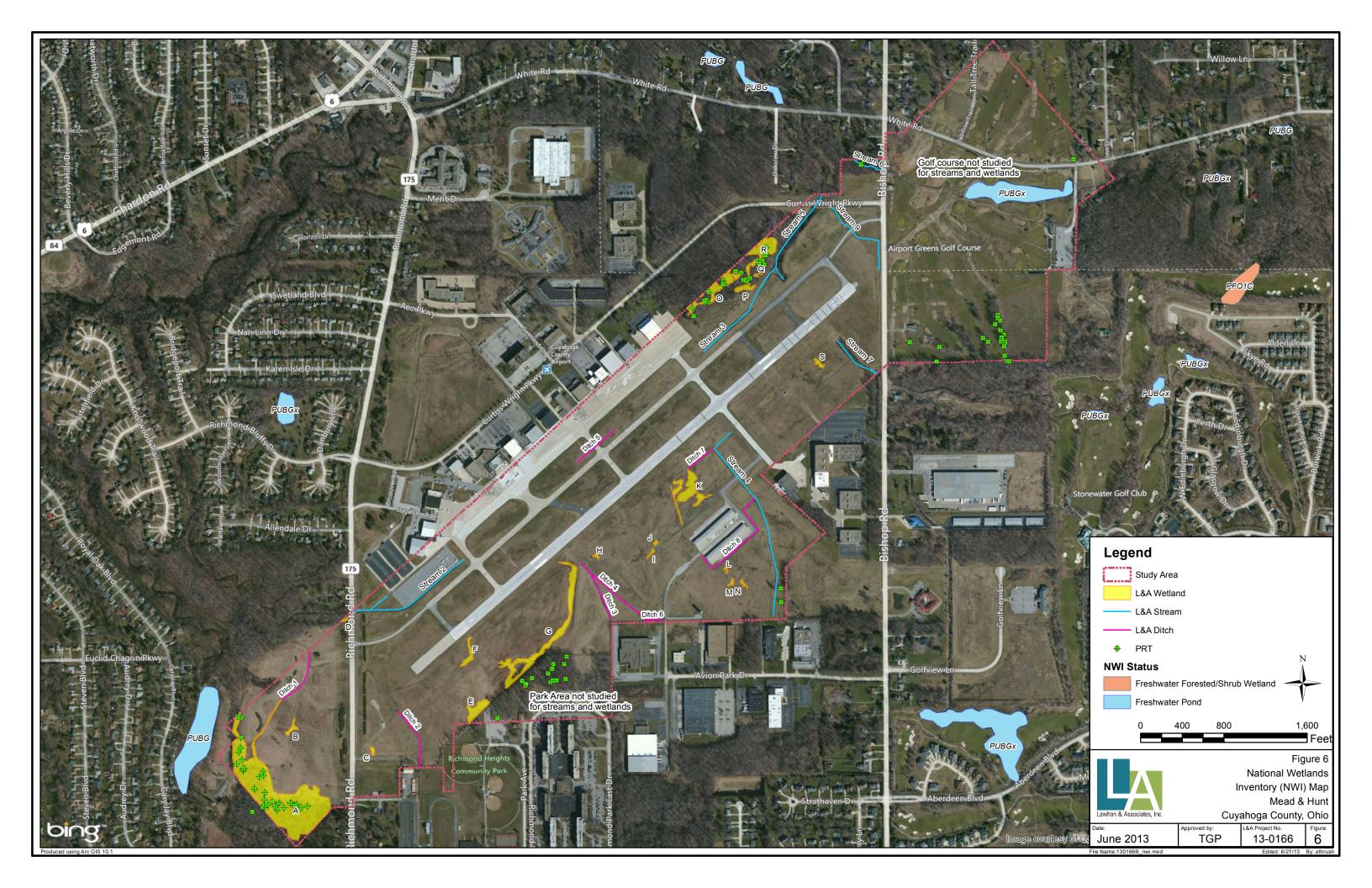


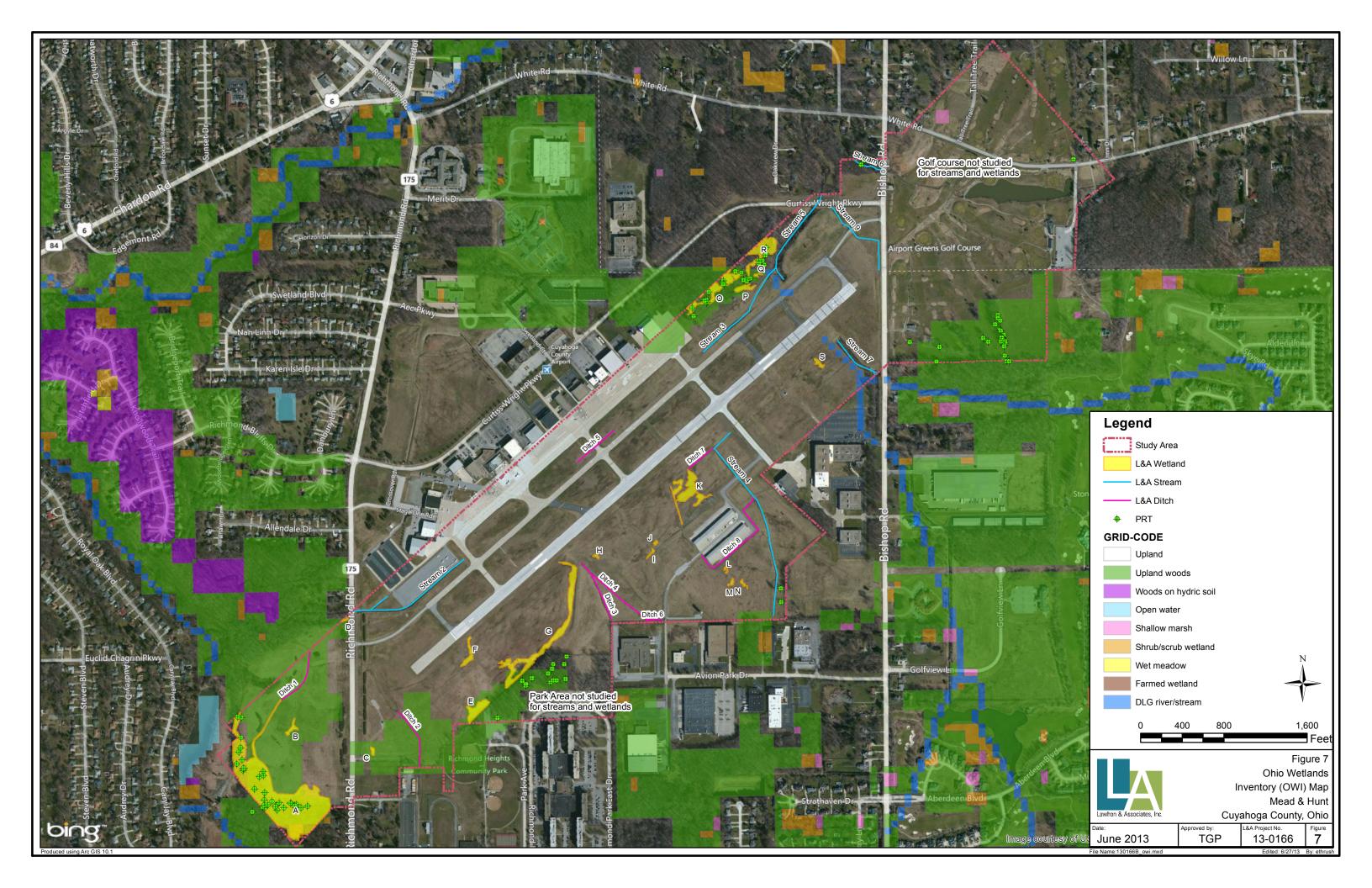


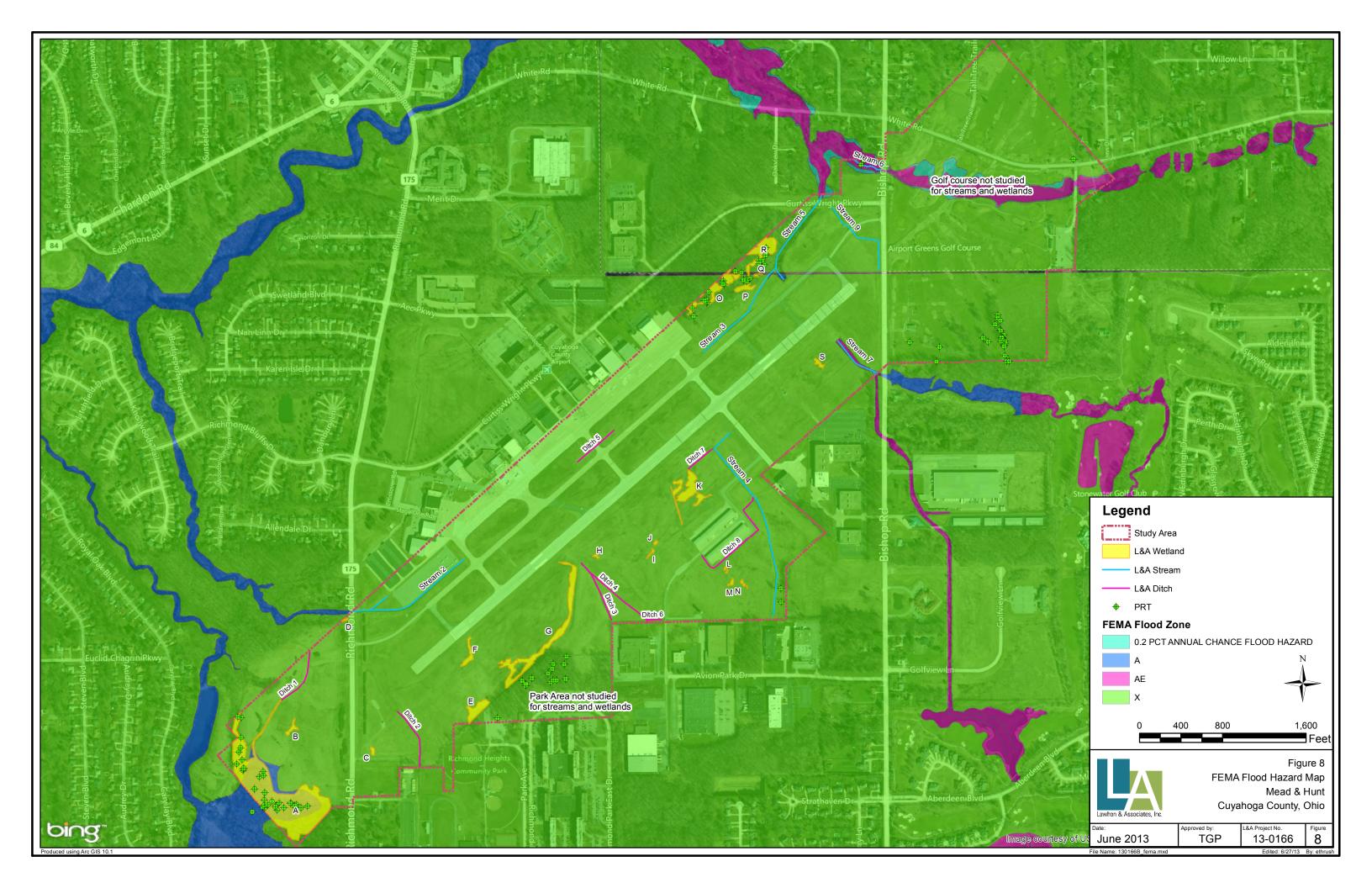












APPENDIX A

USACE Wetland Determination Data Forms, ORAM v. 5.0, and OEPA QHEI & HHEI Forms

Lawhon & Associates, Inc. PN: 13-0354

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	Sampling Date: <u>5/1/13</u>
Applicant/Owner: Mead & Hunt	, ,	State: OH	Sampling Point: A-1 (Wet A)
	Section, Township		
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): none	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.556169		Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classi	fication: none
Are climatic / hyd <u>rolog</u> ic conditions on the site typical	al for this time of year? Yes 🚺 🛚 🛚	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology _		Are "Normal Circumstances'	'present? Yes No
	naturally problematic? ((If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sampling poi	nt locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes	V No Is the Sam within a Wo	etland? Yes <u>√</u>	No
Remarks: (Explain alternative procedures here or		nal Wetland Site ID:	
HYDROLOGY			
Wetland Hydrology Indicators:			cators (minimum of two required)
Primary Indicators (minimum of one is required; ct			oil Cracks (B6)
Surface Water (A1) ✓ High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)	1 1	Patterns (B10) Lines (B16)
Saturation (A3)	Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	1 1 '	urrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	Roots (C3) Saturation	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc	· · I I	ic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		quitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	✓ FAC-Neutr	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8) Field Observations:		FAC-Neutr	ai rest (D5)
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes V	Depth (inches): 10		
Saturation Present? Yes V No	Depth (inches): 3	Wetland Hydrology Prese	ent? Yes ✓ No 📗
(includes capillary fringe) Describe Recorded Data (stream gauge, monitorir	ng well, aerial photos, previous inspec	tions), if available:	
	ig tron, actual priotoc, providuo mopos	,,	
Remarks:			
Tomano.			

<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute % Cover		Indicator	Dominance Test worksheet:		
1. Populus deltoides	20	50Y	FAC	Number of Dominant Species That Are OBL. FACW. or FAC: 7 (A)		
2. Acer saccharinum	20	50Y	FACW	That Are OBL, FACW, or FAC: (A)		
			· ——	Total Number of Dominant		
3				Species Across All Strata: / (B)		
4				Percent of Dominant Species That Are OBL FACW or FAC: 100 (A/B)		
5		-		That Are OBL, FACW, or FAC: 100 (A/B)		
6				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
	40	= Total Co	ver	OBL species $\frac{40}{100}$ x 1 = $\frac{40}{100}$		
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species 80 $x 2 = 160$		
1. Lindera benzoin	50	71.4Y	FACW	FAC species 60 x 3 = 180		
Cornus racemosa	20	28.6	FAC	FACU species $0 x 4 = 0$		
				UPL species $0 \times 5 = 0$		
3				Column Totals: <u>180</u> (A) <u>380</u> (B)		
4				Prevalence Index = B/A = 2.11		
5						
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
	70	= Total Co	ver	✓ 2 - Dominance Test is >50%		
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Index is ≤3.0¹		
1. Schoenoplectus tabernaemontani	40	57.1Y	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
Carex sp.	10	14.3Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)		
o Poa so	10	14.3Y	FAC			
4. Equisetum arvense	10	14.3Y	FAC	¹ Indicators of hydric soil and wetland hydrology must		
			·	be present, unless disturbed or problematic.		
5				Definitions of Vegetation Strata:		
6	- 			Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
7		-		at breast height (DBH), regardless of height.		
8				Sapling/shrub – Woody plants less than 3 in. DBH		
9				and greater than or equal to 3.28 ft (1 m) tall.		
10				Herb – All herbaceous (non-woody) plants, regardless		
11				of size, and woody plants less than 3.28 ft tall.		
12.				Woody vines – All woody vines greater than 3.28 ft in		
<u> </u>	70	= Total Co	vor	height.		
Woody Vine Stratum (Plot size: 30 ft)		= Total Co	VEI			
1						
2		-	· 			
3				Hydrophytic		
4		-		Vegetation Present? Yes ✓ No ✓		
	0	= Total Co	ver			
Remarks: (Include photo numbers here or on a separate	sheet.)					

Sampling Point: A-1

SOIL

Depth	Matrix		Redox Featur	res		
(inches)	Color (moist)	%	Color (moist) %	Type ¹ Loc ²	Texture	Remarks
0-8	10YR 3/1	100			silt loam	
8-12	10YR 6/2	60	10YR 5/8		silt clay	
					2, , , , , ,	
	Concentration, D=De Indicators:	epletion, RN	I=Reduced Matrix, MS=Mask	ed Sand Grains.		re Lining, M=Matrix. Dlematic Hydric Soils ³ :
Black H Hydrog Stratifie Deplete Thick D Sandy Sandy Strippe	ol (A1) Epipedon (A2) Histic (A3) En Sulfide (A4) Ed Layers (A5) Ed Below Dark Surfa Park Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) Ed Matrix (S6) Elegan (S7) (LRR R)		Polyvalue Below Surface MLRA 149B) Thin Dark Surface (S9) Loamy Mucky Mineral (Loamy Gleyed Matrix (F3) Redox Dark Surface (F1) Depleted Dark Surface Redox Depressions (F8)	(LRR R, MLRA 149B) F1) (LRR K, L) F2) 6) (F7)	Coast Prairie R 5 cm Mucky Pe Dark Surface (\$ Polyvalue Belor Thin Dark Surfa Iron-Manganes Piedmont Flood Mesic Spodic (* Red Parent Ma	w Surface (S8) (LRR K, L) ace (S9) (LRR K, L) e Masses (F12) (LRR K, L, R) dplain Soils (F19) (MLRA 149B) TA6) (MLRA 144A, 145, 149B) terial (F21) ark Surface (TF12)
			retland hydrology must be pre	sent, unless disturbed	or problematic.	
Restrictive	Layer (if observed	:(k				
Type:						
Depth (ir Remarks:	nches):				Hydric Soil Present	? Yes <u>√</u> No <u> </u>

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	_ Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			Sampling Point: A-2 (Wet A)
Investigator(s): DGV	Section, Township	o, Range: T8N R11W	
Landform (hillslope, terrace, etc.): flat	Local relief (concave,	convex, none): none	Slope (%): 2
Subregion (LRR or MLRA): LRR	Lat: 41.557258	Long: -81.498880	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classif	ication: none
Are climatic / hydrologic conditions on the site typi	cal for this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	te map showing sampling poi	nt locations, transect	s. important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No √ Is the Sam within a W	retland?	No ✓
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	NO	onal Wetland Site ID:	<u> </u>
Remarks: (Explain alternative procedures here		onal Welland Site ID	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)		Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living	Crayfish Bu	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	· · ·	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	` '
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	al Test (D5)
Field Observations:			
Surface Water Present? Yes No _			
Water Table Present? Yes V No	Depth (inches): 10		
Saturation Present? Yes <u>I√</u> No _ (includes capillary fringe)	Depth (inches): 6	Wetland Hydrology Prese	ent? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION –	Hse	scientific	names	∩f	nlants
VLGLIATION -	USE	SCIETILITIC	Hallies	OI.	piaiito.

/EGETATION - Use scientific names of plants	5.		Sampling Point: A-2
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute % Cover	Dominant India	
1			Number of Dominant Species That Are OBL, FACW, or FAC: [4] [4] [5] [6] [6] [6] [7] [6] [7] [7] [7] [8] [8] [8] [8] [8] [9] [9] [9] [9] [9] [9] [9] [9] [9] [9
2.			
3.			Total Number of Dominant Species Across All Strata: 2 (B)
4			Percent of Dominant Species
5.			That Are OBL, FACW, or FAC: 50 (A/B)
6.			Prevalence Index worksheet:
7.			Total % Cover of: Multiply by:
	_	= Total Cover	OBL species $\frac{10}{10}$ $x 1 = \frac{10}{10}$
Sapling/Shrub Stratum (Plot size: 15 ft)			FACW species $0 x 2 = 0$
1			FAC species $\underline{20}$ $x 3 = \underline{60}$
2.			FACU species $\frac{70}{2}$ x 4 = $\frac{280}{2}$
3.			UPL species $\frac{0}{400}$ x 5 = $\frac{0}{350}$
4			Column Totals: 100 (A) 350 (B)
5.			Prevalence Index = B/A = 3.5
6.			Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
r	^	= Total Cover	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)		= Total Cover	3 - Prevalence Index is ≤3.0¹
1. Schoenoplectus tabernaemontani	10	10 OB	4 - Morphological Adaptations ¹ (Provide supporting
2 Festuca sp.	70	70Y FA	Uala ili Nelliaiks oi oli a separale sileeti
o Poa sp	20	20Y FA	
**-			Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7			at breast height (DBH), regardless of height.
8			Sapling/shrub – Woody plants less than 3 in. DBH
9			and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11		· 	<u> </u>
12		· 	Woody vines – All woody vines greater than 3.28 ft in height.
20.4	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1		· 	<u></u>
2		· 	
3			Hydrophytic
4		· 	Vegetation Present? Yes No ✓
		= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		

Sampling Point: A-2

Profile Desc	ription: (Describe t	o the dep	th needed to docun	nent the ir	ndicator	or confirm	the absence of indicators.)
Depth	Matrix	0/		<u> Features</u>		1 2	Tankina
(inches)	Color (moist)	400	Color (moist)	%	Type'	Loc ²	Texture Remarks
0-14	10YR 3/1	100					silt loam
							
	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil I							Indicators for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov		(S8) (LRF	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B)		DD D 141	D 4 4 40 D	Coast Prairie Redox (A16) (LRR K, L, R)
Black His	stic (A3) n Sulfide (A4)		☐ Thin Dark Surfa☐ Loamy Mucky M)
	I Layers (A5)		Loamy Gleyed N			, L)	Polyvalue Below Surface (S8) (LRR K, L)
	l Below Dark Surface	e (A11)	Depleted Matrix				Thin Dark Surface (S9) (LRR K, L)
	rk Surface (A12)	(,	Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S	, ,	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depressi	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)						Red Parent Material (F21)
_	Matrix (S6)						Very Shallow Dark Surface (TF12)
☐ Dark Sur	face (S7) (LRR R, M	ILRA 149E	3)				Other (Explain in Remarks)
³ Indicators of	hydrophytic vegetati	ion and we	tland hydrology mus	t be prese	nt. unless	disturbed	or problematic.
	ayer (if observed):				,		
Type:							
Depth (inc	ches):						Hydric Soil Present? Yes V
Remarks:			<u> </u>				

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	_ Sampling Date: <u>5/1/13</u>
Applicant/Owner: Mead & Hunt			Sampling Point: B-1 (Wet B)
Investigator(s): DGV	Section, Township	o, Range: T8N R11W	
Landform (hillslope, terrace, etc.): toe of slope	Local relief (concave,	convex, none): none	Slope (%): 3
Subregion (LRR or MLRA): LRR	Lat: 41.558269	Long: -81.499076	Datum: NAD 83
Soil Map Unit Name: Brecksville silt loam		NWI classif	ication: none
Are climatic / hydrologic conditions on the site typic	al for this time of year? Yes1	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology _	1 1		present? Yes No
		(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site		nt locations, transect	s. important features, etc.
Г			, , , , , , , , , , , , , , , , , , , ,
Hydrophytic Vegetation Present? Yes	V No Is the Sam within a W	etland? Yes	No 🗆
Hydric Soil Present? Yes Wetland Hydrology Present? Yes		onal Wetland Site ID:	<u> </u>
Remarks: (Explain alternative procedures here or		onai Welland Site ID.	
	, ,		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required; cl	heck all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage P	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living		Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So		Stressed Plants (D1) c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	i i
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	_ ` ` '	FAC-Neutra	
Field Observations:			
Surface Water Present? Yes No			
Water Table Present? Yes Ves No	Depth (inches): 10		
Saturation Present? Yes / No / No / (includes capillary fringe)	Depth (inches): 6	Wetland Hydrology Prese	ent? Yes <u>√</u> No <u></u>
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspec	tions), if available:	
Remarks:			
Nomano.			

VEGETATION -	مءا ا	scientific	namae	of n	lante
VEGETATION -	use	scientific	names	OI D	เลทเร.

EGETATION – Use scientific names of plants	i.		Sampling Point: B-1
Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Indica	Dominance Test Worksheet.
1		Species? Stat	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2			Total Number of Dominant
3			Species Across All Strata: 3 (B)
4			Percent of Dominant Species
5			That Are OBL, FACW, or FAC: 100 (A/B)
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	0	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)	'		FACW species x 2 =
1			FAC species x 3 =
2.			FACU species x 4 =
3.			UPL species x 5 =
			Column Totals: (A) (B)
4 5			Prevalence Index = B/A =
5			Hydrophytic Vegetation Indicators:
6			1 - Rapid Test for Hydrophytic Vegetation
7	Λ		2 - Dominance Test is >50%
5 ft		= Total Cover	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5 ft) Schoenoplectus tabernaemontani	20	25Y OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Festuca sp.	10	12.5 FAC	_ _
Poa sp.	30	37.5Y FAC	
Carex sp.	20	25Y FAC	W Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7			at breast height (DBH), regardless of height.
3			Sapling/shrub – Woody plants less than 3 in. DBH
9			and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless
11			of size, and woody plants less than 3.28 ft tall.
12			Woody vines – All woody vines greater than 3.28 ft in
	00	= Total Cover	height.
Noody Vine Stratum (Plot size: 30 ft)			
1			
1 2		·	— Hystrophytia
1		·	Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 30 ft) 1		·	

Sampling Point: B-1

	-	to the dep	th needed to document the indicator or confirm	m the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist) % Type ¹ Loc ²	Texture Remarks
0-12	10YR 4/1	100	Goldi (moist) 70 Type Lee	silt loam
	10111111			- Cit loan
				·
				·
-				·
				·
				· ——
			·	
		letion, RM=	Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil				Indicators for Problematic Hydric Soils ³ :
Histosol	• •		Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2) istic (A3)		MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky Mineral (F1) (LRR K, L)	Dark Surface (S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac	e (A11)	Depleted Matrix (F3)	Thin Dark Surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Surface (F6)	Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5) I Matrix (S6)			Red Parent Material (F21) Very Shallow Dark Surface (TF12)
	rface (S7) (LRR R, I	MLRA 149E	3)	Other (Explain in Remarks)
	(=),(,	
			etland hydrology must be present, unless disturbed	d or problematic.
Restrictive	Layer (if observed)	:		
Type:			<u></u>	
Depth (in	ches):			Hydric Soil Present? Yes No✓
Remarks:				

Project/Site: Cuyahoga Co. Airport City/County: Cuyahoga Sampling Date: 5/1/13 Applicant/Owner: Mead & Hunt State: OH Sampling Point: B-2 (Wet	
	B)
Investigator(s): DGV Section, Township, Range: T8N R11W	
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 3	
Subregion (LRR or MLRA): LRR Lat: 41.558306 Long: -81.498999 Datum: NAD 83	
Soil Map Unit Name: Brecksville silt loam NWI classification: none	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)	_
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.	٥.
Hydrophytic Vegetation Present? Yes No V Is the Sampled Area within a Wetland? Yes No V No V Is the Sampled Area within a Wetland?	
Hydric Soil Present? Yes ✓ No ✓ Wetland Hydrology Present? Yes ✓ No ✓ If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in a separate report.)	-
HYDROLOGY	
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)	
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)	
High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)	
Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2)	
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Cativacta Paragita (C2) Cativacta Phase (C2)	
Sediment Deposits (B2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)	
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes Depth (inches):	
Saturation Present? Yes No Very Depth (inches): Wetland Hydrology Present? Yes No Very	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	-

VEGETATION – Use scientific names of plants
--

Tree Stratum (Plot size: 30 ft) % 1.			Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species (A)			
1				That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 3 (B) Percent of Dominant Species			
3.				Species Across All Strata: 3 (B) Percent of Dominant Species			
4				Percent of Dominant Species			
6							
7				matrie obt, i row, di i ro.			
				Prevalence Index worksheet:			
	1	= Total Cov	or .				
Sapling/Shrub Stratum (Plot size: 15 ft)		- 10tai 00v	Ci	FACW species $\frac{5}{}$ $\times 2 = \frac{10}{}$			
				FAC species $0 \times 3 = 0$			
1				FACU species 85 $x 4 = 340$			
2				UPL species $0 \times 5 = 0$			
3				Column Totals: 90 (A) 350 (B)			
4				Prevalence Index = B/A = $\frac{3.89}{}$			
5				Hydrophytic Vegetation Indicators:			
6				1 - Rapid Test for Hydrophytic Vegetation			
7	1			2 - Dominance Test is >50%			
<u>0</u>	<u>, </u>	= Total Cov	er	3 - Prevalence Index is ≤3.0¹			
Herb Stratum (Plot size: 5 ft)	_	5.50	E4011	4 - Morphological Adaptations ¹ (Provide supporting			
1. Parthenocissus quinquefolia 5		5.56	FACU	data in Remarks or on a separate sheet)			
Σ	35	38.9Y	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
J	10	11.1Y	FACU	¹ Indicators of hydric soil and wetland hydrology mus			
4.	5	5.56	FACW	be present, unless disturbed or problematic.			
5. Schizachyrium scoparium 3	35	38.9Y	FACU	Definitions of Vegetation Strata:			
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7				at breast height (DBH), regardless of height.			
8				Sapling/shrub – Woody plants less than 3 in. DBH			
9				and greater than or equal to 3.28 ft (1 m) tall.			
10				Herb – All herbaceous (non-woody) plants, regardless			
11				of size, and woody plants less than 3.28 ft tall.			
12				Woody vines – All woody vines greater than 3.28 ft in			
9	90 _	= Total Cov	er	height.			
Woody Vine Stratum (Plot size: 30 ft)							
1							
2							
3				Livedrombystic			
4				Hydrophytic Vegetation			
4)	= Total Cov		Present? Yes No V			
Remarks: (Include photo numbers here or on a separate she		= Total Cov	eı				

Sampling Point: B-2

Profile Desc	cription: (Describe	to the de	pth needed to docui	nent the	indicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%		x Feature		Loc ²	Texture	Domorko
(inches) 0-10	10YR 5/1	% 75	Color (moist) 10YR 5/6	<u>%</u> 25	Type ¹	LOC	silt loam	Remarks blocky structure
0-10	10110 3/1	- 75	10110 3/0				3III IOAIII	blocky structure
	-							
								_
		· <u></u>	-					
				_				
	-	-		-				·
		· 						
-								
¹ Type: C=C	oncentration, D=Dep	letion, RM	l=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil					<u> </u>			for Problematic Hydric Soils ³ :
Histosol	• •		Polyvalue Belo	w Surface	(S8) (LR	RR,	2 cm N	Muck (A10) (LRR K, L, MLRA 149B)
	oipedon (A2)		MLRA 149B	,				Prairie Redox (A16) (LRR K, L, R)
	stic (A3) en Sulfide (A4)		Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed			, L)		ilue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac	e (A11)	Depleted Matrix		,			ark Surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark	,	=7)		1 1	ont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4) Redox (S5)		Redox Depress	sions (Fo)				Spodic (TA6) (MLRA 144A, 145, 149B) arent Material (F21)
	Matrix (S6)							shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	/ILRA 149	B)				Other	(Explain in Remarks)
31	f la calaca la atta con actas		or the contribution becomes			alla tamba a d		
	r nydropnytic vegetai Layer (if observed):		etland hydrology mus	st be pres	ent, uniess	s disturbed	or problematic	<i>.</i> .
Type:	Layer (ii observea).							
	choc):						Hydric Soil	Present? Yes V No No
Remarks:	ches):						,	
Remarks.								

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: Wet C (C-1)
Investigator(s): CMM/ANB	Section, Township	o, Range: <u>T8N R11W</u>	
Landform (hillslope, terrace, etc.): Depression	Local relief (concave,	convex, none): Concave	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.557595	Long: -81.496311	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	cation: none
Are climatic / hydrologic conditions on the site type	ical for this time of year? Yes 🔟 🛚 I	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	/ significantly disturbed?	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology	/ naturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach si	te map showing sampling poi	nt locations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _	✓ No Is the Sam within a W	etland? Yes	No 🗌
Wetland Hydrology Present? Yes _		onal Wetland Site ID:	
Remarks: (Explain alternative procedures here		onal Welland Oile ID.	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required;			Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim L	
Saturation (A3) Water Marks (B1)	Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Crayfish Bu	Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	1 1 '	/isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	· · I I	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	uitard (D3)
Inundation Visible on Aerial Imagery (B7)	Uther (Explain in Remarks)	Microtopogr	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	l Test (D5)
Field Observations: Surface Water Present? Yes V	□ 5 " " + > 0.5 in		
Surface Water Present? Water Table Present? Yes Ves No	Depth (inches): 0.5 in Depth (inches): 5 in		
Saturation Present? Yes V No	Depth (inches): 0 in	Wetland Hydrology Prese	nt? Yes 🗸 No 🗌
(includes capillary fringe)			100 <u></u> <u></u>
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION -	Use	scientific	names	of plant	S

EGETATION – Use scientific names of plants	6.		Sampling Point: C-1
Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Indicator Species? Status	
1		-	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2			Total Number of Dominant
s			Species Across All Strata: 1 (B)
k	_		
5	_		That Are OBL, FACW, or FAC: 100 (A/B)
S			Prevalence Index worksheet:
, <u> </u>	_		Total % Cover of: Multiply by:
	0	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)			FACW species x 2 =
			FAC species x 3 =
2			FACU species x 4 =
3			UPL species x 5 = Column Totals: (A) (B)
l			- Column Totalo (7)
5			Prevalence Index = B/A =
S		·	Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Cover	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)			3 - Prevalence Index is ≤3.0¹
_{1.} Carex sp	20	19% N facw	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
_{2.} Poa sp.	80	76% Y fac	Problematic Hydrophytic Vegetation ¹ (Explain)
_{3.} Juncus sp	5	4.75 N obl	1
1			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
3			
7			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
3.			- Sapling/shrub – Woody plants less than 3 in. DBH
).			and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless
11			of size, and woody plants less than 3.28 ft tall.
12			Woody vines – All woody vines greater than 3.28 ft in
	105	= Total Cover	height.
	100	= Total Cover	
	100	= Total Cover	
Noody Vine Stratum (Plot size: 30 ft)			
Woody Vine Stratum (Plot size: 30 ft)			-
Noody Vine Stratum (Plot size: 30 ft) 1			Hydrophytic
Woody Vine Stratum (Plot size: 30 ft) 1			- Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 30 ft) 1 2 3 4			

Sampling Point: C-1

Profile Desc	ription: (Describe	to the de	pth needed to docur	nent the	indicator	or confirm	n the absence of indicators.)
Depth	Matrix Color (moist)	%	Redo Color (moist)	x Feature %	s Type ¹	Loc ²	Texture Remarks
(inches) 0-2	10YR 3/2	100	Color (moist)		<u>rype</u>	LOC	silt loam
2-8	10YR 4/1	60	10YR 5/8	40	С	M	silty clay
8>	Refusal				·		
¹Type: C=Cc Hydric Soil	oncentration, D=Dep	oletion, RM	l=Reduced Matrix, M: Polyvalue Below MLRA 149B	w Surface			² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy G Sandy R Stripped			Thin Dark Surfa Loamy Mucky N Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark Redox Depress	ace (S9) (I Mineral (F Matrix (F2 (F3) rface (F6) Surface (I	1) (LRR K 2)		
	f hydrophytic vegeta Layer (if observed)		etland hydrology mus	st be pres	ent, unles	s disturbed	l or problematic.
Type: Ro		•					
	ches): 8 in						Hydric Soil Present? Yes V No No
Remarks:							

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga Co.	Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt			Sampling Point: C-2
Investigator(s): CMM	Section, Township		
Landform (hillslope, terrace, etc.): hillslope	Local relief (concave,		Slope (%): 1
Subregion (LRR or MLRA): LRR	Lat: 41.557668		Datum: NAD 83
Soil Map Unit Name: Mitiwanga Silt Loam		NWI classif	
Are climatic / hydrologic conditions on the site typical	a <u>l for</u> this time of year? Yes	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology _	1 1	Are "Normal Circumstances"	present? Yes No
		(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site			
Г		<u> </u>	, ,
Hydrophytic Vegetation Present? Yes	No / Is the Sam within a W	·	No
Hydric Soil Present? Wetland Hydrology Present? Yes	V NO		
Remarks: (Explain alternative procedures here or		onal Wetland Site ID:	
(2.1)	a coparato roporti,		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; ct	neck all that apply)	Surface Soi	l Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage P	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim I	_ines (B16)
Saturation (A3)	Marl Deposits (B15)	I I '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	· · ·	/isible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So		Stressed Plants (D1) c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	
Field Observations:			
Surface Water Present? Yes No No	1 1 1 1 1 1		
Water Table Present? Yes ✓ No 📗	Depth (inches): 3 in		
Saturation Present? Yes <u>I</u> ✓ No <u>L</u> (includes capillary fringe)	Depth (inches): 0 in	Wetland Hydrology Prese	nt? Yes <u>√</u> No <u></u>
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, previous inspec	tions), if available:	
Remarks:			
Photos 12-16			
1 110100 12 10			

VEGETATION –	Use scientific	names of	plants.
		Hallioo oi	piarito.

				Sampling Point: C-2
Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Species?		Dominance Test worksheet:
1			Status	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 1 (B)
4				Percent of Dominant Species That Are ORL FACW or FAC: 100
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7	_			Total % Cover of: Multiply by:
1E #	0	= Total Cov	er/	OBL species $0 \times 1 = 0$
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species $\frac{0}{100}$ $x = 2 = \frac{0}{300}$ FAC species $\frac{100}{100}$ $x = 3 = \frac{300}{100}$
1				FACU species $\frac{5}{}$ $x = \frac{20}{}$
2				UPL species $0 \times 5 = 0$
3				Column Totals: 105 (A) 320 (B)
4				
5				Prevalence Index = B/A = 3.05
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Cov	/er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft) 1. Poa sp.	100	95.2Y	FAC	4 - Morphological Adaptations ¹ (Provide supporting
2 Taraxacum officinale	5	4.76	FACU	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
<u> </u>	- 			1 Tobicination (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6 7.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				
9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10.				
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
10				
12	105	- Total Cay	or	height.
	105	= Total Cov	/er	height.
Woody Vine Stratum (Plot size: 30 ft)				height.
Woody Vine Stratum (Plot size: 30 ft) 1)				height.
Woody Vine Stratum (Plot size: 30 ft) 1				
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>) 1 2 3				Hydrophytic Vegetation —
Woody Vine Stratum (Plot size: 30 ft) 1				

Sampling Point: C-2

	cription: (Describe	to the de				r or confirr	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	lox Featur %	es Type ¹	Loc ²	Texture	Remarks
0-3	10YR 3/2	85	10YR 6/8	15	С	М	silt	rock at 3"
3>	Refusal					_		
1Typo: C-C	oncentration, D=De	nletion PM	I-Paducod Matrix			raine	² l continu	n: PL=Pore Lining, M=Matrix.
Hydric Soil Histosol Histic E Black H Hydroge Stratifiee Deplete Thick D Sandy M Sandy G Stripped Dark Su	Indicators:	ce (A11) MLRA 149	Polyvalue Bel MLRA 149 Thin Dark Sur Loamy Mucky Loamy Gleyer Depleted Mat Redox Dark S Depleted Dark Redox Depres	ow Surface B) face (S9) Mineral (Fe) Matrix (F3) Gurface (F6) K Surface (F8)	e (S8) (LF (LRR R, M =1) (LRR (2) (5) (F7)	RR R, ILRA 149E K, L)	Indicators 2 cm M Coast 5 cm M Polyva Thin D Iron-M Piedm Mesic Red P Very S Other	For Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) nont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B) Parent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
	Layer (if observed):						
Type: Ro	ches): 3 in						Hvdric Soil	Present? Yes V No
Remarks:	<u> </u>							

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			Sampling Point: D-1 (Wet D)
Investigator(s): DGV	Section, Township	o, Range: T8N R11W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR	_ Lat: 41.561070	Long: -81.497164	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	cation: none
Are climatic / hydrologic conditions on the site type	pica <u>l for</u> this time of year? Yes	No (If no, explain in l	Remarks.)
	I I	Are "Normal Circumstances"	present? Yes No
		(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach s	ite man showing sampling poi	nt locations, transects	s. important features, etc.
			<u>,portant roataroo, otor</u>
Hydrophytic Vegetation Present? Yes_		ipled Area] No 🗌
Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _	 		
Remarks: (Explain alternative procedures here		onal Wetland Site ID:	
	, ,		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required	; check all that apply)	Surface Soi	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim I	_ines (B16)
Saturation (A3)	Marl Deposits (B15)		Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	· · /	/isible on Aerial Imagery (C9)
✓ Drift Deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	otanica or c	Stressed Plants (D1) c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	
Field Observations:			, ,
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No			
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): 6	Wetland Hydrology Prese	nt? Yes <u>√</u> No
Describe Recorded Data (stream gauge, monitor	oring well, aerial photos, previous inspec	tions), if available:	
Remarks:			
remarks.			

VEGETATION – Use scientific names of plants
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'EGETATION – Use scientific names of plants	i.			Sampling Point: D-1
Tree Stratum (Plot size: 30 ft)		Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species
1. Acer rubrum	40	61.5Y	FAC	That Are OBL, FACW, or FAC: $\frac{7}{}$ (A)
2. Ulmus americana 3	<u>25</u>	38.5Y	FACW	Total Number of Dominant Species Across All Strata: 10 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC: 70 (A/B)
6.				Drevelence Index weekshoots
7				Prevalence Index worksheet:
	65	= Total Cov	/er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
Cornus racemosa	15	33.3Y	FAC	FAC species x 3 =
Rosa multiflora	15	33.3Y	FACU	FACU species x 4 =
z 3. Ligustrum vulgare	10	22.2Y	FACU	UPL species x 5 =
Lonicera maackii	5	11.1Y	UPL	Column Totals: (A) (B)
···				Prevalence Index = B/A =
5				
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	45	= Total Cov	ver	✓ 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Index is ≤3.0¹
_{1.} Lysimachia nummularia	20	33.3Y	FACW	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
2. Schoenoplectus tabernaemontani	15	25.0Y	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
Poa sp.	10	16.7Y	FAC	
Phalaris arundinacea	15	25.0Y	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diamete
7	_			at breast height (DBH), regardless of height.
8 9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
	60	= Total Cov	/or	height.
Woody Vine Stratum (Plot size: 30 ft)		= 10tai 00	VCI	
1 2				
1				Hydrophytic
1 2				Hydrophytic Vegetation Present? Yes ✓ No

_		
•	7	

Sampling Point: D-1

Depth	Matrix			x Features			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u></u> %	Type ¹	Loc ²	Texture Remarks
0-10	10YR 3/1	100					silt clay
¹Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked S	and Gra	ains.	² Location: PL=Pore Lining, M=Matrix.
Black H Hydroge Stratifie Deplete Thick D Sandy N Sandy F Stripped			Polyvalue Below MLRA 149B) Thin Dark Surfa Loamy Mucky M Loamy Gleyed I Depleted Matrix Redox Dark Sur Depleted Dark Sur Redox Depress	ce (S9) (LRI fineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7)	R R, MI LRR K	_RA 149B)	Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	f hydrophytic vegeta Layer (if observed):		etland hydrology mus	t be present	, unless	disturbed	or problematic.
Type:	Layer (ii observeu).	•					
Depth (in	ches):						Hydric Soil Present? Yes 🔽 No 🔲
Remarks:							

Project/Site: Cuyahoga Co. Airport	City/C	County: Cuyahoga		Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt				Sampling Point: D-2 (Wet D)
Investigator(s): DGV	Section	on, Township, Range: <u>T</u>	8N R11W	
Landform (hillslope, terrace, etc.): 11at	Local rel	ief (concave, convex, no	ne): <u>none</u>	Slope (%): 2
Subregion (LRR or MLRA): LRR	Lat: 41.561009	Long: <u>-81</u>	.497149	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam			NWI classific	
Are climatic / hydrologic conditions on the si	te typica <u>l for</u> this time of year? Y	es V No No	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hyd	1 1		Circumstances"	present? Yes No
	ology naturally problema		explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attac			ons, transects	s. important features, etc.
				,,
, , ,	Yes No √	Is the Sampled Area within a Wetland?	Yes	No 🗸
	res V No V V			
Remarks: (Explain alternative procedures		If yes, optional Wetland	3 Sile ID.	
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is requ	uired; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	Water-Stained Leave	s (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim L	
Saturation (A3)	Marl Deposits (B15)	,	1 1 '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od		Crayfish Bur	
Sediment Deposits (B2)	Presence of Reduced	es on Living Roots (C3)	1 1	/isible on Aerial Imagery (C9) Stressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4)	Recent Iron Reduction			Position (D2)
Iron Deposits (B5)	Thin Muck Surface (0	, ,	Shallow Aqu	` '
Inundation Visible on Aerial Imagery (1 1	aphic Relief (D4)
Sparsely Vegetated Concave Surface	, _ , ,	,	FAC-Neutra	
Field Observations:				
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present? Yes (includes capillary fringe)	No V Depth (inches):	Wetland I	Hydrology Presei	nt? Yes No ✓
Describe Recorded Data (stream gauge, n	nonitoring well, aerial photos, pre	vious inspections), if ava	ailable:	
Remarks:				
Nemano.				

VEGETATION — USE SCIENTIFIC HARRIES OF DIAMES	VEGETATION –	Use scientific	names of	plants.
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				Sampling Point: D-2
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute	Dominant Species?		Dominance Test worksheet:
1			Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2	_			Total Number of Dominant
3				Species Across All Strata: 0 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Cov	ver	OBL species $\frac{0}{2}$ $x = \frac{0}{2}$
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species $\frac{0}{0}$ $x = \frac{0}{0}$
1				FAC species 0 $x 3 = 0$ FACU species 95 $x 4 = 380$
2				UPL species $0 \times 5 = 0$
3				Column Totals: 95 (A) 380 (B)
4	_			Prevalence Index = B/A = 4
5				
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
E #	0	= Total Cov	ver	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft) 1. Taraxacum officinale	20	21.1Y	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Festuca sp.	60	63.2Y	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Trifolium sp.	15	15.8	FACU	1
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11	_			of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in height.
00.6	95	= Total Cov	ver	g.m
Woody Vine Stratum (Plot size: 30 ft)				
1				
2.				
1				Hydrophytic
2		= Total Cov		Hydrophytic Vegetation Present? Yes No

Sampling Point: D-2

(inches) 0-6	Matrix			dox Featur		1 - 2	Touture	
J-n	Color (moist) 10YR 3/2	<u> %</u> 80	Color (moist) 10YR 4/4	<u>%</u> 20	<u>Type</u> C	Loc ²	Texture Remarks silt loam	
6-12	10YR 5/3		10YR 6/6		- C		· 	
)-12	101K 5/5	60	10111 0/0	40		<u>M</u>	silt loam	
			-					
	Concentration, D=De	epletion, RI	M=Reduced Matrix,	MS=Maske	ed Sand (Grains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³	
Black H Hydrog Stratifie Deplete Thick D Sandy Sandy Sandy Strippe	ol (A1) Epipedon (A2) Histic (A3) Jen Sulfide (A4) Jed Layers (A5) Jed Below Dark Surfa Dark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) Jed Matrix (S6) Jurface (S7) (LRR R)	Polyvalue Be MLRA 149 Thin Dark Su Loamy Mucky Loamy Gleye Depleted Mat Redox Dark S Depleted Dar Redox Depre	orface (S9) orface (S9) orface (S9) orface (F3) orface (F6) orface (F6)	(LRR R, 1 =1) (LRR 2)	MLRA 149E	2 cm Muck (A10) (LRR K, L, MLRA 14 Coast Prairie Redox (A16) (LRR K, L, 5 cm Mucky Peat or Peat (S3) (LRR K Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR I) Piedmont Floodplain Soils (F19) (MLR Mesic Spodic (TA6) (MLRA 144A, 145 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)	R) (, L, R) (, L) (, L, R) (A 149E
			wetland hydrology m	ust be pres	sent, unle	ess disturbe	d or problematic.	
	Layer (if observed	d):						
T							Hudria Call Brassest Vac /	
Type:	nches):						Hydric Soil Present? Yes No	
Depth (in Remarks:								

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: Wet E(E-1)
	Section, Township	, Range: <u>T8N R11W</u>	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR L	_at: 41.558684	Long: -81.495630	Datum: NAD 83
Soil Map Unit Name: Mitiwanga Silt Loam		NWI classifi	cation: none
Are climatic / hydrologic conditions on the site typical	al for this time of year? Yes N	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology _	significantly disturbed?	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sampling poi	nt locations, transects	s, important features, etc.
	Z		· · ·
Hydrophytic Vegetation Present? Hydric Soil Present? Yes Yes	/ No Is the Sam within a W	etland? Yes	No
Wetland Hydrology Present?	7 . -	nal Wetland Site ID:	
Remarks: (Explain alternative procedures here or		That Worlding One 15.	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; ch			Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim L	
Saturation (A3)	Marl Deposits (B15)	1 1 '	Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living	Crayfish Bul	/isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	· ·
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	
Field Observations:			
Surface Water Present? Yes V	Depth (inches): 2 in.		
Water Table Present? Yes ✓ No _	Depth (inches): 8 in.		
Saturation Present? Yes Ves Ves No No No No No No No N	Depth (inches): 0 in.	Wetland Hydrology Prese	nt? Yes <u>✓</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspec	tions), if available:	
Remarks:			

	VEGETATION -	Use	scientific	names	of	plants.
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/EGETATION - Use scientific names of plants	S.			Sampling Point: E-1
Tree Stratum (Plot size: 30 ft)	Absolute		Indicator	Dominance Test worksheet:
1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
5				That Are OBE, I AOW, OF AO. (AB)
6			· ——	Prevalence Index worksheet:
7			· ——	Total % Cover of: Multiply by:
45 4	0	= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1				FAC species x 3 = FACU species x 4 =
2	_			UPL species x 5 =
3			·	Column Totals: (A) (B)
4			·	
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7			·	1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is >50%
	0	= Total Co	ver	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft)				4 - Morphological Adaptations ¹ (Provide supporting
1. Echinochloa muricata	60	42.9Y	OBL	data in Remarks or on a separate sheet)
2. Eleocharis sp.	_ 40	28.6Y	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex sp.	20	14.3	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. Typha angustifolia	15	10.7	OBL	be present, unless disturbed or problematic.
5. Lysimachia nummularia	5	3.57	FACW	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	140	= Total Co	ver	height.
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3				Hydrophytic
4				Vegetation Present? Yes ✓ No
	0	= Total Co	ver	Tresent: Tes No No
Remarks: (Include photo numbers here or on a separate	sheet.)			1

Sampling Point: E-1

Depth	Matrix	to the de	-	dox Feature			n the absence of indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-12	10YR 4/2	70	10YR 6/8	30	<u>C</u>	<u>M</u>	silty clay
		_			_		
	oncentration, D=Dep	oletion, RN	/I=Reduced Matrix, I	MS=Maske	d Sand G	rains.	² Location: PL=Pore Lining, M=Matrix.
Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy F Stripped		. ,	Polyvalue Bel MLRA 149 Thin Dark Sui Loamy Mucky Loamy Gleye Depleted Mat Redox Dark S Depleted Dari Redox Depres	B) rface (S9) (r Mineral (F2) d Matrix (F2) rix (F3) Surface (F6) k Surface (LRR R, M 1) (LRR 2)) F7)	ILRA 149E	Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	f hydrophytic vegeta Layer (if observed)		vetland hydrology m	ust be pres	ent, unle	ss disturbed	d or problematic.
Type:		•					Hydric Soil Present? Yes ✓ No
Remarks:	Ciles)						.,

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	_ Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: Wet E (E-2)
Investigator(s): CMM	Section, Township	, Range: T8N R11W	
Landform (hillslope, terrace, etc.): flat	Local relief (concave,		Slope (%): 0
Subregion (LRR or MLRA): LRR L		Long: -81.492848	NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classif	
Are climatic / hydrologic conditions on the site typical Are Vegetation, Soil, or Hydrology _	significantly disturbed?	No (If no, explain in Are "Normal Circumstances"	Remarks.) present? Yes No
Are Vegetation, Soil, or Hydrology _	·	(If needed, explain any answ	
SUMMARY OF FINDINGS – Attach site	map showing sampling points	nt locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or		pled Area etland? Yes ✓ nnal Wetland Site ID:	No
HYDROLOGY Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; ch			il Cracks (B6)
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9)		atterns (B10) Lines (B16)
Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	1 1 '	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	oils (C6) Geomorphi	c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8) Field Observations:		FAC-Neutra	al Test (D5)
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	7		
Saturation Present? Yes No	Depth (inches):	Wetland Hydrology Prese	ent? Yes ✓ No 🗌
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring	ig well, aerial photos, previous inspect	tions), if available:	
Remarks:			
25-28 (photos)			

VEGETATION –	Use	scientific	names	of i	nlants
VEGETATION -	USE	30101111110	Hallics	OI I	viai ilo.

/EGETATION – Use scientific names of plants	S.			Sampling Point: E-2
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute	Dominant Species?		Dominance Test worksheet:
1		-		Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1.				FAC species x 3 =
2.				FACU species x 4 =
3.				UPL species x 5 =
				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7	^			✓ 2 - Dominance Test is >50%
F. 4.	0	= Total Co	ver	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft) 1. Poa sp.	60	60Y	FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Taraxacum officinale	30	30	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Plantago major	10	10	FACU	
				¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	100	= Total Co	ver	height.
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				Hydrophytic
2				Hydrophytic Vegetation
2				

Sampling Point: E-2

Depth	Matrix		Red	dox Featu	ıres		m the absence of ind	•
(inches)	Color (moist)	%	Color (moist)	%_	Type	Loc ²	<u>Texture</u>	Remarks
0-5	10YR 4/3	100	· -				silty clay	
5-12	10YR 5/2	95	10YR 6/8	5	<u>C</u>	M	silty clay	
12>	Refusal							
			-					
							. <u> </u>	
	-		-		<u> </u>		·	
		epletion, RN	N=Reduced Matrix, I	MS=Masl	ked Sand (Grains.		Pore Lining, M=Matrix.
–	Indicators:		Data da Bal	l	(00) (1			roblematic Hydric Soils ³ :
Histoso	i (A1) pipedon (A2)		Polyvalue Be		ice (S8) (L	RR R,		(A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R)
	listic (A3)		Thin Dark Su	,) (LRR R,	MLRA 149B		Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky	y Mineral	(F1) (LRR		Dark Surface	e (S7) (LRR K, L)
	ed Layers (A5)	(* ()	Loamy Gleye		(F2)			elow Surface (S8) (LRR K, L)
	ed Below Dark Surfa Park Surface (A12)	ace (A11)	Depleted Mat		-6)			urface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dar					oodplain Soils (F19) (MLRA 149B)
_	Gleyed Matrix (S4)		Redox Depre					ic (TA6) (MLRA 144A, 145, 149B)
_	Redox (S5)				-,			Material (F21)
Strippe	d Matrix (S6)						☐ Very Shallov	w Dark Surface (TF12)
Dark Su	urface (S7) (LRR R	, MLRA 149	9B)				U Other (Expla	nin in Remarks)
Indicators o	of hydrophytic vege	tation and v	vetland hydrology m	ust be pr	esent, unle	ss disturbed	d or problematic.	
	Layer (if observed		. c.i.a.i.a ii, a. c.icgy					
Type: R	ock							
Depth (ir	nches): <u>12</u>						Hydric Soil Prese	ent? Yes ✓ No 🔲
Remarks:								

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: F-1 (Wet F)
Investigator(s): DGV	Section, Township	, Range: <u>T8N R11W</u>	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR L	at: 41.559992	Long: -81.492925	NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	cation: none
Are climatic / hydrologic conditions on the site typical Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS — Attach site	significantly disturbed? naturally problematic?	Are "Normal Circumstances" (If needed, explain any answe	present? Yes No ers in Remarks.)
Hydrophytic Vegetation Present? Yes	/ No Is the Sam	pled Area	
Hydric Soil Present? Yes	No within a W	etland? Yes <u></u> ✓	No
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here or		nal Wetland Site ID:	
HYDROLOGY Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; ch	eck all that apply)	Surface Soil	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
✓ High Water Table (A2) ✓ Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)	Moss Trim L	unes (B16) Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Roots (C3) Saturation V	isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Reduction in Tilled So Thin Muck Surface (C7)	ils (C6) Geomorphic Shallow Aqu	Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	
Field Observations:	7		
Surface Water Present? Yes V No	Depth (inches): 2		
Water Table Present? Yes ✓ No	Depth (inches): 0 Depth (inches): 0	Wetland Hydrology Prese	Vaa
Saturation Present? Yes Ves No (includes capillary fringe)	Deptn (inches):	wetiand Hydrology Prese	nt? Yes <u></u>
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION –	Use	scientific names	of:	nlants
VEGETATION -	USE	Scientific Harries	, 01	pianto.

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>) 1 2 3		Dominant I Species?		Dominance Test worksheet:
2. 3.			Status	Number of Dominant Species
3				That Are OBL, FACW, or FAC: $\frac{2}{}$ (A)
				Total Number of Dominant Species Across All Strata: 2 (B)
				Opecies Across All Ottata.
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
5				That Are OBE, I AGW, OF AC (A/B)
6				Prevalence Index worksheet:
7	_			Total % Cover of: Multiply by:
	0	= Total Cove	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1				FAC species x 3 =
2				FACU species x 4 =
3				UPL species
4				Column Totals (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Cove	er	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Index is ≤3.0 ¹
1. Echinochloa muricata	25		OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carex sp.	5	5	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Poa sp.	70	70Y	FAC	The disease of booking and contained booking account
4		·		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				
9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless
				of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12	100	= Total Cove	er	height.
Woody Vine Stratum (Plot size: 30 ft)			•	
1				
2				
3.				Hydrophytic
4				Vegetation — —
·· <u> </u>	0	= Total Cove	er	Present? Yes V No No
	neet.)			

Sampling Point: F-1

		to the dep			tor or confirm	m the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	dox Features % Typ	pe ¹ Loc ²	Texture Remarks
0-5	10YR 4/1	90	10YR 5/6	10		silt clay
				<u> </u>		
	-					
			_			·
·				 ,,	<u> </u>	
-						
	-					
¹Type: C=C	oncentration, D=De	oletion RM	=Reduced Matrix	MS=Masked Sand	d Grains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil		0	. toddood Matrix, I	J=maonou Oan	. J. G. H.	Indicators for Problematic Hydric Soils ³ :
Histosol	I (A1)		Polyvalue Be	low Surface (S8)	LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149	,		Coast Prairie Redox (A16) (LRR K, L, R)
	istic (A3)			rface (S9) (LRR F		
	en Sulfide (A4) d Layers (A5)		Loamy Mucky Loamy Gleye	/ Mineral (F1) (LR	R K, L)	Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L)
	d Layers (A5) d Below Dark Surfac	ce (A11)	Depleted Mat			Thin Dark Surface (S9) (LRR K, L)
	ark Surface (A12)	50 (7111)	Redox Dark S			Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)			k Surface (F7)		Piedmont Floodplain Soils (F19) (MLRA 1498
Sandy 0	Gleyed Matrix (S4)		Redox Depre	ssions (F8)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B
	Redox (S5)					Red Parent Material (F21)
	d Matrix (S6)	MI DA 440	B)			Very Shallow Dark Surface (TF12)
Dark Su	ırface (S7) (LRR R,	WILKA 149	D)			Other (Explain in Remarks)
³ Indicators o	of hydrophytic vegeta	ation and w	etland hydrology m	ust be present, ur	nless disturbed	d or problematic.
Restrictive	Layer (if observed)			·		1
Type: Ro	ock					
Depth (in	ches): 5					Hydric Soil Present? Yes V No
Remarks:						

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	/ahoga	_ Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: F-2 (Wet F)
	Section, Townshi		
Landform (hillslope, terrace, etc.): flat	Local relief (concave	, convex, none): none	Slope (%): 0
Landform (hillslope, terrace, etc.): flat Subregion (LRR or MLRA): LRR	Lat: 41.560013	Long: -81.493062	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classit	
Are climatic / hyd <u>rolog</u> ic cond <u>itions</u> on the site typic	al for this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology _	1 1		present? Yes No
	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site			
Attach six			s, important reatures, etc.
Hydrophytic Vegetation Present? Yes		npled Area Vetland? Yes	No ✓
Hydric Soil Present? Yes Wetland Hydrology Present? Yes			
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here or		onal Wetland Site ID:	
camera #2 photos: 94-98	in a deparate report.		
Camera #2 priotos. 34-30			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required; cl	neck all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage P	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)	1 1 '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres on Living Presence of Reduced Iron (C4)		Visible on Aerial Imagery (C9) Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled S		c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	al Test (D5)
Field Observations:			
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
Saturation Present? Yes \(\bigcup \) No \(\bigcup \) (includes capillary fringe)	Depth (inches):	Wetland Hydrology Prese	ent? Yes No ✓
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, previous insper	ctions), if available:	
Remarks:			

١	/EG	ETA	TION -	- Use	scientific	names	of	plants.

/EGETATION – Use scientific names of plants	S.			Sampling Point: F-2
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute			Dominance Test worksheet:
		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)
5				That Ale OBL, FACW, of FAC.
6		· 		Prevalence Index worksheet:
7	_			Total % Cover of: Multiply by:
	0	= Total Co	/er	OBL species $\frac{0}{2}$ $x = \frac{0}{2}$
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species $\frac{0}{1}$ $\times 2 = \frac{0}{2}$
1		· 		FAC species $\frac{1}{3}$ $x = \frac{3}{12}$
2		. <u></u>		FACU species $\frac{3}{0}$ $x = 4 = \frac{12}{0}$ UPL species $\frac{0}{0}$ $x = 5 = \frac{0}{0}$
3		· - <u></u>		UPL species 0 $x = 5$ 0 (B)
4				
5				Prevalence Index = $B/A = 3.75$
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	^	= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)		_ Total 00	701	3 - Prevalence Index is ≤3.0 ¹
1. Trifolium sp.	40	40Y	FACU	4 - Morphological Adaptations (Provide supporting
2 Plantago major	10	10	FACU	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
3. Poa sp.	25	25Y	FAC	- 1 robicinatio riyarophytio vegetation (Explain)
4. Festuca sp.		25Y	FACU	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6	_			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7		· 		at breast height (DBH), regardless of height.
8		· 		Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11		. 		of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	100	= Total Co	/er	height.
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
				Hydrophytic
				Vegetation
3				vegetation
3		= Total Co		Present? Yes No V

Sampling Point: F-2

Profile Desc	ription: (Describe	to the dep	th needed to docun	nent the in	dicator	or confirm	n the absence of indicators.)	\Box
Depth	Matrix			K Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u></u> %	Type ¹	Loc ²	Texture Remarks	-
0-4	10YR 4/3	100					silt loam	
								•
								-
							<u> </u>	_
							-	
		·						-
								_
	-							-
								_
							· 	-
								-
	-						· 	-
								-
1Type: C-C	noontration D_Don	lotion DM		-Maakad	Sand Cr		² Location: PL=Pore Lining, M=Matrix.	-
Hydric Soil I		ielion, Kivi:	Reduced Matrix, Mc	=iviaskeu	Sand Gr	ali 15.	Indicators for Problematic Hydric Soils ³ :	\dashv
ė.			Polyvalue Belov	, Curtoso /	CO) /I DI	. D	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histosol	oipedon (A2)		MLRA 149B)	,	36) (LKI	κκ,	Coast Prairie Redox (A16) (LRR K, L, MLRA 149B)	
Black Hi			Thin Dark Surfa		DD D MI	PA 1/0R		
	n Sulfide (A4)		Loamy Mucky M				Dark Surface (S7) (LRR K, L)	
	Layers (A5)		Loamy Gleyed N			, =/	Polyvalue Below Surface (S8) (LRR K, L)	
	Below Dark Surface	e (A11)	Depleted Matrix				Thin Dark Surface (S9) (LRR K, L)	
=	ark Surface (A12)	. (,)	Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)	
	lucky Mineral (S1)		Depleted Dark S	. ,	7)		Piedmont Floodplain Soils (F19) (MLRA 149B	
	leyed Matrix (S4)		Redox Depressi		,		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5)			(, ,			Red Parent Material (F21)	
	Matrix (S6)						Very Shallow Dark Surface (TF12)	
	rface (S7) (LRR R, N	ILRA 149E	3)				Other (Explain in Remarks)	
	,		,					
³ Indicators of	hydrophytic vegetat	ion and we	tland hydrology mus	t be presei	nt, unless	disturbed	d or problematic.	
Restrictive L	ayer (if observed):			· ·			T	\neg
Type: Ro	ck							
							Hydric Soil Present? Yes No✓	
Depth (inc	ches): _'						Tryunc 3011 resent: Tes No _F_	
Remarks:								

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: G-1 (Wet G)
	Section, Township		
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
			Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	
Are climatic / hydrologic conditions on the site typ	ica <u>l for</u> this time of year? Yes	No (If no, explain in I	Remarks.)
		Are "Normal Circumstances"	present? Yes No
		(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach si			
Attach 3			s, important reatures, etc.
Hydrophytic Vegetation Present? Yes _	✓ No Is the Sam within a W	pled Area] No 🗌
Hydric Soil Present? Yes			
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here		onal Wetland Site ID:	
remaine. (Explain alternative procedures here	or in a separate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soi	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim I	_ines (B16)
Saturation (A3)	Marl Deposits (B15)	I I '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	· · ·	/isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	·	Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8) Field Observations:		FAC-Neutra	.i Test (D3)
Surface Water Present? Yes Ves No	Depth (inches): 1		
Water Table Present? Yes ✓ No	Depth (inches): 8		
Saturation Present? Yes Vo	Depth (inches): 0	Wetland Hydrology Prese	nt? Yes 🔽 No 🔲
(includes capillary fringe) Describe Recorded Data (stream gauge, monito	ring well aerial photos, previous inspec	tions) if available:	
Describe Necorded Data (stream gauge, monito	ing well, aeriai priotos, previous inspec	ilons), ii avaliable.	
Remarks:			

	/E 0 E T 4 T I 0				
١	VEGETATIO	N – Use	scientific	names	of plants.

	5.			Sampling Point: G-1
Tree Stratum (Plot size: 30 ft)		Species?	Status	Dominance Test worksheet: Number of Dominant Species
1				That Are OBL, FACW, or FAC: $\frac{3}{}$ (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Percent of Dominant Species That Are ORL FACW or FAC: 100
5				That Are OBL, FACW, or FAC: 100 (A/B)
6	_	· 		Prevalence Index worksheet:
7		· 		Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1				FAC species x 3 =
2		. 		FACU species x 4 =
3		· ·		UPL species x 5 = Column Totals: (A) (B)
4				Column Totals (A) (B)
5.				Prevalence Index = B/A =
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	^	= Total Cov	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)		_ 10ta100	•••	3 - Prevalence Index is ≤3.0¹
1. Carex sp.	15	17.6Y	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Eleocharis sp.	30	35.3Y	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Echinochloa crus-galli	40	47.1Y	FAC	The disease of the delice of the design of the design of the delice of t
4		· <u></u>		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				
9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
12.	85	= Total Co		height.
Woody Vine Stratum (Plot size: 30 ft)		= Total Co	vei	
vvoody vine Stratum (Plot Size)				
4				
1				
2				
2. 3.				Hydrophytic Vegetation — —
2.				Hydrophytic Vegetation Present? Yes ✓ No ☐

Sampling Point: G-1

Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type¹ Loc² Texture Remarks	Type 1 Log2 Toyture Pe		2	v Enaturo	Dada			Destile
		Loc ²				%		
0-6 10YR 4/2 100 silty clay	silty clay		Турс		Color (moist)	100	10YR 4/2	0-6
6-12 10YR 5/2 50 10YR 5/8 20 C M silty clay	M silty clay	М	С	20	10YR 5/8	50	10YR 5/2	6-12
10YR 3/2 30						30	10YR 3/2	
						_	-	
						_		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.	and Grains. ² Location: PL=Pore Lining	ains.	Sand G	=Masked	/=Reduced Matrix. MS	oletion. RN	Concentration. D=De	¹ Type: C=C
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :	Indicators for Problematic					,	Indicators:	Hydric Soil
Histosol (A1)		R R,	(S8) (LR				, ,	
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	R R, MLRA 149B) 📙 5 cm Mucky Peat or Pea			ce (S9) (L	Thin Dark Surfa		listic (A3)	Black H
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L)	·	(, L)						
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)	_ '		,			ce (A11)	ed Below Dark Surface	Deplete
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149)			:7)	, ,	_		, ,	
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149E			',				• , ,	
Sandy Redox (S5) Stripped Matrix (S6) Red Parent Material (F21) Very Shallow Dark Surface (TF12)								
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)					9B)	MLRA 149	, ,	
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	t, unless disturbed or problematic.	s disturbed	ent, unles	t be prese	vetland hydrology mus	ation and v	of hydrophytic vegeta	³ Indicators o
Restrictive Layer (if observed):						:	Layer (if observed)	
Type: Depth (inches): Hydric Soil Present? Yes V No V	Hydric Soil Present? Vos							
Depth (inches): Hydric Soil Present? Yes _ ✓ No Remarks:	nyunc son Fresent: Tes						nches):	
Ivernains.								Nemarks.

Project/Site: Cuyahoga County Airport	City/County: Cuy	ahoga	_ Sampling Date: 4/30/2013
Applicant/Owner: Mead & Hunt			Sampling Point: G-1a(Wet G)
Investigator(s): CMM/ANB	Section, Township	o, Range: T8N R11W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	, convex, none): concave	Slope (%): 1
Subregion (LRR or MLRA): LRR	Lat: 41.559393	Long: <u>-81.491519</u>	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typ Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS - Attach si	significantly disturbed? naturally problematic?	No (If no, explain in I Are "Normal Circumstances" (If needed, explain any answe	Remarks.) present? Yes No ers in Remarks.)
Hydrophytic Vegetation Present? Yes _	No Is the Sam	ipled Area] No 🗌
Hydric Soil Present? Yes _	 		No <u></u> _
Wetland Hydrology Present? Yes _		onal Wetland Site ID:	
Remarks: (Explain alternative procedures here photos 34-38 C1	or in a separate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required: ✓ Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations:	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Roots (C3) Roots (C6) Drainage Pa Moss Trim L Dry-Season Crayfish Bu Saturation \ Stunted or S Geomorphic Shallow Aqu	n Water Table (C2) Irrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) C Position (D2) uitard (D3) raphic Relief (D4)
Surface Water Present? Yes Vo No			
	Depth (inches): Office	Wetland Hydrology Prese	nt? Yes <u>V</u> No <u> </u>
Describe Recorded Data (stream gauge, monito Remarks:	ring well, aerial photos, previous inspec	tions), if available:	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monito	Depth (inches): 3 in. Depth (inches): 6 in. Depth (inches): 0 in. Pring well, aerial photos, previous inspect	Wetland Hydrology Prese	

VEGETATION -	مءا ا	scientific	namae	of n	lante
VEGETATION -	use	scientific	names	OI D	เลทเร.

/EGETATION – Use scientific names of plants.				Sampling Point: G-1a
<u>Tree Stratum</u> (Plot size: 30 ft	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species That Are ORL FACW or FAC: 100
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7	_			Total % Cover of: Multiply by:
45.6	0	= Total Cov	/er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1				FAC species x 3 = FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is >50%
	0	= Total Cov	/er	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft)				4 - Morphological Adaptations ¹ (Provide supporting
1. Typha angustifolia	50	52.6Y	OBL	data in Remarks or on a separate sheet)
2. Phragmites australis	30	31.6Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Echinochloa sp.	15	15.8	OBL	¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in height.
	95	= Total Cov	/er	noight.
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3				Hydrophytic
4				Present? Yes V No No
	0	= Total Cov	/er	
4Remarks: (Include photo numbers here or on a separate s	0	= Total Cov	ver	Vegetation Present? Yes ✓ No

Sampling Point: G-1a

Depth	Matrix			x Feature		. 2	- .
(inches)	Color (moist)	400	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-6	10YR 4/2	100					Muck
6-12	10YR 4/1	90	10YR 6/6	10	<u>C</u>	<u>M</u>	Muck
		_			_		. ———
			<u></u>				
¹ Type: C=C	oncentration, D=Dep	oletion, RN	M=Reduced Matrix, M	S=Maske	d Sand G	rains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil		•					Indicators for Problematic Hydric Soils ³ :
Histosol	, ,		Polyvalue Belo		e (S8) (LR	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2) istic (A3)		MLRA 149B Thin Dark Surfa	,	(IDDD N	II D A 140D	Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky				Dark Surface (S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed			, ,	Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac	ce (A11)	Depleted Matri				Thin Dark Surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Su				Iron-Manganese Masses (F12) (LRR K, L, R)
_	Mucky Mineral (S1) Bleyed Matrix (S4)		Depleted Dark Redox Depress				Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)		Redox Depless	sions (1 o)	'		Red Parent Material (F21)
	Matrix (S6)						Very Shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R,	MLRA 149	B)				Other (Explain in Remarks)
³ Indicators o	f hydrophytic yeaets	ation and v	vetland hydrology mu	et ha nras	ent unles	se dieturhed	d or problematic
	Layer (if observed)		vettaria riyarology ma	ot be pres	Joint, unioc	33 disturbed	d of problematic.
Type:							
Depth (in	ches):						Hydric Soil Present? Yes ✓ No ☐
Remarks:	,						

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	_ Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: G-1b (Wet G)
	Section, Township		
Landform (hillslope, terrace, etc.): depression	Local relief (concave,		Slope (%): 0
Subregion (LRR or MLRA): LRR	1 at: 41.560792	Long: -81.489555	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	
Are climatic / hydrologic conditions on the site typic	al for this time of year? Yes V	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology _	1 1	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology _	naturally problematic? ((If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site	map showing sampling poi	nt locations, transect:	s, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	✓ No Is the Sam within a Wo	pled Area etland? Yes <u>√</u>	
Wetland Hydrology Present? Yes		onal Wetland Site ID:	
Remarks: (Explain alternative procedures here or	in a separate report.)		
photos: 44-48 camera #2			
LIVEROL COV			
HYDROLOGY Wetland Hydrology Indicators:		Secondary Indic	otors (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; cl	hook all that anniv)		ators (minimum of two required) I Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim I	
Saturation (A3)	Marl Deposits (B15)		Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	· · ·
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	Roots (C3) Saturation \	/isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	· · ·	Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	· ·
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	FAC-Neutra	raphic Relief (D4)
Field Observations:		I AO NOGIO	ii Test (Do)
Surface Water Present? Yes Ves No	Depth (inches): 3.0	ı	
Water Table Present? Yes V	Depth (inches): 8.0	r	
Saturation Present? Yes Ves No	Depth (inches): 0	Wetland Hydrology Prese	nt? Yes 🔽 No 🔲
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring)	na wall sarial nhotos, previous inspec	tions) if available:	
Describe Necolded Data (Stream gauge, montest	Ig Well, aetiai pilotos, pievious iliopeet	10115), ii avaiiabie.	
Remarks:			

/EGETATION – Use scientific names of plants	S .			Sampling Point: G-1b
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
5.				Durantama a la dan mantah a st
7.				Prevalence Index worksheet:
	0	= Total Cov		OBL species x1 =
Sapling/Shrub Stratum (Plot size: 15 ft)		_ 1010100		FACW species x 2 =
				FAC species x 3 =
l				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
l				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
7	0			2 - Dominance Test is >50%
T. 4.	0	= Total Co	/er	3 - Prevalence Index is ≤3.0¹
<u>Herb Stratum</u> (Plot size: 5 ft) 1. Eleocharis sp.	50	38.5Y	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Carex sp.	30	23.1	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Poa sp.	50	38.5Y	FAC	
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5.				Definitions of Vegetation Strata:
3				
7.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
3				Sapling/shrub – Woody plants less than 3 in. DBH
).				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
	130	= Total Cov	/er	height.
Noody Vine Stratum (Plot size: 30 ft)				
1				
2				
3	_			Hydrophytic Vegetation
				Present? Yes V No
4.	0	= Total Co		Tresent: Tes Till No

Sampling Point: G-1b

Depth	Matrix			dox Feature	es			,
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	10YR 5/1	80	10YR 6/8	15	C	M	silty clay	oxidized roots
	10YR 3/1	5						
		_						
					- -			
		_				<u> </u>		
		pletion, RN	M=Reduced Matrix, I	MS=Maske	d Sand G	rains.		n: PL=Pore Lining, M=Matrix.
Hydric Soil					(00) (1-			for Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)		Polyvalue Be		e (S8) (LF	RR R,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
	stic (A3)		Thin Dark Su	,	LRR R, N	/ILRA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky	/ Mineral (F	1) (LRR		Dark S	Surface (S7) (LRR K, L)
	d Layers (A5)	(Δ44)	Loamy Gleye		2)			alue Below Surface (S8) (LRR K, L)
	d Below Dark Surfa ark Surface (A12)	ce (A11)	Depleted Mat)			Park Surface (S9) (LRR K, L) Janganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dar	•	•			ont Floodplain Soils (F19) (MLRA 149B)
Sandy C	Bleyed Matrix (S4)		Redox Depre				Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)							arent Material (F21)
	l Matrix (S6) rface (S7) (LRR R,	MI DA 140	iB)					Shallow Dark Surface (TF12) (Explain in Remarks)
Daik Su	nace (57) (ERR R,	WENA 148	,D)				<u> </u>	(Explain in Remarks)
			vetland hydrology m	ust be pres	ent, unle	ss disturbed	d or problemation	5.
Restrictive	Layer (if observed):						
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes 🗸 No 📗
Remarks:								

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	_ Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			Sampling Point: H-1 (Wet H)
Investigator(s): DGV	Section, Township	, Range: T8N R11W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): none	Slope (%): 0
Subregion (LRR or MLRA): LRR La	_{at:} 41.562664	Long: -81.488415	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classif	
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes 1	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	I		present? Yes No
Are Vegetation, Soil, or Hydrology		(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site		nt locations, transect	s. important features, etc.
			-, -
Hydrophytic Vegetation Present? Yes	No Is the Sam within a W	etland? Yes	No 🗌
Hydric Soil Present? Yes ✓ Wetland Hydrology Present? Yes ✓	 	nal Wetland Site ID:	
Remarks: (Explain alternative procedures here or in		riai Weliand Site ID	
photos 131-135	,		
priotoc for rec			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; che	ck all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim	
Saturation (A3)	Marl Deposits (B15)	·	Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I	Crayfish Bu	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc		c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopog	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	al Test (D5)
Field Observations:			
Surface Water Present? Yes No V	Depth (inches):		
Water Table Present? Yes No V	Depth (inches):		
Saturation Present? Yes <u> </u> ✓ No (includes capillary fringe)	Depth (inches): 2	Wetland Hydrology Prese	ent? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION -	مءا ا	scientific	namae	of n	lante
VEGETATION -	use	scientific	names	OI D	เลทเร.

Status Number St	ominance Test worksheet: umber of Dominant Species hat Are OBL, FACW, or FAC: otal Number of Dominant pecies Across All Strata: ercent of Dominant Species hat Are OBL, FACW, or FAC: otal Number of Dominant pecies Across All Strata: ercent of Dominant Species hat Are OBL, FACW, or FAC: Total % Cover of: Multiply by: BL species x 1 = ACW species x 2 = AC species x 3 = ACU species x 4 = PL species ydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) andicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. efinitions of Vegetation Strata:
Cover FACW OBL 1 Ir be De	that Are OBL, FACW, or FAC: 2 (A) otal Number of Dominant pecies Across All Strata: 2 (B) ercent of Dominant Species hat Are OBL, FACW, or FAC: 100 (A/B) revalence Index worksheet: Total % Cover of: Multiply by: BL species X1 = ACW species X2 = ACW species X3 = ACU species X4 = PL species X5 = Olumn Totals: (A) (B) Prevalence Index = B/A = ydrophytic Vegetation 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Sp	ercent of Dominant Species hat Are OBL, FACW, or FAC: Total % Cover of: BL species ACW species ACU species ACU species PL species Indian Totals: Indian Totals: Indian Maltiply by: Indian
Pe Tr Pr Pr Pr Pr Pr Pr Pr	ercent of Dominant Species hat Are OBL, FACW, or FAC: Total % Cover of: BL species ACW species ACU specie
Cover OI FACW OBL 1Ir be Tr	hat Are OBL, FACW, or FAC: 100 (A/B) revalence Index worksheet: Total % Cover of: Multiply by: BL species
Cover OI FACW OBL Tr	revalence Index worksheet: Total % Cover of: Multiply by: BL species
Cover OI FA FA UI Cover FACW OBL Tr	Total % Cover of: BL species
Cover OI FA FA UI Cover FACW OBL Ilr be Tr	BL species
FACW OBL 1 Ir be Tr	ACW species x 2 =
FACW OBL 1 Ir be Tr	AC species x 3 =
Cover FACW OBL Itrope Tr	ACU species x 4 =
Cover FACW OBL Itrope Tr	PL species x 5 =
Cover FACW OBL In the period of the period	olumn Totals:(A)(B) Prevalence Index = B/A = ydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACW OBL In the part of the p	ydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ndicators of hydric soil and wetland hydrology must e present, unless disturbed or problematic.
Cover Hy FACW OBL Irr be Tr	ydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ndicators of hydric soil and wetland hydrology must e present, unless disturbed or problematic.
Cover FACW OBL In the part of the part o	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACW OBL 1Ir be Tr	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACW OBL 1Ir be Tr	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
OBL 11 be De Tr	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 Ir be	Problematic Hydrophytic Vegetation ¹ (Explain) ndicators of hydric soil and wetland hydrology must e present, unless disturbed or problematic.
	ndicators of hydric soil and wetland hydrology must e present, unless disturbed or problematic.
	e present, unless disturbed or problematic.
De	
Tr	efinitions of Vegetation Strata:
Ir	
aı	ree – Woody plants 3 in. (7.6 cm) or more in diameter threast height (DBH), regardless of height.
- 3	apling/shrub – Woody plants less than 3 in. DBH nd greater than or equal to 3.28 ft (1 m) tall.
	erb – All herbaceous (non-woody) plants, regardless
	f size, and woody plants less than 3.28 ft tall.
w	loody vines – All woody vines greater than 3.28 ft in
Cover	eight.
	ydrophytic
Ve	egetation — —
	resent? Yes ✓ No
]	
	Cover H

Sampling Point: H-1

Profile Desc	ription: (Describe	to the de	oth needed to docu	ment the	indicator	or confirm	n the absence of indicators.)		
Depth	Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-2	10YR 4/2	100					silty clay		
2-4	10YR 4/2	70	10YR 5/8	30	C	<u>M</u>	silty clay		
				_					
¹Type: C=C		letion RM	=Reduced Matrix, M	S-Maske	d Sand Gr		2Location: PL=Pore Lining, M=Matrix.		
Hydric Soil		netion, ixiv	=iteaucea mainx, m	0-Maske	u Sanu Gi	allis.	Indicators for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Belo MLRA 149B		e (S8) (LR	R R,	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)		
Hydroge	stic (A3) en Sulfide (A4)		Thin Dark Surfa	Mineral (F	1) (LRR k		Dark Surface (S7) (LRR K, L)		
	d Layers (A5) d Below Dark Surfac	ρ(Δ11)	Loamy Gleyed Depleted Matri		2)		Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)		
=	ark Surface (A12)	e (ATT)	Redox Dark Su)		Iron-Manganese Masses (F12) (LRR K, L, R)		
	Mucky Mineral (S1)		Depleted Dark	, ,			Piedmont Floodplain Soils (F19) (MLRA 149B)		
	Gleyed Matrix (S4)		Redox Depress	sions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
	Redox (S5)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)		
	l Matrix (S6) rface (S7) (LRR R, N	MLRA 149	B)				Other (Explain in Remarks)		
	f hydrophytic vegeta Layer (if observed):		etland hydrology mu	st be pres	ent, unles	s disturbed	d or problematic.		
Type:	Layer (ii observea).	•							
Depth (inc	ches):		<u> </u>				Hydric Soil Present? Yes No		
Remarks:									

Project/Site: Cuyahoga Co. Airport	City/C	County: Cuyahoga		Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt				Sampling Point: H-2 (Wet H)
Investigator(s): DGV	Section	on, Township, Range: \overline{T}	8N R10W	
Landform (hillslope, terrace, etc.): flat	Local rel	ief (concave, convex, nor	ne): none	Slope (%): 1
Subregion (LRR or MLRA): LRR	Lat: 41.562500	Long: <u>-81</u>	.488235	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam			NWI classific	
Are climatic / hydrologic conditions on the sit	e typical for this time of year? Y	′es	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydr			l Circumstances"	present? Yes No
	ology naturally problema		explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attac			ons transects	important features etc
			, iranoodi	, important routures, stor
, , , ,	es V No No	Is the Sampled Area within a Wetland?	Vas	No 🗸
*	res No ✓			
Wetland Hydrology Present? Remarks: (Explain alternative procedures		If yes, optional Wetland	Site ID:	
Tremano. (Explain alternative procedures	note of in a separate report.)			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is requ	ired; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	Water-Stained Leave	es (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim L	
Saturation (A3)	Marl Deposits (B15)		1 1 '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od		Crayfish Bur	
Sediment Deposits (B2)	Presence of Reduced	es on Living Roots (C3)	1 1	fisible on Aerial Imagery (C9) Stressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4)	Recent Iron Reduction			Position (D2)
Iron Deposits (B5)	Thin Muck Surface (0	, ,	Shallow Aqu	` ,
Inundation Visible on Aerial Imagery (E	1 1		1 1	aphic Relief (D4)
Sparsely Vegetated Concave Surface	, , ,	,	FAC-Neutra	
Field Observations:				
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present? Yes (includes capillary fringe)	No Depth (inches):	Wetland H	Hydrology Prese	nt? Yes No ✓
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, pre	evious inspections), if ava	ailable:	
Remarks:				
1				

VEGETATION -	Use	scientific	names	of	plants.

/EGETATION – Use scientific names of plants	i.			Sampling Point: H-2
Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1	_			Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2 3				Total Number of Dominant Species Across All Strata: 1 (B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
5				Prevalence Index worksheet:
		= Total Cov		
Sapling/Shrub Stratum (Plot size: 15 ft)		_ Total 00	701	FACW species x 2 =
				FAC species x 3 =
l				FACU species x 4 =
2				UPL species x 5 =
3.				Column Totals: (A) (B)
l 5				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
•	0	Total Co		√ 2 - Dominance Test is >50%
5 ft		= Total Co	/ei	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft) Poa sp.	85	85Y	FAC	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. Taraxacum officinale	15	15	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3.				
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		·		Definitions of Vegetation Strata:
6		·		Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
3				Sapling/shrub – Woody plants less than 3 in. DBH
9		· 		and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
l1		· 		of size, and woody plants less than 3.28 ft tall.
12	100			Woody vines – All woody vines greater than 3.28 ft in height.
	100	= Total Co	/er	
Noody Vine Stratum (Plot size: 30 ft)				
l		· 	-	
2		· 		
				Hydrophytic
3				Vegetation
3 4	0	· 		Present? Yes ✓ No

Sampling Point: H-2

		to the de				or confirm	n the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	<u>Features</u> %	Type ¹	Loc ²	Texture Remarks
0-8	10YR 4/3	100	Color (moist)		_туре	LOC	silt loam
	101111110						
	_						
1 _{Type:} 0.0	oncontrotion D D	lotion DIA		Maalia			² Location: PL=Pore Lining, M=Matrix.
Hydric Soil		letion, Rivi	=Reduced Matrix, MS	=iviasked	Sand Gr	ains.	Indicators for Problematic Hydric Soils ³ :
Histosol			Polyvalue Below	/ Surface	(S8) (LRI	RR.	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B)		(00) (=:::	,	Coast Prairie Redox (A16) (LRR K, L, R)
	istic (A3)		Thin Dark Surfa	ce (S9) (L	RR R, M	LRA 149B	
	en Sulfide (A4)		Loamy Mucky M			, L)	Dark Surface (S7) (LRR K, L)
	d Layers (A5)	o (A11)	Loamy Gleyed N)		Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surface ark Surface (A12)	e (ATT)	Depleted Matrix Redox Dark Sur				Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark S	, ,			Piedmont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depressi	•	-,		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy F	Redox (S5)		_				Red Parent Material (F21)
	d Matrix (S6)						Very Shallow Dark Surface (TF12)
Dark Su	ırface (S7) (LRR R, N	ILRA 149	B)				Other (Explain in Remarks)
³ Indicators o	f hydrophytic vegetat	ion and w	etland hydrology mus	t be prese	ent. unless	s disturbed	or problematic
	Layer (if observed):		onana nyarology mao	. DO P.000	Jiit, aimoot	, alotai boa	i di problematio.
Type:	,						
	ches):						Hydric Soil Present? Yes No✓
Remarks:							
rtomanto.							

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	_ Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			Sampling Point: I-1 (Wet I)
Investigator(s): CMM	Section, Township,	, Range: T8N R10W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR Lat: 41.	562785	Long: -81.486430	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classif	ication: none
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes N	lo (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrologys			present? Yes No
Are Vegetation, Soil, or Hydrologyn		If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map		nt locations, transect	s, important features, etc.
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Is the Samp	oled Area etland? Yes ✓	
		nal Wetland Site ID:	<u> </u>
Remarks: (Explain alternative procedures here or in a sep		nai vvetiana otto ib.	-
Use same upland pt as wet J			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; check all t			il Cracks (B6)
	er-Stained Leaves (B9)		atterns (B10)
	atic Fauna (B13) I Deposits (B15)	Moss Trim	n Water Table (C2)
	rogen Sulfide Odor (C1)	Crayfish Bu	
	dized Rhizospheres on Living F	I I '	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	sence of Reduced Iron (C4)	Stunted or	Stressed Plants (D1)
	ent Iron Reduction in Tilled So	ils (C6) Geomorphi	c Position (D2)
	Muck Surface (C7)	Shallow Aq	
	er (Explain in Remarks)		raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8) Field Observations:		☐ FAC-Neutra	al lest (D5)
	oth (inches):		
· ·	oth (inches): 6		
	oth (inches): 0	Wetland Hydrology Prese	ent? Yes 🗸 No 🗌
(includes capillary fringe)	,		
Describe Recorded Data (stream gauge, monitoring well, a	aeriai pnotos, previous inspect	ions), if available:	
Remarks:			

١	/FG	FT	MOITA	– Use	scientific	names	of	nlants
٦	<i>,</i> _ G	· L I /		_ 036	SCICITUIL	Hallics	OI.	viai ilo.

cover FAC FACW FACW OBL FAC	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species FACW species FAC species FAC species FACU species Y 4 = UPL species Column Totals: A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Y 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportind data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Cover FAC FACW FACW OBL	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species FACW species FAC species FAC species FACU species Y 4 = UPL species V 5 = Column Totals: A
Cover FAC FACW FACW OBL	Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/E) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species
Cover FAC FACW FACW OBL	Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL species x5 = Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Cover FAC FACW FACW OBL	That Are OBL, FACW, or FAC: 100 (A/B Prevalence Index worksheet:
Cover FAC FACW FACW OBL	That Are OBL, FACW, or FAC: 100 (A/B Prevalence Index worksheet:
Cover FAC FACW FACW OBL	Total % Cover of: Multiply by:
Cover FAC FACW FACW OBL	Total % Cover of: Multiply by:
FAC FACW OBL	OBL species
FAC FACW OBL	FACW species
FAC FACW OBL	FAC species
FAC FACW OBL	FACU species x 4 =
FAC FACW OBL	Column Totals:
FAC FACW OBL	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FAC FACW OBL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FAC FACW OBL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FAC FACW OBL	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACW FACW OBL	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACW FACW OBL	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACW FACW OBL	4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACW FACW OBL	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACW OBL	
OBL	
	Indicators of hydric soil and wetland hydrology must
FAC	be present, unless disturbed or problematic.
	Definitions of Vegetation Strata:
	 Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
	- Sapling/shrub – Woody plants less than 3 in. DBH
	and greater than or equal to 3.28 ft (1 m) tall.
	Herb – All herbaceous (non-woody) plants, regardless
	of size, and woody plants less than 3.28 ft tall.
_	Woody vines – All woody vines greater than 3.28 ft in
`over	height.
,0vCi	
	-
	-
	- Hydrophytic
	Present? Yes V No No
Cover	
	over

Sampling Point: I-1

Depth	Matrix			dox Featur		. 2			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-2	10YR 4/2	100					sandy silt	rocky	
2-6	10YR 5/2	85	10YR 5/8	15	C	М			
6>	Rock								
					_				
			-					-	
Tunc: 0.0	Concentration D. D.	onlotion Da	4-Podusod Matrice	MC- M!		roins	21 0004	DI Doro Lining M Mateir	
	indicators:	spielion, Kiv	/I=Reduced Matrix, I	ivio=iviasK6	su sana G	ordins.	Indicators	n: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils	3:
Histoso			Polyvalue Be	low Surfac	e (S8) (L I	RR R.		Muck (A10) (LRR K, L, MLRA 1	
_	pipedon (A2)		MLRA 149		- ()(,		Prairie Redox (A16) (LRR K, L	
_	listic (A3)		Thin Dark Su					Mucky Peat or Peat (S3) (LRR	K, L, R)
	en Sulfide (A4)		Loamy Mucky			K , L)		Surface (S7) (LRR K, L)	K 1)
	ed Layers (A5) ed Below Dark Surfa	ace (A11)	Loamy Gleye ✓ Depleted Mat		2)			alue Below Surface (S8) (LRR I Dark Surface (S9) (LRR K, L)	K, L)
	Park Surface (A12)	<i>(A11)</i>	Redox Dark S		3)			langanese Masses (F12) (LRR	K, L, R)
	Mucky Mineral (S1)		Depleted Dar					ont Floodplain Soils (F19) (ML I	
_	Gleyed Matrix (S4)		Redox Depre	ssions (F8	.)			Spodic (TA6) (MLRA 144A, 14	I5, 149B)
_	Redox (S5)							arent Material (F21)	
_	d Matrix (S6) urface (S7) (LRR R	MI DA 140	ıR)					Shallow Dark Surface (TF12) (Explain in Remarks)	
	anace (or) (ERR R	, WEICH 143	5)				<u> </u>	(Explain in Romano)	
			vetland hydrology m	ust be pre	sent, unle	ss disturbed	d or problemation	C.	
	Layer (if observed	i):							
Type: R	ock								
Depth (in	nches): <u>6</u>						Hydric Soil	Present? Yes 🔽 No	
Remarks:									

	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			Sampling Point: J-1 (Wet J)
Investigator(s): CMM	Section, Township	, Range: T8N R10W	
Landform (hillslope, terrace, etc.): flat	Local relief (concave,	convex, none): none	Slope (%): 1
Subregion (LRR or MLRA): LRR L	at: 41.562996	Long: -81.486265	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classif	cation: none
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes 1	No (If no, explain in l	Remarks.)
Are Vegetation, Soil, or Hydrology _	l .	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology _	1	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site			
			, , , , , , , , , , , , , , , , , , , ,
Hydrophytic Vegetation Present? Yes V	No Is the Sam within a W	etland? Yes	No 🗌
Hydric Soil Present? Yes Wetland Hydrology Present? Yes ✓	 	nal Wetland Site ID:	<u> </u>
Remarks: (Explain alternative procedures here or i		iliai Weliailu Sile ID.	
Upland- 10YR 4/3 100%	, ,		
Poa sp. & dandelion			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soi	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim I	
Saturation (A3)	Marl Deposits (B15)		Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres on Living Presence of Reduced Iron (C4)	· ·	/isible on Aerial Imagery (C9) Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	· ·
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	l Test (D5)
Field Observations:	1		
Surface Water Present? Yes No V	Depth (inches):		
Water Table Present? Yes No ✓	Depth (inches):		
Saturation Present? Yes V No (includes capillary fringe)	Depth (inches): 3	Wetland Hydrology Prese	nt? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspec	tions), if available:	
Remarks:			

١	/FG	FT	MOITA	– Use	scientific	names	of	nlants
٦	<i>,</i> _ G	· L I /		_ 036	SCICITUIL	Hallics	OI.	viai ilo.

/EGETATION – Use scientific names of	of plants.			Sampling Point: J-1
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute <u>% Cover</u>	Dominant Species?	t Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7	_			Total % Cover of: Multiply by:
		_ = Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)			FACW species x 2 = FAC species x 3 =
1				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	_ = Total Co	ver	✓ 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Index is ≤3.0¹
_{1.} Poa sp.	40	32Y	FAC	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
2. Carex sp.	40	32Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Lysimachia nummularia	15	12	FACW	
4. Eleocharis palustris	20	16	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Alopecurus pratensis	10	8	FAC	Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10		•		Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
	125	= Total Co	ver	height.
Woody Vine Stratum (Plot size: 30 ft		_ = 10tai 00	VOI	
	<i>,</i>			
1				
2			. ———	
3				Hydrophytic Vegetation
4	0		-	Present? Yes ✓ No
		_ = Total Co	ver	
Remarks: (Include photo numbers here or on a				
(same vegetation as Wetland K)				

Sampling Point: <u>J-1</u>

(inches)	Matrix			dox Featur		. ,		
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-2.5	10YR 4/2	100					silty loam	
2.5-7	10YR 4/2	70	10YR 5/6	30	<u>C</u>	<u>M</u>		
ype: C=C	Concentration, D=De	epletion, RN	л=Reduced Matrix, I	MS=Maske	ed Sand C	Frains.		Pore Lining, M=Matrix. oblematic Hydric Soils³:
Black H Hydrog Stratifie Deplete Thick D Sandy Sandy Sandy Strippe	ol (A1) Epipedon (A2) Histic (A3) Igen Sulfide (A4) Igen Sulfide (A4) Igen Sulfide (A5) Igen Below Dark Surfa Igen Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) Igen Matrix (S6)		Polyvalue Bel MLRA 149 Thin Dark Sul Loamy Mucky Loamy Gleye Depleted Mat Redox Dark S Depleted Dari Redox Depres	B) rface (S9) r Mineral (I d Matrix (F rix (F3) Gurface (F6 k Surface	(LRR R, I F1) (LRR F2) 6) (F7)	VILRA 149B	Coast Prairie 5 cm Mucky F Dark Surface Polyvalue Be Thin Dark Su Iron-Mangane Piedmont Flo Mesic Spodic Red Parent M Very Shallow	A10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) (S7) (LRR K, L) Ilow Surface (S8) (LRR K, L) Iface (S9) (LRR K, L) Pese Masses (F12) (LRR K, L, R) Odplain Soils (F19) (MLRA 149B) If (TA6) (MLRA 144A, 145, 149B) If (TA6) (MLRA 144A, 145, 149B) In in Remarks)
			vetland hydrology m	ust be pre	sent, unle	ss disturbed	d or problematic.	
	Layer (if observed	d):						
Type:								
Depth (in	nches):						Hydric Soil Prese	nt? Yes <u>√</u> No <u> </u>
Remarks:								

Project/Site: Cuyahoga Co. Airport	City/C	County: Cuyahoga		Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt				Sampling Point: K-1a (Wet K)
CNANA/AND/IZANA/	Section	on, Township, Range: T8N	R10W	
Landform (hillslope, terrace, etc.): depres	ssion Local rel	ief (concave, convex, none)	concave	Slope (%): 0
				Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loar	m		_ NWI classificat	tion: none
Are climatic / hydrologic conditions on the	site typical for this time of year? Y	res No (If r	no, explain in Rer	marks.)
Are Vegetation, Soil, or Hy	drology significantly distur	bed? Are "Normal Ci	rcumstances" pre	esent? Yes No
Are Vegetation, Soil, or Hy	drology naturally problemate	atic? (If needed, exp	lain any answers	in Remarks.)
SUMMARY OF FINDINGS - Atta	ach site map showing san	npling point locations	s. transects.	important features, etc.
				,
Hydrophytic Vegetation Present?	Yes V No	Is the Sampled Area within a Wetland?	Yes 🗸	No
Hydric Soil Present? Wetland Hydrology Present?	Yes ✓ No No	If yes, optional Wetland Si		
Remarks: (Explain alternative procedure		ii yes, optioriai wetiana si	le ID	
	,			
HYDROLOGY				
Wetland Hydrology Indicators:		<u>Se</u>	econdary Indicato	ors (minimum of two required)
Primary Indicators (minimum of one is re	quired; check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	Water-Stained Leave	es (B9)	Drainage Patte	erns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	<u> </u>	Moss Trim Line	
Saturation (A3)	Marl Deposits (B15)	(21)	1	ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od		Crayfish Burro	
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced	es on Living Roots (C3)		ble on Aerial Imagery (C9) essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction		Geomorphic P	` '
Iron Deposits (B5)	Thin Muck Surface (0	` ′	Shallow Aquita	` '
Inundation Visible on Aerial Imagery	· · · · · · · · · · · · · · · ·	· ·	Microtopograp	
Sparsely Vegetated Concave Surface	e (B8)		FAC-Neutral T	est (D5)
Field Observations:				
Surface Water Present? Yes	No Depth (inches): 1			
Water Table Present? Yes	No Depth (inches): 8			
Saturation Present? Yes <u>I</u> (includes capillary fringe)	No Depth (inches): 0	Wetland Hyd	drology Present?	? Yes <u> </u>
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, pre	vious inspections), if availab	ble:	
Remarks:			_	
. tomane				

VEGETATION –	Use	scientific names	of	plants
VEGETATION	030	Solonillo Harrios	O.	piarito

/EGETATION – Use scientific names of plant	s.		Sampling Point: K-1a
Tree Stratum (Plot size: 30 ft)	Absolute		Dominance Test worksheet:
1		Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2 3			Total Number of Dominant Species Across All Strata: 3 (B)
4			Percent of Dominant Species
5			That Are OBL, FACW, or FAC: 100 (A/B)
6 7			Prevalence Index worksheet: Total % Cover of: Multiply by:
	0	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)			FACW species x 2 =
1			FAC species x 3 =
2			FACU species x 4 =
3			UPL species x 5 =
4			Column Totals: (A) (B)
5			Prevalence Index = B/A =
6			Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Cover	✓ 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft) 1. Carex sp.	15	17.6Y FACW	4 - Morphological Adaptations (Provide supporting
1. Carex sp. 2. Eleocharis sp.	30	35.3Y OBL	data in Remarks or on a separate sheet)
2. Echinochloa crus-galli	40	47.1Y FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Laminocinoa cras-gain</u> 4. <u> </u>		· ——— ———	¹ Indicators of hydric soil and wetland hydrology must
5			be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6.			
7			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8			Sapling/shrub – Woody plants less than 3 in. DBH
9			and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11		·	
12		Total Cover	Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30 ft)		= Total Cover	
1			
2			
3			Hydrophytic
4.			Vegetation
	0	= Total Cover	Present? Yes <u> </u>
Remarks: (Include photo numbers here or on a separate	e sheet.)		
Tremains. (include proto humbers here of on a separati	e sneet.)		

Sampling Point: K-1a

Depth	Matrix			dox Featur	es	. ?	- .	D .
(inches) 0-6	Color (moist) 10YR 4/2	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
	-	100					silty clay	
6-12	10YR 5/2	50	10YR 5/8	20	<u>C</u>	M	silty clay	
	10YR 3/2	30	· -				·	
						_	· 	
	-		· -				· 	
		 -			_	_	·	
	<u> </u>							
	Concentration, D=De Indicators:	epletion, RN	/I=Reduced Matrix, I	MS=Mask	ed Sand C	Grains.		Pore Lining, M=Matrix. roblematic Hydric Soils ³ :
Histoso			Polyvalue Be	low Surfac	ا (S2) را ا	DD D		A10) (LRR K, L, MLRA 149B)
_	pipedon (A2)		MLRA 149		e (36) (L i	XX X,		e Redox (A16) (LRR K, L, R)
Black H	listic (A3)		Thin Dark Su					Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky			K , L)		e (S7) (LRR K, L)
_	ed Layers (A5) ed Below Dark Surfa	aca (A11)	Loamy Gleye ✓ Depleted Mat		-2)			elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L)
	ed Below Bark Sun Park Surface (A12)	ace (ATT)	Redox Dark S		6)			ese Masses (F12) (LRR K, L, R)
_	Mucky Mineral (S1)	1	Depleted Dar					podplain Soils (F19) (MLRA 149E
	Gleyed Matrix (S4)		Redox Depre	ssions (F8	3)			c (TA6) (MLRA 144A, 145, 149B)
_	Redox (S5)							Material (F21)
	d Matrix (S6) urface (S7) (LRR R	MI RΔ 149	IR)					/ Dark Surface (TF12) in in Remarks)
<u></u>	andoo (07) (= 111111	,	,_,				<u> </u>	iii iii rtomanto)
			etland hydrology m	ust be pre	sent, unle	ss disturbed	d or problematic.	
	Layer (if observed	d):						
Туре:								v 🖂 v 🗆
Depth (ir	nches):						Hydric Soil Prese	ent? Yes <u>√</u> No <u> </u>
emarks:								

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			Sampling Point: K-1b (Wet K)
Investigator(s): CMM	Section, Township	, Range: T8N R10W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.564310	Long: -81.485553	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	cation: none
Are climatic / hydrologic conditions on the site typic Are Vegetation, Soil, or Hydrology _ Are Vegetation, Soil, or Hydrology _ SUMMARY OF FINDINGS — Attach site	significantly disturbed? naturally problematic?	Are "Normal Circumstances" (If needed, explain any answ	present? Yes No ers in Remarks.)
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or		pled Area etland? Yes ✓ nal Wetland Site ID:	No
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; c Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Roots (C3) Roots (C6) Drainage Pa Moss Trim I Dry-Season Crayfish Bu Saturation \ Stunted or S Geomorphic Shallow Aqu	Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) uitard (D3) aphic Relief (D4)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitori	Depth (inches): Depth (inches): 6	Wetland Hydrology Prese	nt? Yes_√ No
Remarks:			

	VEGETATION –	Use	scientific	names	of	plants.
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EGETATION – Use scientific names of plants	S.		Sampling Point: K-1b
Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Indicator	Dominance Test worksheet:
1		Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2			Total Number of Dominant Species Across All Strata: 3 (B)
4			Percent of Dominant Species
5			(AB)
6			
7	0		Total % Cover of: Multiply by:
o r 10 t o t 15 ft		= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)			FACW species x 2 = FAC species x 3 =
1			FACU species x 4 =
2			UPL species x 5 =
3			Column Totals: (A) (B)
4			
5			Prevalence Index = B/A =
6			Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Cover	✓ 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft)	4.5	47.00/	4 - Morphological Adaptations ¹ (Provide supporting
1. Carex sp.	15	17.6Y FACW	data in Remarks or on a separate sheet)
2. Eleocharis sp.	30	35.3Y OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Echinochloa crus-galli	40	47.1Y FAC	Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7			at breast height (DBH), regardless of height.
8			Sapling/shrub – Woody plants less than 3 in. DBH
9			and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless
11			of size, and woody plants less than 3.28 ft tall.
12			Woody vines – All woody vines greater than 3.28 ft in height.
	85	= Total Cover	rieigrit.
Woody Vine Stratum (Plot size: 30 ft)			
1			
2			Hydrophytic
			Hydrophytic Vegetation
2			

Sampling Point: K-1b

in ahaa'	Matrix	%		lox Featur		Loc ²	Toytura
inches))-6	Color (moist) 10YR 5/1	60	Color (moist) 10YR 5/8	<u>%</u> 40	C	M	Texture Remarks silty clay loam
6-8	Gley2 6/10G	60	10YR 5/6	25	_ C	_ M	silty clay loam
)-U	10YR 5/2	15	1011(3/0	_ 20			ony only loan
B-14	Gley1 5/10Y	100			_		silty clay loam
)-14	Gley 1 3/101	100					any day roam
	-		-				
			- <u> </u>				
Histoso Histic E Black H Hydrog Stratifie Deplete Thick D Sandy Sandy Strippe Dark St	Epipedon (A2) Histic (A3) Histic (A3) Hen Sulfide (A4) Hed Layers (A5) Hed Below Dark Surface Hoark Surface (A12) Hucky Mineral (S1) Hucky Mineral (S4) Hedox (S5) Hedox (S5) Hedox (S6) Histic (S7) (LRR R, Medor) Histic (RR RR	e (A11) //LRA 14 tion and v	Polyvalue Bel MLRA 149 Thin Dark Sui Loamy Mucky Loamy Gleyer Depleted Mat Redox Dark S Depleted Darl Redox Depres	ow Surface B) face (S9) Mineral (I Matrix (F3) Gurface (F6 X Surface (F8 Ssions (F8	e (S8) (L (LRR R, F1) (LRR F2) S) (F7)	RR R, MLRA 149B K, L)	Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, I) Piedmont Floodplain Soils (F19) (MLRA 144) Mesic Spodic (TA6) (MLRA 144A, 145, 149) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Type:	Layer (if observed):	:					
Depth (ir	nches):						Hydric Soil Present? Yes ✓ No □
emarks:							

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: K-1c (Wet K)
Investigator(s): CMM/ANB	Section, Township	, Range: <u>T8N R10W</u>	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR Lat	41.564271	Long: -81.485374	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classif	ication: none
Are climatic / hydrologic conditions on the site typical fe	or this time of year? Yes N	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site n	nap showing sampling poi	nt locations, transect	s, important features, etc.
			, ,
Hydrophytic Vegetation Present? Yes V Hydric Soil Present? Yes V	No No within a W	etland? Yes	No
Wetland Hydrology Present?		nal Wetland Site ID:	
Remarks: (Explain alternative procedures here or in			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; chec	k all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
✓ High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)	·	Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living	Crayfish Bu	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc		c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopog	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	al Test (D5)
Field Observations:	4		
Surface Water Present? Yes V No	Depth (inches): 1		
Water Table Present? Yes ✓ No	Depth (inches): 3		
Saturation Present? Yes Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves	_ Depth (inches): 0	Wetland Hydrology Prese	ent? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION –	Use	scientific names	of	plants
VEGETATION	030	Solonillo Harrios	O.	piarito

Tree Stratum (Plot size: 30 ft)				Sampling Point: K-1c
Troo Stratum (Diat ciza: UV II)	Absolute	Dominant Species?		Dominance Test worksheet:
Tree Stratum (Plot size: 30 It			Status	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Cov	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
ō				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	Λ	= Total Cov	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Index is ≤3.0 ¹
_{1.} Poa sp.	40	32Y	FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carex sp.	40	32Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Lysimachia nummularia	15	12	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. Eleocharis palustris	20	16	OBL	be present, unless disturbed or problematic.
5. Alopecurus pratensis	10	8	FAC	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	125	= Total Cov	ver	height.
Woody Vine Stratum (Plot size: 30 ft)				
vvoody vine Stratum (Flot Size.				
1				
1 2				Hydrophytic
1	 			Hydrophytic Vegetation Procent? Veg Veg
1		= Total Cov		

Sampling Point: K-1c

inches)	Matrix			lox Features	1 . 2	Tautuma	
	Color (moist)	%	Color (moist)	% T	ype ¹ Loc ²	Texture Remarks	
)-2	10YR 4/2					silt loam	
2-8	10YR 5/2	80	10YR 5/8			silty clay loam	
	Concentration, D=De Indicators:	epletion, RI	M=Reduced Matrix, N	//S=Masked Sa	and Grains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soil	3
Black H Hydrog Stratifie Deplete Thick D Sandy Sandy Sandy Strippe	ol (A1) Epipedon (A2) Histic (A3) Hen Sulfide (A4) Hed Layers (A5) Hed Below Dark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) Hed Matrix (S6) Hed Matrix (S6) Hed Matrix (S6) Hed Matrix (S6)		MLRA 149I ☐ Thin Dark Sur ☐ Loamy Mucky ☐ Loamy Gleyed ✓ Depleted Matr ☐ Redox Dark S ☐ Depleted Dark ☐ Redox Depres	face (S9) (LRR Mineral (F1) (I d Matrix (F2) rix (F3) urface (F6) c Surface (F7)	R R, MLRA 149B	2 cm Muck (A10) (LRR K, L, MLRA Coast Prairie Redox (A16) (LRR K, 5 cm Mucky Peat or Peat (S3) (LRR Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRF Piedmont Floodplain Soils (F19) (ML Mesic Spodic (TA6) (MLRA 144A, 1 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)	L, R) K, L, R) K, L) R K, L, R) LRA 149E
			wetland hydrology mi	ust be present,	unless disturbed	d or problematic.	
	Layer (if observed	i):					
Type: rc							
Depth (ir emarks:	nches): <u></u> 8					Hydric Soil Present? Yes <u>✓</u> N	lo <u> </u>

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			Sampling Point: L-1 (Wet L)
	Section, Township		
Landform (hillslope, terrace, etc.): depression	Local relief (concave.	. convex. none); none	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.562287	Long: -81.483877	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classif	
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes	No (If no, explain in	
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach si	te map showing sampling poi	nt locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _ Remarks: (Explain alternative procedures here M-1 & N-1 same as L-1	No If yes, option	ppled Area /etland? Yes ✓ onal Wetland Site ID:	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres on Living Presence of Reduced Iron (C4)	· · /	Visible on Aerial Imagery (C9) Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	, ,
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	<u> </u>	FAC-Neutra	
Field Observations:			
Surface Water Present? Yes No _	Depth (inches):		
Water Table Present? Yes No _	Depth (inches):		
Saturation Present? Yes Ves No	Depth (inches): 6	Wetland Hydrology Prese	ent? Yes ✓ No 🔽
(includes capillary fringe) Describe Recorded Data (stream gauge, monitor	ring well aerial photos, previous inspec	tions) if available:	
Bosonse Recorded Bata (stream gauge, monite	Ting won, dendi priotos, proviodo inopeo	nonoj, ii avaliabio.	
Remarks:			

VEGETATION -	Пед	scientific	namae	of plant	c
VEGETATION -	use	scientific	names	oi biant	S.

	ts.			Sampling Point: L-1
Free Stratum (Plot size: 30 ft)		Dominant Species?		Dominance Test worksheet:
·				Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
				Total Number of Dominant
		·		Species Across All Strata: 4 (B)
		·		Percent of Dominant Species That Are ORL FACW, or FAC: 75
i				That Are OBL, FACW, or FAC: 75 (A/B)
i				Prevalence Index worksheet:
•	_			Total % Cover of: Multiply by:
45.6	0	= Total Cov	rer	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
·				FAC species x 3 = FACU species x 4 =
				UPL species x 5 =
8				Column Totals: (A) (B)
·				
i		·		Prevalence Index = B/A =
S				Hydrophytic Vegetation Indicators:
ʻ		<u> </u>		1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Cov	er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft)				4 - Morphological Adaptations ¹ (Provide supporting
Schoenoplectus tabernaemontani	30	30Y	OBL	data in Remarks or on a separate sheet)
Carex sp.	30	30Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
Eestuca sp.	20	20Y	FACU	¹ Indicators of hydric soil and wetland hydrology must
Poa sp.	20	20Y	FAC	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
S				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
,				at breast height (DBH), regardless of height.
S				Sapling/shrub – Woody plants less than 3 in. DBH
)				and greater than or equal to 3.28 ft (1 m) tall.
0				Herb - All herbaceous (non-woody) plants, regardless
1				of size, and woody plants less than 3.28 ft tall.
2				Woody vines – All woody vines greater than 3.28 ft in
	100	= Total Cov	er	height.
Voody Vine Stratum (Plot size: 30 ft)				
·				
l				
				Hydrophytic
3				Vegetation
3 I				Present? Yes ✓ No □

Sampling Point: L-1

Profile Desc		to the de	pth needed to docur	ment the	indicator	or confirm	n the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	es Type ¹	Loc ²	Texture Remarks
(inches) 0-6	10YR 2/1	100	Color (moist)		_ <u>rype</u>	LUC	silt loam
6-10	10YR 5/1	80	10YR 6/8	20	С	M	silt clay
				=			
		-			_		
				=			
		·			. .		
¹ Type: C=C	oncentration, D=Dep	letion, RN	1=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil		•					Indicators for Problematic Hydric Soils ³ :
Histosol	, ,		Polyvalue Belo		e (S8) (LR	R R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2) istic (A3)		MLRA 149B	,	LRR R. M	LRA 149B	Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Mucky N	Mineral (F	1) (LRR K		Dark Surface (S7) (LRR K, L)
	d Layers (A5)	- (044)	Loamy Gleyed		2)		Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Matrix Redox Dark Su)		Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark	•	•		Piedmont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	sions (F8))		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5) I Matrix (S6)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)
_	rface (S7) (LRR R, N	/ILRA 149	B)				Other (Explain in Remarks)
³ Indicators o	f hydrophytic vegeta	tion and w	etland hydrology mus	st be pres	ent, unles	s disturbed	d or problematic.
	Layer (if observed):	:		-			
Type: roo							
	ches): 11						Hydric Soil Present? Yes 🗸 No 🔽
Remarks:							

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	rahoga	_ Sampling Date: <u>5/1/13</u>
Applicant/Owner: Mead & Hunt			Sampling Point: L-2 (Wet L)
Investigator(s): DGV	Section, Township	o, Range: T8N R10W	
Landform (hillslope, terrace, etc.): tlat	Local relief (concave	, convex, none): none	Slope (%): 1
Subregion (LRR or MLRA): LRR	Lat: 41.562265	Long: <u>-81.483766</u>	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classit	
Are climatic / hydrologic conditions on the site typic	al for this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology _	I I		present? Yes No
		(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site		int locations, transect	s. important features, etc.
Г			-, p
Hydrophytic Vegetation Present? Yes		npled Area /etland? Yes	No ✓
Hydric Soil Present? Yes Wetland Hydrology Present? Yes			
Remarks: (Explain alternative procedures here o		onal Wetland Site ID:	
M-2 & N-2 same as L-2	,		
W 2 & W 2 damo do 2 2			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required; c	heck all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	1 1	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)	·	n Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living	Crayfish Bu	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	· · I I	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled S		c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	· ·
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	al Test (D5)
Field Observations:			
Surface Water Present? Yes No 1	/ ' \		
Water Table Present? Yes No	Depth (inches):		
Saturation Present? Yes No _L (includes capillary fringe)	✓ Depth (inches):	Wetland Hydrology Prese	ent? Yes No V
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspec	ctions), if available:	
Remarks:			

١	/EG	ET/	ATIO	N –	Use	scientific	names	of	plants.

'EGETATION – Use scientific names of plants.				Sampling Point: L-2			
Tree Stratum (Plot size: 30 ft)	Absolute % Cover		t Indicator	Dominance Test worksheet:			
				Number of Dominant Species That Are ORL FACW or FAC: 0			
1				That Are OBL, FACW, or FAC: $\frac{0}{}$ (A)			
2.				Total Number of Dominant Species Across All Strata: 2 (B)			
3				Species Across Air Strata.			
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)			
5				That Are OBE, I ACW, OF I AC.			
6			·	Prevalence Index worksheet:			
7	_			Total % Cover of: Multiply by:			
45.4	0	= Total Co	ver	OBL species $\frac{0}{0}$ $x = \frac{0}{0}$			
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species $\frac{0}{0}$ $x = \frac{0}{0}$			
1				FAC species 0 $x 3 = 0$ FACU species 60 $x 4 = 240$			
2				UPL species 50 x 5 = 250			
3				Column Totals: 110 (A) 490 (B)			
4							
5				Prevalence Index = B/A = $\frac{4.45}{}$			
6				Hydrophytic Vegetation Indicators:			
7				1 - Rapid Test for Hydrophytic Vegetation			
	^	= Total Co	ver	2 - Dominance Test is >50%			
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Index is ≤3.0 ¹			
1. Plantago major	25	22.7Y	FACU	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)			
2. Schizachyrium scoparium	15	13.6	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. Festuca sp.	20	18.2	FACU				
4. Hieracium venosum	40	36.4Y	UPL	¹ Indicators of hydric soil and wetland hydrology must			
_{5.} Hieracium caespitosum	10	9.09	UPL	be present, unless disturbed or problematic.			
6		-	-	Definitions of Vegetation Strata:			
				Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7 o				at breast height (DBH), regardless of height.			
8.	- ——			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.			
9							
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
11							
12	110			Woody vines – All woody vines greater than 3.28 ft in height.			
20.4	110	= Total Co	ver				
Woody Vine Stratum (Plot size: 30 ft)							
1							
2							
3				Hydrophytic			
4			<u> </u>	Vegetation Present? Yes No ✓			
	0	= Total Co	ver				
4	^	= Total Co	ver				

Sampling Point: L-2

Profile Description: (Descri	be to the dep	th needed to docur	ment the indicato	or confirm	n the absence of indicators.)
Depth Matrix			x Features	. 2	
(inches) Color (moist) 0-4 10YR 4/1	100	Color (moist)	<u>%</u> Type ¹	Loc ²	Texture Remarks Silt loam
		40)/D 0/0			·
1 Type: C=Concentration, D=E Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)	80	Polyvalue Below MLRA 149B Thin Dark Surfa	w Surface (S8) (LF) ace (S9) (LRR R, M Mineral (F1) (LRR	R R, ILRA 149B)	silt clay 2Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils³: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Sur Thick Dark Surface (A12) Sandy Mucky Mineral (S1 Sandy Gleyed Matrix (S4	1)	Depleted Matrix Redox Dark Su Depleted Dark S Redox Depress	x (F3) Irface (F6) Surface (F7)		Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR I		_	510113 (T 0)		Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
³ Indicators of hydrophytic veg		etland hydrology mus	st be present, unle	ss disturbed	d or problematic.
Restrictive Layer (if observe	ed):				
Type: Depth (inches):					Hydric Soil Present? Yes No
Remarks:					

Project/Site: Cuyahoga Co. Airport	City/Co	ounty: Cuyahoga		Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt				Sampling Point: M-1 (Wet M)
Investigator(s): DGV	Sectio	n, Township, Range: T8	3N R10W	
Landform (hillslope, terrace, etc.): depress	on Local relie	ef (concave, convex, non	ne): <u>none</u>	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.561917	Long: <u>-81</u> .	483649	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam			NWI classific	
Are climatic / hydrologic conditions on the sit			(If no, explain in R	
1 1 1 1	ology significantly disturb		Circumstances" ¡	present? Yes V No
	ology naturally problema		explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attac				
Attac				, important reatures, etc.
, , ,	es V No No	Is the Sampled Area within a Wetland?	Vos 🗸	No 🗌
*	es V No L			
Wetland Hydrology Present? Remarks: (Explain alternative procedures	es No	If yes, optional Wetland	Site ID:	
itematiks. (Explain alternative procedures	iere or iir a separate report.)			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is requ	ired; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves	s (B9)	Drainage Pa	tterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim L	ines (B16)
Saturation (A3)	Marl Deposits (B15)		1 1 '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odd		Crayfish Bur	
Sediment Deposits (B2)	1 1	s on Living Roots (C3)	1 /1	isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Recent Iron Reduction		T Oldrica of O	tressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	Thin Muck Surface (C	, ,	Shallow Aqu	Position (D2)
Inundation Visible on Aerial Imagery (E	1 1		1 1	aphic Relief (D4)
Sparsely Vegetated Concave Surface	, , .	,	FAC-Neutral	
Field Observations:			<u> </u>	, ,
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present? Yes ✓	No Depth (inches): 6	Wetland H	lydrology Preser	nt? Yes <u>√</u> No <u></u>
(includes capillary fringe) Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, prev	ious inspections), if avai	ilable:	
Remarks:				
Remarks.				

VEGETATION –	Пед	scientific	namae	of n	ante
VEGETATION -	use	scientific	names	OI D	เลทเร.

worksheet:				GETATION – Use scientific names of plants.
ant Species	Status	ominant Indi oecies? St		e Stratum (Plot size: 30 ft)
CW, or FAC: $\frac{3}{}$ (A)	That			
Dominant 4	Total			
II Strata: 4 (B)	Spec			
ant Species				
CW, or FAC: $\frac{75}{}$ (A/B)	That			
worksheet:	Preva			
r of: Multiply by:				
x 1 =	'	otal Cover	_	
x 2 =				oling/Shrub Stratum (Plot size: 15 ft)
x 3 =	FAC			· · · · · · · · · · · · · · · · · · ·
x 4 =				
x 5 =	I UPLS			
(A) (B)	Colui			
Index = B/A =				
etation Indicators:				
t for Hydrophytic Vegetation e Test is >50%				
e Index is ≤3.0 ¹	er I ├─ ┤	otal Cover	=	
gical Adaptations ¹ (Provide supporting				<u>b Stratum</u> (Plot size: <u>5 ft</u>)
marks or on a separate sheet)	OBL _	OY OE	30	Schoenoplectus tabernaemontani
Hydrophytic Vegetation ¹ (Explain)	FACW F	Y FA	30	Carex sp.
	FACU	Y FA	20	Festuca sp.
ric soil and wetland hydrology must sidisturbed or problematic.		Y FA	20	Poa sp.
·				
getation Strata:				
ints 3 in. (7.6 cm) or more in diameter	Tree			
DBH), regardless of height.				
Woody plants less than 3 in. DBH or equal to 3.28 ft (1 m) tall.				
eous (non-woody) plants, regardless y plants less than 3.28 ft tall.				
•				
Il woody vines greater than 3.28 ft in	heigh		100	
	er	otal Cover	100	
				ody Vine Stratum (Plot size: 30 ft)
	Hydre			
Yes ✓ No □	Vege			
res <u>v</u> No <u> </u>		otal Cover) _	
	<u> </u>			narks: (Include photo numbers here or on a separate s
Y	Prese	otal Cover)	

Sampling Point: M-1

Profile Desc		to the de	pth needed to docur	ment the	indicator	or confirm	n the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	es Type ¹	Loc ²	Texture Remarks
(inches) 0-6	10YR 2/1	100	Color (moist)	70	<u>rype</u>	LUC	silt loam
6-10	10YR 5/1	80	10YR 6/8	20	C	M	silt clay
-					-		
	-				_	· 	
		·					
					_,		
¹ Type: C=C	oncentration, D=Dep	letion, RN	1=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil		•					Indicators for Problematic Hydric Soils ³ :
Histosol	, ,		Polyvalue Belo		e (S8) (LR	R R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2) istic (A3)		MLRA 149B	,	LRR R. M	LRA 149B	Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Mucky N	Mineral (F	1) (LRR K		Dark Surface (S7) (LRR K, L)
	d Layers (A5)	- (044)	Loamy Gleyed		2)		Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Matrix Redox Dark Su		5)		Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark	•	•		Piedmont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	sions (F8))		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5) I Matrix (S6)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)
_	rface (S7) (LRR R, N	ILRA 149	9B)				Other (Explain in Remarks)
³ Indicators o	f hydrophytic vegeta	tion and w	etland hydrology mus	st be pres	sent, unles	s disturbed	d or problematic.
	Layer (if observed):	1					
Type: roo							
	ches): 11						Hydric Soil Present? Yes 🗸 No 🔽
Remarks:							

Project/Site: Cuyahoga Co. Airport	City/C	County: Cuyahoga		Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt				Sampling Point: M-2 (WetM)
Investigator(s): DGV	Section	on, Township, Range: T8	3N R10W	
Landform (hillslope, terrace, etc.): flat	Local rel	ief (concave, convex, non	_{ie):} none	Slope (%): 1
Landform (hillslope, terrace, etc.): flat Subregion (LRR or MLRA): LRR	Lat: 41.562051	Long: <u>-81</u> .	.483813	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loa	ım		NWI classific	
Are climatic / hydrologic conditions on the	site typical for this time of year? Y	res	If no, explain in R	emarks.)
Are Vegetation, Soil, or H	I I		Circumstances" p	present? Yes No
	ydrology naturally problema		xplain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Att			ns transects	important features, etc.
				, important routuroo, otor
Hydrophytic Vegetation Present?	Yes No _✓ Yes No _✓	Is the Sampled Area within a Wetland?	Ves 🗌	No 🗸
Hydric Soil Present?				
Wetland Hydrology Present? Remarks: (Explain alternative procedure)		If yes, optional Wetland	Site ID:	
Temano. (Explain alternative procedur	os note of in a separate report.)			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is re	equired; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	Water-Stained Leave	s (B9)	Drainage Pa	tterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Li	
Saturation (A3)	Marl Deposits (B15)	(5.1)	1 1 '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od		Crayfish Bur	
Sediment Deposits (B2)	Presence of Reduced	es on Living Roots (C3)	1 1	isible on Aerial Imagery (C9) tressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4)	Recent Iron Reductio	` '		Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C	, ,	Shallow Aqu	` '
Inundation Visible on Aerial Imager		· ·	1 1	aphic Relief (D4)
Sparsely Vegetated Concave Surfa	· · · — · · ·	<i>'</i>	FAC-Neutral	
Field Observations:				
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	☐ No ☑ Depth (inches):			
Saturation Present? Yes (includes capillary fringe)	No <u>✓</u> Depth (inches):	Wetland H	lydrology Preser	nt? Yes No ✓
Describe Recorded Data (stream gauge	, monitoring well, aerial photos, pre	vious inspections), if avai	lable:	
Remarks:				
1				ļ

VEGETATION – Use scientific names of plants.

			Sampling Point: M-2(out)
Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
	Species :		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
			Total Number of Dominant Species Across All Strata: 2 (B)
			Percent of Dominant Species (B)
			That Are OBL, FACW, or FAC: 0 (A/B)
			Prevalence Index worksheet:
		-	Total % Cover of:Multiply by:
0	= Total Co	ver	OBL species $0 \times 1 = 0$
			FACW species $\frac{0}{0}$ $x = \frac{0}{0}$
			FAC species $0 \times 3 = 0$
			FACU species 60 $x = 240$ UPL species 50 $x = 250$
			Prevalence Index = B/A = 4.45
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
Λ	= Total Co	ver	2 - Dominance Test is >50%
			3 - Prevalence Index is ≤3.0¹
25	22.7Y	FACU	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
15	13.6	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
20	18.2	FACU	
40	36.4Y	UPL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10	9.09	UPL	Definitions of Vegetation Strata:
			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
			Sapling/shrub – Woody plants less than 3 in. DBH
			and greater than or equal to 3.28 ft (1 m) tall.
			Herb – All herbaceous (non-woody) plants, regardless
			of size, and woody plants less than 3.28 ft tall.
			Woody vines – All woody vines greater than 3.28 ft in height.
110	= Total Co	ver	neight.
			Hydrophytic
			Vegetation
			Present? Yes No
	0 25 15 20 40 10	0 = Total Cov 25 22.7Y 15 13.6 20 18.2 40 36.4Y 10 9.09	0 = Total Cover 25 22.7Y FACU 15 13.6 FACU 20 18.2 FACU 40 36.4Y UPL 10 9.09 UPL 110 = Total Cover

Sampling Point: M-2(out)

Depth	Matrix	e to the de	oth needed to document the indicator or cou Redox Features	ontirm the absence of indicators.)	
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc	oc ² Texture Remarks	
0-4	10YR 4/1	100		silt loam	
4-8	10YR 6/2	80	10YR 6/8	silt clay	
¹Type: C=C	oncentration. D=De	pletion. RM	=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.	
Histoso Histic E Black H Hydrog Stratifie Deplete Thick D Sandy I Sandy I Strippe Dark St	pipedon (A2) iistic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surfa ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR R,	MLRA 149		Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, Piedmont Floodplain Soils (F19) (MLRA Mesic Spodic (TA6) (MLRA 144A, 145, 1) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)) _, R) _) _) L, R) 149B)
	Layer (if observed		etland hydrology must be present, unless distu	urbed or problematic.	
Туре:					
Depth (ir	nches):			Hydric Soil Present? Yes No No	✓
Remarks:					

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	_ Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: N-1 (Wet N)
Investigator(s): DGV	Section, Township,	, Range: T8N R10W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave.	convex none): none	Slope (%): 0
Subregion (LRR or MLRA): LRR	at: 41.561831	Long: -81.483244	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam	<u> </u>	NWI classii	
Are climatic / hydrologic conditions on the site typical	al for this time of year? Ves	lo (If no, explain in	
Are Vegetation, Soil, or Hydrology _		Are "Normal Circumstances'	
\$ <u></u> , , , , , ,		If needed, explain any answ	
SUMMARY OF FINDINGS – Attach site	map showing sampling poir	nt locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes Yes Yes		pled Area etland? Yes	No
Remarks: (Explain alternative procedures here or			
LIVERGLOOV			
HYDROLOGY Wetland Hydrology Indicators		Casandani Indi	natora (minimum of two required)
Wetland Hydrology Indicators:			cators (minimum of two required)
Primary Indicators (minimum of one is required; ct			il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		ırrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living F	· · /	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	ils (C6)	c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Ac	uitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	al Test (D5)
Field Observations:	7		
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
Saturation Present? Yes <u>I</u> No <u>L</u> (includes capillary fringe)	Depth (inches): 6	Wetland Hydrology Prese	ent? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspect	ions), if available:	
Remarks:			

/EGETATION – Use scientific names of plants	5.			Sampling Point: N-1(in)
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute	Dominant		Dominance Test worksheet:
1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 75 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1	_			FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	Λ	= Total Cov	er	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)		= 10tai 00	VCI	3 - Prevalence Index is ≤3.0¹
1. Schoenoplectus tabernaemontani	30	30Y	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carex sp.	30	30Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Festuca sp.	20	20Y	FACU	Indicators of hydric coil and watland hydrology must
4. Poa sp.	20	20Y	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5	_			Definitions of Vegetation Strata:
6	_			_
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	100	= Total Cov	ver	height.
Woody Vine Stratum (Plot size: 30 ft)		. 0.0		
1				
1 2				
1				Hydrophytic Vegetation
1 2				

SOIL Sampling Point: N-1(in)

(inches)	Matrix			x Features	S	. 2	
0.0	Color (moist)	400	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-6	10YR 2/1	100					silt loam_
6-10	10YR 5/1	80	10YR 6/8	20	С	M	silt clay
		_					
		_					
Type: C=C	oncentration, D=De	pletion, RN	M=Reduced Matrix, M	S=Masked	Sand G	rains.	² Location: PL=Pore Lining, M=Matrix.
	(A1) pipedon (A2)		Polyvalue Belo)			Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Hydroge	istic (A3) en Sulfide (A4) d Layers (A5)		Thin Dark Surfa Loamy Mucky I Loamy Gleyed	Mineral (F	1) (LRR I		5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Thick Da	d Below Dark Surfac ark Surface (A12)	ce (A11)	Depleted Matrix Redox Dark Su	x (F3) urface (F6)			Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy C	Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5)		Depleted Dark Redox Depress		7)		Piedmont Floodplain Soils (F19) (MLRA 1498) Mesic Spodic (TA6) (MLRA 144A, 145, 1498) Red Parent Material (F21)
Stripped	Matrix (S6)	MLRA 149	9B)				Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
			vetland hydrology mus	st be prese	ent, unles	s disturbed	or problematic.
	Layer (if observed)):					
Type: roc							Hydric Soil Present? Yes <u>√</u> No <u></u>
Depth (inc	ches): 11						Hydric doil i resent: Tes No
rtomanto.							

Project/Site: Cuyahoga Co. Airport	City/Count	_{ty:} Cuyahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			OH Sampling Point: N-2 (WetN)
Investigator(s): DGV	Section, T	ownship, Range: T8N R10\	V
Landform (hillslope, terrace, etc.): tlat	Local relief (c	oncave, convex, none): none	<u>e </u>
Subregion (LRR or MLRA): LRR	Lat: 41.562265	Long:81.483766	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam			classification: none
Are climatic / hydrologic conditions on the site	ypical for this time of year? Yes _	✓ No (If no, exp	olain in Remarks.)
Are Vegetation, Soil, or Hydrold			tances" present? Yes No
	ogy naturally problematic?		y answers in Remarks.)
SUMMARY OF FINDINGS – Attach			nsects, important features, etc.
/ Autoni			noote, important routeres, etc.
Hydrophytic Vegetation Present? Yes	′ - - ' ' '` - -	he Sampled Area hin a Wetland? Ye	s No 🗸
1 -			
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures he		es, optional Wetland Site ID:	
Tremane. (Explain alternative procedures ne	re or in a separate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Seconda	ary Indicators (minimum of two required)
Primary Indicators (minimum of one is require	d; check all that apply)	Surf	ace Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B	9) Drai	nage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		s Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	·	Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C	· I I ·	/fish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres or Presence of Reduced Iror	- 1 1	uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4)	Recent Iron Reduction in		morphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	` ' 🖂	llow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	1 1		rotopographic Relief (D4)
Sparsely Vegetated Concave Surface (B			c-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes N	o V Depth (inches):		
	o V Depth (inches):		
Saturation Present? Yes N (includes capillary fringe)	o 🔽 Depth (inches):	Wetland Hydrolog	y Present? Yes No 🗸
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos, previous	s inspections), if available:	
Remarks:			
I .			

EGETATION – Use scientific names of plants	3.			Sampling Point: N-2(out)
Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3 4				Species Across All Strata: 2 (B) Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0 (A/B)
6	_			Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species $\frac{0}{x} \times 1 = \frac{0}{x}$
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species $\frac{0}{2}$ $x = \frac{0}{2}$
1				FAC species $0 \times 3 = 0$
2				FACU species 60 $x 4 = 240$
3				UPL species 50 $x = 250$
4				Column Totals: <u>110</u> (A) <u>490</u> (B)
5				Prevalence Index = $B/A = 4.45$
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)	_			3 - Prevalence Index is ≤3.0¹
1. Plantago major	25	22.7Y	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Schizachyrium scoparium	15	13.6	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
Festuca sp.	20	18.2	FACU	
Hieracium venosum	40	36.4Y	UPL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Hieracium caespitosum	10	9.09	UPL	Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12		·		Woody vines – All woody vines greater than 3.28 ft in
	110	= Total Co	ver	height.
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				Hudranbusia
2				nyarophytic
2				Hydrophytic Vegetation Present? Ves No V
3		= Total Co		

SOIL Sampling Point: N-2(out)

Profile Desc	ription: (Describe	to the de	oth needed to docum	nent the i	ndicator	or confirn	n the absence of indicators.)
Depth	Matrix			<u> Features</u>	S1	1 2	T.,
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-4	10YR 4/1	100					silt loam
4-8	10YR 6/2	80	10YR 6/8				silt clay
							·
	-						
1= 0.0		lation DM	De desert Metric MC	NA1	0		21
Hydric Soil		oletion, RIV	=Reduced Matrix, MS	=Masked	Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Histosol			Polyvalue Below	v Surface	(S8) (I D I	D D	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	oipedon (A2)		MLRA 149B)		(30) (LI (I	X IX,	Coast Prairie Redox (A16) (LRR K, L, R)
Black Hi			Thin Dark Surfa		RR R, M	LRA 149B	
Hydroge	n Sulfide (A4)		Loamy Mucky M				Dark Surface (S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed I)		Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac	e (A11)	Depleted Matrix				Thin Dark Surface (S9) (LRR K, L)
	ark Surface (A12) Mucky Mineral (S1)		Redox Dark Sui		7\		Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	•	7)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	tedox (S5)		Redex Bepress	0110 (1 0)			Red Parent Material (F21)
	Matrix (S6)						Very Shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, I	MLRA 149	B)				Other (Explain in Remarks)
a							
			etland hydrology mus	t be prese	ent, unless	s disturbed	d or problematic.
	_ayer (if observed):						
Type:							
Depth (inc	ches):						Hydric Soil Present? Yes No _✓
Remarks:							

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	Sampling Date: 5/2/13
Applicant/Owner: Mead & Hunt			Sampling Point: O-1 (Wet O)
Investigator(s): DGV	Section, Township	, Range: T8N R10W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR			
Soil Map Unit Name: Darien silt loam		NWI classifi	cation: none
Are climatic / hydrologic conditions on the site typi Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS — Attach site	significantly disturbed? naturally problematic?	Are "Normal Circumstances" (If needed, explain any answe	present? Yes No ers in Remarks.)
Hydrophytic Vegetation Present? Yes	No Is the Sam	pled Area	ı 🗆
Hydric Soil Present? Yes	No within a W	etland? Yes <u>L</u> ▼_	No
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here of		nal Wetland Site ID:	_
HYDROLOGY Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required;	1 /1		Cracks (B6)
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9)		atterns (B10)
Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)	Moss Trim L Dry-Season	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	· · · /	isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Reduction in Tilled So Thin Muck Surface (C7)	Shallow Aqu	: Position (D2) uitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	·	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	l Test (D5)
Field Observations:			
Surface Water Present? Yes No	_ , , ,		
Water Table Present? Yes ✓ No Saturation Present? Yes ✓ No	Depth (inches): 4 Depth (inches): 0	Wetland Hydrology Prese	nt? Yes ✓ No 🗌
(includes capillary fringe)			163 <u>-1</u> 110 <u>-1</u>
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION –	Use scientific	names of	plants.
		Hallioo oi	piarito.

'EGETATION – Use scientific names of plants				Sampling Point: O-1
Tree Stratum (Plot size: 30 ft)		Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species
1. Quercus palustris	30	50.0Y	FACW	That Are OBL, FACW, or FAC: 4 (A)
2. Acer rubrum	20	33.3Y	FAC	Total Number of Dominant
3. Quercus rubra	10	16.7Y	FACU	Species Across All Strata: 6 (B)
4	_			Percent of Dominant Species That Are ORL FACW or FAC: 66.7
5				That Are OBL, FACW, or FAC: 60.7 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	60	= Total Cov	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1. Rosa multiflora	15	37.5Y	FACU	FAC species x 3 =
2. Acer rubrum	10	25.0Y	FAC	FACU species x 4 =
3. Lindera benzoin	15	37.5Y	FACW	UPL species x 5 = Column Totals: (A) (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	40	= Total Cov	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Index is ≤3.0¹
1				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5	_			Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	^	= Total Cov	ver	height.
Woody Vine Stratum (Plot size: 30 ft)				
1.				
1				
2				Hudrophytio
2				Hydrophytic Vegetation
2		= Total Cov		

Sampling Point: O-1(in)

Carala N	Matrix			dox Features	1	Touton	
(inches) 0-2	Color (moist) 10YR 4/1	<u>%</u> 100	Color (moist)	%	ype ¹ Loc ²	Texture Remarks silt loam	
	-						
2-12	10YR 6/2	80	10YR 6/6			silty clay	
	Concentration, D=Dell Indicators:	epletion, RN	M=Reduced Matrix, I	MS=Masked Sa	nd Grains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ⁵	3
Black H Hydrog Stratific Deplete Thick E Sandy Sandy Sandy Strippe	ol (A1) Epipedon (A2) Histic (A3) Hen Sulfide (A4) Hed Layers (A5) Hed Below Dark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) Hod Matrix (S6) Hed Matrix (S6) Hed Matrix (S6) Hed Matrix (S6)	1	MLRA 149 Thin Dark Su Loamy Mucky Loamy Gleye Depleted Mat Redox Dark S Depleted Dar Redox Depre	rface (S9) (LRR / Mineral (F1) (L d Matrix (F2) rix (F3) Surface (F6) k Surface (F7)	R, MLRA 149B	2 cm Muck (A10) (LRR K, L, MLRA 1 Coast Prairie Redox (A16) (LRR K, L, 5 cm Mucky Peat or Peat (S3) (LRR K Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR Piedmont Floodplain Soils (F19) (MLR Mesic Spodic (TA6) (MLRA 144A, 144 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)	, R) (, L, R) (, L) K, L, R) RA 149B
Indicators	of hydrophytic vege	tation and v	vetland hydrology m	ust be present,	unless disturbed	l or problematic.	
Restrictive	Layer (if observed	d):		<u> </u>			
Type:							
Depth (in	nches):					Hydric Soil Present? Yes <u>✓</u> No	Ш

Project/Site: Cuyahoga Co. Airport	City/C	County: Cuyahoga		Sampling Date: 5/2/13
Applicant/Owner: Mead & Hunt				Sampling Point: O-2 (Wet O)
Investigator(s): DGV	Section	on, Township, Range: T8ľ	N R10W	
Landform (hillslope, terrace, etc.): flat	Local rel	ief (concave, convex, none	e): convex	Slope (%): 1
Subregion (LRR or MLRA): LRR	Lat: 41.570102	Long: <u>-81.4</u>	83565	Datum: NAD 83
Soil Map Unit Name: Darien silt loam			NWI classific	
Are climatic / hydrologic conditions on the	site typical for this time of year? Y	′es <u> </u>	f no, explain in R	emarks.)
	ydrology significantly distur		Circumstances" p	present? Yes No
Are Vegetation, Soil, or H	ydrology naturally problema	atic? (If needed, ex	plain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Att			ıs, transects	. important features, etc.
				, important routaroo, oto:
Hydrophytic Vegetation Present?	Yes No √ Yes √ No _	Is the Sampled Area within a Wetland?	Yes	No 🗸
Hydric Soil Present? Wetland Hydrology Present?	Yes No V			
Remarks: (Explain alternative procedur		If yes, optional Wetland S	Sile ID	
	,			
HYDROLOGY				
Wetland Hydrology Indicators:		<u> </u>	Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is re	equired; check all that apply)	[Surface Soil	Cracks (B6)
Surface Water (A1)	Water-Stained Leave	s (B9)	Drainage Pa	tterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	ļ.	Moss Trim Li	
Saturation (A3)	Marl Deposits (B15)	<u> </u>	1 '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od	· · ·	Crayfish Buri	
Sediment Deposits (B2)	Presence of Reduced	es on Living Roots (C3)	I	isible on Aerial Imagery (C9) tressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4)	Recent Iron Reductio			Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C	У 1	Shallow Aqui	` '
Inundation Visible on Aerial Imager	·	· ·		aphic Relief (D4)
Sparsely Vegetated Concave Surfa	· · · · · · · · · · · · · · · · · · ·		FAC-Neutral	
Field Observations:				
Surface Water Present? Yes	No V Depth (inches):			
Water Table Present? Yes	No V Depth (inches):			
Saturation Present? Yes (includes capillary fringe)	No <u>✓</u> Depth (inches):	Wetland Hy	drology Presen	nt? Yes No ✓
Describe Recorded Data (stream gauge	, monitoring well, aerial photos, pre	vious inspections), if availa	able:	
Remarks:				
. tomante				
				,

	·			Sampling Point: O-2(out)
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute	Dominant Species?		Dominance Test worksheet:
1. Quercus palustris	20	66.7Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2. Quercus rubra	10	33.3Y	FACU	111dt7tt0 0B2,17t0vv, 0117t0.
3.				Total Number of Dominant Species Across All Strata: 5 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 40 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
45.0	30	= Total Cov	ver	OBL species $\frac{0}{30}$ $\times 1 = \frac{0}{40}$
Sapling/Shrub Stratum (Plot size: 15 ft)	00	400)/	E4011	FACW species $\frac{20}{20}$ $x = \frac{40}{60}$ FAC species $\frac{20}{30}$ $x = \frac{60}{30}$
1. Rosa multiflora	60	100Y	FACU	FAC species $\frac{20}{130}$ $x 3 = \frac{60}{520}$ FACU species $\frac{130}{x 4}$ $x 4 = \frac{520}{x 4}$
2				UPL species 0 $x = 0$
3				Column Totals: <u>170</u> (A) <u>620</u> (B)
4				Prevalence Index = B/A = 3.65
5				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
7	60	Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)		= Total Cov	vei	3 - Prevalence Index is ≤3.0 ¹
1. Podophyllum peltatum	60	75.0Y	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Viola sp.	20	25.0Y	FAC	Problematic Hydrophytic Vegetation¹ (Explain)
3				_
4.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in height.
	80	= Total Cov	ver	
20.4				
Woody Vine Stratum (Plot size: 30 ft)				
1				
1 2				
1				Hydrophytic Vegetation
1 2				

Sampling Point: O-2(out)

Depth	Matrix	e to the de	oth needed to docu Red	ox Features			e of mulcators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹ Lo	² Texture	Remarks
0-3	10YR 3/2	100				silt loam	
3-10	10YR 6/6	80	10YR 3/3	20		silt clay	
				·			
1Type: C=C	Concentration, D=De	nletion DM	-Reduced Matrix A		Sand Grains	21 ocation	n: PL=Pore Lining, M=Matrix.
Histoso Histic E Black H Hydrog Stratifie Deplete Thick D Sandy Sandy Strippe Dark St	pipedon (A2) iistic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surfa ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR R,	MLRA 149		face (S9) (LF Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7 ssions (F8)	RR R, MLRA 1 (LRR K, L)	49B) 2 cm I Coast 5 cm I Dark S Polyva Thin D Iron-M Piedm Mesic Red P Very S Other	For Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L) Palue Below Surface (S8) (LRR K, L) Park Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R) Proof (TA6) (MLRA 144A, 145, 149B) Parent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
	of hydrophytic veget Layer (if observed		etland hydrology mu	ist be preser	it, unless disti	rbed or problemati	С.
Type:		,,-					
Depth (ir	nches):					Hydric Soi	I Present? Yes <u>√</u> No <u>□</u>
Remarks:							

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: P-1 (Wet P)
Investigator(s): DGV	Section, Township	o, Range: T8N R10W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.569719	Long: -81.482934	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	cation: none
Are climatic / hydrologic conditions on the site typi	.ca <u>l for</u> this time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	I I	Are "Normal Circumstances"	present? Yes No
		(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach si	te map showing sampling poi	nt locations, transects	s. important features, etc.
			,, p 0
Hydrophytic Vegetation Present? Yes	√ No Is the Sam within a W	etland? Yes	No 🗆
Hydric Soil Present? Yes Wetland Hydrology Present? Yes			
Remarks: (Explain alternative procedures here		onal Wetland Site ID:	
(,		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soi	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim L	ines (B16)
Saturation (A3)	Marl Deposits (B15)	1 · ·	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living		/isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	E Stanted of C	Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	
Field Observations:			,
Surface Water Present? Yes No _	Depth (inches): >4		
Water Table Present? Yes No _	Depth (inches): 0		
Saturation Present? Yes Ves No	Depth (inches): 0	Wetland Hydrology Prese	nt? Yes 🔽 No 📙
(includes capillary fringe) Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspec	l tions), if available:	
Remarks:			
Remarks.			

EGETATION – Use scientific names of plants				Sampling Point: P-1(in)
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1. Acer rubrum	15	33.3Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. Acer saccharinum	25	55Y	FACW	
3. Salix nigra	5	11.1Y	OBL	Total Number of Dominant Species Across All Strata: 6 (B)
4. 5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6.				Bassalana Indonesia Indonesia
7				Prevalence Index worksheet: Total % Cover of: Multiply by:
	15	= Total Cov	/or	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)	-	- 10101 001	701	FACW species x 2 =
1. Acer rubrum	15	75Y	FAC	FAC species x 3 =
2. Rosa palustris	5	25Y	OBL	FACU species x 4 =
				UPL species x 5 =
3				Column Totals: (A) (B)
4				Dravalence Index - B/A
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	20	= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)	E	100V		3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
1. Carex sp.	5	100Y	FACW	data in Remarks or on a separate sheet)
2	_			Problematic Hydrophytic Vegetation ¹ (Explain)
3. 4.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5.				
				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9			-	and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
12.	_	= Total Cov		height.
Woody Vine Stratum (Plot size: 30 ft)		= Total Cov	/ei	
1				
2				Understand
2				
3				Hydrophytic Vegetation
		= Total Cov		

Sampling Point: P-1(in)

Depth	Matrix			x Features	1 . ?	
(inches)	Color (moist)	400	Color (moist)	<u>% Type</u>	Loc ²	Texture Remarks
0-2	10YR 2/1	100		- ·		sandy loam
2-8	10YR 4/1	100			<u> </u>	silt loam
			-			
					<u> </u>	
			-		_	
			-	· ·	 ,	
					<u> </u>	
				·		
1			-			
'Type: C=C Hydric Soil		oletion, RN	1=Reduced Matrix, MS	S=Masked Sand	Grains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Histosol			☐ Polyvalue Belov	w Surface (S8) (L	DD D	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B)		.KK K,	Coast Prairie Redox (A16) (LRR K, L, R)
	istic (A3)			, ace (S9) (LRR R ,	MLRA 149B	
	en Sulfide (A4)		_	Mineral (F1) (LRF	K, L)	Dark Surface (S7) (LRR K, L)
_	d Layers (A5)	- (044)	Loamy Gleyed			Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Matrix Redox Dark Su			Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark			Piedmont Floodplain Soils (F19) (MLRA 149E
	Gleyed Matrix (S4)		Redox Depress			Mesic Spodic (TA6) (MLRA 144A, 145, 149B
	Redox (S5)					Red Parent Material (F21)
_	d Matrix (S6)		,			Very Shallow Dark Surface (TF12)
Dark Su	urface (S7) (LRR R,	MLRA 149	0B)			U Other (Explain in Remarks)
³ Indicators o	f hydrophytic vegeta	ation and w	etland hydrology mus	st be present, unl	ess disturbed	d or problematic.
	Layer (if observed)		, 0,			<u> </u>
Type:						
Depth (in	ches):					Hydric Soil Present? Yes ✓ No □
Remarks:						
rtomanto.						

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	rahoga	Sampling Date: <u>5/1/13</u>
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: P-2 (Wet P)
Investigator(s): DGV	Section, Township	o, Range: T8N R10W	
Landform (hillslope, terrace, etc.): flat	Local relief (concave	, convex, none): convex	Slope (%): <u>0-2</u>
Subregion (LRR or MLRA): LRR	Lat: 41.569736	Long: <u>-81.482856</u>	NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classi	fication: none
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	/ significantly disturbed?	Are "Normal Circumstances"	"present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Attach si	te map showing sampling po	int locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _	110 - 110 - 141 - 110 - 14	npled Area /etland? Yes	No ✓
Wetland Hydrology Present? Yes _		onal Wetland Site ID:	
Remarks: (Explain alternative procedures here	:: yee, ept	onal Welland Oile ID.	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)
Primary Indicators (minimum of one is required;			oil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	1 1	Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3) Water Marks (B1)	Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	·	n Water Table (C2) urrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	I I '	Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	· · ·	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled S		ic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Ac	quitard (D3)
Inundation Visible on Aerial Imagery (B7)	U Other (Explain in Remarks)		graphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutr	al Test (D5)
Field Observations:			
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Saturation Present? Yes V No No	Depth (inches): 10 Depth (inches):	Wetland Hydrology Prese	ent? Yes 🗸 No 🗌
(includes capillary fringe)			ill! Tes <u>□</u> No <u>□</u>
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspec	ctions), if available:	
Remarks:			

/EGETATION – Use scientific names of plants				Sampling Point: P-2(out)
<u>Tree Stratum</u> (Plot size: 30 ft)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1 Fagus grandifolia	20	40Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2. Prunus serotina	30	60Y	FACU	That Are OBL, FACW, or FAC (A)
3				Total Number of Dominant Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5	_			That Are OBL, FACW, or FAC: 25 (A/B)
6	_			Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	50	= Total Cov	/er	OBL species $\frac{5}{}$ $x 1 = \frac{5}{}$
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species 0 $x 2 = 0$
_{1.} Fagus grandifolia	20	80Y	FACU	FAC species $0 \times 3 = 0$
Rosa palustris	5	20Y	OBL	FACU species $\frac{70}{}$ $x 4 = \frac{280}{}$
3				UPL species $\frac{0}{25}$ $x = \frac{0}{255}$
				Column Totals: <u>75</u> (A) <u>285</u> (B)
4				Prevalence Index = B/A = 3.8
5				
6				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
	25	= Total Cov	/er	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 ft)				4 - Morphological Adaptations ¹ (Provide supporting
1	_			data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				1
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
6				Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8	_			Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11	_			
12				Woody vines – All woody vines greater than 3.28 ft in height.
	0	= Total Cov	/er	noight.
Woody Vine Stratum (Plot size: 30 ft)				
1				
2.				Hydrophytic
3				Vegetation —
2		= Total Cov		

Sampling Point: P-2(out)

Profile Des	• •	to the de	pth needed to docu	ment the	indicator	or confirm	n the absence of indicators.)
Depth	Matrix Color (moist)	%	Color (moist)	x Feature %	Type ¹	Loc ²	Texture Remarks
(inches) 0-3	10YR 3/2	100	Color (Illoist)	70	туре	LUC	sandy loam
3-12	10YR 6/6	80	10YR 3/3	20			silty clay
	_		-				
-							
	-				·		
-	_		-				
							
		_		-			
					<u> </u>		
					<u> </u>		
		_					
		oletion, RN	1=Reduced Matrix, M	S=Maske	d Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil					(00) (1.50	_	Indicators for Problematic Hydric Soils ³ :
Histoso	I (A1) pipedon (A2)		Polyvalue Belo MLRA 149B		(S8) (LR F	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black H	istic (A3)		Thin Dark Surfa	, ace (S9) (5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4) d Layers (A5)		Loamy Mucky I Loamy Gleyed			, L)	☐ Dark Surface (S7) (LRR K, L) ☐ Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac	ce (A11)	Depleted Matrix		-)		Thin Dark Surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Su				Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1) Gleyed Matrix (S4)		Depleted Dark Redox Depress	,	-7)		Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)			(. 0)			Red Parent Material (F21)
	d Matrix (S6)	MI DA 440	ND)				Very Shallow Dark Surface (TF12)
☐ Dark St	ırface (S7) (LRR R, I	WILKA 148	1B)				Other (Explain in Remarks)
			etland hydrology mu	st be pres	ent, unless	disturbed	l or problematic.
Type:	Layer (if observed)	:					
	iches):						Hydric Soil Present? Yes No✓
Remarks:							

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt			Sampling Point: Q-1 (Wet Q)
Investigator(s): DGV	Section, Township	o, Range: T8N R10W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave	, convex, none): concave	Slope (%): 0-1
Subregion (LRR or MLRA): LRR	Lat: 41.569969	Long: -81.482663	Datum: NAD 83
Soil Map Unit Name: Darien silt loam		NWI classif	cation: none
	y significantly disturbed? y naturally problematic? ite map showing sampling po	Are "Normal Circumstances" (If needed, explain any answint locations, transects	present? Yes No ers in Remarks.)
Hydrophytic Vegetation Present? Yes _		npled Area /etland? Yes ✓	No 🗌
Hydric Soil Present? Yes_			<u> </u>
Wetland Hydrology Present? Yes _ Remarks: (Explain alternative procedures here		onal Wetland Site ID:	
HYDROLOGY Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required:	check all that apply)	Surface Soi	l Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2) ✓ Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)	Moss Trim I	Lines (B16) Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	·	/isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Reduction in Tilled Somethin Thin Muck Surface (C7)	oils (C6) Geomorphic Shallow Aq	Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	
Field Observations:			
Surface Water Present? Yes No			
Water Table Present? Yes V No	Depth (inches): 10		🖂 🖂
Saturation Present? Yes <u>I</u> ✓ No (includes capillary fringe)	Depth (inches): 6	Wetland Hydrology Prese	nt? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monitor	oring well, aerial photos, previous inspec	tions), if available:	
Remarks:			

Tree Stratum (Plot size: 30 ft) 1. Acer rubrum				Sampling Point: Q-1(in)
1. Acer rubrum	Absolute	Dominant		Dominance Test worksheet:
·	60	Species? 66.7Y	Status FAC	Number of Dominant Species That Are ORL FACW or FAC: 3 (A)
2. Acer saccharinum	30	33.3Y	FACW	That Are OBL, FACW, or FAC: 3 (A)
3				Total Number of Dominant Species Across All Strata: 3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	00	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1. Acer rubrum	10	100Y	FAC	FAC species x 3 =
				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7	10			✓ 2 - Dominance Test is >50%
	10	= Total Cov	er	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5 ft)				4 - Morphological Adaptations ¹ (Provide supporting
1				data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	0	= Total Cov	ver	height.
Woody Vine Stratum (Plot size: 30 ft)				
1				
2.				
3.				Hydrophytic
				Vegetation — —
4	0	= Total Cov	·or	Present? Yes ✓ No

Sampling Point: Q-1(in)

Profile Desc	cription: (Describe	to the de	pth needed to docur	ment the	indicator	or confirm	n the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	es Type ¹	Loc ²	Texture Remarks
(inches) 0-3	10YR 4/1	100	Color (moist)		<u>rype</u>	LUC	sandy loam
3-12	10YR 6/2	70	10YR 6/6	30			silty clay
			-				
				-			
			-	-			
				-			
		· ——					
							
		letion, RN	1=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil					(Oa) (I DI		Indicators for Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)		Polyvalue Below		(S8) (LR F	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Hi	istic (A3)		Thin Dark Surfa	ace (S9) (5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4) d Layers (A5)		Loamy Mucky N			, L)	☐ Dark Surface (S7) (LRR K, L) ☐ Polyvalue Below Surface (S8) (LRR K, L)
	d Layers (AS) d Below Dark Surfac	e (A11)	Depleted Matrix		<u>-)</u>		Thin Dark Surface (S9) (LRR K, L)
Thick Da	ark Surface (A12)		Redox Dark Su	rface (F6)			Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1) Gleyed Matrix (S4)		Depleted Dark Redox Depress	•	,		Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)		Redox Depress	510113 (1 0)			Red Parent Material (F21)
	Matrix (S6)		_,				Very Shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	MLRA 149	0B)				Other (Explain in Remarks)
			etland hydrology mus	st be pres	ent, unless	s disturbed	or problematic.
	Layer (if observed):						
Type:	ala a a \.						Hydric Soil Present? Yes 🗸 No 🔲
Remarks:	ches):						riyane con resent: res no
Remarks.							

Project/Site: Cuyahoga Co. Airport	City/C	County: Cuyahoga		Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt				Sampling Point: Q-2 (Wet Q)
Investigator(s): DGV	Section	on, Township, Range: T8	3N R10W	
Landform (hillslope, terrace, etc.): flat	Local rel	ief (concave, convex, non	ıe): convex	Slope (%): <u>0-1</u>
Subregion (LRR or MLRA): LRR	Lat: 41.570033	Long: <u>-81.</u> 4	482719	Datum: NAD 83
Soil Map Unit Name: Darien silt loam			NWI classific	
Are climatic / hydrologic conditions on the si	te typical for this time of year? Y	′es <u> </u>	If no, explain in R	emarks.)
Are Vegetation, Soil, or Hyd			Circumstances" p	oresent? Yes No
	rology naturally problema		xplain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attac	ch site man showing sam	npling point locatio	ns. transects	. important features, etc.
				, important routuroo, otor
	Yes No _✓ Yes No _✓	Is the Sampled Area within a Wetland?	Ves 🗌	No 🗸
'				
Wetland Hydrology Present? Remarks: (Explain alternative procedures		If yes, optional Wetland	Site ID:	
Tremano. (Explain alternative procedures	Tiore of in a separate report.)			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is requ	uired; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	Water-Stained Leave	es (B9)	Drainage Pa	tterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Li	
Saturation (A3)	Marl Deposits (B15)	(- .)	1 1 '	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od		Crayfish Bur	
Sediment Deposits (B2)	Presence of Reduced	es on Living Roots (C3)	1 1	isible on Aerial Imagery (C9) tressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4)	Recent Iron Reductio	· · ·		Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C	` '	Shallow Aqu	` ,
Inundation Visible on Aerial Imagery (· · · · · · · · · · · · · · · ·	·	1 1	aphic Relief (D4)
Sparsely Vegetated Concave Surface	, <u>—</u>	,	FAC-Neutral	
Field Observations:			-	
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No Depth (inches):			
Saturation Present? Yes (includes capillary fringe)	No V Depth (inches):	Wetland H	lydrology Preser	nt? Yes No ✓
Describe Recorded Data (stream gauge, n	nonitoring well, aerial photos, pre	vious inspections), if avai	lable:	
Remarks:				
1				

to Indicator Status FACU FACW Status FACU FACW FACU FACU FACU FACU FACU FACU FACU	Dominance Test worksheet: Number of Dominant Species 1 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 3 = 0 FACU species 0 x 4 = 420 UPL species 0 x 5 = 0 Column Totals: 125 (A) Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata:
FACU FACU FACU FACU FACU FACU FACU	That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x1 = 0 FACW species 20 x2 = 40 FAC species 0 x3 = 0 FACU species 105 x4 = 420 UPL species 0 x5 = 0 Column Totals: 125 (A) 460 (B) Prevalence Index = B/A = 3.68 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU FACU FACU FACU	Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species PACW species PACW species O FACU species O FACU species O Column Totals: 1 - Rapid Test for Hydrophytic Vegetation Prevalence Index is ≤3.0¹ A - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation hydrology must be present, unless disturbed or problematic.
FACU FACU FACU FACU	Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by:
FACU FACU FACU FACU	That Are OBL, FACW, or FAC: 20.0 (A/B) Prevalence Index worksheet:
FACU FACU FACU FACU	Prevalence Index worksheet:
FACU FACU FACU FACU	Total % Cover of: OBL species OBL species
FACU FACU FACU FACU	OBL species 0 x 1 = 0 FACW species 20 x 2 = 40 FAC species 0 x 3 = 0 FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column Totals: 125 (A) 460 (B) Prevalence Index = B/A = 3.68 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU FACU FACU FACU	FACW species 20
FACU	FAC species 0 x 3 = 0 FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column Totals: 125 (A) 460 (B) Prevalence Index = B/A = 3.68 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU	FACU species 105
pover FACU	UPL species 0 x 5 = 0 460 (B) Prevalence Index = B/A = 3.68 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU	Column Totals: 125 (A) 460 (B) Prevalence Index = B/A = 3.68 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU	Prevalence Index = B/A = 3.68 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
FACU	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
 	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
 	be present, unless disturbed or problematic.
	be present, unless disturbed or problematic.
	Definitions of Vegetation Strata
	Deminions of Vegetation Strata.
	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
	at breast height (DBH), regardless of height.
	Sapling/shrub – Woody plants less than 3 in. DBH
	and greater than or equal to 3.28 ft (1 m) tall.
	Herb – All herbaceous (non-woody) plants, regardless
	of size, and woody plants less than 3.28 ft tall.
- ·	Woody vines – All woody vines greater than 3.28 ft in
over	height.
	- - Hydrophytic
	Vegetation — —
over	Present? Yes No V
	over

Sampling Point: Q-2(out)

Depth	Matrix			dox Features		Tautura
(inches) 0-4	Color (moist) 10YR 3/2	<u>%</u> 100	Color (moist)	%T	ype ¹ Loc ²	Texture Remarks sandy loam
	· -	_				<u> </u>
I-12	10YR 6/6	70	10YR 3/3	30		silty clay
	Concentration, D=De Indicators:	epletion, RN	M=Reduced Matrix, I	MS=Masked Sa	nd Grains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Black H Hydrog Stratifie Deplete Thick D Sandy Sandy Sandy Strippe	ol (A1) Epipedon (A2) Histic (A3) En Sulfide (A4) Ed Layers (A5) Ed Below Dark Surfa Park Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Urface (S7) (LRR R		MLRA 149 Thin Dark Sul Loamy Mucky Loamy Gleyer Depleted Mat Redox Dark S Depleted Dari Redox Depres	rface (S9) (LRR Mineral (F1) (L Matrix (F2) rix (F3) Surface (F6) k Surface (F7)	R, MLRA 149B	2 cm Muck (A10) (LRR K, L, MLRA 149E Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L Piedmont Floodplain Soils (F19) (MLRA 1 Mesic Spodic (TA6) (MLRA 144A, 145, 1 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
			vetland hydrology m	ust be present,	unless disturbed	d or problematic.
estrictive	Layer (if observed	d):				
Type:			<u></u>			
Depth (ir Remarks:	nches):					Hydric Soil Present? Yes No _

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: R-1 (Wet R)
Investigator(s): DGV	Section, Township	o, Range: T8N R10W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.570999		Datum: NAD 83
Soil Map Unit Name: Darien silt loam		NWI classifi	cation: none
	significantly disturbed? naturally problematic?	Are "Normal Circumstances" (If needed, explain any answe	present? Yes No ers in Remarks.)
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _ Remarks: (Explain alternative procedures here		ppled Area letland? Yes onal Wetland Site ID:	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required;	check all that apply)		ators (minimum of two required) Cracks (B6)
✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Drainage Pa Moss Trim L Dry-Season Crayfish Bu Saturation V ✓ Stunted or S Dills (C6) ✓ Geomorphic Shallow Aqu	atterns (B10) Lines (B16) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) Litard (D3) aphic Relief (D4)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitor)	Depth (inches): 6 Depth (inches): 0 Depth (inches): 0 ring well, aerial photos, previous inspec	Wetland Hydrology Prese tions), if available:	nt? Yes No
Remarks:			

VEGETATION — USE SCIENTIFIC HARRIES OF DIAMES	VEGETATION –	Use scientific	names of	plants.
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/EGETATION – Use scientific names of plants	3.			Sampling Point: R-1
Tree Stratum (Plot size: 30 ft)	Absolute		Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30 II) 1. Quercus palustris	40	Species? 44.4Y	FACW	Number of Dominant Species That Are OBL FACW or FAC: 5
2. Quercus rubra	30	33.3Y	FACU	That Are OBL, FACW, or FAC: 5 (A)
3. Acer saccharinum	20	22.2Y	FACW	Total Number of Dominant Species Across All Strata: 6 (B)
4.				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: 83 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	90	= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1. Acer saccharinum (sap)	10	28.6Y	FACW	FAC species x 3 =
2. Quercus palustris (sap)	10	28.6Y	FACW	FACU species x 4 =
3. Lindera benzoin	15	42.9Y	FACW	UPL species x 5 = Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	25	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)				3 - Prevalence Index is ≤3.0¹
1				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2	_			Problematic Hydrophytic Vegetation ¹ (Explain)
3		-		¹ Indicators of hydric soil and wetland hydrology must
4		-		be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9 10		·		
11				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
	0	= Total Co	ver	height.
Woody Vine Stratum (Plot size: 30 ft)		, , , , , , , , , , , , , , , , , , , ,		
1				
2.				
				Lindrambatio
3				Hydrophytic Vegetation
3				
3 4	^	= Total Co	ver	Present? Yes V No No

Sampling Point: R-1

Profile Desc	cription: (Describe	to the de	pth needed to docur	nent the	indicator	or confirn	n the absence of indicators.)
Depth	Matrix	0/		x Feature		1 - 2	Turbus
(inches) 0-3	Color (moist) 10YR 4/1	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture Remarks sandy clay
3-12	10YR 6/2	70	10YR 6/6	30			silty clay
3-12	1011 0/2	70	1011 0/0	30			Sity clay
	-						
		-			-		
						-	·
		_					
¹Type: C=Co	oncentration, D=Dep	letion, RM	1=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil							Indicators for Problematic Hydric Soils ³ :
Histosol	, ,		Polyvalue Belov		(S8) (LRF	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Hi	oipedon (A2) stic (A3)		MLRA 149B) Thin Dark Surfa		LRR R. MI	_RA 149B	Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky N				Dark Surface (S7) (LRR K, L)
	d Layers (A5)	(0.4.4)	Loamy Gleyed		2)		Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Matrix Redox Dark Su				Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)
	fucky Mineral (S1)		Depleted Dark	, ,			Piedmont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5) I Matrix (S6)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)
	rface (S7) (LRR R, N	VILRA 149	B)				Other (Explain in Remarks)
3							
	f hydrophytic vegeta Layer (if observed):		etland hydrology mus	st be pres	ent, unless	disturbed	d or problematic.
Type:	_ayo: (oboo: rou).	•					
	ches):						Hydric Soil Present? Yes ✓ No □
Remarks:	,						

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	/ahoga	Sampling Date: <u>5/1/13</u>
Applicant/Owner: Mead & Hunt			Sampling Point: R-2 (Wet R)
Investigator(s): DGV	Section, Townshi	p, Range: T8N R10W	
Landform (hillslope, terrace, etc.): tlat	Local relief (concave	e, convex, none): none	Slope (%): 1
Subregion (LRR or MLRA): LRR	Lat: 41.571040	Long: -81.482431	NAD 83
Soil Map Unit Name: Darien silt loam		NWI classit	ication: none
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	e map showing sampling po	int locations, transect	s. important features, etc.
Hydrophytic Vegetation Present? Yes	 	npled Area Vetland? Yes	No ✓
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	NO	onal Wetland Site ID:	<u> </u>
Remarks: (Explain alternative procedures here of		onal Welland Site ID.	
	. ,		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required; of	check all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	I I	Lines (B16)
Saturation (A3)	Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living	1 1 '	urrows (C8) Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	· · ·	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled S		c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	` '
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	al Test (D5)
Field Observations:			
Surface Water Present? Yes No _			
Water Table Present? Yes Vo	Depth (inches): 12		🖂 🖂
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches):	Wetland Hydrology Prese	ent? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspe	ctions), if available:	
Remarks:			

VEGETATION –	Use	scientific	names	of	plants.

Tree Stratum (Plot size: 30 ft) 1. Acer rubrum 2. Fagus grandifolia 3 4 5	<u></u>	Dominant Species? Y Y	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant (A)
1. Acer rubrum 2. Fagus grandifolia 3	<u></u>	<u>Y</u> <u>Y</u>	FACU FACU	That Are OBL, FACW, or FAC: $\frac{2}{}$ (A)
Fagus grandifolia 3		Y	FACU	That Are ODE, I AOW, OF AC.
3		<u> </u>		Total Number of Dominant
4				Species Across All Strata: 5 (B)
				Percent of Dominant Species
				That Are OBL, FACW, or FAC: 40 (A/E
5				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Cov	er er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
I. Prunus serotina		100Y	FACU	FAC species x 3 =
2				FACU species x 4 =
3.				UPL species x 5 =
i				Column Totals: (A) (B)
5.				Prevalence Index = B/A =
S				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
	^	= Total Cov		2 - Dominance Test is >50%
Last Overtons (Districts 5 ft		= TOTAL COV	rei	3 - Prevalence Index is ≤3.0 ¹
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>) . Podophyllum peltatum		Υ	FACU	4 - Morphological Adaptations ¹ (Provide supportine data in Remarks or on a separate sheet)
_{2.} Viola sp.		Υ	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6.				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
3.				
n				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	0	= Total Cov	er	height.
Woody Vine Stratum (Plot size: 30 ft)	-	- 10tai 00v	· Ci	
l				
2			-	
3				Hydrophytic Vegetation
4	^			Present? Yes No V
		= Total Cov	er er	
Remarks: (Include photo numbers here or on a separate s	heet.)			
Photos: 145-149				

Sampling Point: R-2

		to the de	-			or confirn	n the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	s Type ¹	Loc ²	
0-3	10YR 3/2	100					sandy loam
3-12	10YR 6/6	90	10YR 3/3	10			silty clay
				-			
		_	·				
				_			
-			-	_			
	_		-				
	-	<u> </u>		-	·		
	_						
		oletion, RI	M=Reduced Matrix, M	S=Masked	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Histosol			Debaglus Bala	Curtooo	(C0) (LDI	. D	Indicators for Problematic Hydric Soils ³ :
	pipedon (A2)		Polyvalue Belo		(56) (LKI	χĸ,	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black H	istic (A3)		Thin Dark Surfa	, ace (S9) (I			5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky I			, L)	Dark Surface (S7) (LRR K, L)
	d Layers (A5) d Below Dark Surfac	e (A11)	Loamy Gleyed ✓ Depleted Matrix		<u>(2)</u>		Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)
	ark Surface (A12)	(, , , ,	Redox Dark Su		1		Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark	,	- 7)		Piedmont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4) Redox (S5)		Redox Depress	sions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)
	d Matrix (S6)						Very Shallow Dark Surface (TF12)
Dark Su	ırface (S7) (LRR R,	MLRA 149	BB)				Other (Explain in Remarks)
³ Indicators o	of hydrophytic vegeta	ition and v	vetland hydrology mus	st he pres	ent unles	s disturbed	d or problematic
	Layer (if observed)		Totalia nyarology ma	3. 50 p. 00	ont, amoo	o diotal bod	i prosiomato.
Type:							
Depth (in	ches):						Hydric Soil Present? Yes V No
Remarks:							L

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 5/1/13
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: S-1 (Wet S)
Investigator(s): DGV	Section, Township	o, Range: T8N R10W	
Landform (hillslope, terrace, etc.): depression	Local relief (concave,	convex, none): concave	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.569969	Long: -81.482663	Datum: NAD 83
Soil Map Unit Name: Darien silt loam		NWI classifi	cation: none
	significantly disturbed? naturally problematic? te map showing sampling poi	Are "Normal Circumstances" (If needed, explain any answent locations, transects	present? Yes No ers in Remarks.)
Hydrophytic Vegetation Present? Yes _	✓ No Is the Sam within a W	ipled Area	No 🗌
Hydric Soil Present? Yes			
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here		onal Wetland Site ID:	
HYDROLOGY Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soi	l Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	I I -	atterns (B10)
High Water Table (A2) ✓ Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)	Moss Trim L	Lines (B16) Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	I I '	/isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Reduction in Tilled So Thin Muck Surface (C7)	oils (C6) Geomorphic Shallow Aqu	Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	outer (2)prain in recination	FAC-Neutra	
Field Observations:			
Surface Water Present? Yes No _			
Water Table Present? Yes ✓ No _	Depth (inches): 10		🖂 🖂
Saturation Present? Yes ✓ No _ (includes capillary fringe)	Depth (inches): 6	Wetland Hydrology Prese	nt? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspec	tions), if available:	
Remarks:			

/EGETATION – Use scientific names of plants				Sampling Point: S-1(in)
Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Species?		Dominance Test worksheet:
1		•	,	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2				Total Number of Dominant
3	_			Species Across All Strata: 3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1		· ·		FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4.				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	Λ	= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)	-	= 10tal 00	VCI	3 - Prevalence Index is ≤3.0 ¹
1. Carex sp.	30	30Y	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Festuca sp.	25	20Y	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Poa sp.	20	20Y	FAC	The Product of Charles and Cha
4. Schoenoplectus tabernaemontani	25	25Y	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		· ·		Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9.				and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
	100	= Total Co	/er	height.
Woody Vine Stratum (Plot size: 30 ft				
1				
1 2				
2				Hydrophytic Vegetation
1 2				

Sampling Point: S-1(in)

	Matrix			dox Features	1 . 2	Today
(inches) 0-3	Color (moist) 10YR 4/1	<u>%</u>	Color (moist)	<u>%</u>	rpe ¹ Loc ²	Texture Remarks sandy loam
	-	100				
3-12	10YR 6/2	70	10YR 6/6	30		silty clay
	Concentration, D=De	epletion, RN	M=Reduced Matrix, I	MS=Masked Sar	nd Grains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Black H Hydrog Stratific Deplete Thick E Sandy Sandy Sandy Strippe	ol (A1) Epipedon (A2) Histic (A3) Hen Sulfide (A4) Hed Layers (A5) Hed Below Dark Surfa Dark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Hurface (S7) (LRR R		MLRA 149 ☐ Thin Dark Sui ☐ Loamy Mucky ☐ Loamy Gleyer ✓ Depleted Mat ☐ Redox Dark S ☐ Depleted Dari ☐ Redox Depres	rface (S9) (LRR Mineral (F1) (L Matrix (F2) rix (F3) Surface (F6) k Surface (F7)	R, MLRA 149B	2 cm Muck (A10) (LRR K, L, MLRA 149E Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, I Piedmont Floodplain Soils (F19) (MLRA Mesic Spodic (TA6) (MLRA 144A, 145, 1 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Indicators	of hydrophytic vege	tation and v	vetland hydrology m	ust be present, ı	unless disturbed	for problematic.
Restrictive	Layer (if observed	d):		<u> </u>		
Type:						
Depth (in	nches):					Hydric Soil Present? Yes 🔽 No 📗

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	/ahoga	Sampling Date: <u>5/1/13</u>
Applicant/Owner: Mead & Hunt		State: OH	Sampling Point: S-2 (Wet S)
Investigator(s): DGV	Section, Townshi		
Landform (hillslope, terrace, etc.): flat	Local relief (concave	, convex, none): none	Slope (%): 0
Subregion (LRR or MLRA): LRR	Lat: 41.567741	Long: -81.480750	Datum: NAD 83
Soil Map Unit Name: Udorthents		NWI classi	
Are climatic / hyd <u>rolog</u> ic conditions on the site typica	al for this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology _	I I		'present? Yes No
Are Vegetation, Soil, or Hydrology _		(If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sampling po	int locations, transect	s. important features, etc.
			, ,,
Hydrophytic Vegetation Present? Yes		npled Area Vetland? Yes	No ✓
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	7		
Remarks: (Explain alternative procedures here or		onal Wetland Site ID:	
Outpit			
Catpit			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)
Primary Indicators (minimum of one is required; ct	neck all that apply)	Surface Sc	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)Oxidized Rhizospheres on Living	I I '	urrows (C8) Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	· · I I	Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled S		ic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	·	quitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopog	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutr	al Test (D5)
Field Observations:			
Surface Water Present? Yes No	7 ' ` ' 		
Water Table Present? Yes No	Depth (inches):		ent? Yes No V
Saturation Present? Yes No No (includes capillary fringe)	Depth (inches):	Wetland Hydrology Prese	ent? Yes No <u>V</u>
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, previous inspe-	ctions), if available:	
Remarks:			

١	/EG	ET/	ATIO	N –	Use	scientific	names	of	plants.

Part
FACW, or FAC: 0 (A) of Dominant S All Strata: 2 (B) minant Species FACW, or FAC: 0 (A/B) dex worksheet: over of: Multiply by: 0 (A/B) 0
of Dominant Species FACW, or FAC: $\frac{0}{0} = \frac{0}{0} $ chinant Species FACW, or FAC: $\frac{0}{0} = \frac{0}{0} $ cover of: $\frac{0}{0} = \frac{0}{0} $ $\frac{0}{0} = \frac{0}{0}$
All Strata: $\frac{2}{0}$ (B) ninant Species FACW, or FAC: $\frac{0}{0}$ (A/B) dex worksheet: $\frac{0}{0}$ $x = \frac{0}{0}$ $\frac{0}{0}$ $x = \frac{0}{0}$ $\frac{10}{0}$ $x = \frac{30}{0}$ $\frac{85}{0}$ $x = \frac{0}{0}$ $\frac{0}{0}$ $x = \frac{340}{0}$ $\frac{0}{0}$ $x = \frac{370}{0}$ (B) The linear section indicators:
State Stat
FACW, or FAC: 0 (A/B) dex worksheet: 0
dex worksheet: O
over of: Multiply by: $\frac{0}{0}$ $\times 1 = \frac{0}{0}$ $\frac{0}{0}$ $\times 2 = \frac{0}{0}$ $\frac{10}{85}$ $\times 3 = \frac{30}{30}$ $\frac{85}{0}$ $\times 4 = \frac{340}{370}$ $\frac{95}{0}$ (A) $\frac{95}{0}$ (A) $\frac{3.9}{0}$ Yegetation Indicators:
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\frac{0}{95} \qquad x = \frac{0}{370}$ (B) The linear sequence is a sequence of the seq
$\frac{95}{\text{ce Index}} = \frac{3.9}{\text{egetation Indicators:}} $
ce Index = B/A = 3.9 /egetation Indicators:
egetation Indicators:
=
Test for Hydrophytic Vegetation
Took for Frydrophrytic Vegetation
ance Test is >50%
ence Index is ≤3.0 ¹
ological Adaptations¹ (Provide supporting Remarks or on a separate sheet)
ic Hydrophytic Vegetation ¹ (Explain)
ydric soil and wetland hydrology must ess disturbed or problematic.
·
Vegetation Strata:
plants 3 in. (7.6 cm) or more in diameter
t (DBH), regardless of height.
n – Woody plants less than 3 in. DBH an or equal to 3.28 ft (1 m) tall.
paceous (non-woody) plants, regardless ody plants less than 3.28 ft tall.
, ,
- All woody vines greater than 3.28 ft in
Yes No √

Sampling Point: S-2

SOIL

Profile Desc	ription: (Describe	to the dep	th needed to docun	nent the ir	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix			K Features					
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u></u> %	Type ¹	Loc ²	Texture	<u>Remarks</u>	
0-10	10YR 4/4	100					silt loam	fill with trace of gravel rock	
		· ——							
		·							
¹Type: C=C	oncentration D-Den	letion RM-	Reduced Matrix, MS	-Maskad	Sand Gr	aine	² l ocation	n: PL=Pore Lining, M=Matrix.	
Hydric Soil		iction, ixivi-	-rreduced Matrix, Mc	-iviaskeu	Sand On	ali io.		for Problematic Hydric Soils ³ :	
Histosol			Polyvalue Belov	y Surface /	'QQ\ /I D E	D D		Muck (A10) (LRR K, L, MLRA 149B)	
	oipedon (A2)		MLRA 149B)		(30) (LKI	ν ιν,		Prairie Redox (A16) (LRR K, L, R)	
	stic (A3)		☐ Thin Dark Surfa		RRR MI	RA 149R	1 1	Mucky Peat or Peat (S3) (LRR K, L, R)	
	en Sulfide (A4)		Loamy Mucky M					Surface (S7) (LRR K, L)	
	d Layers (A5)		Loamy Gleyed N			, ,		alue Below Surface (S8) (LRR K, L)	
	d Below Dark Surfac	e (A11)	Depleted Matrix					Park Surface (S9) (LRR K, L)	
	ark Surface (A12)	,	Redox Dark Sur					anganese Masses (F12) (LRR K, L, R)	
Sandy N	lucky Mineral (S1)		Depleted Dark S	Surface (F7	7)			ont Floodplain Soils (F19) (MLRA 149B)	
	Bleyed Matrix (S4)		Redox Depressions (F8)				Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy R	Redox (S5)		_				Red Parent Material (F21)		
Stripped	Matrix (S6)							Shallow Dark Surface (TF12)	
Dark Su	rface (S7) (LRR R, N	/ILRA 149E	3)				U Other	(Explain in Remarks)	
			tland hydrology mus	t be prese	nt, unless	disturbed	or problemation	C.	
	Layer (if observed):								
Type: roo	k								
Depth (in	ches): <u>10</u>						Hydric Soil	Present? Yes No V	
Remarks:									
Remarks:									

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Cuyahoga Co. Airpor	rt City/C	county: Cuyahoga	Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt			Sampling Point: upland C/D
Investigator(s): CMM	Section	on, Township, Range: T8N R11W	
Landform (hillslope, terrace, etc.): too	e of slope Local reli	ef (concave, convex, none): flat	Slope (%): 1
Subregion (LRR or MLRA): LRR	Lat: 41.559781	Long: -81.491167	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt	loam	NWI cl	assification: none
Are climatic / hydrologic conditions or	n the site typica <u>l for</u> this time of year? Y	es 🚺 No 📗 (If no, explai	n in Remarks.)
	or Hydrology significantly distur		ces" present? Yes No
	or Hydrology naturally problema		inswers in Remarks.)
	Attach site map showing sam		
Hydrophytic Vegetation Present?	Yes ✓ No ✓ No	Is the Sampled Area within a Wetland? Yes	□ No ✓
Hydric Soil Present? Wetland Hydrology Present?	Yes ✓ No No No		
Remarks: (Explain alternative proce		If yes, optional Wetland Site ID:	
Photos 39-43			
1 110100 00 10			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary	Indicators (minimum of two required)
Primary Indicators (minimum of one	is required; check all that apply)	Surface	e Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leave	s (B9) Draina	ge Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		rim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		ason Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od	· · ·	h Burrows (C8)
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced	, , I I	ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reductio		orphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C	` ' 🖂	v Aquitard (D3)
Inundation Visible on Aerial Ima	1 1	· I I	pographic Relief (D4)
Sparsely Vegetated Concave S	surface (B8)	FAC-N	eutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No Depth (inches):		
Water Table Present? Yes			
Saturation Present? Yes (includes capillary fringe)	No Depth (inches): 5	Wetland Hydrology P	resent? Yes <u></u>
	auge, monitoring well, aerial photos, pre	vious inspections), if available:	
Remarks:			

VEGETATION – Use scientific names of plants.

/EGETATION – Use scientific names of plants	S.			Sampling Point: upland C/D
Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2		<u> </u>		Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
	0	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 = FAC species x 3 =
1				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				Provolence Index - P/A -
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7	_	<u> </u>		1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
5.0	0	= Total Cov	er	3 - Prevalence Index is ≤3.0¹
<u>Herb Stratum</u> (Plot size: ^{5 ft}) _{1.} Poa pratensis	80		FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2.				Problematic Hydrophytic Vegetation ¹ (Explain)
3. Fragaria virginiana	5		FACU	
4. Plantago major	5		FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	90	= Total Cov	er	height.
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3				Hydrophytic
4	_			Vegetation Present? Yes No✓
	0	= Total Cov	er	1103 110 110 110 110 110 110 110 110 110
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL Sampling Point: upland C/D

Profile Desc	cription: (Describe	to the de	oth needed to docur	ment the	indicator	or confire	n the absence	of indicate	ors.)
Depth (inches)	Matrix Color (moist)	%	Redo	x Feature	Type ¹	Loc ²	Touture		Damarka
(inches) 0-12	10YR 4/2	90	10YR 5/6	<u>%</u> 10	C	M	Texture silty clay	rocky	Remarks
0-12	1011(4/2	30	10110 3/0	- 10		IVI	Silly Clay	TOCKY	
				_					
				_					
									_
					-				
								î <u>-</u>	
								-	
						-			
						-			
								-	
¹ Type: C=C	oncentration, D=Dec	letion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² l ocation	: PI =Pore	Lining, M=Matrix.
Hydric Soil					<u> </u>	<u> </u>	Indicators	for Proble	matic Hydric Soils ³ :
Histosol	, ,		Polyvalue Belo	w Surface	(S8) (LR	R R,			(LRR K, L, MLRA 149B)
`	pipedon (A2)		MLRA 149B	,					lox (A16) (LRR K, L, R)
	istic (A3) en Sulfide (A4)		Thin Dark Surfa						or Peat (S3) (LRR K, L, R) (LRR K, L)
	d Layers (A5)		Loamy Gleyed			, L)			Surface (S8) (LRR K, L)
	d Below Dark Surfac	e (A11)	Depleted Matrix		,				e (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Su	. ,					Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark						ain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4) Redox (S5)		Redox Depress	sions (F8)			1 1	arent Mater	6) (MLRA 144A, 145, 149B)
	Matrix (S6)								k Surface (TF12)
Dark Su	rface (S7) (LRR R, I	MLRA 149	B)				Other	(Explain in	Remarks)
31 11 1						г., т			
	r nydropnytic vegeta Layer (if observed):		etland hydrology mus	st be pres	ent, unies	s disturbed	or problemation	C.	
Type:	Layer (ii observed)	•							
	ohoo):						Hydric Soil	Present?	Yes 🗸 No 🔲
Remarks:	ches):						11,4		
Remarks.									

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Cuyahoga Co. Airpo	ort City/C	county: Cuyahoga	Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt		State:	: OH Sampling Point: upland D
Investigator(s): CMM	Section		
			Slope (%):
Subregion (LRR or MLRA): LRR	Lat:	Long:	Datum: NAD 83
Soil Map Unit Name: Mitiwanga sil	It loam	NV	VI classification: none
Are climatic / hydrologic conditions o	on the site typica <u>l for</u> this time of year? Y	es V No V (If no, ex	xplain in Remarks.)
	or Hydrology significantly disturb		stances" present? Yes No
	or Hydrology naturally problema		any answers in Remarks.)
			ansects, important features, etc.
COMMITANT OF THE DIVICE	Attach Site map showing same		ansects, important reatures, etc.
Hydrophytic Vegetation Present?	Yes No ✓ Yes No ✓	Is the Sampled Area within a Wetland?	∕es No ✓
Hydric Soil Present?			
Wetland Hydrology Present?	Yes No✓ cedures here or in a separate report.)	If yes, optional Wetland Site ID	;
Tremaiks. (Explain alternative proc	edures here of in a separate report.		
HYDROLOGY			
Wetland Hydrology Indicators:		Second	dary Indicators (minimum of two required)
Primary Indicators (minimum of one	e is required; check all that apply)	Su	urface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves		ainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	☐ Mo	oss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dr.	y-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odd	· · ·	ayfish Burrows (C8)
Sediment Deposits (B2)	1 1	· ' '	turation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced	` ′	unted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction	` ′ 🖂	eomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C	· 1 1	allow Aquitard (D3)
Inundation Visible on Aerial Images			crotopographic Relief (D4) C-Neutral Test (D5)
Field Observations:	Juliace (Do)		C-Neutral Test (D3)
Surface Water Present? Yes	s No V Depth (inches):		
Water Table Present? Yes			
Saturation Present? Yes	s No Depth (inches):	Wetland Hydrolog	gy Present? Yes No V
(includes capillary fringe) Describe Recorded Data (stream or	auge, monitoring well, aerial photos, pre-	vious inspections) if available:	
Describe Necorded Data (circum gr	adge, mornioring wen, dendi priotos, pre	vious inspections), il available.	
Remarks:			

VEGETATION – Use scientific names of plants.

/EGETATION – Use scientific names of plants	i.			Sampling Point: upland D		
Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Species?		Dominance Test worksheet:		
1				Number of Dominant Species That Are OBL, FACW, or FAC: (A)		
2				Total Number of Dominant		
3				Species Across All Strata: (B)		
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC: (A/B)		
6				Prevalence Index worksheet:		
7	0			Total % Cover of: Multiply by:		
15 ft	0	= Total Cov	/er	OBL species x 1 =		
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 = FAC species x 3 =		
1				FACU species x 4 =		
2				UPL species x 5 =		
3				Column Totals: (A) (B)		
4				Providence Index - D/A		
5				Prevalence Index = B/A =		
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
	0	= Total Cov	/er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹		
Herb Stratum (Plot size: 5 ft) 1. Schizachyrium scoparium	75		FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2.				Problematic Hydrophytic Vegetation (Explain)		
_{3.} Fragaria virginiana	5		FACU			
4. Plantago major	5		FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
5				Definitions of Vegetation Strata:		
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
7				at breast height (DBH), regardless of height.		
8				Sapling/shrub – Woody plants less than 3 in. DBH		
9				and greater than or equal to 3.28 ft (1 m) tall.		
10				Herb – All herbaceous (non-woody) plants, regardless		
11				of size, and woody plants less than 3.28 ft tall.		
12				Woody vines – All woody vines greater than 3.28 ft in		
	85	= Total Cov	/er	height.		
Woody Vine Stratum (Plot size: 30 ft)						
1						
2.						
				Hydrophytic		
3				Vegetation —		
4				Present? Yes No V		
3 4	0	= Total Cov	/er	Present? Yes No V		

SOIL Sampling Point: upland D

Depth	Matrix			x Features		. 2	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-4	10YR 4/3	100					rocky soil
4>	refusal						
	•		_		-		
				· 			
			_	· ——			
	•		_				
	•						
				. ———			
1=	- D. D.	- DA	L Deskus and Markets Mr	- <u> </u>	01-0		21 and the District Manager Manager
Hydric Soil		pletion, Riv	I=Reduced Matrix, MS	s=Masked	Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
ri -			Dobavelue Belev	u Curfoso	(CO) /I D	n n	
Histosol	pipedon (A2)		Polyvalue Below		(36) (LK)	κκ,	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
	istic (A3)		Thin Dark Surfa		RR R. M	I RA 149R)	
	en Sulfide (A4)		Loamy Mucky N				Dark Surface (S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed			, ,	Polyvalue Below Surface (S8) (LRR K, L)
_	d Below Dark Surfac	e (A11)	Depleted Matrix				Thin Dark Surface (S9) (LRR K, L)
Thick D	ark Surface (A12)		Redox Dark Su	rface (F6)			Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy N	Mucky Mineral (S1)		Depleted Dark	Surface (F	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)						Red Parent Material (F21)
	d Matrix (S6)		_,				Very Shallow Dark Surface (TF12)
Dark Su	ırface (S7) (LRR R, I	MLRA 149	В)				Other (Explain in Remarks)
3Indiantora	f by draphytic vegete	بر اممم ممثل	etland hydrology mus	t ha nraaa	ممامين عم	مطاعدياتهمط	or problematic
	Layer (if observed)		eliand hydrology mus	st be prese	int, unles	s disturbed	or problematic.
		•					
Type: Ro							
Depth (in	ches): <u>4</u>						Hydric Soil Present? Yes No V
Remarks:							

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Cuyahoga Co. Airport	City/County: Cuya	ahoga	_ Sampling Date: <u>4/30/13</u>
Applicant/Owner: Mead & Hunt			Sampling Point: upland G
Investigator(s): CMM	Section, Township	, Range: T8N R11W	
Landform (hillslope, terrace, etc.): toe of slope	Local relief (concave,	convex, none): flat	Slope (%): 1
Subregion (LRR or MLRA): LRR	Lat: 41.559781	Long: -81.491167	Datum: NAD 83
Soil Map Unit Name: Mitiwanga silt loam		NWI classifi	cation: none
Are climatic / hyd <u>rolog</u> ic conditions on the site typica	a <u>l for</u> this time of year? Yes I	No (If no, explain in l	Remarks.)
Are Vegetation, Soil, or Hydrology _	l l	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology _		(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site			
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No / Is the Sam within a W	pled Area etland? Yes	No ✓
Hydric Soil Present? Wetland Hydrology Present? Yes	V 100		
Remarks: (Explain alternative procedures here or		nal Wetland Site ID:	
Photos 39-43	,		
1 110100 00 10			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; ct	neck all that apply)	Surface Soi	l Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim I	
Saturation (A3)	Marl Deposits (B15)		Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres on Living Presence of Reduced Iron (C4)	· · I I	/isible on Aerial Imagery (C9) Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	, ,
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	Il Test (D5)
Field Observations:			
Surface Water Present? Yes No No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
Saturation Present? Yes <u>✓</u> No <u></u> (includes capillary fringe)	Depth (inches): 5	Wetland Hydrology Prese	nt? Yes <u>√</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION – Use scientific names of plants.

	S.			Sampling Point: upland G
Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1				FAC species x 3 =
2				FACU species x 4 =
3.				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
· ·	Λ	= Total Cov	er	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft)		= Total Cov	GI	3 - Prevalence Index is ≤3.0 ¹
1. Poa pratensis	80	·	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3. Fragaria virginiana	5		FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Plantago major	5		FACU	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	00	= Total Cov	er	height.
Woody Vine Stratum (Plot size: 30 ft				
Woody Vine Stratum (Plot size: 30 ft) 1				
1 2				Underghode
1				Hydrophytic Vegetation
1 2				

SOIL Sampling Point: upland G

Profile Desc	ription: (Describe	to the de	oth needed to docu	ment the	indicator	or confirm	m the absence	of indicate	ors.)
Depth	Matrix			x Feature	es	. 2	- .		D 1
(inches)	Color (moist)		Color (moist)	40	Type ¹	Loc ²	<u>Texture</u>		Remarks
0-12	10YR 4/2	90	10YR 5/6	10	<u>C</u>	M	silty clay	ТОСКУ	_
				_					
		_	-			. -	<u> </u>		
					_				
		.					-		
	-			-		·	· 		
				_	_			-	
				_	_		· -	-	
			-				<u> </u>		
								-	
¹Type: C=Co	oncentration. D=Der	letion. RM	=Reduced Matrix, M	S=Maske	d Sand G	rains.	² Location	n: PL=Pore	Lining, M=Matrix.
Hydric Soil I		, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,		 				matic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Belo	w Surface	e (S8) (LR	R R,	2 cm l	Muck (A10)	(LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B	,					ox (A16) (LRR K, L, R)
Black Hi			Thin Dark Surfa						or Peat (S3) (LRR K, L, R)
	n Sulfide (A4) d Layers (A5)		Loamy Mucky I Loamy Gleyed			(, L)			(LRR K, L) Surface (S8) (LRR K, L)
	d Below Dark Surfac	e (A11)	Depleted Matrix		2)				(S9) (LRR K, L)
· —	ark Surface (A12)	(* (* * * *)	Redox Dark Su)				Masses (F12) (LRR K, L, R)
Sandy M	lucky Mineral (S1)		Depleted Dark	Surface (F7)		Piedm	ont Floodpla	ain Soils (F19) (MLRA 149B)
	Sleyed Matrix (S4)		Redox Depress	sions (F8)					6) (MLRA 144A, 145, 149B)
	edox (S5)							arent Mater	` '
	Matrix (S6) rface (S7) (LRR R, I	MI DA 140	D)					shallow Dari (Explain in I	Surface (TF12)
Daik Sui	nace (57) (LIKIK IK, I	VILINA 149	b)				<u> </u>	(Explain iii i	veriaiks)
³ Indicators of	hydrophytic vegeta	tion and w	etland hydrology mu	st be pres	ent, unles	s disturbed	d or problemation	C.	
Restrictive L	_ayer (if observed)	:							
Type:									
Depth (inc	ches):						Hydric Soil	Present?	Yes ✓ No _
Remarks:	•								

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Cuyahoga Co. Airport	City/County: Cuy	ahoga	Sampling Date: 4/30/13
Applicant/Owner: Mead & Hunt			Sampling Point: upland G2
• •	Section, Township		
Landform (hillslope, terrace, etc.):			Slope (%):
Subregion (LRR or MLRA): LRR			
Soil Map Unit Name: Mitiwanga silt loam		NWI classif	
Are climatic / hydrologic conditions on the site typical	al for this time of year? Yes		
Are Vegetation, Soil, or Hydrology _			present? Yes V No
Are Vegetation, Soil, or Hydrology _		(If needed, explain any answ	
SUMMARY OF FINDINGS – Attach site			
Attach site		<u> </u>	s, important reatures, etc.
Hydrophytic Vegetation Present? Yes	No √ Is the Sam within a W	pled Area	No 🗸
Hydric Soil Present? Yes Western Hydric Soil Present?			
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here or		onal Wetland Site ID:	
remains. (Explain alternative procedures here of	in a separate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; ct	neck all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage P	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim	Lines (B16)
Saturation (A3)	Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bu	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	· · ·	Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So		Stressed Plants (D1) c Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aq	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	1 1	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	, , ,
Field Observations:			
Surface Water Present? Yes No	<u>7</u>		
Water Table Present? Yes No V	7		
Saturation Present? Yes No Ves No Ves No Ves	Depth (inches):	Wetland Hydrology Prese	ent? Yes No V
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION – Use scientific names of plants.

				Sampling Point: upland G2
Tree Stratum (Plot size: 30 ft)	Absolute	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7		-		Total % Cover of: Multiply by:
45.0	0	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 ft)				FACW species x 2 =
1				FAC species x 3 = FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Cov	er	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5 ft) 1. Schizachyrium scoparium	75		FACU	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
**			17100	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
2	5		FACU	Problematic Trydrophytic Vegetation (Explain)
A. Plantago major	5		FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
6				Definitions of Vegetation Strata:
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	85	= Total Cov	er	height.
Woody Vine Stratum (Plot size: 30 ft)				
1				
1 2.				
2				Hydrophytic
2				Hydrophytic Vegetation
2				

Sampling Point: upland G2

Depth	Matrix	to the dep		Features	uicator (or commi	the absence of indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-4	10YR 4/3	100					rocky soil
4>	refusal						
		oletion, RM=	=Reduced Matrix, MS	=Masked S	Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.
Black H Hydroge Stratifiee Deplete Thick D Sandy N Sandy F Stripped			Polyvalue Below MLRA 149B) Thin Dark Surfar Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR lineral (F1) Matrix (F2) (F3) face (F6) Surface (F7)	R R, MI (LRR K	-RA 149B)	Indicators for Problematic Hydric Soils³: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	f hydrophytic vegeta Layer (if observed)		etland hydrology mus	t be presen	t, unless	disturbed	or problematic.
Type: Ro		-					
Depth (in							Hydric Soil Present? Yes No V
Remarks:							

Site: Cuyahoga	a County Airport		Date:	May 1, 2013
Wetlands:	Wetland A		Rater:	DGV
3 3 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha 10 to <25 acres (4 to <10.1ha) (4 X 3 to <10 acres (1.2 to <4ha) (3 p 0.3 to <3 acres (0.12 to <1.2ha) 0.1 to <0.3 acres (0.04 to <0.12ha <0.1 acres (0.04ha) (0 pts)	a) (5 pts) 4 pts) ts) (2pts)		
6 3 Subtotal Points	Metric 2. Upland buffers and surro 2a. Calculate average buffer width (select one WIDE. Buffers average 50m (16 MEDIUM. Buffers average 25m X NARROW. Buffers average 10n VERY NARROW. Buffers average 2b. Intensity of surrounding land use (select of VERY LOW. 2nd growth or olde LOW. Old field (>10 years), shruck X MODERATELY HIGH. Resident X HIGH. Urban, industrial, open page	e, do not double check) S4ft) or more around wetland to <50m (82 to <164ft) aroun to <25m (32ft to <82ft) around ge <10m (<32ft) around wetland to consider the constant of t	perimeter (7) and wetland perimeter (4) und wetland perimeter (6) and perimeter (0) (a) (b) (c) (c) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	1)
14 8 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (lake or	ater (3) stream) (5) 3e. I human use (1) st), complex (1) or (1)	Regularly inunda X Seasonally inunda	check & average) ently inundated/saturated (4) ted/saturated (3) lated (2) ated in upper 30cm (12in) (1) chydrologic regime. check & average) oparent (12) covery (1) ces observed point source (nonstormwater)
25.5 11.5 Subtotal Points	Metric 4. Habitat Alteration and D 4a. Substrate disturbance. Score one or dou None or none apparent (4) X Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1)	ible check and average.	Habitat alteration. Scor None or none ap Recovered (6) Recovering (3) Recent or no rec ces observed shrub, herbat sedim dredg farmir	overy (1) /sapling removal ceous/aquatic bed removal entation ing

25.5 subtotal this page
ORAM v. 5.0 Field Form Quantitative Rating

Site: Cuyahoga	a County Airport		Date:	May 1, 2013
Wetland:	Wetland A		Rater:	DGV
			•	
25.5 subtotal first	page			
25.5	Motric E. Special Wetlands (may 40 mts	,		
25.5 0	Metric 5. Special Wetlands. (max 10 pts	.)		
Subtotal Points	Check all that apply and score as indicated Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts)			
	Lake Erie coastal/tributary wetland-unres	tricted hydrolog	gy (10 pts)	
	Lake Erie coastal/tributary wetland-restri	cted hydrology	(5 pts)	
	Lake Plain Sand Prairies (Oak Openings) (10 pts)		
	Relict Wet Prairies (10 pts)			
	Known occurrence state/federal threaten	_		
	Significant migatory songbird/waterfowl h Category 1 Wetland. See Question 1 of	_		
	Category I Welland. See Question I of	Qualitative Nati	ng. (-10 pts)	
31.5 6	Metric 6. Plant Communities, interspers	ion, microt	opography. (max 20 pts.	.)
Subtotal Points	6a. Wetland Vegetation Communities	•		•
	Score all present using 0 to 3 scale	Vegetatio	n Community Cover Sca	ile
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	1 Emergent		Present and either comprises	·
	1 Shrub	1	vegetation and is of modera significant part but is of low	
	2 Forest 0 Mudflats		<u> </u>	
	0 Open water	2	Present and either comprises s	significant part of wetland's ate quality or comprises a small
	0 Other (list)	_	part and is of high quality	no quanty or comprisco a cinan
	o louisi (iio.)		Present and comprises signific	ant part, or more, of wetland's
	6b. Horizontal (plan view) interspersion	3	vegetation and is of high qu	ality
	Select only one			
	High (5)	Narrative	Description of Vegetation	
	Moderately high (4)	low	Low spp diversity and/or predo	
	Moderate (3)		disturbance tolerant native	species
	X Moderately low (2) Low (1)		Native spp are dominant comp	<u> </u>
	None (0)	moderate	can also be present, and sp	disturbance tolerant native spp secies diversity moderate to
	inone (o)	moderate	moderately high, but genera	· · · · · · · · · · · · · · · · · · ·
	6c. Coverage of invasive plants.		threatened or endangered s	spp
	Refer to Table 1 ORAM long form for list.		A predominance of native spec	cies, with nonnative spp
		high		native spp absent or virtually
	Add or deduct points for coverage		absent, and high spp divers the presence of rare, threat	ity and often, but not always,
	Extensive >75 % cover (-5)		the presence of fare, threat	eried, or eridangered spp
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Qu	ıality
	X Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	aunty
	Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 a	cres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 a	acres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more	
	Score all present using 0 to 3 scale			
	0 Vegetated hummocks/tussocks		graphy Cover Scale	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh0 Amphibian breeding pools	1	Present very small amounts or of marginal quality	if more common
		2	Present in moderate amounts, quality or in small amounts	
		3	Present in moderate or greater and of highest quality	amounts

ORAM v. 5.0 Field Form Quantitative Rating

Site: Cuyahoga	County Airport		Date:	May 1, 2013
Wetlands:	Wetland B		Rater:	DVG
1 1 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score. > 50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha 10 to <25 acres (4 to <10.1ha) (4 3 to <10 acres (1.2 to <4ha) (3 p 0.3 to <3 acres (0.12 to <1.2ha) X 0.1 to <0.3 acres (0.04 to <0.12h <0.1 acres (0.04ha) (0 pts)	a) (5 pts) 4 pts) tts) (2pts)		
8 7 Subtotal Points	Metric 2. Upland buffers and surro 2a. Calculate average buffer width (select one WIDE. Buffers average 50m (16 X MEDIUM. Buffers average 25m NARROW. Buffers average 10n VERY NARROW. Buffers average 2b. Intensity of surrounding land use (select of the select of the	e, do not double check) 54ft) or more around wetland to <50m (82 to <164ft) arou m to <25m (32ft to <82ft) around ge <10m (<32ft) around wet one or double check & avera er forest, prairie, savannah, v ubland, young second growt tial, fenced pasture, park, co	I perimeter (7) Ind wetland perimeter (4) I pund wetland perimeter (1) I land perimeter (0) I land perimeter (0) I land perimeter (7) I land perimeter (7) I land perimeter (8) I land perimeter (9) I land perimeter (1) I	w field. (3)
14 6	Metric 3. Hydrology. (max 30 pts)	3d.	Duration inundation/satura	
Subtotal Points	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface wa Perennial surface water (lake or 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other I Part of wetland/upland (e.g. fore: Part of riparian or upland corrido 3c. Maximum water depth. Select only 1.	stream) (5) 3e. human use (1) st), complex (1) r (1)	Regularly inundated Seasonally inundated Seasonally inundated X Seasonally saturate Modifications to natural hydications (Select one or double check (7) X Recovering (3) Recent or no recovery check all disturbances	ly inundated/saturated (4) //saturated (3) ed (2) d in upper 30cm (12in) (1) drologic regime. ek & average) irent (12) ery (1)
	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)		dike fill fill rc weir di	iling/grading pad bed/RR track redging ther- list
20.5 6.5	Metric 4. Habitat Alteration and Do	evelopment. (max 20	pts.)	
Subtotal Points	4a. Substrate disturbance. Score one or dou None or none apparent (4) X Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7)	uble check and average.	Habitat alteration. Score o None or none appa Recovered (6) X Recovering (3) X Recent or no recove	• •
	Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)	Check all disturband mowing grazing clearcutting selective cutting woody debris remova toxic pollutants	shrub/sap herbaceo sediment dredging farming	

Site: Cuyahoga	County Airport		Date:	May 1, 2013
Wetland:	Wetland B		Rater:	DVG
20.5 subtotal first	page		•	
20.5 0	Metric 5. Special Wetlands. (max 10 pts.)		
Subtotal Points	Check all that apply and score as indicated			
	Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts) Mature forested wetland (5 pts)			
	Lake Erie coastal/tributary wetland-unres	tricted hydrolog	ıv (10 nts)	
	Lake Erie coastal/tributary wetland-restric	-		
	Lake Plain Sand Prairies (Oak Openings			
	Relict Wet Prairies (10 pts)			
	Known occurrence state/federal threaten	_		
	Significant migatory songbird/waterfowl h	_		
	Category 1 Wetland. See Question 1 of	Qualitative Rati	ng. (-10 pts)	
22.5 2	Metric 6. Plant Communities, interspers	ion, microto	pography. (max 20 pts.)	
Subtotal Points	6a. Wetland Vegetation Communities	•		
	Score all present using 0 to 3 scale	Vegetatio	n Community Cover Sca	le
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0	0.2471 acres) contiguous area
	1 Emergent		Present and either comprises s	•
	0 Shrub 0 Forest	1	vegetation and is of modera significant part but is of low	
	0 Mudflats		Present and either comprises s	
	0 Open water	2	· ·	ite quality or comprises a small
	0 Other (list)		part and is of high quality	
		3	Present and comprises signification	
	6b. Horizontal (plan view) interspersion Select only one		vegetation and is of high qu	ality
	High (5)	Narrative	Description of Vegetatio	on Quality
	Moderately high (4)		Low spp diversity and/or predo	•
	Moderate (3)	low	disturbance tolerant native s	
	Moderately low (2)		Native spp are dominant comp	onent of the vegetation,
	Low (1)		although nonnative and/or o	listurbance tolerant native spp
	X None (0)	moderate	can also be present, and sp moderately high, but genera	•
	6c. Coverage of invasive plants.		threatened or endangered s	
	Refer to Table 1 ORAM long form for list.		A predominance of native spec	ries with nonnative son
		high		native spp absent or virtually
	Add or deduct points for coverage	iligii		ity and often, but not always,
	Extensive >75 % cover (-5)		the presence of rare, threate	eried, or endangered spp
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat ar	nd Open Water Class Qu	ality
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	lanty
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 a	cres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 a	acres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more	
	Score all present using 0 to 3 scale	Microtona	aranhy Cayar Saala	
	0 Vegetated hummocks/tussocks 0 Coarse woody debris >15 cm (6")	0	graphy Cover Scale Absent	
	0 Standing dead > 25 cm (10") dbh		Present very small amounts or	if more common
	0 Amphibian breeding pools	1	of marginal quality	
		2	Present in moderate amounts, quality or in small amounts of	•
		3	Present in moderate or greater and of highest quality	amounts

Category 1

Site: Cuya	noga County Airport		Date:	April 30, 2013
Wetlands:	Wetland C		Rater:	CMM & ANB
0 0 Subtotal Points		ax 6 pts)		
	>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2h 10 to <25 acres (4 to <10.1ha) 3 to <10 acres (1.2 to <4ha) (3 0.3 to <3 acres (0.12 to <1.2ha) 0.1 to <0.3 acres (0.04 to <0.12 X <0.1 acres (0.04ha) (0 pts)	(4 pts) pts) a) (2pts)		
6 6 Subtotal Points	WIDE. Buffers average 50m (1 X MEDIUM. Buffers average 25n	ne, do not double check) 164ft) or more around we m to <50m (82 to <164ft)	tland perimeter (7) around wetland perimeter (4)	
	NARROW. Buffers average 10 VERY NARROW. Buffers average 2b. Intensity of surrounding land use (select VERY LOW. 2nd growth or old LOW. Old field (>10 years), sh X MODERATELY HIGH. Resider X HIGH. Urban, industrial, open	rage <10m (<32ft) around tone or double check & a der forest, prairie, savann brubland, young second g ntial, fenced pasture, par	d wetland perimeter (0) (verage) ah, wildlife area, etc. (7) (rowth forest. (5) k, conservation tillage, new t	
14 8	Metric 3. Hydrology. (max 30 pts)	1	3d. Duration inundation/sat	turation.
Subtotal Points	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface w Perennial surface water (lake o 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other Part of wetland/upland (e.g. for part of riparian or upland corrid 3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)	or stream) (5) r human use (1) rest), complex (1) lor (1)	Regularly inunda Seasonally inunda Seasonally inunda Seasonally satural Seasonally satural (select one or double of None or none a X Recovered (7) X Recovering (3) Recent or no recovered in the Seasonally saturation of the Seasonally in the Seaso	nently inundated/saturated (4) ated/saturated (3) dated (2) rated in upper 30cm (12in) (1) I hydrologic regime. check & average) apparent (12) accovery (1) acces observed point source (nonstormwater) filling/grading road bed/RR track
			weir stormwater input	dredging other-list
20 6 Subtotal Points	Metric 4. Habitat Alteration and C 4a. Substrate disturbance. Score one or do None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7)	•		
	Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)	Check all disturi	herba sedir dredi moval farm	· ·

	rm Quantitative Rating			
Site: Cuy	ahoga County Airport		Date:	May 1, 2013
Wetland:	Wetland C		Rater:	CMM & ANB
20 subto	otal first page			
20 0	Metric 5. Special Wetlands. (max 10 pt	ts.)		
Subtotal Poi		,		
	Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts)			
	Lake Erie coastal/tributary wetland-unr	estricted hydrolog	gy (10 pts)	
	Lake Erie coastal/tributary wetland-res		(5 pts)	
	Lake Plain Sand Prairies (Oak Openin	gs) (10 pts)		
	Relict Wet Prairies (10 pts)			
	Known occurrence state/federal threat	=		
	Significant migatory songbird/waterfow	=		
	Category 1 Wetland. See Question 1	or Qualitative Nat	ing. (-10 pts)	
23 3	Metric 6. Plant Communities, interspe	rsion, microt	onography. (max 20 pts	:1
Subtotal Poi			opog.up). (u =0 pro	-1
	Score all present using 0 to 3 scale	Vegetatio	n Community Cover Sc	ale
	0 Aquatic bed	0	•	0.2471 acres) contiguous area
	1 Emergent		Present and either comprises	small part of wetland's
	0 Shrub	1	vegetation and is of modera	ate quality, or comprises a
	0 Forest		significant part but is of low	quality
	0 Mudflats		Present and either comprises	significant part of wetland's
	0 Open water	2	_	ate quality or comprises a small
	0 Other (list)		part and is of high quality	
	Ch. Havimantal (alam viava) internancian	3	Present and comprises signific vegetation and is of high qu	cant part, or more, of wetland's
	6b. Horizontal (plan view) interspersion Select only one		vogotation and to or riight qu	adiny
	High (5)	Narrative	Description of Vegetation	on Quality
	Moderately high (4)		Low spp diversity and/or predo	•
	Moderate (3)	low	disturbance tolerant native	
	Moderately low (2)		Native spp are dominant comp	onent of the vegetation
	X Low (1)			disturbance tolerant native spp
	None (0)	moderate		pecies diversity moderate to
			moderately high, but gener threatened or endangered	
	6c. Coverage of invasive plants.		tilleateried of endangered	
	Refer to Table 1 ORAM long form for list.		A predominance of native spe	The state of the s
	Add on dodinat points for only	high		native spp absent or virtually sity and often, but not always,
	Add or deduct points for coverage Extensive >75 % cover (-5)		the presence of rare, threat	
	Moderate 25-75% cover (-3)			
	Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Q	ualitv
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	-
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 a	
		2	Moderate 1 ha to <4 ha (2.47	acres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more	9
	Score all present using 0 to 3 scale			
	0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh	1	Present very small amounts of	r if more common
	0 Amphibian breeding pools		of marginal quality	
		2	Present in moderate amounts,	•
		-	quality or in small amounts	
		3	Present in moderate or greate and of highest quality	r amounts
			and of highest quality	

ORAM v. 5.0 Field Form Quantitative Rating

Site: Cuyahoga	County Airport		Date:	May 1, 2013
Wetlands:	Wetland D		Rater:	DVG
Wetlands: 0 0 Subtotal Points 4 4 Subtotal Points	Wetland D	na) (5 pts) (4 pts) pts) a) (2pts) 2ha) (1 pt) counding land use. (m ne. do not double check) 164ft) or more around wetlar in to <50m (82 to <164ft) aro 0m to <25m (32ft to <82ft) a	nax 14 pts) and perimeter (7) und wetland perimeter (round wetland perimete	4)
11 7	2b. Intensity of surrounding land use (select VERY LOW. 2nd growth or old LOW. Old field (>10 years), sh X MODERATELY HIGH. Reside HIGH. Urban, industrial, open Metric 3. Hydrology. (max 30 pts)	one or double check & aver ler forest, prairie, savannah, rubland, young second grow ntial, fenced pasture, park, c pasture, row cropping, minin	rage) wildlife area, etc. (7) with forest. (5) onservation tillage, new	
Subtotal Points	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface v Perennial surface water (lake o 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other Part of wetland/upland (e.g. for Part of riparian or upland corrid	vater (3) or stream) (5) 3e or human use (1) est), complex (1)	Semi- to perma Regularly inunc X Seasonally inur	e check & average) anently inundated/saturated (4) dated/saturated (3) ndated (2) urated in upper 30cm (12in) (1) al hydrologic regime. e check & average) apparent (12)
	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)		Check all disturbar ditch dike tile weir stormwater input	nces observed point source (nonstormwater) filling/grading road bed/RR track dredging other- list
19.5 8.5 Subtotal Points	Metric 4. Habitat Alteration and II 4a. Substrate disturbance. Score one or do None or none apparent (4) X Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1)	ouble check and average.	None or none Recovered (6) X Recovering (3) Recent or no re shrul herb sedii dred farm	b/sapling removal acceous/aquatic bed removal mentation Iging

Site: Cuyahoga	a County Airport		Date:	May 1, 2013
Wetland:	Wetland D		Rater:	DVG
19.5 subtotal first	page			
19.5 0	Metric 5. Special Wetlands. (max 10 pts.)		
Subtotal Points	Check all that apply and score as indicated			
	Bog (10 pts) Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts)			
	Lake Erie coastal/tributary wetland-unres	tricted hydrolog	y (10 pts)	
	Lake Erie coastal/tributary wetland-restric		5 pts)	
	Lake Plain Sand Prairies (Oak Openings) (10 pts)		
	Relict Wet Prairies (10 pts) Known occurrence state/federal threaten	ed or endange	red species (10)	
	Significant migatory songbird/waterfowl h	_		
	Category 1 Wetland. See Question 1 of	_		
015				
24.5 5	Metric 6. Plant Communities, interspers	ion, microto	ppograpny. (max 20 pts.))
Subtotal Points	6a. Wetland Vegetation Communities Score all present using 0 to 3 scale	Vegetatio	n Community Cover Sca	ile
	0 Aquatic bed	0	Absent or comprises <0.1 ha (
	1 Emergent		Present and either comprises s	small part of wetland's
	2 Shrub	1	vegetation and is of modera	
	1 Forest		significant part but is of low	
	0 Mudflats 0 Open water	2	Present and either comprises s	significant part of wetland's ate quality or comprises a small
	0 Other (list)		part and is of high quality	
		3	Present and comprises signific	*
	6b. Horizontal (plan view) interspersion		vegetation and is of high qu	ality
	Select only one High (5)	Narrative	Description of Vegetation	on Quality
	Moderately high (4)		Low spp diversity and/or predo	•
	Moderate (3)	low	disturbance tolerant native	species
	X Moderately low (2)		Native spp are dominant comp	onent of the vegetation,
	Low (1)	moderate	although nonnative and/or of can also be present, and sp	disturbance tolerant native spp
	None (0)	moderate	moderately high, but genera	*
	6c. Coverage of invasive plants.		threatened or endangered s	врр
	Refer to Table 1 ORAM long form for list.		A predominance of native spec	cies, with nonnative spp
	Add as deductive into few accounts	high		native spp absent or virtually sity and often, but not always,
	Add or deduct points for coverage Extensive >75 % cover (-5)		the presence of rare, threat	
	Moderate 25-75% cover (-3)		l .	
	X Sparse 5-25% cover (-1)	Mudflat ar	nd Open Water Class Qւ	ıality
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
	Absent (1)	2	Low 0.1 ha to <1 ha (0.2471 a	·
	6d. Microtopography	3	Moderate 1 ha to <4 ha (2.47 a High 4 ha (9.88 acres) or more	,
	Score all present using 0 to 3 scale		riigii i iia (elee aeree) el iiiere	
	0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	O Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh0 Amphibian breeding pools	1	Present very small amounts or of marginal quality	if more common
		2	Present in moderate amounts, quality or in small amounts	9
		3	Present in moderate or greater and of highest quality	ramounts

Site: Cuyahog	a County Airport	Date:	April 30, 2013
Wetlands:	Wetland E	Rater:	CMM
2 2 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts) Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) X 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)		
5 3 Subtotal Points	Metric 2. Upland buffers and surrounding lan 2a. Calculate average buffer width (select one, do not doub) WIDE. Buffers average 50m (164ft) or more a MEDIUM. Buffers average 25m to <50m (82 to X NARROW. Buffers average 10m to <25m (32 VERY NARROW. Buffers average <10m (<32 2b. Intensity of surrounding land use (select one or double to VERY LOW. 2nd growth or older forest, prairie LOW. Old field (>10 years), shrubland, young X MODERATELY HIGH. Residential, fenced pas X HIGH. Urban, industrial, open pasture, row cro	le check) round wetland perimeter (7) to <164ft) around wetland perimeter (4) left to <82ft) around wetland perimeter (5) ft) around wetland perimeter (0) check & average) e, savannah, wildlife area, etc. (7) second growth forest. (5) sture, park, conservation tillage, new fa	1)
16 11 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)	Regularly inundat X Seasonally inundat Seasonally satura 3e. Modifications to natural I (select one or double of None or none ap Recovered (7)	neck & average) ently inundated/saturated (4) ed/saturated (3) ated (2) tited in upper 30cm (12in) (1) hydrologic regime. heck & average) parent (12)
25 9	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) Metric 4. Habitat Alteration and Developmen	Check all disturbanc ditch dike bile weir stormwater input t. (max 20 pts.)	es observed point source (nonstormwater) filling/grading road bed/RR track dredging other- list
Subtotal Points	Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) woody wowing grazing clearcu selectiv	4c. Habitat alteration. Score None or none ap Recovered (6) X Recovering (3) Recent or no reco Il disturbances observed g shrub/ herbac ttting sedim ve cutting dredgi debris removal farmin	(sapling removal ceous/aquatic bed removal entation ing

Site:	Cuyahoga	a County Airport		Date:	May 1, 2013
Wetla	nd:	Wetland E		Rater:	СММ
25 25 Subtotal	subtotal first 0 Points	page Metric 5. Special Wetlands. (max 10 Check all that apply and score as indicated	pts.)	•	
		Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10 pts) Known occurrence state/federal threa Significant migatory songbird/waterfo Category 1 Wetland. See Question 1	estricted hydrology ings) (10 pts) atened or endanger owl habitat or usage	(5 pts) red species (10) (10 pts)	
26 Subtotal	1 Points	Metric 6. Plant Communities, intersp 6a. Wetland Vegetation Communities			
		Score all present using 0 to 3 scale		n Community Cover Scal	
		0 Aquatic bed 1 Emergent 0 Shrub 0 Forest	1	Absent or comprises <0.1 ha (0. Present and either comprises some vegetation and is of moderate significant part but is of low of the compression	nall part of wetland's e quality, or comprises a
		0 Mudflats 0 Open water 0 Other (list)	2	Present and either comprises signer vegetation and is of moderate part and is of high quality	gnificant part of wetland's e quality or comprises a small
		6b. Horizontal (plan view) interspersion	3	Present and comprises significa vegetation and is of high qua	
		Select only one	Narrativo	Description of Vegetation	o Quality
		High (5) Moderately high (4) Moderate (3)	low	Low spp diversity and/or predom disturbance tolerant native sp	ninance of nonnative or
		Moderately low (2) X Low (1) None (0)	moderate	Native spp are dominant compo although nonnative and/or di- can also be present, and spe moderately high, but general threatened or endangered sp	sturbance tolerant native spp cies diversity moderate to ly w/o presence of rare
		Add or deduct points for coverage Extensive >75 % cover (-5)	high	A predominance of native specie and/or disturbance tolerant n absent, and high spp diversit the presence of rare, threater	es, with nonnative spp ative spp absent or virtually y and often, but not always,
		Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1)	Mudflat ar	nd Open Water Class Qua	ality
		Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
		Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 ac	,
		0.4.4%	2	Moderate 1 ha to <4 ha (2.47 ac	eres 9.88 acres)
		6d. Microtopography Score all present using 0 to 3 scale	3 Migratona	High 4 ha (9.88 acres) or more	
		0 Vegetated hummocks/tussocks 0 Coarse woody debris >15 cm (6")	Microtopo 0	graphy Cover Scale Absent	
		0 Standing dead > 25 cm (10") dbh 0 Amphibian breeding pools	1	Present very small amounts or it of marginal quality	f more common

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

Site: Cuyahoga	a County Airport	Date:	April 30, 2013
Wetlands:	Wetland F	Rater:	ANB
1 1 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts) Select one size class and assign score.		
	>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) X 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)		
3 2 Subtotal Points	Metric 2. Upland buffers and surrounding land us 2a. Calculate average buffer width (select one, do not double che WIDE. Buffers average 50m (164ft) or more around MEDIUM. Buffers average 25m to <50m (82 to <1640) NARROW. Buffers average 10m to <25m (32ft to <1040) X VERY NARROW. Buffers average <10m (<32ft) around 10m (<32ft) ar	ck) wetland perimeter (7) 4ft) around wetland perimeter (4 82ft) around wetland perimeter	
	2b. Intensity of surrounding land use (select one or double check VERY LOW. 2nd growth or older forest, prairie, sava LOW. Old field (>10 years), shrubland, young secon X MODERATELY HIGH. Residential, fenced pasture, X HIGH. Urban, industrial, open pasture, row cropping	annah, wildlife area, etc. (7) nd growth forest. (5) park, conservation tillage, new fa	allow field. (3)
9 6	Metric 3. Hydrology. (max 30 pts)	3d. Duration inundation/sat	uration.
Subtotal Points	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1) 3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2)	Regularly inunda Seasonally inunda X Seasonally satural Seasonally satural Seasonally satural Seelect one or double of None or none ap Recovered (7) X Recovering (3) Recent or no recovered Otheck all disturbance ditch dike	ently inundated/saturated (4) ted/saturated (3) lated (2) ated in upper 30cm (12in) (1) hydrologic regime. check & average) oparent (12) covery (1) ces observed point source (nonstormwater) filling/grading
	X <0.4m (<15.7in) (1)	tile weir stormwater input	road bed/RR track dredging other- list
16 7 Subtotal Points	Metric 4. Habitat Alteration and Development. (m 4a. Substrate disturbance. Score one or double check and averation and Development. Score one or double check and averation are substrated as a substrate disturbance. None or none apparent (4)	Ac. Habitat alteration. Scor None or none ap Recovered (6) X Recovering (3) Recent or no rec turbances observed shrub herba sedim dredg s removal farmi	overy (1) /sapling removal iceous/aquatic bed removal entation ging

Site: Cu	ıyahoga County Air	rport		Date:	May 1, 2013
Wetland:	<u>, , , , , , , , , , , , , , , , , , , </u>	Wetland F		Rater:	ANB
TTCttatia.		Welland		rator:	VIAD
16 sub	total first page				
		Special Wetlands. (max 10 pt	s.)		
Subtotal Po	oints <u>Check all th</u>	nat apply and score as indicated			
		Bog (10 pts)			
		Fen (10 pts)			
		Old Growth Forest (10 pts) Mature forested wetland (5 pts)			
		Lake Erie coastal/tributary wetland-unre	estricted hydrolog	nv (10 nts)	
		Lake Erie coastal/tributary wetland-rest	,	,	
		Lake Plain Sand Prairies (Oak Opening		(-17	
		Relict Wet Prairies (10 pts)			
		Known occurrence state/federal threate	ened or endange	red species (10)	
		Significant migatory songbird/waterfowl	_		
		_Category 1 Wetland. See Question 1 c	of Qualitative Rat	ing. (-10 pts)	
40	Metric C	Diant Communities interes		an a susanhu (masu 20 mts	- 1
19		Plant Communities, intersper	Sion, microt	opograpny. (max 20 pt:	5.,
Subtotal Po	· · · · · · · · · · · · · · · · · · ·	d Vegetation Communities esent using 0 to 3 scale	Vegetatio	n Community Cover So	ale
	0	Aquatic bed	0	•	(0.2471 acres) contiguous area
	1	Emergent	-	Present and either comprises	·
	0	Shrub	1	· ·	rate quality, or comprises a
	0	Forest		significant part but is of lov	v quality
	0	Mudflats		Present and either comprises	•
	0	Open water	2	_	rate quality or comprises a small
	0	Other (list)		part and is of high quality	
	6h Horizor	ntal (plan view) interspersion	3	vegetation and is of high q	cant part, or more, of wetland's uality
	Select only				,
	Coloct City	High (5)	Narrative	Description of Vegetati	ion Quality
		Moderately high (4)		Low spp diversity and/or pred	
		Moderate (3)	low	disturbance tolerant native	species
		Moderately low (2)		Native spp are dominant com	ponent of the vegetation,
	X	Low (1)		although nonnative and/or	disturbance tolerant native spp
		None (0)	moderate	can also be present, and s moderately high, but gene	species diversity moderate to
	Ca. Causan	and and increase in the sale		threatened or endangered	•
		ge of invasive plants. ble 1 ORAM long form for list.		-	
				A predominance of native spe and/or disturbance toleran	cies, with nonnative spp t native spp absent or virtually
	Add or dedu	uct points for coverage	high		sity and often, but not always,
		Extensive >75 % cover (-5)		the presence of rare, threa	tened, or endangered spp
		Moderate 25-75% cover (-3)			
		Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Q	
	-	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres	,
	X	Absent (1)	1	Low 0.1 ha to <1 ha (0.2471	•
	6d. Microto	ppography	3	Moderate 1 ha to <4 ha (2.47 High 4 ha (9.88 acres) or mor	·
		esent using 0 to 3 scale		riigit 4 fla (9.00 acres) of filor	6
	0	Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	0	Coarse woody debris >15 cm (6")	0	Absent	
	0	Standing dead > 25 cm (10") dbh	1	Present very small amounts of	or if more common
	0	Amphibian breeding pools	1	of marginal quality	
			2	Present in moderate amounts	s, but not of highest
				quality or in small amounts	s of highest quality
			3	Present in moderate or greate	er amounts
				and of highest quality	

Site: Cuyaho	ga County Airport		Date:	April 30, 2013
Wetlands:	Wetland G		Rater:	CMM & ANB
2 2 Subtotal Points	Metric 1. Wetland Area (size). (max Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha 10 to <25 acres (4 to <10.1ha) (4 3 to <10 acres (1.2 to <4ha) (3 pt X 0.3 to <3 acres (0.12 to <1.2ha) 0.1 to <0.3 acres (0.04 to <0.12h) (5 pts) pts) s) (2pts)		
5 3 Subtotal Points	 <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surro 2a. Calculate average buffer width (select one WIDE. Buffers average 50m (16 MEDIUM. Buffers average 25m X NARROW. Buffers average 10m VERY NARROW. Buffers average 2b. Intensity of surrounding land use (select one) VERY LOW. 2nd growth or older LOW. Old field (>10 years), shru 	, do not double check) 4ft) or more around wetland p to <50m (82 to <164ft) around to <25m (32ft to <82ft) around ge <10m (<32ft) around wetlan to eor double check & average forest, prairie, savannah, wil bland, young second growth	perimeter (7) d wetland perimeter (4) und wetland perimeter (1) and perimeter (0) (e) Idlife area, etc. (7) forest. (5)	
16 11 Subtotal Points	X MODERATELY HIGH. Residenti X HIGH. Urban, industrial, open pa Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface wa Perennial surface water (lake or s 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other h	sture, row cropping, mining, and an action of the company of the c	Construction. (1) Duration inundation/satura (select one or double che Semi- to permanen Regularly inundate X Seasonally inundat	ation. eck & average) htty inundated/saturated (4) d/saturated (3) ted (2) ed in upper 30cm (12in) (1) evdrologic regime. eck & average)
23 7	Part of wetland/upland (e.g. fores Part of riparian or upland corridor 3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) Metric 4. Habitat Alteration and De	(1) CI	dike tile weir stormwater input	1
Subtotal Points	4a. Substrate disturbance. Score one or dout None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)	ble check and average.	Habitat alteration. Score of None or none app. Recovered (6) X Recovering (3) Recent or no recoves observed shrub/s herbace sedimen dredgin farming	very (1) apling removal eous/aquatic bed removal intation

Site: Cuyahog	a County Airport		Date:	May 1, 2013
Wetland:	Wetland G		Rater:	CMM & ANB
23 subtotal firs	it page		-	
23 0	Metric 5. Special Wetlands. (max 1	0 pts.)		
Subtotal Points	Check all that apply and score as indicated Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland Lake Erie coastal/tributary wetland Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10 pts) Known occurrence state/federal the Significant migatory songbird/wate	l-unrestricted hydrolog l-restricted hydrology enings) (10 pts) reatened or endanger	red species (10)	
	Category 1 Wetland. See Questio	n 1 of Qualitative Rat	ing. (-10 pts)	
26 3	Metric 6. Plant Communities, inters	spersion, microt	opography. (max 20 pts.)	
Subtotal Points	6a. Wetland Vegetation Communities	Vogetetie	n Community Cover Seel	lo.
	Score all present using 0 to 3 scale	vegetatio	n Community Cover Scal Absent or comprises <0.1 ha (0.)	
	0 Aquatic bed 1 Emergent 0 Shrub 0 Forest	1	Present and either comprises sr vegetation and is of moderate significant part but is of low q	mall part of wetland's e quality, or comprises a
	0 Mudflats 0 Open water 0 Other (list)	2	Present and either comprises significant vegetation and is of moderate part and is of high quality	gnificant part of wetland's e quality or comprises a small
	6b. Horizontal (plan view) interspersion	3	Present and comprises significa vegetation and is of high qua	•
	Select only one	Norrativa	Description of Vegetation	n Quality
	High (5) Moderately high (4) Moderate (3)	low	Low spp diversity and/or predom disturbance tolerant native sp	ninance of nonnative or
	Moderately low (2) X Low (1) None (0)	moderate	Native spp are dominant compo although nonnative and/or dis can also be present, and spe moderately high, but general threatened or endangered sp	sturbance tolerant native spp ecies diversity moderate to ly w/o presence of rare
	6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75 % cover (-5)	high	A predominance of native specie and/or disturbance tolerant n absent, and high spp diversit the presence of rare, threater	es, with nonnative spp ative spp absent or virtually y and often, but not always,
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Qua	ality
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 ac	,
		2	Moderate 1 ha to <4 ha (2.47 ac	cres 9.88 acres)
	6d. Microtopography Score all present using 0 to 3 scale O Vegetated hummocks/tussocks	Microtopo	High 4 ha (9.88 acres) or more	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh 0 Amphibian breeding pools	1	Present very small amounts or it of marginal quality	f more common

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

Site: Cuyaho	a County Airport	Date:	May 1, 2013
Wetlands:	Wetland H	Rater:	ANB
0 0 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts))	
	3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <4ha) (2 pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (2 pts) X <0.1 acres (0.04ha) (0 pts)		
2 2 Subtotal Points	NARROW. Buffers average 10m to <25i X VERY NARROW. Buffers average <10m	double check) ore around wetland perimeter (7) (82 to <164ft) around wetland perimeter (4) m (32ft to <82ft) around wetland perimeter (1 (<32ft) around wetland perimeter (0)	1)
	2b. Intensity of surrounding land use (select one or dol VERY LOW. 2nd growth or older forest, LOW. Old field (>10 years), shrubland, y X MODERATELY HIGH. Residential, fence X HIGH. Urban, industrial, open pasture, ro	orairie, savannah, wildlife area, etc. (7) oung second growth forest. (5) d pasture, park, conservation tillage, new fal	llow field. (3)
9 7 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (Regularly inundate X Seasonally inunda Seasonally satura	neck & average) ently inundated/saturated (4) ed/saturated (3)
	3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human us Part of wetland/upland (e.g. forest), comp Part of riparian or upland corridor (1)		neck & average) parent (12)
	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)	Check all disturbance ditch dike tile weir stormwater input	es observed point source (nonstormwater) filling/grading road bed/RR track dredging other- list
16 7 Subtotal Points	Good (5) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) w	Ac. Habitat alteration. Score None or none approximate Recovered (6)	sapling removal seous/aquatic bed removal entation ng
	to	xic pollutants nutrier	nt emrichment

Site:	Cuvahoga	a County Airport		Date:	May 1, 2013
Wetlar	, ,	Wetland H		Rater:	·
vvelidi	ıu.	vvetiand n		naiei.	ANB
16	subtotal first	nage			
10	June 10 to 1	F~9~			
16	0	Metric 5. Special Wetlands. (max 10 p	ts.)		
Subtotal	Points	Check all that apply and score as indicated	•		
		Bog (10 pts)			
		Fen (10 pts)			
		Old Growth Forest (10 pts)			
		Mature forested wetland (5 pts)			
		Lake Erie coastal/tributary wetland-uni			
		Lake Erie coastal/tributary wetland-res		(5 pts)	
		Lake Plain Sand Prairies (Oak Openin	gs) (10 pts)		
		Relict Wet Prairies (10 pts)	ened or ondenses	ed species (10)	
		Known occurrence state/federal threat Significant migatory songbird/waterfow			
		Category 1 Wetland. See Question 1	=		
				○ (-1 -7	
19	3	Metric 6. Plant Communities, interspe	rsion, microt	opography. (max 20 pts	s.)
Subtotal	Points	6a. Wetland Vegetation Communities		•	
		Score all present using 0 to 3 scale	Vegetatio	n Community Cover So	ale
		0 Aquatic bed	0	Absent or comprises <0.1 ha	(0.2471 acres) contiguous area
		1 Emergent	_	Present and either comprises	•
		0 Shrub	1	_	rate quality, or comprises a
		0 Forest		significant part but is of lov	
		0 Mudflats 0 Open water	2	Present and either comprises	significant part of wetland's rate quality or comprises a small
		0 Open water 0 Other (list)		part and is of high quality	rate quality of comprises a siliali
		o Journal (1869)			icant part, or more, of wetland's
		6b. Horizontal (plan view) interspersion	3	vegetation and is of high q	
		Select only one			
		High (5)	Narrative	Description of Vegetati	
		Moderate (3)	low	Low spp diversity and/or pred disturbance tolerant native	
		Moderately low (2)			·
		Moderately low (2) X Low (1)		Native spp are dominant com	-
		None (0)	moderate	•	disturbance tolerant native spp species diversity moderate to
				moderately high, but gene	rally w/o presence of rare
		6c. Coverage of invasive plants.		threatened or endangered	spp
		Refer to Table 1 ORAM long form for list.		A predominance of native spe	ecies, with nonnative spp
			high	and/or disturbance toleran	t native spp absent or virtually
		Add or deduct points for coverage		absent, and high spp diver the presence of rare, threa	rsity and often, but not always,
		Extensive >75 % cover (-5)		are presence of fale, tilled	actions, or critically order spp
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Q	uality
		Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres	
		X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 acres	<i>'</i>
			2	Moderate 1 ha to <4 ha (2.47	,
		6d. Microtopography	3	High 4 ha (9.88 acres) or mor	·
		Score all present using 0 to 3 scale			
		0 Vegetated hummocks/tussocks		graphy Cover Scale	
		O Coarse woody debris >15 cm (6")	0	Absent	
		O Standing dead > 25 cm (10") dbh	1	Present very small amounts of	or if more common
		0 Amphibian breeding pools		of marginal quality	had not of bink out
			2	Present in moderate amounts quality or in small amounts	
			3	Present in moderate or greate and of highest quality	er amounts

Site: Cuyahoga	a County Airport	Date:	May 1, 2013
Wetlands:	Wetland I	Rater:	ANB/CMM
Wetlands: 0 0 Subtotal Points 2 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts) Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) X <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land us 2a. Calculate average buffer width (select one, do not double chee	e. (max 14 pts) <u>ck)</u> wetland perimeter (7)	
	MEDIUM. Buffers average 25m to <50m (82 to <164 NARROW. Buffers average 10m to <25m (32ft to <	82ft) around wetland perimeter (und wetland perimeter (0) <u>& average)</u> Innah, wildlife area, etc. (7) d growth forest. (5) park, conservation tillage, new fa	(1)
9 7	Metric 3. Hydrology. (max 30 pts)	3d. Duration inundation/satt	uration.
Subtotal Points	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1) 3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)	Regularly inunda X Seasonally inund	ently inundated/saturated (4) ted/saturated (3) lated (2) ated in upper 30cm (12in) (1) hydrologic regime. theck & average) oparent (12)
16 7	Metric 4. Habitat Alteration and Development. (m		
Subtotal Points	4a. Substrate disturbance. Score one or double check and avera None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7)	Ac. Habitat alteration. Score None or none ap Recovered (6) X Recovering (3) Recent or no recoverable shrub herba sedim dredg removal 4c. Habitat alteration. Score Recovering (3) Recovered (6) x Recovering (3) Recent or no recoverable shrub herba	overy (1) /sapling removal ceous/aquatic bed removal nentation ling

Site: Cu	yahoga County Airport		Date:	May 1, 2013
Wetland:	Wetland I		Rater:	ANB/CMM
TTOLIGITAL	Wettaria		ratori	7 ((VE) OIVIIVI
16 subt	total first page			
16	Metric 5. Special Wetlands. (max 10	0 pts.)		
Subtotal Po	ints Check all that apply and score as indicated			
	Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts)			
	Lake Erie coastal/tributary wetland	,	/	
	Lake Erie coastal/tributary wetland		(5 pts)	
	Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10 pts)	enings) (10 pts)		
	Known occurrence state/federal th	reatened or endanger	red species (10)	
	Significant migatory songbird/wate	=		
	Category 1 Wetland. See Questio	=		
19 :	Metric 6. Plant Communities, inters	spersion, microt	opography. (max 20 pts.	-]
Subtotal Po	ints 6a. Wetland Vegetation Communities			
	Score all present using 0 to 3 scale	Vegetatio	n Community Cover Sca	ale
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0	0.2471 acres) contiguous area
	1 Emergent		Present and either comprises s	•
	0 Shrub	1	vegetation and is of modera significant part but is of low	
	0 Forest 0 Mudflats			· ·
	0 Open water	2	Present and either comprises s vegetation and is of modera	ate quality or comprises a small
	0 Other (list)		part and is of high quality	4
	, ,	2	Present and comprises signific	ant part, or more, of wetland's
	6b. Horizontal (plan view) interspersion	3	vegetation and is of high qu	ality
	Select only one			
	High (5)	Narrative	Description of Vegetation	on Quality
	Moderately high (4)	low	Low spp diversity and/or predo	
	Moderate (3)		disturbance tolerant native s	species
	Moderately low (2)		Native spp are dominant comp	
	X Low (1)	moderate	although nonnative and/or or can also be present, and sp	disturbance tolerant native spp
	None (0)	moderate	moderately high, but genera	*
	6c. Coverage of invasive plants.		threatened or endangered s	spp —
	Refer to Table 1 ORAM long form for list.		A predominance of native spec	cies with nonnative spp
		high	l '	native spp absent or virtually
	Add or deduct points for coverage	high		ity and often, but not always,
	Extensive >75 % cover (-5)		the presence of rare, threat	ened, or endangered spp
	Moderate 25-75% cover (-3)	B. 101 . 4		. 124
	Sparse 5-25% cover (-1)		nd Open Water Class Qu	ıalıty
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	to 0.47)
	X Absent (1)	2	Low 0.1 ha to <1 ha (0.2471 a	·
	6d. Microtopography	3	Moderate 1 ha to <4 ha (2.47 a High 4 ha (9.88 acres) or more	· · · · · · · · · · · · · · · · · · ·
	Score all present using 0 to 3 scale		Trigit 4 ha (5.00 acres) or more	
	0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh	1	Present very small amounts or	if more common
	0 Amphibian breeding pools	'	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	

Category 1

Site: Cuyaho	ga County Airport	Date:	May 1, 2013
Wetlands:	Wetland J	Rater:	ANB
0 0 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts) Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) X <0.1 acres (0.04ha) (0 pts)		
2 2 Subtotal Points	Metric 2. Upland buffers and surrounding lan 2a. Calculate average buffer width (select one, do not double WIDE. Buffers average 50m (164ft) or more a MEDIUM. Buffers average 25m to <50m (82 to NARROW. Buffers average 10m to <25m (32 X VERY NARROW. Buffers average <10m (<32) 2b. Intensity of surrounding land use (select one or double of VERY LOW. 2nd growth or older forest, prairie LOW. Old field (>10 years), shrubland, young X MODERATELY HIGH. Residential, fenced pas X HIGH. Urban, industrial, open pasture, row cro	le check) Iround wetland perimeter (7) o <164ft) around wetland perimeter (4) Left to <82ft) around wetland perimeter (1) Left) around wetland perimeter (0) Check & average) e, savannah, wildlife area, etc. (7) second growth forest. (5) sture, park, conservation tillage, new fal	
9 7 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)	Regularly inundate X Seasonally inundate Seasonally saturat 3e. Modifications to natural h (select one or double ch None or none app Recovered (7)	eck & average) ntly inundated/saturated (4) ed/saturated (3) ted (2) ted in upper 30cm (12in) (1) evydrologic regime. eck & average) parent (12)
16 7	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) Metric 4. Habitat Alteration and Developmen	dike tile weir stormwater input	es observed point source (nonstormwater) filling/grading road bed/RR track dredging other- list
Subtotal Points	Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) Good (5) mowing grazing clearcu selectiv woody	Ac. Habitat alteration. Score None or none app	very (1) sapling removal eous/aquatic bed removal entation ng

Site:	Field Form Quantita Cuvahoga	County Airport		Date:	May 1, 2013
Wetla	, ,	Wetland J		Rater:	ANB
TTOTIG	.u.	Welland		rtator:	7,110
16	subtotal first	page			
16	0	Metric 5. Special Wetlands. (m	ax 10 pts.)		
Subtotal	Points	Check all that apply and score as indicate	e <u>d</u>		
		Bog (10 pts)			
		Fen (10 pts)			
		Old Growth Forest (10 pts)			
		Mature forested wetland (5 p	*		
		Lake Erie coastal/tributary w	-		
		Lake Erie coastal/tributary w Lake Plain Sand Prairies (Oa		(5 pts)	
		Relict Wet Prairies (10 pts)	ak Openings) (10 pts)		
		Known occurrence state/fed	eral threatened or endanger	red species (10)	
		Significant migatory songbire			
		Category 1 Wetland. See Q	uestion 1 of Qualitative Rati	ng. (-10 pts)	
19	3	Metric 6. Plant Communities, i	nterspersion, microto	opography. (max 20 pt	s.)
Subtotal	Points	6a. Wetland Vegetation Communities			_
		Score all present using 0 to 3 scale		n Community Cover So	
		0 Aquatic bed	0		(0.2471 acres) contiguous area
		1 Emergent 0 Shrub	1	Present and either comprises	s small part of wetland's trate quality, or comprises a
		0 Forest	·	significant part but is of lo	
		0 Mudflats		Present and either comprises	s significant part of wetland's
		0 Open water	2	· '	rate quality or comprises a small
		0 Other (list)		part and is of high quality	
			3		ficant part, or more, of wetland's
		6b. Horizontal (plan view) interspersion		vegetation and is of high of	quality
		Select only one	Nometive	Decembrish of Venetat	ian Ovality
		High (5)	Narrative	Description of Vegetat	
		Moderately high (4) Moderate (3)	low	Low spp diversity and/or pred disturbance tolerant native	
		Moderately low (2)			·
		X Low (1)		Native spp are dominant com	nponent of the vegetation, r disturbance tolerant native spp
		None (0)	moderate	9	species diversity moderate to
				, , ,	erally w/o presence of rare
		6c. Coverage of invasive plants.		threatened or endangered	1 spp
		Refer to Table 1 ORAM long form for list.		A predominance of native spe	
		Add as deduct rejets for according	high		nt native spp absent or virtually rsity and often, but not always,
		Add or deduct points for coverage Extensive >75 % cover (-5)			atened, or endangered spp
		Moderate 25-75% cover (-3)		1	- -
		Sparse 5-25% cover (-1)		nd Open Water Class C	Quality
		Nearly Absent <5% cover (0		Absent <0.1 ha (0.2471 acres	
		X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471	acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47	acres 9.88 acres)
		6d. Microtopography	3	High 4 ha (9.88 acres) or mo	re
		Score all present using 0 to 3 scale	.l Mianat	aranhy Carrer Cast-	
		0 Vegetated hummocks/tusso		graphy Cover Scale	
		0 Coarse woody debris >15 cr 0 Standing dead > 25 cm (10"	` '	Absent	
		0 Amphibian breeding pools) dbn1	Present very small amounts of marginal quality	or it more common
		_ o, anymbian procuring pools		Present in moderate amounts	s but not of highest
			2	quality or in small amount	
			3	Present in moderate or great	
			3	and of highest quality	

Site: Cuyahog	ga County Airport	Date:	May 1, 2013
Wetlands:	Wetland K	Rater:	ANB
0 0 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts) Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) X <0.1 acres (0.04ha) (0 pts)	·	
2 2 Subtotal Points	Metric 2. Upland buffers and surrounding la 2a. Calculate average buffer width (select one, do not down WIDE. Buffers average 50m (164ft) or more MEDIUM. Buffers average 55m to <50m (82 NARROW. Buffers average 10m to <25m (3 X VERY NARROW. Buffers average <10m (<3) 2b. Intensity of surrounding land use (select one or double) VERY LOW. 2nd growth or older forest, prain LOW. Old field (>10 years), shrubland, young X MODERATELY HIGH. Residential, fenced pa X HIGH. Urban, industrial, open pasture, row co	ble check) around wetland perimeter (7) to <164ft) around wetland perimeter (4) 82ft to <82ft) around wetland perimeter (1) 82ft) around wetland perimeter (0) 8 check & average) rie, savannah, wildlife area, etc. (7) g second growth forest. (5) asture, park, conservation tillage, new fall	
9 7 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)	Regularly inundate X Seasonally inundate Seasonally saturat 3e. Modifications to natural h (select one or double che None or none app Recovered (7)	eck & average) ntly inundated/saturated (4) id/saturated (3) ted (2) ed in upper 30cm (12in) (1) ydrologic regime. eck & average) parent (12)
16 7	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) Metric 4. Habitat Alteration and Development	dike	es observed point source (nonstormwater) filling/grading road bed/RR track dredging other- list
Subtotal Points	Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) Good (5) mowin grazin clearc select wood	Ac. Habitat alteration. Score None or none app	very (1) sapling removal eous/aquatic bed removal intation

ORAM v. 5.0 Field Form Quar	ntitative Rating			
Site: Cuyahog	ga County Airport		Date:	May 1, 2013
Wetland:	Wetland K		Rater:	ANB
16 subtotal fire	st page Metric 5. Special Wetlands. (max 10 pt	s.)		
Subtotal Points	Check all that apply and score as indicated Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unre Lake Erie coastal/tributary wetland-rest Lake Plain Sand Prairies (Oak Opening Relict Wet Prairies (10 pts) Known occurrence state/federal threate Significant migatory songbird/waterfowl Category 1 Wetland. See Question 1 of	estricted hydrolog ricted hydrology js) (10 pts) ened or endange habitat or usage	(5 pts) red species (10) e (10 pts)	
19 3 Subtotal Points	Metric 6. Plant Communities, intersper 6a. Wetland Vegetation Communities Score all present using 0 to 3 scale		opography. (max 20 pts. n Community Cover Sca	•
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0	
	1 Emergent 0 Shrub 0 Forest	1	Present and either comprises s vegetation and is of modera significant part but is of low	mall part of wetland's te quality, or comprises a
	0 Mudflats 0 Open water 0 Other (list)	2	Present and either comprises s vegetation and is of modera part and is of high quality	ignificant part of wetland's te quality or comprises a small
	6b. Horizontal (plan view) interspersion	3	Present and comprises signification and is of high quality	
	Select only one High (5)	Narrative	Description of Vegetatio	n Quality
	Moderately high (4) Moderate (3)	low	Low spp diversity and/or predor disturbance tolerant native s	
	Moderately low (2) X Low (1) None (0) 6c. Coverage of invasive plants.	moderate	Native spp are dominant comportal although nonnative and/or dominative and/or dominative and specific production also be present, and specific production and specific product	isturbance tolerant native spp ecies diversity moderate to Ily w/o presence of rare
	Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75 % cover (-5)	high	A predominance of native spec and/or disturbance tolerant r absent, and high spp diversi the presence of rare, threate	native spp absent or virtually ty and often, but not always,
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Qu	ality
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 ac	cres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 a	cres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more	
	Score all present using 0 to 3 scale 0 Vegetated hummocks/tussocks	Microtopo	ography Cover Scale	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	O Standing dead > 25 cm (10") dbh Amphibian breeding pools	1	Present very small amounts or of marginal quality	if more common
		2	Present in moderate amounts, I quality or in small amounts of	•
		3	Present in moderate or greater and of highest quality	amounts

	te: Cuyahoga County Airport		Date:	May 1, 2013
Wetlands:	Wetland L		Rater:	DVG
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2h 10 to <25 acres (4 to <10.1ha) (3 to <10 acres (1.2 to <4ha) (3 0.3 to <3 acres (0.12 to <1.2ha 0.1 to <0.3 acres (0.04 to <0.12 X <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts)) (2pts)		
2 2 Subtotal Points	Metric 2. Upland buffers and surrounding land use. (max 14 pts) 2a. Calculate average buffer width (select one, do not double check) WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) X VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use (select one or double check & average) VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) X MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) X HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)			
8 6 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface w Perennial surface water (lake or 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other Part of wetland/upland (e.g. fore Part of riparian or upland corrido 3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)	vater (3) r stream) (5) 3e. human use (1) est), complex (1) or (1)	Regularly inunda Seasonally inunda	check & average) nently inundated/saturated (4) ated/saturated (3) dated (2) rated in upper 30cm (12in) (1) I hydrologic regime. check & average) apparent (12) accovery (1) acces observed point source (nonstormwater) filling/grading
13 5 Subtotal Points	Metric 4. Habitat Alteration and D 4a. Substrate disturbance. Score one or do None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1)	uble check and average.	Habitat alteration. Scol None or none a Recovered (6) Recovering (3) X Recent or no rec Ces observed shrub herba sedim d dredg farmin	o/sapling removal accous/aquatic bed removal nentation

Site: Cuyahoga	te: Cuyahoga County Airport		Date:	May 1, 2013		
Wetland:	Wetland L		Rater:	DVG		
13 subtotal first p	page		_			
13 0	Metric 5. Special Wetlands. (max 10 pts.)					
Subtotal Points	Check all that apply and score as indicated Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unrestrict Lake Plain Sand Prairies (Oak Openings) Relict Wet Prairies (10 pts) Known occurrence state/federal threatene Significant migatory songbird/waterfowl had Category 1 Wetland. See Question 1 of Co	ed hydrology ((10 pts) d or endanger bitat or usage	5 pts) ed species (10) (10 pts)			
15 2 Subtotal Points	Metric 6. Plant Communities, interspersion 6a. Wetland Vegetation Communities	on, microto	pography. (max 20 pts.)			
Japania i Ullia	Score all present using 0 to 3 scale	Vegetation	Community Cover Scale	e		
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0.	2471 acres) contiguous area		
	1 Emergent 0 Shrub 0 Forest	1	Present and either comprises sr vegetation and is of moderate significant part but is of low q	e quality, or comprises a		
	0 Mudflats 0 Open water 0 Other (list)	2	Present and either comprises sign vegetation and is of moderate part and is of high quality	gnificant part of wetland's e quality or comprises a small		
	6b. Horizontal (plan view) interspersion	3	Present and comprises significa vegetation and is of high qua	• • •		
	Select only one High (5)	Narrative	Description of Vegetation	o Quality		
	Moderately high (4) Moderate (3)	low	Low spp diversity and/or predom disturbance tolerant native sp	ninance of nonnative or		
	Moderately low (2) Low (1) X None (0) 6c. Coverage of invasive plants.	moderate	Native spp are dominant compo although nonnative and/or di can also be present, and spe moderately high, but generall threatened or endangered sp	sturbance tolerant native spp cies diversity moderate to ly w/o presence of rare		
	Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75 % cover (-5)	high	A predominance of native special and/or disturbance tolerant nabsent, and high spp diversithe presence of rare, threater	ative spp absent or virtually y and often, but not always,		
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat ar	d Open Water Class Qua	ality		
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	•		
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 ac	res to 2.47 acres)		
	- 	2	Moderate 1 ha to <4 ha (2.47 ac	cres 9.88 acres)		
	6d. Microtopography	3	High 4 ha (9.88 acres) or more			
	Score all present using 0 to 3 scale O Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale			
	0 Coarse woody debris >15 cm (6")	0	Absent			
	0 Standing dead > 25 cm (10") dbh 0 Amphibian breeding pools	1	Present very small amounts or it of marginal quality	f more common		
		2	Present in moderate amounts, b quality or in small amounts of	•		
		3	Present in moderate or greater a and of highest quality	amounts		

Site: Cuyahoga County Airport			Date:	May 1, 2013
Wetlands:	Wetland M		Rater:	DVG
0 0 Subtotal Points 2 2 Subtotal Points	Metric 1. Wetland Area (size). (masselect one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) 10 to <25 acres (4 to <10.1ha) 3 to <10 acres (1.2 to <4ha) (3	na) (5 pts) (4 pts) pts) a) (2pts) tha) (1 pt) ounding land use. (mane, do not double check) 164ft) or more around wetland in to <50m (82 to <164ft) arou	ax 14 pts) I perimeter (7) nd wetland perimeter (4)	
	X VERY NARROW. Buffers aver 2b. Intensity of surrounding land use (select VERY LOW. 2nd growth or old LOW. Old field (>10 years), shi X MODERATELY HIGH. Resider X HIGH. Urban, industrial, open p	one or double check & avera ler forest, prairie, savannah, v rubland, young second growt ntial, fenced pasture, park, co pasture, row cropping, mining	ge) vildlife area, etc. (7) h forest. (5) nservation tillage, new fal , construction. (1)	,,
8 6 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface w Perennial surface water (lake of the surface water) 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other Part of wetland/upland (e.g. fore) Part of riparian or upland corridor.	vater (3) r stream) (5) 3e. human use (1) est), complex (1)	Regularly inundate Seasonally inundate	neck & average) ently inundated/saturated (4) ed/saturated (3) ated (2) tited in upper 30cm (12in) (1) hydrologic regime. neck & average) parent (12)
	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)		Check all disturbanc ditch dike dile weir stormwater input	es observed point source (nonstormwater) filling/grading road bed/RR track dredging other- list
13 5 Subtotal Points	Metric 4. Habitat Alteration and E 4a. Substrate disturbance. Score one or do None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1)	ouble check and average.	Habitat alteration. Score None or none app Recovering (3) X Recent or no reco ces observed shrub/s herbace sedime dredgir farming	sapling removal eous/aquatic bed removal entation

Site: Cuyahoga County Airport			Date:	May 1, 2013
Wetland:	Wetland M		Rater:	DVG
			-	
13 subtotal first p	page			
13 0	Metric 5. Special Wetlands. (max 10 pts.)		
Subtotal Points	Check all that apply and score as indicated	,		
	Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unres	triatad budralaa	v (10 pto)	
	Lake Erie coastal/tributary wetland-restric			
	Lake Plain Sand Prairies (Oak Openings		- F/	
	Relict Wet Prairies (10 pts)			
	Known occurrence state/federal threaten	ed or endanger	ed species (10)	
	Significant migatory songbird/waterfowl h	-		
	Category 1 Wetland. See Question 1 of	Qualitative Ratii	ng. (-10 pts)	
15 2	Metric 6. Plant Communities, interspers	ion, microto	pography. (max 20 pts.)	
Subtotal Points	6a. Wetland Vegetation Communities			
	Score all present using 0 to 3 scale	Vegetation	Community Cover Scal	
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0	
	1 Emergent 0 Shrub	1	Present and either comprises so vegetation and is of moderat	
	0 Shrub 0 Forest	'	significant part but is of low q	
	0 Mudflats		Present and either comprises si	gnificant part of wetland's
	0 Open water	2	vegetation and is of moderat	e quality or comprises a small
	0 Other (list)		part and is of high quality	
	Sh. Harizantal (plan viavy) intereneraion	3	Present and comprises significated vegetation and is of high quality.	· ·
	6b. Horizontal (plan view) interspersion Select only one		vogotation and to or night que	y
	High (5)	Narrative	Description of Vegetation	n Quality
	Moderately high (4)	low	Low spp diversity and/or predon	ninance of nonnative or
	Moderate (3)	1011	disturbance tolerant native s	pecies
	Moderately low (2)		Native spp are dominant compo	
	Low (1) X None (0)	moderate	although nonnative and/or di can also be present, and spe	sturbance tolerant native spp
	None (0)	moderate	moderately high, but general	•
	6c. Coverage of invasive plants.		threatened or endangered sp	op
	Refer to Table 1 ORAM long form for list.		A predominance of native speci	7.7
	Add and advet points for account	high	and/or disturbance tolerant n absent, and high spp diversit	
	Add or deduct points for coverage Extensive >75 % cover (-5)		the presence of rare, threate	
	Moderate 25-75% cover (-3)		<u>I</u>	
	Sparse 5-25% cover (-1)	Mudflat ar	nd Open Water Class Qua	ality
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 ac	,
	Ed Migratonography	2	Moderate 1 ha to <4 ha (2.47 au	cres 9.88 acres)
	6d. Microtopography Score all present using 0 to 3 scale	3	High 4 ha (9.88 acres) or more	
	0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh0 Amphibian breeding pools	1	Present very small amounts or i of marginal quality	f more common
	<u> </u>	2	Present in moderate amounts, to quality or in small amounts o	•
		3	Present in moderate or greater and of highest quality	
		-	· · · ·	

Site: Cuyahoga County Airport			Date:	May 1, 2013
Wetlands:	Wetland N		Rater:	DVG
Wetlands: 0 0 Subtotal Points 2 2 Subtotal Points	Wetland N	na) (5 pts) (4 pts) pts) a) (2pts) 2ha) (1 pt) counding land use. (manue, do not double check) 164ft) or more around wetland in to <50m (82 to <164ft) around in to <25m (32ft to <82ft) around in the country in	ox 14 pts) perimeter (7) nd wetland perimeter (4) bund wetland perimeter (1)	
8 6	2b. Intensity of surrounding land use (select VERY LOW. 2nd growth or old LOW. Old field (>10 years), sh X MODERATELY HIGH. Resider X HIGH. Urban, industrial, open p	ler forest, prairie, savannah, w rubland, young second growth ntial, fenced pasture, park, col pasture, row cropping, mining	vildlife area, etc. (7) n forest. (5) nservation tillage, new fallo	• •
Subtotal Points	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface w Perennial surface water (lake o 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other Part of wetland/upland (e.g. ford	or stream) (5) 3e. r human use (1) est), complex (1)	Regularly inundate Seasonally inundate	ntly inundated/saturated (4) d/saturated (3) ted (2) ed in upper 30cm (12in) (1) ydrologic regime. eck & average) earent (12)
	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)		dike file rweir c	es observed point source (nonstormwater) filling/grading road bed/RR track dredging other- list
13 5 Subtotal Points	Metric 4. Habitat Alteration and E 4a. Substrate disturbance. Score one or do None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1)	ouble check and average.	Habitat alteration. Score None or none app Recovered (6) Recovering (3) X Recent or no recoves shrub/sa herbace- sedimer dredging farming	very (1) apling removal ous/aquatic bed removal ntation g

Site: Cuyahoga County Airport			Date:	May 1, 2013
Wetland:	Wetland N		Rater:	DVG
13 subtotal first p	page			
13 0	Metric 5. Special Wetlands. (max 10 pts.)		
Subtotal Points	Check all that apply and score as indicated	,		
	Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unres	triotod budrolog	v (10 nto)	
	Lake Erie coastal/tributary wetland-uries			
	Lake Plain Sand Prairies (Oak Openings		- [/	
	Relict Wet Prairies (10 pts)			
	Known occurrence state/federal threaten	ed or endanger	ed species (10)	
	Significant migatory songbird/waterfowl h	_		
	Category 1 Wetland. See Question 1 of	Qualitative Kati	ig. (-10 pts)	
15 2	Metric 6. Plant Communities, interspers	ion, microto	pography. (max 20 pts.)	
Subtotal Points	6a. Wetland Vegetation Communities			
	Score all present using 0 to 3 scale	Vegetatio	Community Cover Scal	
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0	
	1 Emergent 0 Shrub	1	Present and either comprises sr vegetation and is of moderat	•
	0 Shrub 0 Forest	'	significant part but is of low q	
	0 Mudflats		Present and either comprises si	gnificant part of wetland's
	0 Open water	2	vegetation and is of moderat	e quality or comprises a small
	0 Other (list)		part and is of high quality	
	6h Harizantal (plan view) intereneraien	3	Present and comprises significa vegetation and is of high qua	•
	6b. Horizontal (plan view) interspersion Select only one		vogotation and to or night qua	y
	High (5)	Narrative	Description of Vegetation	ո Quality
	Moderately high (4)	low	Low spp diversity and/or predon	ninance of nonnative or
	Moderate (3)	1011	disturbance tolerant native sp	pecies
	Moderately low (2)		Native spp are dominant compo	
	Low (1) X None (0)	moderate	although nonnative and/or di can also be present, and spe	sturbance tolerant native spp
	A Notice (0)	modorato	moderately high, but general	*
	6c. Coverage of invasive plants.		threatened or endangered sp	pp
	Refer to Table 1 ORAM long form for list.		A predominance of native speci	
	Add as deduct soints for access	high	and/or disturbance tolerant n absent, and high spp diversit	
	Add or deduct points for coverage Extensive >75 % cover (-5)		the presence of rare, threate	
	Moderate 25-75% cover (-3)			
	Sparse 5-25% cover (-1)	Mudflat ar	d Open Water Class Qua	ality
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 ac	,
	Ed Migratonography	2	Moderate 1 ha to <4 ha (2.47 ac	cres 9.88 acres)
	6d. Microtopography Score all present using 0 to 3 scale	3	High 4 ha (9.88 acres) or more	
	0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh0 Amphibian breeding pools	1	Present very small amounts or i of marginal quality	f more common
		2	Present in moderate amounts, be quality or in small amounts or	•
		3	Present in moderate or greater a	
		-		

Site: Cuyahoga	County Airport		Date:	May 2, 2013
Wetlands:	Wetland O		Rater:	DGV
2 2 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2h 10 to <25 acres (4 to <10.1ha) (6 3 to <10 acres (1.2 to <4ha) (3 pt) X 0.3 to <3 acres (0.12 to <1.2ha 0.1 to <0.3 acres (0.04 to <0.12 <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ı) (2pts)		
13 11 Subtotal Points	Metric 2. Upland buffers and surre 2a. Calculate average buffer width (select on X WIDE. Buffers average 50m (1 MEDIUM. Buffers average 25m NARROW. Buffers average 10 VERY NARROW. Buffers average 10 VERY LOW. 2nd growth or old X LOW. Old field (>10 years), shr X MODERATELY HIGH. Resider HIGH. Urban, industrial, open p	ne, do not double check) 64ft) or more around wetland in to <50m (82 to <164ft) arou im to <25m (32ft to <82ft) arou age <10m (<32ft) around wet one or double check & avera er forest, prairie, savannah, v rubland, young second growt intial, fenced pasture, park, co	d perimeter (7) nd wetland perimeter (- bund wetland perimeter (1) tland perimeter (0) ge) vildlife area, etc. (7) h forest. (5) nservation tillage, new	r (1)
25 12 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface w Perennial surface water (lake or 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other X Part of wetland/upland (e.g. fore Part of riparian or upland corrido 3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)	vater (3) r stream) (5) 3e. human use (1) est), complex (1) or (1)	Regularly inund X Seasonally inur	check & average) Innently inundated/saturated (4) Idated/saturated (3) Indated (2) Iurated in upper 30cm (12in) (1) Indated (4) Iurated in upper 30cm (12in) (1) Indated (12) Iurated in upper 30cm (12in) (1) Iurated in upper 30cm (1
34 9 Subtotal Points	Metric 4. Habitat Alteration and D 4a. Substrate disturbance. Score one or do None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1)	uble check and average.	Pts.) Habitat alteration. Sco None or none a Recovered (6) X Recovering (3) Recent or no re ces observed herbi sedir dred farm	pore one or double check and average. apparent (9) accovery (1) b/sapling removal aceous/aquatic bed removal mentation ging

34 subtotal this page

Site: Cuyahoga	County Airport		Date:	May 2, 2013		
Wetland:	Wetland O		Rater:	DGV		
34 subtotal first p	age					
34 0	Metric 5. Special Wetlands. (max 10 pts.)					
Subtotal Points	Check all that apply and score as indicated Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unrestrict Lake Plain Sand Prairies (Oak Openings) Relict Wet Prairies (10 pts) Known occurrence state/federal threatene Significant migatory songbird/waterfowl had Category 1 Wetland. See Question 1 of Co	ed hydrology ((10 pts) ed or endanger bitat or usage	5 pts) ed species (10) (10 pts)			
41 7 Subtotal Points	Metric 6. Plant Communities, interspersion 6a. Wetland Vegetation Communities	on, microto	pography. (max 20 pts.)			
Judiolai FUIIIIS	Score all present using 0 to 3 scale	Vegetation	n Community Cover Scale	e		
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0.			
	0 Emergent 1 Shrub 2 Forest	1	Present and either comprises sn vegetation and is of moderate significant part but is of low qu	e quality, or comprises a		
	0 Mudflats 0 Open water 0 Other (list)	2	Present and either comprises signer vegetation and is of moderate part and is of high quality	gnificant part of wetland's e quality or comprises a small		
	6b. Horizontal (plan view) interspersion	3	Present and comprises significal vegetation and is of high qua	•		
	Select only one High (5)	Narrative	Description of Vegetation	Quality		
	Moderately high (4) Moderate (3)	low	Low spp diversity and/or predom disturbance tolerant native sp	ninance of nonnative or		
	X Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants.	moderate	Native spp are dominant compo although nonnative and/or dis can also be present, and spe moderately high, but generall threatened or endangered sp	sturbance tolerant native spp cies diversity moderate to y w/o presence of rare		
	Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75 % cover (-5)	high	A predominance of native specie and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threater	ative spp absent or virtually y and often, but not always,		
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat ar	nd Open Water Class Qua	ality		
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	···· ·		
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 ac	res to 2.47 acres)		
		2	Moderate 1 ha to <4 ha (2.47 ac	res 9.88 acres)		
	6d. Microtopography	3	High 4 ha (9.88 acres) or more			
	Score all present using 0 to 3 scale 0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale			
	0 Coarse woody debris >15 cm (6")	0	Absent			
	0 Standing dead > 25 cm (10") dbh 1 Amphibian breeding pools	1	Present very small amounts or if of marginal quality	more common		
		2	Present in moderate amounts, b quality or in small amounts of	•		
		3	Present in moderate or greater a and of highest quality	amounts		

Site: Cuyahoga County Airport			Date:	May 1, 2013
Wetlands:	Wetland P		Rater:	CMM, ANB
1 1 Subtotal Points	Metric 1. Wetland Area (size). (ma	ax 6 pts)		
Subtotal 1 offits	Solution	(4 pts) pts) a) (2pts)		
12 11 Subtotal Points	Metric 2. Upland buffers and surreal Calculate average buffer width (select or Sure Sure Sure Sure Sure Sure Sure Sur	ne, do not double check) 64ft) or more around wetland in to <50m (82 to <164ft) aroun im to <25m (32ft to <82ft) aroun age <10m (<32ft) around wetl	perimeter (7) nd wetland perimeter (4 und wetland perimeter land perimeter (0)	
	VERY LOW. 2nd growth or old X LOW. Old field (>10 years), shi X MODERATELY HIGH. Resider HIGH. Urban, industrial, open p	er forest, prairie, savannah, w rubland, young second growth ntial, fenced pasture, park, cor	rildlife area, etc. (7) n forest. (5) nservation tillage, new f	allow field. (3)
22 10 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface w Perennial surface water (lake o 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other X Part of wetland/upland (e.g. fore Part of riparian or upland corride	vater (3) r stream) (5) 3e. human use (1) est), complex (1)	Regularly inunda X Seasonally inun	check & average) nently inundated/saturated (4) ated/saturated (3) dated (2) rated in upper 30cm (12in) (1) I hydrologic regime. check & average) apparent (12)
	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)		Check all disturban ditch dike ville weir stormwater input	ces observed] point source (nonstormwater)] filling/grading road bed/RR track dredging other- list
31 9 Subtotal Points	Metric 4. Habitat Alteration and D 4a. Substrate disturbance. Score one or do None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2)	Check all disturbance mowing grazing clearcutting selective cutting	Habitat alteration. Sco None or none a Recovered (6) X Recovering (3) Recent or no recovers observed shrub herba sedin dredg	overy (1) o/sapling removal accous/aquatic bed removal anentation ging
	Poor (1)	woody debris removal toxic pollutants	_	ng ent emrichment

Site: Cuyahoga	County Airport		Date:	May 1, 2013
Wetland:	Wetland P		Rater:	CMM, ANB
31 subtotal first p	age			
31 0	Metric 5. Special Wetlands. (max 10 pts.)			
Subtotal Points	Check all that apply and score as indicated Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unrestrict Lake Plain Sand Prairies (Oak Openings) Relict Wet Prairies (10 pts) Known occurrence state/federal threatene Significant migatory songbird/waterfowl ha Category 1 Wetland. See Question 1 of Q	ed hydrology ((10 pts) ed or endanger ibitat or usage	5 pts) ed species (10) (10 pts)	
38 7 Subtotal Points	Metric 6. Plant Communities, interspersion 6a. Wetland Vegetation Communities	on, microto	pography. (max 20 pts.)	
Judicial i Ullis	Score all present using 0 to 3 scale	Vegetation	n Community Cover Scale	9
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0.	
	0 Emergent 1 Shrub 2 Forest	1	Present and either comprises sm vegetation and is of moderate significant part but is of low qu	e quality, or comprises a
	0 Mudflats 0 Open water 0 Other (list)	2	Present and either comprises sig vegetation and is of moderate part and is of high quality	'
	6b. Horizontal (plan view) interspersion	3	Present and comprises significar vegetation and is of high qual	• • •
	Select only one	Narrativo	Description of Vegetation	Quality
	High (5) Moderately high (4) Moderate (3)	low	Description of Vegetation Low spp diversity and/or predom disturbance tolerant native sp	ninance of nonnative or
	X Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants.	moderate	Native spp are dominant compon although nonnative and/or discan also be present, and spe moderately high, but generally threatened or endangered sp	sturbance tolerant native spp cies diversity moderate to y w/o presence of rare
	Add or deduct points for coverage Extensive >75 % cover (-5)	high	A predominance of native specie and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threater	ative spp absent or virtually y and often, but not always,
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	Mudflat ar	nd Open Water Class Qua	
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 acr	,
	Od Minuten - marks	2	Moderate 1 ha to <4 ha (2.47 ac	res 9.88 acres)
	6d. Microtopography Score all present using 0 to 3 scale	3	High 4 ha (9.88 acres) or more	
	0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	O Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh Amphibian breeding pools	1	Present very small amounts or if of marginal quality	more common
		2	Present in moderate amounts, b quality or in small amounts of	9
		3	Present in moderate or greater a and of highest quality	amounts

Site: Cuyahog	a County Airport		Date:	May 1, 2013		
Wetlands:	Wetland Q		Rater:	DGV		
-			•			
0 0	Metric 1. Wetland Area (size). (m	ax 6 pts)				
Subtotal Points	Select one size class and assign score.	. ,				
	>50 acres (>20.2ha) (6 pts)					
	25 to <50 acres (10.1 to <20.2)					
	10 to <25 acres (4 to <10.1ha) 3 to <10 acres (1.2 to <4ha) (3					
	0.3 to <3 acres (0.12 to <1.2ha	• •				
	0.1 to <0.3 acres (0.04 to <0.12	2ha) (1 pt)				
	X <0.1 acres (0.04ha) (0 pts)					
11 11	Metric 2. Upland buffers and sur	rounding land use (m:	ay 14 nts)			
Subtotal Points	2a. Calculate average buffer width (select of	•	ux 14 pt3)			
	X WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)					
	MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)					
	NARROW. Buffers average 10					
	VERY NARROW. Buffers ave	rage <10m (<32ft) around wet	lland perimeter (0)			
	2b. Intensity of surrounding land use (select					
	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)					
	X LOW. Old field (>10 years), shrubland, young second growth forest. (5) X MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)					
	HIGH. Urban, industrial, open	• • • •	•	rileid. (3)		
		1,	()			
19 8	Metric 3. Hydrology. (max 30 pts)	3d.	Duration inundation/saturati	on.		
Subtotal Points	3a. Sources of Water. Score all that apply.		(select one or double check	• ,		
	High pH groundwater (5)			/ inundated/saturated (4)		
	Other groundwater (3) X Precipitation (1)		Regularly inundated/ X Seasonally inundated	` '		
	Seasonal/Intermittent surface v	vater (3)		in upper 30cm (12in) (1)		
	Perennial surface water (lake of	* *	outonany caranates	apper coo (12) (1)		
		, , ,	Modifications to natural hyd	rologic regime.		
	3b. Connectivity. Score all that apply.		(select one or double check	• ,		
	100 year floodplain (1) Between stream/lake and othe	r human uga (1)	None or none appar	ent (12)		
	X Part of wetland/upland (e.g. for	` '	X Recovered (7)			
	Part of riparian or upland corric		Recent or no recove	ry (1)		
	20 Maximum water depth. Select only 1		Chaola all diaturbanasa	ahaaniad		
	3c. Maximum water depth. Select only 1. >0.7 (27.6in) (3)		Check all disturbances	int source (nonstormwater)		
	0.4 to 0.7m (15.7 to 27.6in) (2)			ing/grading		
	X <0.4m (<15.7in) (1)			ad bed/RR track		
			_	edging		
			stormwater input ot	her- list		
28 9	Metric 4. Habitat Alteration and	Development. (max 20) pts.)			
Subtotal Points	4a. Substrate disturbance. Score one or do	ouble check and average.				
	None or none apparent (4)					
	X Recovered (3)	4c.		ne or double check and average.		
	Recovering (2)		None or none appar	ent (9)		
	Recent or no recovery (1)		X Recovering (3)			
	4b. Habitat development. Select one.		Recent or no recover	v (1)		
	Excellent (7)			7 1.7		
	Very good (6)	Check all disturban	ces observed			
	Good (5)	mowing	shrub/sap	ling removal		
	Moderately good (4)	grazing	herbaceou	ıs/aquatic bed removal		
	X Fair (3)	clearcutting	sedimenta	·		
	Poor to fair (2)	selective cutting	dredging			
	Poor (1)	woody debris remova	al farming			
		toxic pollutants	nutrient e	mrichment		

28 subtotal this page
ORAM v. 5.0 Field Form Quantitative Rating

Site: Cuyahoga	a County Airport		Date:	May 1, 2013
Wetland:	Wetland Q		Rater:	DGV
28 subtotal firs	it page	_		
28 0	Metric 5. Special Wetlands. (max 10 pts.	.)		
Subtotal Points	Check all that apply and score as indicated	,		
	Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts)			
	Lake Erie coastal/tributary wetland-unres			
	Lake Erie coastal/tributary wetland-restric	, ,,	(o pts)	
	Lake Plain Sand Prairies (Oak Openings) Relict Wet Prairies (10 pts)	, (10 ptS)		
	Known occurrence state/federal threaten	ed or endanger	ed species (10)	
	Significant migatory songbird/waterfowl h	_		
	Category 1 Wetland. See Question 1 of	_		
	_ 			
34 6	Metric 6. Plant Communities, interspers	ion, microt	opography. (max 20 pts	.)
Subtotal Points	6a. Wetland Vegetation Communities	V- · ·		N.
	Score all present using 0 to 3 scale	T T	n Community Cover Sca	
	Aquatic bed 0 Emergent	0		0.2471 acres) contiguous area
	0 Emergent 1 Shrub	1	Present and either comprises a vegetation and is of modera	•
	2 Forest		significant part but is of low	
	0 Mudflats		Present and either comprises	significant part of wetland's
	0 Open water	2		ate quality or comprises a small
	0 Other (list)		part and is of high quality	
		3	Present and comprises signific	· ·
	6b. Horizontal (plan view) interspersion		vegetation and is of high qu	aanty
	Select only one High (5)	Narrative	Description of Vegetation	on Quality
	Moderately high (4)		Low spp diversity and/or predo	<u>-</u>
	Moderate (3)	low	disturbance tolerant native	
	Moderately low (2)		Native spp are dominant comp	onent of the vegetation
	X Low (1)		although nonnative and/or of	disturbance tolerant native spp
	None (0)	moderate	· ·	pecies diversity moderate to
	0- 0		moderately high, but genera threatened or endangered s	•
	6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.			•
	. 15.5. to Table 1 Ordaniong form for list.		A predominance of native spec	cies, with nonnative spp native spp absent or virtually
	Add or deduct points for coverage	high		sity and often, but not always,
	Extensive >75 % cover (-5)	L	the presence of rare, threat	•
	Moderate 25-75% cover (-3)	-		
	Sparse 5-25% cover (-1)	Mudflat aı	nd Open Water Class Qu	· · ·
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 a	,
	6d Microtonography	3	Moderate 1 ha to <4 ha (2.47 a	
	6d. Microtopography Score all present using 0 to 3 scale		High 4 ha (9.88 acres) or more	•
	0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	O Standing dead > 25 cm (10") dbh		Present very small amounts or	r if more common
	1 Amphibian breeding pools	1	of marginal quality	
		2	Present in moderate amounts, quality or in small amounts	=
		3	Present in moderate or greater	r amounts

Site: Cuyahog	a County Airport		Date:	May 1, 2013			
Wetlands:	Wetland R		Rater:	DGV			
2 2	Metric 1. Wetland Area (size). (ma	ax 6 pts)					
Subtotal Points	Select one size class and assign score.						
	>50 acres (>20.2ha) (6 pts)	\					
	25 to <50 acres (10.1 to <20.2ha						
	10 to <25 acres (4 to <10.1ha) (3 to <10 acres (1.2 to <4ha) (3 p						
	X 0.3 to <3 acres (0.12 to <1.2ha)	•					
	0.1 to <0.3 acres (0.04 to <0.12)						
	<0.1 acres (0.04ha) (0 pts)	··) (· · · · · ·					
13 11	Metric 2. Upland buffers and surre	ounding land use (ma	ıx 14 nts)				
Subtotal Points	2a. Calculate average buffer width (select on		ж р.с.,				
	X WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)						
	MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)						
	NARROW. Buffers average 10	m to <25m (32ft to <82ft) arou	und wetland perimeter ((1)			
	VERY NARROW. Buffers avera	age <10m (<32ft) around wetla	and perimeter (0)				
	2b. Intensity of surrounding land use (select of	one or double check & averag	<u>ıe)</u>				
	VERY LOW. 2nd growth or olde	The state of the s					
	X LOW. Old field (>10 years), shr X MODERATELY HIGH. Residen			allow field (3)			
	HIGH. Urban, industrial, open p			allow field. (3)			
			. ,				
21 8	Metric 3. Hydrology. (max 30 pts)	3d. I	Duration inundation/sat				
Subtotal Points	3a. Sources of Water. Score all that apply.	Ī	(select one or double o	• /			
	High pH groundwater (5)			ently inundated/saturated (4)			
	Other groundwater (3) X Precipitation (1)		X Seasonally inunda	ated/saturated (3)			
	Seasonal/Intermittent surface w	ater (3)		rated (2)			
	Perennial surface water (lake or	` '	,,				
		, , ,	Modifications to natural	hydrologic regime.			
	3b. Connectivity. Score all that apply.	-	(select one or double o	check & average)			
	100 year floodplain (1)		None or none ap	oparent (12)			
	Between stream/lake and other	` ′	Recovered (7) X Recovering (3)				
	X Part of wetland/upland (e.g. fore Part of riparian or upland corrido		Recent or no red	covery (1)			
	3c. Maximum water depth. Select only 1.	_C	Check all disturband				
	>0.7 (27.6in) (3)		ditch	point source (nonstormwater)			
	0.4 to 0.7m (15.7 to 27.6in) (2)	님	dike	1			
	X <0.4m (<15.7in) (1)	IH	tile ✓ weir ✓	road bed/RR track			
		H	stormwater input	dredging other- list			
	Matric 4 Habitat Altaration and P) Other list			
33 12 Subtotal Points	Metric 4. Habitat Alteration and D 4a. Substrate disturbance. Score one or do		pts.)				
Subiolai Points	None or none apparent (4)	ible crieck and average.					
	X Recovered (3)	40	Habitat alteration Secu	re one or double check and average.			
	Recovering (2)	40.	None or none ap	-			
	Recent or no recovery (1)		X Recovered (6)	sparent (5)			
	integerited the reservery (1)		Recovering (3)				
	4b. Habitat development. Select one.		Recent or no rec	overv (1)			
	Excellent (7)	ļ					
	Very good (6)	Check all disturbanc	es observed				
	Good (5)	mowing	shrub	/sapling removal			
	Moderately good (4)	grazing		ceous/aquatic bed removal			
	X Fair (3)	clearcutting	=	nentation			
	Poor to fair (2)	selective cutting	☑ dredg				
	Poor (1)	woody debris removal	farmir	ng			
		toxic pollutants		ent emrichment			
		l =-	_				

33 subtotal this page

Site: Cuyahaç	go County Airport		Date:	May 1, 2013
Wetland:	Wetland R		Rater:	DGV
33 subtotal fire	st page			
33 0	Metric 5 Special Wetlands (may 10 nte	z)		
Subtotal Points	Metric 5. Special Wetlands. (max 10 pts	>. <i>j</i>		
Captotal I Ullito	Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts)			
	Lake Erie coastal/tributary wetland-unre	stricted hydrolog	yy (10 pts)	
	Lake Erie coastal/tributary wetland-restr		(5 pts)	
	Lake Plain Sand Prairies (Oak Opening	s) (10 pts)		
	Relict Wet Prairies (10 pts)	ned or andance	rad energies (10)	
	Known occurrence state/federal threate Significant migatory songbird/waterfowl	_		
	Category 1 Wetland. See Question 1 of	_		
			- , , ,	
41 8	Metric 6. Plant Communities, intersper	sion, microte	opography. (max 20 pts	s.)
Subtotal Points	6a. Wetland Vegetation Communities		_	_
	Score all present using 0 to 3 scale		n Community Cover Sca	
	0 Aquatic bed	0		(0.2471 acres) contiguous area
	0 Emergent 1 Shrub	1	Present and either comprises vegetation and is of moder	•
	2 Forest	'	significant part but is of low	
	0 Mudflats		Present and either comprises	
	0 Open water	2		ate quality or comprises a small
	0 Other (list)		part and is of high quality	
	Ch. Haring stal (along sign 1) to a second second	3	Present and comprises signific vegetation and is of high quality	cant part, or more, of wetland's
	<u>6b. Horizontal (plan view) interspersion</u> Select only one		vegetation and is of high qu	uanty
	High (5)	Narrative	Description of Vegetation	on Quality
	Moderately high (4)		Low spp diversity and/or pred	<u>-</u>
	Moderate (3)	low	disturbance tolerant native	species
	X Moderately low (2)		Native spp are dominant comp	ponent of the vegetation,
	Low (1)		although nonnative and/or	disturbance tolerant native spp
	None (0)	moderate	can also be present, and some moderately high, but gener	pecies diversity moderate to ally w/o presence of rare
	6c. Coverage of invasive plants.	1	threatened or endangered	
	Refer to Table 1 ORAM long form for list.	-	A prodominance of potitive and	cios with poppativo spp
	. 3	12.1	A predominance of native spe and/or disturbance tolerant	cies, with nonnative spp anative spp absent or virtually
	Add or deduct points for coverage	high	absent, and high spp divers	sity and often, but not always,
	Extensive >75 % cover (-5)		the presence of rare, threa	tened, or endangered spp
	Moderate 25-75% cover (-3)			
	Sparse 5-25% cover (-1)		nd Open Water Class Q	
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres	
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 a	· · · · · · · · · · · · · · · · · · ·
	6d. Microtopography	3	Moderate 1 ha to <4 ha (2.47 High 4 ha (9.88 acres) or more	<i>'</i>
	Score all present using 0 to 3 scale		11 1911 7 114 (0.00 doles) of 111011	<u>~</u>
	Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	Coarse woody debris >15 cm (6")	0	Absent	
	Standing dead > 25 cm (10") dbh	1	Present very small amounts o	r if more common
	2 Amphibian breeding pools	<u> </u>	of marginal quality	
		2	Present in moderate amounts	
		-	quality or in small amounts	
		1 2	Present in moderate or greate	er amounts

and of highest quality

Site: Cuyahoga	a County Airport		Date:	May 1, 2013
Wetlands:	Wetland S		Rater:	DGV
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha 10 to <25 acres (4 to <10.1ha) (0 3 to <10 acres (1.2 to <4ha) (3 p 0.3 to <3 acres (0.12 to <1.2ha) 0.1 to <0.3 acres (0.04 to <0.12h X <0.1 acres (0.04ha) (0 pts)	a) (5 pts) 4 pts) ots) (2pts)		
3 3 Subtotal Points	Metric 2. Upland buffers and surre 2a. Calculate average buffer width (select one WIDE. Buffers average 50m (16 MEDIUM. Buffers average 25m NARROW. Buffers average 10r X VERY NARROW. Buffers average 2b. Intensity of surrounding land use (select of the select of	e, do not double check) 64ft) or more around wetland 1 to <50m (82 to <164ft) aroun 1 to <25m (32ft to <82ft) aroun 1 age <10m (<32ft) around wetl 1 around wetl 1 around wetl 1 around wetl 2 around wetl 2 around wetl 2 around wetl 3 around wetl 2 around wetl 3 around wetl 3 around wetl 4 around wetl 4 around wetl 5 around wetl 6 around wetl 7 around wetl 7 around wetl 7 around wetl 7 around wetl	perimeter (7) and wetland perimeter (4) bund wetland perimeter (6) land perimeter (0) ge) vildlife area, etc. (7) and forest. (5) anservation tillage, new forest.	(1)
9 6 Subtotal Points	Metric 3. Hydrology. (max 30 pts) 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (lake or perennial surface water (lake or 100 year floodplain (1) Between stream/lake and other part of wetland/upland (e.g. fore part of riparian or upland corridor 100.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1)	ater (3) restream) (5) 3e. human use (1) est), complex (1) or (1)	Regularly inunda Seasonally inund	check & average) hently inundated/saturated (4) hated/saturated (3) dated (2) rated in upper 30cm (12in) (1) I hydrologic regime. check & average) pparent (12) covery (1)
14 5 Subtotal Points	Metric 4. Habitat Alteration and D 4a. Substrate disturbance. Score one or dou None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1)	uble check and average.	None or none all Recovered (6) Recovering (3) X Recent or no recovers observed Shrub Sedim V dredg I farmi	overy (1) o/sapling removal aceous/aquatic bed removal anentation ging

14 subtotal this page
ORAM v. 5.0 Field Form Quantitative Rating

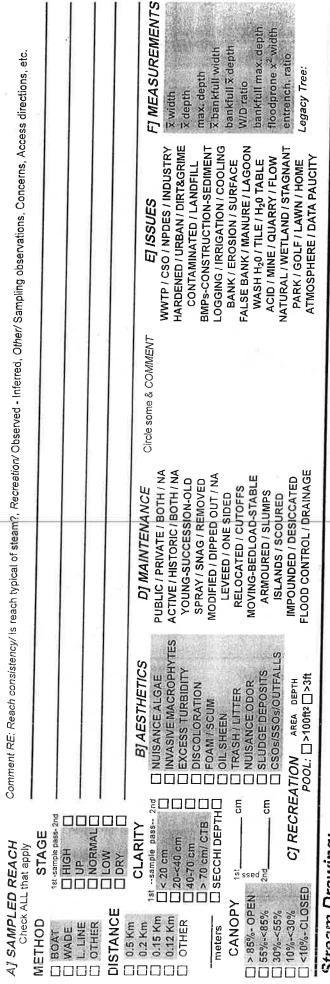
Site: Cuyahog	ga County Airport		Date:	May 1, 2013
Wetland:	Wetland S		Rater:	DGV
			-	
14 subtotal fire	st page			
14	Motrio E. Special Wetlands (may 40 mts	. 1		
14 0 Subtotal Points	Metric 5. Special Wetlands. (max 10 pts	i.)		
Subtotal Points	Check all that apply and score as indicated Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 pts)			
	Lake Erie coastal/tributary wetland-unres			
	Lake Erie coastal/tributary wetland-restri Lake Plain Sand Prairies (Oak Openings		(5 pts)	
	Relict Wet Prairies (10 pts)	s) (10 pts)		
	Known occurrence state/federal threater	ned or endanger	red species (10)	
	Significant migatory songbird/waterfowl h	nabitat or usage	(10 pts)	
	Category 1 Wetland. See Question 1 of	Qualitative Rati	ng. (-10 pts)	
16 2	Metric 6. Plant Communities, interspers	sion microt	onography (may 20 nte	١
Subtotal Points	6a. Wetland Vegetation Communities	sion, microt	opograpny. (max 20 pts.	,
	Score all present using 0 to 3 scale	Vegetatio	n Community Cover Sca	le
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0	0.2471 acres) contiguous area
	1 Emergent		Present and either comprises s	•
	0 Shrub	1	vegetation and is of modera significant part but is of low	
	0 Forest 0 Mudflats		· ·	
	0 Open water	2	Present and either comprises s vegetation and is of modera	te quality or comprises a small
	Other (list)		part and is of high quality	
		3	Present and comprises signification	
	6b. Horizontal (plan view) interspersion		vegetation and is of high qua	ality
	Select only one High (5)	Narrative	Description of Vegetation	on Quality
	Moderately high (4)		Low spp diversity and/or predo	
	Moderate (3)	low	disturbance tolerant native s	species
	Moderately low (2)		Native spp are dominant comp	onent of the vegetation,
	Low (1)	madarata	S .	listurbance tolerant native spp
	X None (0)	moderate	can also be present, and sp moderately high, but genera	
	6c. Coverage of invasive plants.		threatened or endangered s	
	Refer to Table 1 ORAM long form for list.		A predominance of native spec	ies, with nonnative spp
		high		native spp absent or virtually
	Add or deduct points for coverage		absent, and high spp divers the presence of rare, threate	ity and often, but not always, ened. or endangered spp
	Extensive >75 % cover (-5) Moderate 25-75% cover (-3)		,	
	Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Qu	ıality
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)	
	X Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 a	
	Cal. Microston consults	2	Moderate 1 ha to <4 ha (2.47 a	
	6d. Microtopography Score all present using 0 to 3 scale	3	High 4 ha (9.88 acres) or more	
	0 Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale	
	0 Coarse woody debris >15 cm (6")	0	Absent	
	0 Standing dead > 25 cm (10") dbh	1	Present very small amounts or	if more common
	0 Amphibian breeding pools	<u>'</u>	of marginal quality	
		2	Present in moderate amounts, quality or in small amounts of	
		3	Present in moderate or greater and of highest quality	amounts

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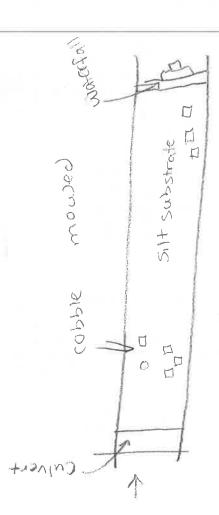
Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

Ž.	
QHEI Score:	32
WILL SCOLE.	

	Stream & Loc	ation:	CCA -	Report I	D: Stream	1	RM	: <u>.</u>	Date: 51	113
	Divers Confe					Full Name & Affilia	tion: An	OPI Bro	id-ford	
	River Code:		OM/ VTup ou	STORET ,		Lat./ Long.: - (NAD 83 - decimal *)	/	3	Office	verified location
	_	estima	te % or note e	very type pres	ent	Ch		r 2 & average)		
	BEST TY	- Р	OOL RIFFLE	OTHER	TYPES POOL	RIFFLE ORIGIN	-		UALITY	
	☐ ☐ BOULDER	[9]		☐ ☐ DETR	ITUS [3]	TILLS [1]		HEA MOD	DERATE [-1]	Substrate
	☐☐ COBBLE [8	_		☐ ☐ MUCH		□ WETLANDS	io)	□ NOR	RMAL [0]	
	☐☐ SAND [6]	(E)		☐ ☐ ARTIF	ICIAL [0]	SANDSTONE	[0] EDD	EXT	ENSIVE [-2]	9
	NUMBER OF E	- 1, 12 minutes (1971)	PES: 040	r more [2] S	e natural substrate udge from point-	s;ignore □ RIP/RAP [0] sources) □ LACUSTURIN	NE [0] 🗑	NOR MOD	ERATE [-1]	Maximum 20
	Comments		□ 3 c	or less [0]	sit gaz	☐ SHALE [-1] ☐ COAL FINES	f-21	□non	E [1]	20
	01 1110		obble 5		Sec 11					
	quality; 3-Highest diameter log that is UNDERGUT OVERHANG	quality in its stable, we BANKS [BING VEG	moderate or great developed	reater amount rootwad in de	ts, but not of high	mall amounts or if more co lest quality or in small amo boulders in deep or fast v r deep, well-defined, funct OXBOWS, BACKW AQUATIC MACRO LOGS OR WOODY	ounts of higher water, large ional pools. VATERS [1] PHYTES [1]	Check ONI	MOUNT E (Or 2 & aver SIVE >75% [11 ATE 25-75% [3] S 5<25% [3] ABSENT <5% Cover Maximum	1 7]
	3] CHANNEL M	ORPHO	I OGV Chec	k ONE in each	category (Or 2	8 avorago)			20	
	SINUOSITY	DEVE	OPMENT		NELIZATION		,			
	☐ HIGH [4] ☐ MODERATE [3]	☐ GOO	ELLENT [7] DD [5]		ERED [4]	☐ HIGH [3] ■ MODERATE	[2]			
,	LOW [2]	☐ FAIF	R [3] PR [1]		ERING [3] OR NO RECOV	LOW [1] ERY [1]			Channel	
	Comments			- 50000000		regime - Stre	am fl	Dwind	Maximum 20	5
	4] BANK EROSI	ON ANI	D RIPARIA	N ZONE CH		category for <i>EACH BANK</i>		nk & average)		Canada S
	River right looking do	wiistieani _[_	RIPAR	IAN WIDTI	1 1 8	FLOOD PLAIN QUA	ALITY R			
[] [] []	NONE / LITTLE MODERATE [2] HEAVY / SEVE	E [3]	MODERA	TE 10-50m [V 5-10m [2] RROW < 5m	3]	EST, SWAMP [3] DB OR OLD FIELD [2] DENTIAL, PARK, NEW FIE ED PASTURE [1] I PASTURE, ROWCROP	Indica	GONSERVAT URBAN OR I MINING / COI ate predominan. 100m riparian.	NDUSTRIAL NSTRUCTION t land use(s)	(01
(Comments		National Representation of the Indian Property of Indian Prop	WHITE DE BENGE	A SALAMA	, in the same of t	pasi	гоотт прапап.	Riparian Maximum	4
Ē] POOL / GLIDE	AND R	IFFLE / RI	IN QUALIT	Y	-			10	
	MAXIMUM DEF	PTH	CHANI	VEL WIDTI	1	CURRENT VELOCIT	ΓΥ	11	on Potentia	
18 in	□ > 1m [6] □ 0.7-<1m [4] ■ 0.4<0.7m [2]		POOL WIDTH	RIFFLE WIL	TH[2] TOR	Check ALL that apply RENTIAL [-1] SLOW [Y FAST [1] INTERS I [1] INTERM	1] TITIAL [-1] IITTENT [-2]	Seconda	y Contact ary Contact comment on back	
c	□ 0.2-<0.4m [1] □ < 0.2m [0] Comments		bank wii	64	Ind	ERATE [1] DEDDIES icate for reach - pools and	[1] I riffles.		Pool / Current Maximum 12	4
	RIFFLE DEPTH	ate spec	al riffles; B cies: RUN DEI	С	heck ONE (<i>Or 2</i> :			ntion □NO N EMBEDD	RIFFLE [met	ric=0]
	BEST AREAS > 10cl BEST AREAS 5-10cl		MAXIMUM >	50cm [2]	STABLE (e.g., C	obble, Boulder) [2] e.g., Large Gravel) [1]		ONE [2]	EDITESS	(2)
C	BEST AREAS < 5cr [metri omments	n			MOD. STABLE (UNSTABLE (e.g.	e.g., Large Gravel) [1] , Fine Gravel, Sand) [0]		OW [1] IODERATE [0] XTENSIVE [-1]	Riffle / Run Maximum	
/	GRADIENT (DRAINAGE AR	EΑ	i) ■ VERY I □ MODEI) □ HIGH -	RATE [6-10]	486 E	%POOL: 15 %RUN: 15) %GLIDE)%RIFFLE		Gradient Maximum 10	
EP.	A 4520								06/16/0	6



Stream Drawing:



MOWED

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

60	

SITE NAME/LOCATION(_C_E	-Report I	D: Stream 2		MAN COLUMN STREET	ECONOMINACIONES
SITE NU	JMBER	RIVER BASIN	DR	RAINAGE AREA (mi²) _	
DATE 5/1/13 SCORER 7	NR co	LONG	RIVER CODE	RIVER MILE	
NOTE: Complete All Items On	This Form - Refer t	o "Field Evaluation Ma	nual for Ohio's PHW	/H Streams" for Inc	tructions
STREAM CHANNEL ON NODIFICATIONS:	ONE / NATURAL CHA	WINEL RECOVERED	RECOVERING [RECENT OF NO REC	COVERY
1. SUBSTRATE (Estimate pero: (Max of 40). Add total number TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 BEDROCK [16 pt] COBBLE (65-255 mm) [12 GRAVEL (2-64 mm) [8 pts] SAND (<2 mm) [6 pts]	pts]	TYPE TYPE SILT [3 pt] LEAF PACK FINE DETR CLAY & HA ARTIFICIAL	MOODY DEBRIS [3 pte TUS [3 pts] RDPAN [0 pt]	of boxes A & B. PERCENT 70	HHE Metri Point Substra Max = 4
Total of Percentages of Bldr Slabs, Boulder, Cobble, Be SCORE OF TWO MOST PREDOMINAT	drock	(A) 15 TOTAL	NUMBER OF SUBSTRA	(B) ATE TYPES:	A+B
Maximum Pool Depth (Measu evaluation. Avoid plunge p∞ls > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	rom road culverts or s	torm water pipes) (Check	CONLY one box); cm [15 pts] s] OR MOIST CHANNEL	[0 pts]	Pool Dept Max = 30
COMMENTS		MAXII	NUM POOL DEPTH (ce	ntimeters):	
BANK FULL WIDTH (Measured > 4.0 meters (> 13) [30 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 t] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20	ots1	4 measurements) > 1.0 m + 1.5	(Check <i>ONLY</i> one bo: m (> 3'3" - 4'8") [15 pts 3") [5 pts]		Bankfull Width Max=30
COMMENTS		AVER	AGE BANKFULL WIDT	H (meters)	25
RIPARIAN ZONE AND F RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m	LOODPLAIN QUALIT FLOODPLA L R: (1 C C M	ormation <u>must</u> also be co Y 쇼NOTE: River Left (NN QUALITY Most Predominant per Bank lature Forest, Wetland nmature Forest, Shrub or C	L) and Right (R) as look	onservalion Tillage	c
☐ ☐ Narrow <5m ☑ ☑ None COMMENTS	A A B R	eld esidential, Park, New Field enced Pasture		rban or Industrial pen Pasture, Row op ining or Construction	
FLOW REGIME (At Time of Stream Flowing Subsurface flow with isolate COMMENTS		☐ Moist	Channel, isolated pools, annel, no water (Epherr	no flow (Intermittent) neral)	
SINUOSITY (Number of be None 0.5	nds per 61 m (200 ft) 1.0 1.5	of channel) (Check ONL) 2.0 2.5	<u> </u>	3.0 >3	
STREAM GRADIENT ESTIMATE					

ADDITIONAL STREAM INFORMATION (This Information Must Als	o be Completed):
QHEI PERFORMED? - Tyes No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name:	Distance from Evaluated Stream
LJ CWH Name:	Distance from Evaluated Stream
LJ EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE EN	TITLE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Towns	ship / City:
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation:	Quantity:
Photograph Information	
Elevated Turbidity? (Y/N): Canopy (% open): OO	
Were samples collected for water chemistry? (Y/N): (Note lab	sample no, or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, ‡	леаѕе ехріат
(4/4-1) 	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations, Voucher	collections optional. NOTE: all voucher samples must be labeled with the site
ID number Include appropriate field data	sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Ob	served? (Y/N) Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic	Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher?
Comments Regarding Biology.	
- Acc. (
	OF STREAM REACH (This must be completed):
	site evaluation and a narrative description of the stream's location
culvert moured	loct all
The Control of the Co	culvert waterfall cobble
	COPULE
FLOW TILL SUbst	trate ((pool)
000000	
C	
4/ve cobble	
mowed	
111-0000	

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

52

SITE NAME/LOCATION CCA,R	Report ID: Stream 3	Goto (sum of friedles 1, 2, 5) :
SITE NUMBER	R RIVER BASIN	DRAINAGE AREA (mi²)
LENGTH OF STREAM REACH (ft)	LATLONG	RIVER CODERIVER MILE
NOTE COMPLETE AND	COMMENTS	
STREAM CHANNEL NONE/	NATURAL CHANNEL: RECOVERED	ual for Ohio's PHWH Streams" for Instructions RECOVERING RECENT OR NO RECOVERY
(Max of 40), Add total number of sign TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]	LEAF PACKW FINE DETRIT CLAY OF HAR MUCK [0] PIS] ARTIFICIAL [:	WOODY DEBRIS [3 pts] US [3 pts] DPAN [0 pt] HHEI Metric Points Substrate Max = 40
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUE		UMBER OF SUBSTRATE TYPES: A + B
evaluation. Avoid plunge pools from ro > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	maximum pool depth within the 61 meter pad culverts or storm water pipes) (Check	ONLY one box): m [15 pts] DR MOIST CHANNEL [0 pts] [1] Max = 30 15
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m 3.0 m (> 4' 8' - 9' 7') [20 pts]	e average of 3-4 measurements)	(Check ONLY one box): n (> 3'3' - 4'8') [15 pts] Bankfull Width Max=30
RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank)	ELOODDI AINI OLIALITY) and Right (R) as looking downstream☆
☐ ☐ Wide>10m ☐ ☐ Moderate 5-10m	Mature Forest, Wetland Immature Forest, Shrub or Old Field	Conservation Tillage
□ □ Narrow <5m □ None COMMENTS	Residential, Park, New Field Fenced Pasture	Open Pasture, Row Crop Mining or Construction
FLOW REGIME (At Time of Eval Stream Flowing Subsurface flow with isolated pool COMMENTS	luation) (Check ONLY one box): Moist C. s (Interstitial)	hannel, isolated pools, no flow (Intermittent) nnel, no water (Ephemeral)
SINUOSITY (Number of bends por None 0.5	er 61 m (200 ft) of channel) (Check ONLY of 1.0	one box): 3.0 >3
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft)	☐ Moderate (2.1/100 ft) ☐ Modera	ate to Severe (10 m/100 m)

ADDITIONAL STREAM INFORMATION (Thi	s Information Must Also	be Completed):	
QHEI PERFORMED? - Tyes	No QHEI Score	(If Yes, Attach Com	pleted QHEI Form)
DOWNSTREAM DESIGNATED US			
WWH Name:		Dista	nce from Evaluated Stream
CWH Name:		Dista	nce from Evaluated Stream
EWH Name:		Distai	nce from Evaluated Stream
MAPPING: ATTACH COPIES OF MA	APS, INCLUDING THE ENT	IRE WATERSHED AREA.	CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:	· · · · · · · · · · · · · · · · · · ·	NRCS Soil Map Page:	NRCS Soil Map Stream Order
County:	Townsh	ip / City:	
MISCELLANEOUS			
Base Flow Conditions? (Y/N): Date	of last precipitation:	Qu:	antity:
Photograph Information:			
Elevated Turbidity? (Y/N): Can	opy (% open): 100		
Were samples collected for water chemistry? (Y/N): Note lab sa	ample no. or id. and attact	results) Lab Number:
Field Measures: Temp (°C) Dissol	ved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stre	eam (Y/N) If not, ple	ease explain:	
*			
Additional comments/description of pollution im	nacts:		
a desiration of policitor in	pacis,		New York Control of State Control of Sta
BIOTIC EVALUATION			
Performed? (Y/N): (If Yes, Record a	all observations. Voucher co	llections optional. NOTE:	all voucher samples must be labeled with the site
	ude appropriate field data sh	eets from the Primary Head	dwater Habitat Assessment Manual)
ish Observed? (Y/N) N Voucher? (Y/N)	Salamanders Obse	rved? (Y/N) Vouc	her? (Y/N)
Frogs or Tadpoles Observed? (Y/N)_NVouc			
DD AMAINO AND MAIDD ATO	/E DECORIDE ON		
DRAWING AND NARRATIN			
more an portant randinaria and other	leardies of likelest for sit	e evaluation and a nama	ive description of the stream's location
cobble	mowed	copple	
V	mowed The substrate of	2	
ODE SI	H 5010 >11 art =	न विश्वित	
LOW			
	etartion,		
TA	mowed		
	rrowed		
Culvert			

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

SITE NAME/LOCATIONCCARep	oort ID: Stream 4	
	RIVER BASIN DRAINAGE AREA (mi²)	
DATE 5/1/13 SCORER DG/	LAT. LONG. RIVER CODE RIVER MILE COMMENTS ROUTE OF THE COMMENTS RO	
	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	
STREAM CHANNEL	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC	COVERY
(Max of 40). Add total number of signific	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes cant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT TYPE SILT [3 pt] LEAF PACKWOODY DEBRIS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts] (B) TOTAL NUMBER OF SUBSTRATE TYPES:	HHEI Metric Points Substrate Max = 40
evaluation. Avoid plunge pools from roa > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of ad culverts or storm water pipes) (Check ONLY one box): > 5 cm - 10 cm [15 pts] < 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	e average of 3-4 measurements) (Check <i>ONLY</i> one box):	Bankfull Width Max=30
COMMENTS	AVERAGE BANKFULL WIDTH (meters)	
RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m	This information must also be completed PLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream of the following stream of the following downstream of th	* ₁ ,
Narrow <5m None COMMENTS	Residential, Park, New Field Fenced Pasture Open Pasture, Row Crop Mining or Construction	1
Stream Flowing Subsurface flow with isolated poor	aluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	t)
SINUOSITY (Number of bends possible of bends pos	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0 2.0 3.0 1.5 2.5 3.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	☐ Moderate (2 tt/100 tt) ☐ Moderate to Severe ☐ Severe (10 tt/	100 ft)

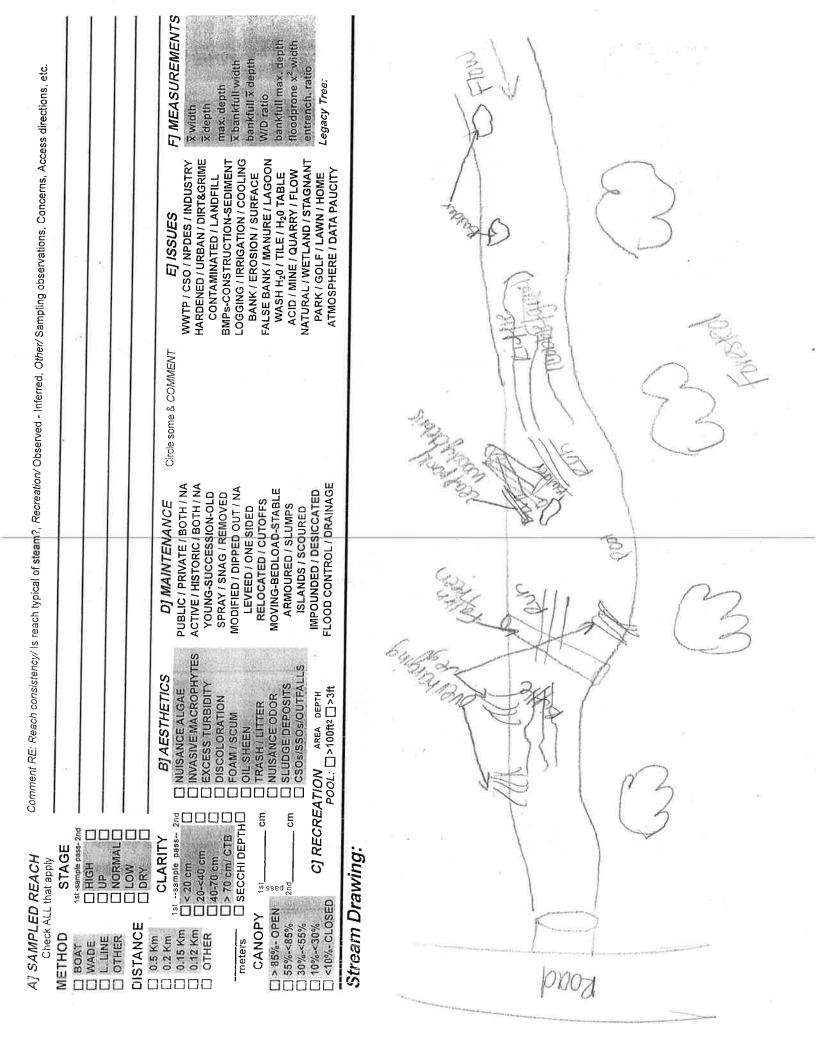
	QHEI PERFORMED? - Tyes No QHEI Score	(If Yes, Attach Completed QHEI Form)
,	DOWNSTREAM DESIGNATED USE(S)	
	Name: KASY BRANCH EUCLID (ZRRA	
		Distance from Evaluated Stream
∟ EWH	Name:	Distance from Evaluated Stream
	MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIL	RE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Q	Quadrangle Name: N	NRCS Soil Map Page: NRCS Soil Map Stream Order
County:	CUY	p / City
	MISCELLANEOUS	
	ow Conditions? (Y/N): Date of last precipitation:	Quantity:
Photogra	aph Information: Y \$5	
Elevated	d Turbidity? (Y/N): Canopy (% open):	
		ample no. or id. and attach results) Lab Number:
/VCI & 581		
Field Me	easures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (μmhos/cm)
s the sa	impling reach representative of the stream (Y/N) If not, plo	ease explain:
Fich ∩he	ID number. Include appropriate field data s	collections optional. NOTE: all voucher samples must be labeled with the site sheets from the Primary Headwater Habitat Assessment Manual) served? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Fish Obs Frogs or	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic	sheets from the Primary Headwater Habitat Assessment Manual)
Fish Obs Frogs or	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic	served? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Fish Obs Frogs or	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic	served? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Fish Obs Frogs or	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data is served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic ints Regarding Biology:	served? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Fish Obs Frogs or Commen	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data is served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic nts Regarding Biology:	Served? (Y/N) Voucher? (Y/N) Voucher
Fish Obs Frogs or Commen	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data is served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic nts Regarding Biology:	Served? (Y/N) Voucher? (Y/N) Voucher
Fish Obs Frogs or Commen	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data is served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic nts Regarding Biology:	Served? (Y/N) Voucher? (Y/N) Voucher
Fish Obs	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data is served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic ints Regarding Biology:	Served? (Y/N) Voucher? (Y/N) Voucher
Fish Obs	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data is served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic ints Regarding Biology:	Served? (Y/N) Voucher? (Y/N) Voucher
Fish Obs Frogs or Commen	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data is served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic ints Regarding Biology:	Served? (Y/N) Voucher? (Y/N) Voucher
Fish Obs	ed? (Y/N): (If Yes, Record all observations. Voucher of ID number. Include appropriate field data is served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic ints Regarding Biology:	Served? (Y/N) Voucher? (Y/N) Voucher



Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score:	63.5
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Stream & Locat	tion: Report ID	D: Stream 5			RM:	Date:	
			Scorers F	ull Name & Affili		Date.	
River Code:	<u></u> -	STORET #:	<u> </u>	at./ Long.:	/8	1201	Office verified
1] SUBSTRATE	Check ONLY Two st estimate % or note of	ubstrate TYPE BOX	ES;	Washington Committee of the Committee of			location
BEST TYP	ES POOL PIECE	OTHER TW	PES POOL BU	ORIGI	Check ONE (<i>Or</i> I N	· 2 & average) QUALI	IT V
☐☐ BLDR/SLABS	[10] 57,	L LI HANDEAN	H4100	LILIMESION	E [1]	HEAVY [-	
COBBLE [8]	807,	☐ ☐ DETRITUS	[3]	(☐) TILLS [1] ☐ WETLAND:	S III SIL	MODERA	TE [-1] Substrate
GRAVEL [7]	557.	☐ ☐ SILT [2]	7015	□ HARDPAN	[0]	□ NORMAL □ FREE [1]	15
BEDROCK [5]	102	☐ ☐ ARTIFICIA (Score natu	L [0] iral substrates; ig	SANDSTON	NE [0] SEDDE	EXTENSIV	/E [-2]
NUMBER OF BE		or more [2] sludge	from point-sou	ces) LACUSTUR	INE [O]	S NORMAL	[0] Maximum 20
Comments		or less [0]		SHALE [-1]	S (-2)	□ NONE [1]	
21 INCTOCAM OF	NED ladies		- II - IV202				
2] INSTREAM CO	quality; 2-Mo	derate amounts, bu	ent; 1-Very sma it not of highest	l amounts or if more of quality or in small an	common of marg	AinOu	
quality; 3-Highest quadiameter log that is st	lable, well developed					Check ONE (Or EXTENSIVE >	2 & average)
ONDERGUI BA	ANKS [1] G VEGETATION [1]	POOLS >	70cm [2]	_ OXBOWS, BACK	WATERS [1]	MODERATE 2	5-75% [7]
SHALLOWS (IN	SLOW WATER) [1	O_ROOTWA	DS [1]	_ riceomito macin	OPHYTES [1] OY DEBRIS [1]	☐ SPARSE 5-<2 ☐ NEARLY ABS	5% [3]
() ROOTMATS [1] Comments		H				LI MEMILE ABOI	Cover
o ommorns						Ma	aximum 13
3] CHANNEL MOR	RPHOLOGY Chec	k ONE in each cate	egory (Or 2 & av	/erage)			20
The state of the s	EVELOPMENT EXCELLENT [7]	CHANNEL	JZATION	STABILIT	Υ		
MODERATE [3]	GOOD [5]	NONE [6]) [4]	☐ HIGH [3] ■ MODERAT	E (2)		
	FAIR [3] POOR [1]	RECOVERING	G [3] NO RECOVER	□ LOW [1]			
Comments	Troom[i]	LI RECENT OR	NO RECOVER				ximum 13
AL BANK EDOGGO	V 44/5 5/5/5/						20
4] BANK EROSION River right looking downs	V <i>AND RIPARIA</i> ^{tream} RIPAR	<i>N ZONE</i> Check (IAN WIDTH	ONE in each cat	egory for <i>EACH BAN</i> OOD PLAIN QU	IK (Or 2 per ban	k & average)	
EROSION	□ □ WIDE > 8	50m [4]	FOREST	SWAMP (3)	12	CONSERVATION T	ULACEM
MONE / LITTLE [3	NAPPON	ATE 10-50m [3] [N 5-10m [2]	☐ SHRUB	OR OLD FIELD [2]		URBAN OR INDUS	TRIAL TOT
☐ ☐ HEAVY / SEVERE	[1] U VERY NA	ARROW < 5m [1]	☐ FENCED	TIAL, PARK, NEW FI PASTURE [1]	Indiant	MINING / CONSTR e predominant land	
Comments	☐ ☐ NONE [0]		OPEN PA	STURE, ROWCROP	P[0] past 10		arian
						Maxi	imum 8.5
5] POOL / GLIDE A. MAXIMUM DEPTI	ND RIFFLE / RU	IN QUALITY	71-71-7				
Check ONE (ONLY!)		NEL WIDTH (Or 2 & average)		RRENT VELOCI		Recreation Po	
> 1m [6]	POOL WIDTH	> RIFFLE WIDTH (2] TORREN	Check ALL that apply ITIAL [-1] SLOW	11)	Primary Co.	
□ 0.7-<1m [4] □ 0.4-<0.7m [2]	POOL WIDTH	= RIFFLE WIDTH [1 < RIFFLE WIDTH [0	VERVE	ST [1] INTERS	STITIAL [-1] WITTENT [-2]	Secondary C	ontact
☐ 0.2-<0.4m [1] ☐ < 0.2m [0]	- Commenter of the Comm		☐ MODER	ATE [1] DEDDIES	S [1]	P	Pool /
Comments			Indicate	for reach - pools and	d riffles.		rrent O
Indicate for fund	ctional riffles; B	est areas mus	t be large e	nough to suppo	rt a nonulat	ion	12
of riffle-obligate RIFFLE DEPTH	species: RUN DEI	Спеск с	JNE (Or 2 & av	erage).		□ NO KIFFI	_E [metric=0]
BEST AREAS > 10cm [2] MAXIMUM >	50cm [2] [] STAR	LE (e.a. Cobb	le Rouldert (2)	IFFLE / RUN	EMBEDDEDN	ESS
BEST AREAS 5-10cm [1] BEST AREAS < 5cm	MAXIMUM <	50cm [1] MOD.	STABLE (e.g.	Large Gravel) [1]	ΠLO	W [1]	
[metric=0	1	Поист	MOLE (e.g., Fir	e Gravel, Sand) [0]	■ MO		ffle / 3
6] GRADIENT		name of the same o				Maxin	num 8
oj <i>Gradient</i> 。DRAINAGE AREA	ft/mi) 🔯 VERY I	LOW - LOW [2-4] RATE [6-10]		%POOL: 15) %GLIDE:	15 Grad	ient
(VERY HIGH [10-6]		%RUN: (15)%RIFFLE:(15 Maxim	_{um} 2
PA 4520							06/16/06



ChieFPA Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION CCA - Report ID: Stream 6 SITE NUMBER RIVER BASIN DRAINAGE AREA (mi²) LENGTH OF STREAM REACH (ft) LAT. LONG. RIVER CODE RIVER MILE DATE 5/2/13 SCORER COMMENTS NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16.pts] SILT [3.pt] PERCENT Points BEDROCK [16.pt] SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate Max = 4t COBBLE (65-256 mm) [12.pts] SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate Max = 4t Ax = 4
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] SILT [3 pt] PERCENT Points BOULDER (×256 mm) [16 pts] SILT [3 pt] Substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate (55-256 mm) [16 pts] Substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate (55-256 mm) [16 pts] Substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate (55-256 mm) [16 pts] Substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate (55-256 mm) [16 pts] Substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate (55-256 mm) [16 pts] Substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate (55-256 mm) [16 pts] Substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate (55-256 mm) [16 pts] Substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric Points Substrate (55-25
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] SILT [3 pt] PERCENT TYPE BLDR SLABS [16 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] Substrate DETRITUS [3 pt
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR. SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16.pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] D
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR. SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16.pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] D
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR. SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] WCK [0 pts] HHEI Metric Points Substrat Max = 40 NUCK [0 pts] 19
TYPE BLDR. SLABS [16 pts] DI
BLDR.SLABS [16-pts]
BEDROCK [16.pt]
COBBLE (65-256 mm) [12 pts] 30 CLAY or HARDPAN [0 pt] GRAVEL (2-64 mm) [9 pts] 15 MUCK [0 pts] 19
Total of Percentages of (A) (B) A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 3 Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]
> 10 - 22.5 cm [25 pts] No WATER OR MOIST CHANNEL [0 pts] 30
COMMENTS MAXIMUM POOL DEPTH (centimeters):
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m > 4.0 m (> 9' 7" - 13') [25 pts] Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]
COMMENTSAVERAGE BANKFULL WIDTH (meters):) 0' 25
This information must also be completed
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY
RIPARIAN WIDTH FLOODPLAIN QUALITY L. R. (Per Bank) L. R. (Most Predominant per Bank) L. R.
Wide >10m Mature Forest, Wetland Conservation Tillage
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop
None Fenced Pasture Mining or Construction
COMMENTS
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)
COMMENTS
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):
None 1.0 2.0 3.0
0.5 1.5 2.5 >3
STREAM GRADIENT ESTIMATE
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Complete	<u>d):</u>
QHEI PERFORMED? - Yes No QHEI Score (If Yes,	Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name:	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERS	Agrangement and the second sec
USGS Quadrangle Name: NRCS Soil M	ap Page: NRCS Soil Map Stream Order
County: Wyandot Township / City:	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation:	Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): Canopy (% open): 60	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or	id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U	.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain	
Additional comments/description of pollution impacts;	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections op	ional. NOTE: all vougher samples must be labeled with the site
ID number. Include appropriate field data sheets from the	e Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvert	Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	Y
Turtle observed asian clam?	Planaria observed
other muss	el shells
	21 ¹² 84
DRAWING AND NARRATIVE DESCRIPTION OF STREA	M REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation	ரு and a narrative description of the stream's location
Include important landmarks and other features of interest for site evaluation.	and a narrative description of the stream's location
Include important landmarks and other features of interest for site evaluation.	ரு and a narrative description of the stream's location
Include important landmarks and other features of interest for site evaluation.	and a narrative description of the stream's location
Include important landmarks and other features of interest for site evaluation. Nerhanging Woode Vegetation	and a narrative description of the stream's location
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Include important landmarks and other features of interest for site evaluation. Nerhanging Woode Vegetation	and a narrative description of the stream's location
FLOW Include important landmarks and other features of interest for site evaluation. Nerhanging Woode Vegetation Silt Su	and a narrative description of the stream's location of the stream's lo
FLOW The state of interest for site evaluation was and other features of interest for site evaluation was defined by the state of the s	and a narrative description of the stream's location
FLOW Include important landmarks and other features of interest for site evaluation Nerhanging Woode Vegetation Silt su	and a narrative description of the stream's location of the stream's lo

PHWH Form Page - 2

Save as pdf

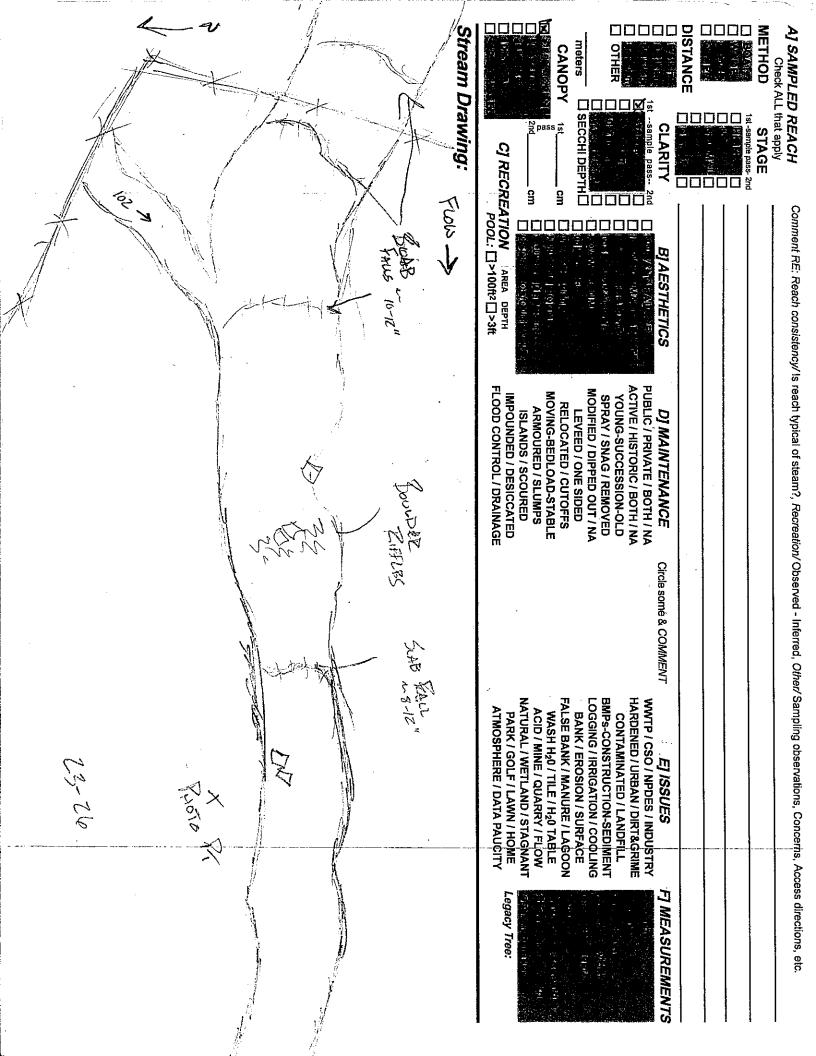
Reset Form



Qualitative Habitat Evaluation Index and Use Assessment Field Sheet



Stream & Location: (CUY- CO. ALEBORT	Report ID: Stream 7	RM: Date:51 1 3
		_Scorers Full Name & Affiliation	
River Code:	<i>STORET #:</i> _	(NAD 83 - decimal °)	
estimate BEST TYPES PO	5 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PES POOL RIFFLE ORIGIN	ONE (Or 2 & average) QUALITY SILT DEDENTION Maximum 20
quality: 3-Highest quality in m	quality; 2-Moderate amounts, to moderate or greater amounts (e ell developed rootwad in deep	sent; 1-Very small amounts or if more commut not of highest quality or in small amounts.g., very large boulders in deep or fast water fast water, or deep, well-defined, functions.	Check ONE (Or 2 & average)
	LOPMENT CHANNI	ELIZATION STABILITY	Channel Maximum 20
River right looking downstream EROSION NONE Paragraph	RIPARIAN ZONE Check RIPARIAN WIDTH O O O O O O O O O O O O O O O O O O O		ITY
5] POOL / GLIDE AND IMAXIMUM DEPTH Check ONE (ONLY!)	RIFFLE / RUN QUALITY CHANNEL WIDTH Check ONE (Or 2 & average)	CURRENT VELOCIT ge) Check ALL that apply Graph	Primary Contact Secondary Contact (circle one and comment on back) Pool/
of riffle-obligate sp	ecies: CHRUN DEPTH ☐	must be large enough to suppor neck ONE (Or 2 & average). RIFFLE / RUN SUBSTRATE RII	t a population NO RIFFLE [metric=0] FLE / RUN EMBEDDEDNESS Riffle / Run Maximum 8
DRAINAGE AREA	Vmi) .□ .□ .□ .□ .□ .□ .□ .□ .□ .□ .□ .□ .□	%POOL: 20 %RUN: 20	%GLIDE: 50 Gradient 3 Maximum 10



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

-	_		
B	_	\sim	1
8 /	<u>.</u>	ſ١	1
	<i></i>	_	

SITE NUMBER RIVER BASIN DRAINAGE AREA (mi²) LENGTH OF, STREAM REACH (ft) LAT. LONG. RIVER CODE RIVER MILE DATE SCORER COMMENTS COMMENTS SCORER COMMENTS SCORER COMMENTS RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLIDR SLABS (16 pts) SILT (3 pt). BOULDER (>256 mm) (16 pts) Substr
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS. 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BUDR SLABS: [16 pts] PERCENT TYPE SILT [3 pt]. BOULDER (>256 mm) [16 pts] SLABS: [16 pts] Substrate PERCENT Substrate S
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM: CHANNEL
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE SILT (3 pt) PERCENT POINT (3 pt) Substrate Point Substrate Point Substrate Point Silt (3 pt) Substrate Point Su
MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE BUDR: SLABS: [16:pts] BOULDER: (>256 mm) [16:pts] BERROCK - [46:pt] Substr
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE SULT [3 pt] SULT [3 pt] SULT [3 pts] Substr
BUDR:SLABS:[16-pts] SILT [3-pt] Poin BOULDER (>256-mm) [16-pts] Substr
BOULDER (>256 mm) [16 pts] LEAR PACK MOODY DEBRIS [3 pts] Substr
COBBLE (65-256 mm) [12 pts]
GRAYEL (2-64 mm) (9-pts) SAND: (-2-mm) [6-pts] ARTIEICIAL [3-pts]
Total of Percentages of , (A) (B) A+B Bldr Slabs, Boulder, Cobble, Bedrock
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 5
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):
7 > 30 centimeters (20 pts)
> 10 - 22,5 cm (25 pts) No Water or Moist Channel [0 pts]
COMMENTS MAXIMUM POOL DEPTH (centimeters):
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bank > 4.0 meters (≥ 13)) [30.pts]
COMMENTSAVERAGE BANKFULL WIDTH (meters):
This information <u>must</u> also be completed
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLÖODPLAIN QUALITY
LR (Per Bank) LR (Most Predominant per Bank) LR
Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial
Field Onen Pasture Row Cron
Narrow <5m Residential, Park, New Field Mining or Construction
COMMENTS Perice of acture Comments
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)
COMMENTS
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0
None 1.0 2.0 3.0 3.0 1.5 2.5 >3
STREAM GRADIENT ESTIMATE Flat (0.5 fl/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Wyandot Township / City:
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: Quantity:
Photograph Information:
Elevated Turbidity? (Y/N): X Canopy (% open): 100
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site
, ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
Comments Regarding Biology:
SMAKE WIN STREAM MOTO
774
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include Important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
moor rec
1 Coots
En la
FLOW TITLE
132
35
LOBBLE/DETRIUS BAR
PHWH Form Page - 2

October 24, 2002 Revision

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

SITE NAM	MEALOCATION	-Report ID:	Stream 9	2000		
	SITE NU	MBER	RIVER BASIN		_ DRAINAGE AREA (mi²) _	2, 11
DATE <u>O</u>	OF STREAM REACH (fi) $-$	NB c	LONG,	RIVER CODE	RIVER MILE	
	Complete All Items On 1					structions
STREAM	CATIONS:					
	UBSTRATE (Estimate percentages of the Stabs, Boulder, Cobble, Berton of Percentages of the Stabs, Boulder, Cobble, Between the Stabs, Boulder, Between the Stabs, Boulder, Between the Stabs, Boulder, Between the Stabs,	PERCENT percent substra PERCENT pits] drock	te types found (Max of 8). TYPE SILT [3 p LEAF PA FINE DE CLAY OF MUCK 10 ARTHEICH	K ONLY two predomina Final metric score is s II CKWOODY DEBRIS [IRITUS [3 pts] HARDPAN [0 pt] pts] AL [3 pts]	um of boxes A & B. PERCENT 45 3 pts) (B)	HHEI Metric Points Substrate Max = 40
□ > 30 □ > 22 ☑ > 10	ximum Pool Depth (Measur sluation, Avoid plunge pools f Deentimeters [20 pts] 2.5 - 30 cm [30 pts] 1 - 22.5 cm [25 pts]	om road culverts or	ol depth within the 61 m storm water pipes) (Ch > 5 cm - < 5 cm [t	eter (200 ft) evaluation eck ONLY one box): 10 cm [15 pts] 5 pts] ER OR MOIST CHANI	reach at the time of	Pool Depth Max = 30
☐ > 3.0 ☐ > 1.5	NK FULL WIDTH (Measured Imeters (> 13') [30 pts] m - 4.0 m (> 9'.7" - 13') [25 p m - 3.0 m (> 4'.8' - 9'.7") [20	as the average of a	3-4 measurements)	(Check <i>ONLY</i> one 1.5 m (> 3°3° - 4°8°) [4: 3°3°) [5 pts]	e box): ppisi	Bankfull Width Max=30
	RIPARIAN ZONE AND FI	This in	nformation must also be	completed	looking downstream☆	
	RIPARIAN WIDTH (Per Bank) Wide > 10m Moderate 5-10m Narrow <5m	FLOODPI L R C C	AIN QUALITY (Most Predominant per Bindature Forest, Wetland) Immature Forest, Shrub of Field Residential, Park, New Field	ank) L R	Conservation Tillage Urban or Industrial Open Pasture, Row Crop	
لكاملا	COMMENTS	00 1	Fenced Pasture		Mining or Construction	
	FLOW REGIME (At Time of Stream Flowing Subsurface flow with isolate COMMENTS		☐ Mo	ist Channel, isolated po channel, no water (Ep	ools, no flow (Intermittent) ohemeral)	
) Dig	SINUOSITY (Number of be None 0.5	nds per 61 m (200 fl 1.0 1.5) of channel) (Check <i>Ol</i> 2.0 2.5	VLY one box):	3.0	
STRE/	AM GRADIENT ESTIMATE	e 🔲 Moderat	e (2 N/100 ft)	oderate to Severe	Severe (10 ft/100	ft)

DRAWIN		res of Interest for site evaluation a mowed Sith Substitute Sith Substit	and a narrative description of t	he stream's location
DRAWIN	t landmarks and other featur	res of Interest for site evaluation a	and a narrative description of t	he stream's location
DRAWIN	t landmarks and other featur	res of interest for site evaluation a		he stream's location
Comments Regarding E				
	iology			
	Voucher? (Y/N)_ erved? (Y/N)_ ✓ Voucher?	ppropriate field data sheets from the F Salamanders Observed? (Y/N) (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N)	
BIOTIC EVA	(If Yes, Record all obs	servations. Voucher collections option	nal. NOTE: all voucher samples n	ust be labeled with the site
Additional comments/d	escription of pollution impacts	S		
		Y/N) If not, please explain:_		
		<u>N σ</u> (Note lab sample no. or id Dxygen (mg/l) pH (S.U.)		
	/N): Canopy (
MISCELLA Base Flow Conditions		t precipitation:	Quantity:	
		Township / City		
		NRCS Soil Ma		
MAPPING:	ATTACH COPIES OF MAPS, I	INCLUDING THE ENTIRE WATERSH	HED AREA. CLEARLY MARK TH	E SITE LOCATION
			Distance from Evaluated	Stream
EWH Name:			Distance from Evaluated	Stream
CWH Name:		Į		
DOWNSTR WWH Name: CWH Name:	REAM DESIGNATED USE(S)	(ii res, .	Attach Combicted GHELLOUIN	
QHEI PER DOWNSTR WWH Name: CWH Name:	FORMED? - Yes No	ormation Must Also be Completed QHEI Score(If Yes,		

APPENDIX B

Photolog

Lawhon & Associates, Inc. PN: 12-0227

Photograph 1:

Photograph of large snapping turtlein Stream 6.



Photograph 2:

Photograph of an unknown species of water snake located in Stream 7.





Cuyahoga County Airport Cuyahoga County, Ohio (L&A Project Number 13-0166B)

Photographs taken by Lawhon & Associates, Inc.
May 1 and 2, 2013

Photograph 3:

Example of a standing dead Potential Roost Tree (PRT) located within the Project Study Area

<u>DBH:</u> 22.0 in.

Species: Silver Maple

Characteristics:

0-25% exfoliating bark, dead



Photograph 4:

Example of a living PRT located within the Study Area

<u>DBH:</u> 10.0 in.

Species: Shagbark HIckory

Characteristics:

0-25% exfoliating bark





Cuyahoga County Airport Cuyahoga County, Ohio (L&A Project Number 13-0166B)

Photographs taken by Lawhon & Associates, Inc. May 1 and 2, 2013

Photograph 5:

Example of a PRT located within the Study Area with $a\,large\,cavity\,located$ within a forested area.

<u>DBH:</u> 30.3 in Species: Oak **Characteristics:**

cavities, live



Photograph 6:

Example of a living PRT located within the Study Area

DBH: 9.0 in

Species: Shagbark Hickory

Characteristics:

0-25% exfoliating bark,

live





Cuyahoga County Airport Cuyahoga County, Ohio (L&A Project Number 13-0166B)

Photographs taken by Lawhon & Associates, Inc. May 1 and 2, 2013

APPENDIX C

ODNR Natural Heritage Program Letter

Lawhon & Associates, Inc. PN: 12-0227



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER DIRECTOR

Ohio Division of Wildlife Scott Zody, Chief 2045 Morse Rd., Bldg. G Columbus, OH 43229-6693 Phone: (614) 265-6300

May 8, 2013

Chantil Milam Lawhon and Associates, Inc. 1441 King Ave. Columbus, OH 43212

Dear Ms. Milam

After reviewing the Natural Heritage Database, I find the Division of Wildlife has no records of rare or endangered species in the Cuyahoga Co. Airport area, including a one mile radius, in the City of Highlands Heights, Cuyahoga County, Ohio. We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, parks or forests, or other protected natural areas within a one mile radius of the project area.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although we inventory all types of plant communities, we only maintain records on the highest quality areas.

This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S. C. 661 et seq.) and does not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Please contact me at 614-265-6452 if I can be of further assistance.

Sincerely,

Greg Schneider, Administrator Ohio Natural Heritage Program

Greg Schnerden