Large Filing Separator Sheet

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investigations are presented in the wetland delineation and stream assessment reports and data sheets included in Appendix 07-1A-D. Table 07-5 lists major plant species observed, or likely to occur in the study area. Habitat descriptions, applicable to both the Preferred and Alternate Routes, are provided below.

Agricultural Land: Agricultural cropland and pastureland were viewed throughout the Preferred and Alternate Route study corridors. Croplands are primarily used for corn (Zea mays) and soybean (Glycine max) cultivation. Dominant vegetation in pastureland consisted of fescues and grasses (Festuca sp. and Poa sp., respectively), red clover (Trifolium pretense), alfalfa (Medicago sativa), and Queen Anne's lace (Daucus carota), and yarrow (Achillia millefollium).

<u>Upland Woodland:</u> Upland woodlands are common along the Preferred and Alternate Routes. Woodlands include extensive wooded parcels and narrow strips of land adjacent to wetlands, streams, agricultural fields, or residences. Red oak (*Quercus rubra*), white oak (*Quercus alba*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*, and common hackberry (*Celtis occidentalis*) dominated the woodland tree species. The dominant herbaceous and shrub-layer communities within woodland areas included garlic mustard (*Alliaria petiolata*), poison ivy (*Toxicodendron radicans*), and Japanese honeysuckle (*Lonicera japonica*), and multiflora rose (*Rosa multiflora*).

<u>Riparian Woodland:</u> Riparian woodlands are limited to narrow bands along the edges of intermittent and perennial streams draining the study area. Woody species dominating the riparian zone generally include boxelder (*Acer negundo*), pin oak (*Quercus palustris*), silver maple (*Acer saccharinum*), American sycamore (*Platanus occidentalis*), green ash (*Fraxinus pennsylvanica*) and black willow (*Salix nigra*). The herbaceous and shrub layers included jewelweed (*Impatiens capensis*), multiflora rose (*Rosa multiflora*), and wild grape (*Vitis spp.*).

<u>Scrub-Shrub:</u> Upland scrub-shrub habitats were found throughout the study area. Dominant shrub-layer species observed in the scrub-shrub habitats along the Preferred and Alternate Routes included multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), brambles (*Rubus* spp.) and greenbriar (*Smilax* spp).

Old Field: Species that dominated old-field areas included fescue (Festuca spp.), Queen Anne's lace (Daucus carota), foxtail (Setaria spp.), species of goldenrod (Solidago spp.),

wild onion (Allium canadense), Canada thistle (Cirsium arvense), ground ivy (Glechoma hederaceae) and teasel (Dipsacus fullonum).

(e) Locations of Threatened and Endangered Species: A literature review of available resources and correspondence with the USFWS, ODNR-DNAP, Ohio Department of Natural Resources-Division of Real Estate and Land Management (ODNR-DRELM), and ODNR-DOW, indicated that the Preferred and Alternate Routes are within the range of a number of species that are on federal and/or state listed threatened or endangered species, or are of high interest. Section 4906-15-06, Appendix 06-1, lists correspondence with respective agencies.

The USFWS reported that a portion of the study area lies within the range of five federally listed or specially protected flora and fauna species. The federally threatened Northern Monkshood (Aconitum noveboracense) is known to exist in Summit County. The Eastern Prairie Fringed Orchid (Platanthera leucophaea), found in Wayne County, is a federally threatened species. The Bald Eagle (Haliaeetus leucocephalus), protected by the Bald and Golden Eagle Protection Act, is known to nest in both Summit and Wayne counties. The Eastern Massasauga (Sistrurus catenatus) is a federal candidate species reported in Wayne County. Indiana Bat (Myotis sodalis) is a federally endangered species in all counties of Ohio.

Species recorded in the Natural Heritage Database, and noted by ODNR-DNAP and ODNR-DOW as being in or adjacent to the Preferred or Alternate Routes include the rails, Virginia Rail (*Rallus limicola*) and Sora (*Porzana carolina*). Both of these species have Ohio Status of Special Concern. The Golden-Winged Warbler (Vermivora chrysoptera) is an Ohio state endangered bird, whose range encompasses the project area in Summit County. Habitat exists within the project area that could potential provide niches for this bird species. The Eastern Hellbender (*Cryptobranchus alleganiensis*) is a state endangered amphibian potentially located in the portion of the project within Wayne County within the riparian corridor.

There are five state endangered species, noted by the ODNR, potentially found in the project area, that are not expected to be impacted by the project due to the mobility of the species. These species include the bobcat (*Lynx rufus*), elfin skimmer (*Nannothemis bella*), racket-tailed emerald (*Dorocordulia libera*), chalk-fronted corporal (*Ladona julia*), and black bear (*Ursus americanus*).

The ranges of three state endangered species were noted within Wayne County that encompass the project boundaries, but are not expected to be impacted by the project due to lack of species-specific habitat requirements within the project area. These include the American Bittern (Botaurus lentiginosus), Trumpeter Swan (Cygnus buccinator), and Sandhill Crane (Grus canadensis tabida). The American Bittern is found primarily in large marshes thick with cattails and bulrushes or lakes and ponds surrounded by tall, dense vegetation, preferring wetlands larger than 25 acres in size. Sandhill Cranes primarily inhabit marshes, sedge meadows, swamp openings, and feed in open grasslands, upland fields. Sandhill Cranes roost in shallow, standing water and require breeding grounds of up to 200 acres of wetland for nesting. Trumpeter Swans prefer large, shallow wetlands 1-3 feet deep with a mix of heavy submergent and emergent vegetation and open water that is 40 to 150 acres in size. Due to specific hydrological conditions and the large tracts of wetlands needed for these three bird species, which do not match with the limited sizes of wetlands areas along the project area within Wayne County, this project is unlikely to affect critical habitat for these species.

The federal and state threatened or endangered animal species potentially present along the Preferred and Alternate Routes during any portion of the year are described below. It should be noted that while potentially suitable habitats for some of these species are available along the Preferred and Alternate Routes, these habitats are generally limited in nature and are unlikely to represent critical habitat.

In addition, regular disturbance in these areas further limits the opportunities for species of concern to become established. The entire length of the Preferred Route and the most of the Alternate Route are within or adjacent to an existing right-of-way (ROW). The Preferred and Alternate Routes also cross areas of routine disturbance such as pastures and agricultural farmland.

Potentially suitable habitat observed for the following Wayne and Summit County threatened, endangered, or protected species during field surveys, within the Preferred ROW, with regulatory agency comments, are as follows. Reference to original documentation appears in Appendix 06-1. Appendix 07-2 provides reports of field surveys for respective species.

07-10

- Eastern Prairie Fringed Orchid (Platanthera leucophaea): This perennial species is identified by the USFWS as a federally listed threatened species whose range falls within Wayne County. This species occurs in wet prairies, sedge meadows, and moist roadside ditches. A habitat assessment identified three areas within Wayne County that contain potentially suitable habitat for this species. USFWS-approved biologists did not find this species in the Project area during a presence/absence survey held at the time of the species flowering period.
- Northern Monkshood (Aconitum noveboracense): A portion of the project area within Summit County lies within the range of this USFWS federally threatened perennial plant. This plant is typically found on shaded to partially shaded cool, moist, talus slopes, cliff faces in wooded ravines, or on cool streamside sites. This plant species of concern was not identified during the May 2008 reconnaissance by GAI. There is one area of wooded ravine that is potential habitation sites for this species but, according to a survey coordinated with USFWS, the location of the boulder habitat falls 45 to 70 feet outside of the ROW and construction limits, and is not expected to be affected by the project. Thus, no presence/absence surveys for this species are proposed.
- Eastern Massasauga (Sistrurus catenatus) is a federal candidate species, and Ohio state endangered species, reported to live in Wayne County. This species is known to live near wet areas, including wetlands, wet prairie, or nearby woodland or shrub edge habitat. It is noted that massasauga snakes also occupy dry goldenrod meadows with early successional woody species such as dogwood or multiflora. A USFWS-approved herpetologist performed a survey for this species. It was noted that no occurrences of this species are known from Chippewa Township in northeastern Wayne County, and that a closer look at potential areas indicate that there does not appear to be suitable habitat for the Eastern massasauga. ODNR-DOW indicated that the project is unlikely to affect this species, but if an Eastern massasauga is encountered during project construction, work must immediately stop, and ODNR-DOW is to be contacted for further direction.

- Eastern Hellbender (Cryptobranchus alleganiensis alleganiensis) is a state endangered amphibian potentially located in the portion of the project within Wayne County. The primary niche for the Eastern Hellbender is large, swift flowing streams with large rocks. The Tuscarawas River within a portion of the project ROW could potentially provide habitat for this species. The ODNR requested that projects that impact riparian corridor habitat, first determine the presence of absence of this species by a survey conducted by an approved herpetologist. A USFWS-approved herpetologist performed a survey for this species. It was noted that the Tuscarawas River at this location was sluggish and silt-laden, with no rocks available. It was determined that this location did not provide suitable habitat for the Eastern Hellbender.
- Bald Eagle (Haliaeetus leucocephalus) is known to nest in both Summit and Wayne counties. Due to recovery, this species has been removed from the Federal list of endangered and threatened species, yet continues to be protected under the Bald and Golden Eagle Protection Act, Migratory Bird-Protection Act, and the State of Ohio. USFWS reports a known bald eagle nest approximately one mile from the proposed project location. Due to the land use between the project area and the nest, USFWS remarked that no impact from this project is expected to occur.
- Golden-Winged Warbler (Vermivora chrysoptera) is an Ohio state endangered bird, whose range encompasses the project area in Summit County. This species prefers patchy scrub-shrub habitat, forest edge, shrubby fields, and marshes. There are several areas along the project corridor that qualifies at Golden-Winged Warbler habitat. GAI field crews did not observe this species. An ODNR-approved biologist conducted a presence or absence survey for this species, and no golden-winged warblers were observed in the Project area.
- Virginia Rail (Rallus limicola) are wetland birds with Ohio Status of Special Concern. They are found in wetlands, preferring mixtures of open, shallow water with dense cover of aquatic vegetation. Virginia Rail's were recorded by the ODNR as inhabiting the area where the Preferred and Alternate Routes where they share commonality, near the Towpath and Tuscarawas River, in 1986. GAI field crews did not observe this species during field reconnaissance or during a walk-through bird survey and evaluation of the habitat extending approximately 200 feet from the route at the location indicated by ODNR. ODNR-DOW noted that this project would not likely impact this species due to the type of work proposed, species status, and date of the Natural Heritage Database records.

- Sora (Porzana carolina) are wetland rails with Ohio Status of Special Concern. Their niche is shallow freshwater wetlands with dense border vegetation, preferring dense cattail and sedge marshes. Sora's were recorded by the ODNR as inhabiting the same area along the Preferred and Alternate Routes as the Virginia Rail, near the Towpath and Tuscarawas River in 1986. GAI field crews did not observe this species during field reconnaissance or during a walk-through bird survey and evaluation of the habitat extending approximately 200 feet from the route at the location indicated by ODNR. ODNR-DOW noted that this project would not likely impact this species due to the type of work proposed, species status, and date of the Natural Heritage Database records.
- Indiana Bat (Myotis sodalis) is a federally endangered species in all counties of Ohio. Summer habitat needs are dead or live trees (including shagbark hickories and oaks) with peeling or exfoliating bark and split tree trunks or cavities for maternity roosts. Stream corridors, riparian areas, and upland woodlots are important for Indiana bat foraging. GAI found areas along the project ROW in both Summit and Wayne Counties that would provide habitat and foraging needs for this species and GPS was used to record areas of suitable trees within or adjacent to the project corridor. Davey Resource Group also conducted a study of the potential habitat for this species. They documented thirteen potential Indiana Bat maternity roosting trees throughout the ROW area. HDD will be utilized to avoid impacts to two of the 13 potential maternity trees, and the Preferred Route will avoid impacts to three other potential maternity trees. Through coordination with the USFWS, it was determined that emergence surveys should be conducted for the remaining eight trees before August 15. Emergence surveys were conducted within the specified timeframe. No bats were seen emerging from marked potential maternity roost trees. The Davey Tree Expert Company, with approval from USFWS, subsequently removed the trees.

A list of animal species observed or expected to occur within the general vicinity of the study area are provided in Table 07-6 through Table 07-8. The species lists were developed based upon the field survey and literature sources. No state or federal-listed flora or fauna were observed during field surveys, along the Preferred Route.

(4) Soil Associations in the Corridor

The Preferred and Alternate Routes cross the following soil associations: Melvin-Euclid-Orville, Mechanicsburg-Berks, Canfield-Wooster-Riddles, Chagrin-Holly-Lobdell, and Chili associations (U.S. Department of Agriculture, 2007). Discussions about association

characteristics are given below. Figures 04-3A and 04-3B provide representations of the associations.

Melvin-Euclid-Orville Association: These soils are characterized by nearly level, poorly drained and somewhat poorly drained, deep soils that formed in silty and loamy alluvium. These soils are found on floodplains and low stream terraces in valleys. The association makes up about 10% of Wayne County. Soils in this association are used for general farming and dairy farming, pasture and recreation uses. The main limitations for this association are seasonal ponding, wetness and flooding. The association has moderate organic content, which lends to the available water capacity being moderate to high. This association has several soils that are well drained, but they are a small percentage of the whole association.

Mechanicsburg-Berks Association: This association is characterized by gently sloping to very steep, well drained, deep and moderately deep soils that formed in loamy glacial till and in residuum of siltstone, shale, and fine-grained sandstone. These soils are found in found in deeply dissected areas characterized by narrow ridges and on side slopes adjacent to major drainageways. Some are on high knolls and broader ridges. This association makes up about 7% of Wayne County. These soils are used primarily for general farming and dairy farming. The soils in this association are not well suited to building site development, with the major limitations being slope, moderate depth to bedrock, erosion and very low available water capacity. Buildings in these areas should be designed to conform to the natural slope of the land.

Canfield-Wooster-Riddles Association: This association consists mostly of nearly level to moderately steep, moderately drained and well-drained, deep soils that formed mainly in glacial tills. These soils are found in areas dominated by broad, nearly level and gently sloping till plains that have low hills and ridges with broad bases. These soils are found in areas characterized by sloping and moderately steep hillsides and high ridges that have well defined local relief. These soils can also be found near major drainage ways. The association makes up about 27 percent of Wayne County, and is used mainly for general farming and dairy farming. This association has some minor soils that are poorly drained, and are situated along waterways and in floodplains. The main limitations for this soil association are erosion, seasonal wetness, and moderately slow or slow permeability.

Chagrin-Holly-Lobdell Association: This association consists of nearly level, well drained, poorly drained, and moderately well drained soils formed in medium-textured recent alluvium. This association is along the Cuyahoga River, Tuscarawas River, and other streams in Summit County, with the largest acreage being along the Cuyahoga River. Soils in this association or nearly level and subject to flooding, and occupy about 2% of the county. Chagrin and Lobdell soils are used mainly for cultivated crops, while Holly soils are used for pasture and trees, or crops if drained. Flooding is the dominant limitation with this association, with most areas being flooded at least once per year. The hazard of flooding is a limitation to construction, and construction also hinders the flow of floodwater through the valley and, in effect, raises the level of the floodwater.

Chili Association: These soils are formed in sandy, gravelly glacial outwash and found in nearly level to steep, well-drained areas. This association is in areas of complex topography and is mostly in the southern half of Summit County. These soils readily absorb rainwater and contribute seepage to a high water table in low-lying areas. Low-lying areas contain more poorly drained soils with pockets of organic soils. Chili soils make up about 50% of the association, with less extensive soils making up the rest. Much of the area within this association is farmed, but other land use designations compete with the farming. These soils are well suited to farming and irrigation. The well draining soils of this association gives some limitations to non-farm uses, such as septic tank filter fields contaminating groundwater or pollution of nearby low-lying area.

(C) STREAMS AND BODIES OF WATER

(1) Construction Impact

Dominion East Ohio has evaluated construction methods to minimize impacts to streams, to the extent possible. The majority of the larger streams within the project ROW will not be impacted, due to the planned HDD installation method for these areas. Tables 07-3 and 07-4 summarize the streams that will be crossed by the Preferred Route and the proposed crossing method. The field QHEI and HHEI data sheets for these stream crossings are provided in Appendix 07-1D. A further discussion of the streams, lakes and ponds along the Preferred and Alternate Routes can be found in Section (B) (3) of this chapter.

Dominion utilizes two methods of constructing and installing a pipeline across a stream. Each method has advantages and disadvantages depending on the site-specific

conditions. The most common method of stream crossing is open trench excavation for relatively low flow streams. A trench is excavated across the stream; the pipe is lifted and placed into the trench followed by backfilling, re-contouring, and restoration of the stream area. Restoration of the streambed involves replacing flagstones or cobblestones, if present, following trench backfilling in order to restore the stream to near its original condition as possible. Construction at each stream location can be scheduled during low flow conditions, independent of the remainder of the pipeline construction. A short time frame of construction activity at these stream-crossing locations minimizes potential erosion problems and stream impacts.

The second stream crossing method involves HDD under the channel. This method is frequently used to minimize impacts to roadways, railroads, and high-value ecological and archaeological resources that could not otherwise be avoided, and to avoid potential impacts from high-flow conditions or navigation on navigable waters. However, the evaluation process for use of HDD must take into consideration the transport of large drilling equipment to the drill site, the possibility of release of bentonite-based drilling fluids, and a longer installation process.

For sensitive locations where HDD is selected as the installation method, the HDD equipment will be set up on upland areas outside of the sensitive area (e.g., wetland). Silt fence or other erosion controls will be installed around the drill pipe entry point and exit point when necessary. HDD operations have a potential to release drilling fluids into the surface environment through existing fractures in the subsurface rock and soil; these releases of drilling fluid are referred to as "frac-outs". Generally, HDD usage is typically reserved for streams that have significant flow at the time of construction, or for sensitive habitats with high-quality biota.

Dominion East Ohio proposes to use a trench construction methodology to cross only five of the 12 stream channels on the Preferred Route. Streams S-1, S-2, S-4, S-6, S-7, S-10 and S-10d are planned for HDD for pipeline installation. Streams S-3a, S-3b, S-5, S-8, and S-9 are planned for trench excavation. These five streams include two intermittent headwater streams and three Class I or II streams. No long-term adverse impacts are expected to any stream to be crossed by trenching on the Preferred Route, based on the mitigation techniques and precautions to be employed during construction [refer to Section 4 (B)(1)(b)]. Care will be taken at stream crossings to avoid unnecessary soil erosion and sedimentation. Construction in streams and headwaters

will conform to the requirements of the state certification of the U.S. Army Corps of Engineers' Nationwide Permit (NWP) 12, National Pollutant Discharge Elimination System (NPDES) Stormwater permit for construction, the Storm Water Pollution Prevention Plan (SWP3), the Ohio Rainwater and Land Development sediment erosion guidelines and methods, and the requirements discussed on a case-by-case basis. An environmental inspector will be on site during all activities within high quality streams and headwaters to insure minimizations of impacts within these sensitive ecological areas.

There were no lakes, ponds, or reservoirs identified within 100 feet of the Preferred and Alternate Routes. The southwestern shore of Nimisila Reservoir is about 500 feet from where the Preferred and Alternate Routes end at Shoop Station. There are 24 and 29 ponds found within 1,000 feet of the Preferred and Alternate Route centerlines, respectively. None of these water bodies are expected to be impacted by the construction, operation, or maintenance of the Preferred or Alternate Route alignments.

(2) Operation and Maintenance Impact

Once the natural gas pipeline is in operation, and land restoration is complete, the project ROW will require only periodic woody species removal. Signage will be installed 25 feet from high quality stream and headwaters to prevent inadvertent clearing preand post-construction. No significant impact to streams or drainage channels along the Preferred or Alternate Route are expected from operation or maintenance of the line. No major lakes, ponds, or reservoirs will be affected by the operation or maintenance of the Preferred or Alternate Route.

(3) Mitigation Procedures

Tree and vegetation clearing within the project ROW will be reduced to a 30-foot width within the riparian zone of moderate and high quality streams and headwaters. Restoration of streambed and banks will be implemented following trenching across higher quality streams and headwaters. Dominion East Ohio will remove only select trees within 25 feet of high quality stream channels to minimize impacts. Prior to any clearing activities, these trees will be clearly identified and marked on construction drawings, and in the field, by Dominion East Ohio. An environmental inspector will be on site during construction activities within high quality streams and headwaters to ensure requirements near these sensitive ecological resources are met.

Containment measures taken during a frac-out event during HDD work will include reduction or elimination of pressure, straw bale containment, and removal of drilling mud from the surface. The area affected by any frac-out will be restored as closely as possible to original conditions. HDD will not continue until the frac-out is contained.

(D) WETLANDS IMPACT

(1) Construction Impact

Dominion East Ohio plans to drill beneath the majority of wetlands on the Preferred or Alternate Route, using HDD techniques to avoid impacts to these wetlands. Wetland acreage within the 60-foot construction corridor of these routes are 4.3 and 3.3, respectively. With HDD, the Preferred Route impact to wetlands will decrease to 0.4 acres. Table 06-2 lists the comparative impact of Preferred and Alternate Routes on wetlands within the project study area.

Table 07-2 lists construction methodology for wetland areas along the Preferred Route. Dominion East Ohio plans to use HDD techniques in major wetland complexes in an effort to minimize sensitive area impacts associated with the Preferred Route. The majority of wetlands slated to be trenched within the Preferred Route are relatively small and of poor quality. Additionally, construction activity within these few wetlands will be confined to a reduced corridor width. Due to considerable HDD of wetlands along the Preferred and Alternate Route, it is estimated that approximately 0.4 acres of wetland will be impacted within the 60-foot study corridor. Of the remaining wetlands, dredge materials will be stored in an upland location and unless saturated, the topsoil segregated so that at least the top 6 inches of backfill over the pipeline will consist of topsoil material removed from the trench, as per Ohio State Certification Requirements under U.S. Army Corps of Engineers' NWP 12. According to the U.S. Army Corps of Engineers, for linear projects each wetland and stream crossing is considered as a separate project.

HDD will be utilized to ensure that each wetland crossing does not exceed the U.S. Army Corps of Engineers' 0.5-acre wetland limitation and any Ohio EPA certification limitations, as provided under the NWP 12. The project's total impacts to the waters of the U.S. will be less than 1.500 linear feet.

Construction vehicles within wetland areas will be limited to those wetlands directly crossed by the project centerline and no excavated materials will be placed within delineated wetland areas. Timber matting will be used in wetland areas to limit vehicle wetland impacts.

(2) Operation and Maintenance Impact

It is not anticipated that wetland areas will be greatly affected by the operation or maintenance of the proposed natural gas pipeline along the Preferred or Alternate Routes. Seasonal mowing is currently affecting, and is anticipated to continue to impact, wetland areas along the pipeline.

(3) Mitigation Procedures

No permanent wetland impacts are anticipated for the project as proposed. Care will be taken to segregate topsoil from sub-soils to facilitate remedial measures after the pipeline is buried as per U.S. Army Corps of Engineers 404 permitting requirements. Natural re-vegetation in any disturbed wetland areas will begin immediately after construction has been completed in the area. Wetland mitigation will meet that required for the project by the U.S. Army Corps of Engineers and/or Ohio EPA.

(E) VEGETATION IMPACT

(1) Construction Impact

Dominion East Ohio selected a Preferred Route that avoids wooded areas to the most practical extent possible. For both the Preferred and Alternative Routes, the percent of route within or adjacent to existing ROW will be 100 percent for the Preferred, and 97% for the Alternate. Both routes also cross areas of routine disturbance such as pastures and agricultural farmland, and residential areas. Impacts to woodlots within the 60-foot project ROW are approximately 11.9 acres along the Preferred Route and approximately 11.8 acres along the Alternate Route. The reduced construction corridor width of 30 feet that Dominion East Ohio will establish in woodlot areas decreases the impacts to woodlots to 3.9 and 4.8 acres, for the Preferred and Alternate Route, respectively.

Vegetation management along the pipeline ROW is expected to be required only in those areas that are not currently in agricultural use or that are developed. Signage will be placed 25 feet from high quality streams to prevent inadvertent riparian clearing in these areas. Seed mixes of species native to the area will be used to re-establish herbaceous and shrub vegetation. Temporary soil erosion and sedimentation control measures will be removed after vegetative cover has been established.

Mature trees will be identified and marked in the field and on construction drawings, if it is feasible to avoid clearing of these trees during construction. Potential construction impacts to vegetation along the Preferred and Alternate Routes include those described in the above sections.

(2) Operation and Maintenance Impact

Impacts on vegetated land during operation of the pipeline along either the Preferred or Alternate Routes will be negligible. Seasonal mowing along the ROW is not expected to result in a significant environmental impact to the vegetation.

(3) Mitigation Procedures

Areas that are temporarily disturbed will be re-vegetated as soon as practical within Ohio EPA Permit No. OHCOOOOO2 guidelines. These measures should preserve the aesthetic qualities along the route to the extent practical, prevent erosion, and promote habitat diversity. Seeding and mulching practices will be specified in the SWP3 plan and on construction drawings.

(F) COMMERCIAL, RECREATIONAL, AND THREATENED/ENDANGERED SPECIES IMPACT

The following descriptions are of major species either observed within and expected to inhabit or reported to have a range that includes the route corridors. It is expected that construction impact will be approximately the same for these species along the Preferred and Alternate Routes. While suitable habitats for these species are available along the Preferred and Alternate Routes, these habitats are generally limited in nature and do not represent critical habitat.

(a) Commercial Species: Commercially important species along the Preferred and Alternate Routes consist of those hunted or trapped for fur or other byproducts, including the following:

Red fox (*Vulpes vulpes*): The red fox occurs throughout Ohio and is most prevalent in areas of maximum interspersion of woodland and agricultural lands. This species is expected to inhabit the Preferred and Alternate Routes, but was not observed during the field surveys.

<u>Raccoon (Procyon lotor)</u>: The raccoon is abundant and widespread in Ohio, even in many suburban areas. Raccoons are found principally around aquatic and woodland habitats, with occasional forages into croplands. Tracks of this species were observed near streams along the Preferred Route.

<u>Striped skunk (Mephitis mephitis)</u>: The skunk prefers a semi-open habitat of mixed woods, brush, farmland, open grassland, and small caves in proximity to water. These mammals are common statewide. Dead individuals of this species were observed along roadways within the vicinity of the Preferred and Alternate Routes.

Opossum (*Didelphis virginiana*): The opossum's preferred habitat is farmland, especially wooded pastures adjacent to woodland streams and ponds. Dead individuals of this species were observed along roadways within the vicinity of the Preferred and Alternate Routes.

<u>Beaver (Castor Canadensis)</u>: Beavers are a common species in eastern and western Ohio. They occur in forested ponds, lakes, and rivers. No beavers were observed in the field, but they are expected to inhabit portions of the Preferred and Alternate Routes.

Mink (Mustela vison): Mink occur throughout Ohio. They are primarily found near streams and rivers, but can also be found near ponds and marshes. Minks are also found in or near wooded or brushy areas. No mink were observed in the field, but they are expected to inhabit portions of the Preferred and Alternate Routes.

<u>River otters (Lontra Canadensis):</u> River otters can be found in 66% of Ohio counties. In the years 2008-2009, trapping of river otters is allowed along the western portion of the Preferred and Alternate Routes (eastern Wayne County), but not in the eastern portion (Summit County). River otters live in aquatic habitats. No river otters were observed in the field, but they are expected to inhabit portions of the Preferred and Alternate Routes.

(b) Recreational Species: Recreational species consist of those hunted as game. Recreational species expected to inhabit areas along the Preferred and Alternate Routes include the following:

<u>Eastern cottontail (Sylvilagus floridanus):</u> The eastern cottontail is Ohio's number one game species. They are abundant in both rural and urban areas and prefer the field borders, brushy areas, and thicket habitats that can be found in the study area. This species was observed along the Preferred Route during field surveys, and is expected to be abundant along the Preferred and Alternate Routes.

. <u>Woodchuck (Marmota monax)</u>: The woodchuck or groundhog is a common ground squirrel found throughout Ohio. It prefers sloped areas at the fringe of wooded and open areas. This species was observed along the Preferred Route during field surveys, and is expected to be abundant along the Preferred and Alternate Routes.

Gray, red, and fox squirrels: These tree squirrels occur throughout Ohio. The fox squirrel (Sciurus niger) is primarily an inhabitant of small, typically isolated woodlots. The gray squirrel (Sciurus carolinensis) and red squirrel (Tamiasurius hudsonicus) prefer extensive woodland areas. Gray squirrels were observed along the Preferred and Alternate Routes during field surveys. These species are expected to be abundant along the Preferred and Alternate Routes.

White-tailed deer (*Odocoileus virginianus*): White-tailed deer occur throughout Ohio. Deer prefer wooded areas with occasional foraging into croplands. This species was observed along the Preferred Route during field surveys, and is expected to be abundant along the Preferred and Alternate Routes.

<u>Wild turkey (Meleagris galiopavo):</u> The Wild Turkey is a common recreational species throughout Ohio. They are typically found in upland areas with small to large woodlots near open areas for feeding. This species is expected to inhabit areas along the Preferred and Alternate Routes, but none were observed during field surveys.

(c) Game Fish: While the majority of streams will be HDD to reduce impacts to stream habitat, there will be five stream crossings where trenching will be used. Of these streams, one (Stream S-3a) has been classified as warmwater habitat (WWH), another stream (Stream S-3b) is classified as modified warmwater habitat (MWH), both of which could provide habitat for game fish.

Measures will be taken at stream crossings to minimize soil erosion and sedimentation. Construction in streams and headwaters will conform to the requirements of the state certification of the U.S. Army Corps of Engineers' NWP 12, NPDES Stormwater permit for construction, the SWP3 plan, the Ohio Rainwater and Land Development sediment erosion guidelines and methods, and the requirements discussed on a case-by-case basis. An environmental inspector will be on site during all activities within high quality streams and headwaters to insure minimization of impacts within these sensitive ecological areas.

(1) Construction Impact

(a) Commercial Species:

<u>Red fox:</u> Similar suitable habitats for this species are readily available throughout the Preferred and Alternate Routes. This highly mobile species would be expected to leave during construction and return once the project is completed.

<u>Raccoon:</u> This species is very adaptable to changes in the habitats in which it occurs, and as a result, construction along the Preferred or Alternate Route are anticipated to have negligible impact on the raccoon population. Additionally, similar habitats suitable to this species are readily available throughout the study area.

<u>Striped skunk:</u> It is not anticipated that construction of either the Preferred or Alternate Route will alter a significant portion of this species' preferred habitat because of the presence of readily available similar habitats in the study area. Therefore, no impact on the striped skunk is anticipated.

<u>Opossum:</u> It is not anticipated that construction of either the Preferred or Alternate Route will alter a significant portion of this species' preferred habitat because of the presence of readily available similar habitats. Therefore, no impact on the opossum is anticipated.

<u>Beaver:</u> It is not anticipated that construction of either the Preferred or Alternate Routes will alter a significant portion of this species' habitat. All, or most, areas where this species is expected will be HDD to minimize impacts.

Mink: It is not anticipated that construction of either the Preferred or Alternate Route will alter a significant portion of this species' habitat. All, or most, areas where this species is expected, will be HDD to minimize impacts.

<u>River otters:</u> It is not anticipated that construction of either the Preferred or Alternate Route will alter a significant portion of this species' habitat. All, or most, areas where this species is expected will be HDD to minimize impacts.

(b) Recreational Species: Recreational species should experience different levels of impact, depending on the species' habitat and home range requirements.

<u>Eastern cottontail:</u> Cottontails will likely migrate from the ROW area during construction and move into adjacent areas that provide adequate cover and needed forage resources. After construction, this species' preferred habitat should be increased along the Preferred or Alternate Route as scrub/shrub and herbaceous growth will increase. Therefore, impacts to this species are expected to be minor.

<u>Woodchuck:</u> Any woodchucks present along the selected route will likely travel out of the ROW during construction to seek friable soil material in which to establish burrows. Suitable alternative habitats are available close to both the Preferred and Alternate Routes. Therefore, impacts to this species are expected to be minor.

Gray, red, and fox squirrels: The elimination of minimal quantities of the suitable habitat of these species within the ROW will cause the squirrels to move into nearby woodlands during construction. It is anticipated that additional squirrels can be assimilated into adjacent habitats without significant competition pressures from or on resident species. The loss of mast-producing trees offering a food source for the squirrels should be low. Thus, the impact of construction on the resident squirrels is anticipated to be minor, considering the availability of similar habitat and forage elsewhere.

White-tailed deer: White-tailed deer use the wooded portions along the Preferred and Alternate Routes for cover and concealment, and they forage in the croplands periodically. Deer normally have a home range of less than 3 square miles. The abundance of similar wooded and cropland habitat surrounding the study area indicates that the impact of construction should be minimal for this species. Additionally, maintaining a ROW in low growth vegetation provides a beneficial "edge habitat" for this species.

<u>Wild Turkey:</u> Wild Turkeys use the wooded portions along the Preferred and Alternate Routes for nesting, usually near open areas, and cover. Impact on this species should be minor, given that there is suitable woodlot in the surrounding area for them to nest and find cover. Maintaining a ROW in low growth vegetation provides more "edge habitat" for this species to nest.

(c) Game Fish: While the majority of streams will be HDD to reduce impacts to stream habitat, there will be five stream crossings where trenching will be used. Of these streams, one (Stream S-3a) has been classified as warmwater habitat (WWH), another stream (Stream S-3b) is classified as modified warmwater habitat (MWH), both of which could provide habitat for game fish.

Measures will be taken at stream crossings to minimize soil erosion and sedimentation. Construction in streams and headwaters will conform to the requirements of the state certification of the U.S. Army Corps of Engineers' Nationwide Permit 12, NPDES Stormwater permit for construction, the SWP3 plan, the Ohio Rainwater and Land Development sediment erosion guidelines and methods, and the requirements discussed on a case-by-case basis. An environmental inspector will be on site during all activities within high quality streams and headwaters to insure impacts are minimized within these sensitive ecological areas.

(d) Protected Species: Correspondence with the ODNR-DNAP, ODNR-DRELM, and the USFWS indicated that the Preferred and Alternate Routes are within the range of a number of species that are on federal and/or state listed threatened or endangered species, or are of high interest. No federally or state endangered, threatened, or potentially threatened species and no critical habitats were observed during the field surveys of the Preferred and Alternate Routes.

<u>Protected Plants:</u> Suitable habitat for the Eastern Prairie Fringed Orchid was found, but USFWS-approved biologists did not find this species in the Project area during the flowering period of the plant (Appendix 07-2). No other state or federal-listed plants were identified during the field surveys or need additional coordination with USFWS.

<u>Protected Wildlife:</u> The Indiana bat may occur in the Preferred and Alternate Route corridors due to project location within species range, as well as the suitable habitat provided as discussed in Section 4906-15-07(B)(3)(e) of this Application. Davey Resource Group documented thirteen potential Indiana Bat maternity roosting trees

throughout the ROW area. HDD will be utilized to avoid impacts to two of the 13 potential maternity trees, and the Preferred Route will avoid impacts to three other potential maternity trees. Through coordination with the USFWS, it was determined that emergence surveys should be conducted for the remaining eight trees before August 15. Emergence surveys were conducted within the specified timeframe. No bats were seen emerging from marked potential maternity roost trees. The Davey Tree Expert Company, with approval from USFWS, subsequently removed the trees.

No other wildlife species considered endangered or threatened by the State of Ohio or by the federal government should be significantly impacted by construction of the project along the Preferred Route. Either the project area does not provide the appropriate habitat, the pipeline corridor is outside of the range of such species, or natural history characteristics of potential species are such that any impact would be minimal.

(2) Operation and Maintenance Impact

Impacts on wildlife during operation and maintenance of the pipelines should be relatively minor. Seasonal mowing will be the primary impact, in order to prevent succession to forestland within the ROW. The surrounding area around the pipeline should revert to pre-construction habitat over time.

(3) Mitigation Procedures

Experienced ecologists, in conjunction with agency letters and advice, reviewed available maps and examined routes during field surveys. No significant problem areas that would require the use of special mitigation measures for protected wildlife, have been identified to date. If, at a later date, special mitigation procedures are recognized, measures will be implemented according to appropriate agency guidelines and advice.

(G) SLOPES AND ERODIBLE SOILS

(1) Construction Impact

In general, slope mechanics are not anticipated to present a significant concern for this project on either the Preferred or Alternate Route. Construction near stream channels will require extra care in erosion control planning and pipeline installation and restoration due to the high erosion potential and the possibility of sediment being

carried beyond the project ROW. Where possible clearing will be minimized on slopes and stumps will be left in place as extra precautions to help prevent hillside erosion. The SWP3 to be developed for the project will address these issues.

The soil associations crossed by the Preferred and Alternate Routes are discussed in Section 4906-15-07(B)(4) of this Application and are shown on Figures 04-3A and 04-3B. Any impacts to soils crossed are expected to be temporary in nature, as these soils will be replaced once construction is complete. Contours will be restored to stream and wetland areas in an effort to minimize soil erosion and degradation. Seed mixes of species native to the area will be used to re-establish herbaceous and shrub vegetation. Temporary soil erosion and sedimentation control measures will be removed after vegetative cover has been established.

(2) Operation and Maintenance Impact

No impacts are expected once the pipeline is in place, and restorative measures have been implemented. The area will return to its former land use. Maintenance activities that involve excavation are anticipated to be rare, but in these cases, standard measures will be used to prevent sedimentation into any nearby surface waters.

(3) Mitigation Procedures

Best Management Practices (BMP) will be used during construction and protective measures will be taken with construction adjacent to streams, ponds, and wetlands. The erosion and sedimentation control measures will be consistent with that described in the SWP3 for this project.

(H) OTHER ISSUES

Dominion East Ohio has determined that construction and operation of the pipeline following the Preferred Route would represent the least overall impact to the flora and fauna of undeveloped areas when all the impacts to streams and drainage channels, permanent bodies of water, wetland areas, and areas with natural vegetation are taken into consideration. For example, the linear distance of the project through woodlots is approximately 3,500 feet less for the Preferred Route, resulting in fewer trees to be removed. While the number of streams to be crossed by trenching is slightly greater for the Preferred Route, the crossing will take place at existing intrusions, and consequently will have little additional impact to the stream banks and riparian areas, particularly

with the mitigiation and restoration measures to be employed. It is clear that the utilization of an existing, maintained pipeline ROW as opposed to the development of a pipeline following new ROW adjacent to public roadways for a significant portion of its length would result in fewer overall ecological impacts to the project area.

TABLE 07-1 WETLAND AND STREAM IDENTIFICATION KEY

IDENTIFIER	Environment & Archaeology, LLC's ID	GAI Consultants ID	
Wetland 1	Wetland 1	WOH-JEN-001	
Wetland 2	Wetland 2	WOH-JEN-002	
Wetland 3	Wetland 3	WOH-JEN-003	
Wetland 4	Wetland 4	WOH-JEN-004	
Wetland 5	Wetland 5	Wetland 5	
Wetland 6	Wetland 6	WOH-JEN-005 (well pad)	
Wetland 7a	Wetland 7a	WOH-JEN-006	
Wetland 7b Complex	Wetland 7b	WOH-JEN-007 thru -010	
Wetland 7c	Did not assess	WOH-CRE-001	
Wetland 7d	Did not assess	WOH-JEN-020	
Wetland 8	Wetland 8	WOH-JEN-011	
Wetland 9a	Wetland 9a	WOH-JEN-012; WOH-CRE-002	
Wetland 9b	Wetland 9b	WOH-CRE-003	
Wetland 9c	Did not assess	WOH-JEN-013	
Wetland 9d	Did not assess	WOH-JEN-014	
Wetland 10	Wetland 10	WOH-CRE-004	
Wetland 10a	Did not assess	WOH-JEN-015	
Wetland 10b	Did not assess	WOH-JEN-016	
Wetland 10c	Did not assess	WOH-JEN-017	
Wetland 10d	Did not assess	WOH-JEN-018	
Wetland 11	Wetland 11	Wetland 6	
Wetland 11a	Did not assess	WOH-JEN-019	
Stream S-1	S-1	S-1	
Stream S-2	S-2	\$-2	
Stream S-2a	Did not assess	SOH-JEN-001	
Stream S-2b	Did not assess	SOH-LFS-001	
Stream S-2c	Did not assess	SOH-JEN-002	
Stream S-3	S-3	SOH-CRE-007	
Stream S-4	S-4	S-4	
Stream S-5	S-5	SOH-CRE-001	
Stream S-6	S-6	S0H-LFS-002	
Stream S-7	S-7 SOH-CRE-009 and 10		
Stream S-7a	S-7a SOH-CRE-009 and 10		
Stream S-8	S-8 SOH-CRE-008		
Stream S-9	S-9	S-12	
Stream S-10	S-10		
Stream S-10a, b, c	S-10a	SOH-CRE-006 and S-13	
Stream S-10d	Did not assess	SOH-CRE-005	

Note: Due to a variety of consultant coding for streams and wetlands, a unique identifier was created to integrate information for this application.

TABLE 07-2 WETLANDS SURVEYED WITHIN THE 200-FT. STUDY CORRIDOR OF THE PREFERRED ROUTE

IDENTIFIER	COWARDIN CLASSIFICATION ¹	ORAM ² SCORE	ORAM CLASSIFICATION ³	Crossing Methodology	Figure Key (Figure 07-1)
Wetland 1	PEM	22	Category 1	HDD	07-1A
Wetland 2	PEM	34	Category 2	HDD	07-1A
Wetland 3	PEM	33	Category 2	HDD	07-1A
Wetland 4	Vernal Pool	8.5	Category 1	Trench	07-1A
Wetland 5	PEM	25	Category 1	Trench	07-1B
Wetland 6	PEM	26	Category 1	Trench	07-1B
Wetland 7a	PEM/PSS	59	Category 2	HDD	07-1C
Wetland 7b Complex	PEM/PSS/PFO	68	Category 3	HDĐ	07-1C
Wetland 7c	PEM	23	Category 1	Not Crossed	07-1D
Wetland 7d	PEM	27	Category 1	Trench	07-1D
Wetland 8	PEM	25	Category 1	Trench	07-1D
Wetland 9a	PEM/PSS	36	Category 2	HDD	07-1D
Wetland 9b	PEM	29	Category 1	HDD	07-1D
Wetland 9c	РЕМ	32.5	Category 2	HDD	07-1D
Wetland 9d	POW	41	Category 2	Trench	07-1D
Wetland 10	PEM/PSS	49.5	Category 2	HDD	07-1E
Wetland 10a	PEM	38.5	Category 2	Trench	07-1E
Wetland 10b	PEM/PSS	45	Category 2	Not Crossed	07-1F
Wetland 10c	PEM/PFO	42.5	Category 2	Trench	07-1F
Wetland 10d	PEM/PFO	44.5	Category 2	Not Crossed	07-1F
Wetland 11	PEM	23	Category 1	Trench	07-1F
Wetland 11a	PEM/PSS/PFO	37.5	Category 2	Not Crossed	07-1F

¹Wetland classifications based on Cowardin et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States:

PEM = palustrine emergent PFO = palustrine forested

PSS = palustrine scrub-shrub

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 2 OEPA's Ohio Rapid Assessment Method (ORAM) for evaluating wetlands.

³ Wetland categories: 1 = low quality

2 = moderate quality 3 = high quality

TABLE 07-3 STREAM CONSTRUCTION METHODOLOGY SUMMARY ALONG THE PREFERRED ROUTE

QHEI Identifier	Surface Name¹	Likely Flow Regime ²	QHEI Score	Expected Aquatic Use Designation	Figure Key (Figure 07-1)	Crossing Methodology
S-1	UT to Chippewa River	ı	30.5	MWH	07-1A	Included in HDD of Archaeological Site 1.
S-2	Silver Creek	Р	68.5	WWH	07-1A	Included in HDD of Archaeological Site 1.
S-3a	UT to Tuscarawas River	1	54	WWH	07-1C	Trench
S-3b	UT to Tuscarawas River	1	47	MWH	07-1C	Trench
\$-3c	UT to Tuscarawas River	I	44.5	MWH	07-1C	Not Crossing
S-3d	UT to Tuscarawas River	I	47	MWH	07-1C	Not Crossing
S-4	Tuscarawas River	Р	61	WWH	07-1C	HDD
S-7	UT to Nimisila Creek	Р	57.75	WWH	07-1E	HDD

 $^{^{\}rm 1}$ UT : Unnamed Tributary, meaning that the stream is not named on the appropriate USGS 7.5-minute Topographic Quadrangle Map.

² Flow Regime: Intermittent (I), Perennial (P).

³ Provisional Aquatic Use Designation: Limited Resource Water (LRW), Modified Warmwater Habitat (MWH), Warmwater Habitat (WWH), Exceptional Warmwater Habitat (EWH)

TABLE 07-4 HEADWATER STREAM CONSTRUCTION METHODOLOGY SUMMARY ALONG THE PREFERRED ROUTE

HHEI Identifier	HHEI Score	HHE! Class	Figure Key (Figure 07-1)	Crossing Methodology
S-2a	23	Modified Class I	07-1A	Not Crossing
S-2b	15	Modified Class I	07-1A	Not Crossing
S-2c	23	Class I	07-1B	Not Crossing
S-5	41	Modified Class II	07-1D	Trench
S-6	36	Modified Class II	07-1D	Included in HDD of Wetland 9b.
S-7a	36	Modified Class II	07-1E	Not Crossing
S-8	28	Modified Class I	07-1E	Trench
S-9	66	Modified Class II	07-1E	Trench
S-10a	23	Modified Class I	07-1F	Not Crossing
S-10b	22	Modified Class I	07-1F	Not Crossing
S-10c	59	Modified Class II	07-1F	Not Crossing
S-10	77	Modified Class III	07-1F	HDD
S-10d	41	Modified Class II	07-1F	Included in the HDD of Stream S-10.

TABLE 07-5 MAJOR PLANT SPECIES OBSERVED OR LIKELY TO OCCUR IN THE STUDY AREA

Acer negundo
Acer rubrum
Acer saccharum
Acer saccharinum
Achillea millefolium
Aesculus glabra
Agrostis stolonifera
Alliaria petiolata
Allium canadense
Allium schoenoprasum

Alnus serrulata Ambrosia artemisiifolia

Ambrosia trifida Apocynum cannabinum Artemisia vulgaris Asclepias incarnata Asclepias syriaca Aster spp.

Aster spp.
Betula alba
Bidens frondosa
Boehmeria cylindrical

Brassica rapa

Calamagrostis canadensis

Cardamine bulbosa
Carex furida
Carex spp.
Carex stricta
Carya ovata
Celtis occidentalis
Cerastium viscosum

Chrysanthemum leucanthemum

Cichorium intybus
Cirsium arvense
Cirsium vulgare
Claytonia virginica
Convolvulus sepium
Cornus amomum
Cornus sericea
Cornus stolinifera
Crataegus sp.
Cyperus esculentus
Daucus carota

Dichanthelium clandistinum

Dipsacus sylvestris Eleocharis obtusa Epilobium coloratum Erigeron annuus

Eupatorium maculatum Eupatorium perfoliatum Eupatorium purpureum Eupatorium sessilifolium Fagus grandifolia

Festuca arundinacea Fraxinus pennsylvanica

Galium aparine Geum canadense

Glycine max
Impatiens capensis
Iris pseudacorus
Juglans nigra
Juncus effuses
Juncus tenuis
Leersia oryzoides
Leersia virginica

Lindera benzoin Liquidambar styraciflua Liriodendron tulipifera Lolium perenne

Lonicera japonica Lysimachia nummularia Ludwigia alternifolia Ludwigia palustris Lythrum salicaria Malva neglecta Mentha spicata

Onoclea sensibilis Panicum dichotomiflorum Panicum virgatum Penthorum sedoides

Phalaris arundinacea
Phytolacca americana
Phleum pretense
Phytolacca Americana

Pinus strobus Plantago lanceolata

Plantago major Plantanus occidentalis

Poa pratensis

Polygonum amphibium Polygonum hydrpiper. Polygonum pennsylvanicum Polygonum persicaria Polygonum saggitatum Populus deltoids Potentilla anserina Prunus serotina Ouercus alba

Quercus macrocarpa Quercus palustris Quercus rubra

Robinia psuedoacacia

Rosa carolina Rosa multiflora Rubus allegheniensis Rumex acetosella Rumex crispus Rumex obtusifolius Rumex verticillatus

Salix nigra

Schizachyrium scoparium

Scirpus atrovirens Scirpus cyperinus Setara spp.

Solidago canadensis Solidago gigantea Symphyotrichum novae-

angliae

Symplocarpus foetidus Toxicodendron radicans Trifolium pratense Typha angustifolia Typha latifolia

Typha laurolla
Typha glauca
Ulmus rubra
Urtica dioica
Verbena hastata
Verbesina alternifolia
Vernonia gigantea
Viola sororia

Xanthium strumarium

Vitis spp.

SOURCES: http://plants.usda.gov/

Chadde, S. 2002 A Great Lakes Wetland Flora (2nd ed.) Pocketflora Press.

Petrides, G., Wehr, J., and R.T. Peterson. 1998. A Field Guide to Eastern Trees. Houghton Mifflin.

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TABLE 07-6 BIRD SPECIES IDENTIFIED OR LIKELY TO OCCUR IN THE STUDY AREA

Common Name	Scientific Name		
American Crow	Corvus brachyrhynchos		
American Goldfinch	Carduelis tristis		
American Kestrel	Falco sparverius		
American Robin	Turdus migratorius		
Baltimore Oriole	icterus galbula		
Belted Kingfisher	Ceryle alcyon		
Black-capped Chickadee	Poecile atricapilla		
Blue Jay	Cyanocitta cristata		
Blue-gray Gnatcatcher	Polioptila caerulea		
Brown Thrasher	Toxostoma rufum		
Brown-headed Cowbird	Molothrus ater		
Canada Goose	Branta canadensis		
Carolina Wren	Thryothorus Iudovicianus		
Common Grackle	Quiscalus quiscula		
Common Yellowthroat	Geothlypis trichas		
Cooper's Hawk	Accipiter cooperii		
Downy Woodpecker	Picoldes pubescens		
Eastern Bluebird	Sialia sialis		
Eastern Kingbird	Tyrannus tyrannus		
Eastern Meadowlark	Sturnella magna		
Eastern Phoebe	Sayornis phoebe		
Eastern Towhee	Pipilo erythrophthalmus		
Field Sparrow	Spizella pusilla		
Gray Catbird	Dumetella carolinensis		
Great Blue Heron	Ardea herodias		
Great Horned Owl	Bubo virginianus		
Hairy Woodpecker	Picoides villosus		
House Finch	Carpodacus mexicanus		
House Sparrow	Passer domesticus		
House Wren	Troglodytes aedon		
Kil ld eer	Charadrius vociferus		
Mallard	Anas platyrhynchos		
Mourning Dove	Zenalda macroura		
Northern Cardinal	Cardinalis cardinalis		
Northern Flicker	Colaptes auratus		
Red-bellied Woodpecker	Melanerpes carolinus		
Red-eyed Vireo	Vireo olivaceus		
Red-tailed Hawk	Buteo jamaicensis		
Red-winged Blackbird	Agelalus phoeniceus		
Song Sparrow	Melospiza melodia		
Tree Swallow	Tachycineta bicolor		
Tufted Titmouse	Parus bicolor		
Turkey Vulture	Cathartes aura		
White Breasted Nuthatch	Sitta carolinensis		
Wild Turkey	Meleagris gallopavo		
Wood Thrush	Hylocichia mustelina		
Yellow Warbler	Dendroica petechia		

SOURCES: ODNR Ohio's Wildlife Species Guide:

http://www.dnr.state.oh.us/Home/species a to z/speciesguide default/tabid/6491/Default.aspx McCormac, J. and Kennedy, G. 2004. <u>Birds of Ohio.</u> Lone Pine Publishing.

TABLE 07-7 REPTILE AND AMPHIBIAN SPECIES IDENTIFIED OR LIKELY TO OCCUR IN THE STUDY AREA

Common Name	Scientific Name	
REP	PTILES	
Black Rat Snake Elaphe obsoleta obsol		
Eastern Garter Snake	Thamnophis sirtalis sirtalis	
Eastern Milk Snake	Lampropeltis triangulum triangulum	
Five-Lined Skink	Eumeces fasciatus	
Northern Ring-necked Snake	Diadophis punctatus edwardsii	
Queen Snake	Regina septemvittata	
Red-eared Slider	Trachemys scripta elegans	
Snapping turtle	Chelydra serpentina	
AMP	HIBIANS	
Builfrog	Rana catesbeiana	
Dusky Salamander	Desmognathus fuscus	
Eastern American Toad	Bufo americanus	
Fowler's Toad	Bufo fowleri	
Gray Treefrog	Hyla versicolor	
Green frog	Rana clamitans melanota	
Jefferson Salamander	Ambystoma jeffersonianum	
Longtail Salamander	Eurycea longicauda	
Northern Leopard Frog	Rana pipiens	
Northern Spring Peeper	Pseudacris crucifer crucifer	
Northern Two-Lined Salamander	Eurycea bislineata	
Pickerel Frog	Rana palustris	
Redback Salamander	Plethodon cinereus	
Smallmouth Salamander	Ambystoma texanum	
Spotted Salamander	Ambystoma maculatum	
Western Chorus Frog	Pseudacris triseriata	
Wood Frog	Rana sylvatica	

SOURCES: Pfingsten, R., and Downs, F., ed. 1989. <u>Salamanders of Ohio (Bulletin of the Ohio Biological Survey</u> Ohio State University

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R. Conant, and J. Collins. 1998. A Field Guide to Reptiles and Amphibians of Eastern and Central North America.

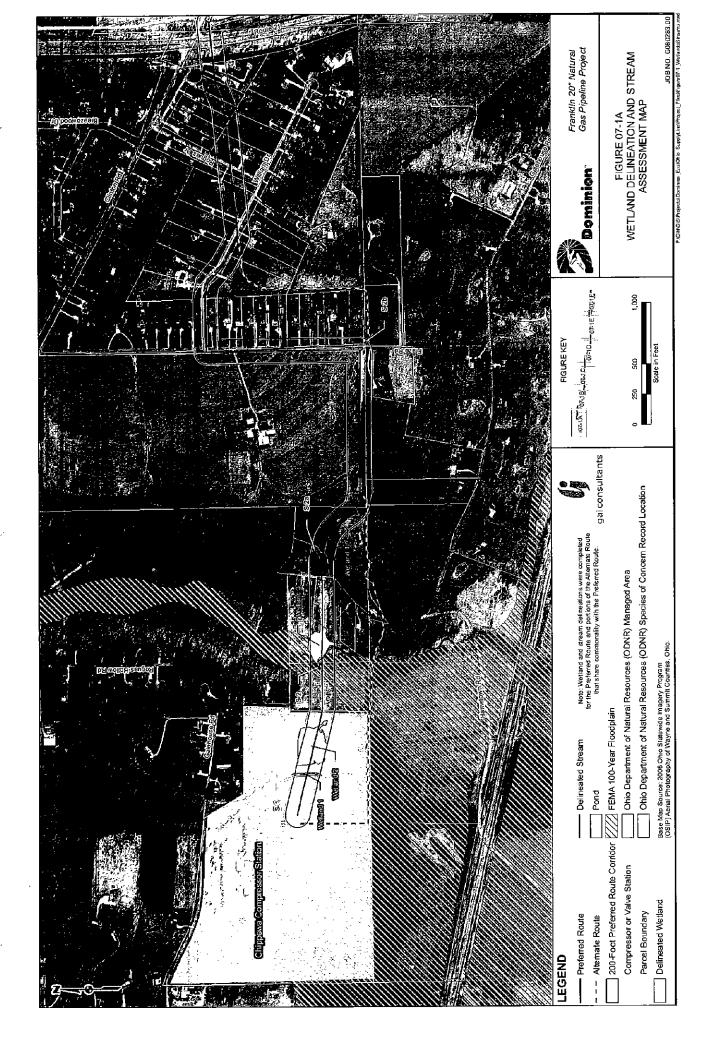
Houghton Mifflin.

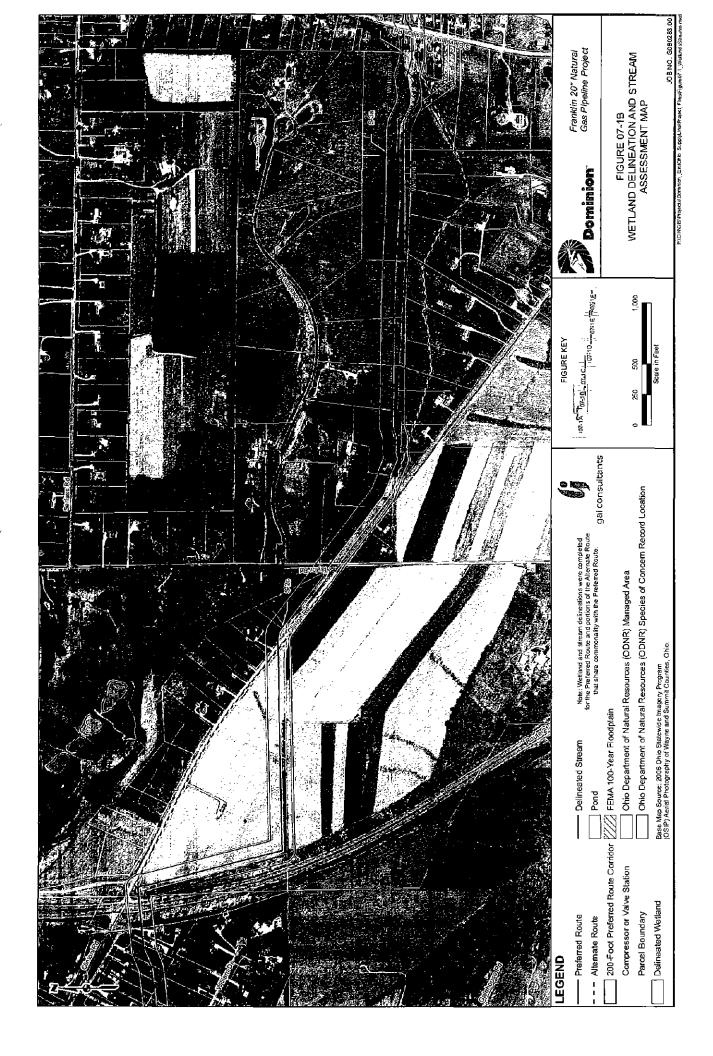
TABLE 07-8 MAMMAL SPECIES IDENTIFIED OR LIKELY TO OCCUR IN THE STUDY AREA

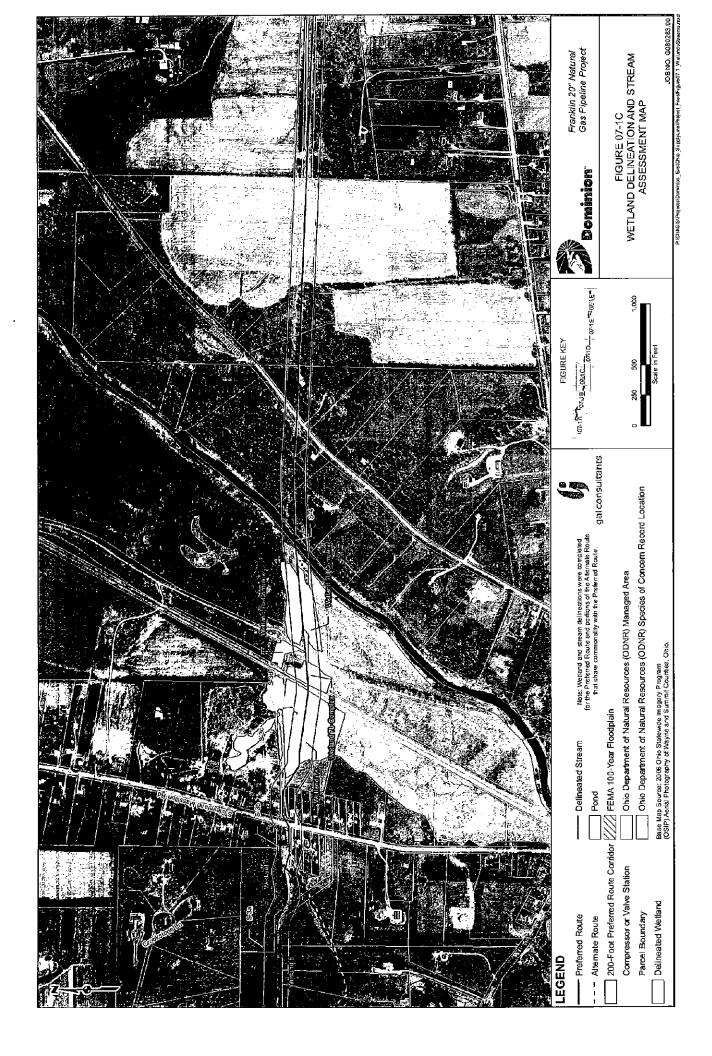
Common Name	Scientific Name		
Big Brown Bat	Eptesicus fuscus		
Coyote	Canis latrans		
Deer Mouse	Peromyscus maniculatus		
Eastern Chipmunk	Tamias striatus		
Eastern Cottontail Rabbit	Sylvilagus floridanus		
Eastern Gray Squirrel	Sciurus carolinensis		
Eastern Mole	Scalopus aquaticus		
Eastern Pipistrelle Bat	Pipistrellus subflavus		
Feral Cat	Felis domesticus		
Fox Squirrel	Sclurus niger		
Gray Fox	Urocyon cinereoargenteus		
Groundhog/Woodchuck	Marmota monax		
House Mause	Mus musculus		
Least Shrew	Cryptotis parva		
Least Weasel	Mustela nivalis		
Little Brown Bat	Myotis lucifugus		
Meadow Jumping Mouse	Zapus hudsonius		
Meadow Vole	Microtus pennsylvanicus		
Mink	Mustela vison		
Northern Long-eared Bat	Myotis septentrionalis		
Northern Short-tailed Shrew	Blarina brevicauda		
Raccoon	Procyon lotor		
Red Bat	Lasiurus borealis		
Red Fox	Vulpes vulpes		
Red squirrel	Tamiasciurus hudsonicus		
Star-nosed Mole	Condylura cristata		
Striped Skunk	Mephitis mephitis		
Virginia Opossum	Didelphis virginiana		
White-footed Mouse	Peromyscus leucopus		
White-tailed Deer	Odocolleus virginlanus		

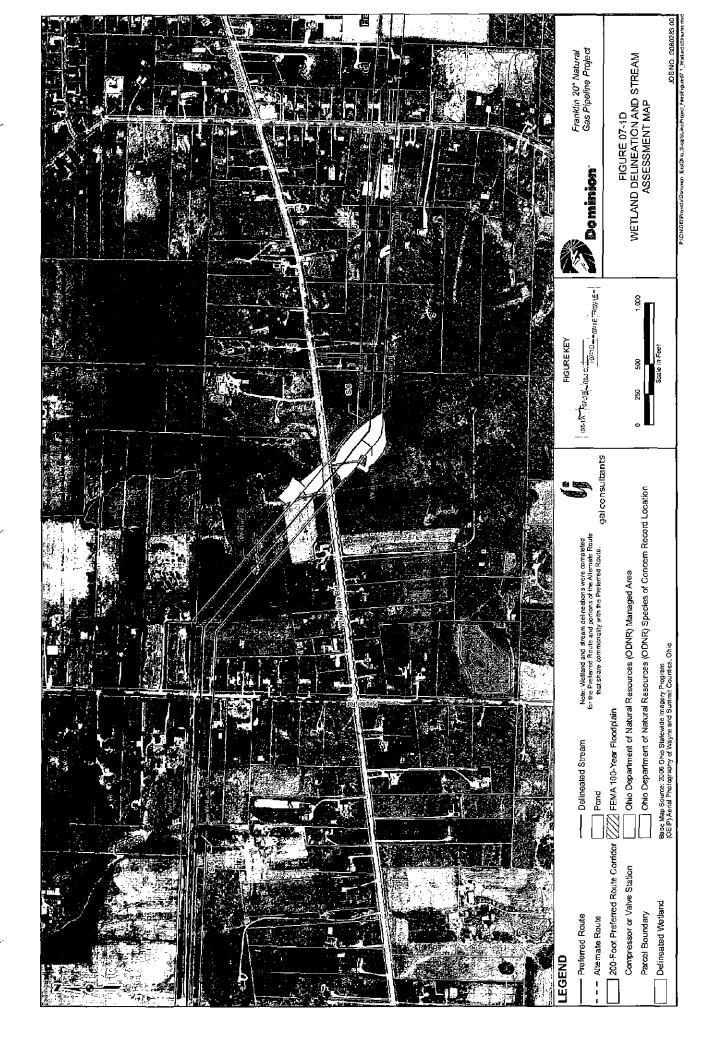
SOURCES: ODNR Ohio's Wildlife Species Guide:

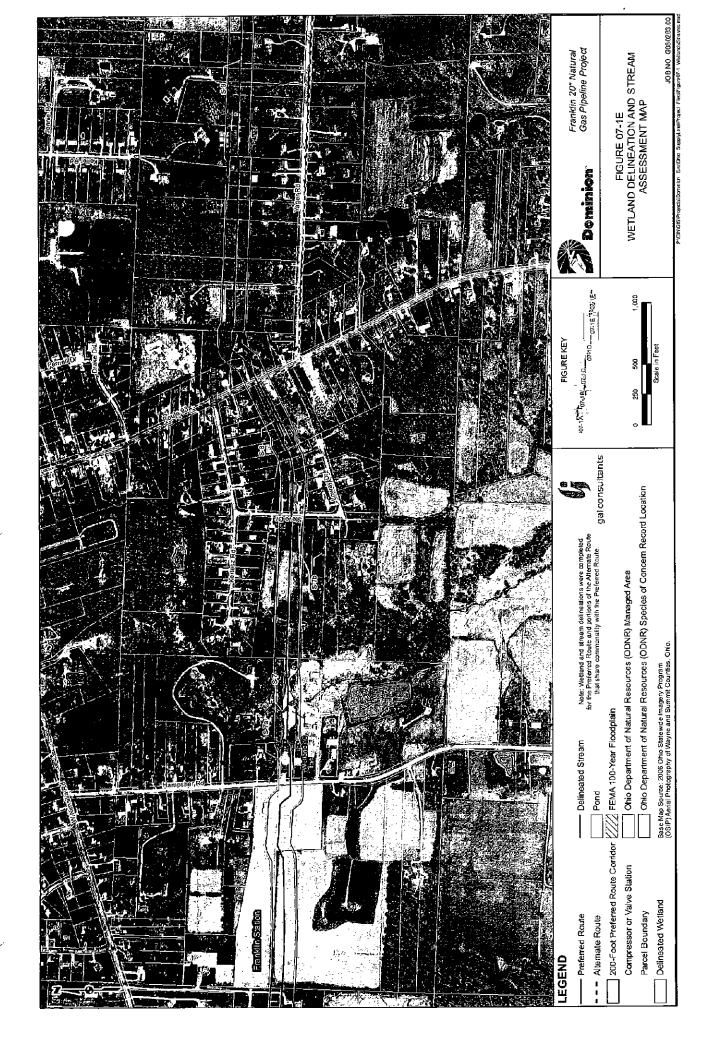
http://www.dnr.state.oh.us/Home/species_a_to_z/speciesguide_default/tabid/6491/Default.aspx Reid, Flona. 2006. Peterson Field Guide to Mammals of North America (4th ed.) Houghton Mifflin.

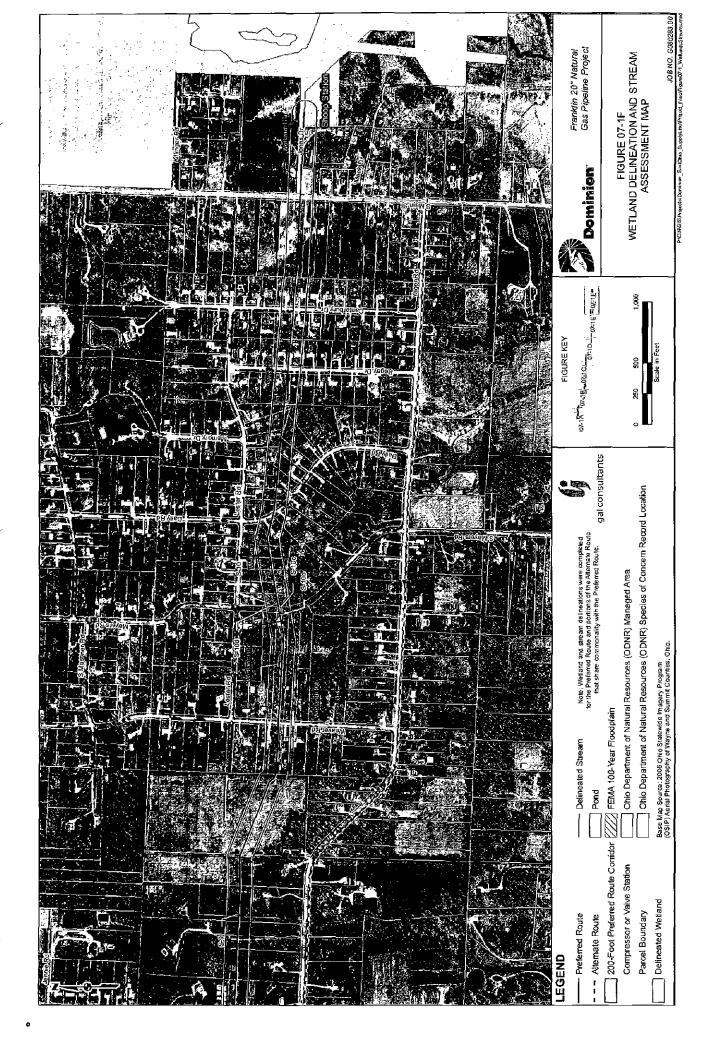












APPENDIX 07-1A ENVIRONMENT & ARCHAEOLOGY LLC WETLAND DELINEATION REPORT

WETLAND DELINEATION REPORT

East Ohio Gas Expansion Project

Franklin 20" Diameter Gas Storage Pipeline 8.7-Miles
Summit and Wayne Counties, Ohio

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1.0 INTRODUCTION

In conjunction with the East Ohio Gas Expansion Project (Project), Dominion East Ohio (DEO) has proposed the installation of approximately 8.7 miles of new, contiguous 20-inch diameter steel pipeline in Summit and Wayne Counties in northeast Ohio (Appendix A: Figures 1a-1c). The new pipeline installation will occur within an existing right-of-way (ROW) that is currently occupied by varying numbers of existing natural gas pipelines.

Dominion Resources, Inc. retained *Environment and Archaeology, LLC* to perform a wetland delineation of the proposed construction corridor for the Project. The survey area associated with the project consisted of a 75-foot wide by approximately 9-mile long, non-contiguous, linear corridor; the survey corridor widened to varying widths where multiple pipelines lay within a common, maintained easement. The additional survey mileage is attributed to three adjacent pipeline rights-of-ways that were investigated as potential alignment routes for the new installation and two proposed new corridor right-of-way alignments. This report does not include information regarding access roads, staging areas, pipeyards, or other additional temporary work spaces. An initial corridor survey was conducted on December 18-20, 2006. After the proposed pipeline centerline had been staked in the field, addendum field surveys were conducted on April 26 and 27, 2008 and May 14, 2008. Table 1 identifies the proposed Project components.

The field surveys performed by Environment and Archaeology, LLC were designed to identify any wetlands and waterbody encroachments within the project area in accordance with current state and federal regulations. The field survey identified 11 (eleven) wetlands and fourteen (14) stream encroachments of twelve (12) different stream channels along the proposed alignment corridor (Appendix A: Figures 1a-1d). This report details the methodology used during the survey and describes the survey findings.

2.0 METHODOLOGY

Environment and Archaeology, LLC utilized the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) to perform the delineations for this project. This methodology calls for a step-by-step approach to the delineation which identifies the presence or absence of three factors: hydrophytic vegetation, hydric soils, and wetland hydrology. Each factor must be present if a location is to be considered a jurisdictional wetland. Prior to visiting the site, all available resource information on the proposed project area was reviewed to determine the potential presence of wetlands. This information included U.S. Geological Survey 7.5' topographic maps, U.S. Department of Agriculture, Natural Resource Conservation Service (USDA, NRCS) soil surveys, National Wetlands Inventory maps, and Ohio Wetland Inventory Maps.

	mensions	Comments for Acres Surveyed/ Land Use			Additional acreage for survey accounts for splits in the existing ROWs and where alternative ROWs (5) were investigated.	<u> </u>
	Survey Dimensions	Acres Surveyed	ī		83.7	83.7
		Width (ft)	CASEMEN		75	75
yject 1ts Ohio		Length (ft)	NG ROW E		48,640	48,640
Table 1. East Ohio Gas Expansion Project Proposed Project Components Summit and Wayne Counties, Ohio	su	Comments for Acres Disturbed/Land Use	PIPELINE INSTALLATION WITHIN EXISTING ROW EASEMENT	Wayne and Summit Counties	Existing pipeline easement, line will be parallel to existing pipelines. Land use included urban/industrial turf, old field, pasture, agricultural field, upland scrub-shrub, upland mixed deciduous forest, palustrine emergent scrub/shrub wetland, and palustrine emergent scrub/shrub wetland, and palustrine emergent scrub/shrub forested wetland complex.	1
Easi Pr.	ruction Dimensions	Disturbance (acres)	PIPELINE INST			29
	Constr	Width (ft)	NEW		09	
		Length (ft)			48,640	48,640
		Diameter (in)			20	
	Project	Facilities			Chippewa Station to Shoop Station	SUBTOTAL

After a review of the agency resource information, Environment and Archaeology, LLC conducted a field delineation of the survey corridor. Environment and Archaeology, LLC utilized the routine on-site method for the delineation. Representative plots were taken within the project area wherever a change in the vegetation, soils, or hydrology became apparent. During sampling, a determination was made as to whether the plot was wetland or upland. If an area was determined to be wetland, additional sampling of soils, vegetation and hydrology was performed to determine the boundaries of the wetland area. Dominant vegetation was determined by estimating percent areal coverage for the most prevalent species which cumulatively totaled 50 percent of the areal coverage along with any other single species accounting for at least 20 percent coverage within a plot. Each species was assigned a wetland indicator status (Reed 1988).

If wetlands were identified during the field survey, the wetland/upland boundary of each wetland was marked with pink flagging tape. A handheld GPS unit was used to mark each flag location. Each wetland was described in accordance with characteristics assigned by the United States Fish and Wildlife Service (1979) and photo-documented. Total size of each identified wetland area was estimated based on field observations and ArcGIS mapping measurements.

3.0 AGENCY RESOURCE INFORMATION

Prior to initiation of the field survey, available agency resource information was reviewed to determine the likelihood of wetlands being present within the proposed survey corridor. The corresponding National Wetland Inventory Maps have been prepared by the United States Fish and Wildlife Service; the Ohio Wetland Inventory Maps have been prepared by the Ohio Department of Natural Resources; the USDA Soil Surveys for Summit and Wayne Counties, Ohio have also been published (USDA 1990 and 1984, respectively).

3.1 U.S. Geological Survey (USGS) Map

New Pipeline Installation

The survey areas associated with the new pipeline installation are located on the the Doylestown, Ohio and Canal Fulton, Ohio 7.5-minute USGS topographic maps (Appendix A: Figures 1a-1c). The alignment has been primarily routed along existing pipeline casements in the Clinton, Ohio and Manchester, Ohio vicinities; the pipeline kick-off occurs west of Silver Creek and terminates west of the Nimisila Reservoir. The elevation associated with the new pipeline installation ranged from approximately 585 feet to 1,200 feet above mean sea level (AMSL) and the terrain was comprised of a mix of open lands and forest across level to occasional areas of moderately steep slope aspects.

The entire pipeline installation portion of the proposed project is located with the Tuscarawas River Basin. The new pipeline installation will cross the following USGS-identified streams along its proposed alignment:

- Intermittent tributary to Chippewa Creek (S1)
- Silver Creck (S2)

- Intermittent tributary to Tuscawaras River (S3); three pipeline centerline crossings along proposed alignment and one additional crossing occurs along a proposed alternate route)
- Tuscarawas River (S4)
- Perennial tributary to the Tuscawaras River (S5)
- Perennial tributaries to Nimisila Creek (S6, S7, S10)
- (Stream S7a, S8, S9, and S10a were unmapped ephemeral stream channels)

Based on the field investigation, a total of six (6) perennial stream crossings, four (4) intermittent stream crossings of two intermittent streams, as well as four (4) ephemeral stream crossings were identified within the survey area associated with the new pipeline installation; the alternate route provided an additional crossing of an intermittent tributary to Tuscawaras River (S3). Additional information regarding the USGS-identified waterbodies has been outlined in Table 3 and Appendix A.

3.2 National Wetland Inventory (NWI) Map

New Pipeline Installation

The survey areas associated with the new pipeline installation and the addition of a building at the Chippewa Compressor Station are located on the following NWI maps: Doylestown and Canal Fulton (Appendix B: Figures 2a-2d). The NWI maps identified five (5) surface water complexes within or near the new pipeline construction corridor:

- R5OWZ (Canal Fulton, Ohio NWI Map) Riverine, upper perennial, open water, regularly flooded water regime. Wetland W-1 and Silver Creek/Rogue Hollow corresponded with this mapped NWI location.
- PSS1C/PEMC (Canal Fulton, Ohio NWI Map) Palustrine, scrub/shrub wetland system with broad-leaved deciduous vegetation and a seasonally flooded water regime. Wetland W-7a and W-7b was located in the vicinity of area mapped on the NWI as PSS1C/PEMC. Wetland W-7b also possessed a large palustrine forested component in this mapped area.
- R20WZ (Canal Fulton, Ohio NWI Map) Riverine, lower perennial, open water, regularly flooded water regime. The Tuscarawas River (Stream 4) corresponded with this NWI-mapped waterbody location.
- PSS1Y/PEMY (Doylestown, Ohio NWI Map) Wetland complex including a palustrine, scrub/shrub wetland system with broad-leaved deciduous vegetation and a saturated/semipermanent/seasonal water regime and a palustrine emergent wetland system with a seasonally flooded water regime. Wetland W-9a and W-9b was located in a portion of the area mapped on the NWI as PSS1Y/PEMY.

• PSS1Y/PEMY (Doylestown, Ohio NWI Map) - Wetland complex including a palustrine, scrub/shrub wetland system with broad-leaved deciduous vegetation and a saturated/semipermanent/seasonal water regime and a palustrine emergent wetland system with a seasonally flooded water regime. Wetland W-10 was located immediately south of this NWI-mapped wetland complex.

The absence of NWI-identified wetlands in portions of the project area, however, does not preclude the possible existence of wetlands in the area. NWI maps utilize high altitude, stereoscopic, aerial photography, and is partially dependent on the conditions at the time of the photograph. In many cases, small wetlands may not be identified. The determination of the presence of wetlands is based on vegetation, hydrology, and topography. During the field surveys performed between December 2006 and May 2008, 11 wetlands/wetland complexes were identified within the pipeline survey area. Additional information regarding the field-delineated wetlands has been outlined in Table 3 and Appendices E and F.

3.2.1 Ohio Wetland Inventory Maps

New Pipeline Installation

Ohio Wetlands Inventory Maps have been published for Summit and Wayne Counties, Ohio and was downloaded for GIS mapping (http://www.dnr.state.oh.us/dnap/wetlands/mapping). The survey areas associated with the new pipeline installation are located in Appendix C: Figures 3a-3c. The OWI maps identified several wetlands (woods on hydric soils, scrub/shrub wetlands, wet meadow, and shallow marshes) within or near the new pipeline construction corridor. The following OWI wetlands corresponded approximately to those identified during the field survey.

- Woods on hydric soils Wetland 7a;
- Woods on hydric soils/scrub-shrub/wet meadow Wetland 7b;
- Woods on hydric soils Wetland 9a;
- Shallow marsh/woods on hydric soils/wet meadow Wetland 9b;
- Woods on hydric soils Wetland 10

The Ohio Wetlands Inventory is based on analysis of satellite data and is intended solely as an indicator of wetland sites for which field review should be conducted. The satellite data reflects conditions during the specific year and season the data was acquired and all wetlands may not be indicated. The Ohio Wetlands Inventory for Summit and Wayne Counties were produced from April 1987 Landsat Thematic mapper data using ERDAS Image processing software.

3.3 Natural Resource Conservation Service (NRCS) Soil Survey

The U.S. Department of Agriculture publishes Soil Surveys for almost every county in the United States. The information in the surveys is used by planners and agrarians to determine the appropriate uses and limitations of a particular soil. Soil Surveys identify prime farmlands, slopes, waterways and hydric soils within the county. Hydric soils are soils which formed under saturated

conditions. The presence of hydric soils on a site indicates the historical presence of conditions which would favor the development of wetlands. The presence of hydric soil types on a site, however, does not guarantee the presence of wetlands. Due to changes in vegetational patterns, hydrology, and hydrophytic vegetation, wetlands may no longer be present within the area.

A brief description of each soil type located within the survey area, as well as its hydric status is located in Table 2 and Figures 4a-4c in Appendix D illustrate the location of the project.

4.0 SITE DESCRIPTION

The survey area for the new pipeline installation began at the Dominion EOG Chippewa Station in Wayne County and extended east to a facility tie-in at the Shoop Station north of Comet, Ohio in Summit County. The survey routes followed existing pipeline right-of-way easements which varied in their level of clearing maintenance. A survey width was defined to be a 75-foot width that widened to contain an entire maintained easement where multiple pipelines occupied a common corridor. A 60-foot width has been projected to be the required construction width to allow successful installation of the new 20-inch diameter pipeline.

At the time of the December field survey, Dominion East Ohio had not determined whether the new pipeline installation would be placed to the north or south side of the right-of-way. A 100-foot survey width was presumed to contain the entire necessary construction width and where easement limits were not easily discernable.

The April and May 2008 site visits narrowed the delineation boundaries to an approximate 60-foot width that was centered on the proposed and staked pipeline centerline. Again, right-of-way maintenance varied along the corridor, and as such, some delineation boundaries did extend beyond a 60 and up to a 100-foot width, in order to assure that all potential areas of impact were included.

Nine (9) land types were identified within the survey area associated with the new pipeline installation: 1) urban/industrial turf, 2) old field, 3) pasture, 4) agricultural field, 5) upland scrubshrub, 6) upland mixed deciduous forest, 7) palustrine emergent wetland, 8) palustrine emergent scrub/shrub wetland, and 9) palustrine emergent scrub/shrub forested wetland complex. A brief description of each vegetational community is provided below.

Urban/industrial turf: Urban/industrial turf within the survey area was comprised of impervious and semi-impervious surfaces such as existing paved and/or gravel roadways and residential driveways. The proposed new alignment will cross numerous township, county and state maintained roads and one railroad grade – Hametown Road, Fraze Drive, SR21, Clinton Road, CR 17, Township Road 31, Township Road 57, CR 221, CR235, CSX railroad, Steve Drive, Manchester Road, Weaver Road, Regay Drive, Canterbury Drive and CR50.

	Se	Table 2. Dil Types Crossed by the East Ohio Gas Expansi Summit and WayneCounties, Ohio	on Project	
Component	County	Soil Type	Symbol	Hydric Status
		Berks silt loam, 18-25 percent slopes	BrE	Non-hydric
		Berks silt loam, 25-70 percent slopes	BrF	Non-hydric
		Bogart loam, 2-6 percent slopes	BtB	Non-hydric
		Canfield silt loam, 0-2 percent slopes	CdA	Non-hydric
		Canfield silt loam, 2-6 percent slopes	CdB	Non-hydric
		Canfield silt loam, 6-12 percent slopes, croded	CdC2	Non-hydric
		Euclid silt loam, occasionally flooded	ΕυΛ	Hydric
	Wayne	Loudonville silt loam, 2-6 percent slopes	LnB	Non-hydric
		Loudonville silt loam, 6-12 percent slopes, croded	LnC2	Non-hydric
		Loudonville silt loam, 12-18 percent slopes	LnD	Non-hydric
		Melvin silt loam, frequently flooded	Md	Hydric
		Orrville silt leam, occasionally flooded	Or	Non-hydric
Chippewa Station to		Oshtemo sandy loam, 2-6 percent slopes	OtB	Non-hydric
Shoop Station		Wooster-Riddles silt loams, 2-6 percent slopes	WuB	Non-hydric
		Bogart leam, 2 to 6 percent slopes	BgB	Non-hydric
		Canfield silt loam, 2 to 6 percent slopes	CdB	Non-hydric
		Dekalb sandy loam, 12 to 18 percent slopes	DkD	Non-hydric
		Dekalb sandy loam, 18 to 25 percent slopes	DkE	Non-hydric
	Summit	Fitchville silt loam, 2 to 6 percent slopes	FcB	Non-hydric
		Frenchtown sift loam	Fr	Hydric
		Holly silt loam, alkaline	Ну	Hydric
	1	Lobdell silt loam	Le	Non-hydric
		Ravenna silt loam, 0 to 2 percent slopes	ReΛ	Hydric
		Sebring silt loam	Sb	Hydric
	Ì	Sloan silt loam	So	Hydric
		Wooster silt loam, 2 to 6 percent slopes	WuB	Non-hydric
		Wooster silt leam, 6 to 12 percent slopes, moderately croded	WuC2	Non-hydric
		Wooster silt loam, 12 to 18 percent, moderately croded	WuD2	Non-hydric
		Wooster silt loam, 25 to 50 percent slopes, moderately eroded	WuF2	Non-hydric

In addition to the impervious and semi-impervious surfaces, the urban/industrial turf also included maintained lawn vegetation identified around surrounding roadways, adjacent to existing residential properties, and within the existing pipeline ROW. The proposed alignment will also travel through the grounds of the Dominion EOG Franklin Station.

Old field: Old field vegetation was identified adjacent to and within the existing and proposed pipeline ROW. Dominant vegetation within these areas included fescue (Festuca spp.), tall ironweed (Vernonia gigantea), bottle brush grass (Elymus hystrix), yarrow (Achillea millefollium), Queen Anne's lace (Daucus carota), foxtail grass (Setaria spp.), ground ivy (Glechoma hederaceae), goldenrod (Solidago spp.), red clover (Trifolium pratense), yellow rocket (Barbarea vulgaris), white clover (Trifolium repens), dandelion (Taraxacum officinale), English plantain (Plantago lanceolata), ground ivy (Glechoma hederacea), chickweed (Stellaria spp.), curly dock (Rumex crispus), and pokeweed (Phytolacca americana).

Pasture: Pasture lands were noted adjacent to and within portions of the existing and proposed ROW in areas containing livestock. Typical species within the pasture included typical pasture grasses (Festuca spp., Poa spp.), goldenrod (Solidago spp.), red clover (Trifolium pratense), Queen Anne's lace (Daucus carota), burdock (Arctium minus), yarrow (Achillea millefollium), and field garlic (Allium vineale).

Agricultural field: Land utilized for the agricultural production of row crops was present adjacent to and within portions of the existing and proposed ROW. Based on the remnants of the 2006 crop season, it appeared that corn (Zea mays) and soybean (Glycine max) had been harvested.

Upland scrub-shrub: Upland scrub-shrub vegetation was located adjacent to and within portions of the existing and proposed ROW. Dominant vegetation within these areas included the following species: staghorn sumac (Rhus typhina), multiflora rose (Rosa multiflora), brambles (Rubus spp.), honey locust (Gleditsia triacanthos), wild senna (Cassia hebecarpa), honeysuckle (Lonicera japonica, Lonicera spp.), teasel (Dipsacus sylvestric), goldenrod (Solidago spp.), indian hemp (Apocynum cannabinum), greenbrier (Smilax spp.), and wild grape (Vitis spp.).

Upland mixed deciduous forest: Mixed deciduous forest was located adjacent to and within the survey corridor. This vegetational community consisted of a oak-maple canopy that was dominated by the following species: sugar maple (Acer saccharum), white oak (Quercus alba), American beech (Fagus grandifolia), and red oak (Quercus rubra). The most common sub-dominant species including the following: black cherry (Prunus serotina), sassafras (Sassafras albidum), serviceberry (Amelanchier sp.), flowering dogwood (Cornus florida), white pine (Pinus strobus), sweet gum (Liquidambar styraciflua), and common hackberry (Celtis occidentalis). The herbaceous understory mix included garlic mustard (Allaria petiolata), violets, (Viola spp.), multiflora rose (Rosa multiflora), Christmas fern (Polystichum acrostichoides), greenbriar, may apple (Podophyllum peltatum), trout lily (Clintonia borealis), poison ivy (Taraxicum radicans), and spring beauty (Claytonia virginica).

Riparian growth along some stream included black willow (Salix nigra), box elder (Acer negundo), silver maple (Acer saccharum), and red maple (Acer rubrum) and stinging nettle (Utica dioica).

Palustrine emergent wetland: Canary grass was predominant in many of the emergent wetlands (Phalaris arundinacea), as was skunk cabbage (Symplocarpus foetida). The following species were also common occurences: soft rush (Juncus effusus), common cattail (Typha latifolia), yellow nut-sedge (Cyperus esculentus), Carex (Carex spp.), deer tongue grass (Dichanthelium clandestinum), ironweed (Vernonia spp.), moneywort (Lysimachia nummularia), foxtail grass (Setaria sp.), agrimony (Agrimonia parviflora), arrowhead (Sagittaria latifolia), spearmint (Mentha spicata), spike rush (Eleocharis sp.), lady's thumb (Polygonum persicaria), jewelweed (Impatiens spp.), rough-stemmed goldenrod (Solidago rugosa), creeping buttercup (Ranunculus repens), beggar ticks (Bidens sp.), and sensitive fern (Onoclea sensibilis).

Palustrine emergent scrub/shrub wetland: Complexes of palustrine emergent scrub/shrub wetlands possessed a wider diversity of hydrophytic vegetation. The wetland was dominated by common cattail (Typha latifolia), soft rush (Juncus effusus), yellow nut-sedge (Cyperus esculentus), ironweed (Vernonia spp.), greenbrier (Smilax spp.), Carex (Carex spp.), beggar ticks (Bidens spp.), rice cut grass (Leersia oryzoides), green bulrush (Scirpus atrovirens), moneywort (Lysimachia nummularia), multiflora rose (Rosa multiflora), deer tongue grass (Dichanthelium clandestinum), Viburnum (viburnum dentatum), rough-stemmed goldenrod (Solidago rugosa), boneset (Eupatorium perfoliatum), box elder saplings (Acer negundo), willow saplings (Salix spp.), speckled alder (Alnus incana), and hawthorn (Crategus spp.).

Palustrine emergent scrub/shrub forested wetland complex: The forested component possessed the following tree species: sycamore (Platanus occidentalis), pin oak (Quercus palustris), slippery elm (Ulmus rubra), cottonwood (Populus deltoides), green ash (Fraxinus pensnsylvanicus), and sweet gum (Liquidambar styraciflua). The scrub/shrub component of the wetland area was supported by soft rush (Juncus effusus), yellow nut-sedge (Cyperus esculentus), ironweed (Vernonia spp.), greenbrier (Smilax spp.), Carex (Carex spp.), beggar ticks (Bidens spp.), rice cut grass (Leersia oryzoides), green bulrush (Scirpus atrovirens), moneywort (Lysimachia nummularia), multiflora rose (Rosa multiflora), deer tongue grass (Dichanthelium clandestinum), rough-stemmed goldenrod (Solidago rugosa), boneset (Eupatorium perfoliatum), willow saplings (Salix spp.), and hawthorn (Crategus spp.).

5.0 DELINEATION RESULTS

The field delineation of the survey area identified eleven (11) wetlands and twelve (12) streams for a total of fourteen (14) stream crossing locations that occurred along one contiguous length of right-of-way beginning at Chippewa Station in Wayne County and ending at Shoop Station in Summit County. A photolog of each surface water and wetland is available in Appendix E. *Environment and Archaeology, LLC* also investigated five right-of-way easements that were considered by Dominion as alternate locations for the new pipeline installation. The alternate locations were situated in the following areas:

- possible new right-of-way acquisition, paralleling the west side of Fraze Road, crossing to the cast side of Fraze Road and rejoining the Stor 3300 and L#3399 right-of-way;
- cast of Fraze Road where new right-of-way acquisition would extend south and east of residential parcels, situated at an approximate 30-foot offset from residential property lines;
- west of Clinton Road continuing east to Cleveland Massilion Road (CR17) where an existing ROW containing pipelines Stor4700 and #Stor3300;
- cast and west of the CSX railroad, where an existing right-of-way Stor #4700- occurs north of the proposed route; and
- cast of Nimisila Road at Wetland 9b and following the pipeline easement containing L#3399 and CS#3762

5.1 Surface Waters within the Primary Route Survey Area

During the field surveys, 12 surface waters were identified within the survey area.

New Pipeline Installation

The survey corridor associated with the new pipeline installation crossed or encroached upon a total of twelve (12) streams for a total of fourteen stream crossings; Stream 3 was crossed a total of three times. The twelve (12) streams crossed by the project consisted of:

- six (6) perennial stream crossings (S2, S4, S5, S6, S7, and s10);
- two (2) intermittent stream crossings (S1, S3); and
- four (4) ephemeral stream crossings (S7a, S8, S9, and S10a).

A detail of each stream crossing regarding the identified stream channels has been outlined in Table 3, identified on the Canal Fulton, Ohio and Doylestown, Ohio quadrangles in Appendix A and photodocumented in Appendix D.

5.2 Palustrine Wetlands within the Primary Route Area

During the field survey, a total of eleven (11) palustrine wetlands were identified within the survey areas. Approximate wetland acreages were determined based on the field investigation and ArcGIS mapping measurements (Table 3). The common vegetation identified within each wetland type is addressed in Section 4.0; species-specific information for each wetland, in addition to soil colors/textures data and hydrology criteria can be found in Appendix F: Routine Wetland Delineation Data Sheets. The Ohio Rapid Assessment Method for Wetlands was completed for each wetland identified during the field survey (Appendix G).

	Wal	Waterbodies within the proposed F. Summit and V	Table 3. within the proposed Franklin 20" Gas Storage Pipeline Corridor Summit and Wayne Counties, Ohio	ge Pipeline Cor	ridor		
Environment and Archaeology, LLC Waterbody #	Waterbody Type	NWI/ USGS -identified/ ORAM Category	Bank Dimensions (feet)	Water Dimensions	ROW Width Surveyed/ Construction Width (feet)	Length of Wetland Crossing (approx.)	Approx. Acreage (const. width)
		PROPOSED NEW 1	PROPOSED NEW PIPELINE INSTALLATION	Z			
WI	PEM Wetland	Category 1		NA	100/60	20.	0.03
130	Intermittent	Unnamed tributary to Chippowa Croek	1-2' deep x 7-8'' wide	1-2,	100/60	***	•-•
W2	PEM Wetland	Category 1 or 2		., E-0	190/60	270'	0.43
\$2	Perennial	Silver Creek/Rogue Hollow	25-30' wide x 4' deep	2-3'	100/60		
W3	PEM Wetland	Category 1 or 2		0	100/60	210'	0.33
W4	Vernal Pool	Category 1		2-0	100/60	30,	0.02
W.5 S3	PEM Wotland (fringe wetland along stream channel)	Category 1		»O	09/001	10.	0.005
	Intermittent	Unnamed tributary to Tusearawas River (1" Crossing)	20' wide x 4' deep	.,5-0	100/60		-
W6	PEM Wetland	Category 1		7.0	100/60	110'	0.03
S3	Intermittent	Unnamed tributary to Tusearawas River (2"d Crossing)	20' wide x 4' deep	3"-2'	09/001	;	i
W7a	PEM/SS Wetland	Category 2	I	Depth Unavailable	09/001	750' west of railroad	0.94

	Wa	Table 3. Waterbodies within the proposed Franklin 20" Gas Storage Pipeline Corridor Summit and Wayne Counties, Ohio	Table 3. he proposed Franklin 20" Gas Stora Summit and Wayne Counties, Ohio	ge Pipeline Cor	ridor		
Environment and Archaeology, LLC Waterbody #	Waterbody Type	NWI/ USGS -identified/ ORAM Category	Bank Dimensions (feet)	Water Dimensions	ROW Width Surveyed/ Construction Width (feet)	Length of Wetfand Crossing (apl ox.)	Approx. Acreage (const.
		Unnamed tributary to Tuscarawas River	1.5-2' widn x 2.5' deep	۶,	100/60		
W7b	O. Jd	PSS1C-PEMC/Category 2		Depth Unavailable	09/001	170' railroad and east to Towpath	66.0
W7b		PSS1C/PEMFO/ Category 3				700' located east of Towpath to Tuscarawas Rivet	
S4	Peronnial	Tuscarawas River (Section 10 Waterbody)	70' wide x 10' deep	Depth Unavailable	100/60		:
\$\$	Perennial	Unnamed tributary to Tuscarawas River	5' wide x 2-3' deep	3-12"	100/60		:
W8	PEM Wetland	Category l			09/001	35'	0.04
W9a	PEM Wetland	Modified Category 2		***	100/60	85'	0.12
W 9b	PEM Wetland	PSS1Y-PEMY/Category l	-	1-2.5"	100/60	515'	99'0
S6	PEM fringe wedand	Unnamed tributary to Nimisila Creek	10-15' wide x 10'' deep	1-8,,	100/60	.01	
S7a W10	ophemeral	Unnamed tributary to Nimisila Creek	strcam channel parallels ROW	4-10"	100/60		0.46
(s)	PEM'SS Wetland	· / Category 2	:	0-3"	100/60	470'	:
	Peronnial	Unnamed tributary to Nimisila Creek	10' wide x 3' deep	5-6"			

	Wa	Table 3. Waterbodies within the proposed Franklin 20" Gas Storage Pipeline Corridor Summit and Wayne Counties, Ohio	Table 3. he proposed Franklin 20" Gas Storag Summit and Wayne Counties, Ohio	ge Pipeline Cor	ridor		
Environment and Archaeology, LLC Waterbody #	Waterbody Type	NWL/USGS -identified/ORAM Category	Bank Dimensions (teet)	Water Dimensions	ROW Width Surveyed/ Construction Width (feet)	Length of Wetland Crossing (approx.)	Approx. Acreage (const. width)
88	Ephemeral	Unnamed tributary to Nimisila Creek	4' wide x 2' deep	0-3" pooled	09/001	****	
68	Ephemeral	Unnamed tributary to Nimisila Creek	7' wide x 4' deep	0.7"	100/60		:
S10a	ophemeral	Unnamed tributary to Nimisila Crock	4' wide x 2' deep where stream channel parallels north side ROW 8' wide x 5' deep where stream channel parallel south side of ROW at confluence with \$10	0.1	100/60	ı	i
\$10	Perennial	Unnamed tributary to Nimisila Creek	10-12' wide x 7-8' deep	9-0			
W11	PEM Wetland	— / Category 1	0-3"		100/60	9,	0.02
TOTAL WETLAND IMPACT AREA	ETLAND FAREA						4.07

New Pipeline Installation

The survey corridor associated with the new pipeline installation crossed a total of eleven (11) palustrine wetlands including:

- Eight (8) palustrine emergent wetlands (W1, W2, W3, W5, W6, W8, W9b, and W11);
- One (1) vernal pool (W4);
- Four palustrine wetland complexs:
 - palustrine emergent/forested/open water wetland complex (W7a);
 - palustrine emergent/scrub-shrub/forest/open water complex (W7b)
 - palustrine emergent/scrub-shrub (W9a); and
 - palustrine emergent/scrub-shrub/vernal pool wetland complex (W10).

The survey corridor typically exceeded the proposed 60-foot wide construction corridor. The construction corridor consisted of existing ROW that varied in maintenance level. Both the Routine Wetland Delineation Data Sheets and Ohio Rapid Assessment Method Data Sheets correspond only to those portions of the wetlands delineated within the construction corridor.

5.3 Surface Waters and Wetlands within the Alternate Segments

During the field surveys surface waters were identified within the alternate survey areas. These surface waters where extensions/continuations of streams and wetlands crossed by the primary route. A detail of each wetland and stream crossing has been outlined in Table 3, identified on the Canal Fulton, Ohio and Doylestown, Ohio quadrangles in Appendix A and photodocumented in Appendix F.

Alternate: West of and paralleling Fraze Road

Agricultural land comprised this proposed new alignment location that paralleled the west side of Fraze Road, crossed Fraze Road to the east, and then rejoined the existing pipeline ROW. No wetland or streams occurred along this alignment.

Alternate: East side of Fraze Road - South and East of existing residential area.

This route was denied survey access by the land owner. A mapping review indicated the potential for one stream channel.

Alternate: West of Clinton Road continuing east to Cleveland Massilion Road (CR17)/existing pipelines Stor4700 and Stor3300 right-of-way

Wetland conditions were not identified along this alternate segment. Stream 3 extends across this right-of-way and flows in a northwest direction.

Alternate: East and west of the CSX railroad following pipeline Stor#4700

This right-of-way segment contained Wetland 7a, 7b, and Stream 3. This route crossed a large wetland complex of a combination of palustrine emergent/scrub-shrub/forest that also included or was very near to open water areas.

Alternate: East of Nimisila Road at Wetland 9b and following the pipeline easements containing 20-inch L#3399/CS3762 and CS#4700/S2645

This right-of-way segment contained the large wetland complex of Wetland 9b and Stream 6. Stream 6 flows northwest across and beyond this easement. W9b as crossed by L#3399/CS3762 encompassed approximately 0.14 acre; W9b as crossed by CS#4700/S2645 encompassed approximately 0.37 acre.

6.0 CONCLUSIONS

In conjunction with the East Ohio Gas Expansion Project, Dominion East Ohio has proposed the installation of approximately 8.7 miles of the new Franklin 20-inch Storage Gas Pipeline in Summit and Wayne Counties in northeast Ohio. *Environment and Archaeology, LLC* has completed a wetland delineation of one contiguous length of survey corridor extending from the Chippewa Station to the Shoop Station, in addition to five segments of 'alternate' pipeline alignments that followed existing pipeline easements or new alignments. The survey, conducted on December 2006, and April-May 2008, identified eleven (11) wetlands and twelve (12) streams for a total of fourteen (14) stream crossings along the proposed alignment.

Successful construction of this project may require the coordination and clearance with the following agencies:

- Clearance from the Ohio Department of Natural Resources (ODNR);
- Clearance from the United States Fish and Wildlife Service;
- Clearance from the Ohio Historical Society;
- Clearance from the US Army Corp of Engineers, Huntington District, under Nationwide Permit 12 and Section 10 OR authorization under an Individual Permit application;
- Possible application of a Floodplain Permit Review/Development Permit from the Wayne County Planning Commission;
- 401 Water Quality Certification from the Ohio Environmental Protection Agency (OEPA) (see below).

OEPA has issued conditional 401 Water Quality Certification. General and Special Conditions applicable to the proposed project include (this is not a comprehensive list, but includes those most relevant to the project):

- The length of any buried utility line within any single waterbody shall not exceed twice the width of that waterbody at the location of the crossing;
- This Certification shall not authorize the installation of buried utility lines in more than five hundred (500) total linear feet (cumulative for the entire project) of forested wetlands (woody vegetation 6 meters or taller);
- Buried utility line stream crossings shall not exceed a total of three (3) per stream mile per stream;
- The total width of any mechanized land clearing or grading for buried utility lines shall not exceed twenty five (25) feet on either side of a utility line, or for a total width of fifty (50) feet on both sides of the utility line;
- All hydric topsoil removed from a trench shall be separated and saved for later placement as the topmost backfill layer when the trench is refilled;
- New buried utility lines crossing more than 1,500 feet (cumulative for the entire project) of surface waters (including isolated and non-isolated wetlands, and ephemeral, intermittent, and perennial streams (measured bank-to-bank) and with impacts located in three or more than two Ohio EPA 8-digit hydrologic units are not certified.
- Temporary or permanent wetland impacts to Category 1 or 2 wetlands for any single and complete project are limited to a maximum total of ½ acre.

Based on the final condition listed above, it appears that the proposed project would require at a minimum a Pre-Construction Notification (due to the need for a Section 10 permit) and Individual 401 Water Quality Certification. Note that the amount of wetland impact would need to be confirmed based on final construction drawings.

7.0 REFERENCES

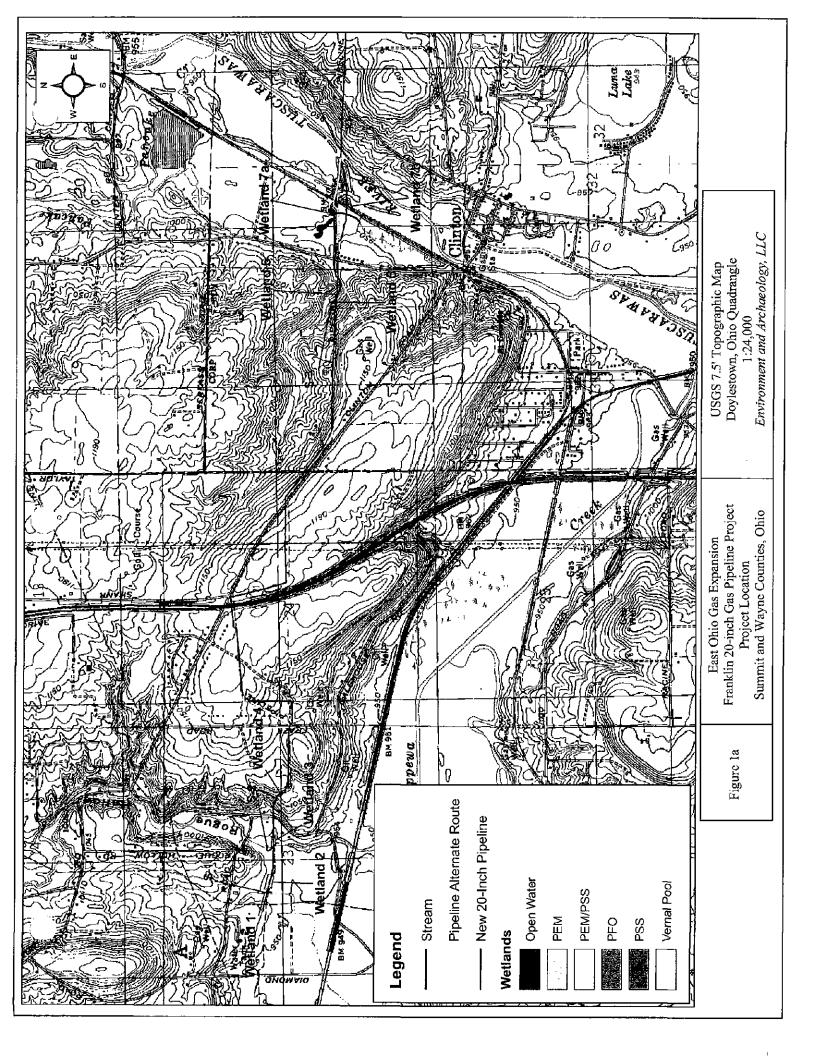
Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, Mississippi. 100 p. plus appendices.

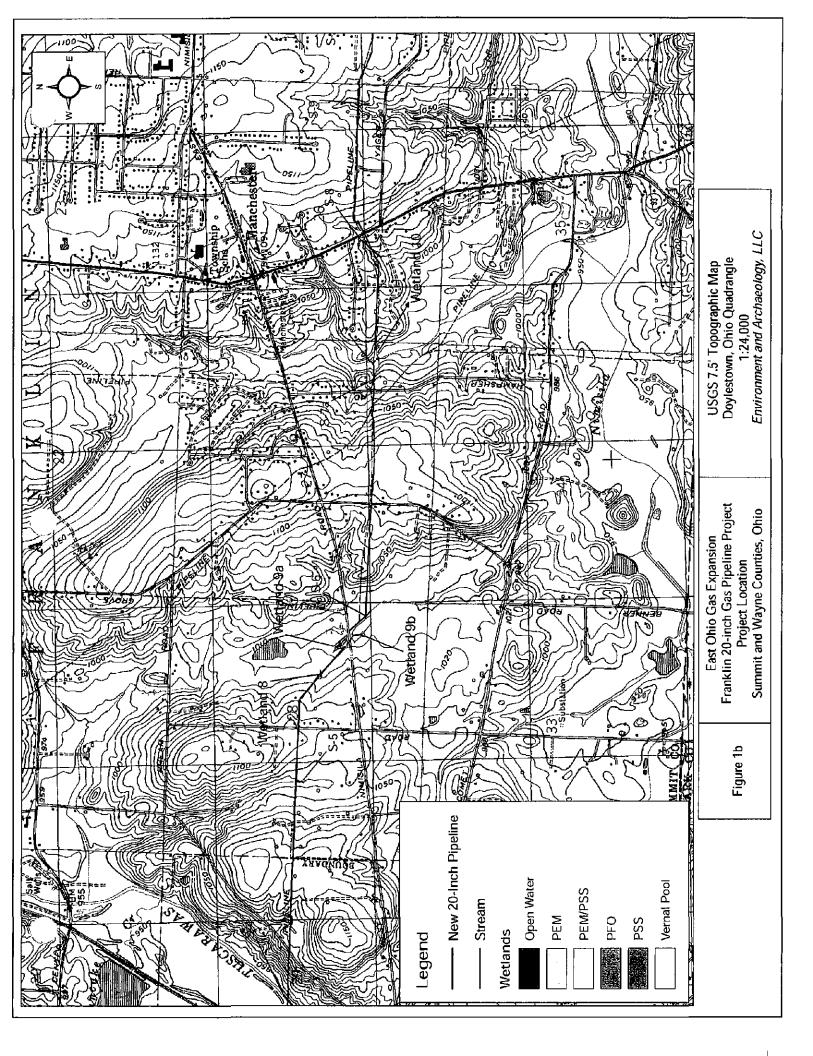
Munsell. 1992. Soil color charts. Macbeth/Kollmorgan Instruments. Newburgh, NY.

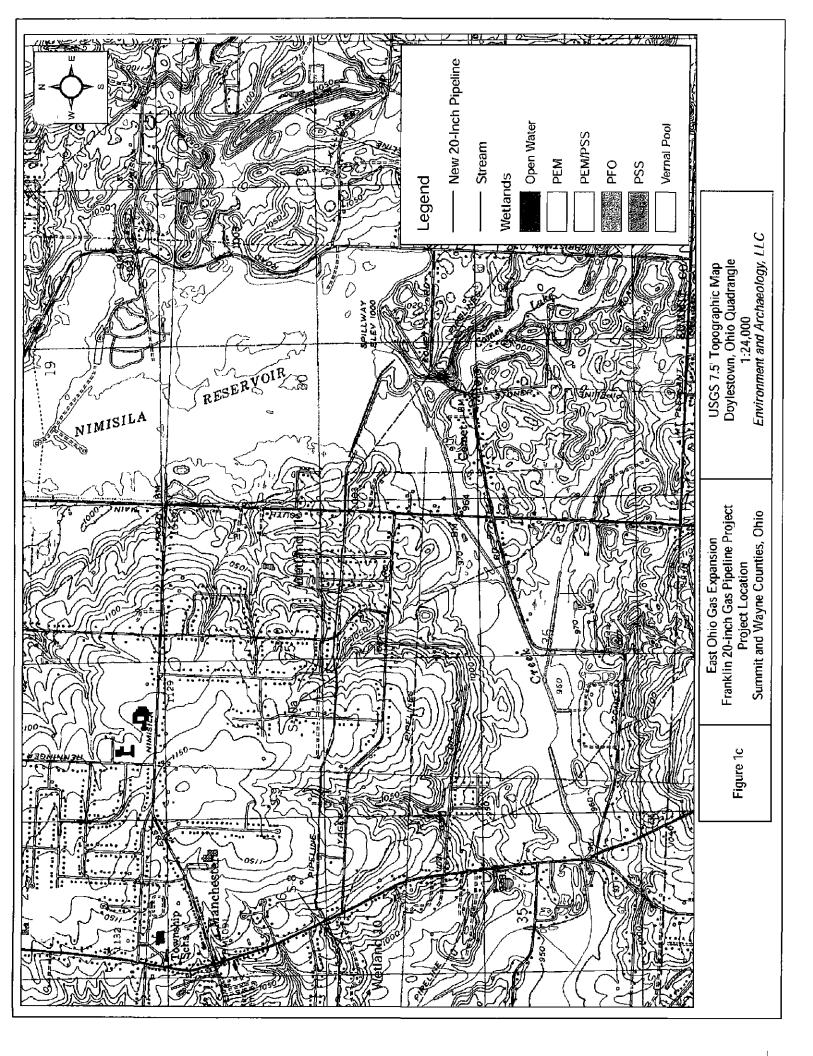
Reed, P. B. 1988. <u>National list of plant species that occur in wetlands: Northeast (Region 1).</u> U.S. Fish and Wildlife Service, Biological Report 88(26.1). 111 pp.

- U.S. Department of Agriculture. 1991. <u>Hydric Soils of the United States.</u> USDA-Soil Conservation Service. Washington, D.C.
- U.S. Department of Agriculture, Soil Conservation Service. 1990. Soil Survey of Summit County, Ohio. 117 p. plus appendices
- U.S. Department of Agriculture, Soil Conservation Service. 1984. Soil Survey of Wayne County, Ohio. 197 p. plus appendices

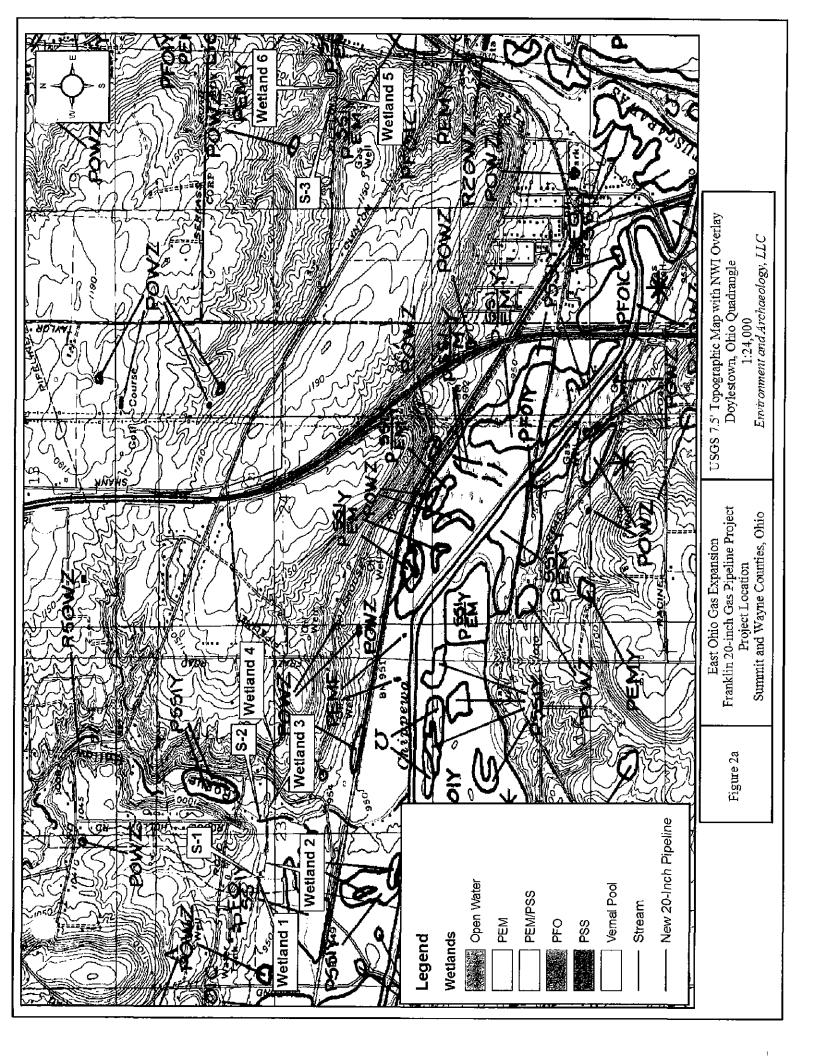
APPENDIX A
Figures 1a-1c USGS Topographic Maps

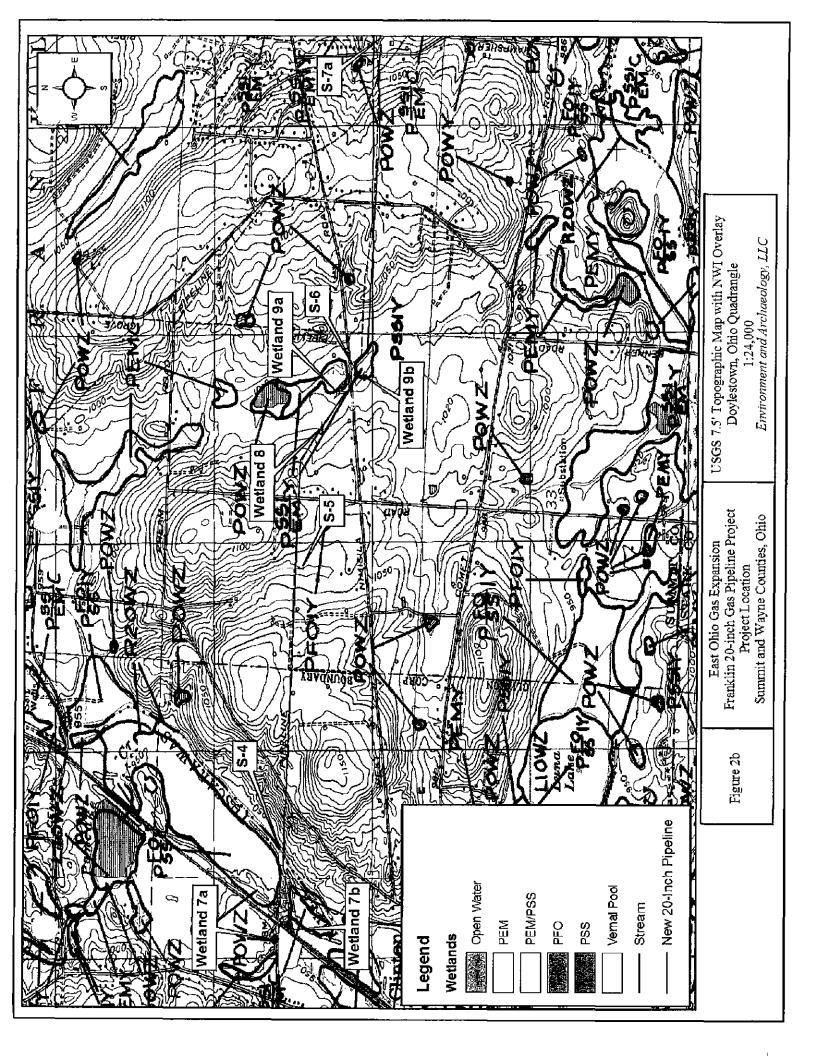


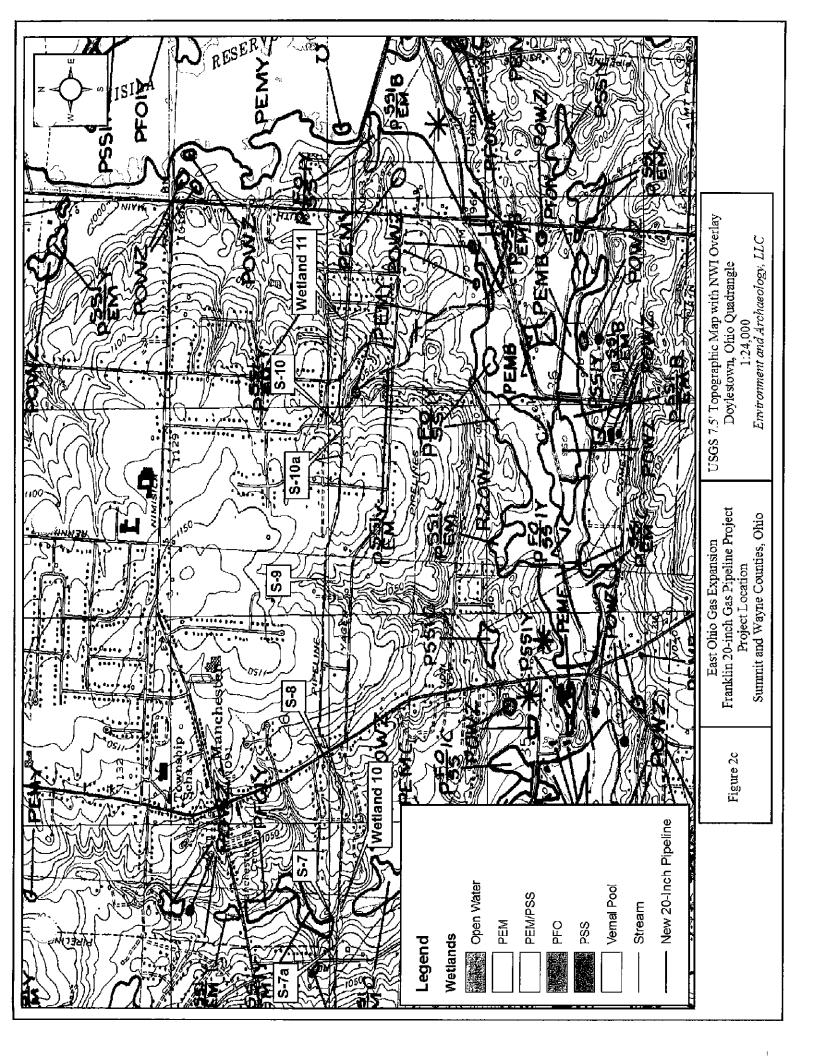




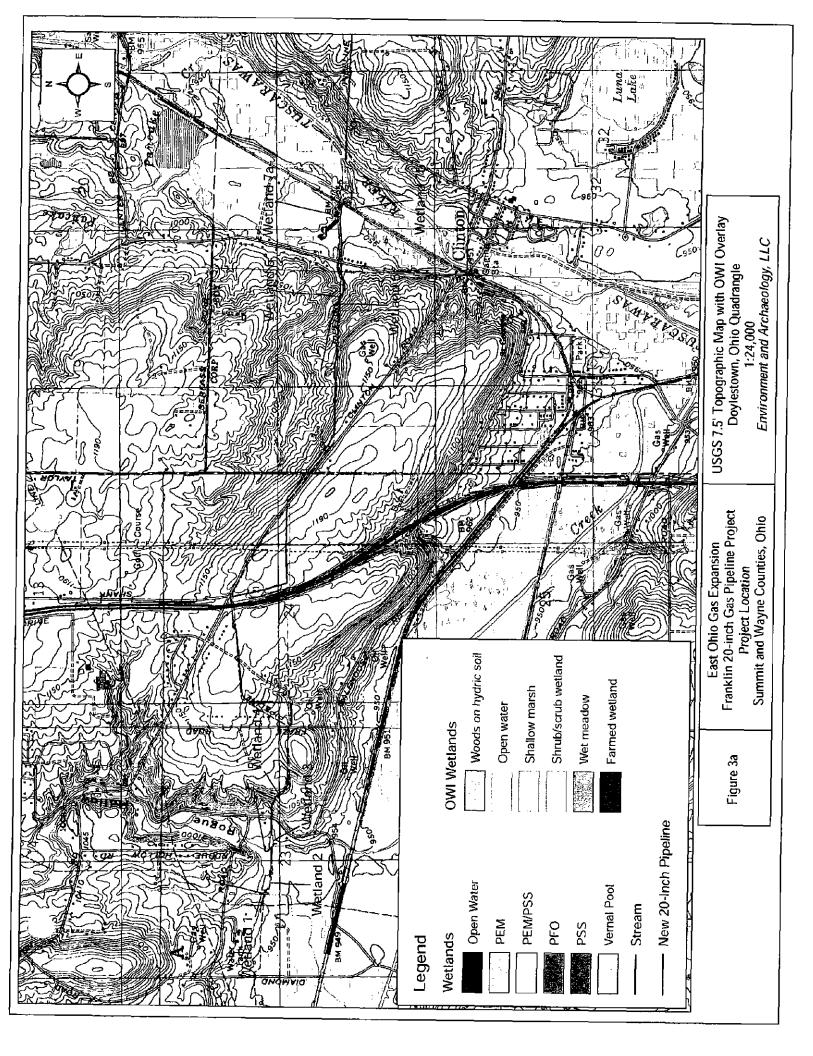
APPENDIX B
Figures 2a-2c National Wetlands Inventory Maps

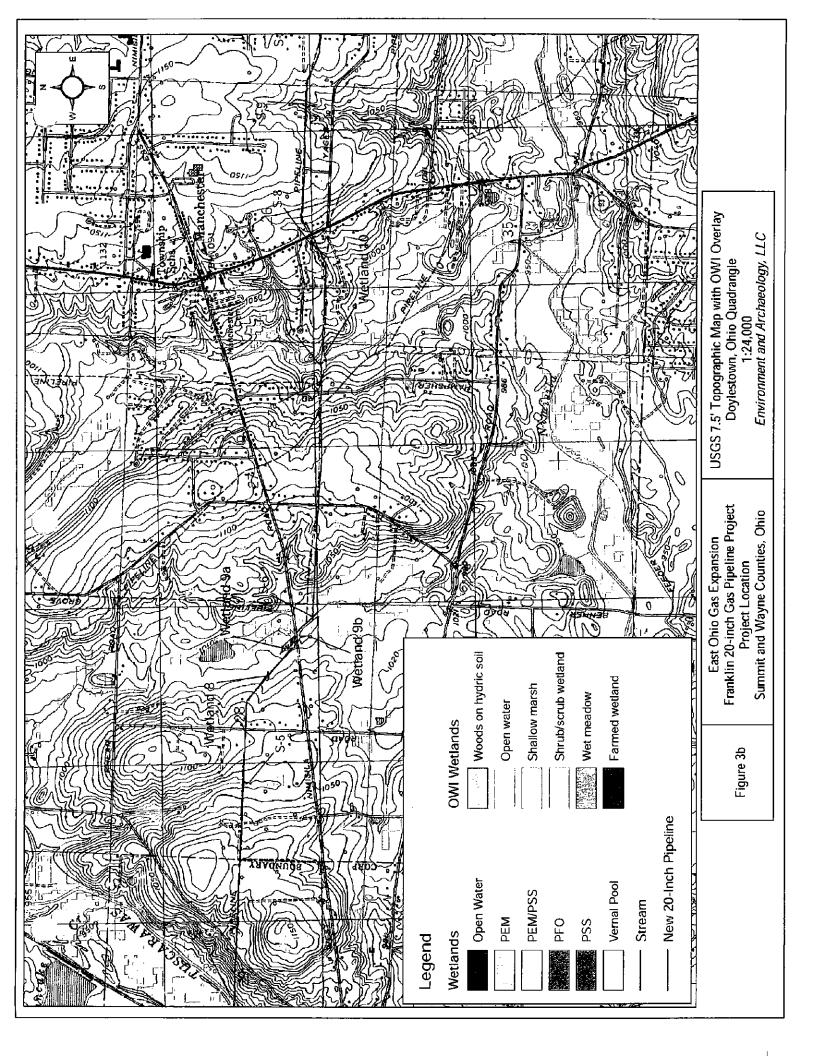


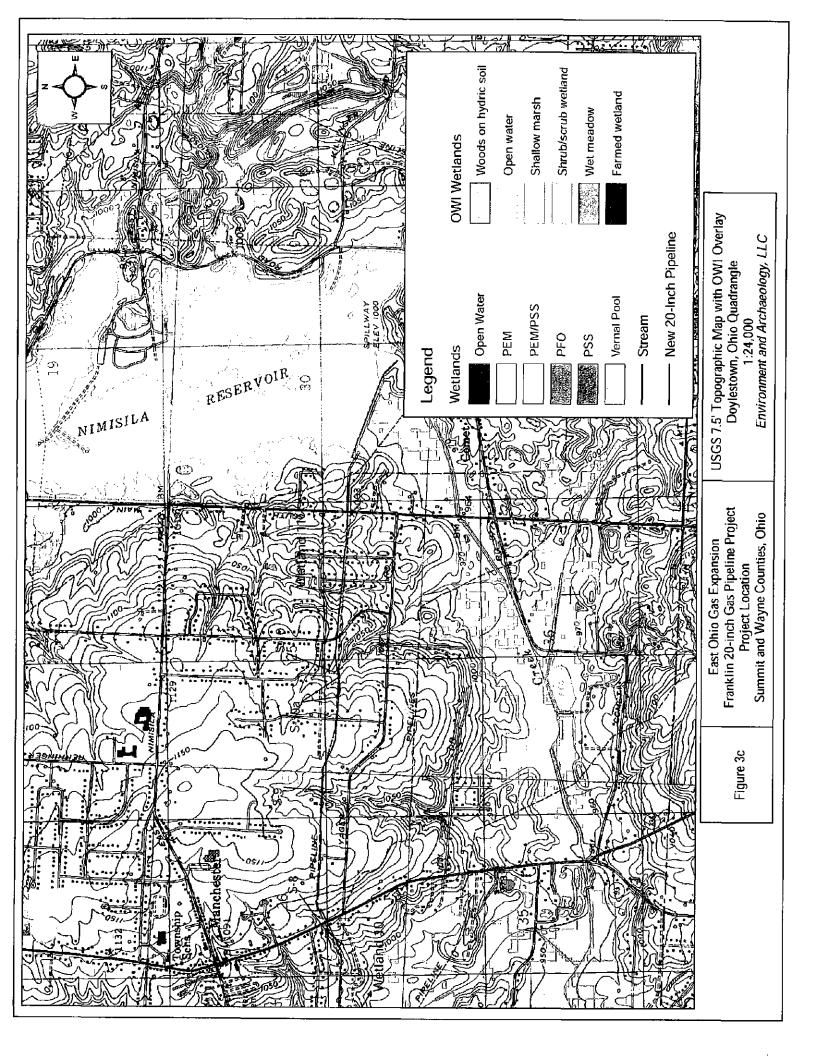




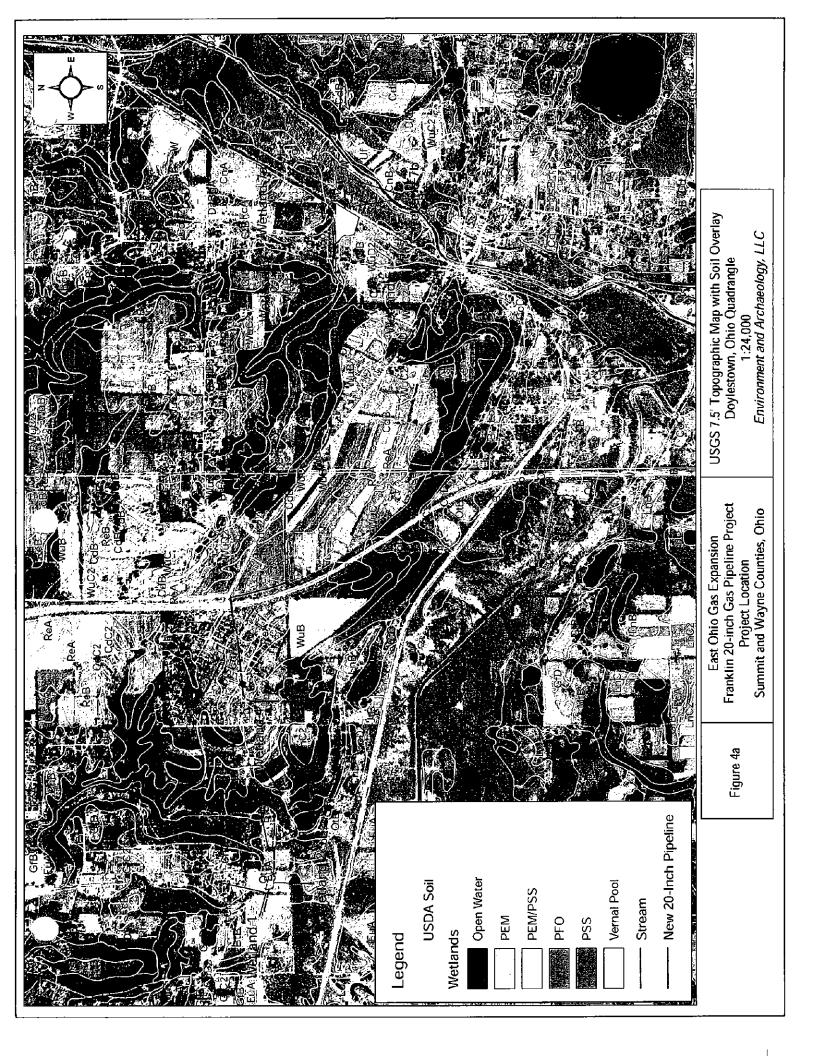
APPENDIX C
Figures 3a-3c Ohio Wetlands Inventory Maps

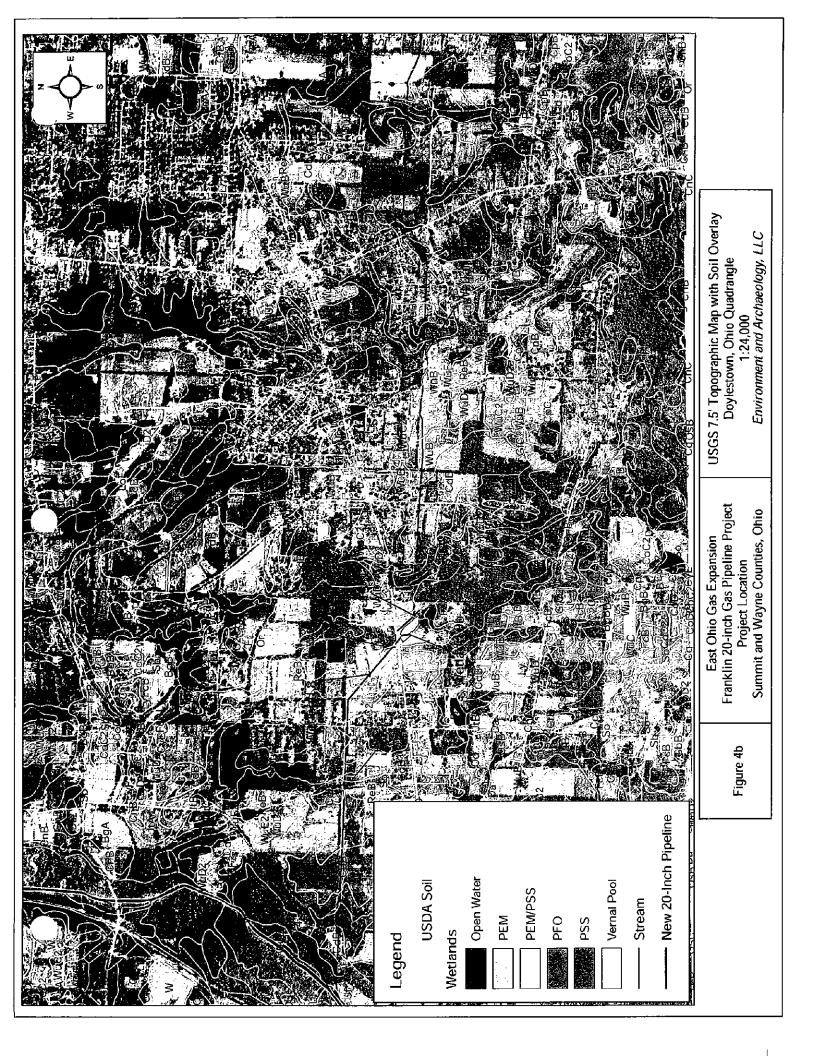


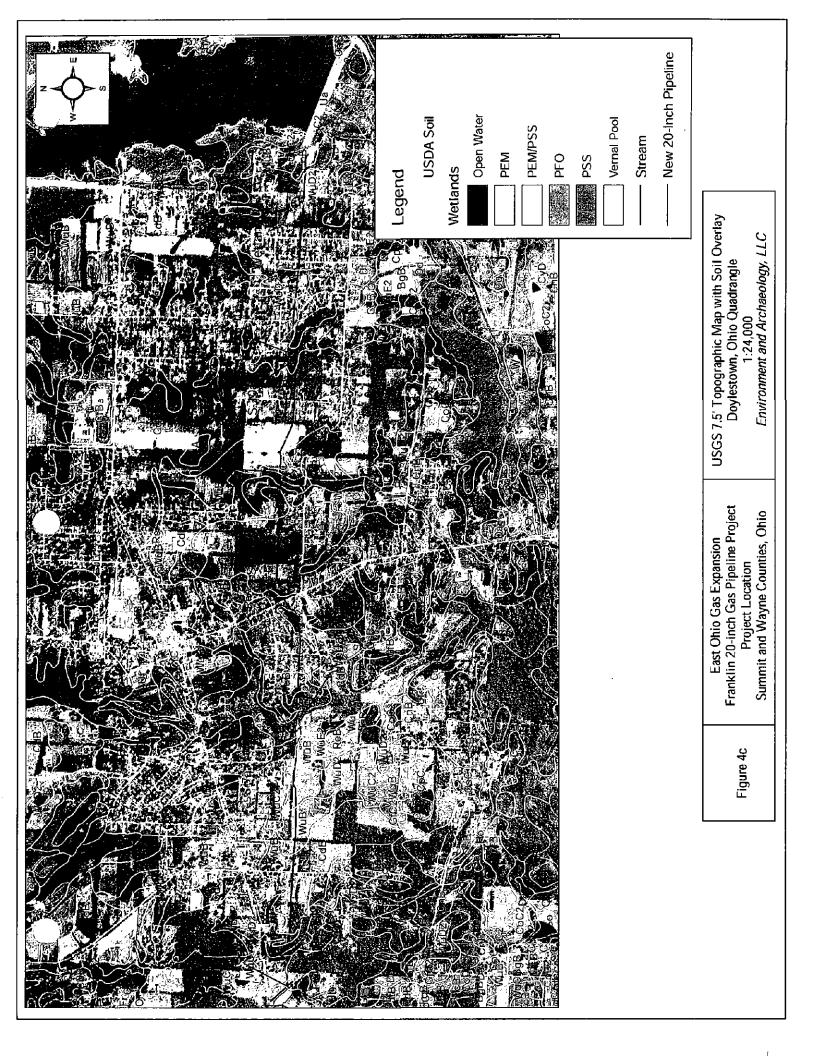




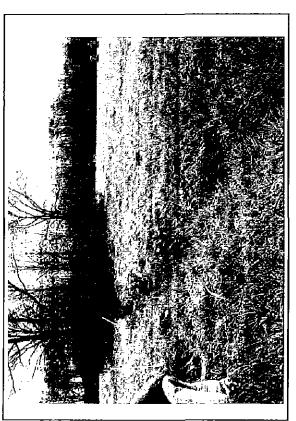
APPENDIX D Figures 4a-4c USDA Soil Maps



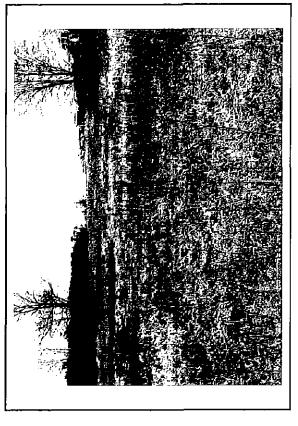




APPENDIX E Photolog



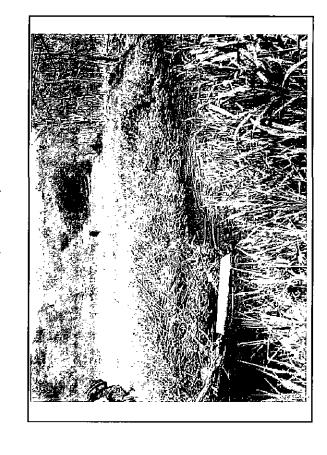
PHOTO#: 1 DIRECTION: N DATE: 04-26-08 COMMENTS: View of Wetland 1 surrounding Stream 1, an unnamed intermittent tributary to Chippewa Creek.



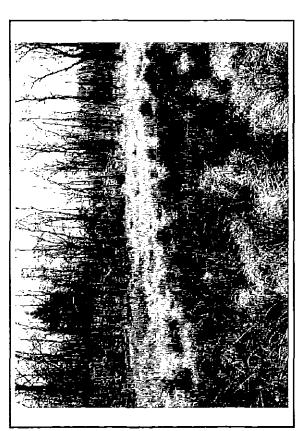
PHOTO#: 2 DIRECTION: E DATE: 04-26-08 COMMENTS: View of Wetland 2, looking west toward S1 and W1 (treeline area).



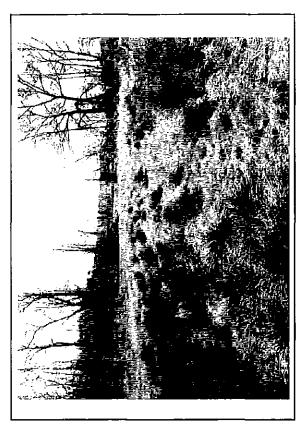
PHOTO#: 3 DIRECTION: N DATE: 04-26-08 COMMENTS: View of Stream 2 (perennial; Silver Creek/Rogue Hollow), located west of Wetland 3.



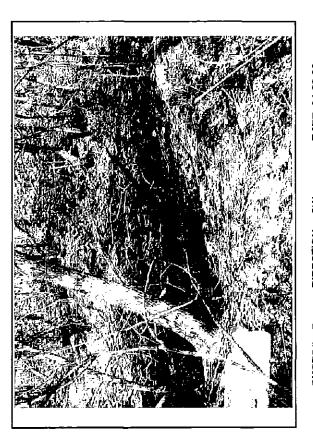
PHOTO#: 4 DIRECTION: E DATE: 04-26-08 COMMENTS: Looking across Stream 2 and into Wetland 3.



PHOTO#: 5 DIRECTION: SW DATE: 04-26-08 COMMENTS: View of western portion of Wetland 3.



PHOTO#: 6 DIRECTION: W DATE: 04-26-08 COMMENTS: Looking west across Wetland 3, looking back toward Stream 2.



PHOTO#: 7 DIRECTION: SW DATE: 04-26-08 COMMENTS: View of vernal pool, representing Wetland 4.

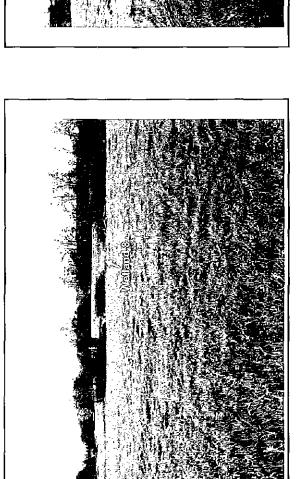


PHOTO#: 8 DIRECTION: N DATE: 04-26-08 COMMENTS: View of second crossing of Stream 3, an unnamed intermittent tribulary to Tuscarawas River.

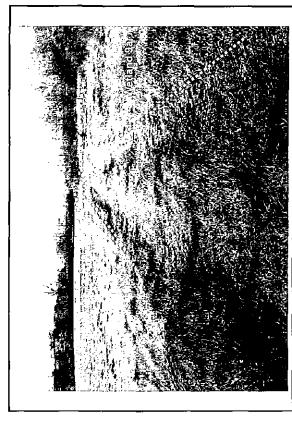
photo not available

PHOTO#: 10 DIRECTION: W DATE: 04-26-08 COMMENTS: View of Wetland 6.

PHOTO#: 9 DIRECTION: -- DATE: 04-26-08 COMMENTS: Second crossing of Stream 3.



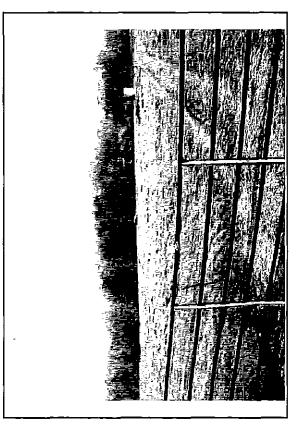
PHOTO#: 11 DIRECTION: W DATE: 04-26-08 COMMENTS: Standing near West Nimisila Road, looking back toward Wetland 8.



PHOTO#: 12 DIRECTION: WNW DATE: 04-26-08 COMMENTS: View of Wetland 9, located on north side of West Nimisila Road.



PHOTO#: 13 DIRECTION: NNW DATE: 04-26-08 COMMENTS: Looking toward PSS component of Wetland 9a.



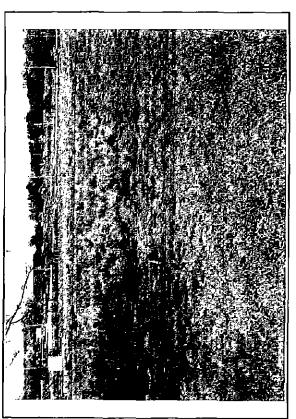
PHOTO#: 14 DIRECTION: SE DATE: 04-26-08 COMMENTS: Looking southeast from West Nimisila Road and across Wetland 9b.



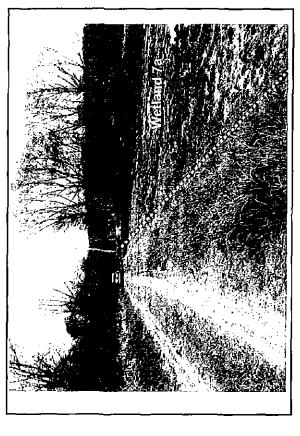
PHOTO#: 15 DIRECTION: SW DATE: 04-26-08 COMMENTS: View of the vegetated Stream 6 (channelized), an unnamed perennial tributary to Nimisila Creek.



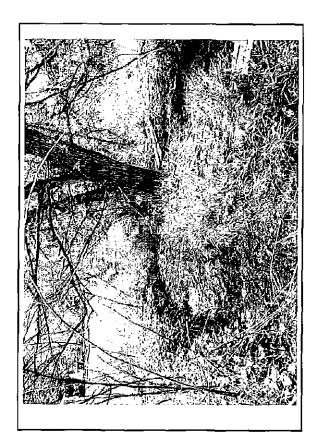
PHOTO#: 16 DIRECTION: N DATE: 04-26-08 COMMENTS: View of the culvert outfall of Stream 6, located downstream of the channelized portion of this perennial tributary to Nimisila Creek.



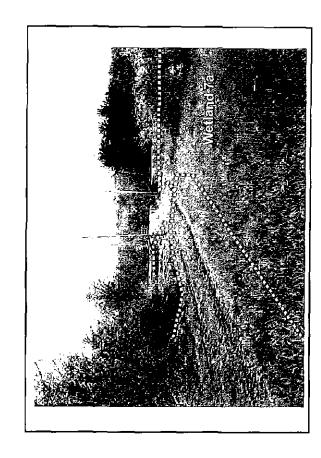
PHOTO#: 17 DIRECTION: W DATE: 04-27-08 COMMENTS: View of Wetland 9b, looking back toward West Nimisila Road.



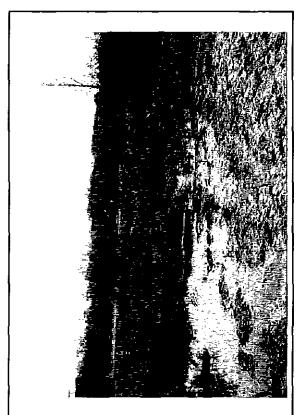
PHOTO#: 18 DIRECTION: E DATE: 04-27-08 COMMENTS: View of Wetland 7a, located on the south and north sides of an access road (east) off of Cleveland-Massilion Road.



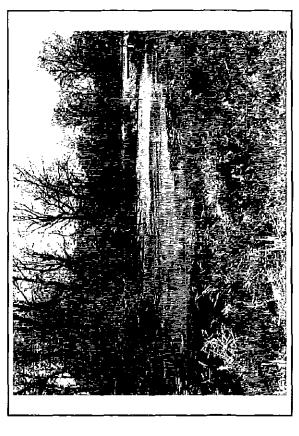
PHOTO#: 19 DIRECTION: W DATE: 04-27-08
COMMENTS: View of Stream 3 (looking upstream) and located on the north side of the access road connected to Cleveland-Massilion Road.



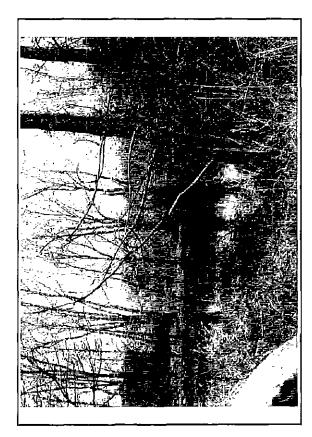
PHOTO#: 20 DIRECTION: E DATE: 04-27-08 COMMENTS: View of Welfand 7a, located east of the railroad tracks.



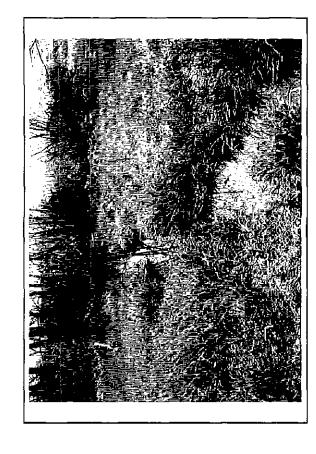
PHOTO#: 21 DIRECTION: ESE DATE: 04-27-08 COMMENTS: View of continuation of Wetland 7a, located east of the railroad tracks.



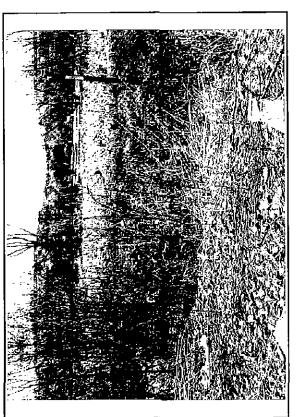
PHOTO#: 22 DIRECTION: NE DATE: 04-27-08 COMMENTS: View of open water portion of Wetland 7a, located north of the access road leading to the railroad tracks.



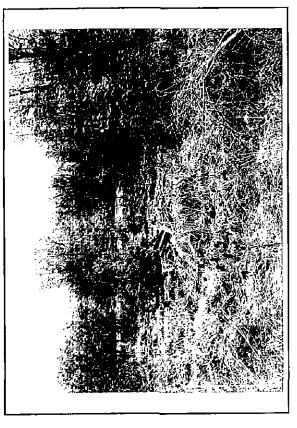
PHOTO#: 23 DIRECTION: WNW DATE: 04-27-08 COMMENTS: View of pond located north of the proposed alignment and north of the access road off of CR-17 (Cleveland-Massilion Road).



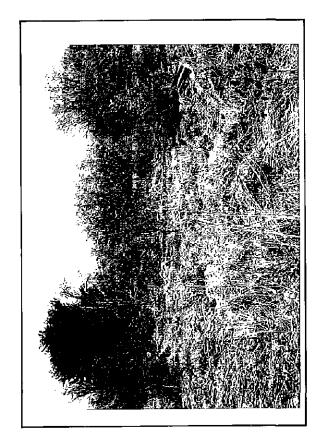
PHOTO#: 24 DIRECTION: N DATE: 04-27-08 COMMENTS: View of Stream 3 (crossing #3), located within Wetland 7a.



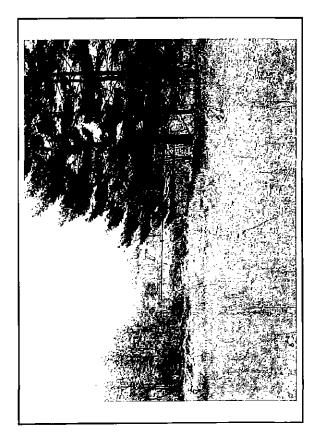
PHOTO#: 25 DIRECTION: W DATE: 04-27-08 COMMENTS: View of Wetland 7a, standing at the railroad tracks and looking back toward CR-17.



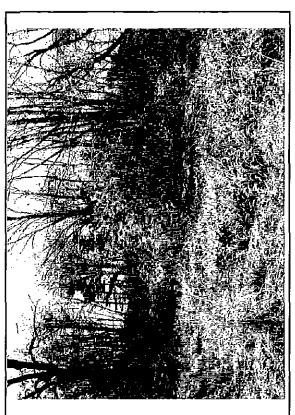
PHOTO#: 26 DIRECTION: E DATE: 04-27-08 COMMENTS: View of Wetland 7b, looking toward the Ohio Tow Path.



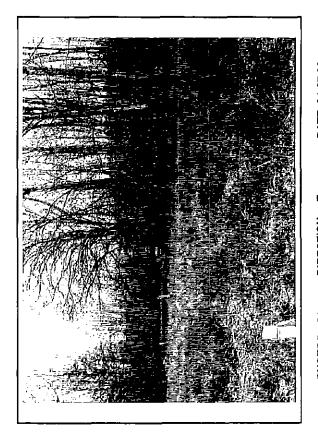
PHOTO#: 27 DIRECTION: ENE DATE: 04-27-08 COMMENTS: View of Wetland 7b, located on east side of the railroad tracks and west of the Ohio Tow Path.



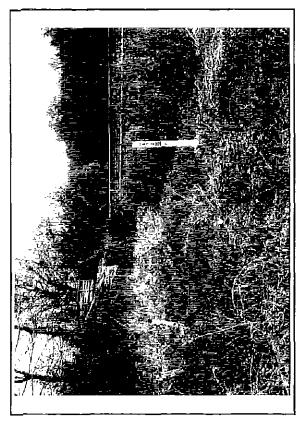
PHOTO#: 28 DIRECTION: S DATE: 04-27-08 COMMENTS: Standing near Ohio Tow Path and looking west toward a portion of Wetland 7b (railroad tracks are in background).



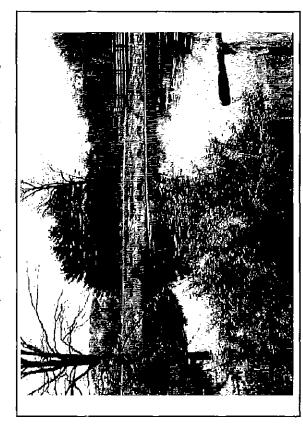
PHOTO#: 29 DIRECTION: NNW DATE: 04-27-08 COMMENTS: View of the continuation of Wetland 7b, located north of the proposed alignment and along a proposed alternate location.



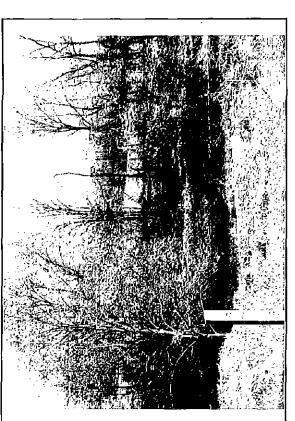
PHOTO#: 31 DIRECTION: E DATE: 04-27-08 COMMENTS: View of Wetland 7b, looking into its PEM/PFO complex.



COMMENTS: View of continuation of Welfand 7b, located north of the proposed alignment and west of the Ohio Tow Path. Welfand conditions and remnant Tow Path structures (to left of photo) restrict this area as a potential alignment.



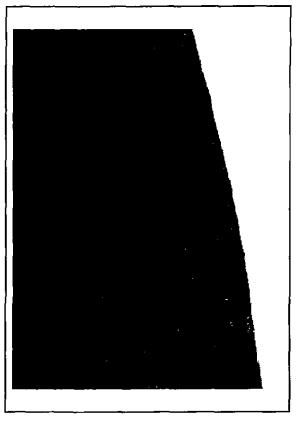
PHOTO#: 32 DIRECTION: W DATE: 04-27-08
COMMENTS: View of open water area associated with Wetland 7b, located north of the proposed alignment and east of the Ohio Tow Path.



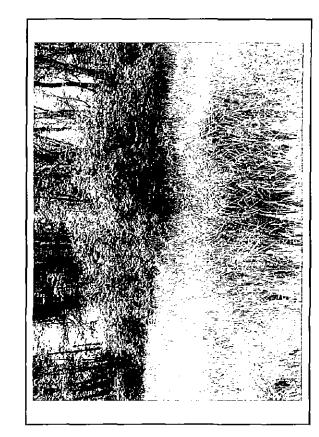
PHOTO#: 33 DIRECTION: N DATE: 04-27-08 COMMENTS: View of the Tuscarawas River (Stream 4).



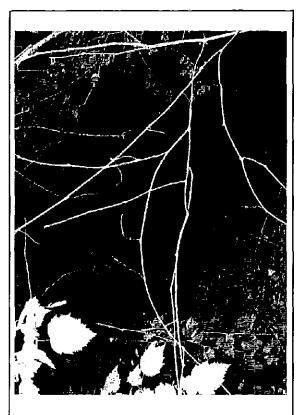
PHOTO#: 35 DIRECTION: NNW DATE: 05-14-08 COMMENTS: View of the first crossing of Stream 3, an unnamed intermittent tributary to Tuscarawas River. Fringe wetland growth (predominantly skunk cabbage), identified as Wetland 5 occurs along the right bank of the stream.



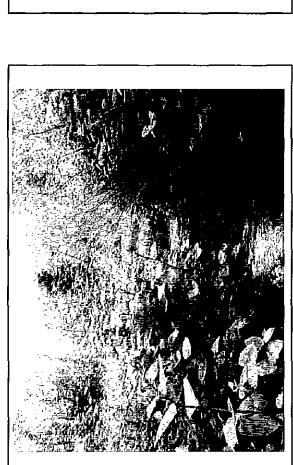
PHOTO#: 34 DIRECTION: E DATE: 05-14-08 COMMENTS: View of ephemeral channel located east of Hamton Road; the channel dissipates at the ROW.



PHOTO#: 36 DIRECTION: N DATE: 05-14-08 COMMENTS: View of the location of Stream 5, an unnamed perennial tributary to the Tuscarawas River.



PHOTO#: 37 DIRECTION: N DATE: 05-14-08 COMMENTS: View of Stream 7a, an ephemeral tributary to an unnamed perennial tributary of Nimisila Creek.



PHOTO#: 39 DIRECTION: SW DATE: 05-14-08 COMMENTS: View of Stream 7, looking upstream.



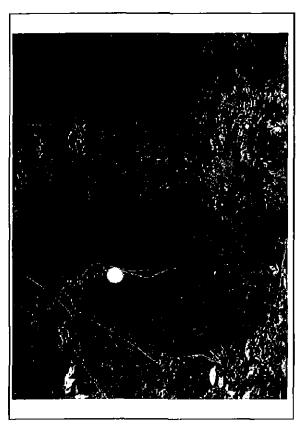
PHOTO#: 38 **DIRECTION:** E **DATE:** 05-14-08 **COMMENTS:** View of Wetland 10, a large wetland complex that continues across Stream 7, an unnamed perennial tributary to Nimisila Creek.



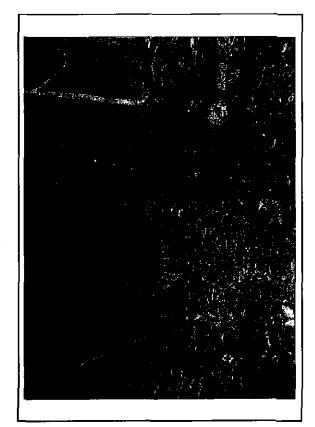
PHOTO#: 40 DIRECTION: S DATE: 05-14-08 COMMENTS: View of Stream 8, an ephemeral tributary to an unnamed perennial tributary to Nimisila Creek.



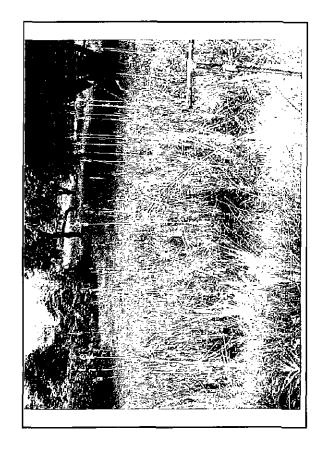
PHOTO#: 41 DIRECTION: ESE DATE: 04-27-08 COMMENTS: View of the existing ROW where the adjacent forest growth contains Stream 10a, an ephemeral stream to a perennial tributary to Nimisila Creek.



PHOTO#: 42 DIRECTION: E DATE: 05-14-08 COMMENTS: View of Stream 10a at its eastern-most portion near its confluence with Stream 10, an unnamed perennial tributary to Nimisila Creek.



PHOTO#: 43 DIRECTION: NNW DATE: 05-14-08 COMMENTS: View of Stream 10, looking downstream.



PHOTO#: 44 DIRECTION: S DATE: 05-14-08 COMMENTS: View of Wetland 11, located in a residential area and associated with a depressional drainage swale area.

APPENDIX F Routine Wetland Data Sheets

(Note: These forms only provide information on wetland characteristics within the construction corridor.

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

Project/Site:	Franklin 20-inch	-				Date: May 14, 2008
Applicant/Owner:	Dominion East Ohio					County; Summit
Investigators:	C. Lovihs, L. Minda					State: Ohio
Do Normal Circums	tances exist on the site?	х	Yes		No	Community ID: PEM
Is the site significar	tly disturbed (Atypical Situation)?		Yes	X	No	Transect ID: Pipeline Centerline
is the area a potent (if needed, explain			Yes	х	No	Plot ID: Wetland 1

VEGETATION

. Onoclea sensil	oilis				<u>Stratum</u>	<u>Indicator</u>
		Н	FACW	9.		
Carex spp.		Н	FACW	10.		
Lysimachia nui	mmularia	Н	OBL	11.		
Symplocarpus	foetida	Н	OBL	12.		
Phalaris arund	inacea	Н	FACW+	13.		
i .	•			14.		
•				15.		
				16.		

	Recorded Date (Describe in Remarks	<i>}</i> -		Wetland Hydrology Indicators
	Stream, Lake, or Tide Group			Primary Indicators:
Х	Aerial Photographs			Inundated
Х	Other: NWI + OWI			X Saturated in Upper 12 inches
	No Recorded Data Available			Water Marks
ield (Observations:			Drift Lines
				Sediment Deposits
	Depth to Free Water in Pit:	NA	(in.)	Drainage Patterns in Wetlands
				Secondary Indicators (2 or more required):
	Depth to Saturated Soil:	0	(in.)	Oxidized Root Channels in Upper 12 inches
				Water-Stained Leaves
	Depth of Surface Water:	NA	(in.)	X Local Soil Survey Data
				FAC- Neutral Test
				Other (Explain in Remarks)

Map Unit N (Series and		Euclid silt loam, occasionally flooded	-		Drainage Class:	Somewhat poorly drained
(Subgroup)	:	Aeric Haplaquepts			Field Observations Confirm Mapped Type?	No
Profile Des	eription:					
Depth (Inches)	<u>Horizon</u>	Matrix Color (<u>Munsell Moist)</u>	Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.
0-9	A	7.5YR 4/1	5YR 4/6		f-f-d	silty clay
1						
Hydric Soil	Indicators:		·		<u> </u>	
	Histosol				Concretions	
	Histic Epipe	edon			High Organic Content in S	urface Layer in Sandy Soils
	Sulfidic Ode	or			Organic Streaking in Sand	y Soils
	Aquic Mois	ture Regime			Listed on Local Hydric Soil	ls List
	Reducing C	Conditions		Х	Listed on National Hydric 8	Soils List
х	Gleyed or L	ow-Chroma Colors			Other (Explain in Remarks)
Remarks::						

				-11011		
Hydrophytic Vegetation Present?	x	Yes	No			
Wetland Hydrology Present?	x	Yes	No]		
Hydric Soils Present?	x	Yes	No	Is this Sampling Point a Wetland?	X Yes	No
Remarks: ALL CRITERIA MET = W	etland 1					
·						
					Approved by HQL	ISACE 9/9

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

Project/Site:	Franklin 20-inch	-				Date:	May 14, 2008
Applicant/Owner:	Dominion East Ohio					County:	Summit
Investigators:	C. Lovins, L. Minda	_				State:	Ohio
Do Normal Circums	stances exist on the site?	х	Yes		No	Communi	ity ID: PEM
Is the site significar	atly disturbed (Atypical Situation)?		Yes	Х	No	Transect	ID: Pipeline Centerline
is the area a potent (if needed, explair			Yes	X	No	Plot ID:	Wetland 2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Carex spp.	H	FACW	9.		
2. Phalaris arundinacea	H	FACW+	10.		
3. Juncus effusus	Н	FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8			16.		
Percent of Dominant Species that (excluding FAC-):	at are OBL, FAC	W, FAC	100%		
Remarks:: Palustrine emerç	ent wetland wit	hin wet field gro	wth, located east of Stream 1		

Recorded Date (Describe in Ren	narks):		Wetland Hy	ydrology Indicators	
Stream, Lake, or Tide Grou	Р		Primary Indicators:		
X Aerial Photographs				Inundated	
Other			х	Saturated in Upper 12 inches	
No Recorded Data Available				Water Marks	
Field Observations:		-		Drift Lines	
				Sediment Deposits	
Depth to Free Water in Pit:	NA	(in.)		Drainage Patterns in Wetlands	
			Seco	ondary Indicators (2 or more required):	
Depth to Saturated Soil:	0	(in.)		Oxidized Root Channels in Upper 12 inches	
				Water-Stained Leaves	
Depth of Surface Water:	NA	(in.)		Local Soil Survey Data	
				FAC- Neutral Test	
				Other (Explain in Remarks)	

r silt loam, ine, (Hy)		Drainage Class:	Poorly drained	
c Fluvaquents		Field Observations Confirm Mapped Type?		No
ix Color Mottle Colors sell Moist) (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.	
10Y/2.5			silty clay	
				ļ
		· -		
		Concretions		
		High Organic Content in Su	ırface Layer in Sandy Soil	ls
		Organic Streaking in Sandy	y Soils	
egime		Listed on Local Hydric Soils	s List	
ons	×	Listed on National Hydric S	ioils List	
nroma Colors		Other (Explain in Remarks)	·	
				
				į
i c	ine, (Hy) Fluvaquents x Cofor Mottle Cofors sell Moist) (Munsell Moist) 10Y/2.5	egime	Field Observations Confirm Mapped Type? x Color Mottle Colors sell Moist) (Munsell Moist) Size/Contrast 10Y/2.5 Concretions High Organic Content in St. Organic Streaking in Sandy Listed on Local Hydric Sole. X Listed on National Hydric Sole.	Field Observations Confirm Mapped Type? X Cofor Mottle Cofors Sell Moist) (Munsell Moist) Size/Contrast Structure, Etc. 10Y/2.5 Concretions High Organic Content in Surface Layer in Sandy Soils Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	х	Yes	No				
Wetland Hydrology Present?	х	Yes	No				
Hydric Soils Present?	x	Yes	No	is this Sampling Point a Wetland?	х	Yes	No
Remarks; ALL CRITERIA MET = W	etland 2			<u> </u>			
						and his HOL	

Approved by HQUSACE 3/92

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

Project/Site:	Franklin 20-inch	, ,=				Date: May 14, 2008
Applicant/Owner:	Dominion East Ohio					County: Summit
Investigators:	C. Lovins, L. Minda					State: Ohio
Do Normal Circums	stances exist on the site?	x	Yes		No	Community ID: PEM
Is the site significar	ntly disturbed (Atypical Situation)?		Yes	x	No	Transect ID: Pipeline Centerline
is the area a poten (If needed, explain			Yes	x	No	Plot ID: Welland 3

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	Н	FACW+	9.		
2. Juncus effusus	Н	FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8,			16.		
Percent of Dominant Species th (excluding FAC-):	at are OBL, FAC	W, FAC	100%		

Recorded Date (Describe in Rema	rks):		Wetland Hy	ydrology Indicators			
Stream, Lake, or Tide Group			Primary Indicators:				
X Aerial Photographs				Inundated			
Other			х	Saturated in Upper 12 inches			
No Recorded Data Available				Water Marks			
eld Observations:				Drift Lines			
			Х	Sediment Deposits			
Depth to Free Water in Pit:	18	(in.)		Drainage Patterns in Wetlands			
			Seco	andary Indicators (2 or more required):			
Depth to Saturated Soil:	0	(in.)	Х	Oxidized Root Channels in Upper 12 inches			
				Water-Stained Leaves			
Depth of Surface Water:	NA	(in.)		Local Soil Survey Data			
		Į.		FAC- Neutral Test			
				Other (Explain in Remarks)			

Taxonomy (Subgroup): Profile Description: Depth (Inches) Horizon (Munsell Moist) (Munsell Mo	Map Unit I (Series an		Holly silt loam, alkaline, (Hy)		Drainage Glass:	Poorly drained		
Depth (Inches) Horizon (Munsell Moist) (Munsell Moist) Size/Contrast Structure, Etc. 0-9 A 10YR 4/2 7.5YR 3/4 F-f-d silty clay loam Hydric Soil Indicators: Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soils Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Mottle Abundance/ Size/Contrast Structure, Etc. Str	-		Typic Fluvaquents		•	No		
Clinches Horizon (Munsell Moist) (Munsell Moist) Size/Contrast Structure, Etc.	Profile De	scription:		- ·				
Hydric Soil Indicators: Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors Concretions High Organic Content in Surface Layer in Sandy Soils Organic Streaking in Sandy Soils Listed on Local Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)		<u>Horizon</u>						
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soils Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)	0-9	Α	10YR 4/2	7.5YR 3/4	f-f-d	silty clay loam		
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soils Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)								
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soils Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)								
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soils Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)								
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soils Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)		-				·		
Histic Epipedon Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors High Organic Content in Surface Layer in Sandy Soils Organic Streaking in Sandy Soils Listed on Local Hydric Soils List X Other (Explain in Remarks)	Hydric Soi	I Indicators:						
Histic Epipedon Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors High Organic Content in Surface Layer in Sandy Soils Organic Streaking in Sandy Soils Listed on Local Hydric Soils List X Other (Explain in Remarks)		History			Concretions			
Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)			adan.			Surface Laver in Sandy Soils		
Aquic Moisture Regime Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)					, ,			
Reducing Conditions X Listed on National Hydric Soils List X Gleyed or Low-Chroma Colors Other (Explain in Remarks)					•	-		
		·	-	×	ŕ			
Remarks::								
	x	Gleyed or	Low-Chroma Colors		Other (Explain in Remai	rks)		
			Low-Chroma Colors	<u> </u>	Other (Explain in Remai	rks)		
			Low-Chroma Colors	<u> </u>	Other (Explain in Remai	rks)		

	AACI	LAND DE	LEKIMINA	ATION		
Hydrophytic Vegetation Present?	х	Yes	No			
Wetland Hydrology Present?	x	Yes	No			
Hydric Sails Present?	x	Yes	No	is this Sampling Point a Wetland?	X Yes	No
Remarks: ALL CRITERIA MET = W	elland 3					
<u> </u>						

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

Project/Site:	Franklin 20-inch					Date:	May 14, 2008
Applicant/Owner:	Dominion East Ohio					County:	Summit
Investigators:	C. Lovins, L. Minda					State:	Ohio
Do Normal Circums	tances exist on the site?	X	Yes		No	Communit	ly ID: Vernal Pool
Is the site significar	itly disturbed (Atypical Situation)?		Yes	х	No	Transact J	D: Pipeline Centerline
Is the area a potent (If needed, explain			Yes	х	No	Plot ID:	Wetland 4

VEGETATION

Dominant Plant Species Stratum Indicato	Dominant Plant Species	Stratum Indicator
1.	9.	<u> </u>
2. No vegetation	10.	
3.	11.	
4.	. 12.	
5.	13.	
6.	14.	
7.	15.	
8.	16.	·
Percent of Dominant Species that are OBL, FACW, FAC (excluding FAC-):	100%	
Remarks:: Vernal pool; appears to artificially created de	pressional area located within tree i	ine to the north side of the

Proposed centerline

~~~	Recorded Date (Describe in Rema	rks):		Wetland Hy	drology Indicators	
	Stream, Lake, or Tide Group			Primary Indicators:		
	Aerial Photographs				Inundated	
	Other			х	Saturated in Upper 12 inches	
х	No Recorded Data Available				Water Marks	
ield	Observations:				Drift Lines	
					Sediment Deposits	
	Depth to Free Water in Pit:	>18	(in.)		Drainage Patterns in Wetlands	
				Seco	endary Indicators (2 or more required):	
	Depth to Saturated Soil:	0	(in.)		Oxidized Root Channels in Upper 12 inches	
				Х	Water-Stained Leaves	
	Depth of Surface Water:	0-2	(in.)		Local Soil Survey Data	
					FAC- Neutral Test	
					Other (Explain in Remarks)	

	Ap Unit Name Berks silt loam Series and Phase): 18-25%, (BrE)			Drainage Class:	(Non-Hydric)			
Taxonomy (Subgroup):	·			Field Observations Confirm Mapped Type?	No			
Profile Desc	cription:							
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.			
0-9	Α	10YR 4/2			silty clay			
Hydric Soil	Indicators:	<u>-</u>		<del></del>				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,							
	Histosol			Concretions				
	Histic Epipe	edon		High Organic Content in Surface Layer in Sandy Soils				
	Sulfidic Ode	or		Organic Streaking in Sandy Soils				
	Aquic Mois	ture Regime		Listed on Local Hydric Soils List				
	Reducing C	Conditions		Listed on National Hydric S	Soils List			
Х	Gleyed or L	ow-Chroma Colors		Other (Explain in Remarks	)			
Remarks::								

WETLAND DETERMINATION

<del></del>	VVEII	LANUL	<u> </u>	:PXWIIIV	ATION		
Hydrophylic Vegetation Present?		Yes	×	Nσ			
Wetland Hydrology Present?	х	Yes		No			
Hydric Soils Present?	х	Yes		No	Is this Sampling Point a Wetland?	X Ye	es No
Remarks: Wetland 4 is a vernal po	loo						
•							
							h

Approved by HQUSACE 3/92

## ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site:	Franklin 20-inch					Date:	/ay 14, 2008
Applicant/Owner:	Dominion East Ohio					County: S	Summit
Investigators:	G. Lovins, L. Minda					State: (	Phio
Do Normal Circums	stances exist on the site?	x	Yes		No	Community I	PEM
Is the site significar	ntly disturbed (Atypical Situation)?		Yes	x	No	Transect ID:	Pipeline Centerline
Is the area a poten (If needed, explain			Yes	x	No	Plot ID:	Wetland 5

#### **VEGETATION**

Stratum	Indicator	Dominant Plant Species	Stratum	Indicator				
Н	FACW	9.						
н	FACW	10.						
Н	OBL	11.						
Н	OBL	12.						
		13.						
		14.						
		15.						
		16.						
Percent of Dominant Species that are OBL, FACW, FAC 100% (excluding FAC-):								
	н н	H FACW H OBL H OBL	H FACW 9. H FACW 10. H OBL 11. H OBL 12. 13. 14. 15. 16.	H FACW 9. H FACW 10. H OBL 11. H OBL 12. 13. 14. 15.				

	Recorded Date (Describe in Remarks	;):		Wetland Hy	ydrology Indicators	
	Stream, Lake, or Tide Group			Primary Indicators:		
	Aerial Photographs				Inundated	
	Other			х	Saturated in Upper 12 inches	
Х	No Recorded Data Available			Ì	Water Marks	
Field	Observations:				Drift Lines	
					Sediment Deposits	
	Depth to Free Water in Pit:	3	(in.)	Х	Drainage Patterns in Wetlands	
				Seco	ondary Indicators (2 or more required):	
	Depth to Saturated Soil:	0	(in.)		Oxidized Root Channels in Upper 12 inches	
					Water-Stained Leaves	
	Depth of Surface Water:	NA	(in.)	Х	Local Soil Survey Data	
					FAC- Neutral Test	
					Other (Explain in Remarks)	

	Map Unit Name Wooster silt loam, 12-18% slopes (Series and Phase): moderately eroded (WuD2)			Drainage Class: (Non-Hydric)				
Taxonomy (Subgroup)	:			Field Observations N Confirm Mapped Type?				
Profile Des	cription:							
Depth (Inches)	<u>Horizon</u>	Matrix Color (Munsell Moist)	Mattle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.			
0-9	Α	105YR 3/1			silty clay/muck			
Hydric Soil	I dia atoro			·				
nyane Soll	maicators.							
	Histosol			Concretions				
	Histic Epip	edon		High Organic Content in Surface Layer in Sandy Soils				
	Sulfidic Od	01		Organic Streaking in Sandy Soils				
	Aquic Mois	ture Regime		Listed on Local Hydric Soi	ls List			
	Reducing (	Conditions		Listed on National Hydric	Soils List			
_ x	Gleyed or L	_ow-Chroma Colors		Other (Explain in Remarks	5)			
Remarks::		-			•			

#### WETLAND DETERMINATION

Hydrophytic Vegetation Present?	x	Yes	Nο			
Wetland Hydrology Present?	x	Yes	No			
Hydric Soils Present?	x	Yes	No	Is this Sampling Point a Wetland?	X Yes	No
Remarks: ALL CRITERIA MET = W	etland 5					

Approved by HQUSACE 3/92

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

Project/Site:	Franklin 20-inch					Date: April 26, 2008
Applicant/Owner:	Dominion East Ohio					County: Summit
Investigators:	C. Lovins, L. Minda					State: Ohio
Do Normal Circums	tances exist on the site?	X	Yes		No	Community ID: PEM
Is the site significar	tly disturbed (Atypical Situation)?		Yes	x	No	Transect ID: Pipeline Centerline
Is the area a potent (If needed, explain			Yes	X	No	Plot ID: Wetland 6

#### **VEGETATION**

Don	inant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	indicator		
1.	Carex spp.	Н	FACW	9.				
2.	Phalaris arundinacea	Н	FACW+	10.				
3.	Juncus effusus	Н	FACW	11.				
4.	Symplocarpus foetida	Н	OBL	12.				
5.				13.				
6.				14.				
7.				15.				
8				16.				
Percent of Dominant Species that are OBL, FACW, FAC 100% (excluding FAC-):								

Recorded Date (Describe in Rema	rks):	-	Wetland H	ydrology Indicators		
Stream, Lake, or Tide Group			Primary Indicators:			
Aerial Photographs			х	Inundated		
Other			х	Saturated in Upper 12 inches		
X No Recorded Data Available		_		Water Marks		
eld Observations:				Drift Lines		
				Sediment Deposits		
Depth to Free Water in Pit;	12	(in.)	X	Drainage Patterns in Wetlands		
			Seco	ondary Indicators (2 or more required):		
Depth to Saturated Soil:	0	(in.)		Oxidized Root Channels in Upper 12 inches		
				Water-Stained Leaves		
Depth of Surface Water:	0-1	(in.)		Local Soil Survey Data		
				FAC- Neutral Test		
				Other (Explain in Remarks)		

	o Unit Name Wooster silt loam, 12-18% slopes ries and Phase): moderately eroded (WuD2)			Drainage Class:	(Non-Hydric)			
Taxonomy (Subgroup):				Field Observations Confirm Mapped Type?	N	lo		
Profile Desc	eription:							
Depth (Inches)	<u>Horizon</u>	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.			
0-9	Α	10YR 3/1			silty clay			
Hydric Soil	Indicators:	<del></del>		<del></del>		┪		
	Histosol			Concretions				
	Histic Epipe	edon		High Organic Content in Surface Layer in Sandy Soils				
	Sulfidic Ode	or		Organic Streaking in Sandy	y Soils			
	Aquic Mois	ture Regime		Listed on Local Hydric Soil	s List			
	Reducing C	Conditions		Listed on National Hydric S	Soils List			
х	Gleyed or L	ow-Chroma Colors		Other (Explain in Remarks)	]			
Remarks::	***********	<del></del> -						

#### WETLAND DETERMINATION

		_		· · · · · · · · · · · · · · · · · · ·		
Hydrophytic Vegetation Present?	x	Yes	No			
Wetland Hydrology Present?	х	Yes	No			
Hydric Soils Present?	х	Yes	No	ls this Sampling Point a Welland?	X Yes	No
Remarks: ALL CRITERIA MET = V	Vetland 6					
•						
		•				
				·		

Approved by HQUSACE 3/92

#### **DATA FORM ROUTINE WETLAND DETERMINATION**

(1987 COE Wetlands Delineation Manual)

Project/Site:	Franklin 20-inch					Date:	May 14, 2008
Applicant/Owner:	Dominion East Ohio					County:	Summit
Investigators:	C. Lovins, L. Minda					State:	Ohio
Do Normal Circums	tances exist on the site?	X	Yes		No	Communi	ty ID: PEM/SS
Is the site significantly disturbed (Atypical Situation)?			Yes	Х	No	Transect	D: Pipeline Genterline
Is the area a potent (If needed, explain			Yes	X	No	Plot ID:	Wetland 7a

#### **VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	<u>Stratum</u>	Indicator
1. Phalaris arundinacea	Н	FACW+	9.		
2. Juncus effusus	н	FACW	10.		
3. Carex spp.	н	FACW	11.		
4. Typha latifolia	н	OBL	12.		
5. Symplocarpus foetida	Н	OBL	13.		
6. Impations capensis	н	FACW	14.		
7. Cornus amomum	s	FACW	15.		
8. Salix spp	S	FACW+	16.		

(excluding FAC-):

Remarks::

Large wetland complex located east of CR17 and west of railroad tracks. This wetland complex includes areas of open water.

Recorded Date (Describe in Rema	ırks):		Wetland Hydrology Indicators				
Stream, Lake, or Tide Group			Primary Indicators:				
X Aerial Photographs			х	Inundated			
X Other: NWI + OWI			х	Saturated in Upper 12 inches			
No Recorded Data Available				Water Marks			
ield Observations:				Drift Lines			
		ĺ	X	Sediment Deposits			
Depth to Free Water in Pit:	0	(in.)		Drainage Patterns in Wetlands			
			Seco	ondary Indicators (2 or more required);			
Depth to Saturated Soil:	0	(in.)	×	Oxidized Root Channels in Upper 12 inches			
				Water-Stained Leaves			
Depth of Surface Water:	>5	(in.)		Local Soil Survey Data			
				FAC- Neutral Test			
				Other (Explain in Remarks)			

Map Unit i (Series an		Holly silt loam, alkaline, (Hy)			Drainage Class:	Poorly drained			
	Taxonomy Typic Fluvaquents (Subgroup):				Field Observations Confirm Mapped Type?				
Profile De	scription:								
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.			
0-9	Α	Gley 10Y 2.5				silty clay			
Hudria Cai	I Indicators:			_			-		
nyanc soi	i indicalors.								
	Histosol				Concretions				
	Histic Epip	pedon			High Organic Content in Surface Layer in Sandy Soils				
	Sulfidic O	dor			Organic Streaking in Sandy Soils				
	Aquic Moi:	sture Regime		х	Listed on Local Hydric So	Listed on Local Hydric Soils List			
x	Reducing	Conditions		х	Listed on National Hydric Soils List				
x	Gleyed or	Low-Chroma Colors			Other (Explain in Remarks	s)			
Remarks::									

WETLAND DETERMINATION

		LAND DE	I I SIXIVIII V	A11011		
Hydrophytic Vegetation Present?	х	Yes	No			
Wetland Hydrology Present?	x	Yes	No			
Hydric Soils Present?	х	Yes	No	Is this Sampling Point a Wetland?	X Yes	No
Remarks: ALL CRITERIA MET ≠ W	etland 7a					
<del></del>	-				Approved by HQL	ISACE

Approved by HQUSACE 3/92

## DATA FORM ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project/Site:	Franklin 20-inch				_	Date:	April 27, 2008
Applicant/Owner:	Dominion East Ohio			•		County:	Summit
Investigators:	Ç. Lovins, L. Minda					State:	Ohio
Do Normal Circums	tances exist on the site?	X	Yes		No	Communit	ty ID: PEM/\$S/FO
Is the site significar	tly disturbed (Atypical Situation)?		Yes	Х	No	Transect	D: Pipeline Centerline
is the area a potent (If needed, explain			Yes	х	No	Plot ID:	Wetland 7b

#### **VEGETATION**

Dog	minant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator	
1.	Phalaris arundinacea	Н	FACW	9. Salix spp.	т	FACW	
2.	Carex spp.	Н	FACW	10. Acernegundo	Т	FAC+	
3,	Impatiens spp.	н	FACW	11. Ullmus rubra	т	FAC	
4.	Rosa palustris	s	OBL	12. Acer saccharinum	т	FACW	
5.	Cornus amomum	S	FACW	13.			
6.	Typha latifolia	н	OBL	14.			
7.	Onoclea sensibilis	Н	OBL	15.			
8.	Fraxinus pennsylvanicus	Т	FACW	16.			

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

Remarks:: Large welland complex that extends from the east side of railroad tracks, bisected by the Ohio Tow Path, and then extends east toward the Tuscarawas River.

	Recorded Date (Describe in Remar	ks):		Welland Hy	drology Indicators		
	Stream, Lake, or Tide Group			Primary Indicators:			
Х	Aerial Photographs			x	Inundated		
х	Other: NWI + OWI			х	Saturated in Upper 12 inches		
	No Recorded Data Available				Water Marks		
ield (	Observations:				Drift Lines		
					Sediment Deposits		
	Depth to Free Water in Pit:	0	(in.)		Drainage Patterns in Wetlands		
				Seco	ndary Indicators (2 or more required):		
	Depth to Saturated Soil:	0	(in.)		Oxidized Root Channels in Upper 12 inches		
				х	Water-Stained Leaves		
	Depth of Surface Water:	8-0	(in.)		Local Soil Survey Data		
					FAC- Neutral Test		
					Other (Explain in Remarks)		

Map Unit N (Series an		Holly silt loam (Hy)			Drainage Class:	Poorly drained			
Taxonomy (Subgroup		Typic Flu	vaquents		Field Observations Confirm Mapped Type?				
Profile Des	scription:								
Depth (inches)	Horizon	Matrix Color (Munsall Moist)	Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.			
0-9	Α	7.5YR 4/1				silty clay			
Hydric Soil	Indicators:								
	Histosol				Concretions				
	Histic Epip	oedon			High Organic Content in Surface Layer in Sandy Soils				
	Sulfidic O	dor			Organic Streaking in Sand	dy Soils			
	Aquic Moi:	sture Regime		X	Listed on Local Hydric So	ils List			
	Reducing	Conditions		X	Listed on National Hydric	Soils List			
х	Gleyed or	Low-Chroma Colors			Other (Explain in Remarks	s)			
Remarks::							·		
					<u></u>				

	Yes	X	No				
x	Yes		No				
x	Yes		No	Is this Sampling Point a Wetland?	x	Yes	No
etland 7b							
	x	X Yes	X Yes	X Yes No	X Yes No Is this Sampling Point a Wetland?	X Yes No Is this Sampling Point a X Wetland?	X Yes No Is this Sampling Point a X Yes Wetland?

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

Project/Site:	Franklin 20-inch					Date:	May 14, 2008
Applicant/Owner:	Dominion East Ohio					County:	Summit
Investigators:	C. Lovins, L. Minda					State:	Ohio
Do Normal Circums	stances exist on the site?	X	Yes		No	Communit	y ID: PEM
Is the site significar	ntly disturbed (Atypical Situation)?		Yes	х	No	Transect II	D: Pipeline Centerline
Is the area a potent (If needed, explair			Yes	x	No	Plot ID:	Wetland 8

#### VEGETATION

Don	ninant Plant Species	Stratum	Indicator	Dominant Plant Species	<u>Stratum</u>	Indicator
1,	impatiens spp.	Н	FACW	9.		
2.	Carex spp.	Н	FACW	10.		
3.	Lysimachia nummularia	н	OBL	11.		
4.	Phalaris arundinacea	Н	FACW+	12.		
5.				13.		
6.				14.		
7.				15.		
8.				16.		
	cent of Dominant Species that	tare OBL, FAC	W, FAC	100%		
Rer	narks:: Drainage swale b	isecting two pa	sture from old fi	eld growth, located west of West N	Nimisila Road	•

	<del></del>	חזטאי		
Recorded Date (Describe in Remar	ks):		Wetland Hy	ydrology Indicators
Stream, Lake, or Tide Group			Prim	ary Indicators:
Aerial Photographs				Inundated
Other			х	Saturated in Upper 12 inches
X No Recorded Data Available				Water Marks
eld Observations:				Drift Lines
				Sediment Deposits
Depth to Free Water in Pit:	>18	(in.)	Х	Drainage Patterns in Wetlands
			Seco	ondary Indicators (2 or more required):
Depth to Saturated Soil:	0	(in.)		Oxidized Root Channels in Upper 12 inches
				Water-Stained Leaves
Depth of Surface Water:	NA	(in.)	Х	Local Soil Survey Data
				FAC- Neutral Test
				Other (Explain in Remarks)

Map Unit Name (Series and Phase):		Canfield silt loam, 2-6% slopes (CdB)			Drainage Class:	Somewhat poorly drained			
Taxonomy (Subgroup)	:				Field Observations Confirm Mapped Type?	No			
Profile Des	cription:								
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Motile Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, <u>Structure, Etc.</u>			
0-9	Α	10YR 3/2	7.5YR 3/4		f-f-d	silty clay loam			
Hydric Soil	Indicators:					<del></del>			
	Histosol				Concretions				
	Histic Epipe	edon			High Organic Content in Surface Layer in Sandy Soils				
	Sulfidic Od	οι			Organic Streaking in Sand	y Soils			
	Aquic Mois	ture Regime			Listed on Local Hydric Soi	ls List			
	Reducing C	Conditions		X	Listed on National Hydric	Soils List			
х	Gleyed or L	ow-Chroma Colors			Other (Explain in Remarks	)			
Remarks::		<u></u> . <u>-</u>							
				_					

	AACI	LAND DE	I EKININ.	ATION		
Hydrophytic Vegetation Present?	x	Yes	No			
Wetland Hydrology Present?	x	Yes	No			
Hydric Soils Present?	x	Yes	No	Is this Sampling Point a Wetland?	X Yes	No
Remarks: ALL CRITERIA MET = W	elland 8					
					Anaroved by HO	LOACE 2

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

Project/Site: Franklin 20-inch Date: May 14, 2008 Applicant/Owner: Dominion East Ohio County: Summit Investigators: C. Lovins, L. Minda State: Ohio х PEM/\$\$ Do Normal Circumstances exist on the site? Yes Community ID: No Is the site significantly disturbed (Atypical Situation)? Transect ID: Pipeline Centerline Χ Yes Νo Is the area a potential Problem Area? Plot ID: Welland 9a Yes X No (If needed, explain on reverse)

#### **VEGETATION**

Dor	ninant Plant Species	Stratum	Indicator	Dominant Plant Species	<u>Stratum</u>	Indicator
1.	Carex spp.	н	FACW	9.		
2.	Phalaris arundinacea	Н	FACW+	10.		
3.	Juneus effusus	Н	FACW	11.		
4.	Typha latifolia	н	OBL	12.		
5.	Lysimachia nummularia	Н	OBL	13.		
6.	Şalix spp.	S	FACW	14.		
7.	Cornus sp.	s	FAC	15.		
8.				16.		
	cent of Dominant Species that a cluding FAC-):	ire OBL, FACV	V, FAC	100%		
Rea	marks:: Palustrine emergen	t/scrub-shrub	complex locate	d on the west side of West Nimisila	Road	

	Recorded Date (Describe in Remarks	<b>)</b> :		Wetland Hy	ydrology Indicators
	Stream, Lake, or Tide Group			Prim	ary Indicators:
X	Aerial Photographs				Inundated
X	Other NWI + OWI			х	Saturated in Upper 12 inches
	No Recorded Data Available				Water Marks
Field	Observations:				Drift Lines
					Sediment Deposits
	Depth to Free Water in Pit:	NA	(in.)		Drainage Patterns in Wetlands
				Seco	endary Indicators (2 or more required):
	Depth to Saturated Soil:	0	(in.)		Oxidized Root Channels in Upper 12 inches
					Water-Stained Leaves
	Depth of Surface Water:	NA	(in.)	Х	Local Soil Survey Data
					FAC- Neutral Test
					Other (Explain in Remarks)

Map Unit N (Series and		Frenchtown sill loam (Fy)			Drainage Class:	Poorly drained			
Taxonomy (Subgroup)	<u>:                                    </u>	Typic Fluvaquents		:	Field Observations Confirm Mapped Type?		No		
Profile Des	cription:								
Depth (Inches)	<u>Horizon</u>	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.			
0-9	Α	10YR 4/2	10YR 5/8		f-f-d	silly clay			
Hydric Soil	Indicators:					·			
	Histosof				Concretions				
	Histic Epip	edon			High Organic Content in Surface Layer in Sandy Soils				
	Sulfidic Od	or			Organic Streaking in Sandy Soils				
	Aquic Mois	lure Regime			Listed on Local Hydric Soil	s List			
	Reducing (	Conditions		X	Listed on National Hydric S	Soils List			
x	Gleyed or l	Low-Chroma Colors			Other (Explain in Remarks	)			
Remarks::						<del></del>			
			. —						

	VV⊟II	LAND DE	I EKMIN	ATION		
Hydrophytic Vegetation Present?	Х	Yes	No			
Wetland Hydrology Present?	x	Yes	No			
Hydric Soils Present?	х	Yes	Nο	Is this Sampling Point a Wetland?	X Yes	No
Remarks: ALL CRITERIA MET = W	etland 9a					
					An array of by HO	1010

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

Project/Site:	Franklin 20-inch					Date:	May 14, 2008
Applicant/Owner:	Dominion East Ohio					County:	Wayne
Investigators:	C. Lovins, L. Minda					State:	Ohio
Do Normal Circums	tances exist on the site?	х	Yes		No	Communit	ly ID: PEM
Is the site significar	tly disturbed (Atypical Situation)?		Yes	x	No	Transectl	D: Pipeline Centerline
is the area a potent (if needed, explain		_	Yes	х	No	Plot ID:	Wetland 9b

#### **VEGETATION**

Dom	inant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.	Phalaris arundinacea	Н	FAGW+	9.		
2.	Juncus effusus	Н	FACW	10.		
3.	Eleocharis spp.	Н	OBL	11.		
4.	Ranunculus repens	Н	FAC	12.		
5.	Lysimachia nummularia	Н	OBL	13.		
6.				14.		
7.				15.		
8.				16.		
Percent of Dominant Species that are OBL, FACW, FAC 100% (excluding FAC-):						

	Recorded Date (Describe in Remarks	<b>)</b> :		Wetland H	ydrology Indicators
	Stream, Lake, or Tide Group			Prim	ary Indicators:
Х	Aerial Photographs			×	Inundated
х	Other NWI + OWI			х	Saturated in Upper 12 inches
	No Recorded Data Available				Water Marks
Field (	Field Observations:				Drift Lines
					Sediment Deposits
	Depth to Free Water in Pit:	0	(in.)		Drainage Patterns in Wetlands
				Seco	ondary Indicators (2 or more required):
	Depth to Saturated Soil:	0	(in.)	Х	Oxidized Root Channels in Upper 12 inches
					Water-Stained Leaves
	Depth of Surface Water:	8-0	(in.)	х	Local Soil Survey Data
i					FAC- Neutral Test
					Other (Explain in Remarks)

Map Unit i (Series an		Frenchtown silt loan	1	Drainage Class:	Poorly drained
Taxonomy (Subgroup		Typic Fluvaquents		Field Observations Confirm Mapped Type	No ?
Profile De	scription:				<u> </u>
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Maist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.
0-9	Α	10YR 4/2	10YR 5/8	f-f-d	silty clay
Hydric Soi	I Indicators:	· · · <del></del>	<del></del>	<u> </u>	
	Histosol			Concretions	
	Histic Epi	pedon		High Organic Content i	n Surface Layer in Sandy Soils
	Sulfidic O	dor		Organic Streaking in S	andy Soils
		uo:			
	Aquic Moi	sture Regime	×	( Listed on Local Hydric	Soils List
	•		×	•	
x	Reducing	sture Regime	·	•	ric Soils List
X Remarks::	Reducing Gleyed or	sture Regime Conditions	·	Listed on National Hyd	ric Soils List
	Reducing Gleyed or	sture Regime Conditions	·	Listed on National Hyd	ric Soils List
	Reducing Gleyed or	sture Regime Conditions	·	Listed on National Hyd	ric Soils List

	VVE I	LAND DE	EKIMIN	ATION		
Hydrophytic Vegetation Present?	х	Yes	No			
Wetland Hydrology Present?	х	Yes	No			
Hydric Soils Present?	х	Yes	No	is this Sampling Point a Welland?	X Yes	No
Remarks: ALL CRITERIA MET = V	Velland 9b					
				•		
<u> </u>					4	

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

Project/Site:	Franklin 20-inch					Date: May 14, 2008
Applicant/Owner:	Dominion East Ohio					County: Summit
Investigators:	C. Lovins, L. Minda					State: Ohio
Do Normal Circums	stances exist on the site?	х	Yes		No	Community ID: PEM/SS
Is the site significar	ntly disturbed (Atypical Situation)?		Yes	x	No	Transect ID: Pipeline Centerline
Is the area a potent			Yes	x	Nο	Plot ID: Wetland 10

#### **VEGETATION**

Dor	ninant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.	Phalaris arundinacea	н	FACW	9. Viburnum dentatum	s	FAC
2.	Typha latifolia	Н	OBL	10. Comus sp.	s	FACW
3.	Vernonia sp.	Н	FAC	11. Impatiens spp.	н	FACW
4.	Carex.	Н	FACW	12. Onoclea sensbilis	Н	OBL
5.	Acer negundo	s	FAC	13.		
6.	Ulmus rubra	s	FAC	14.		
7.	Salix spp.	s	FACW	15.		
8.	Symplocarpus foetida	Н	OBL	16.		

(excluding FAC-):

Remarks::

Large wetland complex that is bisected by Stream 7, an unnamed perennial tributary to Nimisila Creek.

	Recorded Date (Describe in Remarks)			Wetland Hydrology Indicators
	Stream, Lake, or Tide Group			Primary Indicators:
х	Aerial Photographs			X Inundated
X	Other (NWI + OWI)			X Saturated in Upper 12 inches
	No Recorded Data Available			Water Marks
Field Observations:		Drift Lines		
				Sediment Deposits
	Depth to Free Water in Pit:	10	(in.)	Drainage Patterns in Wetlands
			·	Secondary Indicators (2 or more required):
	Depth to Saturated Soil:	0	(in.)	Oxidized Root Channels in Upper 12 inches
				X Water-Stained Leaves
	Depth of Surface Water:	0-3	(in.)	X Local Soil Survey Data
				FAC- Neutral Test
				Other (Explain in Remarks)

SOILS

Map Unit N (Series and		Sebring silt loam (S	b)		Drainage Class:	Poorly drained	
Taxonomy (Subgroup)	i:	Typic Ochraqualfs			Field Observations Confirm Mapped Type?		No
Profile Des	cription:		•		· · · · · ·		
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.	
0-9	А	10YR 4/2	10YR 5/6		f-f-d	silty clay	
Hydric Soil	Indicators:					<del></del>	
,							
	Histosol				Concretions		
	Histic Epip	edan			High Organic Content in S	iurface Layer in Sandy So	ils
	Sulfidic Oc	ior			Organic Streaking in Sand	ly Soils	
	Aquic Mois	sture Regime		Х	Listed on Local Hydric Soi	ils List	
	Reducing	Conditions		Х	Listed on National Hydric	Soils List	
х	Gleyed or	Low-Chroma Colors			Other (Explain in Remarks	3)	
Remarks::						·	
			<del> </del>				

#### WETLAND DETERMINATION

	<del></del>	116		<u> </u>	21 (MILLIA)	A TOTAL			
Hydrophytic	Vegetation Present?		Yes	X	No				
Wetland Hyd	irology Present?	х	Yes		No				
Hydric Soils	Present?	x	Yes		No	Is this Sampling Point a Wetland?	х	Yes	No
Remarks:	ALL CRITERIA MET - W	etland 10							

Approved by HQUSACE 3/92

### **ROUTINE WETLAND DETERMINATION**

(1987 COE Wetlands Delineation Manual)

Franklin 20-inch					Date:	May 14, 2008
Dominion East Ohio					County:	Summit
C. Lovins, E. Minda	_				State:	Ohio
stances exist on the site?	x	Yes		No	Communit	y ID: PEM
ntly disturbed (Atypical Situation)?		Yes	x	No	Transect II	D: Pipeline Centerline
		Yes	X	No	Plot ID:	Wetland 11
	Dominion East Ohlo	Dominion East Ohio  C. Lovins, E. Minda  stances exist on the site?  X  ntly disturbed (Atypical Situation)?  tial Problem Area?	Dominion East Ohio  C. Lovins, E. Minda  stances exist on the site? X Yes ntly disturbed (Atypical Situation)? Yes tial Problem Area? Yes	Dominion East Ohio  C. Lovins, L. Minda  stances exist on the site? X Yes  ntly disturbed (Atypical Situation)? Yes X  tial Problem Area? Yes X	Dominion East Ohio  C. Lovins, E. Minda  stances exist on the site? X Yes No ntly disturbed (Atypical Situation)? Yes X No tial Problem Area? Yes X No	Dominion East Ohio  C. Lovins, L. Minda  State:  stances exist on the site? X Yes No Communit ntly disturbed (Atypical Situation)? Yes X No Plot ID:

#### **VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicato
1. Typha latifolia	Н	OBL	9.		
2. Juncus effusus	н	FACW	10.		
3. Lysimachia nummularia	Н	OBL	11.		
4. Verbesina alternifolia	н	FAC	12.		
5.			13.		
6.			14.		
7.			15.		
8			16.		
Percent of Dominant Species th (excluding FAC-):	at are OBL, FAC	W, FAC	100%		

#### HYDROLOGY

Recorded Date (Describe i	n Remarks):		Wetland Hy	drology Indicators
Stream, Lake, or Tide	Group		Prim	ary Indicators:
Aerial Photographs			Х	Inundated
Other			х	Saturated in Upper 12 inches
X No Recorded Data Availab	le			Water Marks
ield Observations:				Drift Lines
				Sediment Deposits
Depth to Free Water in Pit:	14	(in.)	Х	Drainage Patterns in Wetlands
			Seco	endary Indicators (2 or more required):
Depth to Saturated Soil:	0	(in.)		Oxidized Root Channels in Upper 12 inches
				Water-Stained Leaves
Depth of Surface Water:	0-1	(in.)		Local Soil Survey Data
				FAC- Neutral Test
				Other (Explain in Remarks)

SOILS

Map Unit Name (Series and Phase):		Wooster silt foam, moderately eroded	•	Drainage Class:	Well-Drained
Taxonomy (Subgroup				Field Observations Confirm Mapped Type?	No.
Profile De	scription:				
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors ( <u>Munsell Moist)</u>	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, Etc.
0-9	Α	105YR 3/2	10YR 5/8	f-f-d	silty clay
Hydric Soi	I Indicators:			<del></del>	
	Histosof			Concretions	
	Histic Epip	sedan		High Organic Content in S	Surface Layer in Sandy Soils
	Sulfidic O	dor		Organic Streaking in San	dy Soils
	Aquic Moi	sture Regime	•	Listed on Local Hydric So	ils List
	Reducing	Conditions		Listed on National Hydric	Soils List
х	Gleyed or	Low-Chroma Colors		Other (Explain in Remark	s)
Remarks::					

WETLAND DETERMINATION

	AAEI	LAND DE	TERMIN	ATION		
Hydrophytic Vegelation Present?	x	Yes	No	{		
Welland Hydrology Present?	x	Yes	No			
Hydric Soils Present?	x	Yes	No	Is this Sampling Point a Wetland?	X Yes	No
Remarks: ALL CRITERIA MET = W	etiand 11					
					Approved by HOL	ISACE

Approved by HQUSACE 3/92

# APPENDIX G Ohio Rapid Assessment Method Field Data Forms

(Note: These forms only provide information on wetland characteristics within the construction corridor.)

Site:	Fra	nklin 20-inch; Wetland 1 Rate	ř(s): C. Lovins, L	. Minda	Date:	April 26, 2008
2	2	Metric 1. Wetland Area	ı (size).			
त्तर ई ठख	elneal	Selections size close and hasilgn scare:				
12	14	Metric 2. Upland buffe	rs and surro	unding land u	sę.	
73+ 14 <u>FE</u> A	subtotist	2a Calculate average buffer width. Select only  X WIDE. Buffers average 50m (184fr) or  MEDIUM Buffers average 15m to 50  NARROW. Buffers average 10m to 50  VERY NARROW. Buffers average 51m to 50  VERY LOW. 2nd growth or older fores  X LOW. Old field (>16 years), shrubland  MODERATELY HIGH. Residential, fell  HIGH. Urban, Industrial, open pasture	ittóre áronnd wellálid perl im (8246 < 1646) áround w 25m (326 to <826) áround im (<326) around welland te or double check and aw 5 panne, savannah, wildid , young second growth for need pasitire, park, conser	meter 17)  élland perimeter (4)  welland perimeter (1)  perimeter (0)  erage.  de area::etc. (7)  est. (8)  vation tillade, new fallow field.	(3)	
7	21	Metric 3. Hydrology.				
43.4 FE pas	şulyacırl	3a Sources of Witter Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennal surface water (lake or stream 3c. Maximum water depth. Select only dne and 10.7 (27.6 in) (3)  0.4 to 0.7 m (15.7 to 27.6 in) (2)  X 30.4 in (< 6.7 in) (1)  Modifications to natural hydrologic regimes.	់ i) (5)	Connestivity Score all that a  100 year fleedplain (1)  XI Between stream/lake an Part of wetlendupland, it XI Part of ripanan or upland Duration mundation/saturation I Senti- to permanently the Regularly inundated/satu XI Seasonally inundated (2 I Seasonally saturated in and availage.	d other hungsgrafternder ( s.g. forest) f. Score of undsted/sa trated (3)	, complex(1) 1) ne or dbi.check; iturated:(4)
		Recovered (7) Recovering (3) X Recent or no recovery (1)	riei Vei	point source (nonstormed filling/gradutg froad bed/RR track dredging pipeline	रसिंदा)	
3	24	Metric 4. Habitat Altera	ation and De	velopment.		
មគ្គ÷ ដូច មគ្គ÷ ដូច	E.htsul	## Substrate disturbance   Score one or double   None or more apparent (4)   Recovered (3)   Recovering (2)   X   Recovering (2)   X   Recovering (2)   X   Recontror no recovery (1)   ## Excellent (7)   Very good (6)   Cood (5)   Moderately good (4)   Fair (3)   Poor (0)   Fair (2)   X   Poor (1)   ## Habitat afferration, Soore one or double check   Check   Recovered (5)   Recovered (5)   X   pgr	dheck áird avéruge. ssign score.	shrub/sajyling, renjoval herbaceousagualic bed sedimentatian	ren'nàval	
, _ / H	24 wwicta this ray	se we to	lective culting ody, debus removal de pollutants:	desigling: facting: nument enrichment		ſ

3

quality of in small amounts of highest quality

Present in moderate or greater amounts

Site:	Fra	ınklin 20-inch; Wetland 2 Rater(s): C. Lovins, L. Minda	Date:	April 26, 2008
3	3	Metric 1. Wetland Area (size).		
Jul 5 gus	€-Internal	Setectione stee close and assign scare  >50 scare (>20 2hi) (6 pis)  25 to <50 acres (10.1 to <20.2ha) (5 pis)  10 to <25 acres (4 to <10.1hg) (4 pis)  X 3 to <10 acres (1.2 to <4ha) (3 pis)  (5.3 to <3 acres (0.2 to <1.2ha) (2pis)  (5.1 to <0.3 acres (0.04 to <0.12ha) (1 pi)  <0.1 acres (0.04ha) (1 pis)		
9	12	Metric 2. Upland buffers and surrounding land us	se.	
175 · 14124	s_bezzal	2a Calculate average buffer width. Select only dife and assign acore. Do not double check WIDE. Buffers average 50m (164ft) or more around watland perimeter (7).  X MEDIUM. Buffers average 15m to <50m (82 to <164ft) around wetland perimeter (4).  NARROW. Buffers average 10m to <25m (32ft) around wetland perimeter (1).  VERY NARROW. Buffers average < [0m (<32ft) around wetland perimeter (0).  Intensity of surrounding land use. Selectione or double check and average.  VERY LOW. 2nd growth or order forest prairie, savannah; wildlife area; etc. (7).  X LOW. Old field (> 18 years), shrubtand, young second growth forest. (6).  MODERAFELY HIGH. Residential, feliced positive, park, conservation tillage, new fallow field.  HIGH. Urban, industrial, open positive, tow croppling, mining, doinstruction. (1).	(3)	
11	23	Metric 3. Hydrology.		
та е К рев	g s filteral	38 Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  Maximum water depth. Selectionly one and assign score.  9.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  X is Seasonally in the perennial surface water (2)  X is Seasonally introducted (2)  X is Seasonally introducted (3)  Admirestions to natural hydrologic regime. Score the or double check and average.	d omer hu e.g. foresh I corndor I. 1. Score o undated/sa Irated (3)	i, complex (1) .() ine or dischedic sturated (4)
		None or none apparent (12) Recovered (7) X. Recovering (3) Recent or no recovery (1)	rater)	
6	29	Metric 4. Habitat Alteration and Development.		
egge ≧E pas	eheal	4a Substrate disturbance Score one or double check and average  Nome or none apparent (4)  Recovered (3)  Recovering (3)  Recont or no recovery (1).  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (6)  Good (6)  Moderately good (4)  Fair (3)  Poor to fair (2)  X Poor (1)  4c. Habitat alteration, Score one or double check and average.		
/	29 vuicità this cay	None or none apparent (9)   Check all disturbances observed,   Recovered (6)   X   Recovering (3)   grazing   herbaceoustaqualic bed   clearcutting   sedimentalism   selective cutting   disease   families   families   numeric enrichment	τειτάναί	

Site: Franklin 20-inch; Wetland 2  29  29  Metric 5. Special Wetlands.  29  Metric 5. Special Wetlands.  30g (10)  Fen (10)  Old growth forest (10)	Date: April 26, 2008
29 Metric 5. Special Wetlands.  29 Metric 5. Special Wetlands.	
29 Metric 5. Special Wetlands.  Ale 12 rd	
नंदर (देन्द्र) Check all that apply and store as it dicated  Bog (10) Fen (10)	
Bog (10) Fen (10)	
Mattine forested wettand.(5):  Lake Erie coastal/tributary wettand-unrestricted hydrology (10):  Lake Erie coastal/tributary wettand-unrestricted hydrology (5):  Lake Prain Sand Promes (Cak Openings) (10):  Relict Wet Praines (10):  Known occurrence state/federal threatened or endangered species (10):  Significant migratory sangbird/water fowf habitat or usage (10):  X Category ( Wetland - See Question 1 Qualitative Rating (-10):	
5 34 Metric 6. Plant communities, interspersion, mic	rotopography.
নার্ক হয়নুকা ক্রান্ডবর্গা চর, Welland Vegetation Continuntilities <u>Vegetation Continuntility Cover Scale</u> Score_all present using 0 to 3 scale:  O Absent or comprises of this (0	2471 dojes) contiguous area
O Aquatic bed I Present and either compases a  1 Energent vegetation and it of moderate 1 Should applificant part but its of low of	e quality, or compilees a
O Forest. 2 Present and either comprises:	
O Other 9 Present and comprises signific  6b horizontal (plan view) interspersion: vegetation and is of high qua	
Selectionly one.  High (8) Normaliye Description of Vegetalian Quality	
Moderatety high(4) low bow spp diversity and/or predo Moderate (3) low spp diversity and/or predo	
Moderately, low (2) mod Native spoure donificant comp  X Low (1) although normative and/or.di  None (0) can also be present, and spe  6c. Coverage of invasive ploitts. Refer noderately, high, but general to Table FORAM long for introduction.	oneitt of the vegetation; sturbance tolerant native app clea diversity nooterate to lywin presence of rare
or deduct points for coverage high A predomination of native specific production of native specific productions and/or disturbance tolerant in Moderate 25-75% cover (-3) absent, and high specific productions of the presence of raise, threaten	iếs, with normality spp ouve spprabsent or virtually y and offan, but not always,
Nearly: absent ≈ 5% cover (6]  X Absent (1) Mudifac and Open Water Class Quality	· · · ·
6d: Microtopography 0 Absent <0.1tip (0.247 acres)	<u></u>
Score all present using 0 to 3 scale. 1 Low 0.1 to < 1ha (0.247 to 2.47	
Vegetated humanicks/business     2     Mixterate 1 to 4 in (2.47 to 9)       0     Coarse woody dators > 15cm (6in)     3     High 4ha (9.58 acres) or more	<u>68:24(45):</u>
O Standing dead >25cm (10m) duli O Amphilian-breeding pools Microtopography Cover Scale	
O such mich order and Apacht Apacht	<del></del>
Present very small africunts of of marginal quality	βιτιότε ςστητιση:
2 Present in moderate amounts, quality of its small amounts.	highest quality
Presentilit moderate or greater and of highest quality	

Site:	Fra	nklin 20-inch; Wetland 3	Rater(s): C. Lovins	, L. Minda	Date:	April 26, 20
3	3	Metric 1. Wetland	Area (size).			
man 5 pm	e_brotal	Selectione size class and assign some	.2ha) (5 p(s) g) (4 p(s) (3 p(s) ha) (2p(s)			
7	10	Metric 2. Upland	ouffers and sur	rounding land u	ise.	
-430 (4) (12a	Libertal	2a Calculate average buffer width S WIDE Buffers average 50h X MEDIUM Buffers average NARROW Buffers average VERY NARROW Buffers a  2b Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Clid field (> 10 years), X MODERATELY HIGH. Resi	elect only crie and essign score.  (164ft) or more around welland  (Shi to -50m (82 to <164ft) around  10m to <25m (32ft to <82ft) around  reage <  0m (<32ft) around welland  Select one or double check and older forest, prairie, savannah, welland bouldand, young second growth	Do not double check përimeter (7) til vielliand perimeter (4) und welliand perimeter (1) and perimeter (0) (average, ildine area; etc.: (7) t forest, (8) tservation tillage, nev fallow held		
12	22	Metric 3. Hydrolo	gy.			
ngi Pi pis	इत्योक्त्या	3a Sources of Water. Score all that is High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonallintermitient surface Perennial surface water (lake 3c. Maximum water depth. Select online 9.7 (27:6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (4)  3e Madifications to natural hydrologic	ipply. e water (3) e or etream) (5) y-dne and sesign score: 2)	3b. Connectivity Score all that  100 year floodplain (1)  X. Setween stream/lake a Part of wetendarpland, Part of inparian or upon 3d. Duratien inundation/saturati Senii- to permanently in Regularly inundated/saturation X. Seasonally inundated ( X. Seasonally saturated in	rid other hur (e.g. forest) id-comdor i on. Score u rundated/sa iurated (3) 21	, complex (1) 1) ne on dan shedic turated (4)
		None or notice applicate it (12) Recovered (7) X (Recovering (3) Recent or no recovery (1)	'Check all disturbances obsein duch tile dike werr stormwater input	point source (rionstorn filling/gradirlg freed bed/RR track dredging other pipeline		
6	28	Metric 4. Habitat <i>i</i>	Alteration and D	evelopment.		
19 ± 25 gáy	es.[stevar]	4a Substrate disturbatine. Score one None or more apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1). 4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration, Score one or development.	of double check and average.  une and assign score.	•		
··/	28	Note or none apparent (9) Recovered (6) X: Recovering (3) Recent or no recovery (1)	Check all disturbances observed in a wing grazing elective culting woodly debris removal toxic pollutarts.	ed. shrub/sapling,removal herbscsöus/aquatic be sedimentation diedying faming nürrient einschment	d removal	,

ORAM V. 5.	a Field Fo	rm Quantialive Rating			
Site:	Fran	nklin 20-inch; Wetland 3	Rater(s):C. Lovin	ns, L. Minda	Date: April 26, 2008
. 51	28	163			
	28	Metric 5. Special W	/etlands.		
ofse (Sec.)	اوبينال و	Check all that apply and score as indicate			
		Bog (10) Fen (10) Fen (10) Okligröfish forest (10) Makine forested wetland (5): Lake Erie coestalltributary wetla Lake Plam Sand Promes (Oak ( Relict Wet Praires (10) Known occurrence state/federal	and-turrestricted hydrology and-réstricled hydrology (f Openinga) (10): I fitreatemed of endangere vater fowl habitat or usage	5) 4 speč(es (10) 4 (10)	
<u> </u>	<u> </u>	Category   Welland See Que	átlogi i Qualitative Rafigg (	-10)	
5	33	Metric 6. Plant con	munities in	terenersion mi	crotopography
ள் <b>ச</b> ்சிர்க்	ر اأون <del>ددا</del> ة	Ba. Wettand Vegetation Communities	Vegerallon Commu		er otoboži abitů.
an arbiti	, 15"	Score all present using 0 to 3 scale.	0	Absent or comprises * (f: \ha.	(0.2471 acres) contiguous area
		O Aquatic beti 1 Enjetgent 1 Shrub	1	Present and either comprises regetation and is of madeta significant part but is of low	ate quality, of comprises a.
		O Forest O Mudilats O Open water	2	Present and either comprises	
		O Other  6b. horizontal (plan view) interspersion	3		icant part or more, of welland's rainy
		Select only one. High (5)	hla dagatan Trakanakan	on of Vegetalion Quality	
		Moderately high(4)  Moderate (3)	low.	Low spp diversity and/or pred disturbance to be said native	
		Moderately (cw (2) X Low (1)	hiog		disturbance tolerant native spp.
		Mohe (0)  6c. Coverage of Invasive plants. Refer to Table LORAM long form for list. Add		can also be present, and si moderately high, but gener threatened of endangered	
		or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high		nistive apprabaent or virtually sify and often, but not always.
		Nearly absent 5% cover (0)	<del></del>	the bis-dilet at all of all 624	destruction of Control State - 30 mbb
		X Absent (1)		Noter Class Quality	
		6d Microlopography Score all present using 0 to 3 scale.	<u> </u>	Absent <0 the (0.247 agres) Low 0.1 to < the (0.247 to 2.4	<del></del>
		Vegetated hunmuckshussucks	2	Moderate   to Alto (2.47 to	
		O Coarse woody debris > 15cm (6		High 4ha (9,56 acres) or mor	
		O Standing dead >25cm (10in) du			<del></del>
		Aurohildam beseding pools	Microtopography C	over Scale Alisent	
			1	Present very small althounts of marginal quality	Kiffhare compan
			2	Present in moderate amounts quality of in small amounts	
			<del>वि</del>	Present in moderate or great and of numer quality	

	Mecovering (c)
	X Recent or no recovery (1).
40	
	Excellent (7)
	Very good (6)
	Good (5)
	Moderately good (≤)
	Fatr (3)
	Poor to fair (2)
	X Poor (1)
dr.	Halvitat atteration. Score one or double check and average.
•	
	None or none apparent (9)   <u>Chieck all disturbances observed,</u>
	Recovered (5) X modified shrill/sapiling.removal
	Recovering (3) grazing Inerbaceolus/aquatic best removal
	X Recent or no recovery (1)   clearcutting sedimentation
1445	
1 14.5	woody debris removal familing.

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Site:	Fran	klin 20-inch; Wetland 4	Rater(s);C. Lovi	ns, L. Minda	Date: April 26, 200
	14.5	<b>1</b>			
-10	4.5	Metric 5. Special W	etländs		
rjet 170s,	g.(Herrigh	Check all that apply and store as indicated Bog (1D) Fen (10) Old growth forest (10) Matture forested wetland (5) Lake Ene coastall tributary wetter Lake Ene coastall tributary wetter take Plain Send Praines (Oak O Reffor Wet Praines (10) Krown occurrence state federal Significant migratory sangbird/we	l. nd-umestricted hydrology nd-rëstricted hydrology pennaga) (10): threatened on emainged aterfowl habitat er desa	5) ed spedles (10) e (10)	
4.5	8.5	X Category   Welland See Obest			aratańa aranhu
<u> </u>	<u> </u>	Metric 6. Plant com			crotopograpny.
mac Zigis:	ndrádí.	6a. Welland Vegetation Continualities. Score all present using 0 to 3 scale.	Vegetation Comm		(0.2471 agres) contiguous area
		O Aquatic bed: O Entergent		Present and either comprises	sismali part of Wetland's als quality, on complises a:
		O Forest O Mudilats 1 Open water	2	Present and either comprise	
		O Other Sb: horizontal (plan view) interaperation:	a a	Present and comprises signification and le of high que	liçanı part, or more, of wellandis Hality
		Select only one. High (5)	Named to transfer	ion of Vegetation Quality_	
		Moderately high(4)  Moderate (3)	Wol.	Low spp diversity and/or pre-	
		Moderately fow (2) Low (1) X None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for first. Add	nted		disturbance tolerant native spo përilës diversity ritoderate to allywio presence of rars
		or deduct points for coveringe  Extensive >75% cover (-5)  Moderate 25-75% cover (-1)  Sparse 5-25% cover (-1)	high:	A predominance of native su and/or disturbance tolerant	edies, with normative spp mative spp absent or virtially sity and offen, but pot always,
		Mearly:absent≪5% cover (0)  X Absent (1)	Moulitas and Classes	Water Class Quality	
		6d Microtopography	<u>munitarana cisen</u>	Absent <0 the (0.247 acres	<del></del> }
		Score all present using 0 to 3 scale.		Low 0.1 to < 1h3 (0.247 to 2.	
		Vegetaled hummucks/jusedcks	ž	Moxietate   to 44to (2.47 to	
		O Coarse woody debris > 15cm (6ir O Standing dead >25cm (19in) delf	!	High 4ha (9.85 acres) or mor	<del></del>
		1 Amphillian breeding pools	Microtopography		
			<u> </u>	Alisent Present very entitle afficients	of Ill hore sommon
			2	of marginal quality Present in moderate amount quality or in small amounts	

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Present in moderale or greater aniquits

woody debris removal

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ntiment enrichment

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Pleasent in moderate amounts, but not of highest quality or in antall amounts of highest quality

Present in moderate or greater amounts

and of monest quality

	Site:	Fra	nklin 20-inch; Wetland 6	Rater(s): C. Lovins, L. Minda	Date: May 14, 2008
	2	2	Metric 1. Wetland	Area (size).	
- 	क्रमा ई हेळ्	e_broval	Selectione size close and assign score:	(4-ពន៌) pris) ១) (2pts)	
	9	11	Metric 2. Upland b	uffers and surrounding land	use.
•	-T3+ ₹4 <u> -</u> -E	<u>्</u> कार-श्री	2a Calcolate average buffer with Sell WiDE. Buffers average 50m of X MEDIUM. Buffers average 25 NARROW. Buffers average 1 VERY NARROW. Buffers average 1 VERY LOW. 2nd growth or of X LOW. Clid field (> 10 years), a MODERATELY HIGH. Residu	ept only one and assign acore. Do not double check 164ft) or n'one around welland perimeter (7). In to <50m (82 to <164ft) around welland perimeter (4). In to <26m (82 to <82ft) around welland perimeter (4). In to <26m (32ft to <82ft) around welland perimeter (1). In to <26m (32ft) around welland perimeter (9). Selectione or double check and average. Selectione or double check and average around the forest parime, savannah, wildlife area; etc. (7). In the following second growth forest. (6). In the following second growth forest. (6). In the following second provided th	
	10 1102 FT F35	21 enhestát	Metric 3. Hydrolog 35 Sources of Water Score all that en High pH groundwater (5) X Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake-	ply. 3b. Connectivity: Score all 100 year floodplain Between stream/la Part of wetendarp) water (3) Xi Part of riparian or u	((1) ike and other human use (1) land,(e.g.:forest), complex (1)
				Regulariv mundate Seasonally inundate X Seasonally saturate apime. Score one or double check and average	
			Notic or none applaied(112) Récovéred (7) X. Récovéding (3) Recent or no récovery (1)	Check all disturbances observed dich tille dike dike wer stormwater input  Check all disturbances observed point source (hons filling/grading read bet/RR track designg X other pipel	
	3	24	Metric 4. Habitat A	Iteration and Development.	
	क- ≧ह्य	€_(हत्या)	1a Substrate disturbance Score line of None or nane apparent (4) Recovered (3) Recovering (2) X Recent or no recovery (1). 4b. Habitat development. Select only a Excellent (7) Very good (6) Good (6) Good (6) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration, Score one or dot	ne and assign score.	
شمسد		24 evolkta dia bag	Molte or none apparent (9) Recovered (5) Recovering (3) XI Recent or no recovery (1)	Chieck all disturbances observed.  X moviling shrub/saping remo prazing herbaceobstaguati sedimentation selective culting selective culting three polytopers removal farming toxic polytopers.	îç bed removal

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

Site:	Fran	klin 20-inch; Wetland 7a	Rater('s): C. Lovins,	L. Minda	Date:	May 14, 2008
4	4	Metric 1. Wetland	Area (size).			
man 5 pus	स्य <u>ा</u> गुरुशा	Selectione size close and resign score.  <50 acres (520 2ha) (6 pts) 25 to <50 acres (10 fts <20.2 x) 10 to <25 acres (4 to <10 fts) 3 to <10 acres (1.2 to <4ha) (3 to <0.3 acres (0.12 to <4.2 ha) (3 to <0.3 acres (0.04 to <0.1 acres (0.04 to	,(4 ptš) pts; ı) (2pts)			
14	18	Metric 2. Upland b	uffers and surro	ounding land u	sę.	
म्बर्ग १५ वस्त	<u>ह्यास्ट</u> इबी	MARROW, Buffers average 1. VERY NARROW, Buffers average 1. VERY NARROW, Buffers average 2. Intensity of surrounding land use VERY LOW, 2nd growth or oil LOW, Citd field (> 10 years), st MODERATELY HIGH, Reside	164ft) or more argund welland pe in to <50m (92 to <164ft) argund Im to <25m (32ft to <92ft) argund rage <∥0m (<32ft) argund wellam Select one or double chack and a	ilmeter (7) Welland perlmeter (4) I welland perlmeter (1) I perlimeter (0) Verage Vife area: etc: (7) Vest. (3) Vest. (5)	(3)	
19	37	Metric 3. Hydrolog	Ÿ.			
nae PC pus	guhtecgi	3a Sources of Water. Score all that an High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  X Seasonal/Intermittent surface 2  Perennal surface water (lake of 20.7 (27.6 in) (3)  X 0.4 to 0.7 m (15.7 to 27.6 in) (2)  3e Madifications to natural hydrologic in the physical surface 27.6 in) (2)	olly. 3t water (3) or stream) (5) 3d dite and essign score:	Connectivity: Score all that a  100 year fleedpilatin (1)  X Between stream/lake ar  X Part of wetlandsupland, Part of inparien or uplan  Duration inundation/saturatio  Senu- to permanently in  Regularly inundated/sat  X Seasonally inundated (a  X Seasonally saturated in  k and average.	id other hur e.g. forest), d.comdor ( n. Score o undstedisa urated (3)	, complex (1) 1) ne or dix sheck, turated:(4)
		None of none apparent (12) Récovéréd (7) X Récovérit (3) Récent or no récovery (1)	Check all disturbances chaseves durit   durit   durit   tile   dike   weu   stornwater uput	point squire (nonstorma illing/grading XI road bed/RR track I dreaging XI other pipeline	valer)	
9	46	Metric 4. Habitat A	Iteration and De	evelopment.		
<b>ា</b> ភ្នំស	Editional	4a Substrate disturbance Score inte of None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1). 4b. Habitat development. Select only or Excellent (7) Very good (6) Good (6) X Moderately good (4) Fair (3) Poor (0 fair (2) Poor (1) 4c Habitat alteration. Score one or dout	r double check áirid average. ne and assign score, b <u>lé chéck and average</u> . Chéck all disturbánčes obséřvec	I,		
~ <b> </b>	46	Récovéred (5)  Xº Recovering (3)  Recent or no récovery (1)	mowling grazing: X clearcutting selective culting woodly, debris removal toxic polluteres	shrub/sapling, rémoval hertsceottstaguaile bed sedimentation diedging faming nutrient annchment	rennival	

Site:	Fran	nklin 20-inch; Wetland7a	Rater(s):	C. Lovi	ns, L. Minda	Date: May 14, 200
	46					
	46	Metric 5. Special W	etlands	S.		
cina (5 um.	التحملاه	Check all that apply and score as indicate Bog (10) Fen (10) Old growth forest (10) Mature forested wetland,(5) Lake Erie coastal/tributary wetla Lake Erie coastal/tributary wetla Lake Fram Sand Praimes (Oak 6 RelictiWet Praires (10) Kriown occurrence state/federal Significant migratory songbirdiv.	si nd-umestileted Nd-réstricted in Openingsi (18):	i hydrology ( ydrology (5) enddingered	spedles (10)	
		Calegory   Welland See Ques				
13	59	Metric 6. Plant com	munitie	es, int	erspersion, mi	icrotopography.
ma ( 22 g/s.	s.b.zej	6a. Welland Vegetation Communities			ty Cover Scale	
		Score all present using the 3 scale:  1 Aquatic bed		iO	Present alid either comprise	1 (0.2471 acres) confiduous area
		2 Emergent		•		rale quality, on compiles a
		1 Shrub			significant part but is of low	w quality
		0 Forést 0 Muditats 1 Open water		2		s significant part of Wedand's rate quality or comprises a social
		O Other  Ob: horizontal (plan view) interaperator-		<b>9</b>		ificant part, or more, of welland's jublity
		Selectionly one. High (5)	Narralive	Description	of Vegetallon Quality	
		Moderately high(4):		low	Low-spp diversity and/or pra	
		Moderate (2) Moderately (on (2)		ntod	distribance relevant native	
		Low (1)	•	1110071		rdisturbance tolerant native spp
		Mone (0)				spēcies diversity nvocerate lo
		6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add			moderately high, but gene threatened or endangered	
		ör deduströgintsrör söverege	<del></del>	high	A predominalice of native st	
		Extensive >75% cover (-5)		. •	and/or disturbance interan	it notive apprabaent or virtually.
		Moderate 15-75% cover (-3)				rsity and often, but not always.
		Sparse 5-25% cover (-)  X Nearly absent :5% cover (0)		<del></del>	the presence of rare, threa	ilened, or endangered app
		Absent (1)	. Mudfjat g	nd Ogen Wa	ter Class Quality	
		6d Microtopography		(i	Alisent <0.1hp (0.247 acres	
		Scote all present using 0 to 3 scale.		1	Low 0.1 to < th. (0.247 to 2.	
		<ul> <li>Vegetated hummucks/tussucks</li> <li>Coarse woody debns &gt; 15cm (6)</li> </ul>		3	Mixterate to valid (2.47 to High:4ha (9.66 acres) or mo	
		1 Standing dead >25cm (10m) do		¬¹	to officiate feroic detoes of 100	**************************************
		1 Amphibian breeding pools		ography Cov		
		<del></del>		Ū·	Alisent	out thereign and single
				17.	Present very small alhounts	set hattore condition:

2

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

ORAM V. 5.	0 Fleid Fo	m Cyantholive Raing:	·		
Site:	Fran	nklin 20-inch; Wetland7b	Rater(s): C. Lov	vins, L. Minda	Date: May 14, 2008
5	47	    Metric 5, Special \	Vetlands:		
alex II Bis.	4 (Les <del>is</del> )	Check all that apply and score as indicated as indicated as indicated as indicated (10).  For (10)  Old growth forest (10).  X Mature forested wetland (5).  Lake Ene coastabilinuary we have Energy English Sand Province State Energy English Sand Energy English English Energy English	tisk und-umestricted hydrology Und-restricted hydrology (S Openings) (10): Id filrestened or endangete Iwater fow habitat er usage	ට) ශ්රීකාවේදීම (10) (10)	
16	68	Metric 6. Plant cor			rotopography.
तात्र ६ 🏗 दृष्ट		Ba, Welland Vegetation Communities	Vegeration Commu		
		Score all present using 0 to 3 scale.	<u> </u>		1:2471 acres) contiguous area
		1 Aquatic bed 2 Enjergent 1 Shriib	Ť	Present and either comprises:  vegetalion and us of modera  significant partibut is of low	te quality, or compulses a
		2 Forest 0 Mighliots 1 Open water	<u>.</u>	Present and either comprises vegetation and is of madera part and is of high quarity	significant part of wettand's to quality or congress a small
		O Other 6b: horizantal (plan view) Interspersion	3	Prêsent and comprises signifi vegetation and is of high qu	ant part, domore, of welland's ality
		Select drily one:	Marileneitten Priese Selfeit.	on of Vegetation Quality	
		Moderately high(4). [Woderate (3)	Martanke nestribut	row app diversity and/or pred	
		Moderately fow (2) Low (1) Noire (0)  6c: Coverage of invasive plants. Refer		can बीड़क घंड present, and sp गावर्यकावांक्र high; but genera	isturbance tolerant native app enles diversity moderate to Ilywio presence of rate
		to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)  Moderale 25:75% cover (-1)  Space 5:25% cover (-1)	high		cies, with nonnalive spp native spp absentior virtually ty and often, but not always,
		X Nearly absent <5% cover (0)	an energy frames a	AA PRINT TO AN ACTION	
		Absent(1)	Mudflot and Open Y		<del></del> _
		6d Miorotopography Score all present using 0 to 3 scale.	t	Absent <0.1hp (0.247 acres) Low 0.1 to <1hp (0.247 to 2.4	Thereas!
		Z Vegetated hummucks/juseut)	is "Z	Moxistrate 1 to 41ta (2.47 to )	
		Coarse woody debris > 15cm		High:4ha (9.88 agres) or more	
		1 Standing Sead >25cm (10in)			<del></del>
		1 Amphillian breeding pools	Microtopography C	over Scola	
		tal inn which de construction (a) to a larger	<u> </u>	Absent	
			1	Present very small almounts of marginal quality	
			1	Present in moderate amounts quality or in small amounts	of highest quality
<b></b>	l		3	Present in moderate or greater and of highest quality	r ស្ថាល់ហាទ៉ែ

S	ite:	Fra	nklin 20-inch; We	lland 8	Rater(s): C. Lovins	s, L. Minda	Date:	April 26, 20
	1	1	Metric 1. W	etland .	Area (size).			
/	rat S des	e_hocal	Selections also close alto \$50 acres (\$20) 25 to \$50 acres 10 to \$25 acres 3 to \$10 acres 0.3 to \$3 acres X 0.1 to \$0.3 acres \$0.0 acres (0.0)	2ha) (6 pts) (10.1 to <20,2 (4 to <10.1 ha) (1.2 to <4ha) (3 (0.12 to <1.2 ha) (0.024 to <0.1	(4 p(š) (pts) a) (2pts)			
	9	10	Metric 2. U	oland b	uffers and sur	rounding land u	se.	
71	a - †4 (=19	Liutosat	WIDE Suffers  X MEDIUM BUTT NARROW, BUTT VERY NARRO  Dolorsty of surround VERY LOW. 2 X LOW. Old field MODERATELY	average 50m ( ers average 16 fers average 16 W. Buffers ave ng land use (>10 years), sl 'HIGH, Reside (*11 Reside	eçt ollly ofte and assign score 164ft) or more around welland ht to <50m (824o < 164ft) around lint to <25m (32ft to <82ft) around vet select one or double check an der forest, prome, sevennah; y mutaand, young second growd pasture, row cropping, mining	périmeter (7) nid wéllánd perimeter (4) und wéllánd perimeter (1) land perimeter (0) d average. vildife arganeto: (7) n forest. (5) nsérvátion tillade, new fallow field.	. (3)	
	8	18	Metric 3. Hy	/drolog	· <b>y</b>			
TI	a• ≩∑ pie	inficaj	33 Sources of Writer S High pH ground Dither groundwick X Precipitation (1) X Seasonal/Inter Perennial surfa 30 Maximum water dept 20,7 (27:6in) (3 0.4 to 0.7 m (15) X <0.4 m (<15.7 in 36 Maximum kater)	core all that ap lyader (5) aler (3) initient surface ce water (lake h. Select only ) 7 to 27.6(n) (2) (1) sal hydrologic a	ply. water (3) or stream) (5) dua and assign score. I <u>eajme Score doe or double d</u>		nd other hunder (deciment) deciment (en. Score of hundeted/seturated (3) 2)	, donnélex (1) 1) ne og disksheck sturated (4)
			None or none a Recovered (7) Recovering (3) X Recent or no re	'	/Check all disturbances obser dirch tille dike weir stornwater input	read paint source (nameterm milling/grading mark dredging X other pipeline		
	3	21	Metric 4. Ha	abitat A	Iteration and I	Development.		
19	* (2) (4)	editional	None or mone a Recovered (3) Recovering (2) X Recent or no re 4b. Habitat development Excellent (7) Very good (6) Good (6) Moderately goo Fair (3) Poor to fair (2) X Poor (1) 4c Habitat alteration, So Recovering (3)	pparent (4) covery (1). Select only or d (4) wire one or dou ipparent (9)	ble check and average.  Check all disturbances obser  mowing grazing	shrub/sapling removal herbaceobs/aquatic bea	i sentával	
ممي	ž/	21 uulitii dhis gag	X Recent or no re	оэмецу (1)	clearcutting selective critting woodly debris removal toxic polititents	nitiveut stuchment etegling sediment stuchment		

Site:	Frai	nklin 20-inch; Wetland 8	Rater(s):C. Lovins	s, L. Minda	Date: April 26, 2008
	21 uniota: #rs 0:	9 <del>0</del> 9			
	21	Metric 5. Special W	etlands.		
M=4 12 um.	a Uberrial	Check all that apply and score as indicated  Bog (10)  Fen (10)  Old growth firest (10)  Mature forested wetland (5)  Lake Erie coastal tributary wetlar  Lake Fran Sand Promes (Oak Or Relict Wet Praires (10)	id-umestricted hydrology id-restricted hydrology		
	· · · · ·	Known occurrence state/federal to Significant migratory sengbird/wa Category 1 Welland See Queati	iter fowl habitat or usage i	(10)	
4	25	Metric 6. Plant com			rotopography.
ma e 21 pra.	ंदंभ्यंत्री	6a: Walland Vegetation Continunities	Vegetation Commu	lty Cover Scale	<u> </u>
		Score all present using 0 to 3 scale.  O Aquatic bed	<u>D</u>	Absent or comprises • (I) tha (0) Present and either comprises •	
		1 Enlergent 0 Shrub	·	vegetation and is of moderals	duality, or comprises a
		O Forést O Mudilass	<u> </u>	eignificant part but is of low q Present and either comprises a vegetalion and is of moderate	
		O Open water		pait and is of high quality	
		O. Other  St. horizontal (plan view) interspersion.	<u></u>	Present and comprises signific vegetation and is of high qua	
		Select only one.	ALCOHOLOGY CONTRACT		
		Fligh (5)		n of Vegetation Quality	
		Moderately high(4). Moderate (3)	"low" " -	Low-spp diversity and/or prado sliekulipance to erant native sp	
		Moderately (pw (2) X Low (1)	mod	Native spp are dominant comp	
		None (0)  6c. Coverage of investive ploints, Refer to Table i ORAM long form for list. Add		can also be present, and spe moderately high, but generall threatened or endangeted sp	ywlo presence of rare
		or deduct points for coverage	high	A predominatice of native spec	ies, with nonnative spp
		Extensive >75% cover (-5) Modérate 25-75% cover (-3) Sparse 5-25% cover (-1)		and/or disturbance tolerant ri- absent, and high spp diversit the presence of rate, threater	y and often, but not always.
		Nearly, absent ≪5% cover.(0)  X Absent (1)	Mudflat and Open W		<u></u>
		6d: Miorotopography	.0	Absent <0 the (0.247 acres)	·
		Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47	
		T Vegetated hunmutks/tuseucks	<u>Z</u>	Moderate 1 to 4lna (2.47 to 9	88 asces)
		O Coarse woody debris > 15cm (6in O Standing dead >25cm (10in) duh	·	High:4ha (9.88 peres) or more	<del></del>
		O Amphilitian breeding pools	Microtopography Co		
		<del></del>	<u> </u>	Absent.	
			1:	Present very small appounteror. of marginal quality	15
			2	Present in moderate amounts, quality or in sntall amounts of	
			3	Present in moderate or greater and of nighest quality	
					- <del></del>

toxic poliutants

ntitnent enrichment

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symicia slak pays

Site:	Fran	nklin 20-inch; Wetland9a	Rater(s); C. Lo	ovins, L. Minda	Date: May 14, 2008
] 	31				
·	31	Metric 5. Special W	etlands		
श्रीकी स्मिश्नक	التبينال و	Check all that apply and score as indicated Bog (10) Fen (10) Old,growth forest (10) Mature forested welland (5): Lake Erie coastal/infoutary wellan Lake Erie coastal/infoutary wellan Lake Erian Sand Frances (Oak O Relite Wet Praires (10) Known occurrence state/federal in Significant migratory sangbird/wa	d-umestricted hydrolog d-restricted hydrology senings) (10)). frestened on enddinger terfowl habitat or desg	(d) spečles (10) e (10)	
	-	Category (Welland See Olives)			
5	36	Metric 6. Plant com			rotopography.
ma ( 21 pg)	1.45%	6a. Wetland Vegetation Communities	Vegetation Comm		
		Score all present using thic 3 scale.	Ü	Absent or comprises <0:11a,0	
		O Aquanc bed	†	Present and either comprises:	
		2 Energen		vegetalion and te of modulat	
		1 Shrub 0 Forëst		eignificant part but is of low of Present and either comprises	
		O Mydlets	2		agunical u pan or wessing s a quality or campi ses a gridil
		Obeu.mater.		balt and is of yildy deality.	sialdenish an dan di Bada Sibi Kill
		0. Other	<u> </u>	Present and comprises signific	ant part, or more, of welland's
		6b: horizontal (plan view) interageration		regation and is of high qua	
		Sele <u>ct only</u> one.	<del>5.</del>	, , , , , , , , , , , , , , , , , , , ,	
		High (5)	Narrative Descript	on of Vegetation Quality	
		Modesstaty high(4)	wol	Low spp diversity and/or prado	
		Muderate (3)		disturbance loveralit native s	
		X Moderately (ow (2) Low (1)	niod [*]	Native spp are dominant comp	occept or the vagetation; sturbance tolerant native spp
		None (0)		can also be present, and spe	
		6c. Coverage of invasive plants: Refer		moderately high, but general	
		to Table I ORAM long form for list. Add		threatened of endangered st	
		or deduct points for coverage	high	A predominance of native spec	
		Extensive >75% cover (-5)		and/or disturbance folerant n	
		Moderate 25-75% cover (-3)		absent, and high sop diversi	
		Space 5-25% cover (-1)  X Nearly absent 45% cover (0)	<del></del>	the presence of rare, threate	ned, or endangered sop
		Absent (1)	Mudfint and Orion	Water Class Quality	
		6d. Microtopography	(i	Absent <0 this (0.247 acres)	<u> </u>
		Scote all present daing 0 to 3 scale.	1	Low 0.1 to < ths (0.247 to 2.47	ecres)
		Vegetated hummucks/tussucks	.2.	Mixierate 1 to valva (2.47 to 9	\$8 acres)
		U Coarse woody debris ≥15cm (6in	)	High 4ha (9.88 acres) or more	· · · · · · · · · · · · · · · · · · ·
		O Stairtling dead -25 orn (10in) duh	en e		
		🚺 Aπρίλίβιση breading မှတ်ဖြစ်	Microtopography		·
			<u></u>	Alisent Present very small almounts of	if the commons
			1	of marginal quality	ा गोरासके वे अंतरावाकी
				Present in moderate amounts.	but not of highest
			<del>-</del>	disality of in small amounts is	

Presentin moderate or greater amounts and of highest quality

Site:	Fran	klin 20-inch; Wetland 9b	Rater(s); C. Lovin	s, L. Minda	Date:	May 14, 20
4	4	Metric 1. Wetland	Area (size).			
गार्थ	eduzon)	Selectione size class and assign scare  50 acres (520 2ha) (6 pts) 25 to 550 acres (10.1 to 520, X to 50 acres (4 to 50 th 3 to 10 acres (1.2 to 4ha) 0.3 to 10 acres (0.04 to 50, 0.1 to 0.3 acres (0.04 to 50, 40.1 acres (0.04ha) (0 pts)	2ha) (5 pts) 기.(4-μιβ) (3 pts) 13 pts) 13 (2pts)			
5	9	Metric 2. Upland b	ouffers and su	rrounding land u	ıse.	
43 × 14 529	Elateral	2á Galculáte average buffer width. St. WIDE. Buffers average 50m X MEDIUM Buffers average 2 NARROW. Buffers average VERY NARROW. Buffers av 2b fotensky of surrounding land use. VERY LOW. 2nd.growth or 4 LOW. Crit field (>10 years),	slept only one and assign score (164ft) or more around wallah Sin to <50m (82 to < 164ft) around to (82ft) around to <25m (32ft to <82ft) around wallah school one or double chack around to savannah; shrubland, young second grow befola, lehded pasture, park, o	e. Do not double check d petimeter (7) und welland perimeter (4) ound welland perimeter (1) ulique perimeter (0) nd average. wildnie angaliete: (7) nh forest (6) gneervation tillage, new fallow field		
10	19	Metric 3. Hydrolog				
ngo 3ử psa	; şuğlacd)	3a Sources of Water. Score all that a High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  X Seasonal/Intermittent surface Perennial surface water (lake 3c. Maximum water depth. Selection)  \$0.7 (27.6in) (3)  0.4 to 0.7m (45.7 to 27.6in) (3)  X < 0.4m (< (5.7in) (1)  3e Modifications to national hydrologic	e water (3) or stream) (5) one and assign score. 2) regime. Score one or double		) and other hur nide ornsion ( ion, Score or inundated (3) sturated (3) (2)	, complex (1) 1) ne or dbi-cheqk: turated (4)
		None or none apparent (12) Récovered (7) Récovering (3) X Récent or no récovery (1)	Check all disturbations observed the distribution of the distribution of the stormwater input	point squires (nonstorn in illing/grading read bet/RR track idredging X gth≊ pipeline		
5	24	Metric 4. Habitat A	Alteration and	Development.		
गत्र ≱हळ	salyteath	### Substrate disturbance   Score one	or double check and average.  Double check and average.  Check all disjurbances obse	irved,		
/	24 sustets this co	Recovering (3)  X Recent or no recovery (1)	X grazing clearcuting selective culting woody debris removal toxic pollutents	herbaceouskaguatio be sedintentation diedeling faming nument ennohment	d remisvel	

Site:	Fran	nklin 20-inch; Wetland9b	ater(s):	C. Lovi	ns, L. Minda	Date: May 14, 2008
j a	24	<b>_</b>				
	24	Metric 5. Special We	tlands	š.		
eise 15 maj	ووخيطانه	Check all that apply and score as indicated  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5): Lake Eric constatitibulary wetland Lake Eric constatitibulary wetland Lake Plain Sand Promes (Oak Ope Relict Wet Praires (10) Known occurrence statelisederal thi Significant migratory sangbird/wate	i-urrestricted -rëstricted ky anioga) (10): reatened gra arfowi frabite	i nydrology (: diology (5) anddrogeted it or usaga (*	spečies (10) 10)	
<del></del> _		Category   Welland See Queation	n I Quálltáin	e Raing (-1	0)	
5	29	Metric 6. Plant comn	numitiz	ac int	ersnersion micr	otonogranhy
णकर देही हु%	الدخانة	6a. Welland Vegetation Communities.			ty Cover Scale	oropograpity.
May affiliate	400-404JII	Score of present using this 3 scale.	: (a istilitamenti	:D	Absent or comprises • 0: tha (0.2)	471 acres) contiduous area
		O Aquatic bed Entergent O Shrub		Ĩ	Present and either comprises an regelation and is of moderate significant part but is of low qui	iali part of wetland's quality, on comprises a
		O Forést O Midflats O Open water		2	Present and either compress signed vegetation and is of mederate part and is of high quality	inlificant part of wetland's
		O Ciber 6b: horizantal (plan view) Interspersion: Select only one:		3	Present and comprises significal vegetation and is of high qualit	
		Select off y one. 知例 (5)	Narradive	Description	of Vegetation Quality	_
		Moderately high(4): Moderately high(4):		Wó	Low-spp diversity and/or predom distulbance tolerant native spe	
		Moslerately (ew (2)  X Low (1)  Noise (0)  6c. Coverage of mynastye plants. Refer to Table 1 ORAM long farm for list. Add	· †1	nod	Nailye spp are dominant compose although normative and/or dista- can also be present, and spent moderately-high; but generally, threatened or andangered spp.	urbance tolerant native spp és diversity niciderate lo w/o.presence of rare
		or deduct points for coverage  Extensive >7.5% cover (-5)  Moderate 25-7.5% cover (-3)  Space 5-25% cover (-1)	h	igh	A predeminance of native special and/or disturbance tolerant rist absent, and high specific diversity. The presence of rate, threatened	ive spp absent or virtually and often, but not always,
		X Nearly:absent <5% cover.(0) Absent (1)	Mudflat ái	nd Oišen Wi	ter Class Gunlity	
		6d: Migratopography		O	Absent <0.1hp (0.247 acres)	<del></del>
		Score all present using 0 to 3 scale.		1	Low 0.1 to < that (0.247 to 2.47 a	
		<ul> <li>Z Vegetated hummuckshussucks</li> <li>U Coarse woody debns ≥ 15cm (6in)</li> </ul>	<del></del>	<u>ረ-</u> 3	Mixierate 1 to calta (2.47 to 9.6 High 4ho (9.86 acres) or more	g açres)
		O Standing dead >25cm (40in) dun			Transfer and felt on Balteshot High	
		1 Amphilism breading pools	Microtopo	kinaphy Ces		<del></del>
			-	.0"	Absent	Access to the second
				T	Present very small appoints of it of marginal quality	uniose conflicial
			<del></del> -	2	Present in moderate amounts, by	ul not of highest

3

quality of in small amounts of highest quality.

Presentin moderate or greater amounts

Site:	Frank	lin 20-inch; Wetland 10	(ater(s): C. Lovins, L. Minda	Da	te: May 14, 2008
4	4	Metric 1. Wetland A	rea (size).		
man dag	<u>इ.जीहरूल</u>	Selections size class and assign scare.  >50 acres (>20 2)n) (6 pis)  26 to <50 acres (10.1 to <20.2 ha  10 to <25 acres (4 to < 0.1 ha) (4 pis)  3 to <10 acres (1.2 to <4/pi) (3 pis)  0.1 to <0.3 acres (0.12 to <1.2 ha)  40.1 acres (0.04 to <0.12 ha)  <0.1 acres (0.04 na) (0 pis)	μιξή) 8) Ζρεή)		
9	13	Metric 2. Upland bu	ffers and surroundin	ig land use.	r
13+14 f.zs	<u>च्यांतरश्ची</u>	WIDE Buffars average 50m (16  X MEDIUM Buffars average 25m NARROW, Buffars average 10m VERY NARROW, Buffars average to intensity of surrounding land use. Se VERY LOW, 2nd growth or olde X LOW, Cld field (> 10 years), shu MODERATELY HIGH, Resident	only one and assign score. Do not double:  10) or more around verifiend perimeter (7)  0 -50m (82 to < 164ft) around welland perimeter (6)  to <25m (32ft to <82ft) around welland perimeter (6)  ections of double check and average, forest perimeter (6)  forest perime, savannah, wilding area, etc. bland, young second growth forest. (5)  at leticed positive, park, conservation illiading towart coupling, mining, construction. (1)	netër (4) Imeter (1) (7) a, nev fallow (leid. (3)	
16.5	29.5	Metric 3. Hydrology			
Hár PS pas		3a Sources of Water Score all that apply High pH groundwater (5) Other groundwater (3) X Precipitation (1) X SeasonallIntermittent surface wa X Perennial surface water (lake or: 40.7/(27.6/n) (3) 0.4 to 0.7m (15.7 to 27.6/n) (2) X <0.4m (< (5.7in) (1)	ter (3) Senti- a and assign score.  3b. Connéctive   100 y   X   Betwine     X   Part of     Part of     Senti-   Regular     X   Seas	ny Score all that apply ear floodiplain (1) ear steam/lake and other wettendrupland (e.g. for nparian or upland communication. So to permanently interest larly mundatel/saturated onally saturated in upper early interest and interest (2) onally saturated in upper early.	arest), complex (1) ador (1) ore ane or darcheck ed/saturated (4) d (3)
		None or none apparent (12) Recovered (7) X Recovering (3) Recent or no recovery (1)	tlle [Ming)		
8	37.5	Metric 4. Habitat All	eration and Develop	ment.	-
गंहें ≥ क्षा हुं	€jgaal	Substrate disturbance Score one or a Nume or mane apparent (4) Recovering (3) Recovering (3) Recent or no recovery (1), 4b. Habitat development. Select only one Excellent (7) Very good (6) Good (5) Moderately good (4) X Pair (3) Poor to fair (2) Poor (1)	quine check and average, and assign score.		
<u>ر</u>	37.5	- Habital alteration, Score one or double - Ninte or none alpharent (9) - Recovered (6) - X. Recovering (3) - Recent or no recovery (1)	hack all disturbances observed, Invaving shrub grazing herba C clearcutting sedin selecting directly woodly debus rangoval (ambit		wgl

2

of marginal quality

and of highest quality

Present in moderate amounts, but not of highest

quality of in small amounts of highest quality.

Present in moderate or greater amounts

Site:	Fra	nklin 20-inch; Wetland 11 Rater(s): C. Lovins, L. Minda	Date: April 26, 2008
1	1	Metric 1. Wetland Area (size).	
तात है इन्ह	e_listoiri	Selectione size class and pasign signs,  >50 acres (\$20 2hh) (6 pts)  25 to <50 acres (10   to <20 2hh) (5 pts)  10 to <25 acres (4 to <10 lhg) (4 pts)  3 to <10 acres (1,2 to <4hh) (3 pts)  0.3 to <3 acres (0,12 to <1,2hh) (2pts)  X 0.1 to <0.3 acres (0,12 to <6,12hh) (1 pt)  <0.1 acres (0,04hh) (0 pts)	
7	8	Metric 2. Upland buffers and surrounding land u	se.
73 - 14 <u>pia</u>	Elytestii	23 Calculate average buffer width. Select only one and assign score. Do not double check  WIDE. Buffers average \$0m (164ft) or more around walland perimeter (1)  X MEDIUM Buffers average 25m to -50m (82 to <164ft) around walland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around walland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around walland perimeter (0)  2b Intensity of surrounding land use. Selectione or double check and average.  VERY LOW. 2nd growth or older forest prairie, savannan, wildlife area, atc. (7)  LOW. Citd field (>10 years), shrubland, young second growth forest. (5)  X MODERATELY HIGH. Residential, fehred pasture, park, conservation tillage, new fallow field.  HIGH. Urban, industrial, open pasture, tow croppling, mining, construction. (1)	(3)
5	13	Metric 3. Hydrology.	
пач Ж ра	şulitecal	Sources of Writer Score all that a poply.  High pH groundwater (5)  Other groundwater (3)  Precipitotion (1)  Seasonal/Intermittent surface water (3)  Perennal surface water (lake or stream) (5)  Maximum water depth. Select only one and assign score:  No.7 (27:6in) (3)  O.4 to 0.7m (15.7 to 27 6in) (2)  X   Seasonally inundated (a seasonally seasonally saturated in seasonally inundated (a seasonally seasonally saturated in seasonally inundated (a seasonally seasonally seasonally seasonally seasonally seasonally seasonally seasonally inundated (a seasonally seasonally seasonally seasonally seasonally seasonally seasonally seasonally inundated (a seasonally seasonal	ndrother human use (1) (e.g.) forest), complex (1) discriptor (1) m. Spore one or dai check umdated/saturated (4) umated (3) (h) (h) (h) (h) (h) (h)
	<b>*</b>	Recovered (7) Recovering (3) X Recent or no necovery (1)  dist: point source (Apristormal point	
3	16	Metric 4. Habitat Alteration and Development.	
ក់∙ ដូ	€]¤ssa	4a Substrate disturbance Score one or double check and average.  Name or none apparent (4) Recovered (3) Recovering (2) X. Recentior no recovery (1).  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (6) Moderately good (4) Foir (3) Poor to fair (2) X. Poor (1)  4c. Habitat afferation. Score one or double check and average.	
 	16 uniéta (1).3 éag	None or none apparent (9) Récovered (5) Récovering (3) X Recent or no recovery (1) Recovering (1) Re	i removal

2

of marginal quality

and of highest quality

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

# APPENDIX 07-1B

SUPPLEMENTAL U.S. ARMY CORPS OF ENGINEERS WETLAND DELINATION FORMS FROM GAI FIELD SURVEYS

	WETLAND	290	
	DATA FORM	1987 COE Welland	ND DETERMINATION  Is Determination Manual
	Project/Site: FRANKLIN 20" PIP	ELINE	Date: 4-17-08
	Applicant/Owner: DEQG		County: 5VMM17
	Investigator: ) av / jen		State: <u>OH</u>
	Do Normal Circumstances exist on this site?	Yes (No	Community ID: PEM
	Is the site significantly disturbed (Atypical Situation?) Is the area a potential Problem Area?		Transect ID: Plot ID:WOH-JEW-013
	VEGETATION	1.40,	
		Dominant Plant Species	Stratum Indicator
	1 Phalaris arundinacea H FACW!	9	
	2. Juneus effusus H FACW+  3. Care v Sp H	10	
		12	
	5	13	
	7.	14 15	
	8.	16	
	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):	75 %	•
	Remarks:		
		,	·
	HADBOroca		
A TIM	RECORDED DATA (Describe in Remarks):	PRIMARY INDICAT	ORS:
	☐ Stream, Lake, or Tide Gauge ☐ Aerial Photographs	<ul><li></li></ul>	r 12 Inches
2278	☐ Other	☐ Water Marks	• • • • • • • • • • • • • • • • • • •
	□ No Recorded Data Available FIELD OBSERVATIONS:	<ul><li>Drift Lines</li><li>Sediment Deposits</li></ul>	ę
	Depth of Surface Water: 1-1/(in.)	<ul><li>Drainage Patterns</li></ul>	
	Depth to Free Water in Pit:(in.)	SECONDARY INDIC	CATORS (2 or more required):.
	Depth to Saturated Soil:(in.)	☐ Oxidized Rool Cha☐ Water Stained Lea	annels in Upper 12 Inches
	WETLAND HYDROLOGY INDICATORS:	Local Soil Survey	
	Inundation of 1-4"	☐ FAC-Neutral Test	
	Pompela	Other (Explain in I	temarks)
	Remarks:		

# WETLAND QC WOH-TEN-013 Sebring Silt LOAM (56) Sb: PD Map Unit Name Map Unit Name (Series and Phase): Frenchtown Silt Loam (Fr) Drainage Class: Sb: Typic EndodounalFs Field Observation Field Observations Taxonomy (Subgroup): Fr: Typic FRAGIAQUALFS Confirm Mapped Type? PROFILE DESCRIPTION Moitle Colors (Munsell Moist) Matrix Color Texture, Concretions, Mollle Abundance/Contrast Horizon (Munsell Moist) (Inches) Few Fine Silty clay 10 18 2/1

## HYDRIC SOIL INDICATORS

Histosol

SOILS

Depth

- Cl Histic Epipedon
- Sullidic Odor
- Aquic Moisture Regime
- Reducing Conditions
- Gleyed or Low-Chroma Colors
- Concretions
- High Organic Streaking in Surface Layer in Sandy Soils
- Organic Streaking in Sandy Soils
- Listed on Local Hydric Soils List
- Listed on National Hydric Soils List
- Other (Explain in Remarks)

Hydric Soil Present?

Rémarks:

Sebring Silt Loam (Sb) is a hydric soi Fr is a hydric soil

No

115

No

Structure, etc.

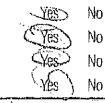
# WETLAND DETERMINATION

Hydrophytic Vegetation Present?

Wetland Hydrology Present?

Hydric Soils Present?

Is this sampling point a Welland?



Remarks: This welland is offunded from other large welland complex by an upland grassy thoroughfore.

- Emergent fringe wetland along Sott-LFS-002 - Culvert associated withstream

ÛŽ	AND ASSOCIATED WITH WETLAND		
	ROUTINE WETLAND DETERMINATION-DATA Project/Site: FRANKLIN 20" PIP		987 MANUAL
	Applicant/Owner: DEOG-	Lunior C J V -	
	Investigator(s): jav/jen		
	Date: H-17-08 Community ID:	UPLAND	
	County: SUMMIT Transect ID:		
	State: 0H Plot ID: UPL		
	Do Normal Circumstances exist on the site?		YES (NO)
	Is the site significantly & recently disturbed?(Atyp	oical Situation)	YES AND
	Is the area a potential Problem Area? (Explain in		YES) NO
	VEGETATION		
	Dominant Plant Species	Stratum	<u>Indicator</u>
	1. Poa pratensis		Facu
	2		
	3		: :
	4 5		* units
	6.		2
	7.		· · · · · · · · · · · · · · · · · · ·
	8		
	9		
	10		
	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-)		%
्र वृद्ध	Hydrophytic Vegetation Present? Yes REMARKS:		
	Upland area is a grassy thoro	ughture	
	Upland area is a grassy thoro Surrounding Netland WOH-JE and Stream SOH-LFS-002	N-013	
	and stream SOH-LFS-002	•	

LIPEAND ASSICIATED WITHIN	TITANY YE
HYDROLOGY	UPL-JEN-NI3
RECORDED DATA (Describe in Remarks):  Stream, Lake or Tide Gauge  Aerial Photographs  Other  None Available  FIELD OBSERVATIONS: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Present? Yes No	PRIMARY Indicators:  Inundated Saturated in Upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands  SECONDARY Indicators Oxidized Root Channels in UPPER 12" Water Stained leaves Local Soil Survey Data FAC-Neutral Test
REMARKS:	Other (Explain in Remarks)
Selving Silt Lagra	(Sb) Sb: PD
SOILS Sebring Silt Loam Map Unit Name French town Sill (Series and Phase) Sh: Typic Endon	agualts
Taxonomy (Subgroup): Fr: Typic Frag	Mapped Type: Yes (No)
PROFILE DESCRIPTION  Depth Matrix Color Mottle (inches) Horizon (Munsell Moist) (Munsell Moist)  O-211 A 2574/6 —  PROBEREFUSAL	Motile Texture, Abundance/Contrast Concretions, Structure, etc.  SIUTY CLAY
HYDRIC SOIL INDICATORS    Histosol	
Hydric Soil Present? Yes (No) REMARKS: Upland area is part of grass to Wetland WOH-JEN-013 and WETLAND DETERMINATION	horoughfare Surrounding Streamont FS-002
Hydrophytic Vegetation Present? Yes (N Wetland Hydrology Present? Yes (N Hydric Soils Present? Yes (N REMARKS: OSSI Wated Wetland is divided for by an upland grassy thoroug	of Is this sampling point a Welland? Yes Mo of on other large Welland Complete
by an upland grassy thoroug	fare "

Project/Site: FRANKLIN ZO"	21 PELINE Date: 4-17-08
Applicant/Owner: DE/	County: SVMMIT
Investigator: Jay / Jen.	State: 04
Do Normal Circumstances exist on this site?	Yes To Community ID: POW
Is the site significantly disturbed (Atypical Situation is the area a potential Problem Area?	On No Transect ID:  Yes No Plot ID: Wort-JEN-Ort
VEGETATION	The Modern of
Dominant Plant Species Stratum Indica	tor Dominant Plant Species Stratum Indicator
1. Carex Sp H	<u> </u>
	2 <i>U</i> 10
	<u>C 12</u>
5. The nick	13
6.	14. 15.
8	16.
Percent of Dominant Species that are OBL,	7510/
-	
FACW or FAC (excluding FAC-):  Remarks:	POW = polustrine openwate
FACW or FAC (excluding FAC-):	
Remarks:	
Remarks:  HYDROLOGY	POW = polustrure openwate
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):	
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs	POW Pollustrine openwate  PRIMARY INDICATORS:  Injundated  Saturated in Upper 12 Inches
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other	POW Pollustrana open water  PRIMARY INDICATORS:  In inundated  Saturated in Upper 12 Inches  Water Marks
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs  Other  No Recorded Data Available	POW Pollustrine openwate  PRIMARY INDICATORS:  Injundated  Saturated in Upper 12 Inches
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available  FIELD OBSERVATIONS:	PRIMARY INDICATORS:  Primary Indicators:  Inundated  Saturated in Upper 12 Inches  Water Marks  Drift Lines  Sediment Deposits  Deposits
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available  FIELD OBSERVATIONS:	PRIMARY INDICATORS:  Inundated  Saturated in Upper 12 Inches  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetlands  SECONDARY INDICATORS (2 or more required):
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:	POW Pollustrana open water  Primary INDICATORS:  Inundated  Saturated in Upper 12 Inches  Water Marks  Dritt Lines  Sediment Deposits  Drainage Patterns in Wetlands  SECONDARY INDICATORS (2 or more required).  Oxidized Root Channels in Upper 12 Inches
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  (in Depth to Free Water in Pit:	PRIMARY INDICATORS:  Inundated  Saturated in Upper 12 Inches  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetlands  SECONDARY INDICATORS (2 or more required):  Oxidized Root Channels in Upper 12 Inches  Water Stained Leaves
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  (in Depth to Salurated Soil:  (in In Depth to Salurated Soil:	POW Pollustrana open water  Primary INDICATORS:  Inundated  Saturated in Upper 12 Inches  Water Marks  Dritt Lines  Sediment Deposits  Drainage Patterns in Wetlands  SECONDARY INDICATORS (2 or more required).  Oxidized Root Channels in Upper 12 Inches

## WETLANDYd WOH-JEN-014 SOILS Map Unit Name Canfield Silt Loam (CdB) (Series and Phase): 'Field Observations Taxonomy (Subgroup): AQUIC FRAGILIDALES Confirm Mapped Type? PROFILE DESCRIPTION Malrix Color Depth Molile Colors Mottle Texture, Concretions, (Inches) Horizon (Munsell Moist) (Munsell Moist) Structure, etc. Abundance/Contrast COMMON 7.5 YR. 3/4 10) YR 4, HYDRIC SOIL INDICATORS ☐ Histosol Reducing Conditions Organic Streaking in Sandy Soils Gleyed or Low-Chroma Colors Hislic Epipedon Listed on Local Hydric Soils List Sulfidic Odor -← □ Concretions Listed on National Hydric Soils List Tix Aquic Moisture Regime High Organic Streaking in Other (Explain in Remarks) Surface Layer in Sandy Soils Hydric Soil Present? Remarks: Field confirmed hydric soi WETLAND DETERMINATION Hydrophytic Vegetation Present? No Wetland Hydrology Present? No Hydric Soils Present? No

Is this sampling point a Wetland? No

Remarks:

Lots of trash and unknown chemicals in water and around edges. Partial fence on border

LIPI	AND ASSOCIATED WITH WETLAND ROUTINE WETLAND DETERMINATION-DATA	D Gd FORM	1987 MANUAL
	Project/Site: FRANKLIN 2011 PIP	· · · · · · ·	ioo: militoric
	Applicant/Owner: DEO		<del></del>
		· · · · · · · · · · · · · · · · · · ·	
	Investigator(s): $\frac{10V}{100}$ Community ID:	11D/	
7	Date:Community ID:_	N.C	
Z	County: SVMMIT Transect ID:	TCN-111	· /
E ( )	State: Utt Plot ID: UFF	-) C/V - UI	7
	Do Normal Circumstances exist on the site?		YES (NO
	Is the site significantly & recently disturbed?(Atypi	ical Situation)	VES NO
EANTER TO	Is the area a potential Problem Area? (Explain in	final remarks)	YES (NO
	VEGETATION		
	Dominant Plant Species	Stratum	<u>Indicator</u>
	1. LOSA MultiFloRA		FACU
	2. Acer Rubrum	<del></del>	Fac
	3. POA pratensis		Facu
	4,		
	5.     6.	·	<del></del> [:
	7.	<u> </u>	
3	8.		
	9.	**	
	10		
mal radio	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-)		<b>%</b>
	Hydrophylic Vegelation Present? Yes No REMARKS:	)	
			*
			1

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Commence and residence as in contrast of the C

	UPL-JEN-014	
RECORDED DATA (Describe in Remarks):  Stream, Lake or Tide Gauge  Aerial Photographs  Other	PRIMARY Indicators:  Inundated  Saturated in Upper 12"  Water Marks	
None Available	Drift Lines	
FIELD OBSERVATIONS:	☐ Sediment Deposits ☐ Drainage Patterns in Wetlands	44
Depth of Surface Water: (in.)	oranage   attents in Wellands	
Depth to Free Water in Pit: (in.)	SECONDARY Indicators	77 P
Depth to Saturated Soil:(in.)	L Oxidized Root Channels in UPPER 12"	
Wetland Hydrology Present?	☐ Water Stained leaves ☐ Local Soil Survey Data	
Yes Wo )	☐ FAC-Neutral Test	100
	Other (Explain in Remarks)	
REMARKS:	,	والما
		(国品)
		0.0
SOILS		
Map Unit Name Canfield Silf La	oam ( GB) Drainage Class: _MWD ^	一个
(Series and Phase)	,	
Taxonomy (Subgroup): AQUIC FRAGIN	Malfs Field Observations Confirm	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Mapped Type: Yes No	
PROFILE DESCRIPTION		11 255 150
Depth Matrix Color Motile	Mottle Texture,	
(inches) Horizon (Munsell Moist) (Munsell Moist)	Abundance/Contrast Concretions, Structure, etc.	
1712" A 101K416		Classical Participation of the Control of the Contr
	Silty Clay_	
	Silty Clay	
	Silty Clay	6
	Silty Clay_	
HYDRIC SOIL INDICATORS	Silty Clay	
HYDRIC SOIL INDICATORS  This lose to the state of the sta	ions Domanic Streaking in Sandy Soils	
☐ Histosol ☐ Reducing Conditi		
☐ Histosol ☐ Reducing Conditi ☐ Histic Epipedon ☐ Gleyed or Low-Cl	hroma Colors	1
<ul> <li>☐ Histosol</li> <li>☐ Reducing Condition</li> <li>☐ Gleyed or Low-Cley</li> <li>☐ Sulfidic Odor</li> <li>☐ Concretions</li> </ul>	hroma Colors	1
<ul> <li>☐ Histosol</li> <li>☐ Reducing Condition</li> <li>☐ Gleyed or Low-Clean</li> <li>☐ Sulfidic Odor</li> <li>☐ Concretions</li> <li>☐ High Organic Street</li> </ul>	hroma Colors	1
<ul> <li>☐ Histosol</li> <li>☐ Reducing Conditi</li> <li>☐ Histic Epipedon</li> <li>☐ Gleyed or Low-Cle</li> <li>☐ Sulfidic Odor</li> <li>☐ Concretions</li> <li>☐ Aquic Moisture Regime</li> <li>☐ High Organic Street</li> <li>☐ Hydric Soil Present?</li> <li>Yes</li> </ul>	hroma Colors	
<ul> <li>☐ Histosol</li> <li>☐ Reducing Condition</li> <li>☐ Gleyed or Low-Clean</li> <li>☐ Sulfidic Odor</li> <li>☐ Concretions</li> <li>☐ High Organic Street</li> </ul>	hroma Colors	
<ul> <li>☐ Histosol</li> <li>☐ Reducing Conditi</li> <li>☐ Histic Epipedon</li> <li>☐ Gleyed or Low-Cle</li> <li>☐ Sulfidic Odor</li> <li>☐ Concretions</li> <li>☐ Aquic Moisture Regime</li> <li>☐ High Organic Street</li> <li>☐ Hydric Soil Present?</li> <li>Yes</li> </ul>	hroma Colors	
☐ Histosol ☐ Reducing Condition ☐ Histic Epipedon ☐ Gleyed or Low-Cley ☐ Sulfidic Odor ☐ Concretions ☐ Aquic Moisture Regime ☐ High Organic Street ☐ Hydric Soil Present? Yes REMARKS:	hroma Colors	
☐ Histosol ☐ Reducing Condition ☐ Histic Epipedon ☐ Gleyed or Low-Cley ☐ Sulfidic Odor ☐ Concretions ☐ Aquic Moisture Regime ☐ High Organic Street ☐ Hydric Soil Present? Yes REMARKS:  WETLAND DETERMINATION	hroma Colors	
☐ Histosol ☐ Reducing Condition ☐ Histic Epipedon ☐ Gleyed or Low-Cley ☐ Sulfidic Odor ☐ Concretions ☐ Aquic Moisture Regime ☐ High Organic Street ☐ Hydric Soil Present? Yes REMARKS:  WETLAND DETERMINATION ☐ Hydrophytic Vegetation Present? Yes	hroma Colors	
☐ Histosol ☐ Reducing Condition ☐ Histic Epipedon ☐ Gleyed or Low-Cley ☐ Sulfidic Odor ☐ Concretions ☐ Aquic Moisture Regime ☐ High Organic Street ☐ Hydric Soil Present? Yes REMARKS:  WETLAND DETERMINATION ☐ Hydrophytic Vegetation Present? Yes	hroma Colors	
☐ Histosol ☐ Reducing Condition ☐ Histic Epipedon ☐ Gleyed or Low-Cley ☐ Sulfidic Odor ☐ Concretions ☐ Aquic Moisture Regime ☐ High Organic Street ☐ Hydric Soil Present? Yes REMARKS:  WETLAND DETERMINATION ☐ Hydrophytic Vegetation Present? Yes	hroma Colors	
☐ Histosol ☐ Reducing Condition ☐ Histic Epipedon ☐ Gleyed or Low-Cley ☐ Sulfidic Odor ☐ Concretions ☐ Aquic Moisture Regime ☐ High Organic Street ☐ Hydric Soil Present? Yes REMARKS:  WETLAND DETERMINATION ☐ Hydrophytic Vegetation Present? Yes	hroma Colors	

The second secon

9 Flags   WETLAND 10a	* PARTERIA METAL PROPERTIES
DATA FORW.	ROUTINE WETLAND DETERMINATION  1987 COE Wellands Determination Manual
Project/Site: FRANKLIN ZO" DIPI	
Applicant/Owner: DED	County: SUMMIT
Applicant/owner: 161//194	State: OH
Investigator: <u>jaV/jek</u> Do Normal Circumstances exist on this site?	Yes (16) Community ID: PEM
Is the site significantly disturbed (Atypical Situation?	Total Talents
Is the area a potential Problem Area?	Yes No Plot ID: IWAH-JEN-015
	CIED STATE STATE
VEGETATION	Descional Plant Consists Charles Indicate
	Dominant Plant Species Stratum Indicate
2. Alliaria periolota H Facu.	9
3. Carex Sp H Fac W	
4. Acer Saccharum T Facus	712.
5	13
b	1415
8	16
	· · · · · · · · · · · · · · · · · · ·
HYDROLOGY .	
RECORDED DATA (Describe in Remarks):	PRIMARY INDICATORS:
☐ Stream, Lake, or Tide Gauge	inundated
☐ Aerial Photographs	Saturated in Upper 12 Inches To Surfac
<ul> <li>Other</li> <li>No Recorded Data Available</li> </ul>	☐ Water Marks ☐ Drill Lines
FIELD OBSERVATIONS:	☐ Sediment Deposits
Depth of Surface Water: $O - 1/2$ (in.)	▶ Drainage Patterns in Wetlands
Depth to Free Water in Pit:	SECONDARY INDICATORS (2 or more required
Depth to Saturated Soil: (in.)	Oxidized Root Channels in Upper 12 Inches
WETLAND HYDROLOGY INDICATORS:	☐ Water Stained Leaves
Saturated to Surface	☐ Local Soil Survey Data   ☑ FAC-Neutral Test
	Otlier (Explain in Remarks)
Remarks: Abstract Lans Conn 1971	
Remarks: Absorbly. has seep on	Dintos
~~	I PINALO:
	14 58-63

### WETLANDIDA WOH-JEN-015 SOILS Map Unit Name (Series and Phase): Wooster Silf Loam (WuB) WP Drainage Class: Field Observations Taxonomy (Subgroup): Oxyaquic Fragindalfs Confirm Mapped Type? PROFILE DESCRIPTION Depth Matrix Color Mottle Cotors Mollle Texture, Concretions, (Inches) Horizon (Munsell Moist) (Munsell Moist) Abundance/Contrast Structure, etc. No motiling 104R 3/2 7,588 416 10YR 4/2 5-12 A TREETING HYDRIC SOIL INDICATORS Histosol Reducing Conditions Organic Streaking in Sandy Soils ☐ Gleved or Low-Chroma Colors C1 Histic Epipedon Listed on Local Hydric Soils List Sulfidic Odor Concretions Listed on National Hydric Soils List Aquic Moisture Regime High Organic Streaking in Other (Explain in Remarks) Surface Layer in Sandy Soils Hydric Soil Present? No Remarks: Field confirmed hydric soil WETLAND DETERMINATION No Wetland Hydrology Present? No No

'Hydrophytic Vegetation Present?

Hydric Soils Present?

Is this sampling point a Welland?

Remarks:

of and owners property

9flags

No photos # 58 -63 in folder 052208 under DEO project

Photo #57 provides overvious of weepland in relation to landown

Project/Site:_ Applicant/Own	Project DE	<u> </u>	" PIP	<u> [                                   </u>	VE.		5-22 - SUM/	
Tunestinatus.	Jav/	/ Ten					OH	*\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Do Normal Ci	cumstances exist	on this site	?	)	Yes W		onity ID: U	olan
	ificantly disturbed			É	Yes N	o'y Transec	:UD;	·
	otential Problem A		•		Ves N	o Plot ID:	upl_	JEN
VEGETATION	1							-
Dominant Plant	Specięs	Stratum			nt Plant Sp		Stratum	Indi
	ocissus quinq		FACL	· 9 <u>·    </u>	· · · · · ·	*61	· · · · · · · · · · · · · · · · · · ·	
2. Green	oma heder	LCEA H	Facu	(10. <u></u> वन		•	_	
4 Phelon	endron radi	rim, H:	Facu	12.				
5. Queru	svubra	T						
- 6.				14				· — ·
	•			15				
8 Percent of Do FACW or FAC	eminant Species C (excluding FAC							-
7 8								•
8Percent of Do	ominant Species C (excluding FAC							•
Percent of Do FACW or FAC Remarks:	ominant Species C (excluding FAC	that are OE	3L, 20	0,0/0				•
Percent of Do FACW or FAC Remarks:  NYDROLOGY RECORDED	ominant Species C (excluding FAC	that are OE -): n Remarks):	3L, 20	PRIM	ARY IND	ICATORS:		
Percent of Do FACW or FACW Remarks:  NYDROLOGY RECORDED  Stream, L Aerial Pho	ominant Species C (excluding FAC DATA (Describe in take, or Tide Gaug	that are OE -): n Remarks):	3L, 20	PRIMA	ARY IND ndated urated in I			
Percent of Do FACW or FAC Remarks:  NYDROLOGI RECORDED Stream, L Aerial Pho	minant Species (excluding FAC DATA (Describe in take, or Tide Gaug tographs	that are OE -): n Remarks): ge	3L, 20	PRIMA Inui	ARY IND ndated urated in l	ICATORS:		
Percent of Do FACW or FAC Remarks:  NYDROLOGY RECORDED  Stream, L Aerial Photo Other No Record	minant Species C (excluding FAC  DATA (Describe in the describe in the described in the described in the described in the described in the des	that are OE -): n Remarks): ge	3L, 20	PRIMA  I Inui  Sali  Wal  Di Dril	ARY IND ndated urated in t ter Marks It Lines	ICATORS: Upper 12 Inch		
Percent of Do FACW or FIELD OBSE	ominant Species C (excluding FAC DATA (Describe in take, or Tide Gaug tographs ded Data Available RVATIONS:	that are OE -): n Remarks): ge	3L, 20	PRIMA  Inui  Sali  Wal  Drill  Sec	ARY IND ndated urated in l ter Marks It Lines timent De	ICATORS: Upper 12 Inch	nes	
Percent of Do FACW or FAC Remarks:  WYDROLOGY RECORDED  Stream, L. Aerial Photo Other No Record FIELD OBSE Depth of Surface	minant Species C (excluding FAC DATA (Describe in ake, or Tide Gaug atographs ded Data Available RVATIONS:	that are OE -): n Remarks): ge	3L, 20	PRIMA  Inui  Sali  Wal  Dril  Sec  Dra	ARY IND ndated urated in l ter Marks It Lines timent De inage Pati	ICATORS: Upper 12 Inch	nes	requii
Percent of Do FACW or FAC Remarks:  NVDROLOGIE  RECORDED  Stream, L  Aerial Photo Other  No Record FIELD OBSE Depth of Surface Depth to Free	minant Species C (excluding FAC DATA (Describe in the Gaughtographs RVATIONS: See Water: Water in Pit:	that are OE -): n Remarks): ge	(in.) (in.)	PRIMA  PRIMA  Number  Salu  Val  Drill  Dra  SECOI  Dra  SECOI  Oxi	ARY IND ndated urated in I ter Marks It Lines timent De inage Pati NDARY I dized Roo	ICATORS: Upper 12 Inch posits terns in Wetta NDICATORS I Channels in	nes ands (2 or more	-
Percent of Do FACW or FIELD OBSE Depth of Surface Depth to Saturation of Satur	ominant Species C (excluding FAC DATA (Describe in ake, or Tide Gaug atographs ded Data Available RVATIONS: ace Water: Water in Pit:	n Remarks):	(in.) (in.) (in.)	PRIMA  I Inui  Sali  Vai  Dril  Secol  Dra  SECOI  Oxi  Wa	ARY IND ndated urated in I ter Marks It Lines timent De tinage Pati NDARY I dized Roo ter Stained	ICATORS: Upper 12 Inch posits ierns in Wetla NDICATORS I Channels in	nes ands (2 or more	-
Percent of Do FACW or FAC Remarks:  NVDROLOGIES  NVDROLOGIES  RECORDED  Stream, L.  Aerial Photo Other  No Record  FIELD OBSE  Depth of Surla  Depth to Free  Depth to Satu  WETLAND H	minant Species C (excluding FAC DATA (Describe in the Gaughtographs RVATIONS: See Water: Water in Pit:	n Remarks): ge DICATORS:	(in.) (in.) (in.)	PRIMA  PRIMA  Inui  Sali  Val  Dril  Secon  Dra  SECOI  Wat  Loco  Loco	ARY IND ndated urated in I ter Marks It Lines timent De tinage Pati NDARY I dized Roo ter Stained	ICATORS: Upper 12 Inch posits terns in Wetla NDICATORS I Channels in I Leaves tryey Data	nes ands (2 or more	-

Map Unit Name (Series and Phase): VO Taxonomy (Subgroup): C PROFILE DESCRIPTION	xyaquic	•	Field Obecaustions	a l	0
Depth (Inches) Horizon (M	Matrix Color unsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contras		
	tr3/4	No-mottle	1400 by 100 100 100 100 100 100 100 100 100 10	Sitty Class	
					_
					<b>卷加</b>
HYDRIC SOIL INDICA		ng Conditions	C) Organic Strea	king in Sandy Soils	E 182
Histic Epipedon	🗀 Gleyed	or Low-Chroma Colors	Listed on Loc	al Hydric Soils List	
☐ Sulfidic Odor ☐ Aquic Moisture Regime	_	organic Streaking in	Other (Explain	ionat Hydric Soils Lis i in Remarks)	SI (2.1)
Hydric Soil Present?	Surfac	ce Layer in Sandy Soils		Yes 🔏	
Remarks:		رون در		$ \mathcal{C}$	Z (#
					(E)
				•	
WETLAND DETERMIN			4. No. of the Control		5
Hydrophylic Vegetation P Wetland Hydrology Prese				Yes (1)	
Hydric Soils Present?				Yes d	
Is this sampling point a V	vetland?		شديد خدار <u>الجدمة معمد من الموسال المو</u> ساط	Yes · 🔨	<u> ممرواً</u>
Remarks:			See	Photo#66	7
- 1 1 mm	1.0.0	ed uplan	1		. OP'S

the second of th

WETLAND 10 L		ROUTINE WETI			
	304	1987 COE Wella PIPELINE	Deter.	mination 3 - 23	Manu
N. P. A.	V - 2-2-2-	A see get a see		SVMM	
Applicant/Owner: $P(x^*)$ Investigator: $QV f$	ic in		Guuniy. _ State:	N 10 8 8	i s c
Do Normal Circumstances exist on this	٠ .	Yes No.		nity ID: £	EM
Is the site significantly disturbed (Atyp		-129-5			
Is the area a potential Problem Area?	rodi, arradiro, r.	ZZES No.		WOH-	EV.
VEGETATION		And the second s			
Dominant Hant Species Stratu	Indicato:	r Dominant Plant Spec	ies	Stratum	lno
I Importation Capensis H	- **	2 9		Gradia	un
2 Carex sp H		_10			
3. Vibuchum dentahum is	_ FAC	<u>.</u> 11	·····		
4 Rosa Multitlees &		<u>*</u> 12			-
6.	a par - managa <del>Aranga</del>	13 14			[*]
7		15			
8		16			
Percent of Dominant Species that ar FACW or FAC (excluding FAC-):  Remarks:	7	5%	L SA	04/6.	
FACW or FAC (excluding FAC-):	7	5%	nt 5p	ecies	
FACW or FAC (excluding FAC-):	7	5%	nt sp	ecies	
FACW or FAC (excluding FAC-):	7	5%	at Sp	a e i e s	
FACW or FAC (excluding FAC-): Remarks:	Cupens	5%	eren eren eren eren eren eren eren eren	e cies	
FACW or FAC (excluding FAC-):Remarks:	Cupens	PRIMARY INDIC	ATORS:		
Remarks: Try patricus  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs	Cupens	PRIMARY INDIC	ATORS:		
Remarks: Try patiens  HYDEOLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other	Cupens	PRIMARY INDIC  Inundated  Saturated in Up  Water Marks	ATORS:		
Remarks: Try particus  HYDROLOGY  RECORDED DATA (Describe in Remainstream)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available	Cupens	PRIMARY INDIC  PRIMARY INDIC  Inundated  Saturated in Up  Water Marks  Drift Lines	ATORS:		
FACW or FAC (excluding FAC-):  Remarks: Try patiens  HYBROLOGY  RECORDED DATA (Describe in Remains)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:	Cupens  arks):	PRIMARY INDIC  Inundated  Saturated in Up  Water Marks	ATORS: oper 12 Inchi	35	
FACW or FAC (excluding FAC-):  Remarks: Timpations  HYBROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:	Cupens  arks):	PRIMARY INDIC  Inundated  Saturated in Up  Water Marks  Drift Lines  Sediment Depo	ATORS: oper 12 Inchi sils ns in Wellar	es ads	•
FACW or FAC (excluding FAC-):  Remarks: Try patiens  HYDROLOGY  RECORDED DATA (Describe in Remark)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:	— π.  Cup en s  arks):  2(in.) 2(in.)	PRIMARY INDIC  PRIMARY INDIC  Inundated  Saturated in Up  Water Marks  Drift Lines  Sediment Depo  Drainage Patter	ATORS: oper 12 Inchi sils ons in Wetlar	es ads (2 or more	requi
Remarks: Try particus  HYDEOLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  Depth to Saturated Soil:		PRIMARY INDIC  PRIMARY INDIC  Injundated  Saturated in Up  Water Marks  Drift Lines  Sediment Depo  Drainage Patter  SECONDARY INI  Water Stained L	ATORS:  sils  ns in Wetlar DICATORS Channels in Leaves	es ads (2 or more	requ
FACW or FAC (excluding FAC-):  Remarks: Try patiens  HYDROLOGY  RECORDED DATA (Describe in Remark)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:		PRIMARY INDIC  PRIMARY INDIC  Injundated  Saturated in Up  Water Marks  Drift Lines  Sediment Depo  Drainage Patter  SECONDARY INI  Oxidized Root (	ATORS:  sils  ns in Wetlar DICATORS Channels in Leaves	es ads (2 or more	requi

(Inches) Horizon (Munsell Moist) (Munsell Moist) Abundance/Contrast Strong A: 10 YR 3/2 10 YR 6/6 Few/District Silty  HYDRIC SOIL INDICATORS/	
HYDRIC SOIL INDICATORS/	<u> </u>
HYDRIC SOIL INDICATORS/	
HYDRIC SOIL INDICATORS/	
HYDRIC SOIL INDICATORS/	
☐ Histosol ☐ Reducing Conditions ☐ Organic Streaking in San ☐ Histic Epipedon ☐ Gleyed or Low-Chroma Colors ☐ Listed on Local Hydric S ☐ Sulfidic Odor ☐ Concretions ☐ Listed on National Hydric S ☐ Aquic Moisture Regime ☐ High Organic Streaking in ☐ Other (Explain in Remark Surface Layer in Sandy Soils ☐ Hydric Soil Present?	oils List c Soils List
Remärks:	·
AREPOST ARES BURNIES GORAR ASSAULT	•
WETLAND DETERMINATION  Hydrophylic Vegetation Present?	8 No
Welland Hydrology Present?	Tes No
Hydric Soils Present?	185 No
Is this sampling point a Wetland?	Yes No
Remarks:  (See photo #64)  Access road.  Drainage system that uetland is a part of, have come from part land distribunce	1
1 SEE Dhoto #64	ř

7	WITH WET		VD DETERMINATION
	DATA FORM	1987 COF Wetland	VD DETERMINATION  s Determination Manual
	Project/Site: FRANKLIN 20"P1	all INE	Dale: See Clar
	Project/Site.	Comment of the commen	County: SVMMIT
4	Applicant/Owner: <u>DEO</u>		
	Investigator: Jail Jen		State: OH
	Do Normal Circumstances exist on this site?	Yes Mo	Community ID: UPL
	Is the site significantly disturbed (Atypical Situation?)	No No	Transect ID:
	is the area a potential Problem Area?	( 198 - No	Plot ID: UPL-JEN-016
	VEGETATION		
	Dominant Plant Species Stratum Indicator	Dominant Plant Species	- Stratum Indicator
	Ramanaulus accis of H Fact	ġ	
	2 TARAXACUM OFFICIALE IN EACH		
	3. Taxicodendron radicans H Fac	11. 3	
	4	12	
	5	13	
	0	14	
	8	15 16	
	December 1 December 1 Conscion that are ODI	10	
	Percent of Dominant Species that are OBL, 33% FACW or FAC (excluding FAC-): 33%	/ 15 .	
	- Remarks:	<u>≠</u> .	
1			•
	· ·	, '	•
	HYDROLOGY .		<u>ىيىم مىسىم دەرىي جىيى دېرىيى بەلىكى دەرىي دېرى دەرىيى دەرىيى دەرىيى دەرىيى دەرىيى دەرىيى دەرىيى دەرىيى دەرىيى</u>
	RECORDED DATA (Describe in Remarks):	PRIMARY INDICAT	OBS:
	☐ Stream, Lake, or Tide Gauge	☐ Inundated	0110.
	Aerial Photographs	☐ Saturated in Upper	12 Inches
	C) Other •	☐ Water Marks.	, and the transfer of the tran
	→ No Recorded Data Available	<ul><li>Drift Lines</li></ul>	
	FIELD OBSERVATIONS:	Sediment Deposits	,
	Depth of Surface Water: (in.)	Drainage Patterns	in Wellands
	Depth to Free Water in Pit:(in.)	SECONDARY INDIC	CATORS (2 or more required):
	Depth to Saturated Soil: (in.)	Oxidized Root Cha	nnels in Upper 12 Inches
	WETLAND. HYDROLOGY INDICATORS:	☐ Water Stained Leav	
	NONE.	☐ Local Soil Survey	Dala
	,	FAC-Neutral Test	- Na
		Other (Explain in F	
	Remarks: No field hydrologic	cal indica	CHORS
	The field of the	a fine	Section 1. Appendix
	<b>-</b>		
- A - A - A - A - A - A - A - A - A - A	•		

l i	ne hase): <u>Cunfielf</u>	_	Brainage Class: Field Observations	MWD	
Taxonomy (Si	ubgroup): Aquic Fi	ragiudalfs	Confirm Mapped Ty	rpe? Yes No	
Depth	Matrix Color izon (Munsell Moist)	Mottle Colors (Munsell Moist)	Moltle Abundance/Contrast	Texture, Concretions, Structure, etc.	
0-5 A	7.54R4/4	of the state of the C	- Andrews	Silty clay	
0-12 P	EDBE-REFUSAL	1,450,100,2		<u> </u>	
	•				0
				32.3	
				. <u></u>	
HYDRIC SO  Histosol Histic Epip Sulfidic Oc Aquic Moi	edon © Gleyed o for © Concreti sture Regime © High Org	g Conditions or Low-Chroma Colors ions ganic Streaking in Layer in Sandy Soils	☐ Organic Streaki☐ Listed on Local☐ Listed on Natio☐ Other (Explain	l Hydric Soils List nal Hydric Soils List	
☐ Hislosol☐ Hislic Epip☐ Sulfidic Oc☐ Aquic Moi☐ Hydric Soil Pr	edon	or Low-Chroma Colors ions ganic Streaking in Layer in Sandy Soils ;	☐ Listed on Local ☐ Listed on Natio ☐ Other (Explain	Hydric Soils List nal Hydric Soils List in Remarks)	
☐ Hislosol☐ Hislic Epip☐ Sulfidic Oc☐ Aquic Moi☐ Hydric Soil Pr	edon Gleyed of Gonerell Sture Regime Gurface	or Low-Chroma Colors ions ganic Streaking in Layer in Sandy Soils ;	☐ Listed on Local ☐ Listed on Natio ☐ Other (Explain	Hydric Soils List nal Hydric Soils List in Remarks)	
☐ Histosol ☐ Histic Epip ☐ Sulfidic Oc ☐ Aquic Moi Hydric Soil Pr Remarks:	Reducing Reducing Reducing Reducing Regime Regime Regime Surface Resent?	or Low-Chroma Colors ions ganic Streaking in Layer in Sandy Soils ;	☐ Listed on Local ☐ Listed on Natio ☐ Other (Explain	Hydric Soils List nal Hydric Soils List in Remarks)	
☐ Histosol ☐ Histic Epip ☐ Sulfidic Oc ☐ Aquic Moi Hydric Soil Pr Remarks:	edon	or Low-Chroma Colors ions ganic Streaking in Layer in Sandy Soils ;	☐ Listed on Local ☐ Listed on Natio ☐ Other (Explain	Hydric Soils List nal Hydric Soils List in Remarks)	
☐ Histosol ☐ Histic Epip ☐ Sulfidic Oc ☐ Aquic Moi  Hydric Soil Pr Remarks:  WETLAND I  Hydrophytic V Wetland Hydr	Reducing Gleyed of Gleyed	or Low-Chroma Colors ions ganic Streaking in Layer in Sandy Soils ;	☐ Listed on Local ☐ Listed on Natio ☐ Other (Explain	Hydric Soils List nal Hydric Soils List in Remarks)  Yes No  Yes Alo  Yes Qua	
☐ Histosol ☐ Histic Epip ☐ Sulfidic Oc ☐ Aquic Moi ☐ Hydric Soil Pr Remarks:  WETLAND I Hydrophytic V Wetland Hydr Hydric Soils Is this sampli	Reducing Gleyed of Gleyed	or Low-Chroma Colors ions ganic Streaking in Layer in Sandy Soils ;	☐ Listed on Local ☐ Listed on Natio ☐ Other (Explain	Hydric Soils List nal Hydric Soils List in Remarks)  Yes No	
☐ Histosol ☐ Histic Epip ☐ Sulfidic Oc ☐ Aquic Moi ☐ Hydric Soil Pr Remarks:  WETLAND I Hydrophytic V Wetland Hydr Hydric Soils	Reducing Gleyed of Gorerelia Sture Regime High Organizate Surface Surf	or Low-Chroma Colors ions ganic Streaking in Layer in Sandy Soils ;	Listed on Local Listed on Natio Other (Explain)	Yes No Ye	

	WETLAND 100 Project/Site: FRANKLIN SO"P	ROUTINE WETLAND DETERMINATION  1987 COE Wetlands Determination Manual  1981 Dale: 5-22-08
	Applicant/Owner:DEo	County: SVMMLT
	Investigator: jav/jen	State:
	Do Normal Circumstances exist on this site?	Yes Community ID: PEM / PFO
	Is the site significantly disturbed (Atypical Situation?	MAIN MAIN MAIN MAIN MAIN MAIN MAIN MAIN
	Is the area a potential Problem Area?	Plot ID: WPH-JEN-OL
	VEGETATION	
	1 Carex sp H	Dominant Plant Species Stratum Indicator
		V10. 2016 4 19 10 10 10 10 10 10 10 10 10 10 10 10 10
	4. Polygonum persional H From	211. <u>6 </u>
	5. Jungus effusus, H FACH	⁴ /13.
		<b>y</b> /14
	7. Fraxinus prinsylvanicum T FACW 8. Umus americana T FACW	15
	FACW or FAC (excluding FAC-):	> 75%
	Remarks:	
	·	
	HADBOLOEA	
	RECORDED DATA (Describe in Remarks):	PRIMARY INDICATORS:
	☐ Stream, Lake, or Tide Gauge	C) Ipundated
	☐ Aerial Photographs	Salurated in Upper 12 Inches
	Other	☐ Water Marks
	☐ No Recorded Data Available	☐ Drift Lines ☐ Sediment Deposits
	FIELD OBSERVATIONS:	Drainage Patterns in Wetlands
	Depth of Surface Water: (in.)	SECONDARY INDICATORS (2 or more required):
and the same of th	Depth to Free Water in Pit: (in.)	Oxidized Root Channels in Upper 12 Inches '
	Depth to Saturated Soil: (in.) WETLAND HYDROLOGY INDICATORS:	Sa Water Stained Leaves
	Color del de mail	□ Local Soil Survey Data
	Saturated to surface	FAC-Neutral Test  Other (Explain in Remarks)
	Pomorles	a other freshent in nemera)
	Remarks:	•

WE [LAND TOC]	WUH-JEN-017
SOILS  Map Unit Name (Series and Phase): Wusster Sitt Loam (Vu C2  Cells: Aquic Fragiudal Fs Taxonomy (Subgroup) Wuc2: Oxyaquic Fragiuda  PROFILE DESCRIPTION (Z SOL/ Probe IN  Depth (Inches) Horizon (Munsell Moist) (Munsell Moist)	CdB, MWD  CdB, MWD  Drainage Class: WUCZ: WD  Field Observations  IFF Confirm Mapped Type? Res No  VESHIGATIONS  Mottle Texture, Concretions, Abundance/Contrast Structure, etc.
4-12 A 104R3/2 104R4/	ing to Silfy clay
	Common / Distinct Soller Clay  Common / Distinct Soller Clay
☐ Histosol ☐ Beducing Conditions ☐ Histic Epipedon ☐ Gleyed or Low-Chroma Colo ☐ Sulfidic Odor ☐ Concretions ☐ High Organic Streaking in ☐ Surface Layer in Sandy Soil ☐ Hydric Soil Present?	☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks)
Remarks:	
WETLAND DETERMINATION	574) NI
Hydrophylic Vegetation Present? Wetland Hydrology Present? Hydric Soils Present?	Yes No Yes No Yes No
Remarks: Portion of Wetland follows.  To redominantly Vege	a channel that is
Remarks: Portion of Wetland follows:  Predominantly Vege  Part of drainage syst  Likely Past Filling from  Lag voyerted backto	em connecting streams Row disturbance that
Mineral This	4

Project/Site: FRANKLIN ZO! Applicant/Owner: PEO		Date: <u>5-23-08</u> County: <u>SUMM</u> (*
Investigator: 101/18x		State: CM Community ID: PEM
Do Normal Circumstances exist on this site?  Is the site significantly disturbed (Atypical Situation		Transect ID:
is the area a potential Problem Area?	(17) Yes No	Plot ID: WOH JEN
VEGETATION	The same of the sa	Within 1-5W
Dominant Plant Species Application Indicate	or Dominant Plant Species	Stratum 1)
2 Transport Capens is H Free	9:	
3 Carex sp 14-	· 11.	No. Novem
	12	
5.	13	1
6	14	
8.	16	
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):  Remarks:  Dominant Species that are OBL,  FACW or FAC (excluding FAC-):	is is pak	57.
FACW or FAC (excluding FAC-):	AS IS DOA	5.7
Remarks:  Dominant Speak  HYDROLOGY	AS IS DOA	
Remarks:  Dominant Speak	\$	
Remarks:  Dominant Speak  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge  Aerial Photographs	PRIMARY INDICATO  Inundated  Saturated in Upper	DRS:
HYDROLOGY RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other	PRIMARY INDICATO Inundated Saturated in Upper Water Marks	DRS:
HYDROLOGY RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available	PRIMARY INDICATO Inundated Saturated in Upper Water Marks Drift Lines	ORS 12 Inches
HYDROLOGY RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available FIELD OBSERVATIONS:	PRIMARY INDICATO Inundated Saturated in Upper Water Marks Drift Lines Sediment Deposits	ORS: 12 Inches
HYDROLOGY RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available FIELD OBSERVATIONS: Depth of Surface Water:  To Surface in.	PRIMARY INDICATO Inundated Saturated in Upper Water Marks Drift Lines Sediment Deposits The Drainage Patterns in	ORS: 12 Inches
Remarks:  Dorning FAC-):  Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  To Surface in	PRIMARY INDICATO Inundated Saturated in Upper Water Marks Drift Lines Sediment Deposits Of Drainage Patterns in SECONDARY INDIC	ORS: 12 Inches in Wellands ATORS (2 or more requested in Upper 12 Inches
HYDROLOGY RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available FIELD OBSERVATIONS: Depth of Surface Water: Depth to Free Water in Pil:  (in.	PRIMARY INDICATO Inundated Saturated in Upper Water Marks Drift Lines Sediment Deposits To Drainage Patterns SECONDARY INDIC Oxidized Roof Cha	ORS: 12 Inches in Wellands ATORS (2 or more req nnels in Upper 12 Inche ves
HYDROLOGY RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available FIELD OBSERVATIONS: Depth of Surface Water: Depth to Free Water in Pil:  (in. Depth to Saturated Soil:	PRIMARY INDICATO Inundated Saturated in Upper Water Marks Drift Lines Sediment Deposits Of Drainage Patterns in SECONDARY INDIC	ORS: 12 Inches in Wellands ATORS (2 or more req nnels in Upper 12 Inche ves

J. WETLAND 10C	WOH-JEN-017B
7.5/1/15/16	Calb.: MWD  Drainage Class: Field Observations  Regonfirm Mapped Type?  Mottle Abundance/Contrast  Structure, etc.  Sinc Structure, etc.  Somman From Mark Structure  Domman From Mark Structure  Domman From Mark Structure
HYDRIC SOIL INDICATORS  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime High Organic Streaking in Surface Layer in Sandy Soils Hydric Soil Present?  Remarks:	Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks)
<del>G</del> .	
WETLAND DETERMINATION Hydrophytic Vegetation Present? Welland Hydrology Present? Hydric Soils Present? Is this sampling point a Welland?	Yes No Yes No Yes No Yes No
Part of draining systems  • Likely past filling from Row  Mas rewred back to wetla	

Project/Site: FRANKLIN 2011P Applicant/Owner: DEC Investigator: Jav / Jen	1 P En Last North	Date: 5 County: 5 State:	VMM OH	IT_
Do Normal Circumstances exist on this site? Is the site significantly disturbed (Alypical Situation?) Is the area a potential Problem Area?	Yes (10 Yes 110)	Community Transect ID: Plot ID: <b>UP</b>		
VEGETATION		,		
2. TOXICO DE MINIMENTANIS IL FAC. 3. POA TRATENSIS H FACU. 4. Alliania petrolata H FACU. 5. ROSA MUHIFLORA S FACU.	14			
8.	16			
Percent of Dominant Species that are OBL,	0%			
FACW or FAC (excluding FAC-):  Remarks:				c
Remarks:				· ·
Remarks:  HYDROLOGY				e c
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Li Stream, Lake, or Tide Gauge	PRIMARY INDICAT			c
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):				
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge  Aerial Photographs  Other:  No Recorded Data Available	☐ Inundated ☐ Saturated in Uppe ☐ Water Marks ☐ Drift Lines	r 12 Inches		
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:	☐ Inundated☐ Saturated in Uppe☐ Water Marks☐ Drift Lines☐ Sediment Deposit	r 12 Inches s		
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:	☐ Inundated ☐ Saturated in Uppe ☐ Water Marks ☐ Drift Lines	r 12 Inches s in Wetlands		required
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge  Aerial Photographs  Other:  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  (in.)	☐ Inundated ☐ Saturated in Uppe ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposit ☐ Drainage Patterns SECONDARY INDI-	r 12 Inches s in Wetlands CATORS (2 ( annels in Upp	or more	
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:	☐ Inundated ☐ Saturated in Uppe ☐ Water Marks ☐ Brift Lines ☐ Sediment Deposit ☐ Drainage Patterns SECONDARY INDI ☐ Oxidized Root Ch ☐ Water Stained Lea	s 12 Inches in Wellands CATORS (2 d annels in Upp ives	or more	
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available  FIELD OBSERVATIONS: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil:  WETLAND HYDROLOGY INDICATORS:	☐ Inundated ☐ Saturated in Uppe ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposit ☐ Drainage Patterns SECONDARY INDI ☐ Oxidized Root Ch ☐ Water Stained Lea	s 12 Inches in Wellands CATORS (2 d annels in Upp ives	or more	
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge Aerial Photographs Other: No Recorded Data Available  FIELD OBSERVATIONS: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil:  (in.)	☐ Inundated ☐ Saturated in Uppe ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposit ☐ Drainage Patterns SECONDARY INDI ☐ Oxidized Root Ch ☐ Water Stained Lea	s 12 Inches in Wellands CATORS (2 d annels in Upp ives Data	or more	
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  U Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available  FIELD OBSERVATIONS: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil:  WETLAND HYDROLOGY INDICATORS:	☐ Inundated ☐ Saturated in Uppe ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposit ☐ Drainage Patterns SECONDARY INDI ☐ Oxidized Root Ch ☐ Water Stained Lea ☐ Local Soil Survey ☐ FAC-Neutral Test	s 12 Inches in Wellands CATORS (2 d annels in Upp ives Data	or more	

APLAND ASSOCIATED WITH WETCAND  SOILS CANFILLY SILL LOWN CCO	WILL DEN DI	
Map Unit Name Marchael C.14 Loran Mahic	2). WuC2: WD	() IIE
Map Unit Name (Series and Phase): <u>Wooster SIT-LDam (WuCa</u> CdB: Aquic Fragiudalfs Taxonomy (Subgroup): <u>Wucz: Oxyaquic Fragiudal</u>	-Dyainage Class: Field Observations	
Taxonomy (Subgroup): Wwc2: Oxyaquic Fragiu dali	Confirm Mapped Type? (Yes No	
PROFILE DESCRIPTION  Depth Matrix Color Moltle Colors (Inches) Horizon (Munsell Moist) (Munsell Moist)	Mottle Texture, Concretions, Structure, etc.	
1-2, 0 104R4/2	Suby Clay	
1-17 A 109R 3/4	- white white Clay	
	arry -	T Ant
HYDRIC SOIL INDICATORS   ☐ Histosol ☐ Reducing Conditions	☐ Organic Streaking in Sandy Soils	
☐ Histic Epipedon ☐ Gleyed or Low-Chroma Colors	☐ Listed on Local Hydric Soils List	
☐ Sulfidic Odor ☐ Concretions ☐ Aquic Moisiure Regime ☐ High Organic Streaking in	<ul> <li>Listed on National Hydric Soils List</li> <li>Other (Explain in Remarks)</li> </ul>	
Surface Layer in Sandy Soils	Car Other (Explain in hemarks)	
Hydric Soil Present?	Yes No	
Remarks:		
		III II
, a	•	فيستعر
WETLAND DETERMINATION		
Hydrophytic Vegetation Present?	Yes (No.)	
Wetland Hydrology Present?	Yes Too	er er
Hydric Soils Present?	Yes The	777
s this sampling point a Welland?	Yes (No./	- سنمي
Remarks:		
Field confirmed u	erland	2
	T Contract of the contract of	
	·	<u>en</u>
		100

Project/Site: FRANKUS	1987 COE Wellands Determination Ma 120 MMELINE Date: 5-23-0	36
Applicant/Owner: DEO	County: SVM Mit	MEN
Investigator: 10V/J	EN State: OH	,
Do Normal Circumstances exist on this sit	e? Yes No Community ID: PEM/	P
Is the site significantly disturbed (Atypical		- i
Is the area a potential Problem Area?	Yes No Plot ID: WOH JE	V=(
VEGETATION		
Dominant Plant Species Stratum		Indi
1 Impatient copenius H	<del></del>	
2 Rarex sportages H	FACW 11.	· -
4. 16 M. A.		
5	13	
6. 1	14.	_ <u>_</u>
7. 8. <u>Arre &amp;</u>	15	<u> </u>
	\D\	
Percent of Dominant Species that are C FACW or FAC (excluding FAC-):	/ 74 4/	
	/ 74 4/	<del></del>
FACW or FAC (excluding FAC-):  Remarks:	6070	
FACW or FAC (excluding FAC-):  Remarks:	6070	
FACW or FAC (excluding FAC-):  Remarks:	/ 74 4/	
FACW or FAC (excluding FAC-):  Remarks:	6070	
Remarks:  Lots of clead Specific and Specifi	igs present in wetland	
Remarks:  Apts of clear Small Made of the Control o	igs present in wetland	
Remarks:  April 2 Apri	igs present in wertand  PRIMARY INDICATORS:  In Injurity of the property of th	
Remarks:  ADES OF COCAGE SACE  WVDROLOGY  RECORDED DATA (Describe in Remarks)  U Stream, Lake, or Tide Gauge  D Aerial Photographs  U Other	PRIMARY INDICATORS:  Injundated  Saturated in Upper 12 Inches  Water Marks	
Remarks:  ADES OF COCAS SACRETOR STREET STRE	PRIMARY INDICATORS:  In undated  Saturated in Upper 12 Inches  Water Marks  Drift Lines	
Remarks:  ADTS OF OCCUP SACE  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:	PRIMARY INDICATORS:  In Injundated  Saturated in Upper 12 Inches  Water Marks  Drift Lines  Sediment Deposits	
Remarks:  NVDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:	PRIMARY INDICATORS:  Injundated  Saturated in Upper 12 Inches  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetlands  SECONDARY INDICATORS (2 or more re-	. aui
Remarks:  NVDROLOGY  RECORDED DATA (Describe in Remarks  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:	PRIMARY INDICATORS:  Inundated  Saturated in Upper 12 Inches  Water Marks  Drift Lines  Sediment Deposits  Inundated  Cin.)  Oxidized Real Changels in Manar 13 Inster	
Remarks:  NVDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  Depth to Salurated Soil:	PRIMARY INDICATORS:  Injundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Cin.) Cin.) Cin.) Cin.) Cin.) Cin.) Cin.) Cin.) Cin. Water Stained Leaves	
Remarks:  NVDROLOGY  RECORDED DATA (Describe in Remarks  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:	PRIMARY INDICATORS:  Injundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Cin.) Cin.) Cin.) Cin.) Cin.) Cin.) Cin.) Cin.) Cin. Water Stained Leaves	
Remarks:  NVDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  Depth to Salurated Soil:	PRIMARY INDICATORS:  Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands SECONDARY INDICATORS (2 or more reconst) (in.)  (in.) Water Stained Leaves	

WETCAND Od	WOH-JE	N-018.	2
SOILS		5.5	og ir
	\	State of the state	
(Series and Phase); VVOOSTER OUT LOAM (WULL	Drainage Class:	<u> </u>	<u> </u>
Taxonomy (Subgroup): Oxyaquic Fragindalf	Field Observations	pe? Yes (No)	2. Ç.S.
PROFILE DESCRIPTION	э ооныны маррео ту		हैं एक
Depth Matrix Color Mottle Colors	Mottle	Texture, Concretions,	. 11
(Inches) Horizon (Munsell Moist) (Munsell Moist)  O-6 A 104R 2/11/11/11/19	Abundance/Contrast	Structure, etc.	
6-6 A 104R 2/10 of salty clay -	# 2572444 (magazin)	litts of grave	
PROBE REFUSAL after 6"		WHATE	
		उत्ति एक्स्	
			61 SZ
	3 01		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		·	70.0
HYDRIC SOIL INDICATORS			, dista
☐ Histosol Reducing Conditions	Organic Streak	ng in Sandy Soils	,
☐ Histic Epipedon ☐ Gleyed or Low-Chroma Colors ☐ Concretions	Listed on Local	- 4/	111
Sullidic Odor	Other (Explain	nal Hydric Soils List n Remarks)	
Surface Layer in Sandy Soils	, , , , , , , , , , , , , , , , , , ,		1 25°
Hydric Soil Present?		Yes No	
Domarko: K F.	<del></del>		75.
Remarks: Sulfidie oder noted in p	ortion of we	Hand	
nomains. Justidie oder noted in p	ortion of We	Hand	
nomans. Jultidie oder noted in p	ortion of We	Hand	
	ortion of we	Hand	
WETLAND DETERMINATION	ortion of we		
WETLAND DETERMINATION Hydrophytic Vegelation Present?	ortion of we	Yes No	All of
WETLAND DETERMINATION	ortion of we	Yes No	
WETLAND DETERMINATION Hydrophytic Vegetation Present? Welland Hydrology Present?	ortion of we	Yes No No	
WETLAND DETERMINATION Hydrophytic Vegelation Present? Wetland Hydrology Present? Hydric Soils Present?	ortion of we	Yes No Yes No No	
WETLAND DETERMINATION Hydrophytic Vegelation Present? Wetland Hydrology Present? Hydric Soits Present? Is this sampling point a Wetland?	ortion of we	Yes No Yes No No	
WETLAND DETERMINATION Hydrophytic Vegelation Present? Wetland Hydrology Present? Hydric Soils Present? Is this sampling point a Wetland?	ortion of we	Yes No Yes No No	
WETLAND DETERMINATION Hydrophytic Vegelation Present? Wetland Hydrology Present? Hydric Soils Present? Is this sampling point a Wetland?	ortion of we	Yes No Yes No No	

DATA FORM	マムはカ	1987 COE Wellan			.5.4
7	20 P	IPELINE		5-2 SUNIA	
Applicant/Öwner: DEO Investigator: Jav Jen		·,	State: _	41	11)
Do Normal Circumstances exist on this site	27	Yes No	Commu Sigile, T	inity ID.	f 1 p
Is the site significantly disturbed (Atypical		1.4.1444 1.7714.4	Transect		70 Ve-
Is the area a potential Problem Area?	<i>-,</i>	Yes No	Plot ID.	Upt	Ten
VEGETATION	**************************************	ayar edile di seri se prominente mayorit delegazione di serie di serie di	<del>170)</del>	<u> </u>	
Dominant Plant Species Stratum  1. A Transcript petrolator H  2. Anothernocissus quiaque lina H  3. Podephylluma pedeatur. 1. H	FACU	Dominant Plant Specie  9 ***********************************	il Marghest		
4 Toxicodeschon Badicans H	FAC	12			<del></del> <u></u>
5. <u> </u>		13: 14			
7. 6 5.00 5 12. 12. 12.		15			 
8. <u>L. (s. 11 - 12 - 12 - 12 - 12 - 12 - 12 - 12 </u>	·	16			_ <b>_</b>
Percent of Dominant Species that are O FACW or FAC (excluding FAC-):  Remarks:	BL, Zs	-%			, -
	BL. 25	-0/z			
	BL, 25	- Vz			
Remarks:		PRIMARY INDICA	TORS:		
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge		PRIMARY INDICA □ Inundated			
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs		PRIMARY INDICA  Inundated  Saturated in Upp		es	
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge		PRIMARY INDICA Inundated Saturated in Upp Water Marks Drift Lines	er 12 Inch	es	
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other		PRIMARY INDICA Inundated Saturated in Upp Water Marks Drift Lines Sediment Depos	er 12 Inch		
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available		PRIMARY INDICA Inundated Saturated in Upp Water Marks Drift Lines Sediment Depos Drainage Pattern	er 12 Inch ils s in Wellad	nds	
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:	): (in.) (in.)	PRIMARY INDICA Inundated Saturated in Upp Water Marks Drift Lines Sediment Depos Drainage Pattern SECONDARY IND	er 12 Inch ils s in Wellad ICATORS	nds (2 or mor	•
Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks)  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:	): (in.) (in.)	PRIMARY INDICA Inundated Saturated in Upp Water Marks Drift Lines Sediment Depos Drainage Pattern	er 12 Inch ils s in Wellar ICATORS nannels in	nds (2 or mor	•

Map Unit Name (Series and Phase	Mooster Sili	t Loam (Wul	Z Dainage Class:	WD	
Taxonomy (Subgro	up): Oxyaquio	-traginalfs	Field Observations Confirm Mapped Type	e? Yes	No
PROFILE DESCR Depth (Inches) Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Abundance/Contrast	Texture, Concret Structure, etc	
9-5" O 8-10" A	RICHOURGAL 25TR 3/3	NONE.		Drg eyişir SiH;Hda	
				<u> </u>	
HYDRIC·SOIL I ☐ Hislosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture	Reducir Gleyed Concre Regime High O Surface	ng Conditions or Low-Chroma Colors tions ganic Streaking in e Layer in Sandy Soils	Organic Streaking Listed on Local F Listed on Nationa Other (Explain in	Hydric Soils List al Hydric Soils L	All as
Hydric Soil Present Remarks:	?			Yes (	No/
			ىرىدىنىڭ دارىلىق ئايىلىدىنىڭ 14-كىلىدىنىڭ بايدۇرىلىق دارىلىق بايدۇرىلىق ئايدۇرىلىق ئايدۇرىلىق بايدۇرىلىق بايدۇرىلىق	Von	
WETLAND DETE				Yes	
WETLAMD DETE Hydrophylic Veget Welland Hydrolog Hydric Soils Prese	/ Present?			Yes Yes	010

7	WETLAND IIa	was tweeter state with the property name by the ne
	DATA FORM	ROUTINE WETLAND DETERMINATION
		1987 COE Wellands Determination Manual PIPELINE Date: 5-23-06
	Project/Site: FRANKLIN 20"	TIEL-I/VE Date: (1) CALLER
0	Applicant/Owner: DTDO	County: SVMMIT
	Investigator: $\frac{\int aV}{\int e^{A}}$	State: OH
7	Do Normal Circumstances exist on this site?	Yes (No Community ID:
	Is the site significantly disturbed (Alypical Situation?	No Transect ID:
: : 78	Is the area a potential Problem Area?	(Yes) No Plot ID: WOH-JEN-O
	VEGETATION AND THE PROPERTY OF	se access to beautiful to
	Dominant Plant Species Stratum Indicator	Dominant Plant Species Stratum Indicat
	Phataris arundinacea H FACW	*g*
- Î	2 (GRINUS AMOMUM) S PACW	,10
_	3 SALIX NIGRA T FACW	[11
	4 Acer Sacharinum T FXW	
	5	. 13,
	6. · · · · · · · · · · · · · · · · · · ·	14
	?	16
11	m - Lat Day is and Opening that on ODI	TU.
	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):	70%
	LUCAL OLI VO CEVORABILÀ I VO. 1.	
₩ - <u>-</u>		
	,Remarks:	
	.Remarks:	
	.Remarks:	
S.N.	,Remarks:	
	Remarks:  HYDROLOGY	
	HADBOroga	PRIMARY INDICATORS:
	HYDROLOGY RECORDED DATA (Describe in Remarks):	
	HYDROLOGY RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge	□ Joundated
	HYDROLOGY RECORDED DATA (Describe in Remarks):	
	HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs	Dependence  Saturated in Upper 12 Inches  Water Marks  Drift Lines
	RYDROLOGY RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other	☐ Ipundated ☐ Saturated in Upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits
	HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available	☐ Ipundated ☐ Saturated in Upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands
	HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:	☐ Ipundated ☐ Saturated in Upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits
	RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:	☐ Ipundated ☐ Saturated in Upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands SECONDARY INDICATORS (2 or more required ☐ Oxidized Root Channels in Upper 12 Inches
	HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  Depth to Saturated Soif:	☐ Ipundated ☐ Saturated in Upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands SECONDARY INDICATORS (2 or more required ☐ Oxidized Root Channels in Upper 12 Inches ☐ Water Stained Leaves
	RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  Depth to Saturated Soil:  WETLAND HYDROLOGY INDICATORS:	☐ Ipundated ☐ Saturated in Upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands SECONDARY INDICATORS (2 or more required ☐ Oxidized Root Channels in Upper 12 Inches ☐ Water Stained Leaves ☐ Local Soil Survey Data
	HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  Depth to Saturated Soif:	☐ Ipundated ☐ Saturated in Upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands SECONDARY INDICATORS (2 or more required ☐ Oxidized Root Channels in Upper 12 Inches ☐ Water Stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test
	RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  FIELD OBSERVATIONS:  Depth of Surface Water:  Depth to Free Water in Pit:  Depth to Saturated Soil:  WETLAND HYDROLOGY INDICATORS:	☐ Ipundated ☐ Saturated in Upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetlands SECONDARY INDICATORS (2 or more required ☐ Oxidized Root Channels in Upper 12 Inches ☐ Water Stained Leaves ☐ Local Soil Survey Data

WETLANDIA	WOH-JEN-019
soils Wooster Sift Loam (WuC2)	Wucz: WD
Map Unit Name (Series and Phase): FITCHVILLE SILL LOURN (FCB) Dr. WUCZ: OXYA MICE Fraginalis Fin	rainage Class: FCB: SPD eld Observations
Wu C.Z: Oxyaquic Fraginalis Findo aqualis Co Taxonomy (Subgroup): FEB: Aeric Endo aqualis Co PROFILE DESCRIPTION	Illen
The state of the s	Mottle Texture, Concretions, bundance/Contrast Structure, etc.
7-12 B 164R4/3 104R3/1 Co	ommon Distinct Silty Clay
AP -	☐ Organic Streaking in Sandy Soils
☐ Sulfidic Odor ☐ Concretions	☐ Listed on Local Hydric Soils List☐ Listed on National Hydric Soils List☐ Other (Explain in Remarks)
Surface Layer in Sandy Soils Hydric Soil Present?	Yes No
Remarks:	The state of the s
WETLAND DETERMINATION  Hydrophytic Vegelation Present?	(Yes) No
Wetland Hydrology Present?  Hydric Soils Present?	No No
Is this sampling point a Wetland? Remarks:	Yes/ No
Wetland adjacent to a	locess road
	A CONTRACTOR OF THE CONTRACTOR

Project/Site: FRANKLIN 22 Applicant/Owner: DEG	PIPELINE Date: 5 -2 County SUN	
Investigator: RV/ 181	State: 2	
Do Normal Circumstances exist on this sile?	Yes Community ID	- V
Is the site significantly disturbed (Atypical Situ	and the same of th	
Is the area a potential Problem Area?	Tes No Plot ID: LUPL	-JEN.
VEGETATION		······
	dicator Dominant Plant Species Strat	
2 POR PRITZINSIS H P	ACU 10/1	
3.	11	<del></del>
5.	12 13.	<del></del>
6.	14,	
	1415	
	1516	
6. 7. 8. Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):	15	,
6. 7. 8. Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):	15	
6. 7. 8. Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): Remarks:	15	
6. 7. 8,	PRIMARY INDICATORS:	
6. 7. 8,	PRIMARY INDICATORS:  Inundated  Saturated in Upper 12 Inches	
6. 7. 8,	PRIMARY INDICATORS:	
6. 7. 8,	PRIMARY INDICATORS:  Inundated  Saturated in Upper 12 Inches  Water Marks  Difft Lines  Sediment Deposits	
6. 7. 8,	PRIMARY INDICATORS:  Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands	
6. 7. 8,	PRIMARY INDICATORS:  Inundated  Saturated in Upper 12 Inches  Water Marks  Difft Lines  Sediment Deposits  in Drainage Patterns in Wetlands SECONDARY INDICATORS (2 or m.)	
6. 7. 8. Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): Remarks:  HYDROLOGY  RECORDED DATA (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available  FIELD OBSERVATIONS: Depth of Surface Water:	PRIMARY INDICATORS:  Inundated Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits Sediment Deposits Drainage Patterns in Wetlands SECONDARY INDICATORS (2 or more) (in.) Oxidized Root Channels in Upper	-
6. 7. 8,	PRIMARY INDICATORS:  Inundated  Saturated in Upper 12 Inches  Water Marks  Drift Lines  Sediment Deposits  in Drainage Patterns in Wetlands  SECONDARY INDICATORS (2 or m.)	-

LIPLAND ASSOCIATED WITH WETLAND 11a UPL-JEI	V-019	
(Inches) Horizon (Munsell Moist) (Munsell Moist) Abundance/Contrast	Z: WD  Yes No  exture, Concretions, Structure, etc.  LZT CLAY	
HYDRIC SOIL INDICATORS  Histosol Reducing Conditions Organic Streaking of Histosol Gleyed or Low-Chroma Colors Listed on Local Hy Sulfidic Odor Concretions Listed on National Aquic Moisture Regime High Organic Streaking in Other (Explain in Regular Soils Hydric Soil Present?  Remarks: Probe refusal 6+inches in Clep	dric Soils List Hydric Soils List emarks) Yes	
WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Hydric Soils Present?  Is this sampling point a Wetland?  Remarks:	Yes No Yes No	Oliver of the second se
Field confirmed upland area		

Project/Site:	VD 7d	JON P	ROUTINE WET 1987 COE Well 10 F1 IN/FE	lands Deter		Manyal
Applicant/Owner:	have where the		A MINE		SUM	
Investigator:		1:1en		State: _	F	
■ Do Normal Circumstance		( )	Yes (No	~ }	nily ID:	X-N.
is the site significantly d			(Yes 2 No		- 4	V 19 19
Is the area'a potential Pr	<b>4</b> 2		Ves No		WOH =	TEN-C
VEGETATION	and the state of t	Marie and the second			4 0 0 1 0 1 - v	
Dominant Plant Species	Stratum	Indicator	Dominant Plant Spe	cies	Stratum	Indicat
1. Philaris area			9			
2. Topohiens of			10			
3		<del></del>	11			
4 5			12			
6			13 14			
7			15			
8,			16			
Remarks:	ng FAC-):					
Remarks:						
Remarks:  HYDROLOGY					:	
			PRIMARY INDI	CATORS:		
HYDROLOGY  RECORDED DATA (De	scribe in Remarks;	);	PRIMARY INDIV		:	
HYDROLOGY  RECORDED DATA (Delication of Tides)  Stream, Lake, or Tides  Aerial Photographs	scribe in Remarks;	):	PRIMARY INDIC Inundated Salurated in U		28	
HYDROLOGY  RECORDED DATA (De	scribe in Remarks; le Gauge	):	PRIMARY INDIV		28	
HYDROLOGY  RECORDED DATA (Delication of the control	scribe in Remarks, le Gauge Available	)	PRIMARY INDIC Inundated Saturated in U Water Marks	pper 12 Inche	28	
HYDROLOGY  RECORDED DATA (Delication of the control	scribe in Remarks) le Gauge Available S:	): (in.)	PRIMARY INDIC Mandated Desalurated in U Mater Marks Defit Lines Sediment Dep	pper 12 Inche osits erns in Wellan	ds	
HYDROLOGY  RECORDED DATA (Decomposed of the process	scribe in Remarks) e Gauge Available S:	): (in.) (in.)	PRIMARY INDIC Inundated In Saturated in U In Water Marks In Drift Lines In Sediment Dep In Drainage Patte SECONDARY IN	pper 12 Inche osits erns in Wettan IDICATORS	ds (2 or more	
HYDROLOGY  RECORDED DATA (Decomposed of the part of Surface Water)  HYDROLOGY  RECORDED DATA (Decomposed of the part of Surface Water)	scribe in Remarks) e Gauge Available S:	): (in.) (in.)	PRIMARY INDIC Inundated Inundated in U Inundated in	pper 12 Inche osits erns in Wettan IDICATORS Channels in I	ds (2 or more	
HYDROLOGY  RECORDED DATA (Decomposed Stream, Lake, or Tide Aerial Photographs Other No Recorded Data Aerial Observation, Depth of Surface Water; Depth to Free Water in Page 1985.	scribe in Remarks) le Gauge Available S: '	): (in.) (in.)	PRIMARY INDICATED TO SALURATE MARKS TO SALURATE MARKS TO DRITH Lines To Drainage Palte SECONDARY IN Oxidized Root To Water Stained	pper 12 Inche osits erns in Wetlan IDICATORS Channels in I Leaves	ds (2 or more	
HYDROLOGY  RECORDED DATA (Decomposed of the property of Surface Water in Property of Salurated Soil:	scribe in Remarks) le Gauge Available S: '	(in.) (in.) (in.)	PRIMARY INDICATE Inundated Inundated in U Inundated	pper 12 Inche osits ons in Wetlan IDICATORS Channels in I Leaves vey Data	ds (2 or more	
HYDROLOGY  RECORDED DATA (Decomposition of the process of the proc	scribe in Remarks; le Gauge Available S: / <u>O - 2</u> lit: <u>O'</u> GY INDICATORS	(in.) (in.) (in.)	PRIMARY INDICATED TO SALURATE MARKS TO SALURATE MARKS TO DRITH Lines To Drainage Palte SECONDARY IN Oxidized Root To Water Stained	osits erns in Wellan IDICATORS Channels in I Leaves vey Data	ds (2 or more	
HYDROLOGY  RECORDED DATA (Decomposition of the process of the proc	scribe in Remarks; le Gauge Available S: / <u>O - 2</u> lit: <u>O'</u> GY INDICATORS	(in.) (in.) (in.)	PRIMARY INDICATED TO Saturated in US Saturated in US Water Marks Sediment Deposition of the Control of the Cont	osits erns in Wetlan IDICATORS Channels in I Leaves vey Data est in Remarks)	ds (2 or more Upper 12 In	
HYDROLOGY  RECORDED DATA (Decomposition of the process of the proc	scribe in Remarks; le Gauge Available S: / <u>O - 2</u> lit: <u>O'</u> GY INDICATORS	(in.) (in.) (in.)	PRIMARY INDICATED TO Saturated in US Saturated in US Water Marks Sediment Deposition of the Control of the Cont	osits erns in Wetlan IDICATORS Channels in I Leaves vey Data est in Remarks)	ds (2 or more Upper 12 In	
HYDROLOGY  RECORDED DATA (Decomposed of the property of Surface Water in Property of Salurated Soil:	scribe in Remarks; le Gauge Available S: / <u>O - 2</u> lit: <u>O'</u> GY INDICATORS	(in.) (in.) (in.)	PRIMARY INDICATE Inundated  Saturated in U  Water Marks  Drift Lines  Sediment Dep  Drainage Patte  SECONDARY IN  WOOXIDIZED Root  Water Stained  Local Soil Sur  FAC-Neutral To	osits cons in Wetlan IDICATORS Channels in Leaves vey Data est in Remarks)	ds (2 or more Upper 12 In	

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,	*	eser.		
SOILS		,		
Map Unit Name (Series and Phase): Raver	and Silt In	am (Rea)	Drainana Classi	SPD
•			Drainage Class: Field Observations	
-Taxonomy (Subgroup): P6	eric tragi	aqualfs	Confirm Mapped Ty	ype? (Yes) No
PROFILE DESCRIPTION	<i>.</i>	Y		
		Mottle Colors Munsell Moist).	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
	<del></del>	YK 516	Common Dist	Wal Cilluminia
9-12-1011		DYR 4/6		10 3.19 M
		U IR TIU	(minon) Ded	THE OWN YELL
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-				·
			****	
HYDRIC SOIL INDICATI	ORS			
HYDRIC SOIL INDICATO	ORS / Beducing Cor	nditions .	🗅 Örganic Streak	ing in Sandy Sóils
☐ Histosol ☐ Histic Epipedon	Baducing Col	nditions w-Chroma Colors	🗀 Listed on Loca	•
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor	Baducing Con Gleyed or Lov Concretions	w-Chroma Colors	☐ Listed on Loca ☐ Listed on Natio	il Hydric Solls List onal Hydric Solls List
☐ Histosol ☐ Histic Epipedon	Baducing Cor Gleyed or Lov Concretions High Organic	w-Chroma Colors Streaking in	🗀 Listed on Loca	il Hydric Soils List onal Hydric Soils List
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☑ Aquic Moisture Regime	Baducing Cor Gleyed or Lov Concretions High Organic	w-Chroma Colors	☐ Listed on Loca ☐ Listed on Natio	al Hydric Soils List onal Hydric Soils List in Remarks)
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime Hydric Soil Present?	Baducing Cor Gleyed or Lov Concretions High Organic	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	il Hydric Soils List onal Hydric Soils List
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☑ Aquic Moisture Regime	Baducing Cor Gleyed or Lov Concretions High Organic	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	al Hydric Soils List onal Hydric Soils List in Remarks)
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime Hydric Soil Present?	Baducing Cor Gleyed or Lov Concretions High Organic	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	al Hydric Soils List onal Hydric Soils List in Remarks)
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime Hydric Soil Present?	Baducing Cor Gleyed or Lov Concretions High Organic	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	al Hydric Soils List onal Hydric Soils List in Remarks)
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☑ Aquic Moisture Regime Hydric Soil Present? Remarks:	Baducing Con Geyed or Lov Georgelions Georganic Surface Laye	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	al Hydric Soils List onal Hydric Soils List in Remarks)
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime Hydric Soil Present?	Baducing Con Geyed or Lov Georgelions Georganic Surface Laye	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	al Hydric Soils List onal Hydric Soils List in Remarks)
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☑ Aquic Moisture Regime Hydric Soil Present? Remarks:	Baducing Con Gleyed or Lov Gleyed or Lov Concretions High Organic Surface Laye	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	al Hydric Soils List onal Hydric Soils List in Remarks)
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☑ Aquic Moisture Regime Hydric Soil Present? Remarks:	Baducing Con Gleyed or Low Gleyed Constant Control of	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	al Hydric Soils List onal Hydric Soils List in Remarks)  Yes No
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime  Hydric Soil Present? Remarks:  WETLAND DEVERWINAT  Hydrophytic Vegetation Pres	Baducing Con Gleyed or Low Concretions High Organic Surface Laye FION sent?	w-Chroma Colors Streaking in	☐ Listed on Loca ☐ Listed on Natio	onal Hydric Soils List in Remarks)  Yes No

-Associated with Stoream area & culvert - Scasonal Wetland

	UPLAND ASSOCIATED WITH WETZ	AND THE	
	DATA FORM	ROUTINE WETLAND D	· · · · · · · · · · · · · · · ·
		1987 COE Wetlands De	f '' and'
	Project/Site: FRANKLIN 20" PIPE	Date Date	5-29-08
	Applicant/Owner: 724-0		INV. SUMMIT
	Investigator: Jav / Jen		e: (#/
	Do Normal Circumstances exist on this site?	` <del>`</del>	nmunity ID: LIPL
	Is the site significantly disturbed (Alypical Situation?)		nsect ID:
	Is the area a potential Problem Area?	No Plot	ID: UPLJEN-020
		COSA CHA 1101	D. VIII
	VEGETATION		*
		Dominant Plant Species	Stratum Indicator
		93.3	
	L. P. C.	~11	
		<b>11</b>	
	5 ERIGERON PHILADELPHUS H FACU	.12	
2	6	14	<del>[</del>
	7.	15	
	8.	16	
	Percent of Dominant Species that are OBL, As &	كالمتعدد التاريخ المتاريخ المتاريخ والمتاريخ والمتاريخ والمتاريخ والمتاريخ والمتاريخ والمتاريخ والمتاريخ	
	FACW or FAC (excluding FAC-):	<u> </u>	1
	Remarks:	* 4	
	nonano.		
		<b>V</b> j	72.M
		C. C	Martin and the first and the same state of the s
	HYDROLOGY	9 (1) (2) (3) (4) (4) (5) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	3,6
	RECORDED DATA (Describe in Remarks):	PRIMARY INDICATORS	
	Stream, Lake, or Tide Gauge	☐ Inundated	
	Aerial Photographs	☐ Salurated in Upper 12 I	Inches
	Other	☐ Water Marks	
	☐ No Recorded Data Available	☐ Drift Lines	
	FIELD OBSERVATIONS:	☐ Sediment Deposits	lattanda
	Depth of Surface Water: (in.)	☐ Drainage Patterns in W	ž.,
	Depth to Free Water in Pit:(in.)	SECONDARY INDICATO	
	Depth to Saturated Soil: (in.)	Oxidized Root Channel     Water Stainer Leaves	s in Upper 12 inches
	WETLAND HYDROLOGY INDICATORS:	☐ Water Stained Leaves☐ Local Soil Survey Data	
	- NONE	FAC-Neutral Test	
		Other (Explain in Rema	nks) i
	Remarks:	Terratural transference of the control of the contr	
	пенатка.		,
La.			
	, š		,

RECORDED DATA (De	escribe in Remarks):	PRIMARY Indicators:	
Stream, Lake or Tide	e Gauge	☐ Inundated	
Aerial Photographs		Saturated in Upper 12"	
☐ Olher		☐ Water Marks	THE PERSON
☐ None Available		☐ Drift Lines	
	10.	Sediment Deposits	Steve S
FIELD OBSERVATION  Depth of Surface Water	fi \	Drainage Patterns in Wellands	41
Depth to Free Water in		SECONDARY Indicators	2.4
Depth to Saturated Soi		Oxidized Rool Channels in UPPER 12"	
		Water Stained leaves	
Wetland Hydrology Pre	esent?	Local Soil Survey Data	
Yes (Nd		FAC-Neutral Test	
REMARKS: ,	<b>3</b>	Other (Explain in Remarks)	11839
Ma inpland	hydrology in	dicators	
NO METHING	myarology M	ICH COCICYS	WEets .
		•	
SOILS		(0.1)	
Man Unit Name R	avennaSiltL	DAM(ReB) Drainage Class: SPD	CONTRACTOR OF
(Series and Phase)		prairiege Glass.	
		_	
Taxonomy (Subgrou	in). Heric Tacia	Aug 1+4 . Field Observations Donfirm	(2 5 5 C
Taxonomy (Subgrou	ip): Heric tragia	<u>Дии Н Field Observations Oonfirm</u> Mapped Type: Yes No	(T. 5)
Taxonomy (Subgroup PROFILE DESCRIF	ip): <u>Meric tragiae</u> PTION	Tualf: Field Observations Confirm Mapped Type: Yes No	
PROFILE DESCRIF	up): <u>Meric tragiae</u> PTION ix Color Mottle	Field Observations Confirm  Mapped Type: Yes No  Molle Texture.	To the second se
PROFILE DESCRIF	PTION ix Color Mottle	, 0	
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5	PTION ix Color Mottle sell Moist) (Munsell Moist) 5 Y 3/3 // //	Mottle Texture,  Abundance/Contrast Concretions,Structure,etc.  SIL-LOGINA	
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5	PTION ix Color Mottle sell Moist) (Munsell Moist) 5 Y 3/3 // //	Mottle Texture,  Abundance/Contrast Concretions, Structure, etc.	
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5	PTION ix Color Mottle sell Moist) (Munsell Moist) 5 Y 3/3 // //	Mottle Texture,  Abundance/Contrast Concretions,Structure,etc.  SIL-LOGINA	
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5	PTION ix Color Mottle sell Moist) (Munsell Moist) 5 Y 3/3 // //	Mottle Texture,  Abundance/Contrast Concretions,Structure,etc.  SIL-LOGINA	
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8+ PROBE RE	PTION ix Color Mottle sell Moist) (Munsell Moist) 5 Y 3/3 // A/U i/	Mottle Texture,  Abundance/Contrast Concretions,Structure,etc.  SIL-LOGINA	
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  O-8 A 2.5  8+ PROBE RE  HYDRIC SOIL INDICA	PTION ix Color Mottle sell Moist) (Munsell Moist) 5 Y 3/3 // // FUS AL	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.  Sill-/ Utiva	
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8+ PROBE RE  HYDRIC SOIL INDICA  Histosol	PTION ix Color Mottle sell Moist) (Munsell Moist) DY 3/3 A/A i/A FUS AL  TORS  Reducing Condit	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTTTTTES STIFF UCITA    Organic Streaking in Sandy Soils	
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8 + PROBE RE  HYDRIC SOIL INDICA  Histosol  Histos Epipedon	TION  ix Color Mottle ix	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTITILES SILL/UGYA	"
PROFILE DESCRIF Depth Matr (inches) Horizon (Muns 0-8 A 2.5 8+ PROBE RE  HYDRIC SOIL INDICA  Histosol Histosol Sulfidic Odor .	TION  ix Color Mottle sell Moist) (Munsell Moist)  Y 3/3 // W i/  FUS A //  TORS  Reducing Condit  Gleyed or Low-Concretions	Mottle Texture,  Abundance/Contrast Concretions, Structure, etc.  STANDAM  DITTUTES STRUCTURE, etc.  STANDAM  Organic Streaking in Sandy Soils Chroma Colors Listed on Local Hydric Soils List  Listed on National Hydric Soils List	"
PROFILE DESCRIF Depth Matr (inches) Horizon (Muns 0-8 A 2.5 8+ PROBE RE  HYDRIC SOIL INDICA Histosol Histosol Sulfidic Odor Aquic Moisture Regim	TION  ix Color Mottle  sell Moist) (Munsell Moist)  Y 3/3 // i/  FUS A  TORS  Reducing Condit  Gleyed or Low-Coloretions  ne High Organic Str	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTITILES SILL/UGYA	"
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8 + PROBE RE  HYDRIC SOIL INDICA  Histosol Histosol Sulfidic Odor Aquic Moisture Regim  Hydric Soil Present?	TION  ix Color Mottle  sell Moist) (Munsell Moist)  OY 3/3 AU in  FUS AL  TORS  Reducing Condit  Gleyed or Low-Concretions  ine High Organic Str	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTT   Concretions   Structure, etc.	"
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8 + PROBE RE  HYDRIC SOIL INDICA  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regim  Hydric Soil Present?	TION  ix Color Mottle  sell Moist) (Munsell Moist)  OY 3/3 AU in  FUS AL  TORS  Reducing Condit  Gleyed or Low-Concretions  ine High Organic Str	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTT   Concretions   Structure, etc.	"
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8 + PROBE RE  HYDRIC SOIL INDICA  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regim  Hydric Soil Present?	TION  ix Color Mottle  sell Moist) (Munsell Moist)  OY 3/3 AU in  FUS AL  TORS  Reducing Condit  Gleyed or Low-Concretions  ine High Organic Str	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTT   Concretions   Structure   Str	"
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8+ PROBE RE  HYDRIC SOIL INDICA  Histosol Histic Epipedon Sulfidic Odor .  Aquic Moisture Regim  Hydric Soil Present?  REMARKS:  Probe Ref	TION  ix Color Mottle ix Color	Mottle Texture,  Abundance/Contrast Concretions, Structure, etc.  STANDAM  DITTUTES STRUCTURE, etc.  STANDAM  Organic Streaking in Sandy Soils Chroma Colors Listed on Local Hydric Soils List  Listed on National Hydric Soils List	"
PROFILE DESCRIF  Depth (inches) Horizon (Muns  O-8 A 2.5  8+ PROBE RE  HYDRIC SOIL INDICA  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regim  Hydric Soil Present?  REMARKS: Prabe Ref  WETLAND DETER	TION  ix Color Mottle  sell Moist) (Munsell Moist)  TY 3/3 AU M  FUS AL  TORS  Reducing Condit  Gleyed or Low-C  Concretions  High Organic Str  Yes (No  MINATION	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTTTTTES SIPE/UCIMA	"
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8+ PROBE RE  HYDRIC SOIL INDICA  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regim  Hydric Soil Present?  REMARKS: Prabe Ref  WETLAND DETER  Hydrophytic Vegetation	TION  ix Color Mottle  self Moist) (Munself Moist)  Y 3/3 // //  FUS AL  TORS  Reducing Condit  Gleyed or Low-Concretions  ine High Organic Str  Yes No  MINATION  in Present? Yes	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTT   Concretions   Structure   Str	"
PROFILE DESCRIF  Depth Matr (inches) Horizon (Muns  0-8 A 2.5  8+ PROBE RE  HYDRIC SOIL INDICA  Histosol Histosol Sulfidic Odor Sulfidic Odor Aquic Moisture Regim  Hydric Soil Present?  REMARKS: Probe Ref  WETLAND DETER	TION  ix Color Mottle  self Moist) (Munself Moist)  Y 3/3 // //  FUS AL  TORS  Reducing Condit  Gleyed or Low-Concretions  ine High Organic Str  Yes No  MINATION  in Present? Yes	Mottle Texture, Abundance/Contrast Concretions, Structure, etc.    DTT	"

Wetland 7c

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

Dominion East Oh Dominion East Oh	lo-Well Pad 2462/F	lammond #2			Date:			
Dominion East Oh		/Site: Dominion East Ohlo-Well Pad 2462/Hammond #2				1.	11/15/07	
	la			County:	ummit			
Chet Elewski			State:	Н				
Do normal circumstances exist on the site?					Community ID: PEM			
Is the site significantly disturbed (Atypical Situation)?					No X Transect/Plot ID:			
is the area a potential problem area? (If needed, explain on reverse)				No X	Wetland ID: WOH-CRE-001			
ION								
Plant Species	Stratum	Indicator	Dominan	it Plant Specie	25	Stratum	Indicator	
รบร	H	FACW+	9.					
1	Н	OBL	10.					
			11.					
			12.					
			13.					
			14.					
			15.					
			16.				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
· · · · · · · · · · · · · · · · · · ·	pasture where mo	st of the vegetation	on has been chew	ed down by liv	estock.			
	lescribe in Remark	2).	Wetland Hydrol	eny Indicators				
<del>-</del>		·						
<del></del>		<b>-</b>	Inundated					
Other	······································		X. Saturated in Upper 12 Inches					
No Recorded Date	a Avallable		Water Marks					
<del></del>			Drift Lines					
 15:			Sediment Deposits					
of Surface Water:		(in.)	X Drainage Patterns in Wetlands					
					Secondary Indicators (2 or more required):			
Depth to Saturated Soil: 11 (in.)				X Oxidized Root Channels in Upper 12 Inches				
Remarks: Region has been under considerable drought conditions.				Water-Stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other (Explain in Remarks)				
	antly disturbed (Atypic initial problem area? (I  ION  Plant Species  sus  I  Area is an active farm  Aerial P  Other  No Recorded Data  is: of Surface Water: to Free Water in Pit: to Saturated Soil:	antly disturbed (Atypical Situation)? Initial problem area? (If needed, explain of the stratum sus high high sus	antly disturbed (Atypical Situation)?  ION  Plant Species Stratum Indicator  Sus H FACW+  A H OBL  Bant Species that are OBL, FACW or FAC (excluding FAC-  Area is an active farm pasture where most of the vegetation  OGY  Recorded Data (Describe in Remarks):  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  18:  of Surface Water:  to Free Water in Pit:  to Saturated Soil:  11 (in.)	antial problem area? (If needed, explain on reverse)  FION  Plant Species Stratum Indicator Dominar surs H FACW+ 9.  I H OBL 10.  I 11.  I 12.  I 13.  I 14.  I 15.  I 16.  I 16.  I 16.  I 16.  I 17.  I 18.  I 19.  I 19.	antily disturbed (Atypical Situation)?  Third problem area? (If needed, explain on reverse)  TON  Plant Species  Stratum  Indicator  Dominant Plant Species  9/8  H  FACW+  9.  10.  11.  12.  13.  14.  15.  Area is an active farm pasture where most of the vegetation has been chewed down by live primary indicators:  Stream, Lake, or Tide Gauge  Aerial Photographs  Other  No Recorded Data Available  No Recorded Data Available  Water Marks  Drift Lines  15.  Secondary Indicators:  Secondary Indicators (2 or m  Water-Stained  In as been under considerable drought conditions.  In as been under considerable drought conditions.  In the secondary Indicators (2 or m  Water-Stained  Local Soil Surv  FAC-Neutral Total  FAC-Neutral Total  A part of Surface Water:  (In.)  Cocal Soil Surv  FAC-Neutral Total  A part of Surface Water (In.)  A part of Surface Water:  (In.)  Cocal Soil Surv  FAC-Neutral Total  A part of Surface Water (In.)  A part of Surface Water (In.)  A coxidized Root (Water-Stained)  Local Soil Surv  FAC-Neutral Total  A part of Surface (In.)  A part of Surface (In.)  A coxidized Root (In.)  Coxidized Root (In.)  A coxidized Root (In.)  A coxidized Root (In.)  A coxidized Root (In.)  Coxidized Root (In.)  A coxidized Root (In.)  Coxidized R	antily disturbed (Atypical Situation)?  Yes No X  Wetland  Plant Species Stratum Indicator Dominant Plant Species  Sus H FACW+ 9.  I H OBL 10.  11.  12.  13.  14.  15.  16.  Sent Species that are OBL, FACW or FAC (excluding FAC-):  Area is an active farm pasture where most of the vegetation has been chewed down by livestock.  OGY  Recorded Data (Describe in Remarks):  Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available  Other No Recorded Data Available  Other  No Recorded Data Available  Other  No Recorded Data Available  Other  No Recorded Data Available  Other  No Recorded Data Other (in.)  Secondary Indicators:  Sediment Deposits  Sediment Deposits  Sediment Deposits  Sediment Deposits  A Diralnage Patterns in Wett  Secondary Indicators (2 or more require to Saturated Soil:  11 (in.)  X Oxidized Root Channels in Water-Stained Leaves  Local Soil Survey Data FAC-Neutral Test	antity disturbed (Atypical Situation)?  Yes No X  Transect/Flot ID: Wetland ID: W  Wetland ID: W  Transect/Flot ID: Wetland ID: W  Wetland ID: W  Transect/Flot ID: Wetland ID: W  Wetland ID: W  Transect/Flot ID: Wetland ID: W  Transect/Flot ID: Wetland ID: W  Wetland ID: W  Transect/Flot ID: Wetland ID: W  Wetland ID: W  Transect/Flot ID: Wetland ID: W  Wetland ID	

Wetland 7c

Project Site:	Dominion East Ohio- Well Pad 2462/Hammon	Wetland No.:	WOH-CRE-001 PEM	Date: 11/15/07				
SOILS				<u> </u>				
Map Unit Name (Series and Phase):			Drainage Class:					
Taxonomy (Subgroup);			Field Observations Confirm Mapped Type?	Yes	No			
Profile Descripti	ion:				_			
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Molst)	Mottle Abundance/Contrast (%)	Texture, Concretions, Structure, etc.			
0-1	0	P						
1-12	В	2.5YR 4/2	7.5YR 4/6	25% Mottles	Silfy Clay Loam			
					<u> </u>			
the Call lade								
Hydric Soll India	cators: Histosol			Concretions				
			High Organic Content in Surface Layer in Sandy Solis					
	Sulfidic Odor			Organic Streaking in Sandy				
	— Aquic Moisture Regi	me	-	Listed on Local Hydric Soils				
X	Reducing Conditions	s	Listed on National Hydric Solis List					
x	Gleyed or Low-Chro	ma Colors		Other (Explain in Remarks)	)			
Remarks: Region has bee	en under considerable dro	ught conditions.						
WETLAN	ND DETERMINATIO	N						
Hydrophytic Ve	getation Present?	Yes X No	o is this Samplin	g Point Within a Watland?	Yes X No			
Welland Hydrol	logy Present?	Yes X No	D		<del></del>			
Hydric Soils Pre	asent?	Yes X No	,					
Remarks:								

## APPENDIX 07-1C

SUPPLEMENTAL OHIO EPA OHIO RAPID ASSESSMENT METHOD (ORAM) FOR WETLANDS V5.0 FORMS FROM GAI FIELD SURVEYS

)RAM v. 5.	0 Field Form Qu	antitative Rating			WEILAND 9C
Site:	W014-J	EN-013	Rater(s):	n/jav	Date: 4-17-08
	28:5		O	<i>/</i> O	
0	28:5 M	etric 5. Special	Wetlands,		
max 10 pls.		k all that apply and score as indic			
		Bog (10) Fen (10)			
		Old growth forest (10)			
	'	Mature forested welland (5) Lake Erie coastel/tributary w	atland-unrestricted bydro	Indu /10)	
		Lake Erie coastal/tributary w	,	=	
		Lake Plain Sand Prairies (Oa	ak Openings) (10)		
		Relict Wet Praires (10)	and this stand or and on	normal amortism (40)	
		Known occurrence state/fedi Significant migratory songbir	· · · · · · · · · · · · · · · · · · ·	- • •	
		Category 1 Wetland. See Q		- • •	
11	M E				· • · · · • · · · · · · · · · · · · •
				=	nicrotopography.
max 20 pts.		Welland Vegetation Communities to all present using 0 to 3 scale.	Vegetation Con	munity Cover Scale	1hs (0.2471 acres) corillguous area
	300	Aquatic bed	1		rises small part of welland's
	_	2 Emergent			oderate quality, or comprises a
	2	<b>⊘</b> Shrub		significant part but is of	
	-	C Forest C Mudifals	2	3	rises significant part of wetland's oderate quality or comprises a small
		⟨♠⟩ Open water		part and is of high qual	
		Olher	. 3		ignificant part, or more, of wetland's
		horizontal (plan view) interspersio	n.	vegetation and is of hig	ih quality
	366	ct only one. High (5)	Narrative Desc	ription of Vegetation Quality	
		Moderately high(4)	low		predominance of nonnative or
	3	Moderate (3)		disturbance tolerant na	,
	3,	Moderately low (2) Low (1)	mod		component of the vegetation, d/or disturbance tolerant native spp
		None (0)			nd species diversity moderate to
	6c.	Coverage of invasive plants. Refe	er	· ·	enerallyw/o presence of rare
		able 1 ORAM long form for list. A		inrealened or endange	
	or d	educt points for coverage Extensive >75% cover (-5)	high	_ ·	e species, with nonnative spp grant native spp absent or virtually
	-2	Moderate 25-75% cover (-3)     Moderate 25-75% cover (-3)	)		liversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, th	rreatened, or endangered spp
		Nearly absent <5% cover (0		145-kan Glass Bereitter	
	6d.	Absent (1) Microtopography,	Mudilat sha Of	en Water Class Quality Absent <0.1ha (0.247 ed	grés)
		re all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to	
		Vegetated hummucks/tussu		Moderate 1 to <4ha (2.4	
	1	Coarse woody debris >15cn		High 4ha (9.88 acres) or	more
		(10) Standing dead >25cm (10) (2) Amphibian breeding pools	y don <u>Microtopogr</u> ap	hy Cover Scale	
		The touch when the same the same	0	Absent	
			1	Present very small amou	ints or if more common
				of marginal quality	curse but not of highest
			2	Present in moderate amo	
			3	Propert in moderate or o	

32,5 GRAND TOTAL(max 100 pts)

and of highest quality

subtotal this page

farming woody debris removal toxic pollutants (possible) Inutrient enrichment TRASH-Miscellaneous glass, rusty cans, wrappers, etc.

ORAM v. 5,	AM v. 5.0 Floid Form Quantitative Rating							wetland	Wetland 4	
Site:	WOF	-]	EN-014	Ra	ter(s):	jer	i/jav	Date: 4-17-	-08	
,	32 subiolal this pag					V	/ 0			
Ô	32	Metr	ic 5. Speci	ial Wet	lands.					
max 10 pts,	subto(a)		I that apply and score a							
тах турь,	SUBJURI		Bog (10) Feri (10) Old growth forest (10) Mature forested wellar Lake Erie coastal/iribu Lake Plain Sand Prairi Relict Wet Praires (10) Known occurrence sta	nd (5) stary welland- stary welland- les (Oak Oper )	restricted hydro nings) (10)	ology (5)				
			Significant migratory s	_						
r		, L	Category 1 Wetland.	See Question	1 Qualitative	Raling (-10)				
$\Box$	41	Met	ric 6 Plant	comm	unitia	e into	renersion	, microtopograph	11/	
	- I - I		land Vegetation Commi		Vegetation 0			, microtopograpii	y.	
max 20 pts.	publotal		iand vegetation Commi I present using 0 to 3 sc		vegetation c			<0.1ha (0.2471 acres) contiguous ar	res	
			Aquatic bed		1			omprises small part of welland's		
			Emergent			ļ		f moderate quality, or comprises a		
		7 3	Shrub				significant part but	is of low quality		
		6	Forest		2			omprises significant part of wetland's		
		0.	Mudflats					f moderate quality or comprises a sn	váli	
		1-2	Open water Other		3		part and is of high	quanty es significant part, or more, of wetler		
		6b bori	zontat (plan view) Inters	nersion	3		resent and complis vegetation and is o		10 S	
		Select of		heinin	·····		Vegetation and o	ringir quality		
			High (5)		Narrative De	scription o	f Vegetation Quality	<i>,</i>		
			Moderately high(4)		lov			d/or predominance of nonnative or		
		2	Moderate (3)				disturbance tolerar			
		× ×	Moderately low (2)		ma	d		nent component of the vegetation,		
			Low (1)					and/or disturbance tolerant native s		
		Se Cov	None (0) erage of invasive plants	Dofor			•	t, and species diversity moderate to ut generallyw/o presence of rare		
			1 ORAM long form for I				threatened or enda			
			t points for coverage		hig	h		alive species, with nonnative spp		
			Extensive >75% cove	r (-5)	_		\	tolerant native spp absent or virtuali	ly	
		<b>-2</b> ≥	Moderale 25-75% cov				absent, and high s	pp diversity and often, but not always	s,	
		~ <u> </u> ≥	Sparse 5-25% cover (				the presence of rai	re, threatened, or endangered spp		
			Nearly absent <5% co	over (0)						
		C4 145-	Absent (1) rotopography.				er Class Quality Absent < 0.1ha (0.24)	(7 years)		
			notopograpny. Il present using 0 to 3 st	cele	<u> </u>		Low 0.1 to <1ha (0.2			
		7	7		2	<del></del>	Moderate 1 to <4ha			
		, 2	Coarse woody debris	>15cm (6in)	3		High 4ha (9.88 acres	···		
		3 1	Standing dead >25cm	n (10in) dbh						
		$\Omega$	Amphibian breeding p	ogols	Microtopog					
			opotential, but to likely due to u	er ers	0		Absent	and as If was a second		
			WENT STATE OF	TELLAN	1			mounts or if more common		
			Chemicals in	Water.		<del></del>	of marginal quality	amounts, but not of highest		
					2	•		amounts of highest quality		
					3		Present in moderate			
							and of biobast ous	dily		

41 GRAND TOTAL(max 100 pts)

selective cutting

toxic pollutants

woody debris removal

dredging

farming

Landscope plantings adjacent to Wetland

12 Home/driveway adjacent to Wetland

nutrient enrichment

subjeted this page

ORAM v. 5:	0 Fletd For	m Quar	ititative Rating						Wetland 10
Site:	Wolf	~[]]	EN-015	Ra	ter(s):	jen,	/ju/	Date:	VVetland 10 5-22-08
5	35.5						·		
0	35.5	Me	tric 5. Sp	ecial Wet	lands.				
max 10 pts.	subtotal	4	all that apply and so						
		_	Bog (10)						
		  -	Fen (10) Old growth fores	1 (10)					
		<b>-</b>	Mature forested	• •					
		r		il/tributøry wetland-t	inrestricted hyd	irology (10)	}		
		<u>ַ</u>	_	il/tributary wetland-r					
		-		Prairies (Oak Oper	ings) (10)				
		-	Relict Wet Praire		onto mand an amada		- nian (40)		
		ŀ		ce state/federal thre dory songbird/water		,	, ,		
		- 1		and. See Question					
2	20 5	7 ~				,			_
3	38,5	Me	tric 6. Pla	ant comm	unities	i, inte	rspersion, mic	rotopo	ography.
max 20 pts.	subtotal	6a, W	elland Vegetation C	ommunilles.	Vegetation C				
			all present using 01	o 3 scale.	0		Absent or comprises <0.1ha (0		
			Aquatic bed Z Emergent		1		Present and either comprises a vegetation and is of moderate		
		ľ	O Shrub			1	significant part but is of low o	•	outhuses a
		2 [	O Forest		2		Present and either comprises s		t of welland's
			∂ Mudflets			ļ	vegetation and is of moderate	quality or co	imprise <b>s a small</b>
		-	Open water				part and is of high quality		
		Sh h	○ Other orizontal (plan view)	Intereneraina	3		Present and comprises signific vegetation and is of high qua		iore, of Welland's
			t only one.	micropersion.		لـــــــــــــــــــــــــــــــــــــ	vogetation and is of high qua	ucy	
			High (5)		Narrative De	scription o	f Vegetation Quality		
			Moderalely high	(4)	low		Low spp diversity and/or predo		onnative or
		2	Moderale (3)				disturbance tolerant native sp		
		- 1	Moderately low ( Low (1)	(2)	nod	i	Native spp are dominant comp although nonnative and/or dis		
		<u> </u>	None (0)				can also be present, and spe		-
		6c. C	overage of invasive	plants. Refer			moderately high, but general	-	
			ale 1 ORAM long for				threatened or endangered sp		
		or dec	luct points for covera Extensive >75%	_	high	١	A predominance of native spec		* *
		-1	. Moderate 25-75				and/or disturbance tolerant n absent, and high spp diversit		
			Sparse 5-25% c				the presence of rare, threate		•
			Nearly absent <	5% cover (0)				-	-
		Į.	Absent (1)			Open Wate	or Class Quality		-
			licrolopography.	In 9 anda	0		Absent <0.1ha (0.247 acres)	'navaal	-
		_	all present using 0 t  O Vegetaled humi		1		Low 0.1 to <1ha (0.247 to 2.47 Moderate 1 to <4ha (2.47 to 9		-
		ŀ		lebris >15cm (6in)	3		High 4ha (9.88 acres) or more		-
		1		25cm (10ln) dbh					_
			7 Amphiblan bree	ding pools	Microtopogr	aphy Cove		·	<del></del>
					0		Absent	if more name	man
					1		Present very small amounts or of marginal quality	n more com	MUJI
					2	<del></del>	Present in moderate amounts,	but not of his	ghest

38,5 GRAND TOTAL(max 100 pts)

3

quality or in small amounts of highest quality

Present in moderate or greater amounts

and of highest quality

DRAM v. 5	i.0 Fleid Form Quantitative Rating			Wetla	na Nuo
Site:	MOH-JEN-016	Rater(s):	jen/jav	Date:	5-22-08
(h)	37.0  subtoial this page  37.0 Metric 5. Specia	l Wotlands	<i>y</i> ,		
	1-1 Merito or Obcora				
max 10 pts.	Lake Erie coastal/tributary Lake Plain Sand Prairies Relict Wet Praires (10) Known occurrence state/f	(5) y welland-unrestricted hydro y welland-restricted hydrolo	gy (5) gered species (10) sage (10)		
8	45 Metric 6. Plant of			microtopo	graphy.
max 20 pts.	subtotal 6a, Welland Vegetation Communit	•	nmunity Cover Scale		
•	Score all present using 0 to 3 scale			<0.1ha (0.2471 acres) c	ontiguous area
	O Aquatic bed DEMergent L I Shrub	1		imprises small part of we i moderate quality, or co is of low quality	
	Forest  O Mudflats  O Open water	2	Present and either co	omprises significant part f moderate quality or cor	
	Olher	3	Present and comprise	es significant part, or mo	re, of welland's
	6b. horizontal (plan view) intersper	rslon.	vegetation and is o	f high quality	
	Select only one. High (5) Moderately high(4)	Narrative Desc	ription of Vegetation Quality	d/or predominance of no	nastive or
	Moderale (3)	IUN	disturbance toleran	•	Interior Of
	Moderately low (2) Low (1) None (0)	mod	Native spp are domin although nonnative can also be presen	iant component of the ve and/or disturbance tole t, and species diversity i	rant native spp moderate to
	6c, Coverage of invasive plants. F to Table 1 ORAM long form for list.		moderately high, but threatened or enda	ut generallyw <i>lo</i> presence noered spo	of rare
	or deduct points for coverage Extensive >75% cover (- Moderate 25-75% cover	hlgh 5) (-3)	A predominance of n and/or disturbance absent, and high s	ative species, with nonn tolerant native spp abse op diversity and often, b	ont or virtually ut not always,
	Sparse 5-25% cover (-1) Nearly absent <5% cove		the presence of rar	e, threatened, or endang	gered spp
	Absent (1)		pen Water Class Quality		
	6d. Microtopography.	C	Absent < 0.1ha (0.24	7 acres)	
	Score all present using 0 to 3 scale		Low 0.1 to <1ha (0,2	47 to 2.47 acres)	
	1 Vegetated hummucks/tu		Moderate 1 to <4ha		
	Coarse woody debris >1.  D Standing dead >25cm (1		High 4ha (9.88 agres	s) or more	
	@ Amphibian breeding poo		hy Cover Scale		
		0	Absent		<del></del>
		1	· ·	mounts or if more comm	юп
		<u></u>	of marginal quality	amounts, but not of high	1001
		2		amounts, but not of nigi	
		3	Present in moderate and of highest qua	-	

45 GRAND TOTAL(max 100 pts)

woody debris removal toxic pollutants farming

nutrient enrichment

through and adjacent to partions of Wetland

subtotal this page

ORAM v. 6	i.0 Field For	m Quantit	ative Rating				Wetland	IUC
Site:	Wolf-	JEN-	017	Rater(s):	jen/	jav	Date: 5-22	-08
	34.5 subtotal this pag				-	<u>,</u>		
0	34.5	1	ic 5. Special V	Vatlande				
48.44	13.7-1	4	•					
max 10 pts.	aubłoial	Check all	that apply and score as indicat Bog (10) Fen (10)	eu.				
		_	Old growth forest (10)					
		ļ	Mature forested wetland (5)	•				
		<b> </b> -	Lake Erie coastal/tributary wet			)		
		<b> </b>	Lake Erie coastel/tributary wet Lake Plain Sand Prairies (Oak		rology (a)			
		-	Relict Wet Praires (10)	Openings) (10)				
		<u> </u>	Known occurrence state/federa	al threatened or er	odanoered so	ecles (10)		
		<del></del>	Significant migratory songbird/					
			Category 1 Watland. See Que					
a	Ha 5	]						
8	42.5	∣Meti	ric 6. Plant con			rspersion, micr	otopograph	ıy.
max 20 pts.	subjotal		and Vegetation Communities.	Vegetation		Cover Scale		
		110	present using 0 to 3 scale.			Absent or comprises <0.1ha (0.2		rea
		0	<b>₹</b> , 1,3	•	1	Present and either comprises sn	•	
		J –	Emergent Shrub			vegetation and is of moderate significant part but is of tow qu		
		4 13	Forest	<del> </del>	2	Present and either comprises sig		
		0	Mudflats	•	·	vegetation and is of moderate		
		O	Open water			part and is of high quality		_
		0	Olher		3	Present and comprises significa	nt part, or more, of wetter	nd's
			zontal (plan view) Interspersion.	·		vegetation and is of high qualit	у	
		Select or		M disse F	<b></b>			
		-	High (5) Moderately high(4)		vescription o	f Vegetation Quality  Low spp diversity and/or predon	diones ef reportive er	
		3 🔀	Moderate (3)	ļi.	, re	disturbance tolerant native spe		
		حم ر	Moderately low (2)	m	od	Native spp are dominant compo		
			Low (1)			although nonnative and/or dist	= :	зрр
			None (0)			can also be present, and spec	les diversity moderate to	
		6c. Cov	erage of invasive plants. Refer			moderately high, but generally	w/o presence of rare	
			1 ORAM long form for list. Add			threatened or endangered spp		
		or deduc	t points for coverage	hi	lgh	A predominance of native specie		4
		<b>-</b>	Extensive >75% cover (-5) Moderate 25-75% cover (-3)		į	and/or disturbance tolerant na absent, and high spp diversity		
		-1 Z	Sparse 5-25% cover (-1)			the presence of rare, threaten		o,
		شَصُر ا	Nearly absent <5% cover (0)	<del></del>				
			Absent (1)	Mudflat an	d Open Wate	er Class Quality		
		6d. Mici	olopography.		0	Absent <0.1ha (0.247 acres)		
			present using 0 to 3 scale.		1	Low 0.1 to <1ha (0,247 to 2.47 a		
		<u>Q</u>	4 *		2	Moderate 1 to <4hs (2.47 to 9.8	38 acres)	
		2	Coarse woody debris >15cm   Standing dead >25cm (10in) (	* ' '	3	High 4ha (9.88 acres) or more		
		73	Amphibian breeding pools		graphy Cove	er Scale		
			<del>-</del> ·		0	Absent		
				-	1	Present very small amounts or i	f more common	
					2	of marginal quality		
					-,	i Dennant in madarata comunicio d	aut ont at blaheel	

42.5 GRAND TOTAL (max 100 pts)

quality or in small amounts of highest quality
Present in moderate or greater amounts

and of highest quality

ÖRAM v. 5	.0 Field Form	Quantitative Rating				Wet	land 10d
Site:	WoH-	JEN-018	Rater(s):	10.	n/jav	Date:	5-23-08
	36.5			<i></i>	F.F		
0	36.5	Metric 5. Specia	al Wetlands				
mex 10 pts.		heck all that apply and score as					
		Bog (10) Fen (10) Old growth forest (10) Mature forested welland Lake Erie coastal/tribute Lake Erie coastal/tribute Lake Plain Sand Prairie Relict Wet Praires (10)	i (5) ary welland-unrestricled i ary welland-restricted hy s (Oak Openings) (10)	drology (5)	•		
			e/federal threatened or e ingbird/water fowl habitat	-	• •		
			ee Question 1 Qualitative		-		
8	44,5	Metric 6. Plant	communitie	es, inte	erspersion, m	icrotopo	graphy.
max 20 pls.		ia. Wetland Vegetation Commut		Communit	Cover Scale		
	٤	Score all present using 0 to 3 sca		0	Absent or comprises <0.1h		
		O Aquatic bed  Emergent		1	Present and either comprise vegetation and is of model.	•	
	بن د د	3 Shrub			significant part but is of id		omprises a
	4	Forest		2	Present and either compris		t of wetland's
		€ Mudflats			vegetallon and is of mode	erate quality or co	omprises a small
		O Open water			part and is of high quality		
		Other		3	Présent and comprises sig		ore, of wetland's
		ib. horizontal (plan view) Intersp Sele <u>ct onl</u> y one.		<del></del>	vegetation and is of high	quality	<del></del>
	•	High (5)	Narrative I	Description	of Vegetation Quality		
		Moderately high(4)	10	aw	Low app diversity and/or pr	redominance of n	annetive or
	Ž	Moderale (3)	<del> </del>		disturbance tolerant nativ	·	
		Moderately low (2) Low (1)	m	10d	Native spp are dominant or aithough nonnative and/o	-	•
		None (0)			can also be present, and	· ·	
	ŧ	ic. Coverage of invasive plants,	Refer		moderately high, but gen	•	•
	t	o Table 1 ORAM long form for lin	sl. Add		threatened or endangere		
	(	or deduct points for coverage		lgh	A predominance of native :	-	* *
		Extensive >75% cover  Moderate 25-75% cover			and/or disturbance tolere absent, and high spp div		
	***	\	· ·		the presence of rare, three		
		Nearly absent <5% co.					
		Absent (1)	Mudflat ar	nd Open Wa	ter Class Quality		<b></b>
		id. Microtopography,		0	Absent <0.1ha (0,247 acre		-
	;	Score all present using 0 to 3 scr		1	Low 0.1 to <1ha (0.247 to )		-
		Vegetated hummucks/ Coarse woody debrts >		3	Moderate 1 to <4ha (2.47 High 4ha (9.88 acres) or m		-
	•	2 Standing dead >25cm		<del>-</del>	1		-
		Amphiblan breeding po		graphy Cov	er Scale		
				0	Absent		
				1	Present very small amount	ts of it more com	mon
			·	ż	of merginal quality Present in moderate amou	ints, but not of his	ohesi
			·		quality or in small amour		
				3	Present in moderate or gre		
					and of highest quality		

44,5 GRAND TOTAL(max 100 pts)

selective cutting :

toxic pollutants

woody debris removal

dredging

farming

nutrient enrichment

subtotal this page

)RAM v. 5.	.0 Field For	m Quantitative Rating				Wetland 110
Site:	Welt-	JEN-019	Rater(s):	len	/jav	Date: 5-23-08
	31.5 sublocal this pag	j Metric 5. Speci	ial Wetlands	Ų į	v	
max 10 pts.	subtotel	Check all that apply and score a		′ <b>.</b>		
,		Lake Erie coastal/iribu Lake Plain Sand Prairi Relict Wet Praires (10) Known occurrence sta Significani migratory s	nd (5) ilary welland-unrestricted ilary welland-restricted hy ies (Oak OpenIngs) (10)	ydrology (5) endarigered sj et or usage (10	pecies (10) 3)	
6	37.5	Metric 6. Plant	communitie	es, inte	erspersion	ı, microtopography.
max 20 pts.	subtotal	6a. Welland Vegetation Commu			Cover Scale	
		Score all present using 0 to 3 sc  Ø Aquatic bed	.ale	1		s <0.1ha (0.2471 acres) contiguous area comprises small part of wetland's
		<ul><li>Aquatic bed</li><li>Emergent</li></ul>		J	1	of moderate quality, or comprises a
		Shrub			significant part bu	• • • • •
		Forest		2	Present and either o	comprises significant part of wetland's
		/ Muditats				of moderate quality or comprises a small
		Open water			part and is of high	
		6b. horizontal (plan view) Inters		3	vegetation and is	ses significant part, or more, of wetland's
		Select only one.			vogotanon enu is	Of tagit duality
		High (5)	Narrative	Description	of Vegetation Qualit	y
		Moderalely high(4)	• • • • • • • • • • • • • • • • • • • •	low		nd/or predominance of nonnalive or
		Moderate (3)	<del></del>		disturbance tolera	
		[Moderately low (2)	1	mad	1 '''	Inant component of the vegetation,
		Low (1) None (0)			1	re and/or disturbance tolerant native spp int, and species diversity moderate to
		6c. Coverage of invasive plants	s. Refer			but generallyw/o presence of rare
		to Table 1 ORAM long form for I			threatened or end	
		or deduct points for coverage		high	A predominance of	native species, with nonnative spp
		Extensive >75% cove	• •		1	a tolerant native spp absent or virtually
		Moderate 25-75% cov	-			spp diversity and often, but not always,
		→ ? Sparse 5-25% cover ( Nearly absent <5% co		···	ine presence of ra	ere, threatened, or endangered spp
		Absent (1)		ind Open Wa	ter Class Quality	
		6d. Microtopography.		0	Absent <0.1ha (0.2	247 acres)
		Score all present using 0 to 3 st	cale.	1	Low 0.1 to <1ha (0.	247 to 2.47 acres)
		Vegetated hummucks		2	<del></del>	a (2.47 to 9.88 acres)
		Coarse woody debris		3	High 4ha (9.88 acre	as) or more
		Standing dead >25cm     Amphiblan breeding p		ography Cov	er Scale	
		Amphibian breeding p	anorotop	одгариу соч 0	Absent	·····
			·	1		amounts or if more common
		•	<b></b>		of marginal qualit	
				2		e amounts, but not of highest
				3		l amounts of highest quality
				U	and of highest qu	e or greater amounts ratify
					The second second	

ORAM v. 5	.0 Field For	m Quantitative Rating			Wetland 7d
Site:	Wolf=	JEN-020	Rater(s):	jen/ju/	Date: 5-29-08
<i>(</i> 2)	29 subtotal this pag			J / J	
O	49	Metric 5. Specia	l Wetlands.		
max 10 pls.	aubiotei	Check all that apply and score as in Bog (10) Fen (10) Old growth forest (10) Mature forested wetland ( Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies Relict Wet Praires (10) Known occurrence state/f	dicaled. 7 welland-unrestricted hydr 7 welland-restricted hydrof (Oak Openings) (10) iederal threatened or endar pbird/water fowl habitat or u	ogy (5) ngered species (10) usage (10)	
<del></del>	<del></del>	Calegory 1 Welland, See	Question 1 Qualitative Re	uling (-10)	
- 7	177	Metric 6. Plant c	ommunities.	interspersion	, microtopography.
max 20 pts.	subtotal	6a. Welland Vegetation Communiti	•	mmunity Cover Scale	,,
		Score all present using 0 to 3 scale			s<0.1ha (0,2471 acres) contiguous area
		Aquatic bed	1		comprises small part of wetland's
		Emergent  Shrub		vegetation and is a significant part but	of moderate quality, or comprises a
		Ö Forest	2		comprises significant part of welland's
		Mudflets     Mudflets	-	1	of moderate quality or comprises a small
		Open water		part and is of high	The state of the s
		Other	3	Present and compri	sas significant part, or more, of wetland's
		6b. horizontal (plan view) Intersper	sion.	vegetation and is	of high quality
		Select only one. High (5)	Narrative Des	cription of Vegetation Qualit	v
		Moderately high(4)	low		nd/or predominance of nonnative or
		Moderate (3)		disturbance tolera	
		Moderately low (2)	mod	1	nant component of the vegetation,
		Cow (1) None (0)		-	e and/or disturbance tolerant native spp ni, and species diversity moderate to
		6c. Coverage of invasive plants. F	lefer	1	out generallyw/o presence of rare
		to Table 1 ORAM long form for list.		threatened or end	4 .
		or deduct points for coverage	hlgh	A predominance of	native species, with nonnative spp
		Extensive >75% cover (-		•	e tolerant native spp absent or virtually
		Moderate 25-75% cover			spp diversity and often, but not always,
		Sparse 5-25% cover (-1) Nearly absent <5% cover		trie presence or ra	ire, threatened, or endangered spp
		Absent (1)	• •	pen Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.2	47 acres)
		Score all present using 0 to 3 scale	. 1	Low 0.1 to <1ha (0.	247 to 2.47 acres)
		D Vegetated hummucks/lus			a (2.47 to 9.88 acres)
		Coarse woody debris >1	· · · · · · · · · · · · · · · · · · ·	High 4ha (9.88 scre	es) ar more
		Standing dead >25cm (1)  Amphibian breeding pool		phy Gover Scale	
		TEL Withwalf presons boot	s <u>Microtopogra</u>	Absent	
			1		amounts or if more common
				of marginal quality	
			2		e amounts, but not of highest
					amounts of highest quality
			3	and of highest qu	e or greater amounts ality

Site:	WOH-	RE-001	Rater(s): CRE	Date: 11/15/07
	1	]  Metric 1. Wetland	Area (size).	
max & pts,	sufetotal	Select one size class and assign scor.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.10 to <25 acres (4 to <10.1 to <20.10 acres (1.2 to <4ha)  0.3 to <10 acres (0.12 to <1.2 to <4.2 to	o.2ha) (5 pts) ie) (4 pts) (3 pts) 2ha) (2pts)	0.10448708188
3	14	Metric 2. Upland	buffers and suri	ounding land use.
max 14 pts	, subbotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a  2b. Intensity of surrounding land use. VERY LOW, 2nd growth or LOW, Old field (>10 years) MODERATELY HIGH, Res	n (164ft) or more around wetland ; 25m to <50m (82 to <164ft) aroun 10m to <25m (32ft to <82ft) aroun verage <10m (<32ft) around wells Select one or double check and older forest, preirie, savennah, wi , shrubland, young second growth	perimeter (7) d wetland perimeter (4) ind wetland perimeter (1) ind perimeter (0) average. Idlife area, etc. (7) forest. (5) servallon tillage, new fallow field. (3)
10-	14	Metric 3. Hydrolo	gy.	
max 50 pts	. subject	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3)  X Precipitalion (1) X Seasonal/Intermittent surface Perennial surface water (tal 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X-0.4m (<15.7in) (1) 3e. Modifications to natural hydrologi None or none apparent (12, Recovered (7) Recovering (3) Recent or no recovery (1)	ce water (3) te or stream) (5) ly one and assign score, (2) o regime. Score one or double of	
			welt stormwater lipput	dredping
Ó	20	Metric 4. Habitat		Development.
max 20 çıs	, subtotel	4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select oni Excellent (7) Very good (6) Good (6) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or None or none apparent (9) Recovered (6) Recovering (3)	y one and assign score.	/ed   shrub/sapiling removal   herbaceous/squalito bed removal
	20 ag elur infoldus	Recent or no recovery (1)	clearcutting selective cutting woody debris removal toxic pollutants	sedmentation dredging farming nutrient emichment

Wetland 7c

Site:		Ra	ter(s):	Date:
1		7		•
	30			
]	ubiolal this pat	1		
		Ţ .		
0	30	Metric 5. Special Wet	lands.	
max 10 pts.	(Alofdus	Check all that apply and score as indicated.		
•		Bog (10)		
		Fen (10)		
		Old growth forest (10) Mature forested wetland (5)		
		Lake Erie coastal/tributary wetland-	unrestricted hydrology (1	0)
		Lake Erie coastal/iributary welland-		
		Lake Plain Sand Preides (Oak Oper	nings) (1 <b>0</b> )	
		Relict Wet Praires (10)  Known occurrence statefiederal thre	oningad av andanaasid a	montes (40)
		Significant migratory songbird/water		
		Category 1 Welland. See Question		
	22			w 4 4 i
<u> </u>	23		-	erspersion, microtopography.
max 20 pls,	(afoldus	6e, Welland Vegetation Communities.	Vegetation Communit	
		Score all present using 0 to 3 scale.  O Aquatic bad	${1}$	Absent or comprises <0.1ha (0,2471 acres) contiguous area Present and either comprises small part of welland's
		# Emergent	$\mathbf{O}$	vegetation and is of moderate quality, or comprises a
		D Shrub		significant part but is of low quality
		D Forest	2	Present and either comprises significant part of wetland's
		Mudflets  Open units		vegetation and is of moderate quality or comprises a small
		O Open water	3	part and is of high quality  Present and comprises significant part, or more, of welland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one.		
		High (5)	Narrative Description	
		Moderalely high(4) Moderale (3)	low	Low spp diversity and/or predominance of normalive or disjurbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		K Low (1)		although nonnative and/or disturbance tolerent native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of Invasive plants, Refer to Table 1 ORAM long form for list. Add		moderately high, but generallywlo presence of rare threatened or endangered app
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-6)	· · · · · · · · · · · · · · · · · · ·	and/or disturbance tolerant native spp absent or virtually
		Moderale 25-75% cover (-3)		absent; and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
		Absent (1)	Mudijat and Open Wa	ster Class Qualify
		6d. Microlopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale,	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4hs (2.47 to 9.88 acres)
		Goarse woody debris >15cm (6ih) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more
		Amphiblan breeding pools	Microtopography Co	ver Scale
		Expenses and the second	0	Absent -
			1	Present very small amounts or it more common
				of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
				and of highest quality



GRAND TOTAL (max 100 pts)