whittsturtevant LLP

MARK A. WHITT
Direct: 614.224.3911
whitt@whitt-sturtevant.com

August 23, 2021

Ms. Theresa White
Executive Director,
Ohio Power Siting Board
180 East Broad Street 6th Floor
Columbus, OH 43215

Re: Dominion Energy Ohio Letter of Notification for PIR 2647 37th & Cleveland, Canton Township, Stark County, Ohio Case No. 21-0874-GA-BLN

Dear Ms. White:

This letter serves as Dominion Energy Ohio's (DEO) application notification letter in the above-referenced matter. In accordance with Ohio Administrative Code ("OAC") 4906-6-03(A), DEO provides the following information:

Project Description: This project involves the replacement of approximately 6,115 feet (1.15 miles) of 2 to 6-inch bare-steel pipe with coated 6-inch and 12-inch steel pipe, and 135 feet of 8-inch medium density plastic pipe. The existing pipe will be abandoned in place. The replacement pipe will be installed primarily within the road right-of-way of a portion of Cleveland Avenue in Canton Township, Stark County. This project meets the requirements for a Letter of Notification Application per OAC 4906-1-01, Appendix B (1) (b) (replacement of an existing pipeline segment greater than 1 mile in length but not greater than 5 miles).

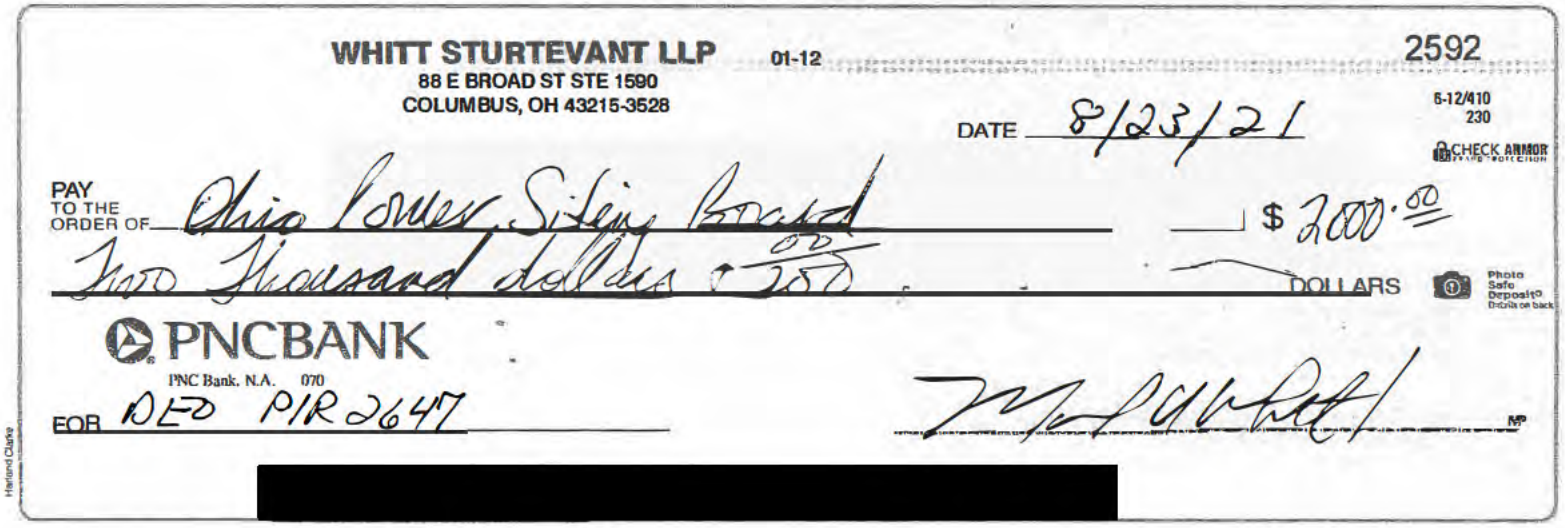
Anticipated Project Schedule: Construction is anticipated to begin in the Fall of 2021 and placed in service by the end of 2021.

Request for Expedited Treatment: In accordance with OAC 4906-6-04, DEO hereby requests expedited processing of the Application. The Application and a check for $2000 to cover processing fees in advance was hand-delivered to Staff earlier today.

Sincerely,

s/ *Mark A. Whitt*

ON BEHALF OF
THE EAST OHIO GAS COMPANY
D/B/A DOMINION ENERGY OHIO



WHITT STURTEVANT LLP
88 E BROAD ST STE 1590
COLUMBUS, OH 43215-3528

01-12

2592

DATE 8/23/21

6-12/410
230

CHECK ARMOR

PAY TO THE ORDER OF Ohio Power Siting Board

$ 2000.00

Two Thousand dollars 00/100 DOLLARS

Photo Safe Deposit® Details on back

PNCBANK
PNC Bank, N.A. 070

FOR DED PIR 2647

[redacted]

Harland Clarke

LETTER OF NOTIFICATION APPLICATION

PIR 2647 – 37TH AND CLEVELAND AVE
Twelve (12)-Inch High Pressure Distribution Pipeline Project
Canton Township, Stark County, Ohio

Ohio Power Siting Board
Case No. 21-0874-GA-BLN

Submitted by
Dominion Energy Ohio
Project MWO 63315864

The following information is being submitted in accordance with Ohio Administrative Code (OAC) Chapter 4906-6-05, Accelerated Application Requirements.

4906-6-05(B)(1): Name and Reference Number

The applicant is Dominion Energy Ohio ("DEO"). The name of the project is *PIR 2647 – 37th & Cleveland Ave*. The internal project numbers are master work order ("MWO") 63315864 and SAP ID P400146591.

4906-6-05(B)(1): Brief Description of Project

This project involves the replacement of approximately 6,115 feet (1.15 miles) of 2 to 6-inch bare-steel pipe with coated 6-inch and 12-inch steel pipe, and 135 feet of 8-inch medium density plastic pipe, using a combination of open trench and horizontal directional drilling methods. The existing pipe will be abandoned in place. The replacement pipe will be installed primarily within the road right-of-way of a portion of Cleveland Avenue in Canton Township, Stark County. This project meets the requirements for a Letter of Notification Application per OAC Rule 4906-1-01, Appendix B (1) (b) (replacement of an existing pipeline segment greater than 1 mile in length but not greater than 5 miles).

4906-6-05(B)(2): Statement of Need

DEO is undertaking this project to maintain pipeline integrity, enhance public safety, and continue to meet supply demands. As shown in the chart below, the existing steel mainline has 3,515 feet of pipe that is 77 years old, 1,728 feet of pipe that is 75 years old, approximately 1 foot of pipe that 67 years old, and 10 feet of pipe that is 51 years old:

Year Installed	Distance of Pipeline Segment to be Replaced (Ft.)	Existing Size and Type	Coating
1944	2819	6" 0.280 wall STL	BARE
1944	696	6" 0.322 wall STL	BARE
1946	1727	6" 0.280 wall STL	BARE
1946	1	2" unknown wall STL	UNKNOWN
1954	1	4" unknown wall STL	BARE
1967	9	6" 0.188 wall STL	BARE
1967	1	4" unknown wall STL	T&W

4906-6-05(B)(3): Location of the Project

Attachment A contains an area system map showing the location of the replacement pipeline in relation to the existing pipeline. The project is completely within the boundaries of Canton Township, Stark County, Ohio.

4906-6-05(B)(4): Alternatives Considered

For replacement projects, DEO typically prefers to install replacement mainlines within the same corridor as the existing mainline. This enables DEO to minimize the need to obtain new land rights, minimize disruption to existing landowners, and reduce project costs (which are ultimately borne by ratepayers). For this project, the existing mainline segment is located partly within public right-of-way and partly on private land abutting the right-of-way. As shown on **Attachment A**, approximately 2,722 feet will be relocated from a portion of the corridor currently occupied pursuant to an easement to the public

right-of-way. This will minimize the overall impact of construction on residents and businesses along both the existing and proposed corridor.

4906-6-05(B)(5): Description of Public Information Program

DEO has sent a letter to property owners and tenants listed on **Attachment B** informing them of the nature of the project, the proposed timeframe of the project construction, and restoration activities. Another set of letters will be sent prior to construction as construction activities being conducted in the vicinity of the property owners or tenants and after restoration of disturbed areas.

The first landowner letter (**Attachment C-1**) was sent the week of May 26, 2021 to all parties identified on **Attachment B**. The second landowner model letter will be sent seven (7) days prior to construction and is included for reference as **Attachment C-2**.

4906-6-05(B)(6): Anticipated construction schedule, in-service date

The construction of the replacement pipeline is anticipated to begin in Fall 2021. DEO plans to place the line in-service by the end of 2021. Restoration activities will be complete by summer 2022.

4906-6-05(B)(7): Project Area Map and Directions

An area map that is at least of a 1:24000 scale that depicts roads, streets, and highways is attached as **Attachment A**.

4906-6-05(B)(8): Property Owner List

This project in entirely within DEO's existing easements and road right-of-way. Therefore, DEO will not need to obtain easements, options, or land use agreements to construct the facility.

4906-6-05(B)(9): Technical Features of the Project

DEO will replace approximately 5,320 feet of existing 6-inch and 8-inch diameter pipeline (MAOP 160 psi) with 12-inch fusion bond epoxy ("FBE") and powercrete epoxy coated steel via open trench and horizonal directional drilling ("HDD") bore methods. Additionally, DEO is planning to replace approximately 130 feet of existing non-jurisdictional six (6)-inch diameter tarred & wrapped steel pipeline (MAOP 25 psi) with eight (8)-inch diameter medium density plastic pipeline via open trench and "HDD" methods.

(a): Operating Characteristics

Pipeline MAOP: The new pipeline will operate at an MAOP of 160 psig and have a diameter of 12-inches and 6- inches.

Pipe Material: The proposed 12-inch steel pipeline will have a wall thickness of 0.375 inch and a yield strength of 42,000 psi and the proposed, non-jurisdictional 6-inch steel pipeline will have a wall thickness of 0.280 inch and a yield strength of 35,000 psi. The pipelines will be cathodically protected by 17 pound anodes and will be externally coated with between 14 and 16 Mils of Fusion Bonded Epoxy or Powercrete epoxy.

Structures: No additional structures will be required for the new pipeline.

Right-of-Way ("ROW") and/or Land Requirement: The land needed in the project area will be located within public ROW and DEO easements. The project area begins west of Maplewood Ave in an existing DEO easement. The pipeline will be installed in public road right-of-way and DEO easements and will be replaced across Maplewood Ave, through the intersection of Forestdale Ave and 37th St, across Diane Ave, along Highview Ave heading north to Carnwise St and heading east along Carnwise St ending approximately 1,675 feet east of Cleveland Ave. The existing pipe will be abandoned in place.

4906-6-05(B)(9)(c): Estimated Capital Costs

The estimated capital cost for this pipeline replacement project (including the non-jurisdictional six (6) and eight (8) inch replacement) is $1,240,600.

4906-6-05(B)(10)(a): Land Use

The project area is comprised of maintained existing road and DEO ROW located within Canton Township in Stark County, Ohio. The land use associated with the project is primarily commercial, and residential development. Per the environmental field study prepared by EnviroScience Inc. which reviewed all areas approximately 30 feet from the road centerline and/or 20 feet from the edge of pavement, and all area within DEO ROW. The project area contains one (1) intermittent stream and three (3) wetlands (**Attachment D**). Nimishillen Creek is located east of the project area. The project terminates within the floodplain of Nimishillen Creek.

4906-6-05(B)(10)(b): Agricultural Land

Land use associated with the project area consists primarily of urban residential and commercial land. The vegetation with the project area is maintained lawn and forest with small amount of open field. None of the properties that cross the project area are designated as having a Current Agricultural Use Value ("CAUV").

4906-6-05(B)(10)(c): Archeological and Cultural Resources

In July 2021, DEO's consultant, EnviroScience Inc. performed an Ohio Historic Preservation Office ("OHPO") Literature Review for archaeological and cultural resources within the project area and 1,000 foot buffer surrounding the project area. Also included was a of local historic districts and properties.

The literature review included a search for records of Ohio Archaeological Inventory ("OAI") Properties, Ohio Historic Inventory ("OHI") Properties, National Register Listed Properties, National Register Listed Districts, Determinations of Eligibility, Phase 1, 2, or 3 Survey Areas, and local historic districts and properties. According to the records search, no historic or cultural resources are located within the study area or 1,000 foot buffer area.

No OHI properties, National Register Listed Properties, National Register Listed Districts, Determination of Eligibility Properties, Phase 1, 2, or 3 Survey Areas, or local

historic designations were identified within the project area. One Phase 1 Survey Area is located within the 1,000 foot buffer east of the project area.

Because this project does not have any federal ties, no consultation with the Ohio Historic Preservation Office was required.

Supportive Document	Attachment
Ohio Historic Preservation Office Map	**J**

4906-6-05(B)(10)(d): List of Governmental Agencies Which Have Requirements to be met by the Project

The following agencies have requirements to be met at various times by this project:

Name of Agency	Document Generated and/or Submitted	Attachment
U.S. Army Corps of Engineers	Wetland Delineation Report	D
	Non-reporting Nationwide Permit #3	E
Ohio Environmental Protection Agency	Ohio Rapid Assessment Method Verification Documentation	F
	NOI for General Construction Stormwater Permit Application	G
U.S. Fish and Wildlife Service (USFWS)	July 29, 2021 Information for Planning and Consultation	H
Ohio Department of Natural Resources	June 17, 2021 Endangered Species Consultation	I
Ohio Historic Preservation Office (OHPO)	July 29, 2021 EnviroScience Ohio Historic Preservation Office Literature Review Mapping	J

Stormwater Pollution Prevention Plan	Stormwater Pollution Prevention Plan	K
Stark County Soil and Water Conservation (SWCD)	July 20, 2021 SWPPP Approval	L
Stark County Floodplain	July 8, 2021 Floodplain Development Permit	M

A construction Storm Water Pollution Prevention Plan ("SWPPP") has been prepared for the project. A copy of the SWPPP is attached as **Attachment K**. The SWPPP will be included in the package submitted for competitive bids from contractors. A NOI was submitted to the Ohio EPA for the project on July 1, 2021. The permit coverage was issued on July 8, 2021 and is included as **Attachment G**.

A request for approval from the Stark County SWCD was submitted on July 1, 2021 for the project due to ground disturbance of greater than one acre. Approval from the Stark County SWCD was issued on July 20, 2021 and is included as **Attachment L**.

The pipeline construction terminates in the floodplain of Nimishillen Creek. A request for a floodplain development permit from the Stark County Building Inspection Department was submitted on July 8, 2021 (**Attachment M**). The floodplain permit is pending.

Hydrostatic testing will need to be completed for this project. The discharge method and location for hydrostatic test waters will be determined when the construction contract is awarded, or during the pre-construction meeting. Test waters will be removed from the site or released so it does not enter wetlands or streams when feasible. If test

waters will likely enter a waterbody, including via storm sewers, authorization for coverage under the Ohio EPA General Permit OHH000003 – Hydrostatic Test Water is required. A Hydrostatic Test Water Discharge Notice of Intent ("HTNOI") must be submitted to the Ohio EPA one month prior to hydrostatic testing. When approval from the Ohio EPA is received, the contractor will adhere to the applicable construction terms and conditions of Hydrostatic Test Water General Permit OHH000003.

DEO requests that Staff include a condition such as the one given in *Vectren Energy Delivery of Ohio, Inc.*, Case No. 16-2175-GA-BLN that prior to the commencement of construction activities in areas that require permits or authorizations by federal or state laws and regulations, DEO shall obtain and comply with such permits or authorizations. Copies of the permits will be provided upon receipt.

There are no other known local, state, or, federal requirements that must be met prior to commencement of construction on the proposed pipeline project.

4906-6-05(B)(10)(e): Federal and State Designated Species

In November 2016 and March 2017, DEO's consultant, EnviroScience Inc., reviewed the study area for suitable habitat for federally listed species known to be located within Stark County, Ohio. The results are included in the Wetlands Delineation Report provided in **Attachment D**. The study area is located along existing road ROW along 37th Street, Carnwise Street SE, Cleveland Avenue, Forestdale Avenue, Highview Avenue, and existing easements located southwest and south of the intersection of 37th Street and

Maplewood Avenue SW, and northeast of the intersection of 37th Street SW and Forestdale Avenue SW.

The study area contains three wetlands and one stream. The wetlands and streams are proposed to be temporarily impacted to allow for the necessary activities required for the pipeline installation. All proposed construction related activities involved will follow those authorized in the U.S. Army Corps of Engineers ("USACE") 2017 Nationwide Permit #3 (Maintenance) and associated 401 Water Quality Certification as issued by the Ohio EPA. Temporary impact to the wetlands and stream within the project area are classified as non-reporting activities; therefore, a Pre-construction Notification to USACE is not necessary. A NWP #3 checklist was completed for the project (**Attachment E**).

A project notification was submitted to the Ohio EPA on January 5, 2018 due to impact greater than 0.1 of an acre for two onsite wetlands. Ohio EPA requested an ORAM verification for the onsite wetlands. On March 27, 2018, Cara Hardesty with the Ohio EPA was onsite for the ORAM verification. On March 29, 2018, she indicated Wetlands W-1 and W-2 are within the range of a modified Category 2 wetlands and Wetland W-3 is within the range of a Category 2 wetland (**Attachment F**).

According to the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Summary (**Attachment H**), two federally listed species have ranges which include Stark County, Ohio: the state and federally endangered Indiana bat (*Myotis sodalis*), the federally threatened northern long-eared bat (*Myotis septentrionalis*), and the federally threatened eastern massasauga (*Sistrurus catenatus*).

Additionally, the IPaC indicated there are several migratory bird species indicated as birds of conservation concern. Lastly, the IPaC indicated that the bald eagle (*Halieaeetus leucocephalus*), a species of concern, which is protected under the Bald and Golden Eagle Protection Act, has range within the state of Ohio.

According to the report provided by EnviroScience Inc., three potential roost trees for the Indiana bat and/or the northern long-eared bat were located within the study area (**Attachment D)**.

According to EnviroScience, Inc. the field review of the study area (refer to **Attachment D**) revealed that Wetland W-3 may provide suitable overwintering habitat for the eastern massasauga but due to residential developments to the west of Wetland W-3, there is minimal connected upland habitat and eastern massasaugas are unlikely to be present.

The bald eagle nests in large trees near water. No bald eagles or bald eagle nesting sites were observed within or adjacent to the study area. Canton Township in Stark County has no known bald eagle nesting sites per information provided by U.S. Fish and Wildlife Service ("USFWS").

DEO submitted a letter on June 17, 2021 to the Ohio Department of Natural Resources ("ODNR") requesting a finding from ODNR regarding any adverse effect to any

state listed and natural areas that have a geological and/or ecological significance to them (**Attachment J**). A response from ODNR is pending.

Supportive Document	Attachment
Information for Planning and Consultation (IPAC)	**J**

4906-6-05(B)(10)(f): Areas of Ecological Concern

There are no national or state parks or forests, wilderness areas, wildlife refuges, wildlife management areas, or wildlife sanctuaries located in the immediate vicinity of the proposed project. There are no national and state forests and parks, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries located within the project area. The response from ODNR will verify or alter this understanding.

According to EnviroScience's assessment of the project area, three wetlands and one stream are located within the project area. A copy of the Delineation Report is included in **Attachment D**.

The three wetlands and one stream within the project area will be temporarily impacted by construction activities associated with the installation of the pipeline. All work shall be performed within the designated project area. Construction will be limited to these areas and will require soil disturbance to accommodate areas for trench excavation, side-cast spoil, temporary storage of the new pipe, and equipment/vehicular traffic.

Separation of the topsoil from the subsoil will generally be performed at the wetlands, stream, and residential and commercial properties. The backfill material that will be returned to the trench will consist of the same material removed from the excavation, to the extent practicable.

Following pipeline replacement, all disturbed areas will be returned to their original slope and contour, stabilized, seeded, and revegetated to provide a permanent herbaceous cover to stabilize the soils, and temporary erosion controls will be maintained until this permanent cover is established.

4906-6-05(B)(10)(g): Any Known Unusual Conditions Resulting in Significant Environmental, Social, Health, or Safety Impacts

As illustrated by the studies and investigations conducted as a part of this project to date, there are no readily known unusual conditions in the area of the proposed project that will result in significant environmental impacts. Additionally, because this project proposes to replace an existing pipeline primarily within existing pipeline easements or new easements within routinely maintained land, there has already been prior ground disturbance and maintenance in the area. Other than slight potential health and safety issues associated with construction, which will be minimized with the best practices during construction, there are no additional health, social or safety impacts that will exist as a result of this project.

Receipt of all environmental permits will confirm or alter the understanding regarding these impacts.

4906-6-07 SERVICE AND PUBLIC DISTRIBUTION OF ACCELERATED CERTIFICATE APPLICATIONS

4906-6-07(A)(1): Service of Accelerated Application Upon Officials

Simultaneously with the filing this accelerated application with the Board, DEO has caused a copy of the application to be delivered to the following public officials

Stark County Commissioners
c/o Brant A. Luther
County Administrator
110 Central Plaza South, Suite 240
Canton, Ohio 44702

Anthony Peldunas
President
Stark County Regional Planning Authority
201 3rd Street, Suite 201
Canton, Ohio 44702-1211

Keith A Bennett, P.E., P.S.
Stark County Engineer
5165 Southway St. SW
Canton, Ohio 44706

Donald Bendetta,
Stark County Utility Coordinator
5165 Southway St. SW
Canton, Ohio 44706

Christopher Neisel,
Road Superintendent
Canton Township Road Department
4711 Central Ave. SE
Canton, Ohio 44707

Christopher Nichols,
Board of Trustee President
Canton Township Board of Trustees Office
4711 Central Ave. SE
Canton, Ohio 44707

A copy of this accelerated application and a transmittal letter to public officials (**Attachment N**) has been sent to the officials listed above.

4906-6-07(A)(2): Service of Accelerated Application Upon Main Public Libraries of Each Political Subdivision

A copy of this accelerated application is being sent to the Stark County District Main Library located at 715 Market Avenue N., Canton, OH 44702.

4906-6-07(A)(3): DEO's Website

A copy of the accelerated application is located on DEO's web page at https://www.dom.com/business/dominion-east-ohio/customer-service/rates-and-regulation/siting-board-filings. Choose the case number of this case and double click to view the application.

Further interested persons may contact DEO at 320 Springside Dr., Akron, Ohio, 44333 to obtain either an electronic copy or a paper copy of this accelerated application.

4906-6-07(B): Proof of Compliance

Within seven days of the filing of this accelerated application, DEO will cause proof of compliance with this requirement to be filed with the Board.

CASE NO. 21-0874-GA-BLN
PIR 2647 – 37TH & CLEVELAND AVE
CANTON TOWNSHIP, STARK COUNTY, OHIO
TWELVE (12)-INCH HIGH PRESSURE PIPELINE REPLACEMENT

ATTACHMENT A

AERIAL MAP

Figure C-1. Site Map Overview of Wetlands and Other Water Resources. PIR 2647 - 34th and Cleveland.

EnviroScience
Excellence In Any Environment

Path: C:\Users\Anna Giordano\Desktop\GIS_PIR2647\Map01_Overview.mxd

Date: 5/24/2021

Basemap courtesy of Esri

CASE NO. 21-0874-GA-BLN
PIR 2647 – 37TH & CLEVELAND AVE
CANTON TOWNSHIP, STARK COUNTY, OHIO
TWELVE (12)-INCH HIGH PRESSURE PIPELINE REPLACEMENT

ATTACHMENT B

LIST OF AFFECTED LANDOWNERS AND TENANTS[1]

PIR PROJECT PIR #
MWO # Ref. #

Current Property Owner	Mailing Address	City	State	Zip	Parcel #							
R chard Murphy	3569 Deer Trace Ave NW	Canton	OH	44708	1315150							
Steven & Jenn fer Sm th	3805 Map ewood Ave SW	Canton	OH	44706	1310006 & 131007							
Cra g & Lor L ndamood	3727 Map ewood Ave Sw	Canton	OH	44706	1307527							
Laura Kenn son	3800 Map ewood Ave SW	Canton	OH	44706	1307523							
C fford & Dana Cook	3732 Map ewood Ave SW	Canton	OH	44706	1308446							
Dav d & N co e Lake	718 37th St SW	Canton	OH	44706	1302197							
Robert F owers Jr	3400 Rexda e St SW	Canton	OH	44706	1308306							
Bon ta Feddersen	3677 Forestda e Ave SW	Canton	OH	44706	1308265							
Dav d & Barbara D on	553 37th St SW	Canton	OH	44706	1308248							
Fred & K mber y Smart	3670 Forestda e Ave SW	Canton	OH	44706	1308249							
Drew Daberko	3660 Forestda e Ave SW	Canton	OH	44706	1308250							
Dan e Tozz	4511 Be den Ave SE	Canton	OH	44707	1308253							
James & Maureen Tozz	1927 Mark ey St NW	N Canton	OH	44720	1308254							
Jerry Ward	522 Ma haven St SW	Canton	OH	44706	1308255							
M chae Kes er	530 Ma haven St SW	Canton	OH	44706	1308256							
Kev n W cks	3810 Georgetown Rd N	Canton	OH	44704	1305595							
Matthew Pu em	3631 D ane Ave SW	Canton	OH	44706	1306116							
C ay Ca k ns Tr	3630 D ane Ave SW	Canton	OH	44706	1303418							
Car Behr nger	3640 D ane Ave SW	Canton	OH	44706	1303818							
Trav s Cur utu	3633 H ghv ew Ave Sw	Canton	OH	44706	1312417							
M chae G s	3626 H ghv ew Ave SW	Canton	OH	44706	1303909							
Todd Fr end	3623 H ghv ew Ave SW	Canton	OH	44706	1303914							
Dona d McMahon	300 Carnw se St SW	Canton	OH	44706	1306553							
Sandra Shu tz	236 Carnw se St SW	Canton	OH	44706	1306225							
Barkhe mer Rea ty LTD	224 Carnw se St SW	Canton	OH	44706	1306552							
John Vanmeter	212 Carw se St SW	Canton	OH	44706	1306551							
Federa Nat ona Mortgage	200 Carnw se St SW	Canton	OH	44706	1306550							
21st Mortage Corporat on	134 Carw se St SW	Canton	OH	44706	1306329							

Gretchen O'Connor	128 Carnw se St SW	Canton	OH	44706	1305818							
D ck Fr tz T re & Brake Serv ce Inc	3216 P neh s	Mass on	OH	44646	10003711							
Rona d S oan	1709 Lakeview Blvd N	Fort Myers	FL	33903	1306548							
Michael Mittas	3616 C eve and Ave S	Canton	OH	44707	1305448							
Janet Shonk	130 Carw se St SE	Canton	OH	44707	1308024							
D/T PROPERTIES LLC	500 Carnw se St SE	Canton	OH	44707	1307203 & 1307204							
Brenda Tubbs	508 Carnw se St SE	Canton	OH	44707	1305565							
Candace R chardson	516 Carnw se St SE	Canton	OH	44707	1306530							
Terr e Cr ow	2314 Shep er Church Ave SW	Canton	OH	44706	1306531							
Darren Te s	600 Carnw se St SE	Canton	OH	44707	1306532							
Dan e & Mar yn Mason	PO Box 159	Sandyv e	OH	44671	1308434 & 1308397							
Kev n & K mber y Kre tzer	1626 Carw se St SW	Canton	OH	44706	1308165							
John & V ck e Mart n	626 Carw se St SE	Canton	OH	44706	1308121							
Erw n K esse	634 Carw se St SE	Canton	OH	44706	1308433							
Dav d Whee er	1905 Sunr se St NW	North Canton	OH	44720	1308115							
C ty of Canton	218 C eve and Ave SW	Canton	OH	44702	1380266							
Mark & Jenn fer P san	631 Carnw se St SE	Canton	OH	44707	1307759							

ATTACHMENT C

MODEL NOTIFICATION LETTER TO PROPERTY OWNERS SENT

FIRST LANDOWNER LETTER

May 26, 2021

Richard Murphy
3569 Deer Trace Ave NW
Canton, Ohio 44708

Dear Property Owner or Tenant:

New Pipeline Project
Dominion Energy Ohio (DEO) is preparing to construct a pipeline project replacing approximately 5,320 feet of existing 6-inch and 8-inch pipeline with 6,115 feet of 6-inch and 12-inch pipeline. This project is located within existing DEO easements and public right of way, starting at Sherer Ave and continuing northeast in DEO Easements across Maplewood Ave, Forestdale Ave, Diane Ave, along Highview Ave and Carnwise St, ending east of Carnwise St.

Please be assured that during work on the project described above, all of DEO's Standard Safety and Operating Procedures and all applicable federal, state and local laws, regulations and ordinances will be fully adhered to.

Timeline for Construction of the Project
DEO anticipates that construction of the replacement pipeline will commence Mid-summer 2021. The construction is expected to last until approximately December 2021.

Restoration Activities
DEO will restore your property to the state that it was in prior to DEO's construction activities. It expects that the restoration activities will be completed by Spring 2022.

Tenants
If you have tenants occupying this property, please advise them of this pipeline project.

Questions
Should you have any questions concerning this pipeline project, please contact Dominion Energy Ohio's Land Services Department at 1-855-226-6022.

Sincerely,

DOMINION ENERGY OHIO

Land Services Department

ATTACHMENT C-2

SECOND LANDOWNER MODEL LETTER
TO BE SENT 7 DAYS PRIOR TO CONSTRUCTION

[DATE TBD]

Richard Murphy
3569 Deer Trace Ave NW
Canton, Ohio 44708

Dear Property Owner or Tenant:

New Pipeline Project
As we indicated to you in a prior letter, Dominion Energy Ohio ("DEO") is preparing to construct a pipeline project in your area. Dominion Energy Ohio (DEO) is preparing to construct a pipeline project replacing approximately 5,320 feet of existing 6-inch and 8-inch pipeline with 6,115 feet of 6-inch and 12-inch pipeline. This project is located within existing DEO easements and public right of way, starting at Sherer Ave and continuing northeast in DEO Easements across Maplewood Ave, Forestdale Ave, Diane Ave, along Highview Ave and Carnwise St, ending east of Carnwise St.

Please be assured that during work on the project described above, all of DEO's Standard Safety and Operating Procedures and all applicable federal, state and local laws, regulations and ordinances will be fully adhered to.

Timeline for Construction of the Project
DEO anticipates that construction of the replacement pipeline will commence on or about **September 2021**. The construction is expected to last until approximately **December 2021**.

Restoration Activities
DEO will restore your property to the state that it was in prior to DEO's construction activities. It expects that the restoration activities will be completed by **June 2022**.

Tenants
If you have tenants occupying this property, please advise them of this pipeline project.

Questions
DEO has a complaint resolution process. Should you have any questions concerning this pipeline project, please contact Dominion East Ohio's Land Services Department at 1-855-226-6022 who will see that it is communicated to DEO's Project Manager, David Hollendonner. Please mention the project reference, located on the bottom of this letter, when you call. If you have a complaint during construction or restoration, your call will be returned in a timely manner. Please be aware that DEO will make every best effort to resolve issues pertaining to the project.

Safety is Dominion's highest priority. Be assured we will take every possible step to ensure the security of the area, your property, your family, and our employees.

Sincerely,
DOMINION ENERGY OHIO – Land Services Department

CASE NO. 21-0874-GA- BLN
PIR 2647 – 37TH & CLEVELAND AVE
CANTON TOWNSHIP, STARK COUNTY, OHIO
TWELVE (12)-INCH HIGH PRESSURE PIPELINE REPLACEMENT

ATTACHMENT D

ENVIROSCIENCE INC. DELINEATION REPORT

Wetlands and Other Waters

Delineation Report

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for the:

PIR 2647 – 37th and Cleveland
Canton Township, Stark County, Ohio

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Project No. 9268

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STATEMENT OF CERTIFICATION

The analyses, opinions and conclusions in this report are based entirely on EnviroScience's unbiased, professional judgment. EnviroScience's compensation is not in any way contingent on any action or event resulting from this study. Neither EnviroScience nor any EnviroScience employee has any vested interest in the property examined in this study.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

EXECUTIVE SUMMARY

EnviroScience, Inc. performed a delineation of wetlands and other waters in November 2016 and March 2017 for the East Ohio Gas Company (EOG) at the location of the PIR 2647 – 37th and Cleveland project in Canton Township, Stark County, Ohio. The purpose of the project is to replace approximately 6,454 feet of natural gas pipeline (three [3], six [6], and twelve [12]-inch diameter) under EOG's Pipeline Infrastructure Replacement (PIR) Program. The PIR 2647 – 37th and Cleveland project is located along existing road right-of-way (ROW) of 100 feet wide (50 feet on either side of the road center line) along Carnwise Street SW; 85 feet wide (42.5 feet on either side of the road center line) along Cleveland Street SW; 50 feet wide (25 feet on either side of the road center line) along 37th Street SW and an off-road easement. The western terminus is of the project area is located along the off-road easement near Maplewood Avenue SW and extends generally northeastward both on and off-road to Carnwise Street SW and ends west of Nimishillen Creek.

Four (4) distinct vegetative communities were identified within the project area, including one (1) wetland community type. Upland communities exist primarily as maintained lawn and forest communities with a small portion of open field community. The surrounding area exists as residential and urban residential land use with forest.

Three (3) wetlands were identified within the project area and account for 0.485 acres. One (1) intermittent stream was identified and delineated within the project area and account for an additional 74 linear feet (0.008 of an acre) of waterway. No other open water aquatic resources were identified within the project area.

The wetlands and waterbodies are under the jurisdiction of the Ohio EPA or U.S. Army Corps of Engineers (USACE). No filling may occur within this area without their written permission. If impacts to any of the water resources are proposed, this activity would follow those authorized by a permit in the USACE 2017 Nationwide Permits (NWP) program. However, if all onsite water resources are avoided, a USACE NWP or Ohio EPA Water Quality Certification will not be required for this project.

If wetland or streams will be impacted for this project, U.S. Fish and Wildlife Service (USFWS) coordination will be initiated by the USACE. If no wetland or stream impacts are proposed, USFWS coordination is not required. However, coordination with the Ohio Department of Natural Resources (ODNR) is recommended prior to project initiation in accordance with Ohio's rule regarding threatened and endangered species.

If the proposed ground disturbance for a project is greater than one (1) acre, the following must be prepared and submitted before construction: a Notice of Intent through the Ohio EPA, a Stormwater Pollution Prevention Plan, and coordination with the Stark County Soil and Water Conservation District (SWCD). The total size of the proposed project area is approximately 12.8 acres and therefore, the above submittals would be required unless ground disturbance is minimized.

1.0 INTRODUCTION AND SITE DESCRIPTION

EnviroScience, Inc. performed a delineation of wetlands and other waters in November 2016 and March 2017 for EOG at the location of the PIR 2647 – 37th and Cleveland project in Canton Township, Stark County, Ohio. The purpose of the project is to replace approximately 6,454 feet of natural gas pipeline (three [3], six [6], and twelve [12]-inch diameter) under EOG's PIR Program. The PIR 2647 – 37th and Cleveland project is located along existing road right-of-way (ROW) of 100 feet wide (50 feet on either side of the road center line) along Carnwise Street SW; 85 feet wide (42.5 feet on either side of the road center line) along Cleveland Street SW; 50 feet wide (25 feet on either side of the road center line) along 37th Street SW and an off-road easement. The western terminus is of the project area is located along the off-road easement near Maplewood Avenue SW and extends generally northeastward both on and off-road to Carnwise Street SW and ends west of Nimishillen Creek.

Four (4) distinct vegetative communities were identified within the project area, including one (1) wetland community type. Upland communities exist primarily as maintained lawn and forest communities with a small portion of open field community. The surrounding area exists as residential and urban residential land use with forest.

The project area is located in the Tuscarawas River drainage basin (Hydrologic # 05040001) which drains approximately 2,590 square miles in eastern Ohio. It is within the Erie Drift Plain ecoregion (Woods *et al.* 1998) of Ohio. The project area is located within the area covered by the Northcentral and Northeast and Eastern Mountain and Piedmont Regional Supplements (USACE 2012a and USACE 2012b) and associated plant list (Lichvar 2012). The project area is regulated by the USACE Huntington District.

2.0 METHODS

Government agencies regulate coastal and inland waters for commerce, flood control and water quality. These water bodies provide numerous functions and values necessary to protect and sustain our quality of life. Wetlands comprise a significant portion of regulated waters. The U.S. Army Corps of Engineers (Corps) and Environmental Protection Agency (EPA) jointly define wetlands as:

> "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The remaining deepwater aquatic habitats (open waters) are defined by the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) as:

> ". . . areas that are permanently inundated at mean annual water depths >6.6 ft or permanently inundated areas <6.6 ft in depth that do not support rooted emergent or woody plant species."

The methods used for determining and delineating wetlands and open waters strictly adhere to those found in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain and Piedmont Region* (USACE 2012a and USACE 2012b). Wetlands and open water boundaries were determined by the disappearance of one or more of their diagnostic characteristics.

Ordinary high water marks (OHWM) defined the outermost regulatory boundaries of ephemeral and open waters.

Each sample plot and the perimeter of each wetland and other water was surveyed and marked in the field with plain pink flags and pink "wetland boundary" flags, respectively. A global positioning system (GPS) unit with submeter accuracy was used, in conjunction with aerial photography and topographic figures, for the survey. Computer Aided Design (CAD) software was used to determine wetland dimensions and produce a map of the project area showing wetlands and other waters.

2.1 WETLANDS

2.1.1 Determination

A review of secondary literature sources was performed to find known wetlands and other significant ecological resources and areas with high potential for wetlands in or near the proposed project area. Resources included some or all of the following:

1. U.S. Geological Survey (USGS) topographic maps;
2. National Wetlands Inventory (NWI) maps;
3. Web Soil Survey;
4. Aerial Photographs; and
5. Federal Emergency Management Agency Flood Insurance Rate Map.

A field inspection of the project area was then completed to identify major plant communities and to visually locate potential wetlands. The routine, onsite (Level 2) wetland determination was used to perform the delineation. Wetland communities were classified according to the classification scheme of Cowardin *et al.* (1979) (Table 1). Mature nonwetland communities that had reached a stable equilibrium were classified

according to Anderson (1982) and Gordon (1966, 1969). Disturbed and successional nonwetland communities were classified as one of the categories described in Table 2.

Table 1. Wetland Communities (Cowardin *et al.* 1979)

Community	Description
PEM	Palustrine Emergent
PSS	Palustrine Scrub-Shrub
PFO	Palustrine Forested
POW	Palustrine Open Water

Table 2. Disturbed and Successional Nonwetland Communities

Community		Description
Disturbed	Urban	regularly maintained land; residential; industrial
	Agricultural	land used for producing crops or raising livestock; cropland; pastureland
	Cleared	disturbed areas devoid of most vegetation from recent clearing, grading or filling
Successional	Open Field	herbaceous community without woody vegetation
	Old Field	herbaceous community having woody vegetation coverage of <50%
	Scrub-Shrub	community dominated by woody vegetation <6 m (20 ft) tall
	Forest	community dominated by woody vegetation >6 m (20 ft) tall

Sample plots were established within each natural community and potential wetland within the study area. Complete data for each sample plot were collected and recorded on the USACE's Routine Wetland Determination Data Forms contained in the applicable USACE Regional Supplements (USACE 2012a and USACE 2012b). Vegetation, hydrology and soils were evaluated at each sample plot.

2.1.1.1 Vegetation

To detect the presence or absence of hydrophytic vegetation, four plant strata were evaluated within specific radii of the plot center. Each stratum was ranked by aerial cover in descending order of abundance. Table 3 provides information on each vegetative stratum.

Table 3. Vegetative Strata

Stratum	Definition	Survey Area
Tree	woody plants > or equal to 3 in. (7.6 cm) dbh, regardless of height	30 ft (9.1 m) radius
Sapling/shrub	woody plants <3 in. (7.6 cm) dbh and ≥3.28 ft	15 ft (4.6 m) radius

	(1 m) tall	
Herbaceous	herbs and woody plants less than 3.28 ft (1 m) in height	5 ft (1.5 m) radius
Woody vines	woody vines >3.28 ft (1 m) in height	30 ft (9.1 m) radius

Percent dominance was obtained for each species and within each stratum. Dominant species are those which cumulatively totaled in order of abundance immediately exceed 50% and also include any individual species with an abundance of 20% or more (USACE 2012a and USACE 2012b). Dominant taxa were identified using recognized local guides: nomenclature follows the *National List of Scientific Plant Names* (USDA 1982). Following the identification of each plant species present within the plot, all dominant species within each stratum were assigned a wetland indicator status according to Lichvar (2012). Indicators are summarized in Table 4.

Table 4. Plant Indicators

Indicator	Category	Definition
OBL	Obligate Wetland	almost exclusively (>99% of occurrences) found in wetlands
FACW	Facultative Wetland	most likely found in wetlands (67-99% of occurrences)
FAC	Facultative	equally likely found in wetlands or nonwetlands (34-66%)
FACU	Facultative Upland	most likely found in nonwetlands (1-33% occurrence in wetlands)
UPL	Obligate Upland	almost exclusively found in nonwetlands (<1% occurrence in wetlands)

An 'NI' (no indicator) designation represents species where not enough information is available to assign an indicator; an 'NL' (no listing) designation is given to species whose identification was not determined sufficiently enough to assign an indicator. Once the indicator status is assigned to each dominant species, the evaluator can perform the percent dominance test according to the protocol outlined within the applicable Regional Supplement (USACE 2012a and USACE 2012b) to determine if the plot meets the criterion for hydrophytic vegetation.

2.1.1.2 Hydrology

To detect the presence or absence of wetland hydrology, surface and subsurface hydrologic indicators were evaluated at the sample plot and throughout the adjacent community. Primary sources of wetland hydrology include direct precipitation, headwater flooding, backwater flooding, groundwater or any combination of these. When obtaining data at each sample plot, the evaluator observes evidence of hydrology. Primary indicators of hydrology (only one of these is necessary to indicate sufficient wetland hydrology) include the presence of surface water, water marks, sediment deposits, drift deposits, etc. (USACE 2012a and USACE 2012b). Secondary indicators of hydrology (which requires two or more at each sample plot) include surface soil cracks, drainage patterns, crayfish burrows, etc. (USACE 2012a and USACE 2012b). .

2.1.1.3 Soils

The upper horizons of the soil at each sample plot were examined to detect the presence or absence of hydric soils indicators. Current USACE guidance requires the evaluator to assess the upper 20 inches of soil for hydric soil characteristics. Most indicators of hydric soils require an assessment of soil matrix color and mottle characteristics (Environmental Laboratory 1987, USACE 2012a, and USACE 2012b).) for each horizon. These characteristics were determined by comparing a moist sample with *Munsell Soil Color Chart* (Munsell Color 2009) or *The Globe Soil Color Book* (Visual Color Systems, 2004).

2.1.2 ORAM Categorization

Each wetland system was categorized in accordance with version 5.0 of the Ohio EPA's Ohio Rapid Assessment Method for Wetlands (ORAM) (Mack 2001). Field scoring forms are contained in Appendix D.

Ohio EPA has established three primary and three intermediate categories of wetland quality which are based on a wetland's size, its hydrologic function, the types of plant communities present, the physical structure of the wetland plant community and the wetland's level of disturbance (OAC 3745-1-54). The relationship between the various wetland categories and their respective ORAM scores is presented in Table 5. ES also evaluated the project area for the presence of state threatened and endangered species as part of the ORAM evaluation.

Table 5. ORAM Scores and Categories

ORAM Score	ORAM Category	Description
0-29.9	Category 1	Lowest quality, and are generally characterized by hydrological isolation, lack of plant species diversity, insufficient habitat availability, and limited potential to perform major wetland functions.
30-34.9	Category 1 or 2 (Gray Zone)	ORAM score is insufficient to categorize wetland. In absence of a nonrapid method such as VIBI, assign the wetland to the higher functional category (Category 2)
35-44.9	Modified Category 2	Category 2 wetlands that may be of lower quality or degraded but have reasonable potential to be restored.
45-59.9	Category 2	Wetlands that have the capability to support a moderate wildlife community or maintain mid-level hydrological functions.
60-64.9	Category 2 or 3 (Gray Zone)	ORAM score is insufficient to categorize wetland. In absence of a nonrapid method such as VIBI, assign the wetland to the higher functional category (Category 3)
65-100	Category 3	Highest quality, generally characterized by a high level of biological diversity and topographical variation, threatened or endangered species, large numbers of native species, or a high level of functional importance to its surroundings.

Category 3 wetlands have the highest quality, and are generally characterized by a high level of biological diversity and topographical variation, large numbers of native species, or a high level of functional importance to its surroundings. Category 2 wetlands have the capability to support a moderate wildlife community or maintain mid-level hydrological functions. Category 2 also includes wetlands that may be of lower quality or degraded but have reasonable potential to be restored (Modified Category 2). Category 1 wetlands are of the lowest quality, and are generally characterized by hydrological isolation, lack of plant species diversity, insufficient habitat availability, and limited potential to perform major wetland functions (OAC 3745-1-54).

Since the ORAM is a rapid assessment method, there are certain wetland scores which fail to clearly differentiate the wetland's functional category. The so-called "gray zone" wetlands fall between the definite scoring breaks between the categories. Ohio EPA requires that "gray zone" wetlands be considered as the higher category unless more detailed functional assessments such as the VIBI or AmphIBI are conducted on those wetlands. As a result of this requirement, wetlands whose scores fall between the breakpoints for Categories 1 and 2 (1 or 2 gray zone wetlands) wetlands will be considered as Category 2 wetland for purposes of this report. Wetlands whose scores fall between the breakpoints for Categories 2 and 3 wetlands (2 or 3 gray zone wetlands) will be considered a Category 3 wetland for purposes of this report.

2.1.3 Cowardin Wetland Classification

The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory uses the *Classification of Wetlands and Deepwater Habitats of the United States* to classify wetland habitat types (Cowardin et al 1979). This classification system is hierarchical and defines five major systems – Marine, Estuarine, Riverine, Lacustrine, and Palustrine. The Palustrine system was the only type of wetland system identified within the study area and is defined as including all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean driven-derived salts is below 0.5 percent (Cowardin et al 1979).

2.2 OTHER WATERS

Other waters include ephemeral and open waters. These waters are broken down into two categories: 1) ponds and lakes; and 2) streams and rivers.

2.2.1 Ponds and Lakes

Palustrine systems other than wetlands, and lacustrine waters are addressed as ponds and lakes, respectively. These non-linear open waters may harbor important aquatic communities such as vegetated shallows (aquatic bed) and mud flats. They are classified according to Cowardin *et al.* (1979).

2.2.2 Streams and Rivers

Riverine systems are linear flowing waters bounded by a channel. Cowardin *et al.* (1979) divides these system into four groups, however, for the purpose of this report streams are placed into three regulatory types, listed below.

Ephemeral: An ephemeral stream only conveys runoff precipitation and meltwater. It is permanently located above the water table and is most often dry.

Intermittent: An intermittent stream is located below the water table for parts of the year, but does have dry periods.

Perennial: A perennial stream typically has flowing water throughout the entire year.

In addition to flow characteristics, the USACE has defined other regulatory categories that apply to streams, which are listed below (USACE and USEPA, 2007).

Traditional Navigable Waters (TNW): all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

Relatively Permanent Waters (RPW): non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).

Non-Relatively Permanent Waters (Non-RPW): non-navigable tributaries of traditional navigable waters that are not relatively permanent where the tributaries typically do not have continuous flow at least seasonally (e.g., typically three months).

The Corps and USEPA will assert jurisdiction under the Clean Water Act on Traditional Navigable Waters (TNWs) and all wetlands adjacent to them, non-navigable tributaries of TNWs that are Relatively Permanent Waters (RPW) [i.e., tributaries that typically flow year-round or have continuous flow at least seasonally]; and wetlands that directly abut such tributaries. In addition, the agencies will assert jurisdiction over every water body that is not an RPW if that water body is determined (on the basis of a fact-specific analysis) to have a significant nexus with a TNW.

"A significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological, integrity of a TNW. Principal considerations when evaluating significant nexus include the volume, duration, and frequency of the flow of water in the tributary and the proximity of the tributary to a TNW, plus the hydrologic, ecologic, and other functions performed by the tributary and all of its adjacent wetlands."

3.0 LITERATURE REVIEW

3.1 USGS TOPOGRAPHIC MAP

The U.S. Geological Survey (USGS) 7.5-minute topographic series (Canton East Quadrangle and Canton West Quadrangle) is shown on Figure 2 (Appendix A). The eastern portion of the project area slopes downward to the east toward Nimishillen Creek. the western portion of the project generally slopes downward to the north. Two (2) intermittent streams are depicted crossing the project area. Additionally, a perennial stream, Nimishillen Creek, is depicted at the eastern terminus of the project area within the project area buffer. Elevations within the project area range from approximately 990

feet above mean seal level (AMSL) to 1080 feet AMSL. The project area is shown to be partially along an existing pipeline ROW.

3.2 NWI MAP

The National Wetlands Inventory (NWI) map (Canton East Quadrangle and Canton West Quadrangle) of the project area is shown on Figure 3 in Appendix A. One (1) palustrine, forested, broad-leaved deciduous, seasonally flooded (PFO1C) wetland is depicted at the eastern end of the project area and is located along the floodplain of Nimishillen Creek. This wetland corresponds to the delineated Wetland W-3. Nimishillen Creek is indicated as a lower perennial, unconsolidated bottom, intermittently exposed (R2UBG) system. Along the western portion of the project area, one (1) riverine system is depicted crossing the southwestern portion of the project area. This is a seasonally flooded, intermittent streambed (R4SBC) and identified as Stream S-1 within the project area.

3.3 COUNTY SOIL SURVEY

The project area is found on the *Soil Survey of Stark County, Ohio* and was accessed on the Soil Survey Geographic (SSURGO) Database (USDA Web Soil Survey, 2010) (Figure 4; Appendix A). Eleven (11) soil types are depicted within the project area and are listed in Table 6. Three (3) soil types, Canadice silt loam (Ca), Sebring silt loam (Sb), and Sloan silt loam (Sl) are listed as hydric or predominantly hydric within Stark County.

Table 6. Soil Types Mapped in the Project Area.

Symbol	Soil Type	Status	Common Landform	Percent Hydric	Acres in Project Area	Percent Within Project Area
Ca	Canadice silt loam	predominantly hydric	depressions	95	0.256	2.0
CoD2	Chili gravelly loam, 12 to 18 percent slopes, moderately eroded	not hydric	terraces	0	0.051	0.4
CuB	Chili-Urban land complex, undulating	not hydric	N/A	0	3.901	30.4
DkB	Dekalb sandy loam, 2 to 6 percent slopes	not hydric	hills	0	0.042	0.3
FcB	Fitchville silt loam, 2 to 6 percent slopes	predominantly non-hydric	lake plains, terraces	5	0.692	5.4

Table 6. Soil Types Mapped in the Project Area.

Symbol	Soil Type	Status	Common Landform	Percent Hydric	Acres in Project Area	Percent Within Project Area
LaC	Latham silt loam, 6 to 12 percent slopes	not hydric	hills	0	0.431	3.4
LaF	Latham silt loam, 18 to 35 percent slopes	not hydric	hills	0	0.918	7.2
LuC	Loudonville-Urban land complex, rolling	not hydric	N/A	0	0.443	3.4
MvE	Muskingum and Gilpin silt loams, 18 to 25 percent slopes	not hydric	hills	0	0.072	0.6
Sb	Sebring silt loam	predominantly hydric	outwash plains	95	5.556	43.3
Sl	Sloan silt loam	all hydric	flood plains	100	0.483	3.8

3.4 U.S. Fish and Wildlife Service

The project contains three (3) wetlands and onee (1) intermittent stream. The USACE has regulatory authority over federally listed threatened and endangered species through the NWP program. Under the 2017 Nationwide Permit (NWP) program, the USACE requires notification for multiple reasons including activities that impact potential roost trees within regulated waters and when impacts are proposed to occur in specific waterways/townships (listed in Appendix 1 of the NWP Regional General Conditions). These two conditions are directly related to protection of threatened and endangered species. This project is not located within a specific waterway township. However, if the PRT located within Wetland W-2 cannot be avoided a PCN will need to be submitted to the USACE for impacts to PRT's within regulated waters. Additionally, coordination with the Ohio Department of Natural Resources (ODNR) is recommended prior to project initiation in accordance with Ohio's rule regarding threatened and endangered species.

The project area was examined for suitable habitat for federally listed species whose known range includes Stark County, Ohio. These species are the federally endangered Indiana bat (*Myotis sodalis*), the federally threatened northern long-eared bat (*Myotis*

septentrionalis), the federally threatened eastern massasauga (*Sistrurus catenatus)* and the federal species of concern bald eagle (*Haliaeetus leucocephalus*.

The project area is located in a residential setting with forest and trees of various size scattered throughout. The project area contains sections of forested property, primarily along the off-road ROW portion. Living or dead trees with shedding or peeling bark or cavities may serve as roosting trees for the Indiana bat and/or the northern long-eared bat. Three () trees with characteristics that may potentially provide some level of roosting habitat for the Indiana bat and/or the northern long-eared bat are located along the forested portions or within residential yards of the project area. The potential roost trees (PRTs) are standing dead trees and one (1) silver maple (*Acer saccharinum*) with diameter at breast height (dbh) measurements between 15 and 34 inches. The PRTs had 30 to 100 percent solar exposure with holes, peeling, and exfoliating bark. The location of these trees are indicated on the map included in Attachment A. Representative photographs of the habitat trees are included in Attachment B (Photos 14-16).

Preferred habitat for the eastern massasauga includes wet areas including wet prairies, marshes and low areas along rivers and lakes, primarily in crayfish burrows and similar structures. In many areas eastern massasaugas also use adjacent uplands during part of the year. Wetland W-3 is part of a larger (4-7 acre) wetland along Nimishillen Creek, and may provide suitable overwintering habitat for the eastern massasauga. The wetland is largely surrounded by residential development to the west. There is minimal potential upland habitat with suitable connectivity; upland habitat present is largely forest, with maintained lawn, and a small amount of open field vegetation. It is unlikely that the hydroperiod is sufficient to support crayfish and crayfish burrows were not observed, however, other animal burrows of various size were observed. Therefore, eastern massasaugas are unlikely to be present.

Bald eagles nest in large trees near water. No bald eagle habitat was observed within or adjacent to the project area. Furthermore, according to the information provided to EOG, Canton Township in Stark County has no known bald eagle nesting sites. Therefore, no further coordination with the USFWS is necessary with regard to the bald eagle.

3.5 AERIAL PHOTOGRAPHY

A recent aerial photograph of the project area is shown on Figure 5 (Appendix A). The project area is depicted as on-road and off-road ROW through residential property with maintained lawn, open field, and forest vegetative communities. The project area is shown terminating to the east at Nimishillen Creek. The surrounding land use is primarily residential and commercial with maintained lawn and forest communities.

3.6 FEMA FLOOD INSURANCE RATE MAP

The Federal Emergency Management Agency (FEMA) produces Flood Insurance Rate Maps (FIRM), which shows the locations of predictable floodplain during precipitation flood events. The FIRM map of the project area was researched and it was found that the project crosses the 500-Year Flood Zone (Zone X) and 100-Year Flood Zone along Nimishillen Creek at the eastern end of the project area (Appendix A; Figure 6). A Base Flood Elevation (BFE) study was conducted within this area. It was determined that the BFE within this area is 998 AMSL.

4.0 RESULTS

Five (5) sample plots were established within four (4) natural communities. One (1) of those communities is considered wetland. Table 7 summarizes the sample plot data.

Table 7. Sample Plot Results.

Sample Plot	Photo*	Community**	Hydrophytic Vegetation	Wetlands Hydrology	Hydric Soil	Status	Location
1	1	Forest				Non-Wetland	SP-1
2	2	PEM	X	X	X	Wetland	W-2
3	3	Maintained Lawn				Non-Wetland	SP-3
4	4	Open Field	X			Non-Wetland	SP-4
5	5	PEM	X	X	X	Wetland	W-3

*photos are located in Appendix B ** PEM=Palustrine Emergent

Each sample plot, delineated wetland, and other waters are illustrated on Figure 5 (Appendix A). The following section describes general conditions found within each plant community and summarizes relevant information from the data forms, located in Appendix C.

4.1 NONWETLANDS

Three (3) upland communities, maintained lawn, open field, and forest exist within the project area. Sample Plot 1 represents the forest community, red oak (*Quercus rubra*, FACU), black cherry (*Prunus serotina*, FACU), American beech (*Fagus grandifolia*, FACU), white ash (*Fraxinus americana*, FACU), and big-tooth aspen (*Populus grandidentata*, FACU) are present within the tree stratum. The shrub/sapling stratum contains black cherry, red oak, and European privet (*Ligustrum vulgare*, FACU). Eastern

poison ivy (*Toxicodendron radicans*, FAC) and garlic mustard (*Alliaria petiolata*, FACU) are present in the herbaceous layer.

The maintained lawn community is represented by Sample Plot 3. The herbaceous vegetation present within Sample Plot 3 consists of Kentucky blue grass (*Poa pratensis*, FACU), common dandelion (*Taraxacum officinale*, FACU), and English plantain (*Plantago lanceolata*, FACU). The species present within the tree stratum include; red oak, northern catalpa (*Catalpa speciosa*, FAC), and sugar maple (*Acer saccharum*, FACU).

The open field community is represented by Sample Plot 4. The herbaceous vegetation present within Sample Plot 4 consists of reed canary grass (*Phalaris arundinacea,* FACW), purple deadnettle (*Lamium purpureum,* UPL), Fuller's teasel (*Dipsacus fullonum*, FACU), sticky-willy (*Galium aparine,* FACU), and woodland strawberry (*Fragaria vesca,* UPL).

4.2 WETLANDS

Three (3) wetlands were identified and delineated within the project area. The onsite portions of these wetlands consist of palustrine emergent (PEM) vegetation. The delineated wetlands have been categorized using the Ohio Rapid Assessment Method for Wetlands v.5.0 (ORAM); scoring forms are included in Appendix D. Wetland results are given in Table 8 and are briefly described in the following section. Wetland size has been determined for areas within the project area. Wetlands are illustrated on Figure 5 (Appendix A).

Table 8. Wetland Results within the Project Area.

Wetland		Photo*	Cowardin Classification	ORAM Score	ORAM Category	Size within Project Area (acres)	Length of Wetland Crossing (feet)
W-1	a	6	PEM	43	Modified 2	0.003	28
	b					0.001	28
W-2		7	PEM			0.201	261
W-3		8	PEM	48.5	Category 2	0.280	335
Total Wetlands						0.485	**652**

*photos are located in Appendix B

The onsite portions of Wetland W-1 and Wetland W-2 are composed of PEM vegetation and are represented by Sample Plot 2. The dominant species within the herbaceous layer was reed canary grass and creeping-Jenny (*Lysimachia nummularia*, FACW) and sweet woodreed (*Cinna arundinacea*, FACW) were also present within the herbaceous stratum.

The onsite portion of Wetland W-3 is composed PEM vegetation and is represented by Sample Plot 5. The herbaceous vegetation within Sample Plot 5 consists of reed canary grass, lake bank sedge (*Carex lacustris*, OBL), wingstem (*Verbesina alternifolia*, FACW), Fuller's teasel, and common woodworm (*Artemisia vulgaris*, UPL).

Wetland W-1 and Wetland W-2 assessed within the range of a modified Category 2 wetland using the ORAM scoring method. These wetlands extend offsite and have palustrine scrub-shrub and palustrine forested components, have relatively wide buffers, low intensity of surrounding land use, moderate habitat development, moderate coverage of invasive species, and some standing dead trees.

Wetland W-3 assessed within the range of a Category 2 wetland using the ORAM scoring method. The wetland has several hydrological sources, is in the floodplain of Nimishillen Creek, and extends both north and south of the project area. The wetland has relatively wide buffers, moderate intensity of surrounding land use, moderate horizontal interspersion, multiple vegetative communities, and moderate coverage of invasive species.

4.3 Streams and Rivers

One (1) intermittent stream was identified and delineated within the project area. The results are depicted in Table 9 and illustrated on Figure 5 (Appendix A). Stream S-1 was assessed together using the Qualitative Habitat Evaluation Index (QHEI). The scoring forms are included in Appendix E.

Table 9. Stream Results within the Project Area.

Stream	Photos*	Type	Bankfull Width (feet)	Depth at Time of Survey (inch)	Length Within Project Area (linear feet)	Area Within Project Area (acres)	QHEI/ HHEI Score
S-1	9-11	Intermittent	4.5	3	74	0.008	32
Total Stream					**74**	**0.008**	

*photos are located in Appendix B

Stream S-1 is an intermittent stream that crosses the project area near the western terminus and flows north. The assessment of the on-site sections of Stream S-1 resulted in a QHEI score of 32, classifying it as a 'Poor' Modified Warmwater Habitat

4.4 PONDS AND LAKES

No open water aquatic resources were identified within the project area.

5.0 REGULATORY JURISDICTION

The wetlands and waterbodies are under the jurisdiction of the Ohio EPA or Corps. No filling may occur within these areas without their written permission. Please contact the Ohio EPA Division of Surface Water at (614) 644-2001 or the Huntington District, U.S. Army Corps of Engineers, at (304) 399-5210 before working in these areas.

The following information is excepted and summarized from the 2007 *U.S. Army Corps Of Engineers Jurisdictional Determination Form Instructional Guidebook.*

> "In 2001, the … U.S. Supreme Court's decision in the *Solid Waste Agency of Northern Cook County (SWANCC) v. Corps* held that isolated, intrastate, non-navigable waters could not be regulated under the CWA based solely on the presence of migratory birds. Following the SWANCC decision it generally was believed that a water body (including a wetland) was subject to CWA jurisdiction if the water body was part of the U.S. territorial seas, or a traditional navigable water, or any tributary to a traditional navigable water, or a wetland adjacent to any one of the above. In addition, isolated wetlands and other waters might be considered jurisdictional where they had the necessary link to either navigable waters or interstate commerce."

In the state of Ohio, the Ohio EPA isolated wetland permitting program was legislatively created in response to the 2001 SWANC decision. On July 17, 2001, House Bill 231 was signed into law, establishing a permanent permitting process for isolated wetlands. The

provisions of House Bill 231 were incorporated in Sections 6111.021 through 6111.029 of the Ohio Revised Code.

> "In 2006, the Supreme Court once again addressed the jurisdictional scope of Section 404 of the CWA, specifically the term "the waters of the U.S.," in *Rapanos v. U.S*. and in *Carabell v. U.S*. (hereafter referred to as Rapanos).
>
> The decision provides two new analytical standards for determining whether water bodies that are not traditional navigable waters (TNWs), including wetlands adjacent to those non-TNWs, are subject to CWA jurisdiction: (1) if the water body is relatively permanent, or if the water body is a wetland that directly abuts (e.g., the wetland is not separated from the tributary by uplands, a berm, dike, or similar feature) a relatively permanent water body (RPW), or (2) if a water body, in combination with all wetlands adjacent to that water body, has a significant nexus with TNWs. CWA jurisdiction over TNWs and their adjacent wetlands was not in question in this case, and, therefore, was not affected by the Rapanos decision. In addition, at least five of the Justices in Rapanos agreed that CWA jurisdiction exists over all TNWs and over all wetlands adjacent to TNWs.
>
> The Memo states that the [Corps and USEPA] will assert jurisdiction over the following categories of water bodies: TNWs; all wetlands adjacent to TNWs; non-navigable tributaries of TNWs that are relatively permanent (i.e., tributaries that typically flow year-round or have continuous flow at least seasonally); and wetlands that directly abut such tributaries. In addition, the agencies will assert jurisdiction over every water body that is not an RPW if that water body is determined (on the basis of a fact-specific analysis) to have a significant nexus with a TNW. The classes of water body that are subject to CWA jurisdiction only if such a significant nexus is demonstrated are: non-navigable tributaries that do not typically flow year-round or have continuous flow at least seasonally; wetlands adjacent to such tributaries; and wetlands adjacent to but that do not directly abut a relatively permanent, non-navigable tributary. A significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological, integrity of a TNW. Principal considerations when evaluating significant nexus include the volume, duration, and frequency of the flow of water in the tributary and the proximity of the tributary to a TNW, plus the hydrologic, ecologic, and other functions performed by the tributary and all of its adjacent wetlands."

5.1 AGENCY COORDINATION

Based on the site plans for the PIR 2647 – 34th and Cleveland project, the proposed activities would follow those authorized by a permit in the USACE 2017 Nationwide Permits program, if impacts to onsite water resources are proposed. Each NWP has its own rules regarding notification requirements if impacts are proposed. These requirements will be reviewed after impacts are determined. Additionally, this project is not located within a specific waterway township that is included in Appendix 1 of the NWP Regional General Conditions. However, this project will require a PCN if the PRT located within Wetland W-2 cannot be avoided. If a PCN is required, USFWS and OHPO coordination will be initiated through the USACE. If impacts to onsite wetland or streams are avoided, USACE, USFWS, and OHPO coordination is not required. Coordination

with the ODNR is recommended in accordance with Ohio's rules regarding threatened and endangered species.

Based on the Stream Eligibility Map provided by the Ohio Environmental Protection Agency (EPA), the project area is located within an area that is eligibility for coverage under the 401 Water Quality Certification (WQC) for the NWPs.

A Stormwater Pollution Prevention Plan (SWPPP) should be prepared in accordance with the Ohio Rain Water and Land Development Manual for projects with earth disturbance greater than one (1) acre. In addition, the National Pollution Discharge Elimination System (NPDES) General Construction Site Stormwater Permit (OHC000004) through the Ohio EPA is required for projects resulting in earth disturbance greater than one (1) acre unless the project is located in a combined sewer serviced area in which NOI submittal is not required. This project is not located within a combined sewer service area. Earth disturbance for pipeline replacement activities may result from pipeline installation, pipeline capping of abandoned lines, vehicular and construction traffic within unpaved pipe yard areas, and/or equipment access along unpaved routes.

For the PIR 2647 – 37th and Cleveland project, if no additional unpaved areas are required for the pipeline replacement and earth disturbance is limited to pipeline installation within the designated project area, a 6.7 foot wide earth disturbance limit would need to be maintained along the replacement of 6,454 feet of pipe to stay below the one (1) acre threshold. If additional disturbance is required for pipeline capping of abandoned lines, vehicular and construction traffic within unpaved pipe yard areas, and/or equipment access along unpaved routes, this area will be included in the calculation and the disturbance width will be reduced. The Stark County SWCD requires coordination for any projects with earth disturbance greater than or equal to one (1) acre.

The USACE and the Ohio Historical Preservation Office (OHPO) do not require a formal Section 106 consultation be completed for pipeline replacement/repair projects due to previous ground disturbance unless historical properties will be impacted by the project. A preliminary review of historic features was conducted and indicates that no historic features are located within or near the project area. However, if a PCN will be submitted to USACE for temporary impacts to wetlands, the USACE will take the lead with regards to Section 106. Any additional coordination with OHPO will be determined by the USACE at that time.

6.0 ASSUMPTIONS AND DISCLAIMERS

The constant influence of human activity on the project area can result in a rapid change of ecological boundaries. Over time, natural succession and changes in hydrology can also affect their boundaries. Precision of GPS collected data is subject to variation caused by canopy cover, atmospheric interference and satellite configuration. Because slight inaccuracies are possible, all acreages and derived boundaries presented in this report are approximate.

The results and conclusions contained in this report apply to the year and date in which the data were collected. This report is not considered officially valid until it is approved by the Corps. The report is then valid for a period of five years. Refer to the Corps' Regulatory Guidance Letter # 94-1 (23 May 1994).

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Appendix A:

Figures

Figure 1. Location of Site on Highway Map of Stark County, Ohio. PIR 2647 - 34th and Cleveland.

Project Area

0 750 1,500 3,000 Feet

0 250 500 1,000 Meters

EnviroScience
Excellence In Any Environment

Date: 9/19/2017 Path: C:\Users\Gregory Hocevar\Desktop\P R2647\OptionB\GIS\Map1_Location.mxd

Basemap courtesy of Esri.

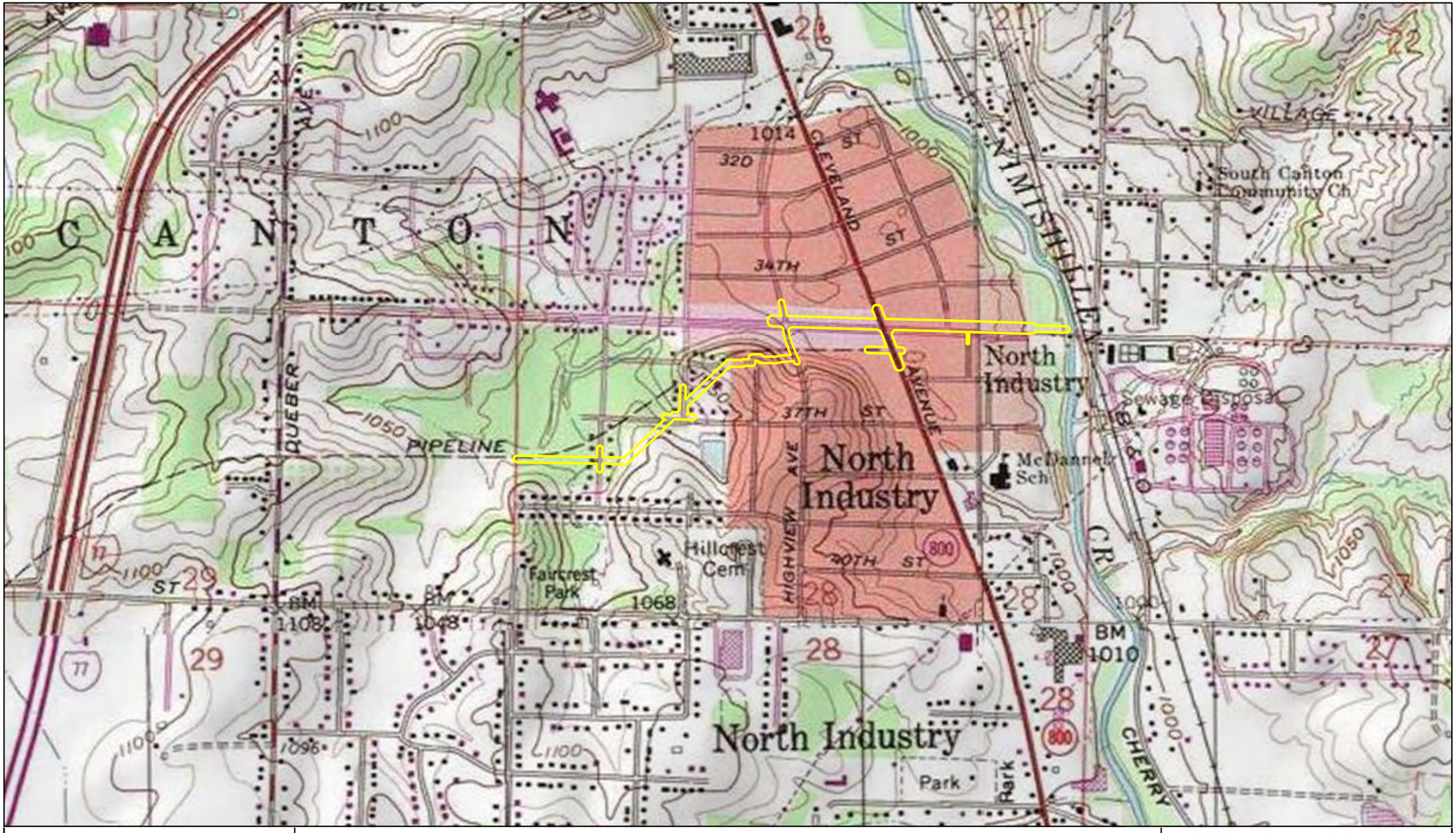

Figure 2. USGS 7.5-minute Topographic Map of Canton East and Canton West Quadrangles.
PIR 2647 - 34th and Cleveland.

Project Area

0 750 1,500 3,000 Feet

0 250 500 1,000 Meters

EnviroScience
Excellence In Any Environment

Date: 9/19/2017 Path: C:\Users\Gregory Hocevar\Desktop\P R2647\Option B\GIS\Map2_Topo.mxd

Basemap courtesy of National Geographic Society (2013).

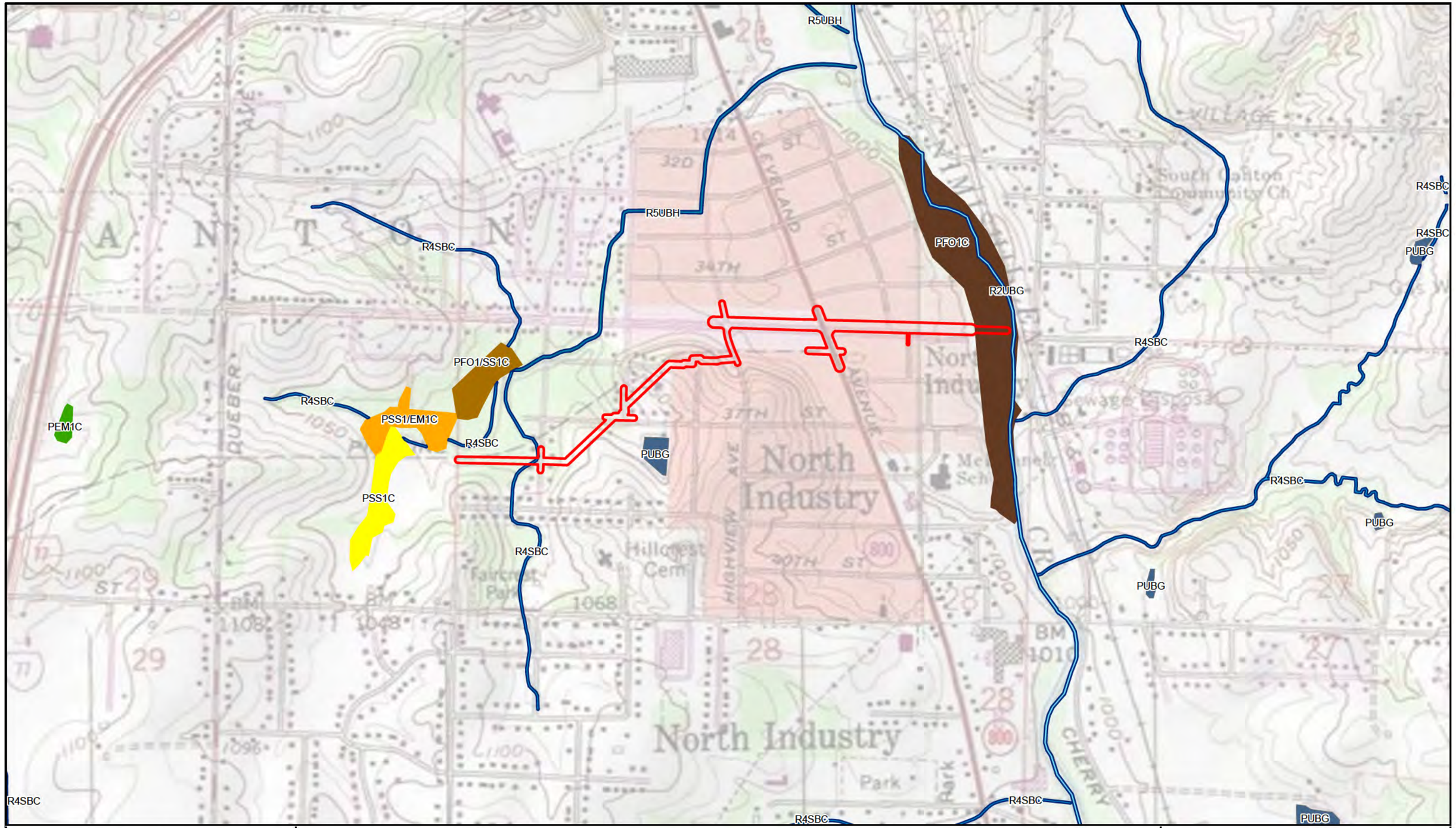

Figure 3.
NWI Map of Site (Canton East and Canton West Quadrangles).
PIR 2647 - 34th and Cleveland.

Project Area

0 750 1,500 3,000 Feet

0 250 500 1,000 Meters

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Date: 9/19/2017 Path: C:\Users\Gregory Hocevar\Desktop\P R2647\OptionB\GIS\Map3_NWI.mxd

Basemap courtesy of National Geographic Society (2013). NWI data courtesy of USFWS (current as of May 1, 2016).

Figure 4.
Soil Map of Site in
Stark County, Ohio.
PIR 2647 - 34th and Cleveland.

Project Area

0 750 1,500 3,000 Feet

0 250 500 1,000 Meters

EnviroScience
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Date: 9/19/2017 Path: C:\Users\Gregory Hocevar\Desktop\P R2647\OptionB\GIS\Map4_Soil.mxd

Basemap courtesy of Esri. Soil data courtesy of SSURGO.

Figure 5. Site Map Overview of Wetlands and Other Water Resources. PIR 2647 - 34th and Cleveland.

Pipeline
Project Area

0 375 750 1,500 Feet
0 125 250 500 Meters

EnviroScience
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Date: 9/19/2017 Path: C:\Users\Gregory Hocevar\Desktop\P R2647\OptionB\GIS\Map5_Overview.mxd

Basemap courtesy of Esri.

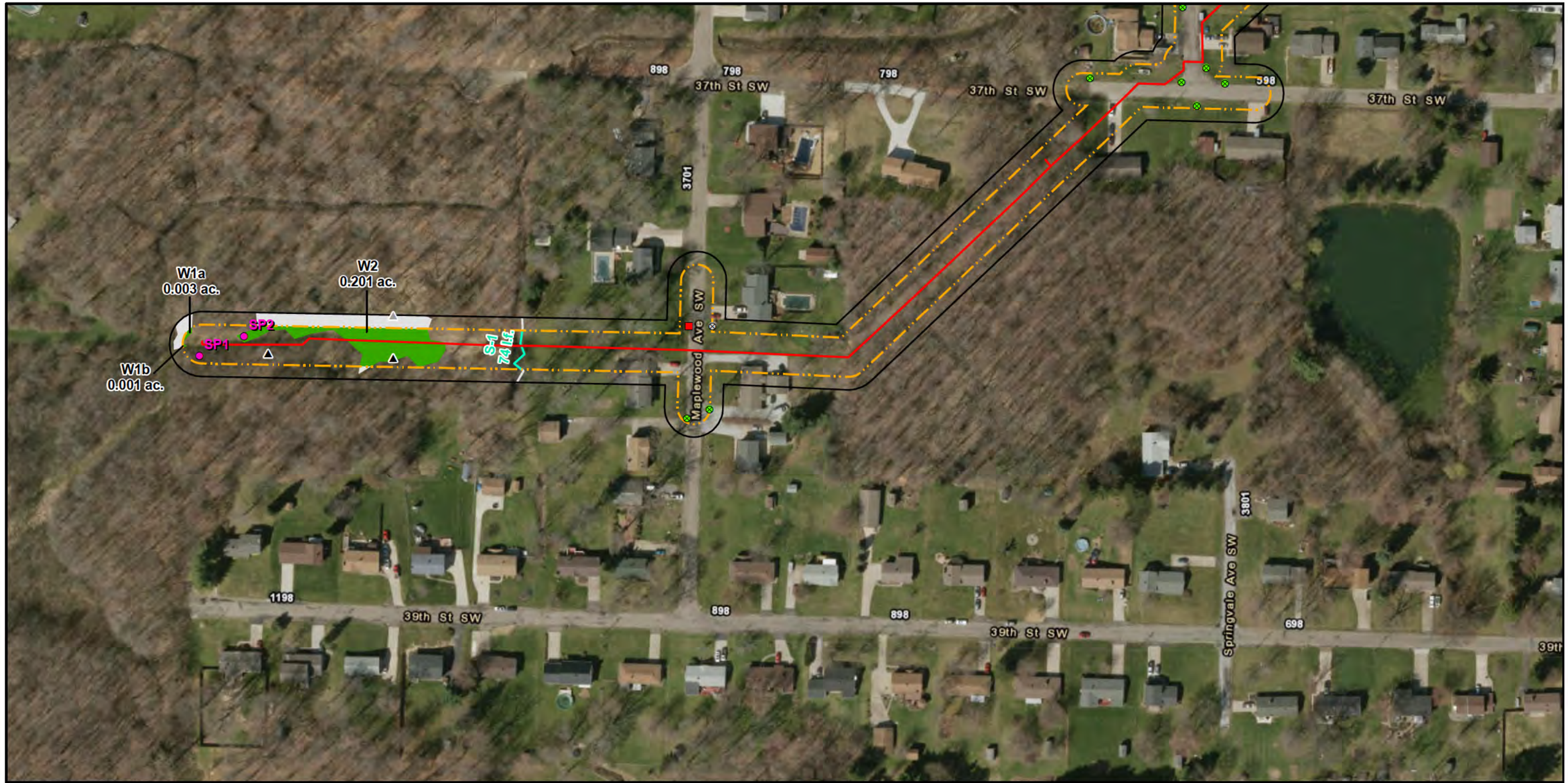

Figure 5.01. Site Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

PRT
PRT (Offsite)
Sample Plot
M&R Station
Inlet
Inlet (Offsite)
Culvert
Culvert (Offsite)
Stream (Intermittent)
Stream (Offsite)
Nimishillen Creek (Offsite)
Wetland (PEM)
Wetland (Offsite)
Pipeline
Project Area
Project Area Buffer (Add'l 20')

0 125 250 500 Feet

0 25 50 100 Meters

5.01

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Date: 9/19/2017 Path: P:\10_Projects\D\DominionEOG\470NR\PIR\1_Projects\P R_2647_34thandCleveland\GIS\Map5_Site.mxd

Basemap courtesy of Esri.

Figure 5.02. Site Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

PRT
PRT (Offsite)
Sample Plot
M&R Station
Inlet
Inlet (Offsite)
Culvert
Culvert (Offsite)
Stream (Intermittent)
Stream (Offsite)
Nimishillen Creek (Offsite)
Wetland (PEM)
Wetland (Offsite)
Pipeline
Project Area
Project Area Buffer (Add'l 20')

0 125 250 500 Feet

0 25 50 100 Meters

5.02

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Date: 9/19/2017 Path: P:\10_Projects\D\DominionEOG\470NR\PIR\1_Projects\P R_2647_34thandCleveland\GIS\Map5_Site.mxd

Basemap courtesy of Esri.

Figure 5.03. Site Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

PRT
PRT (Offsite)
Sample Plot
M&R Station
Inlet
Inlet (Offsite)
Culvert
Culvert (Offsite)
Stream (Intermittent)
Stream (Offsite)
Nimishillen Creek (Offsite)
Wetland (PEM)
Wetland (Offsite)
Pipeline
Project Area
Project Area Buffer (Add'l 20')

0 125 250 500 Feet

0 25 50 100 Meters

5.03

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Date: 9/19/2017 Path: P:\10_Projects\D\DominionEOG\470NR\PIR\1_Projects\P R_2647_34thandCleveland\GIS\Map5_Site.mxd

Basemap courtesy of Esri.

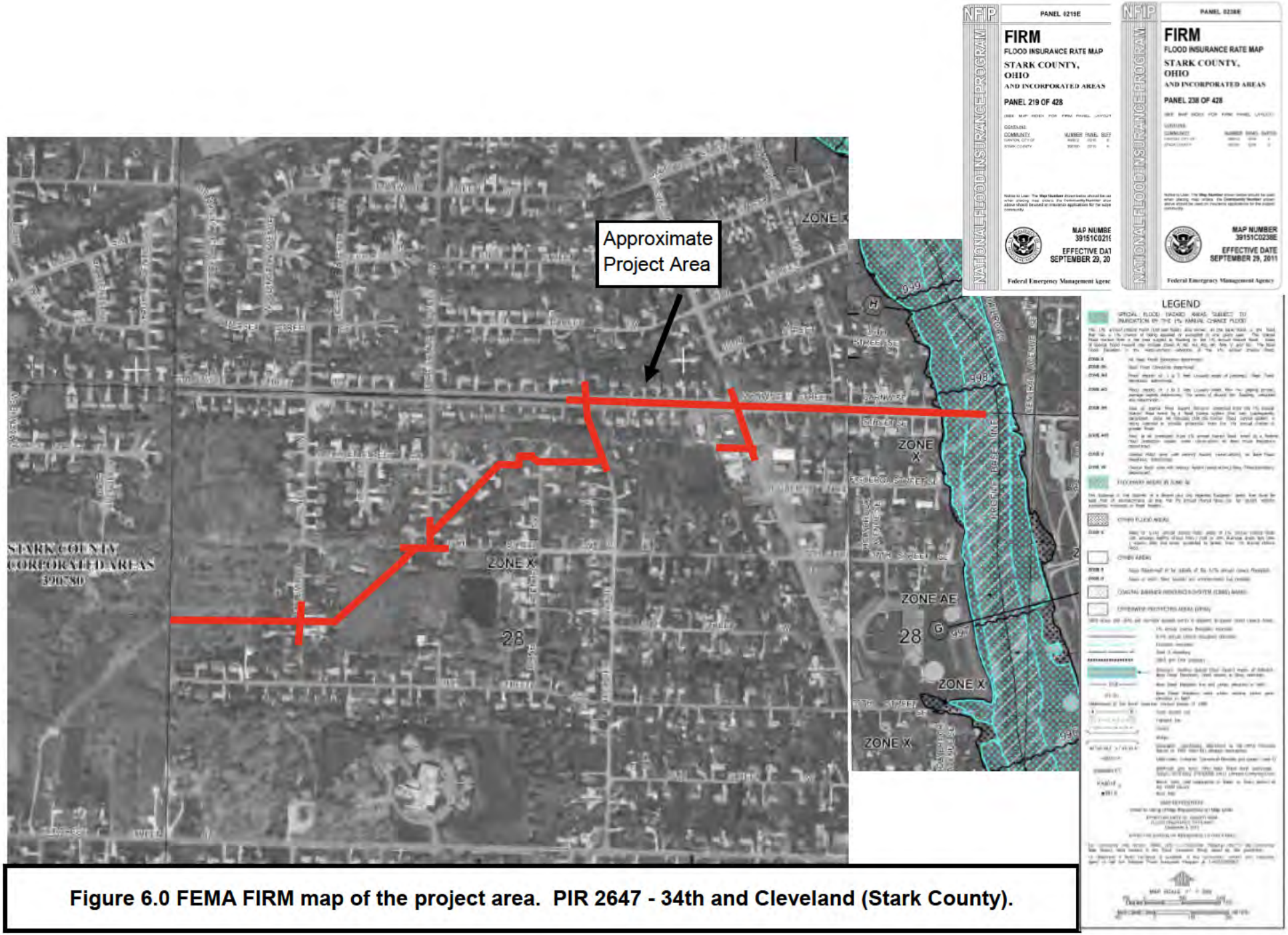


Figure 6.0 FEMA FIRM map of the project area. PIR 2647 - 34th and Cleveland (Stark County).

Appendix B:

Photographs

Photo 1. Sample Plot 1 within a forest community.

Photo 2. Sample Plot 2 within Wetland W-2, a palustrine emergent (PEM) wetland.

Photo 3. Sample Plot 3 within a maintained lawn community.

Photo 4. Sample Plot 4 within an open-field community.

Photo 5. Sample Plot 5 within a PEM wetland.

Photo 6. Wetland W-1 facing north.

Photo 7. Wetland W-2 facing east.

Photo 8. Wetland W-3 facing west.

Photo 9. Stream S-1 facing southwest, upstream.

Photo 10. Stream S-1 facing north, downstream

Photo 11. Stream S-1 substrate.

Photo 12. Photo of Nimishillen Creek, within the project buffer area.

Photo 13. M & R Station within the project area, located east of Cleveland Avenue South.

Photo 14. Potential roost tree (PRT 1), a standing dead with peeling bark and holes.

Photo 15. PRT 2, a standing dead tree in Wetland W-2 with peeling bark and holes.

Photo 16. PRT 3, a silver maple (*Acer saccharinum*) with holes.

Appendix C:

Routine Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: PIR 2647 - 34th and Cleveland City/County: Stark Sampling Date: November 23, 2016

Applicant/Owner: The East Ohio Gas Company State: OH Sampling Point: SP-1

Investigator(s): R. Warren, E. Kennedy Sec ion, Township, Range:

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

Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 40.754167 Long: -81.390278 Datum: WGS-84

Soil Map Unit Name: GdD - Gilpin silt loam, 12 to 18 percent slopes NWI classification: N/A

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

Are Vegeta ion ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No

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

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

Hydrophytic Vegetation Present?	Yes	No X	Is the Sampled Area within a Wetland?	Yes	No X
Hydric Soil Present?	Yes	No X			
Wetland Hydrology Present?	Yes	No X			

Remarks:

Forest

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Mircotopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):	**Wetland Hydrology Present?**	
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):	Yes	No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants. Sampling Point: SP-1

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus rubra*	25	Yes	FACU
2. *Acer saccharum*	25	Yes	FACU
3. *Prunus serotina*	20	Yes	FACU
4. *Populus grandidentata*	10	No	FACU
5.			
6.			
7.			
	80	= Total Cover	

Sapling Stratum: (Plot Size: 15)			
1. *Prunus serotina*	10	Yes	FACU
2. *Ligustrum vulgare*	5	Yes	FACU
3. *Quercus rubra*	5	Yes	FACU
4.			
5.			
6.			
7.			
	20	= Total Cover	

Shrub Stratum: (Plot Size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum: (Plot size: 5)			
1. *Toxicodendron radicans*	25	Yes	FAC
2. *Alliaria petiolata*	2	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	27	= Total Cover	

Woody Vine Stratum: (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index worksheet:

Total % Cover of:			Multiply by:
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	97	x 4 =	388
UPL species	0	x 5 =	0
Column Totals:	122 (A)		463 (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophy ic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problema ic Hydrophytic Vegeta ion[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling - Woody plants, excluding woody vines, aproximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, aproximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3 28 ft tall.

Woody Vines - All woody vines greater than 3 28 ft in height.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

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

SOIL

Sampling Point: SP-1

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

Dep h	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 3/3	100					silty loam	
1-9	10YR 4/3	100					silty loam	
9-12	10YR 4/6	100					silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Loca ion: PL= Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ His ic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147,148)**
- ___ Thin Dark Surface (S9) **(MLRA147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problema ic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site: PIR 2647 - 34th and Cleveland City/County: Stark Sampling Date: November 23, 2016

Applicant/Owner: The East Ohio Gas Company State: OH Sampling Point: SP-2

Investigator(s): R. Warren, E. Kennedy Section, Township, Range:

Landform (hillslope, terrace, etc.): depression Local Relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 40.754345 Long: -81.389958 Datum: WGS-84

Soil Map Unit Name: Sb - Sebring silt loam NWI classifica ion: N/A

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

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

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

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

Hydrophy ic Vegetation Present?	Yes X	No	Is he Sampled Area within a We land?	Yes X	No
Hydric Soil Present?	Yes X	No		Wetland W-2	
Wetland Hydrology Present?	Yes X	No			

Remarks:

PEM

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	True Aquatic Plants (B14)	
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	
X Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)	
Water Marks (B1)	X Presence of Reduced Iron (C4)	
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	
Drift Deposits (B3)	Thin Muck Surface (C7)	
Algal Mat or Crust (B4)	Other (Explain in Remarks)	
Iron Deposits (B5)		
Inundation Visible on Aerial Imagery (B7)		
Water-Stained Leaves (B9)		
Aquatic Fauna (B13)		

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Mircotopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		**Wetland Hydrology Present?**
Satura ion Present? (includes capillary fringe)	Yes X	No	Depth (inches):	0	Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: SP-2

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling Stratum: (Plot Size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Shrub Stratum: (Plot Size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum: (Plot size: 5)			
1. *Phalaris arundinacea*	85	Yes	FACW
2. *Lysimachia nummularia*	10	No	FACW
3. *Cinna arundinacea*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum: (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophy ic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problema ic Hydrophytic Vegeta ion[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling - Woody plants, excluding woody vines, aproximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, aproximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3 28 ft tall.

Woody Vines - All woody vines greater than 3 28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL

Sampling Point: SP-2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/1						mucky clay	
2-10	10YR 2/1						clay	
10-14	10YR 2/1	90	10YR 5/8	10	C	M	clay	redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Loca ion: PL= Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ His ic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147,148)**
- ___ Thin Dark Surface (S9) **(MLRA147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- X Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problema ic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: PIR 2647 - 34th and Cleveland City/County: Stark Sampling Date: 11/23/16

Applicant/Owner: The East Ohio Gas Company State: OH Sampling Point: SP-3

Investigator(s): R. Warren, E. Kennedy Section, Township, Range:

Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 2

Subregion (LRR or MLRA): LRR R, MLRA 139 Lat: 40.7568/03 Long: -81.382244 Datum: WGS-84

Soil Map Unit Name: LaF - Latham silt loam, 18 to 25 percent slopes NWI classification: N/A

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

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

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

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**	
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Maintained Lawn

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ____	Depth (inches): ____
Water Table Present?	Yes ____	No ____	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SP-3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus rubra*	30	Yes	FACU
2. *Catalpa speciosa*	10	Yes	FACU
3. *Acer saccharum*	10	Yes	FACU
4.			
5.			
6.			
7.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Poa pratensis*	85	Yes	FACU
2. *Taraxacum officinale*	10	No	FACU
3. *Plantago lanceolata*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	150	x 4 =	600
UPL species	0	x 5 =	0
Column Totals:	150 (A)		600 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL

Sampling Point: SP-3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: PIR 1647 - 34th and Cleveland City/County: Stark Sampling Date: 11/23/16

Applicant/Owner: The East Ohio Gas Company State: OH Sampling Point: SP-4

Investigator(s): R. Warren, E. Kennedy Section, Township, Range:

Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR or MLRA): LRR R, MLRA 139 Lat: 40.756667 Long: -81.380833 Datum: WGS-84

Soil Map Unit Name: Sb - Sebring silt loam NWI classification: N/A

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

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

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

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
Open Field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Vis ble on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ____	Depth (inches): ____
Water Table Present?	Yes ____	No ____	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Descr be Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SP-4

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Amelanchier arborea*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	75	Yes	FACW
2. *Galium aparine*	5	No	FACU
3. *Lamium purpureum*	10	No	UPL
4. *Dipsacus fullonum*	8	No	FACU
5. *Fragaria vesca*	2	No	UPL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	0	x 3 =	0
FACU species	23	x 4 =	92
UPL species	12	x 5 =	60
Column Totals:	110 (A)		302 (B)

Prevalence Index = B/A = 2.75

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL

Sampling Point: SP-4

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 4/2						Loamy/Clayey	
5-10	10YR 4/3						Loamy/Clayey	
10-12	10YR 6/3	90	10YR 6/8	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: PIR 2647 - 34th and Cleveland City/County: Stark Sampling Date: 11/23/16

Applicant/Owner: The East Ohio Gas Company State: OH Sampling Point: SP-5

Investigator(s): R. Warren, E. Kennedy Section, Township, Range:

Landform (hillside, terrace, etc.): floodplain terrace Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR or MLRA): LRR R, MLRA 139 Lat: 40.757424 Long: -81.372102 Datum: WGS-84

Soil Map Unit Name: SI - Sloan silt loam NWI classification: PFO1C

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

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

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

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	Wetland W-3

Remarks: (Explain alternative procedures here or in a separate report.)
PEM

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Vis ble on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	____
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	3"

Wetland Hydrology Present? **Yes** X **No** ____

Descr be Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: SP-5

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	70	Yes	FACW
2. *Carex lacustris*	10	No	OBL
3. *Verbesina alternifolia*	10	No	FACW
4. *Dipsacus fullonum*	5	No	FACU
5. *Artemisia vulgaris*	5	No	UPL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL

Sampling Point: SP-5

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- _X_ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Appendix D:

Ohio Rapid Assessment Method for

Wetlands v. 5.0 Rating Forms

Background Information

Name: Reiss Warren, Emma Kennedy
Date: 11/23/16
Affiliation: EnviroScience, Inc
Address: 5070 Stow Road, Stow Ohio, 44224
Phone Number: (330) 688-0111
e-mail address: rwarren@EnviroScienceInc.com, ekennedy@EnviroScienceInc.com
Name of Wetland: Wetland W-1 and Wetland W-2
Vegetation Communit(ies): PEM/PSS/PFO
HGM Class(es): Depressional
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. Refer to site wetlands and water resources map.

Lat/Long or UTM Coordinate W-1 (40.754385, -81.390298), W-2 (40.754347, -81.389304)	
USGS Quad Name Canton West	
County Stark	
Township Canton	
Section and Subsection	
Hydrologic Unit Code 05040001	
Site Visit 11/23/16	
National Wetland Inventory Map x	
Ohio Wetland Inventory Map	
Soil Survey x	
Delineation report/map x	

Name of Wetland:
Wetland W-1 and Wetland W-2

Wetland Size (acres, hectares): Wetland W-1 (0.029) onsite; Wetland W-2 (0.329) onsite

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

Refer to site wetlands and water resources map.

Comments, Narrative Discussion, Justification of Category Changes:

Final score : 43 **Category:** 2

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	☒	☐
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	☒	☐
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	☒	☐
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	☒	☐
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	☒	☐
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	☐	☒

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

Site: Wetland W-1 and Wetland W-2

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES ☐ Wetland should be evaluated for possible Category 3 status Go to Question 2	NO ☒ Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES ☐ Wetland is a Category 3 wetland. Go to Question 3	NO ☒ Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES ☐ Wetland is a Category 3 wetland Go to Question 4	NO ☒ Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES ☐ Wetland is a Category 3 wetland Go to Question 5	NO ☒ Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES ☐ Wetland is a Category 1 wetland Go to Question 6	NO ☒ Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES ☐ Wetland is a Category 3 wetland Go to Question 7	NO ☒ Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES ☐ Wetland is a Category 3 wetland Go to Question 8a	NO ☒ Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES ☐ Wetland is a Category 3 wetland. Go to Question 8b	NO ☒ Go to Question 8b

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES ☐ Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO ☒ Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES ☐ Go to Question 9b	NO ☒ Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES ☐ Wetland should be evaluated for possible Category 3 status Go to Question 10	NO ☒ Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES ☐ Go to Question 9d	NO ☒ Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES ☐ Wetland is a Category 3 wetland Go to Question 10	NO ☒ Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES ☐ Wetland should be evaluated for possible Category 3 status Go to Question 10	NO ☒ Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES ☐ Wetland is a Category 3 wetland. Go to Question 11	NO ☒ Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES ☐ Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO ☒ Complete Quantitative Rating

Site: Wetland W-1 and Wetland W-2

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Wetland W-1 and Wetland W-2	**Rater(s):** R. Warren, E. Kennedy	**Date:** 11/23/16

Metric 1. Wetland Area (size).

2	2
max 6 pts.	subtotal

Select one size class and assign score.

- [ ] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [ ] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [x] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [ ] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

12	14
max 14 pts.	subtotal

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

- [x] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [ ] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [ ] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [ ] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- [ ] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [x] LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- [ ] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [ ] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

14.5	28.5
max 30 pts.	subtotal

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

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

3b. Connectivity. Score all that apply.

- [ ] 100 year floodplain (1)
- [x] Between stream/lake and other human use (1)
- [ ] Part of wetland/upland (e.g. forest), complex (1)
- [ ] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- [ ] >0.7 (27.6in) (3)
- [ ] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [x] <0.4m (<15.7in) (1)

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

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

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [ ] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [ ] ditch
- [ ] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [ ] filling/grading
- [ ] road bed/RR track
- [ ] dredging
- [x] other utility easement

Metric 4. Habitat Alteration and Development.

10.5	39
max 20 pts.	subtotal

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

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [ ] Recovering (2)
- [ ] Recent or no recovery (1)

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

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [x] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

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

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

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

39
subtotal this page

last revised 1 February 2001 jjm

Site: Wetland W-1 and Wetland W-2	**Rater(s):** R. Warren, E. Kennedy	**Date:** 11/23/16

39
subtotal first page

Metric 5. Special Wetlands.

0 (max 10 pts.) | 39 (subtotal)

Check all that apply and score as indicated.

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

Metric 6. Plant communities, interspersion, microtopography.

4 (max 20 pts.) | 43 (subtotal)

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

- [ ] Aquatic bed
- [1] Emergent
- [1] Shrub
- [1] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other_____

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

- [ ] High (5)
- [ ] Moderately high(4)
- [ ] Moderate (3)
- [X] Moderately low (2)
- [ ] Low (1)
- [ ] None (0)

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

- [ ] Extensive >75% cover (-5)
- [X] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [ ] Vegetated hummucks/tussucks
- [ ] Coarse woody debris >15cm (6in)
- [1] Standing dead >25cm (10in) dbh
- [1] Amphibian breeding pools

Vegetation Community Cover Scale

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

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

43

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES ☐ NO ☒	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES ☐ NO ☒	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES ☐ NO ☒	If yes, Category 3.
	Question 4. Significant bird habitat	YES ☐ NO ☒	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES ☐ NO ☒	If yes, Category 1.
	Question 6. Bogs	YES ☐ NO ☒	If yes, Category 3.
	Question 7. Fens	YES ☐ NO ☒	If yes, Category 3.
	Question 8a. Old Growth Forest	YES ☐ NO ☒	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES ☐ NO ☒	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES ☐ NO ☒	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES ☐ NO ☐	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES ☐ NO ☐	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES ☐ NO ☒	If yes, Category 3
	Question 11. Relict Wet Prairies	YES ☐ NO ☒	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	12	
	Metric 3. Hydrology	14.5	
	Metric 4. Habitat	10.5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	4	
	TOTAL SCORE	43	Category based on score breakpoints Modified Category 2

Site: Wetland W-1 and Wetland W-2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES ☐ Wetland is categorized as a Category 3 wetland	NO ☒	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES ☐ Wetland should be evaluated for possible Category 3 status	NO ☒	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES ☐ Wetland is categorized as a Category 1 wetland	NO ☒	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES ☒ Wetland is assigned to the appropriate category based on the scoring range	NO ☐	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES ☐ Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO ☒	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES ☐ Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO ☒ Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Site: Wetland W-1 and Wetland W-2

Final Category

Choose one	☐ Category 1	☑ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Reiss Warren, Emma Kennedy
Date: 11/23/16
Affiliation: EnviroScience, Inc
Address: 5070 Stow Road, Stow Ohio, 44224
Phone Number: (330) 688-0111
e-mail address: rwarren@EnviroScienceInc.com, ekennedy@EnviroScienceInc.com
Name of Wetland: Wetland W-3
Vegetation Communit(ies): PEM/PSS/PFO
HGM Class(es): Depressional
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. Refer to site wetlands and water resources map.

Lat/Long or UTM Coordinate 40.757263, -81.372268	
USGS Quad Name Canton East	
County Stark	
Township Canton	
Section and Subsection	
Hydrologic Unit Code 05040001	
Site Visit 11/23/16	
National Wetland Inventory Map x	
Ohio Wetland Inventory Map	
Soil Survey x	
Delineation report/map x	

Name of Wetland: Wetland W-3	
Wetland Size (acres, hectares): 0.960 of an acre onsite	

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

Refer to site wetlands and water resources map.

Comments, Narrative Discussion, Justification of Category Changes:

Final score : 48.5	**Category:** 2

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	☒	☐
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	☒	☐
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	☒	☐
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	☒	☐
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	☐	☒
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	☐	☒

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

Site: Wetland W-3

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES ☐ Wetland should be evaluated for possible Category 3 status Go to Question 2	NO ☒ Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES ☐ Wetland is a Category 3 wetland. Go to Question 3	NO ☒ Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES ☐ Wetland is a Category 3 wetland Go to Question 4	NO ☒ Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES ☐ Wetland is a Category 3 wetland Go to Question 5	NO ☒ Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES ☐ Wetland is a Category 1 wetland Go to Question 6	NO ☒ Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES ☐ Wetland is a Category 3 wetland Go to Question 7	NO ☒ Go to Question 7
Z	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES ☐ Wetland is a Category 3 wetland Go to Question 8a	NO ☒ Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES ☐ Wetland is a Category 3 wetland. Go to Question 8b	NO ☒ Go to Question 8b

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES ☐ Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO ☒ Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES ☐ Go to Question 9b	NO ☒ Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES ☐ Wetland should be evaluated for possible Category 3 status Go to Question 10	NO ☒ Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES ☐ Go to Question 9d	NO ☒ Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES ☐ Wetland is a Category 3 wetland Go to Question 10	NO ☒ Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES ☐ Wetland should be evaluated for possible Category 3 status Go to Question 10	NO ☒ Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES ☐ Wetland is a Category 3 wetland. Go to Question 11	NO ☒ Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES ☐ Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO ☒ Complete Quantitative Rating

Site: Wetland W-3

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Wetland W-3	**Rater(s):** R. Warren, E. Kennedy	**Date:** 11/23/16

Metric 1. Wetland Area (size).

3	3
max 6 pts.	subtotal

Select one size class and assign score.

- [ ] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [x] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [ ] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [ ] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

9	12
max 14 pts.	subtotal

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

- [ ] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [x] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [ ] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [ ] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- [x] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [ ] LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- [x] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [ ] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

17.5	29.5
max 30 pts.	subtotal

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

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

3b. Connectivity. Score all that apply.

- [x] 100 year floodplain (1)
- [x] Between stream/lake and other human use (1)
- [x] Part of wetland/upland (e.g. forest), complex (1)
- [x] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- [ ] >0.7 (27.6in) (3)
- [ ] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [x] <0.4m (<15.7in) (1)

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

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

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

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

Metric 4. Habitat Alteration and Development.

11	40.5
max 20 pts.	subtotal

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

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [x] Recovering (2)
- [ ] Recent or no recovery (1)

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

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [x] Moderately good (4)
- [ ] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

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

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

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

40.5
subtotal this page

last revised 1 February 2001 jjm

Site: Wetland W-3	**Rater(s):** R. Warren, E. Kennedy	**Date:** 11/23/16

40.5
subtotal first page

Metric 5. Special Wetlands.

0 (max 10 pts.) | 40.5 (subtotal)

Check all that apply and score as indicated.

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

Metric 6. Plant communities, interspersion, microtopography.

8 (max 20 pts.) | 48.5 (subtotal)

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

- [ ] Aquatic bed
- [1] Emergent
- [1] Shrub
- [2] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other_____

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

- [ ] High (5)
- [ ] Moderately high(4)
- [X] Moderate (3)
- [ ] Moderately low (2)
- [ ] Low (1)
- [ ] None (0)

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

- [ ] Extensive >75% cover (-5)
- [X] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [1] Vegetated hummucks/tussucks
- [1] Coarse woody debris >15cm (6in)
- [1] Standing dead >25cm (10in) dbh
- [1] Amphibian breeding pools

Vegetation Community Cover Scale

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

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

48.5

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES ☐ NO ☒	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES ☐ NO ☒	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES ☐ NO ☒	If yes, Category 3.
	Question 4. Significant bird habitat	YES ☐ NO ☒	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES ☐ NO ☒	If yes, Category 1.
	Question 6. Bogs	YES ☐ NO ☒	If yes, Category 3.
	Question 7. Fens	YES ☐ NO ☒	If yes, Category 3.
	Question 8a. Old Growth Forest	YES ☐ NO ☒	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES ☐ NO ☒	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES ☐ NO ☒	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES ☐ NO ☐	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES ☐ NO ☐	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES ☐ NO ☒	If yes, Category 3
	Question 11. Relict Wet Prairies	YES ☐ NO ☒	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
	Metric 2. Buffers and surrounding land use	9	
	Metric 3. Hydrology	17.5	
	Metric 4. Habitat	11	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	8	
	TOTAL SCORE	48.5	Category based on score breakpoints Category 2

Site: Wetland W-3

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES ☐ Wetland is categorized as a Category 3 wetland	NO ☒	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES ☐ Wetland should be evaluated for possible Category 3 status	NO ☒	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES ☐ Wetland is categorized as a Category 1 wetland	NO ☒	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES ☒ Wetland is assigned to the appropriate category based on the scoring range	NO ☐	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES ☐ Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO ☒	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES ☐ Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO ☒ Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Site: Wetland W-3

Final Category

Choose one	☐ Category 1	☑ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Appendix E:

Stream Habitat Form (QHEI)

Poor

OhioEPA Qualitative Habitat Evaluation Index Field Sheet

QHEI Score: 32.5

Stream & Location: S-1 (S-1a, S-1b, S-1c) **RM:** — **Date:** 11/23

STORET #: **Scorer Name & Affiliation:** R. Warren, ES

River Code: **Lat./Long.:** 40.757702, -81.385335 (NAD 83 - decimal °) Office verified location ☒

1] SUBSTRATE
Check ONLY Two substrate TYPE BOXES; estimate % or note every type present

BEST TYPES	POOL	RIFFLE	OTHER TYPES	POOL	RIFFLE
☐☐ BLDR/SLABS [10]	—	—	☐☐ HARDPAN [4]	—	—
☐☐ BOULDER [9]	—	—	☐☐ DETRITUS [3]	—	5
☐☐ COBBLE [8]	—	10	☐☐ MUCK [2]	—	—
☐☐ GRAVEL [7]	—	15	☒☐ SILT [2]	—	20
☐☒ SAND [6]	—	30	☐☐ ARTIFICIAL [0]	—	20
☐☐ BEDROCK [5]	—	—	(Score natural substrates; ignore sludge from point-sources)		

NUMBER OF BEST TYPES: ☐ 4 or more [2] ☐ 3 or less [0]

Check ONE (Or 2 & average)

ORIGIN
☐ LIMESTONE [1]
☐ OUTWASH [1]
☐ WETLANDS [0]
☐ HARDPAN [0]
☒ SANDSTONE [0]
☒ RIP/RAP [0]
☐ LACUSTRINE [0]
☐ SHALE [-1]
☐ COAL FINES [-2]

QUALITY
SILT: ☐ HEAVY [-2] ☒ MODERATE [-1] ☐ NORMAL [0] ☐ FREE [1]
EMBEDDEDNESS: ☒ EXTENSIVE [-2] ☐ MODERATE [-1] ☐ NORMAL [0] ☐ NONE [1]

Substrate 5 (Maximum 20)

Comments

2] INSTREAM COVER
Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

— UNDERCUT BANKS [1]
1 OVERHANGING VEGETATION [1]
— SHALLOWS (IN SLOW WATER) [1]
— ROOTMATS [1]
— POOLS > 70cm [2]
— ROOTWADS [1]
— BOULDERS [1]
— OXBOWS, BACKWATERS [1]
— AQUATIC MACROPHYTES [1]
1 LOGS OR WOODY DEBRIS [1]

AMOUNT Check ONE (Or 2 & average)
☐ EXTENSIVE >75% [11]
☐ MODERATE 25-75% [7]
☐ SPARSE 5-<25% [3]
☒ NEARLY ABSENT <5% [1]

Comments

Cover Maximum 20: 3 (8)

3] CHANNEL MORPHOLOGY
Check ONE in each category (Or 2 & average)

SINUOSITY
☐ HIGH [4]
☐ MODERATE [3]
☒ LOW [2]
☐ NONE [1]

DEVELOPMENT
☐ EXCELLENT [7]
☐ GOOD [5]
☒ FAIR [3]
☒ POOR [1]

CHANNELIZATION
☐ NONE [6]
☐ RECOVERED [4]
☒ RECOVERING [3]
☐ RECENT OR NO RECOVERY [1]

STABILITY
☐ HIGH [3]
☒ MODERATE [2]
☒ LOW [1]

Comments Channelized

Channel Maximum 20: 8.5 (16.5)

4] BANK EROSION AND RIPARIAN ZONE
Check ONE in each category for EACH BANK (Or 2 per bank & average)
River right looking downstream

EROSION (L / R)
☐☐ NONE / LITTLE [3]
☒☒ MODERATE [2]
☐☐ HEAVY / SEVERE [1]

RIPARIAN WIDTH (L / R)
☐☐ WIDE > 50m [4]
☐☐ MODERATE 10-50m [3]
☐☐ NARROW 5-10m [2]
☒☐ VERY NARROW < 5m [1]
☐☒ NONE [0]

FLOOD PLAIN QUALITY (L / R)
☐☐ FOREST, SWAMP [3]
☐☐ SHRUB OR OLD FIELD [2]
☒☒ RESIDENTIAL, PARK, NEW FIELD [1]
☐☐ FENCED PASTURE [1]
☐☐ OPEN PASTURE, ROWCROP [0]
☐☐ CONSERVATION TILLAGE [1]
☐☐ URBAN OR INDUSTRIAL [0]
☐☐ MINING / CONSTRUCTION [0]

Indicate predominant land use(s) past 100m riparian.

Comments

Riparian Maximum 10: 3.5

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH Check ONE (ONLY!)
☐ > 1m [6]
☐ 0.7-<1m [4]
☐ 0.4-<0.7m [2]
☐ 0.2-<0.4m [1]
☒ < 0.2m [0]

CHANNEL WIDTH Check ONE (Or 2 & average)
☐ POOL WIDTH > RIFFLE WIDTH [2]
☒ POOL WIDTH = RIFFLE WIDTH [1]
☐ POOL WIDTH < RIFFLE WIDTH [0]

CURRENT VELOCITY Check ALL that apply
☐ TORRENTIAL [-1]
☐ VERY FAST [1]
☐ FAST [1]
☐ MODERATE [1]
☒ SLOW [1]
☐ INTERSTITIAL [-1]
☐ INTERMITTENT [-2]
☐ EDDIES [1]
Indicate for reach - pools and riffles.

Comments

Pool / Current Maximum 12: 2 (21.5)

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (Or 2 & average). ☐ NO RIFFLE [metric=0]

RIFFLE DEPTH
☐ BEST AREAS > 10cm [2]
☐ BEST AREAS 5-10cm [1]
☒ BEST AREAS < 5cm [metric=0]

RUN DEPTH
☐ MAXIMUM > 50cm [2]
☒ MAXIMUM < 50cm [1]

RIFFLE / RUN SUBSTRATE
☐ STABLE (e.g., Cobble, Boulder) [2]
☒ MOD. STABLE (e.g., Large Gravel) [1]
☒ UNSTABLE (e.g., Fine Gravel, Sand) [0]

RIFFLE / RUN EMBEDDEDNESS
☐ NONE [2]
☐ LOW [1]
☒ MODERATE [0]
☒ EXTENSIVE [-1]

Comments

Riffle / Run Maximum 8: 0

6] GRADIENT
(24.7 ft/mi) **DRAINAGE AREA** (1.14 mi²)

%POOL: (—) %GLIDE: (—)
%RUN: (80) %RIFFLE: (20)

Gradient Maximum 10: 10

ft/5280ft x 1mi

METHOD

- ☐ BOAT
- ☒ WADE
- ☐ L. LINE
- ☐ OTHER

SECCHI DEPTH

1st pass _____ cm

2nd _____ cm

DISTANCE

- ☐ 0.5 Km
- ☐ 0.2 Km
- ☐ 0.15 Km
- ☐ 0.12 Km
- ☒ OTHER

_____ meters

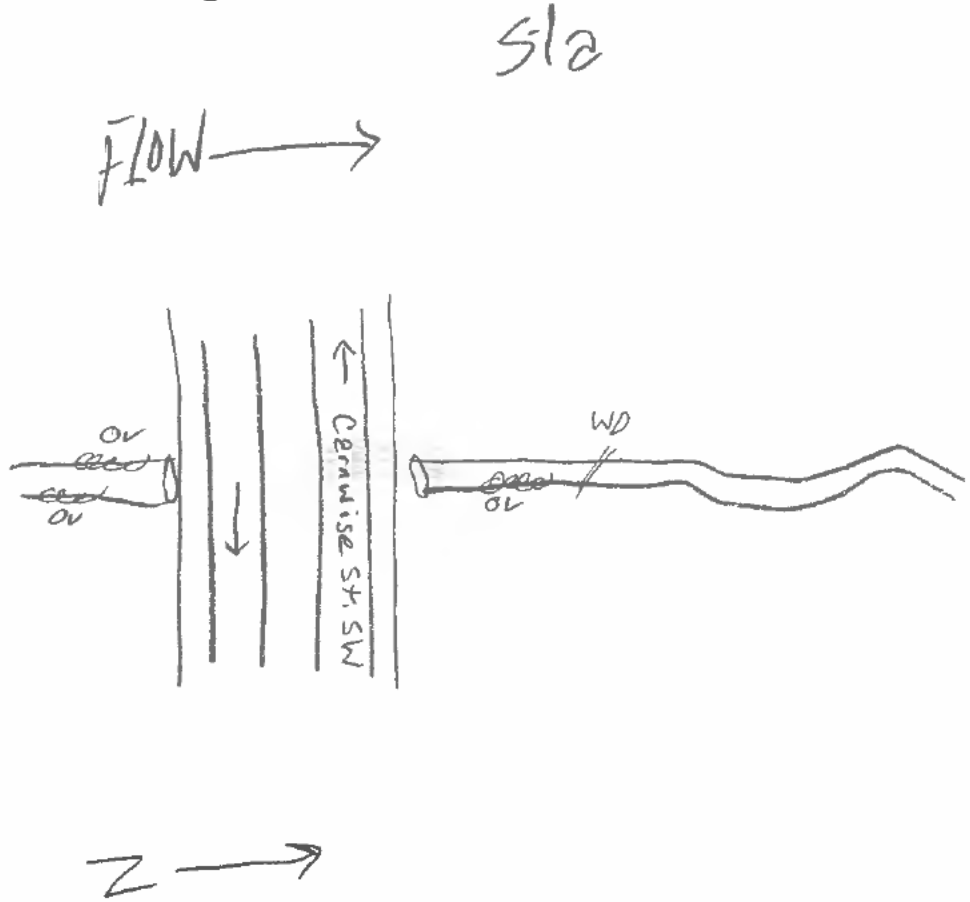
CANOPY

- ☐ > 85%- OPEN
- ☐ 55%-<85%
- ☐ 30%-<55%
- ☒ 10%-<30%
- ☐ <10%- CLOSED

Comment RE: Reach consistency/ Is reach typical of steam?, *Recreation/* Observed - Inferred, *Other/* Sampling observations, Concerns, Access directions, etc.

Consider maintenance status and basin issues. Write something to aide understanding of overall QHEI score.

Stream Drawing:



ATTACHMENT E

OHIO HISTORIC PRESERVATION OFFICE MAP

NWP Decision Information for Utility Line Replacement under NWP #3 (Maintenance)

*Activities under item (a); Must replace with like structure and cannot fill where there was a culvert

Project Name: PIR 2647 - 37th and Cleveland

Location: Carnwise Street SW, off-road easement, and intersecting streets HUC: 05040001

Water Resources Impacted: Wetlands W-2, W-3, and Stream S-1

PCN Notification Assessment **For Linear projects, impacts counted per crossing:

Work in a Section 10 water with >10 square yards of fill in OHWM (SRC a, pg. 18)?	No	Any work in the Ohio or Muskingum Rivers (SRC a, pg. 18)?	No
Stream channel modification >50' upstream or 50' downstream of structure (SRC a, pg. 18)?	No	Will PRTs within wetlands or streams be cut (GC 5a pg. 9)?	No
Rip-rap over 200' in OHWM (SRC b, pg. 18)?	No	Is an in-water work waiver required (RGC 4 pg. 8)?	No
Impacts within township or stream listed in Appendix 1 (pg. 14)?	No	Critical Habitat Impacted (Erie, Lake, Coshocton, Union,Madison, Williams Co.) (GC 5b, pg 10)?	No
Impacts to a National Wild/Scenic River (Big/Little Darby, Little Beaver, Little Miami (GC16 pg. 74; RGC 6d pg. 13)?	No	Project located along Lake Erie, Sandusky Bay, or Maumee Bay (SRC c, pg. 18)?	No
In the Oak Openings Region (Lucas, Henry, Fulton Co.) (GC 5c pg. 11)?	No	Will OHPO properties be impacted (GC 20 pg. 76)?	No
		Relocation of vertical bulkhead closer to water?	No

****If the above are all 'No' the project is eligible for a non-notification NWP****

NWP Type? Non-Notification

Individual 401 Water Quality Certification Limits on NWP #3 **For linear projects, impacts counted per crossing

Permanent/Temporary Cat 1/2 wetland impacts >0.5 acres at any crossing?	No	Permanent/Temporary Category 3 wetland impacts > 0.1 acres at any crossing?	No
Culvert extension over 300 feet?	No	Relocation of vertical bulkhead closer to water?	No

****If the above are all 'No' the project is eligible for the General WQC for NWP 12****

401 WQC Type? General NWP WQC

If a project is eligible for WQC under NWP *and* non-notification NWP:

Any impacts to Category 3 wetland?	No	Wetland impacts > 0.1 acre per crossing?	Yes

****If either of the above are 'yes' OEPA must be notified (see page 90 for requirements)**

OEPA Notification Required? Yes

Decision Rationale and Other Comments or Recommendations:

A Project Notification was sent to Ohio EPA on January 5, 2018 due to impact greater than 0.1 acre for two onsite wetlands. OEPA requested an ORAM verification for the onsite wetlands. On March 27, 2018, Cara Hardesty with OEPA was onsite for the ORAM verification. On March 29, 2018, she indicated Wetlands W-1 and W-2 are within the range of Modified Category 2 wetlands and Wetland W-3 is within the range of a Category 2 wetland.

ATTACHMENT F

OHIO ENVIRONMENTAL PROTECTION AGENCY
OHIO RAPID ASSESSMENT METHOD VERIFICATION DOCUMENTATION

Gregory K Eastridge (Services - 6)

From: Cara.Hardesty@epa.ohio.gov
Sent: Thursday, March 29, 2018 11:33 AM
To: Gregory K Eastridge (Services - 6)
Subject: [External] PIR 2647 - 37th & Cleveland ORAM Verification Notification

Greg,
For the proposed East Ohio Gas Company Pipeline Infrastructure Replacement 2647 - 37th and Cleveland project located in Canton Township, I have verified that the ORAM score for wetlands W-1 and W-2 falls within the Modified Category 2 scoring category, and that the ORAM score for wetland W-3 falls within the Category 2 scoring category. Please let me know if you have any questions.

Thank you,

Cara Hardesty

Ohio Environmental Protection Agency

Division of Surface Water
Section 401 and WQCP Certification
(614) 644-2143

ATTACHMENT G

OHIO ENVIRONMENTAL PROTECTION AGENCY
NOTICE OF INTENT GENERAL CONSTRUCTION STORMWATER PERMIT

Division of Surface Water - Notice of Intent (NOI) For Coverage Under Ohio *Environmental Protection Agency General NPDES Permit*

(Read accompanying instructions carefully before completing this form)

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit Complete all required information as indicated by the instructions Do not use correction fluid on this form Forms transmitted by fax will not be accepted A check for the proper amount must accompany this form and be made payable to "Treasurer State of Ohio " (See the fee table in Attachment C of the NOI instructions for the appropriate processing fee)

I. Applicant Information/Mailing Address

Company (Applicant) Name: The East Ohio Gas Co d/b/a Dominion Energy Ohio

Mailing (Applicant) Address: 320 Springside Drive, Suite 320

City: Akron	**State :** OH	**Zip Code:** 44333

Country: USA

Contact Person: Greg Eastridge	**Phone:** (330) 664-2576	**Fax:** (330) 664-2669

Contact E-mail Address: Gregory.K.Eastridge@DominionEnergy.com

II. Facility/Site Location Information

Facility/Site Name: PIR 2647 37th and Cleveland

Facility Address: Carnwise Street and nearby streets

City: NA	**State:** OH	**Zip Code:** 44706

County: Stark	**Township:** Canton

Facility Contact Person: Dave Hollendonner	**Phone:** (330) 664-2677	**Fax:** (330) 664-2691

Facility Contact E-mail Address: david.hollendonner@dominionenergy.com

Latitude: 40.756656	**Longitude:** -81.380536	**Facility/Map Attachment** PIR2647_Map1_Topo.pdf

Receiving Stream or MS4: Canton Township MS4 Permit No. 3GQ00054*CG, Nimishillen Creek, Stark County MS4 Permit No. 3GQ00120*CG

III. General Permit Information

General Permit Number: OHC000005	**Initial Coverage:** Y **Renewal Coverage:** N
Type of Activity: Construction Site Stormwater General Permit	**SIC Code(s):**
Existing NPDES Facility Permit Number:	**ODNR Coal Mining Application Number:**
If Household Sewage Treatment System, is system for:	**New Home Construction:** / **Replacement of failed existing system:**

Outfall	Design Flow (MGD):	Associated Permit Effluent Table:	Receiving Water :	Latitude	Longitude

Are These Permits Required?	**PTI:** NO	**Individual 401 Water Quality Certification:** NO
Individual NPDES: NO	**Isolated Wetland:** NO	**U.S. Army Corp Nationwide Permit:** APPROVED
Proposed Project Start Date(if applicable): July 19, 2021		**Estimated Completion Date(if applicable):** December 31, 2021
Total Land Disturbance (Acres): 3.8		**MS4 Drainage Area (Sq. Miles):**

SWP3 Attachment(s): <None>

IV. Payment Information

Check #:	**For Ohio EPA Use Only**	
Check Amount:	**Check ID(OFA):**	**ORG #:**
Date of Check:	**Rev ID:**	**DOC #:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information the information submitted is to the best of my knowledge and belief true accurate and complete I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations

Applicant Name: Frank Martin	**Title:** Director - Gas Operations

Signature:	Date:
Electronically submitted by FrankMartin	Electronically submitted on 07/01/2021

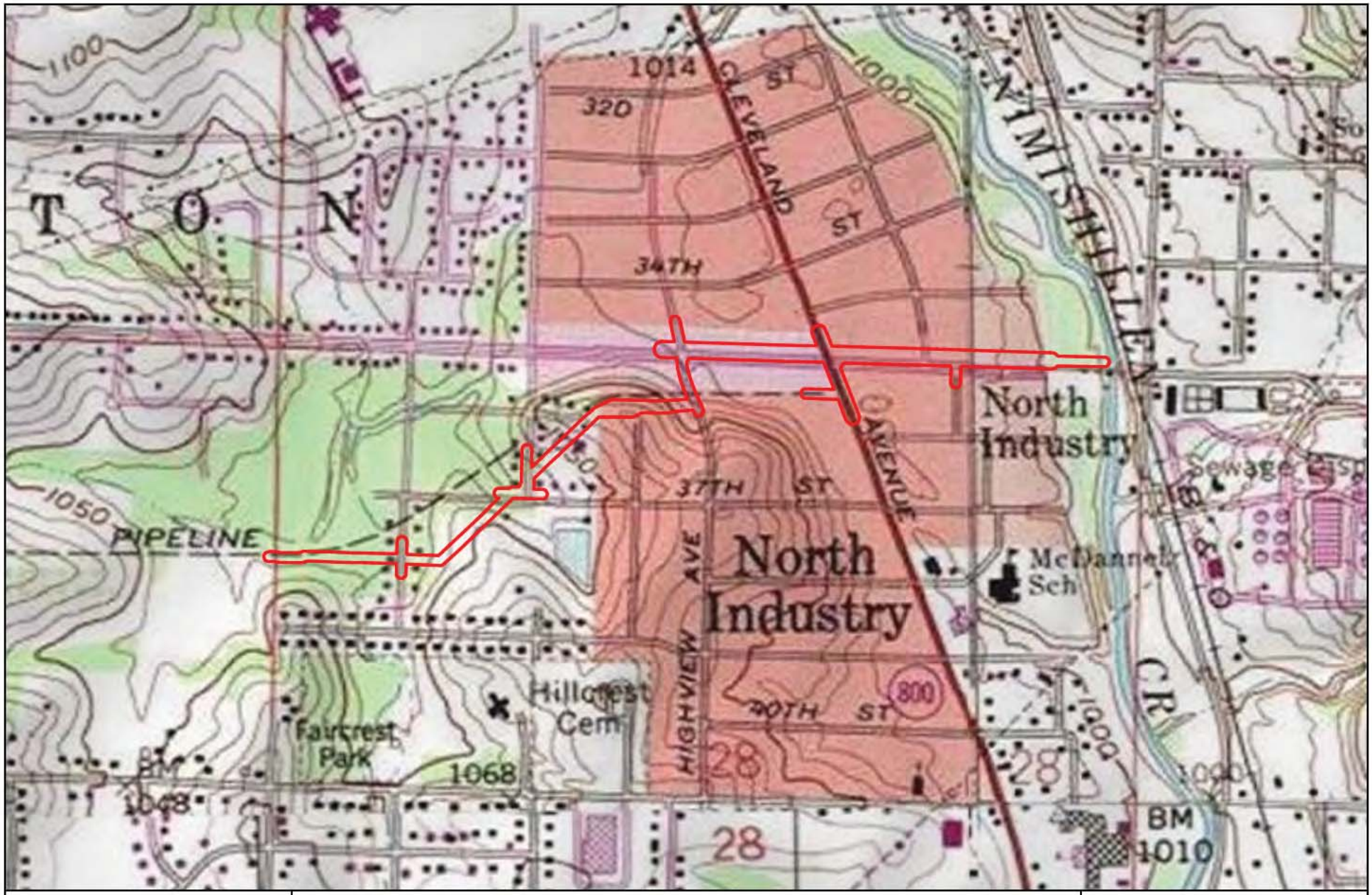


Figure 1. USGS 7.5-minute Topographic Map of Canton West and Canton East Quadrangle. PIR 2647 - 37th and Cleveland.

EnviroScience
Excellence In Any Environment

Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\Map1_Topo.mxd

Date: 5/24/2021

Basemap courtesy of National Geographic Society (2013).

Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

Jul 08, 2021

The East Ohio Gas Co d/b/a Dominion Energy Ohio
Greg Eastridge
320 Springside Drive, Suite 320
Akron, OH 44333

Re: Approval Under Ohio EPA National Pollutant Discharge Elimination System (NPDES) - Construction Site Stormwater General Permit - OHC000005

Dear Applicant,

Your NPDES Notice of Intent (NOI) application is approved for the following facility/site. Please use your Ohio EPA Facility Permit Number in all future correspondence.

Facility Name:	PIR 2647 37th and Cleveland
Facility Location:	Carnwise Street and nearby streets
City:	Canton Township
County:	Stark
Township:	Canton
Ohio EPA Facility Permit Number:	3GC12377*AG
Permit Effective Date:	Jul 08, 2021

Please read and review the permit carefully. The permit contains requirements and prohibitions with which you must comply. Coverage under this permit will remain in effect until a renewal of the permit is issued by the Ohio EPA.

If more than one operator (defined in the permit) will be engaged at the site, each operator shall seek coverage under the general permit. Additional operator(s) shall submit a Co-Permittee NOI to be covered under this permit. There is no fee associated with the Co-Permittee NOI form.

Please be aware that this letter only authorizes discharges in accordance with the above referenced NPDES CGP. The placement to fill into regulated waters of the state may require a 401 Water Quality Certification and/or Isolated Wetlands Permit from Ohio EPA. Also, a Permit-To-Install (PTI) is required for the construction of sanitary or industrial wastewater collection, conveyance, storage, treatment, or disposal facility; unless a specific exemption by rule exists. Failure to obtain the required permits in advance is a violation of Ohio Revised Code 6111 and potentially subjects you to enforcement and civil penalties.

To view your electronic submissions and permits please Logon in to the Ohio EPA's eBusiness Center at http://ebiz.epa.ohio.gov.

If you need assistance or have questions please call (614) 644-2001 and ask for Construction Site Stormwater General Permit support or visit our website at http://www.epa.ohio.gov.

Sincerely,

Laurie A. Stevenson
Director

ATTACHMENT H

UNITED STATES FISH AND WILDLIFE SERVICE IPAC SUMMARY

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Stark County, Ohio

Local office

Ohio Ecological Services Field Office

(614) 416-8993
(614) 416-8994

4625 Morse Road, Suite 104
Columbus, OH 43230-8355

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Indiana Bat Myotis sodalis — Endangered
Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat Myotis septentrionalis — Threatened
Wherever found

This species only needs to be considered if the following condition applies:

- Incidental take of the northern long-eared bat is not prohibited at this location. Federal action agencies may conclude consultation using the streamlined process described at https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9045

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Blue-winged Warbler Vermivora pinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Golden-winged Warbler Vermivora chrysoptera This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20

Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

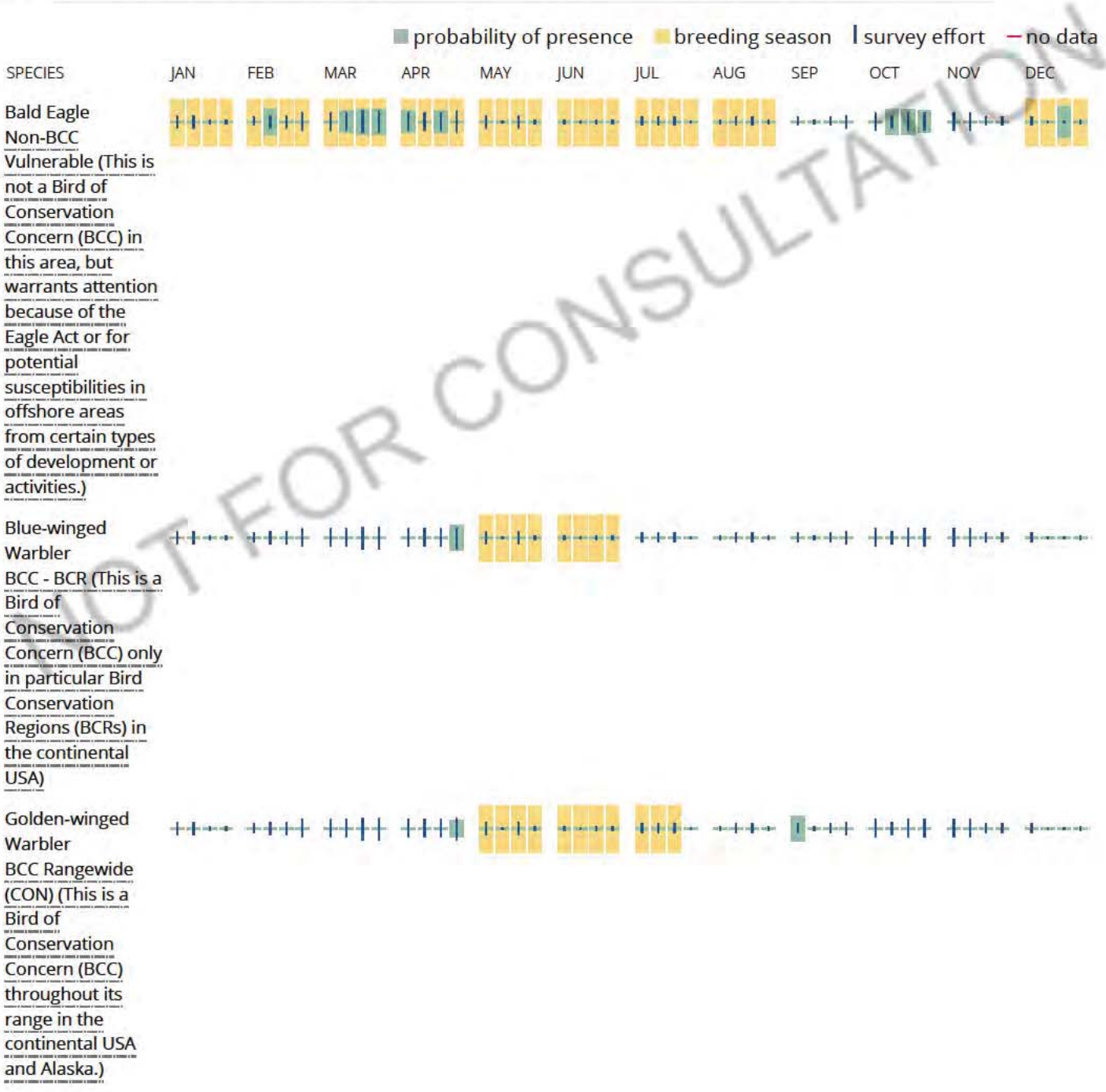
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

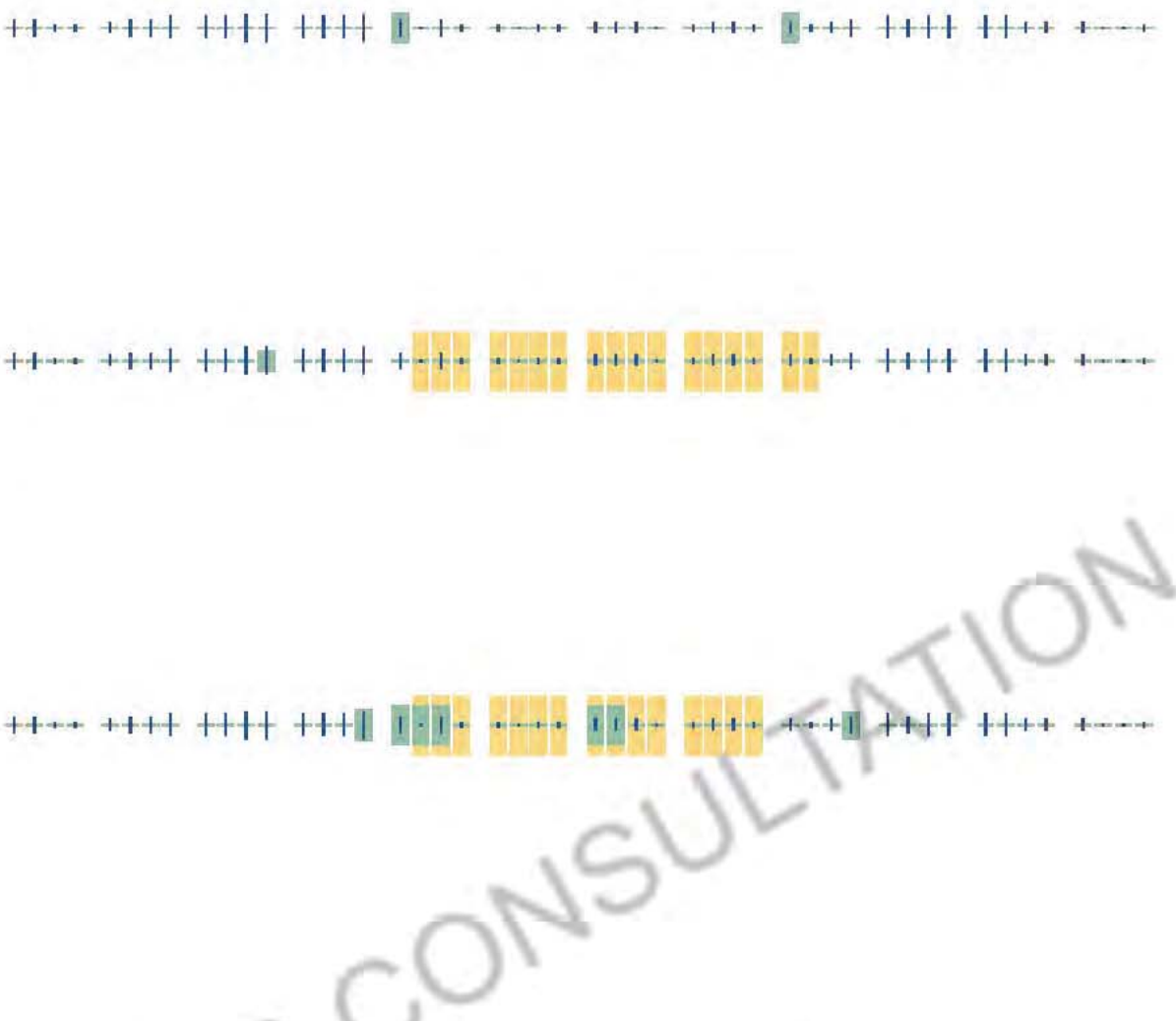
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Lesser Yellowlegs BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Red-headed Woodpecker BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wood Thrush BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1C
- PSS1C
- PSS1/EM1C
- PFO1/SS1C

FRESHWATER POND

- PUBG

RIVERINE

- R2UBG
- R4SBC
- R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

ATTACHMENT I

OHIO HISTORIC PRESERVATION OFFICE LITERATURE REVIEW

Dominion Energy Services, Inc.
320 Springside Drive, Suite 320
Akron, Ohio 44333
DominionEnergy.com

June 17, 2021

BY EMAIL

Michael Pettegrew
Ohio Department of Natural Resources
Office of Real Estate
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693

RE: The East Ohio Gas Company, Pipeline Infrastructure Replacement Program
Ohio Listed Species Consultation
PIR 2647 – 37th and Cleveland

Dear Mr. Pettegrew:

The East Ohio Gas Company, d/b/a Dominion Energy Ohio (DEO), requests review of the following information regarding the Pipeline Infrastructure Replacement (PIR) project, PIR 2647 – 37th and Cleveland project. To assist with review of the project, site maps and photographs are enclosed.

Project Purpose, Description, and Location

DEO is proposing to install approximately 6,255 feet of replacement natural gas pipeline (three [3], six [6], eight [8], and twelve [12]-inch diameter) under the PIR program. The purpose of the program is to replace existing pipe to ensure safety and reliability of pipeline operations.

The PIR 2674 – 37th and Cleveland project is located in Canton Township, Stark County within the existing road right-of-way of Carnwise Street SW, Cleveland, Avenue South, 37th Street SW, an off-road easement, and other several intersecting roads. The latitude and longitude coordinates for the center point of the project area are 40.756674°, -81.380407°. The project area is indicated on an excerpt of the Canton West and Canton East, Ohio USGS 7.5-minute topographic maps and a project area map, located in Attachment A. Representative photographs of the site are included in Attachment B.

Site Description

Ecological surveys of the project area were conducted in November 2016 and March 2017. These surveys were performed to collect information on potential wetlands, streams, and protected species habitat. The project area is composed of residential and commercial land uses, and utility easement. The vegetative communities within the project area includes maintained lawn and forest with a small amount of open field.

Three (3) wetlands were identified within the project area and are shown on Figures 1.01 and 1.03 (Attachment A). The onsite portions of Wetland W-1 and Wetland W-2 are dominated by a palustrine emergent (PEM) community and are part of a larger wetland extending offsite to the north. Wetland W-3 is a floodplain wetland abutting Nimishillen Creek. The onsite portion of Wetland W-3 is composed primarily of invasive reed canarygrass with sparse shrubs and trees. None of the onsite portions of the three (3) wetlands consist of habitats such as: large wet meadows, dense shrubby swamps, marshes, prairies, grasslands, and dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation. Additionally, no open water resources are located within the project area.

One (1) stream (Stream S-1) exists within the project area and is shown on Figure 1.01 (Attachment A). A pipeline exposure is located in Stream S-1. Stream S-1 is classified as an intermittent stream and flows north through the project area and eventually into Nimishillen Creek. Nimishillen Creek is located east of the project area. Representative photographs of onsite water resources are included in Attachment B.

To complete the project, the two (2) of the onsite wetlands (Wetlands W-2 and W-3) and Stream S-1 will be temporarily impacted for pipeline installation. Following project activities, the disturbed areas will be restored to pre-construction grade and revegetated.

The project area is in located in a residential setting with trees of various sizes scattered throughout the project area. In addition, two (2) forested areas are located within the western portion of the project area, within the off-road easement. Within the project area, three (3) trees were identified with characteristics which may potentially provide some level of roosting habitat for listed bat species. The locations of these trees are indicated on Figures 1.01-1.02 in Attachment A. Representative photographs of potential habitat trees are included in Attachment B.

A desktop analysis hibernacula evaluation was competed for a one (1)-mile radius surrounding the project area using available GIS layers to depict karst areas, mining activity, mineral operations, topography, vegetative type, and land uses within the project area. No areas that displayed high potential for bat hibernacula were found during this review. In addition, no potential hibernacula were determined to be onsite during the field review.

Project construction activities (e.g., mowing/clearing, grading, trench excavation, spoil storage, backfilling, and restoration) will expose bare soils and increase the potential for erosion and sedimentation. Best Management Practices (BMPs) will be implemented throughout construction to minimize storm water runoff, soil erosion, and the transport of sediments from the construction area, and to protect the aquatic resources located in and/or adjacent to the project area.

Request for Finding

Considering the information above, DEO is requesting a finding from the Ohio Department of Natural Resources regarding any adverse effect to any state-listed species and natural areas with ecological and/or geological significance.

An email response would be greatly appreciated. Please send the email to Greg Eastridge at gregory.k.eastridge@dominionenergy.com. If you have any questions or need additional information, please contact Greg Eastridge at (330) 664-2576.

Sincerely,

for:

Jason P. Ericson
Director Environmental Services

Enclosures

cc: Greg Eastridge

Attachment A
(Maps)

Figure 1. Site Map Overview of Wetlands and Other Water Resources. PIR 2647 - 34th and Cleveland.

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Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\Map1_ODNR_Overview.mxd

Date: 5/24/2021

Basemap courtesy of Esri.

Figure 1.01. Site Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

- Potential Roost Tree
- Potential Roost Tree (Offsite)
- Sample Plot
- M&R Station
- Inlet
- Inlet (Offsite)
- Culvert
- Culvert (Offsite)
- Stream (Intermittent)
- Stream (Offsite)
- Nimishillen Creek (Offsite)
- Wetland (PEM)
- Wetland (Offsite)
- 100-Year Flood Zone
- Pipeline (To Be Abandoned)
- Existing Pipeline
- Proposed Pipeline
- Project Area
- Project Area Buffer (Add'l 20')

0 125 250 500 Feet

0 25 50 100 Meters

1.01

EnviroScience
Excellence In Any Environment

Date: 5/24/2021 Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\Map1_Site_ODNR.mxd

Basemap courtesy of Esri.

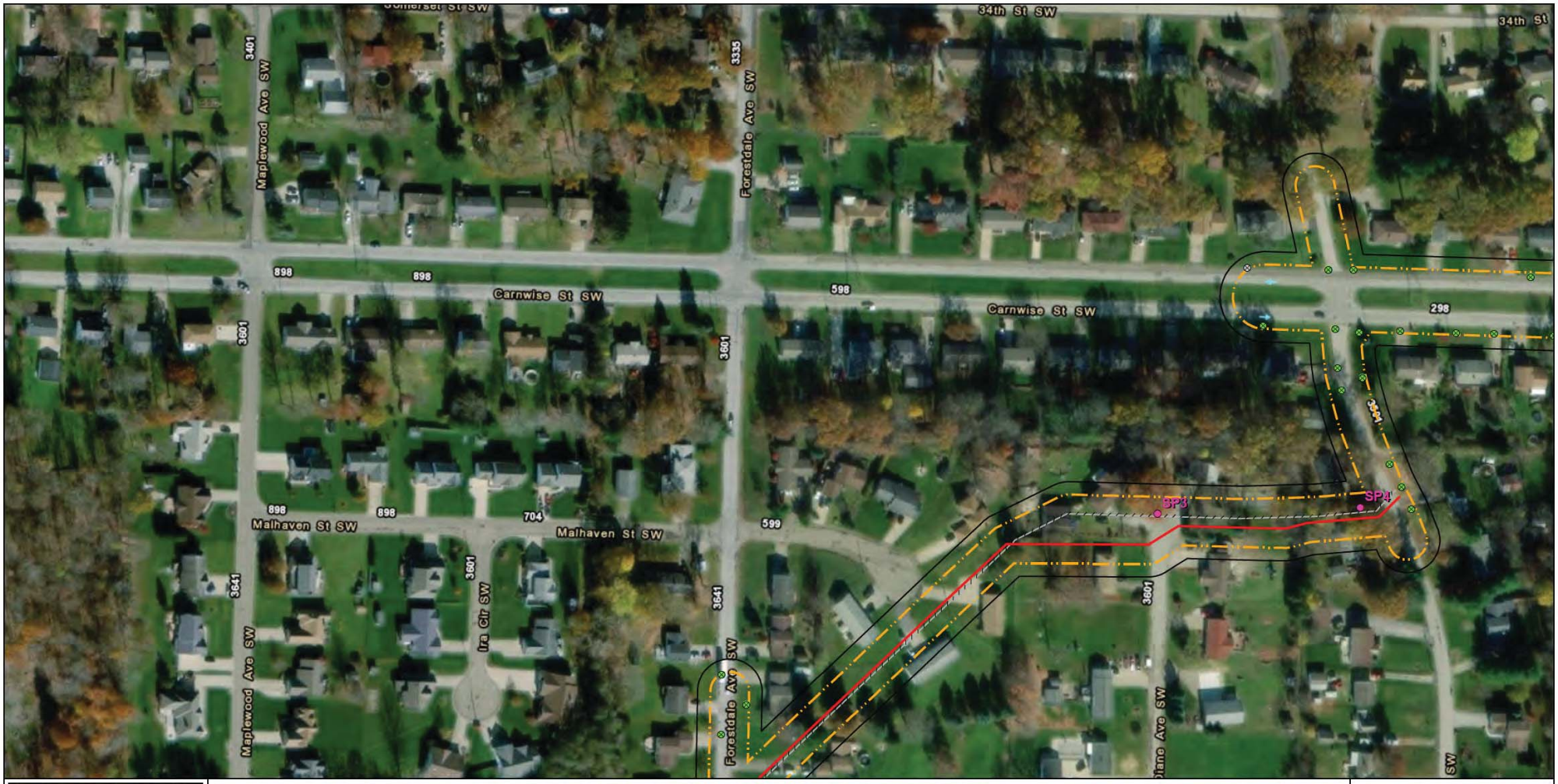

Figure 1.02. Site Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

- Potential Roost Tree
- Potential Roost Tree (Offsite)
- Sample Plot
- M&R Station
- Inlet
- Inlet (Offsite)
- Culvert
- Culvert (Offsite)
- Stream (Intermittent)
- Stream (Offsite)
- Nimishillen Creek (Offsite)
- Wetland (PEM)
- Wetland (Offsite)
- 100-Year Flood Zone
- Pipeline (To Be Abandoned)
- Existing Pipeline
- Proposed Pipeline
- Project Area
- Project Area Buffer (Add'l 20')

0 125 250 500 Feet

0 25 50 100 Meters

1.02

EnviroScience
Excellence In Any Environment

Date: 5/24/2021 Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\Map1_Site_ODNR.mxd

Basemap courtesy of Esri.

Figure 1.03. Site Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

- Potential Roost Tree
- Potential Roost Tree (Offsite)
- Sample Plot
- M&R Station
- Inlet
- Inlet (Offsite)
- Culvert
- Culvert (Offsite)
- Stream (Intermittent)
- Stream (Offsite)
- Nimishillen Creek (Offsite)
- Wetland (PEM)
- Wetland (Offsite)
- 100-Year Flood Zone
- Pipeline (To Be Abandoned)
- Existing Pipeline
- Proposed Pipeline
- Project Area
- Project Area Buffer (Add'l 20')

0 125 250 500 Feet

0 25 50 100 Meters

1.03

EnviroScience
Excellence In Any Environment

Date: 5/24/2021 Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\Map1_Site_ODNR.mxd

Basemap courtesy of Esri.

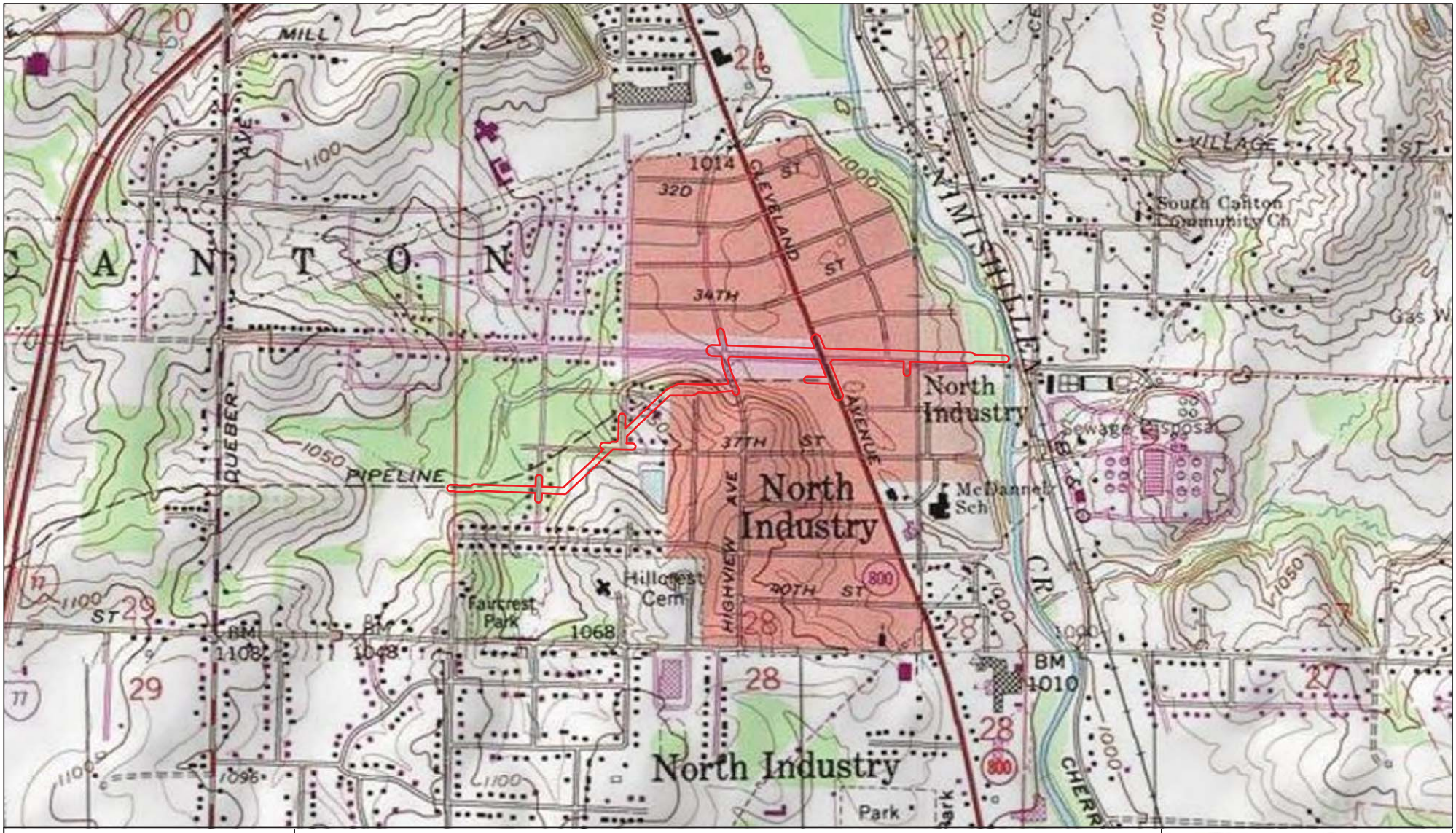

Figure 2. USGS 7.5-minute Topographic Map of Canton East and Canton West Quadrangles.
PIR 2647 - 34th and Cleveland.

Project Area

0 750 1,500 3,000 Feet

0 250 500 1,000 Meters

EnviroScience
Excellence In Any Environment

Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\Map2_Topo.mxd

Date: 5/24/2021

Basemap courtesy of National Geographic Society (2013).

Attachment B
(Photographs)

Photo 1. Typical forest community within the project area.

Photo 2. Typical maintained lawn community within the project area.

Photo 3. Typical open field community within the project area.

Photo 4. Typical palustrine emergent wetland within the project area.

Photo 5. Intermittent stream within the project area.

Photo 6. Potential roost tree (PRT) 1, a standing dead tree within the project area.

Photo 7. PRT 2, a standing dead tree within Wetland 2 in the project area.

Photo 8. PRT 3, a silver maple (*Acer saccharinum*) within the project area.

ATTACHMENT J

OHIO DEPARTMENT OF NATURAL RESOURCES COORDINATION

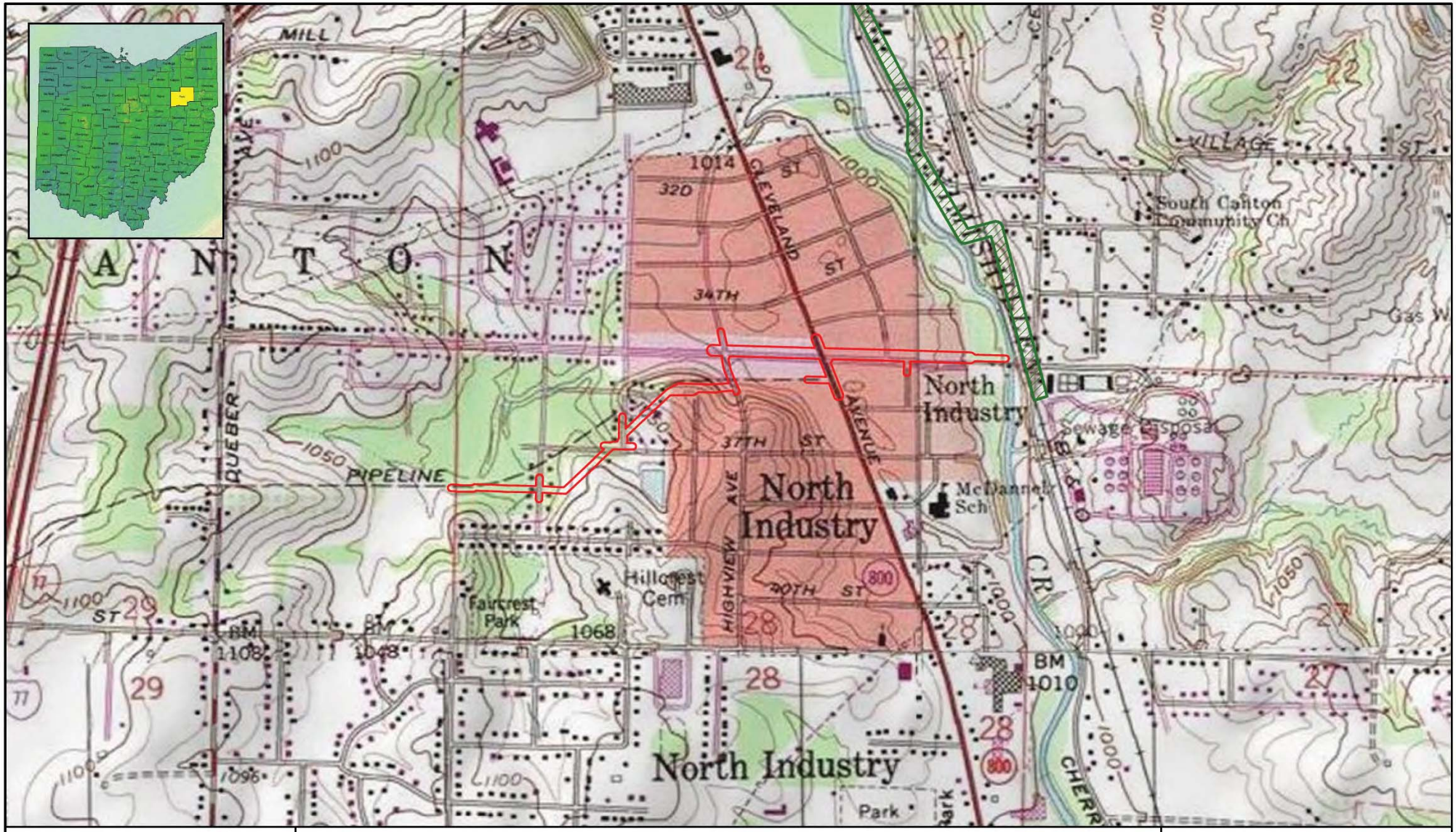

Figure 2. OHPO Topographic Map.
PIR 2647 - 34th and Cleveland.

Phase 1
Project Area

0 750 1,500 3,000 Feet
0 250 500 1,000 Meters

EnviroScience
Excellence In Any Environment

Path: D:\Dominion PIR\P R 2647\OHPO\Map2_OHPO.mxd
Date: 7/29/2021

Basemap courtesy of National Geographic Society (2013). Historic data courtesy of The Ohio History Connection (www.ohiohistory.org). Date created: Date: 7/29/2021.

ATTACHMENT K

STORMWATER POLLUTION PREVENTION PLAN

OHIO GENERAL PERMIT AUTHORIZATION FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

The East Ohio Gas Company, d/b/a Dominion Energy Ohio
Stormwater Pollution Prevention Plan (SWP3)

PIR 2647 – 37th and Cleveland
Canton Township, Stark County, Ohio

Planned Construction Start Date: July 2021

Planned Construction Completion Date: December 2021

Construction Supervisor: _____

Telephone: _____

Project Manager (signature): _____

Construction Contractor (signature): _____

Environmental Inspector (signature): _____

Note:
THIS PLAN MUST BE KEPT AT THE CONSTRUCTION SITE DURING WORKING HOURS

SWP3 Prepared: June 17, 2021
Prepared by: Dominion Energy and EnviroScience Inc.

CERTIFICATIONS

Owner/Developer Certification (must be signed by president, vice-president or equivalent or ranking elected official)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

Signature Date

_____

Printed Name

_____

Title

If authorization is no longer accurate because of a different individual or position has responsibility for the overall operation of the Project, a new authorization must be submitted to the Director prior to, or together with any reports, information, or applications to be signed by an authorized representative.

Contractor(s) Certification (must be signed by president, vice-president or equivalent or ranking elected official)

I certify under penalty of law that I have reviewed this document, any attachments, and the SWP3 referenced above. Based on my inquiry of the construction site owner/developer identified above, and/or my inquiry of the person directly responsible for assembling this SWP3, I believe the information submitted is accurate. I am aware that this SWP3, if approved, makes the above-described construction activity subject to the Ohio NPDES General Permit, and that certain activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations and for failure to comply with these permit requirements.

_____
Primary Contractor Name

_____

_____
Primary Contractor Address

_____ _____
Signature Date

_____
Printed Name

_____
Title

_____
Subcontractor Name

_____

_____
Subcontractor Address

_____ _____
Signature Date

_____
Printed Name

_____
Title

OHIO GENERAL PERMIT AUTHORIZATION FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES STORMWATER POLLUTION PREVENTION PLAN

THE EAST OHIO GAS COMPANY, d/b/a DOMINION ENERGY OHIO
PIR 2647 – 37th and Cleveland
Canton Township, Stark County, Ohio

TABLE OF CONTENTS

SECTION **Page**

LIST OF TABLES

LIST OF APPENDICES

LIST OF DEFINITIONS

BMP	Best Management Practice
C&DD	Construction and Demolition Debris
CWA	Clean Water Act
Director	the Director of the Ohio Environmental Protection Agency
E&S	Erosion and Sediment
EDv	Extended Detention Volume
EPA	Environmental Protection Agency
General Permit	General Permit for Stormwater Discharges Associated with Construction Activities Under the National Pollutant Discharge Elimination System Permit No. OHC000005, effective April 23, 2018, expires April 22, 2023
HUC	Hydrologic Unit Code
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
OAC	Ohio Administrative Code
ORAM	Ohio Rapid Assessment Method
ORC	Ohio Revised Code
PCSM	Post-Construction Stormwater Management
PTI	Permit to Install
SPCC	Spill Prevention Control and Countermeasures
SWP3	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
VAP	Voluntary Action Program

EXECUTIVE SUMMARY

The purpose of this Stormwater Pollution Prevention Plan (SWP3) is to present procedures that will be followed during construction activities to minimize adverse impacts due to sedimentation and potential environmental pollutants resulting from storm water runoff and to reduce sediment and environmental pollutant runoff after Project completion. This SWP3 sets forth procedures to be followed during construction activities for The East Ohio Gas Company, d/b/a Dominion Energy Ohio (Dominion Energy), Pipeline Infrastructure Replacement (PIR) project, PIR 2647 – 37th and Cleveland (Project), located in Canton Township, Stark County, Ohio. The procedures developed in this plan must be implemented throughout the duration of the Project.

Dominion Energy will be responsible for the development, implementation, and enforcement of this plan. Dominion Energy personnel may designate qualified representatives such as environmental inspectors or contractors to ensure the provisions of this permit are properly employed.

This document was prepared in accordance with the following documents: Ohio Department of Natural Resources, Division of Soil and Water Conservation. "Rainwater and Land Development" Manual Third Edition 2006. Updated 11-6-14, Ohio Environmental Protection Agency (EPA), Authorization for Stormwater Discharges Associated with Construction Activity Under the National Pollutant Discharge Elimination System Permit OHC000005, and Ohio EPA Stormwater Program Website. http://www.epa.state. oh.us/dsw/storm/index.aspx.

This plan covers all new and existing discharges composed entirely of stormwater discharges associated with construction activity that enter surface waters of the State or a storm drain leading to surface waters of the State. Construction activities include any clearing, grading, excavating, grubbing and/or filling activities that disturb one (1) or more acres of land.

1.0 PERMIT REQUIREMENTS

The purpose of this SWP3 is to present procedures that will be followed during construction activities to minimize adverse impacts due to sedimentation resulting from storm water runoff and to reduce sediment runoff after Project completion. Operators who intend to obtain initial coverage for a stormwater discharge associated with construction activity under this General Permit Authorization for Storm Water Discharges Associated with Construction Activity Under the National Pollutant Discharge Elimination System (NPDES), Ohio EPA Permit Number OHC000005 (effective April 23, 2018 and expires April 22, 2023 (General Permit)) must submit a complete and accurate Notice of Intent (NOI) application form and appropriate fee at least 21 days prior to the commencement of construction activity. The completed NOI application is provided in **Appendix I**.

Dominion Energy must make NOIs and SWP3s available upon request of the Director of Ohio EPA; local agencies approving sediment and erosion control plans, grading plans or stormwater management plans; local governmental officials, or operators of municipal separate storm sewer systems (MS4s) receiving drainage from the permitted site.

2.0 STORMWATER POLLUTION PREVENTION PLAN

This SWP3 was prepared in accordance with sound engineering and/or conservation practices by a professional experienced in the design and implementation of standard erosion and sediment controls and stormwater management practices addressing all phases of construction. This SWP3 was prepared by Dominion Energy and EnviroScience Inc.

This SWP3 has identified potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activities. This SWP3 describes and ensures the implementation of Best Management Practices (BMPs) that reduce the pollutants in stormwater discharges during construction and pollutants associated with post-construction activities to ensure compliance with Ohio Revised Code (ORC) Section 6111.04, Ohio Administrative Code (OAC) Chapter 3745-1 and the terms and conditions of the General Permit. In addition, the SWP3 must conform to the specifications of the Ohio Rainwater and Land Development Manual.

Plan Availability

Dominion Energy must provide a copy of this SWP3 within seven (7) days upon written request by any of the following: The Director or the Director's authorized representative; a local agency approving sediment and erosion plans, grading plans or stormwater management plans; or; in the case of a stormwater discharge associated with construction activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the operator of the system. A copy of the NOI and letter granting permit coverage under this General Permit must also be made available at the site.

All NOIs, General Permit approval for coverage letters, and SWP3s are considered reports that must be available to the public in accordance with the Ohio Public Records law. Dominion Energy must make documents available to the public upon request or provide a copy at public expense, at cost, in a timely manner. However, Dominion Energy may claim to Ohio EPA any portion of a SWP3 as confidential in accordance with Ohio law.

Plan Revisions and Amendments.

The Director or authorized representative, and/or any regulatory authority associated with approval of this plan, may notify Dominion Energy at any time that the SWP3 does not meet one (1) or more of the minimum requirements. Within ten (10) days after such notification from the Director (or as otherwise provided in the notification) or authorized representative, and/or any regulatory authority associated with approval of this plan, Dominion Energy must make the required changes to the SWP3 and, if requested, must submit to Ohio EPA, and/or other regulatory authority, the revised SWP3 or a written certification that the requested changes have been made. Dominion Energy must also amend the SWP3 whenever there is a change in site design, construction, operation, or maintenance that requires the installation of BMPs or modifications to existing BMPs.

Duty to Inform Contractors and Subcontractors.

Dominion Energy must inform all contractors and subcontractors who will be involved in the implementation of the SWP3, of the terms and conditions of the General Permit and/or other approval from a regulatory authority. Dominion Energy must maintain a written document containing the signatures of all contractors and subcontractors involved in the implementation of the SWP3 as proof acknowledging that they reviewed and understand the conditions and responsibilities of the SWP3. The written document must be created and signatures of each individual contractor must be obtained prior to their commencement of work on the construction site. Certification statements for contractors and subcontractors can be found at the beginning of this document.

2.1 SITE/PROJECT DESCRIPTION AND LOCATION/SETTING

Dominion Energy is proposing to replace approximately 5,460 feet of existing natural gas pipeline with 6,255 feet of natural gas pipeline (three [3], six [6], eight [8], and twelve [12]-inch diameter) and conduct any necessary pipeline abandonment activities under Dominion Energy's PIR Program. The purpose of this program is to replace existing pipe to ensure safety and reliability of pipeline operations.

The PIR 2647 project is located within Canton Township, Stark County, Ohio, along Carnwise Street SW, existing off-road easements, and several intersecting roads. Where the project area crosses streets with no proposed mainline replacement, small portions of pipeline may be installed along these streets to "tie in" the new pipeline to existing pipelines. Along any portions of abandoned pipeline, small areas of excavation may occur to allow the line to be purged and cut and capped. Service lines to individual structures may also be replaced as part of this project. The need for any laydown and/or material storage areas will be determined by the selected construction contractor. The project area is easily accessible from Carnwise Street SW or any of the intersecting roads.

The scope of work is to install, remove, and abandon sections of natural gas pipeline; no other utilities will be constructed. The construction of new buildings, roads, or parking facilities, is not included in the scope of work. Disturbance within the project area will be minimized as much as possible. Although the project area is approximately 13.5 acres, only 3.8 acres (28%) will be temporarily disturbed due to excavation, filling, grading, and installation of erosion control measures. The 3.8 acres will be disturbed in phases.

The project area is located in a residential and commercial area in Canton Township, Stark County and is located in the Tuscarawas River drainage basin (Hydrologic Unit Code [HUC] #05040001). The eastern portion of the project area slopes downward to the east toward Nimishillen Creek. The western portion of the project generally slopes downward to the north. There are three (3) wetlands and one (1) intermittent stream located within the project area. Nimishillen Creek is located within the project buffer to the east.

The maps included in **Appendix A** depict the location of the Project on a roadway map, U.S. Geological Survey Topographic Map, and a watershed map.

2.2 PRE-CONSTRUCTION AND POST-CONSTRUCTION SITE CONDITIONS

New impervious surfaces will not be created. The Project will essentially result in no permanent change in land use or land cover and, therefore, is not expected to result in an increase in runoff. All areas disturbed by the Project will be restored to their pre-construction material, condition, and contours; therefore, the calculation of runoff coefficients for pre-construction vs. post-construction conditions is not warranted or applicable to this linear Project.

2.3 EXISTING SOIL DATA

The United States Department of Agriculture, Natural Resources Conservation Service (NRCS) Soil Survey was utilized to identify soil map units within the Project site. The primary soils types located within the Project include Sebring silt loam (Sb) and Chili-urban land complex, undulating (CuB). A copy of the Soil Survey for the Project and a table identifying the soil types and characteristics (drainage capacity, depth to water table, K factor rating, etc.) are provided in **Appendix B**.

2.4 STEEP SLOPES

The project area does exhibit steep/critical slopes. At those areas exhibiting steep/critical slopes, erosion and sediment controls appropriate for use, were selected.

2.5 PRIOR LAND USES

Prior land uses for the Project site includes residential and commercial property.

2.6 RECEIVING STREAMS OR SURFACE WATERS

The Project is located within the Town of East Sparta-Nimishillen Creek watershed (HUC 05040001-05-06), which is a subwatershed of the Nimishillen Creek (HUC 05040001-05). These watersheds are part of the larger Tuscarawas River (HUC 05040001) watershed. The first named receiving stream for the project is Nimishillen Creek, located east of the project area. Nimishillen Creek flows south into Sandy Creek which flows west into the Tuscarawas River. The Tuscarawas River flows south into the Muskingum River which joins the Ohio River. A map depicting where the project is located within a watershed setting is included in Appendix A. Any rivers, streams, wetlands, and any significant ponds or ditches crossed by the Project have been included on the maps in Appendix C.

The following water bodies will be affected by construction activities: Stream S-1, Wetland W-2, and Wetland W-3. Stream S-1, Wetland W-2, and Wetland W-3 will be open cut and temporarily impacted. Temporary impact to these streams and wetlands is authorized under a non-reporting Nationwide Permit #3. Additionally, any temporary impacts to onsite wetlands and the stream are authorized under Section 401/antidegradation review. The eastern extent of the project area is located within the Nimishillen Creek floodplain.

Stream S-1 is located in the western portion of the project area, northwest of the intersection of 39th Street SW and Maplewood Avenue SW. The stream originates offsite and flows north through the project area. Within the project area, Stream S-1 is a located within the maintained easement and shows evidence of moderate manipulation. The stream is channelized and incised, and both banks display moderate amounts of erosion. South of the project area, Stream S-1 is culverted beneath 39th Street SW. Typical substrates are sand and silt with lesser amounts of gravel, cobble, and detritus. The surrounding land use abutting Stream S-1 is residential to the south and east and forest to the north and west.

Wetland W-1 and Wetland W-2 are located within the western extent of the project area and are dominated by a palustrine emergent (PEM) community. These wetlands are part of a larger wetland complex extending offsite to the north. Wetland W-3 is a floodplain wetland abutting Nimishillen Creek. The onsite portion of Wetland W-3 is composed primarily of invasive reed canarygrass with sparse shrubs and trees.

The Ohio EPA conducts periodic surveys to collect water quality data on Ohio's streams and rivers. The data are incorporated into the Ohio Integrated Water Quality Monitoring and Assessment Report. The watershed monitoring data closest to the project area indicates Nimishillen Creek within the vicinity of the project area is in non-attainment for aquatic life use. The Watershed Assessment indicates that the watershed, as a whole, is impaired for aquatic life use and recreational use. There are not enough data to complete the aquatic life use assessment for this HUC. The water is not utilized for drinking water supply.

The project area is located in Canton Township which holds a MS4 Stormwater Permit (3GQ00054*CG). Additionally, the project is located in Stark County which also holds a MS4 Stormwater General Permit (3GQ00120*CG).

Dedicated asphalt and/or concrete batch plant discharges are not applicable to this Project.

2.7 IMPLEMENTATION SCHEDULE

A general implementation schedule providing the sequence of major construction operations is provided below. Construction activities are expected to be initiated and completed in 2021. The specific start date will be determined by the receipt of all applicable permits and the selected construction contractors' schedule. The completion date may be affected by weather conditions. Surface stabilization at the Project site is expected to take place incrementally, as construction progresses. Once all land disturbing activities have been completed, the site must be permanently stabilized. Throughout the life of the Project, construction logs must be kept to record major dates of grading, excavating, and stabilizing.

1 - SITE PREPARATION FOR ENTIRE PROJECT (To be determined by the contractor)

- Mobilization.
- Survey and stake existing pipeline and limits of construction.

- Flag/field mark wetland areas, as necessary.

- Installation/improvement to construction entrances, and installation of silt fence or other BMPs designated to control storm water at the project boundary.

- Install gravel on dirt roads, and fill-in rutted areas on existing gravel roads.

2 - SITE PREPARATION FOR EACH JOB (To be determined by the contractor)

- Install BMPs (see Section 3.0) for access roads/equipment crossings at stream crossings and wetland crossings.

- Begin clearing and grubbing of the site.

- Install temporary runoff controls and erosion control devices where needed.

- Conduct grading activities, as needed.

- Monitor all erosion and sediment controls.

3 - MAJOR CONSTRUCTION ACTIVITIES (To be determined by the contractor)

- Excavation.

- Implement BMPs (See Section 3.0) for dewatering (if required).

- Monitor all erosion and sediment controls.

4 - RESTORATION (To be determined by the contractor)

- Restore grade to preconstruction contours and install permanent runoff controls, where needed.

- Apply seed and mulch to all disturbed upland areas.

- Install erosion control blankets or turf matting on steep slopes.

- Monitor all erosion and sediment controls.

- Install concrete washout, if necessary.

5 - POST-CONSTRUCTION MONITORING (On-going until 70 percent cover reached)

- Proper removal of concrete washout and disposal of concrete washout material.

- Monitor adequacy of erosion control practices.

- Remove temporary erosion and sediment controls and runoff controls once 70 percent uniform vegetative growth is achieved.

- Submit Notice of Termination.

2.8 SITE MAPPING

The scope of this project is to install new or replacement natural gas pipeline and, as applicable, conduct activities associated with pipeline abandonment. No other utilities, buildings, roads, or parking facilities will be constructed.

Project site location maps are provided in **Appendix A**. The Soil Survey map for the Project is provided in **Appendix B**. The project specific erosion and sediment control location drawings (in **Appendix C**) depict the limits of earth-disturbing activity; existing and proposed contours; surface water locations, relation to existing buildings, and roads, and the location of all erosion and sediment control measures, areas designated for disposal and storage, as well as, the location of all construction entrances. The site drawing checklist and logs are included in **Appendix D**. Typical erosion and sediment control drawings for all sediment and erosion controls practices are also included in **Appendices F, G, and H**.

3.0 CONTROLS

To the extent practicable, the locations of temporary and permanent stormwater BMPs to be implemented for the Project site are shown on the drawings provided in **Appendix C**. [Some BMP locations (construction entrances, ingress/egress points, etc.) will be determined in the field upon discussion with the selected construction contractor and will be noted on the project drawings (in **Appendix A, B,** and/or **C**, as appropriate) at that time. The construction contractor will complete the "Site Drawing Checklist" (**Appendix D**) verifying the inclusion of these features.] The BMPs will be implemented in accordance with the Typical Drawings provided in **Appendices F, G, and H**. The erosion, sediment, and stormwater management practices to be implemented are in accordance with the standards and specification in the current edition of Ohio's Standards for Stormwater Management, Land Development and Urban Stream Protection, Rainwater and Land Development Manual, Third Edition 2006 updated November 6, 2014.

3.1 PRESERVATION METHODS

In order to preserve the existing natural condition as much as feasible, the Project will avoid clearing and grubbing where feasible, minimize the amount of soil and vegetation disturbances by phasing construction operations, and minimize disturbances to surface waters. The recommended buffer along any surface water of the state to be undisturbed is fifty (50) feet measured from the ordinary high water mark of the surface water.

Disturbance within the project area will be minimized as much as possible. Although the project area is approximately 13.5 acres, only 3.8 acres (28%) will be temporarily disturbed. The 3.8 acres will be disturbed in phases.

Separation of the topsoil from the subsoil will generally be performed at residential properties, any wetlands and streams, and agricultural lands. The backfill material returned to the excavation will consist of the same material removed from the excavation, to the extent practicable.

3.2 EROSION CONTROL PRACTICES

Erosion control measures provide cover over disturbed soils in order to minimize erosion. Disturbed areas must be stabilized after construction activities. Erosion control measures likely employed for the Project include: phased disturbance, clearing and grubbing, tree and natural area preservation, construction entrances, dust control, matting (Temporary Rolled Erosion Control Product), mulching, topsoiling, temporary seeding, permanent seeding, and sodding. Erosion Control Measures will be in accordance with the Rainwater and Land Development Manual. Typical drawings for these erosion control measures are provided in **Appendix F**.

Permanent stabilization is defined as the establishment of permanent vegetation, decorative landscape mulching, matting, sod, rip rap and landscaping techniques to provide permanent erosion control on areas where construction operations are complete or where no further disturbance is expected for at least one (1) year.

Temporary stabilization is defined as the establishment of temporary vegetation, mulching, geotextiles, sod, preservation of existing vegetation and other techniques capable of quickly establishing cover over disturbed areas to provide erosion control between construction operations.

Final stabilization is defined and achieved when all soil disturbing activities at the site are complete and disturbed surfaces are covered with new structures, pavement, a uniform perennial vegetative cover (e.g., evenly distributed, without large bare areas) with a density of at least seventy (70) percent cover, or other equivalent stabilization measures (such as the use of landscape mulches, rip-rap, gabions or geotextiles) have been employed. In addition, all temporary erosion and sediment control practices are removed and disposed of and all trapped sediment is permanently stabilized to prevent further erosion.

Disturbed areas will be stabilized following completion of construction activities as specified in **Tables 1** and **2** below and in accordance with the site layout maps and detail sheets provided in **Appendix C**.

Table 1: Permanent Stabilization

Area Requiring Permanent Stabilization	Time Frame to Apply Erosion Controls (Stabilization)
Any areas that will lie dormant for one (1) year or more.	Within seven (7) days of the most recent disturbance.
Any areas within 50 feet of a surface water of the State and at final grade.	Within two (2) days of reaching final grade.
Any other areas at final grade.	Within seven (7) days of reaching final grade within that area.

Table 2: Temporary Stabilization

Area Requiring Temporary Stabilization	Time Frame to Apply Erosion Controls (Stabilization)
Any disturbed areas within 50 feet of a surface water of the State and not at final grade.	Within two (2) days of the most recent disturbance if the area will remain idle for more than fourteen (14) days.
For all construction activities, any disturbed areas that will be dormant for more than fourteen (14) days but less than one (1) year, and not within 50 feet of a surface water of the State.	Within seven (7) days of the most recent disturbance within the area. For residential subdivisions, disturbed areas must be stabilized at least seven (7) days prior to transfer of permit coverage for the individual lot(s).
Disturbed areas that will be idle over winter.	Prior to the onset of winter weather.

Clearing and Grubbing: Clearing and grubbing is the removal of trees, brush, and other unwanted material in order to develop land for other uses or provide access for site work. Clearing generally describes the cutting and removal of above ground material, while grubbing is the removal of roots, stumps, and other unwanted material below existing grade. Clearing and grubbing includes the proper disposal of materials and the implementation of BMPs in order to minimize exposure of soil to erosion and causing downstream sedimentation.

Construction Entrance: A construction entrance is a method of erosion control that is used to reduce the amount of mud tracked off-site with construction traffic. A construction entrance is a stabilized pad of stone underlain with a geotextile. These entrances are located at points of ingress/egress of construction traffic.

Dust Control: Dust control is a method of erosion control that involves preventing or reducing dust from exposed soils or other sources during land disturbing, demolition, and construction activities to reduce the presence of airborne substances which may present health hazards, traffic safety problems, or harm animal or plant life.

Matting/Temporary Rolled Erosion Control Product (TRECP): TRECPs are a method of erosion control which is a degradable manufactured material used to stabilize easily eroded areas while vegetation becomes established. Temporary Rolled Erosion Control Products are degradable products composed of biologically, photo chemically, or otherwise degradable materials. TRECPs consist of erosion control netting, open weave textiles, and erosion control blankets and mattings. These products reduce soil erosion and assist vegetative growth by providing temporary cover from the erosive action of rainfall and runoff while providing soil-seed contact.

Mulching: Mulching is a temporary or permanent method of erosion control used to protect exposed soil or freshly seeded areas from the direct impact of precipitation by providing a temporary surface cover. Mulch also helps establish vegetation by conserving moisture and creating favorable conditions for seeds to germinate. Mulch must be used liberally throughout construction to limit the areas that are bare and susceptible to erosion. Mulch can be used in conjunction with seeding to establish vegetation or by itself to provide erosion control when the season does not allow grass to grow. Mulch and other vegetative practices must be applied on all disturbed portions of construction-sites that will not be re-disturbed for more than fourteen (14) days.

Permanent Seeding: Permanent seeding is a method of erosion control used to permanently stabilize soil on construction sites where land-disturbing activities, exposed soil, and work has been completed or is not scheduled for more than twelve (12) months. Permanent seeding must be applied to any disturbed areas or portions of construction sites at final grade. Permanent seeding must not be delayed on any one portion of the site at final grade while construction on another portion of the site is being completed. Permanent seeding must be completed in phases, if necessary. Permanent vegetation is used to stabilize soil, reduce erosion, prevent sediment pollution, reduce runoff by promoting infiltration, and provide stormwater quality benefits offered by dense grass cover.

Phased Disturbance: Phased disturbance is a method of erosion control that limits the total amount of grading at any one time and sequences operations so that at least half the site is either left as undisturbed vegetation or re-stabilized prior to additional grading operations. This approach actively monitors and manages exposed areas so that erosion is minimized and sediment controls can be more effective in protecting aquatic resources and downstream landowners.

Sodding: Sodding is a method of erosion control that utilizes rolls or mats of turf grass to provide immediate stabilization to bare soils. It is especially useful in highly erosive areas such as drainage

ways and on slopes that will be mowed. Sod may be used where immediate cover is required or preferred and where vegetation will be adequate stabilization such as minor swales, around drop inlets, and lawns.

Temporary Seeding: Temporary seeding is a method of erosion control used to temporarily and quickly stabilize soil on construction sites where land-disturbing activities have been initiated but not completed. Appropriate rapidly growing annual grasses or small grains must be planted on the disturbed areas. Temporary seeding effectively minimizes the area of a construction site prone to erosion and must be used everywhere the sequence of construction operations allows vegetation to be established. Temporary seeding must be applied on exposed soil where additional work (grading, etc.) is not scheduled for more than fourteen (14) days. Mixes to be applied are specific to the time of year the seeding will take place and the location of the Project within the state.

Topsoiling: During grading operations, topsoil and the upper most organic layer of soil will be stripped and stockpiled and then subsequently replaced on the newly graded areas. Topsoil provides a more suitable growing medium than subsoil or on areas with poor moisture, low nutrient levels, undesirable pH, or in the presence of other materials that would inhibit establishment of vegetation. Replacing topsoil helps plant growth by improving the water holding capacity, nutrient content, and consistency of the soils.

Tree and Natural Area Preservation: Tree and natural area preservation insures that important vegetated areas existing on-site prior to development will survive the construction process. Tree protection areas prevent the losses and damages to trees that are common as a result of construction. This practice is useful to protect individual trees and areas of forest or natural vegetation in stream corridors or open space.

3.3 RUNOFF CONTROL PRACTICES

Temporary and permanent runoff control is important on development sites to minimize on-site erosion and to prevent off-site sediment discharge. Runoff control methods likely implemented for this Project include dewatering measures. Runoff control measures will be in accordance with Chapter 4 and 5 of the Rainwater and Land Development Manual.

Dewatering Measures. Dewatering consists of providing an area for receiving and treating surface water and/or groundwater pumped from excavation or work areas prior to being released off the site, such as desilting basins or sediment traps. For project areas without these detention features, dewatering typically consists of the use of filter devices (e.g. filter bags) to treat and release water removed from excavation. Filter bags should discharge to an upland location if possible. These practices reduce sediment impacts to downstream water resources.

3.4 SURFACE WATER PROTECTION

The Project site contains three (3) wetlands and one (1) intermittent stream. Nimishillen Creek is located within the project area buffer. These waters must be protected by avoiding crossing of wetlands and streams where feasible and using sediment and erosion control practices to prevent sediment-laden runoff from reaching the surface waters.

Surface Waters of the State Protection. If construction activities disturb areas adjacent to surface waters of the State, structural practices must be designed and implemented onsite to protect all adjacent surface waters of the State from the impacts of sediment runoff. No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond) must be used in a surface water of the State. For all construction activities immediately adjacent to surface waters of the State, it is recommended that a setback of at least 25 feet, as measured from the ordinary high water mark of the surface water, be maintained in its natural state as a permanent buffer.

Where impacts within this setback area are unavoidable due to the nature of the construction activity (e.g., stream crossings for roads or utilities), the Project must be designed such that the number of wetland crossings and the width of the disturbance within the setback area are minimized.

In order to minimize the amount of disturbance and sedimentation caused by work at stream and wetland crossings, every effort will be made to minimize impacts. Movement across waters will be limited to necessary equipment only. BMPs for vehicle crossing of streams and wetlands will be utilized when practical. Dominion Energy will employ a typical temporary equipment crossing at each crossing location. These crossing methods are found on the typical drawings in **Appendices G** and **H**. All stream crossings will be restored to pre-construction grades, contours, and substrate material, and banks will be revegetated and stabilized. Similarly, all wetland crossings will be restored to pre-construction grades, contours, and, when feasible, vegetation type. Dominion Energy will obtain all necessary stream and wetland crossing permits from federal and state regulatory agencies. Summaries of the onsite surface waters and any impacts are provided in **Tables 3** and **4**.

Surface Water Utility Crossing. Surface water utility crossings include pipeline, power line, or road construction projects that cross streams, rivers, or wetlands. Measures used to minimize damage from the construction of utilities across streams and wetlands start in the planning stages of a project and continue through site restoration.

Temporary Surface Water Crossing. A temporary surface water crossing provides construction traffic temporary access across a surface water while reducing the amount of disturbance and sediment pollution. It is a temporary practice which includes restoring the crossing area after construction. The typical kinds of surface water crossings are: bridges, timber mats, culverts and fords. Each has specific applications and each is designed to minimize surface water damage by leaving wetland areas and stream banks stable and vegetated.

Table 3: Summary of Onsite Streams/Rivers

Stream ID	Stream Length (lf) within the 50-Foot Easement	Bankfull Width (feet)	Flow Regime	Substrate Type(s)	Designation/ Classification	Crossing Method[1]	Impacts - Upstream to Downstream Length[2] (lf)	Impacts- Trench Crossing Length (lf)
S-1	70	4.5	intermittent	sand, silt	modified warmwater habitat	open cut	70	4.5

Note:
1 Project Managers must approve changes to crossing methods.
2 Impact area based on 50-foot construction corridor within streams.

Table 4: Summary of Onsite Wetlands

Wetland ID	Vegetation Cover Type within the 50-Foot Easement	Acreage within Easement	ORAM[1] Category	Crossing Method[2]	Impact Area[3] (acres)	Trench Crossing Length (lf)
W-1	PEM	0.019	modified 2	avoid	0	0
W-2	PEM	0.230	modified 2	open cut	0.230	262
W-3	PEM	0.275	2	open cut	0.176	335

Notes:
1 Ohio Rapid Assessment Method
2 Project Managers must approve changes to crossing methods.
3 Impact area based on 50-foot construction corridor within wetlands.

3.5 WETLAND PRACTICES

Concentrated stormwater runoff from proposed BMPs to natural wetlands must be converted to diffuse flow before the runoff enters the wetlands. The flow must be released such that no erosion occurs downslope. Level spreaders may need to be placed in series, particularly on steep sloped sites, to ensure non-erosive velocities. Other structural BMPs may be used between stormwater features and natural wetlands, in order to protect the natural hydrology, hydroperiod, and wetland flora. If Dominion Energy proposes to discharge to natural wetlands, a hydrologic analysis must be performed. Dominion Energy must attempt to match the pre-development hydroperiods and hydrodynamics that support the wetland. Dominion Energy must assess whether their construction activity will adversely impact the hydrologic flora and fauna of the wetland. Practices such as vegetative buffers, infiltration basins, conservation of forest cover, and the preservation of intermittent streams, depressions, and drainage corridors may be used to maintain wetland hydrology.

3.6 SEDIMENT CONTROL PRACTICES

All Project activities will occur within the areas indicated on site drawings in **Appendix C**. All Sediment Control Devices will match those indicated on the mapping in **Appendix C**. Minor adjustments to control devices (type, location, etc.) deemed necessary to maintain compliance can be made on the project mapping. The location of any laydown and/or material storage areas will be determined in the field upon discussion with the selected construction contractor and will be

noted on the project site drawings at that time. The "Site Drawing Checklist" **(Appendix D)** will be completed, verifying the inclusion of these features or minor adjustments. Any necessary mainline to mainline tie-ins (at intersections with streets with no proposed mainline replacement) will also be noted on the drawings. Construction activities for this Project will be limited to the Limit of Disturbance of 3.8 acres. Sediment Control Practices must treat runoff allowing sediments to settle and/or divert flows away from exposed soils or otherwise limit runoff from exposed areas. Structural practices must be used to control erosion and trap sediment from a disturbed site. Methods of control that may be used include, among others: silt fence, storm drain inlet protection, filter socks, and trench plugs. All sediment control practices must be capable of ponding runoff in order to be considered functional. Earth diversion dikes or channels alone are not considered a sediment control practice unless those are used in conjunction with a sediment settling pond. Sediment Controls must be designed, installed, and maintained in accordance with the requirements set forth in Chapter 6 of the Ohio Rainwater and Land Development Manual, and/or Ohio General Permit OHC000005. Dominion Energy discourages the use of haybales unless utilized as a secondary treatment element in conjunction with another erosion and sediment control(s) and only if approved by Dominion Energy.

Timing. Sediment control structures must be present as indicated or otherwise deemed to be necessary and must be functional throughout the course of earth disturbing activity. Sediment basins and perimeter sediment barriers must be implemented prior to grading and within seven (7) days from the start of grubbing. Sediment control structures must continue to function until the up-slope development area is restabilized. As construction progresses and the topography is altered, appropriate controls must be constructed or existing controls altered to address the changing drainage patterns.

Silt Fence. Silt fence is a temporary method of sediment control that is used in sheet-flow areas to encourage the ponding of runoff and settling of sediments. It consists of a geotextile fabric secured to wood or steel posts that have been trenched into the ground. It is installed downslope of the disturbed area, installed along slopes, at bases of slopes on a level contour, and around the perimeter of a site as a final barrier to sediment being carried off site. Maximum drainage area and slopes must be considered when determining the appropriateness of silt fence. Silt fence is removed after permanent vegetation is established.

Silt fence must be installed where indicated on the site drawings and as needed throughout the Project site where construction activity is likely to cause sediment-laden runoff to be carried offsite and into downstream surface waters. After construction is completed and the Project site has been permanently stabilized, silt fence must be removed and disposed of at an appropriate offsite disposal facility.

Placing silt fence in a parallel series does not extend the size of the drainage area. Stormwater diversion practices must be used to keep runoff away from disturbed areas and steep slopes where practicable. Such devices, which include swales, dikes or berms, may receive stormwater runoff from areas up to ten (10) acres.

See the silt fence detail located in **Appendix F** (for additional information on proper installation procedures.

Inlet Protection. Storm drain inlet protection devices remove sediment from stormwater before it enters storm sewers and downstream areas. Inlet protection devices may consist of washed gravel or crushed stone, geotextile fabrics, and other materials that are supported around or across storm drain inlets. Inlet protection is installed to capture some sediment and reduce the maintenance of storm sewers and other underground piping systems prior to the site being stabilized. Due to their poor effectiveness, inlet protection is considered a secondary sediment control to be used in conjunction with other more effective controls. Other erosion and sediment control practices must minimize sediment laden water entering active storm drain systems, unless the storm drain system drains to a sediment settling pond. Generally inlet protection is limited to areas draining less than one (1) acre; areas of one (1) or more acres will require a sediment settling pond.

Filter Sock. Filter socks are sediment-trapping devices using compost inserted into a flexible, permeable tube. Filter socks trap sediment by filtering water passing through the berm and allowing water to pond, creating a settling of solids. Filter socks may be a preferred alternative where equipment may drive near or over sediment barriers, as they are not as prone to complete failure as silt fence if this occurs during construction. Driving over filter socks is not recommended; however, if it should occur, the filter sock must be inspected immediately, repaired, and moved back into place as soon as possible. Typically, filter socks can handle the same water flow or slightly more than silt fence. For most applications, standard silt fence is replaced with twelve (12)-inch diameter filter socks.

Trench Plugs. Trench Plugs are required at each side of streams and wetlands crossings completed by trenching, regardless of trench slope. These requirements supplement DEO's general construction practice for the placement of plugs in trenches on steep slopes. Trench plugs will also be installed if it is determined that flooding at the low point elevation of a pipeline will adversely affect the adjacent property. Installation will be in accordance with the details depicted in **Detail F-5** and **Table 5** below.

Table 5: Required Spacing and Materials for Trench Plugs

Trench Slope (%)	Spacing (ft)	Plug Material
< 5	*	*
5 – 15	500	Sand or Earth** Filled Sacks
15 – 25	300	Sand or Earth** Filled Sacks
25 – 35	200	Sand or Earth** Filled Sacks
35 – 100	100	Sand or Earth** Filled Sacks
> 100	50	Cement Filled Bags (Wetted) or Mortared Stone

* Trench Plugs are required at each side of all stream, river or water-body crossings completed by trenching, regardless of trench slope; otherwise not required.

** Topsoil may not be used to fill sacks.

Modifying Controls. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, Dominion Energy must replace or modify the control for site conditions.

3.7 POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM)

The proposed disturbance associated with the Project is temporary; therefore, no permanent stormwater structures will be required. The Project area will be restored to original contours and re-vegetated. No impervious areas will be created for this Project.

3.8 OTHER CONTROLS

In some instances a non-sediment pollutant source may become present on the Project site and pollution controls may be required.

Non-Sediment Pollutant Controls

Handling of Toxic or Hazardous Materials. All construction personnel, including subcontractors who may use or handle hazardous or toxic materials, must be made aware of the general guidelines regarding management and disposal of toxic or hazardous construction wastes. This can be accomplished by training for construction personnel by the Contractor or by Dominion Energy.

Waste Disposal. Containers (e.g., dumpsters, drums) must be available for the proper collection of all waste material including construction debris, sanitary garbage, petroleum products, and any hazardous materials to be used on-site. Containers must be covered, as required, and not leaking. All waste material must be disposed of at facilities approved by the Ohio EPA for that material. Ensure storage time frames are not exceeded.

Clean Hard Fill. No Construction related waste materials are to be buried on-site. By exception, clean fill (clean bricks, hardened concrete, and soil) may be utilized in a way which does not encroach upon natural wetlands, streams, or floodplains or result in the contamination of waters.

Construction and Demolition Debris (C&DD). C&DD waste will be disposed of in an Ohio EPA permitted C&DD landfill as required by ORC 3714 and approved by Dominion Energy.

Construction Chemical Compounds. Storing, mixing, pumping, transferring or other handling of construction chemicals such as fertilizer, lime, asphalt, concrete drying compounds, and all other potentially hazardous materials must be done in an area away from any waterbody, ditch, or storm drain.

Equipment Fueling and Maintenance. Oil changing, equipment refueling, maintenance on hydraulic systems, etc., must be performed away from waterbodies, ditches, or storm drains, and in an area designated for that purpose. The designated area must be equipped for recycling oil and catching spills. Secondary containment must be provided for all fuel and oil storage tanks. These areas must be inspected every seven (7) days and within 24 hours of a one-half (0.5)-inch or greater rain event to ensure there are no exposed materials which would contaminate stormwater. Site

operators must be aware that Spill Prevention Control and Countermeasures (SPCC) requirements may apply. An SPCC plan is required for sites with accumulative aboveground storage of 1,320 gallons or more, or 42,000 gallons of underground storage.

No detergent may be used to wash vehicles. Wash waters will be treated in a sediment basin or alternative control which provides equivalent treatment prior to discharge.

Concrete Wash Water and Wash Outs. Concrete wash water must not be allowed to flow to streams, ditches, storm drains, or any other water conveyance. A lined sump or pit with no potential for discharge must be constructed if needed to contain concrete wash water. Field tile (agricultural drain tiles) or other subsurface drainage structures within ten (10) feet of the concrete sump or wash pit must be cut and plugged. Concrete wash water is wastewater and thus is not permitted to be discharged under the provisions of Ohio EPA's Construction General Permit which only allows the discharge of stormwater. Concrete washout details are located in **Appendix J**. The location for concrete washout will be determined in the field as necessary.

Spill Reporting Requirements. In the event of a spill of a regulated or hazardous material, immediately contact the Dominion Energy ECC assigned to the site or Project. The Dominion Energy ECC (if Dominion Energy ECC not available, other Dominion Energy Environmental staff) will coordinate spill reporting to the appropriate agencies. Spills on pavement must be absorbed with sawdust, kitty litter or other absorbent material. Spills to land require excavation of the contaminated material. Wastes generated from spill cleanup must be disposed of in accordance with applicable Federal, State, and Local waste regulations. Hazardous or industrial wastes including, but not limited to, most solvents, gasoline, oil-based paints, oil, grease, battery acid, muriatic acid, and cement curing compounds require special handling[1]. Spills must be reported to Ohio EPA (1-800-282-9378). Spills of 25 gallons or more of petroleum products must be reported to Ohio EPA (1-800-282-9378), the local fire department, and the Local Emergency Planning Committee within thirty (30) minutes of the discovery of the release. All spills (no matter how small), which result in contact with waters of the state, must be reported to Ohio EPA's Hotline. Spills of hazardous substances, extremely hazardous substances, petroleum, and objectionable substances that are of a quantity, type, duration, and in a location as to damage the waters of the state must be immediately reported to the Ohio EPA's Regional Environmental Coordinator.

Contaminated Soils. If substances such as oil, diesel fuel, hydraulic fluid, antifreeze, etc. are spilled, leaked, or released onto the soil, the soil must be dug up and disposed of at a licensed

[1] The Federal Resource Conservation and Recovery Act (RCRA) requires that all wastes generated by industrial activity, including construction activities, be evaluated to determine if the waste is hazardous, non-hazardous or special wastes. Hazardous waste and special wastes have specific handling and disposal requirements which must be met to comply with RCRA. Additional information regarding the waste evaluation process and the proper handling and disposal requirements for wastes can be found in the following Dominion Guidance Documents: "Hazardous Waste Guidance", "Hazardous Waste Guidance Labeling", "Hazardous Waste Guidance Labeling - Appendix A", "Nonhazardous Waste Management", "Universal Waste Management", "Universal Waste Guidance - Appendix A - Labeling Matrix", and "Used Oil and Oil Filter Management". Consult with the DES ECC assigned to the site or project for advice.

sanitary landfill or other approved petroleum contaminated soil remediation facility (not a construction/demolition debris landfill) which has been approved by Dominion Energy.

Open Burning. Waste disposal by open burning is prohibited by Dominion Energy.

Dust Controls/Suppressants. Dust control is required to prevent nuisance conditions. Dust controls must be used in accordance with the manufacturer's specifications and not be applied in a manner, which would result in a discharge to waters of the state. Isolation distances from bridges, catch basins, and other drainage ways must be observed. Application (excluding water) may not occur when precipitation is imminent as noted in the short term forecast. Used oil may not be applied for dust control. Watering must be done at a rate that prevents dust but does not cause soil erosion. Chemical stabilizers and adhesives must not be used, unless written permission is received from Ohio EPA.

Air Permitting Requirements. All contractors and subcontractors must be made aware that certain activities associated with construction will require air permits. Activities including, but not limited to, mobile concrete batch plants, mobile asphalt plants, concrete crushers, generators, etc., will require specific Ohio EPA Air Permits for installation and operation. Dominion Energy must seek authorization from the corresponding district of Ohio EPA for these activities. Notification for Restoration and Demolition must be submitted to Ohio EPA for all commercial sites to determine if asbestos abatement actions are required.

Process Wastewater/Leachate Management. All contractors must be made aware that Ohio EPA's Construction General Permit only allows the discharge of stormwater. Other waste discharges including, but not limited to, vehicle and/or equipment washing, leachate associated with on-site waste disposal, concrete wash outs, etc. are a process wastewater. These types of wastewaters are not authorized for discharge under the General Stormwater Permit associated with Construction Activities. All process wastewaters must be collected and properly disposed at an Dominion Energy approved disposal facility. In the event there are leachate outbreaks (water that has passed through contaminated material and has acquired elevated concentrations of the contaminated material) associated with onsite disposal, measures must be taken to isolate this discharge for collection and proper disposal at an Dominion Energy approved disposal facility. Investigative measures and corrective actions must be implemented to identify and eliminate the source of all leachate outbreaks.

Permit to Install (PTI) Requirements. All contractors and subcontractors must be made aware that a PTI must be submitted and approved by Ohio EPA prior to the construction of all centralized sanitary systems, including sewer extensions, and sewerage systems (except those serving one (1), two (2), and three (3) family dwellings) and potable water lines. The issuance of an Ohio EPA Construction General Stormwater Permit does not authorize the installation of any sewerage system where Ohio EPA has not approved a PTI. If necessary, Dominion Energy will acquire the PTI or Dominion Energy will require the contractor to acquire the PTI.

Compliance with Other Requirements. This plan is consistent with State and/or local waste disposal, sanitary sewer or septic system regulations including provisions prohibiting waste disposal by open burning. Contaminated soils are not expected to be encountered on this Project.

If they are encountered within the limits of construction, they will be managed and disposed of properly by trained personnel.

Trench and Groundwater Control. There must be no turbid discharges to surface waters of the State resulting from dewatering activities. If trench or groundwater contains sediment, it must pass through a sediment settling pond or other equally effective sediment control device, prior to being discharged from the construction site. Alternatively, sediment may be removed by settling in place or by dewatering into a sump pit, filter bag, or comparable practice. Groundwater dewatering which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care must be taken when discharging groundwater to ensure that it does not become pollutant laden by traversing over disturbed soils or other pollutant sources. Discharge of contaminated groundwater is not authorized.

Contaminated Sediment. Where construction activities are to occur on sites with historical contamination, operators must be aware that concentrations of materials that meet other criteria (is not considered a Hazardous Waste, meeting VAP standards, etc.) may still result in stormwater discharges in excess of Ohio Water Quality Standards. Such discharges are not authorized and may require coverage under a separate individual or general remediation permit. Contaminated soil stockpiles shall be protected from discharges by covering the contaminated soil with a tarp or other such material which will prohibit water from coming in contact with the soils. Contaminated soils can also be removed from the site and disposed of at a Dominion Energy approved facility.

3.9 MAINTENANCE

All temporary and permanent control measures must be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control measures must be maintained in a functional condition until all up slope areas are permanently stabilized. The following maintenance procedures will be conducted to ensure the continued performance of control practices.

- Qualified personnel must inspect all BMPs at least once every seven (7) days and after any storm event greater than one-half inch of rain per 24-hour period by the end of the next calendar day, excluding weekends and holidays, unless work is scheduled. Rainfall amounts will be determined by Dominion Energy personnel or a designated representative using National Weather Service or other acceptable resources such as an on-site rain gauge, and determine if the SWP3 has been properly implemented.

- Maintenance or repair of BMPs must be completed by the designated contractor within three (3) days of the date of the inspection that revealed a deficiency. For sediment ponds, repair or maintenance is required within ten (10) days of the date of the inspection.

- Off-site vehicle tracking of sediments and dust generation must be minimized. Temporary construction entrances must be provided where applicable to help reduce vehicle tracking of sediment. Any paved roads adjacent to the site entrance must be swept daily to remove excess mud, dirt, or rock tracked from the site, as necessary.

3.10 INSPECTIONS

The following inspection practices must be followed once site activities have commenced and erosion and sediment control measures have been installed.

- All onsite controls must be inspected by Dominion Energy personnel or a designated representative at least once every seven (7) calendar days and after any storm event greater than one-half inch of rain per 24-hour period by the end of the next calendar day, excluding weekends and holidays, unless work is scheduled.

- Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized or runoff is unlikely due to weather conditions (e.g., site is covered with snow, ice, or the ground is frozen). A waiver of inspection requirements is available from Ohio EPA until one (1) month before thawing conditions are expected to result in a discharge if all of the following conditions are met: the Project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e., more than one (1) month); land disturbance activities have been suspended; and the beginning and ending dates of the waiver period are documented in the SWP3. Dominion Energy will obtain the waiver at the request of the contractor.

- Once a definable area has reached final stabilization as defined in Section 3.2 Erosion Control Practices, the area must be marked on the SWP3 and no further inspection requirements apply to that portion of the site.

- A Dominion Energy or a designated representative "qualified inspection personnel" must conduct inspections to ensure that the control practices are functional and to evaluate whether the SWP3 is adequate and properly implemented in accordance with the schedule or whether additional control measures are required.

- Following inspection, a checklist must be completed and signed by the qualified inspection personnel representative. The inspection form and checklist is provided in **Appendix I**. The record and certification must be signed in accordance with Ohio Permit OHC000005.

- Inspection reports must be maintained for three (3) years following the submittal of a Notice of Termination.

- For BMPS that require repair or maintenance, BMPs must be repaired or maintained within three (3) days of the inspection; sediment settling ponds must be repaired or maintained within ten (10) days of the inspection.

- For BMPs that are not effective and that another, more appropriate BMP is required, the SWP3 must be amended and the more appropriate BMP must be installed within ten (10) days of the inspection.

- For BMPs depicted on the SWP3 that have not been actually installed onsite, the control practice must be implemented within ten (10) days from the inspection.

4.0 APPROVED STATE OR LOCAL PLANS

This SWP3 must comply, unless exempt, with the lawful requirements of municipalities, counties, and other local agencies regarding discharges of stormwater from construction activities. All erosion and sediment control plans and stormwater management plans approved by local officials must be retained.

5.0 EXCEPTIONS

If specific site conditions prohibit the implementation of any of the erosion and sediment control practices contained in this plan or site specific conditions are such that implementation of any erosion and sediment control practices contained in this plan will result in no environmental benefit, then Dominion Energy must provide justification for rejecting each practice based on site conditions. Dominion Energy may request approval from Ohio EPA and any other applicable regulatory authority to use alternative methods if Dominion Energy can demonstrate that the alternative methods are sufficient to protect the overall integrity of receiving streams and the watershed.

6.0 NOTICE OF TERMINATION REQUIREMENTS

Once a site reaches final stabilization and construction activities have ceased, NPDES permit coverage is terminated by filing a notice of termination (NOT). The NOT must be filed within 45 days of reaching final stabilization. The terms and conditions of this permit must remain in effect until a signed NOT form is submitted. NOT forms must be submitted in accordance with Ohio Permit OHC000005.

Similarly, a notice of completion must be provided to any municipalities, counties, and other local agencies that require such notice.

APPENDIX A

Site Location Maps

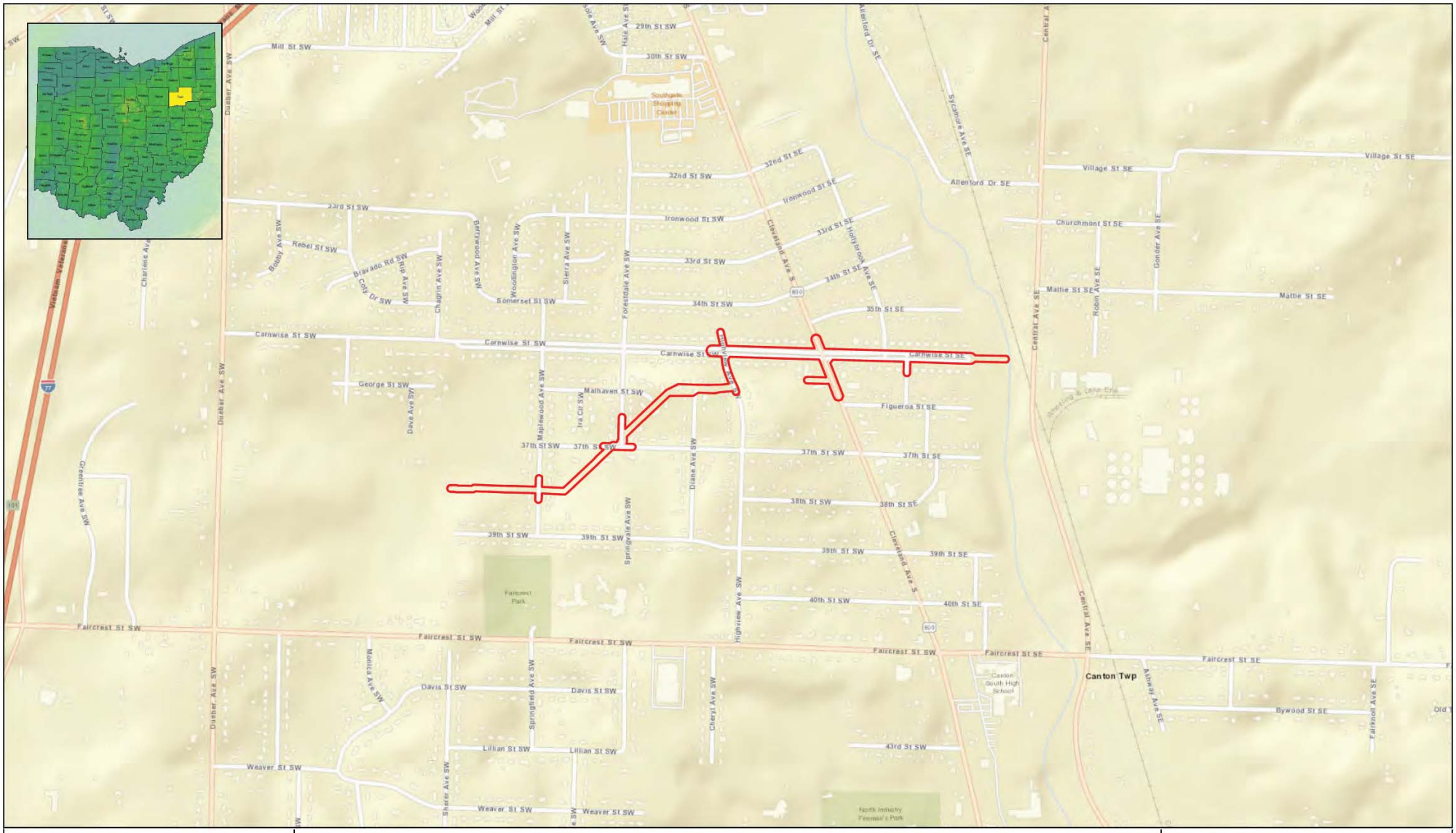

Figure A-1. Location of Site on Highway Map of Stark County, Ohio. PIR 2647 - 34th and Cleveland.

Project Area

0 750 1,500 3,000 Feet

0 250 500 1,000 Meters

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Date: 5/24/2021 Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\MapA1_Location.mxd

Basemap courtesy of Esri.

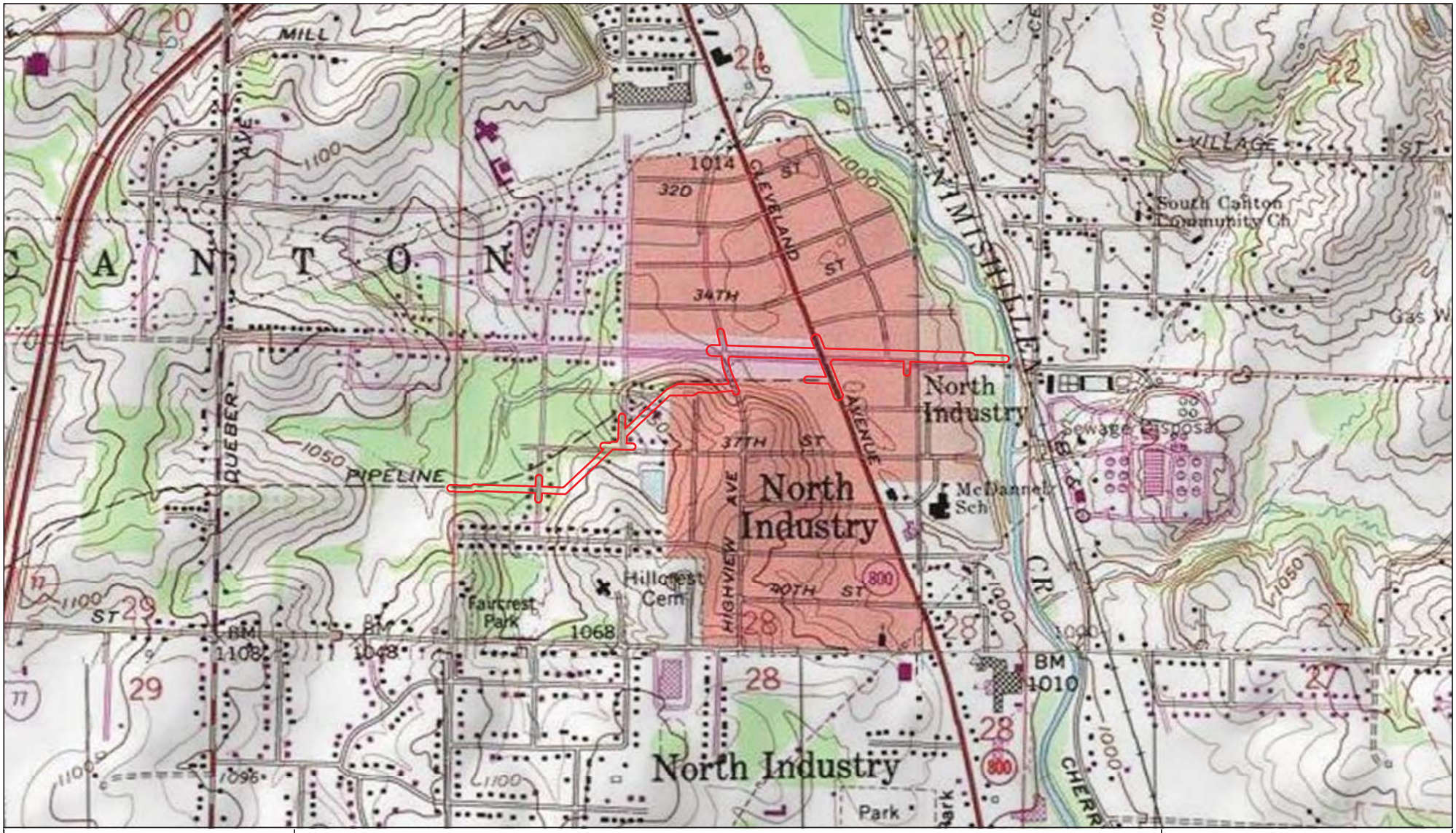

Figure A-2. USGS 7.5-minute Topographic Map of Canton East and Canton West Quadrangles.
PIR 2647 - 34th and Cleveland.

Project Area

0 750 1,500 3,000 Feet

0 250 500 1,000 Meters

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Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\MapA2_Topo.mxd

Date: 5/24/2021

Basemap courtesy of National Geographic Society (2013).

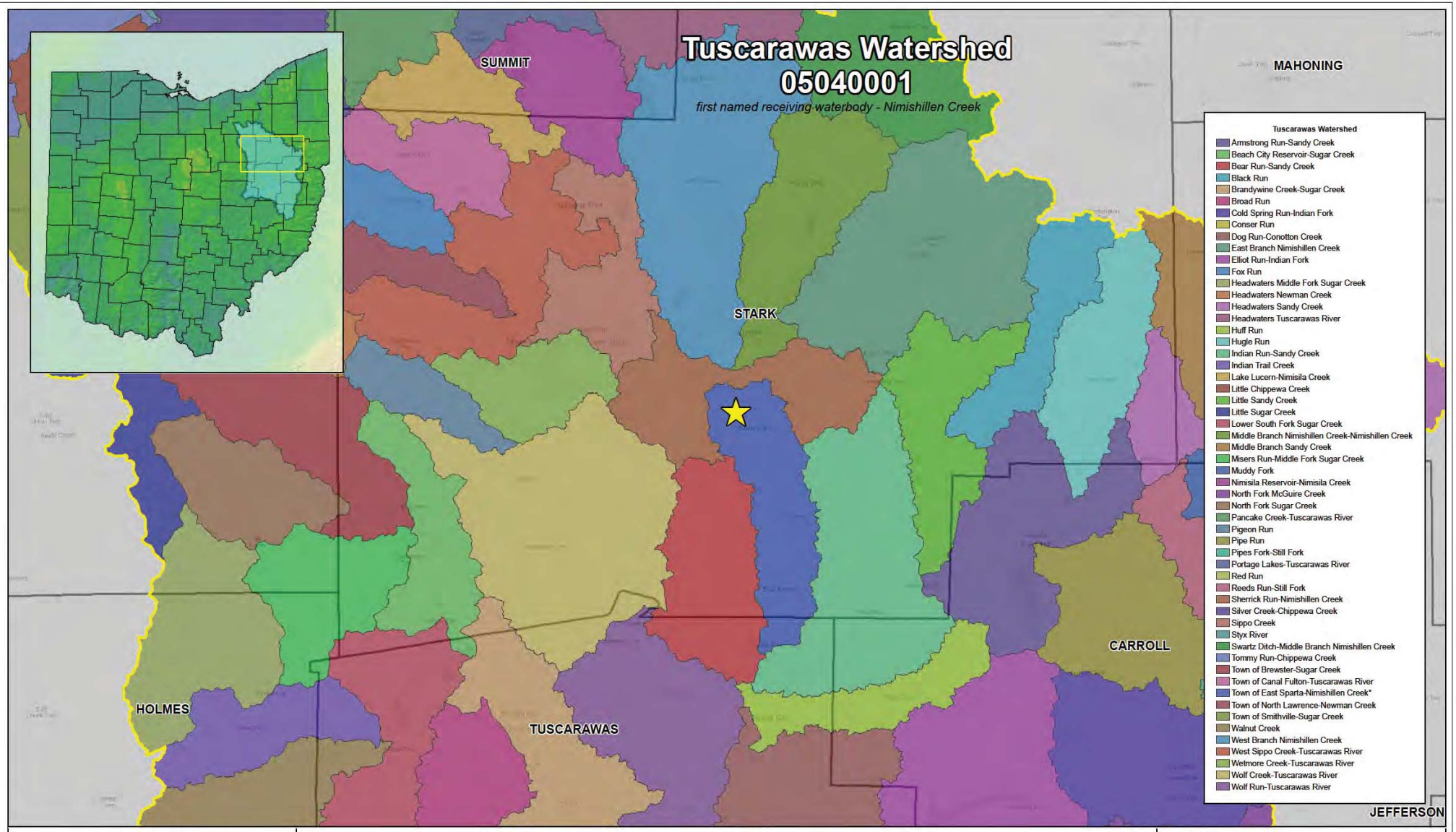

Figure A-3.
Watershed Map of Site in
Stark County, Ohio.
PIR 2647 - 37th and Cleveland.

Project Area

0 2.75 5.5 11 Miles

0 4.5 9 18 Kilometers

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Date: 5/24/2021 Path: C:\Users\Anna Giordano\Desktop\GIS_P_R2647\MapA3_Watershed.mxd

Basemap courtesy of Esri. Watershed data courtesy of the USDA Natural Resource Conservation Service.

APPENDIX B

Soil Map and Table

Figure B-1.
Soil Map of Site in
Stark County, Ohio.
PIR 2647 - 34th and Cleveland.

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Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\MapB1_Soil.mxd

Date: 5/24/2021

Basemap courtesy of Esri. Soil data courtesy of SSURGO.

Appendix B-2. Soil Types Mapped in Project Area.

Symbol	Soil Name	Drainage Capacity	Common Landform*	Percent Hydric	K factor rating	Depth to Water Table (centimeters)	Percent Within Project Area
Ca	Canadice silt loam	Poorly drained	depressions	95	0.49	8	2.2
CoD2	Chili gravelly loam, 12 to 18 percent slopes, moderately eroded	Well drained	terraces	0	0.24	0	0.4
CuB	Chili-Urban land complex, undulating	Well drained	NA	0	0.32	0	29.8
DkB	Dekalb sandy loam, 2 to 6 percent slopes	Well drained	Hills	0	0.24	0	0.7
FcB	Fitchville silt loam, 2 to 6 percent slopes	Somewhat poorly drained	lake plains, terraces	5	0.37	31	5.2
LaC	Latham silt loam, 6 to 12 percent slopes	Moderately well drained	Hills	0	0.43	69	3.2
LaF	Latham silt loam, 18 to 35 percent slopes	Moderately well drained	Hills	0	0.43	69	8.5
LuC	Loudonville-Urban land complex, rolling	Well drained	NA	0	0.32	0	3.6
MvE	Muskingum and Gilpin silt loams, 18 to 25 percent slopes	Well drained	hills	0	0.32	0	0.5
Sb	Sebring silt loam	Poorly drained	outwash plains	95	0.37	8	42.3
Sl	Sloan silt loam	Very poorly drained	flood plains	100	0.28	8	3.6

*ND=no data available

APPENDIX C

Detailed Erosion and Sediment Control Location Drawings

Figure C-1. Site Map Overview of Wetlands and Other Water Resources. PIR 2647 - 34th and Cleveland.

Project Area

0 375 750 1,500 Feet

0 125 250 500 Meters

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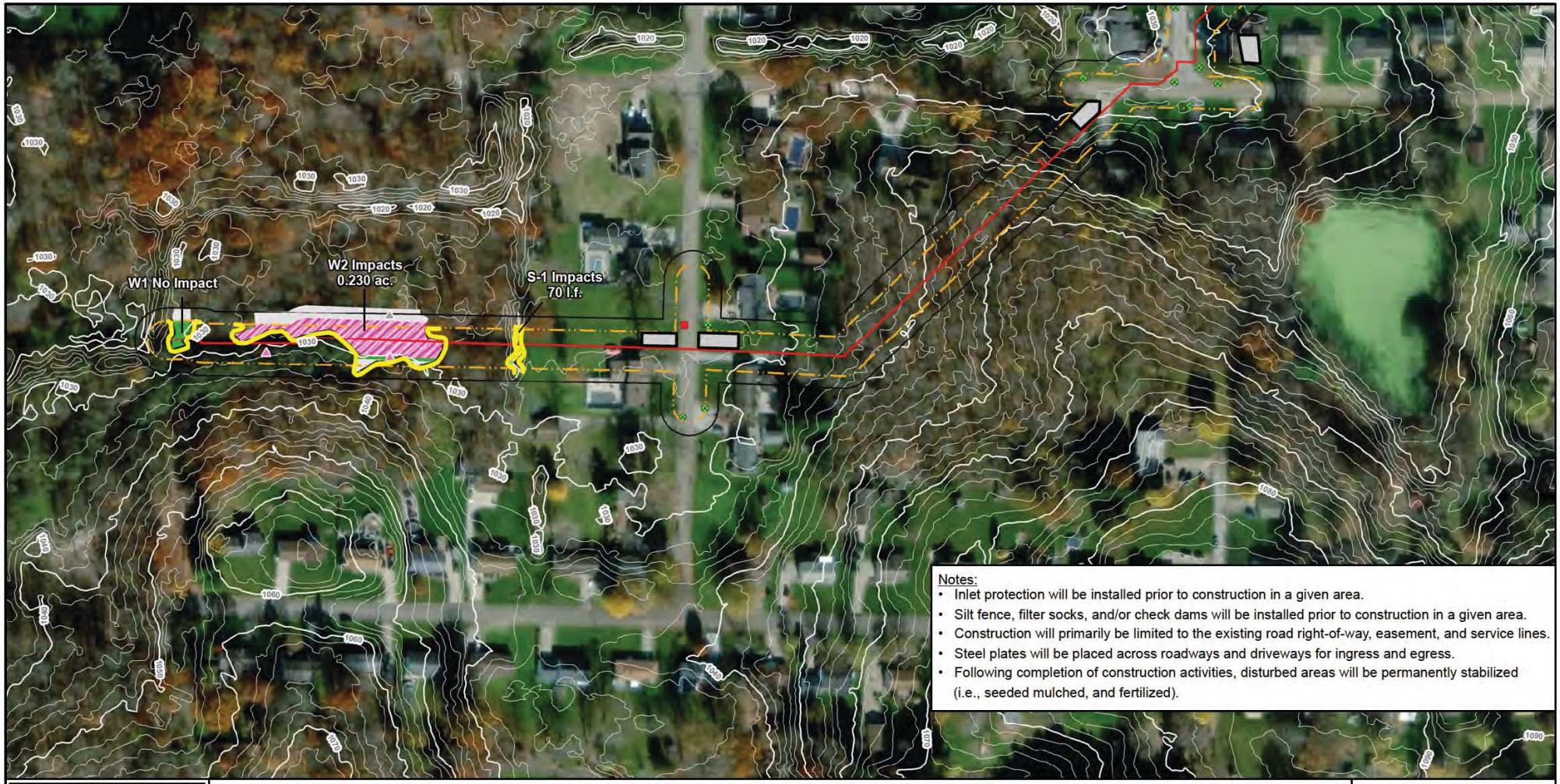
Path: C:\Users\Anna Giordano\Desktop\GIS_P R2647\MapC1_Overview.mxd

Date: 5/24/2021

Basemap courtesy of Esri.



Notes:

- Inlet protection will be installed prior to construction in a given area.
- Silt fence, filter socks, and/or check dams will be installed prior to construction in a given area.
- Construction will primarily be limited to the existing road right-of-way, easement, and service lines.
- Steel plates will be placed across roadways and driveways for ingress and egress.
- Following completion of construction activities, disturbed areas will be permanently stabilized (i.e., seeded mulched, and fertilized).

Figure C-1.01. SWPPP Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

- Potential Roost Tree
- Potential Roost Tree (Offsite)
- M&R Station
- Inlet
- Inlet (Offsite)
- Culvert
- Culvert (Offsite)
- Stream (Impacts)
- Stream (Intermittent)
- Stream (Offsite)
- Nimishillen Creek (Offsite)
- Wetland (Impacts)
- Perimeter Sediment Control Devices
- Wetland (PEM)
- Wetland (Offsite)
- Rock Construction Entrance
- 100-Year Flood Zone
- Pipeline (To Be Abandoned)
- Existing Pipeline
- Proposed Pipeline
- Project Area
- Project Area Buffer (Add'l 20')

0 125 250 500 Feet

0 25 50 100 Meters

C-1.01

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Date: 6/3/2021

Basemap courtesy of Esri.

Figure C-1.02. SWPPP Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

C-1.02

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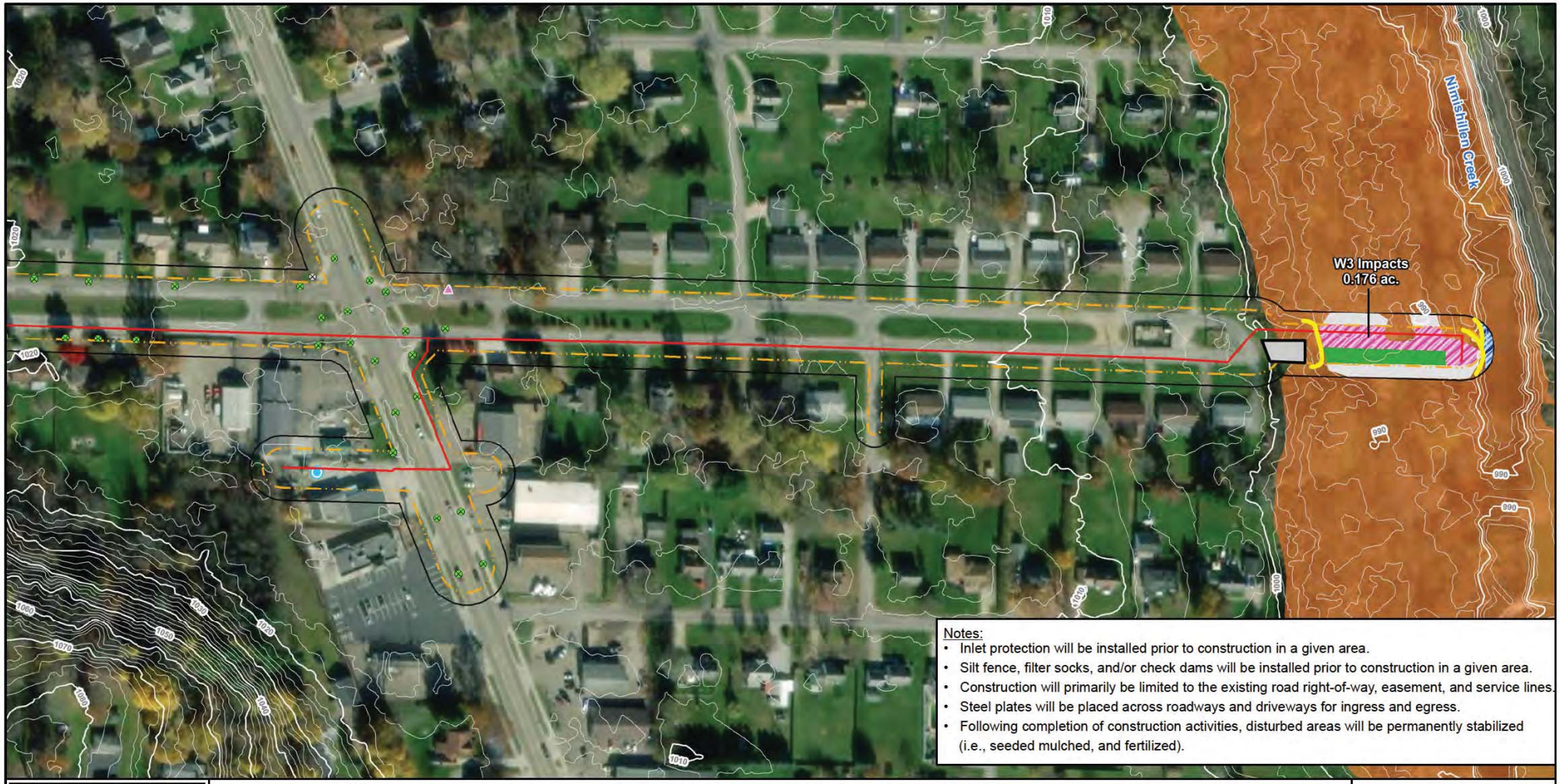
Date: 6/3/2021

Basemap courtesy of Esri.



Notes:

- Inlet protection will be installed prior to construction in a given area.
- Silt fence, filter socks, and/or check dams will be installed prior to construction in a given area.
- Construction will primarily be limited to the existing road right-of-way, easement, and service lines.
- Steel plates will be placed across roadways and driveways for ingress and egress.
- Following completion of construction activities, disturbed areas will be permanently stabilized (i.e., seeded mulched, and fertilized).

Figure C-1.03. SWPPP Map of Wetlands and Other Water Resources.
PIR 2647 - 37th and Cleveland.

- Potential Roost Tree
- Potential Roost Tree (Offsite)
- M&R Station
- Inlet
- Inlet (Offsite)
- Culvert
- Culvert (Offsite)
- Stream (Impacts)
- Stream (Intermittent)
- Stream (Offsite)
- Nimishillen Creek (Offsite)
- Wetland (Impacts)
- Perimeter Sediment Control Devices
- Wetland (PEM)
- Wetland (Offsite)
- Rock Construction Entrance
- 100-Year Flood Zone
- Pipeline (To Be Abandoned)
- Existing Pipeline
- Proposed Pipeline
- Project Area
- Project Area Buffer (Add'l 20')

0 125 250 500 Feet

0 25 50 100 Meters

C-1.03

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Path: C:\Users\Jake Miller\OneDrive - EnviroScience, Inc\Desktop\PIR Projects\PIR_2647_37thandClevelandShapefiles_PIR2647MapC1_SWPPP.mxd

Date: 6/2/2021

Basemap courtesy of Esri.

APPENDIX D

Site Drawing Checklist and Logs

D-1 SITE DRAWING CHECKLIST **

- **Location of solid waste dumpsters**

- **Location designated for waste drums of oil soaked absorbent pads/rags; solids, sludge, or oil collected from pipeline**

- **Locations of sanitary facilities such as Port-a-Jons (update these locations on drawings as project progresses)**

- **Locations of diesel and gasoline storage tanks (secondary containment provided)**

- **Locations of pipe and equipment storage yards**

- **Locations of cement truck washout**

** ***These locations can be hand drawn on the site drawings.***

SWPPP Amendment Log D-2

Project Name: _____

Construction Inspector: _____

Amendment Number	Description of Amendment	Date of Amendment	Amendment Prepared by (name and title)

Grading and Stabilization Activities Log

D-3

Project Name: Construction _____

Inspector: _____

Date Grading Activity Initiated	Description of Grading	Date Grading Activity Ceased (Indicate temporary or permanent)	Date when Stabilization Measures were Initiated	Description of Stabilization Measure and Location

APPENDIX E

Corrective Action Log

Dominion Construction Stormwater General Permit: Corrective Action Log

Project Name:

State-Specific Corrective Action Requirement*:

Positions Authorized to Document Corrective Action Completion:

Corrective Action #	Inspection Date	Inspector Name(s)	Description of Deficiency	Corrective Action Required	Date Corrective Action is Due*	Agency Notification Required? (Y/N)	Date Corrective Action Performed / Responsible Person

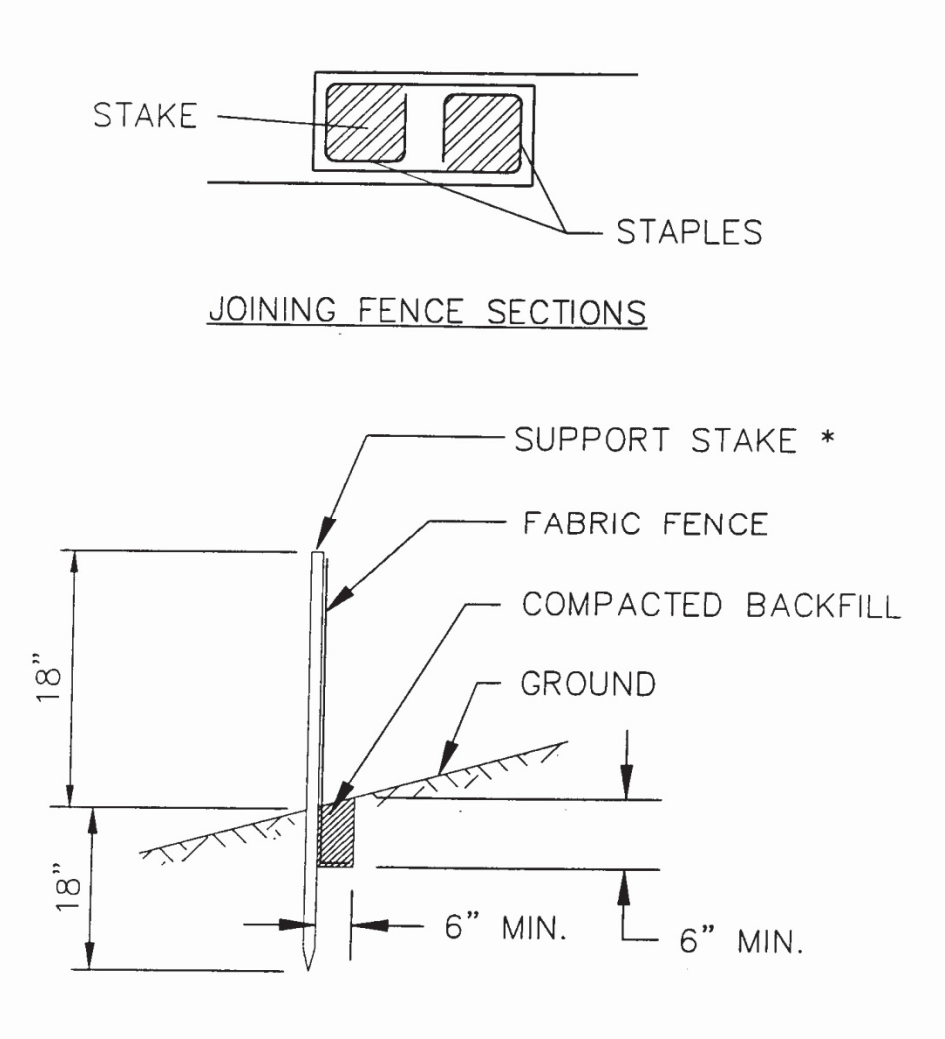
*Corrective action requirements/deadlines are state specific. Thus, refer to your construction stormwater permit. Should the project team not be able to meet the permit deadlines then the stormwater management program authority (e.g. state agency) must be notified.

APPENDIX F

Typical Upland Erosion and Sediment Control Plan Drawings

DETAIL F-1

FILTER FABRIC FENCE DETAIL



*Stakes spaced @ 8’ maximum. Use 2"x 2" wood or equivalent steel stakes.

Filter Fabric Fence must be placed at level existing grade. Both ends of the barrier must be extended at least 8 feet up slope at 45 degrees to the main barrier alignment.

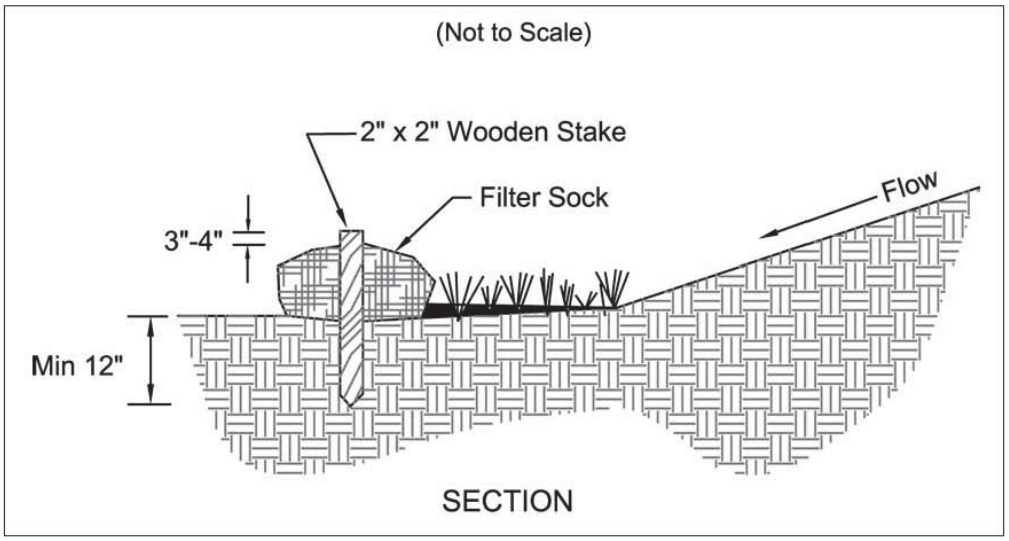
Trench shall be backfilled and compacted to prevent runoff from cutting underneath the fence.

Sediment must be removed when accumulations reach 1/2 the above ground height of the fence.

Any section of Filter fabric fence that has been undermined or topped should be immediately replaced.

DETAIL F-2

FILTER SOCK DETAIL



1. Materials – Compost used for filter socks shall be weed, pathogen and insect free and free of any refuse, contaminants or other materials toxic to plant growth. They shall be derived from a well-decomposed source of organic matter and consist of a particles ranging from 3/8" to 2".
2. Filter Socks shall be 3 or 5 mil continuous, tubular, HDPE 3/8" knitted mesh netting material, filled with compost passing the above specifications for compost products.

INSTALLATION:

3. Filter socks will be placed on a level line across slopes, generally parallel to the base of the slope or other affected area. On slopes approaching 2:1, additional socks shall be provided at the top and as needed mid-slope.
4. Filter socks intended to be left as a permanent filter or part of the natural landscape, shall be seeded at the time of installation for establishment of permanent vegetation.
5. Filter Socks are not to be used in concentrated flow situations or in runoff channels.

MAINTENANCE:

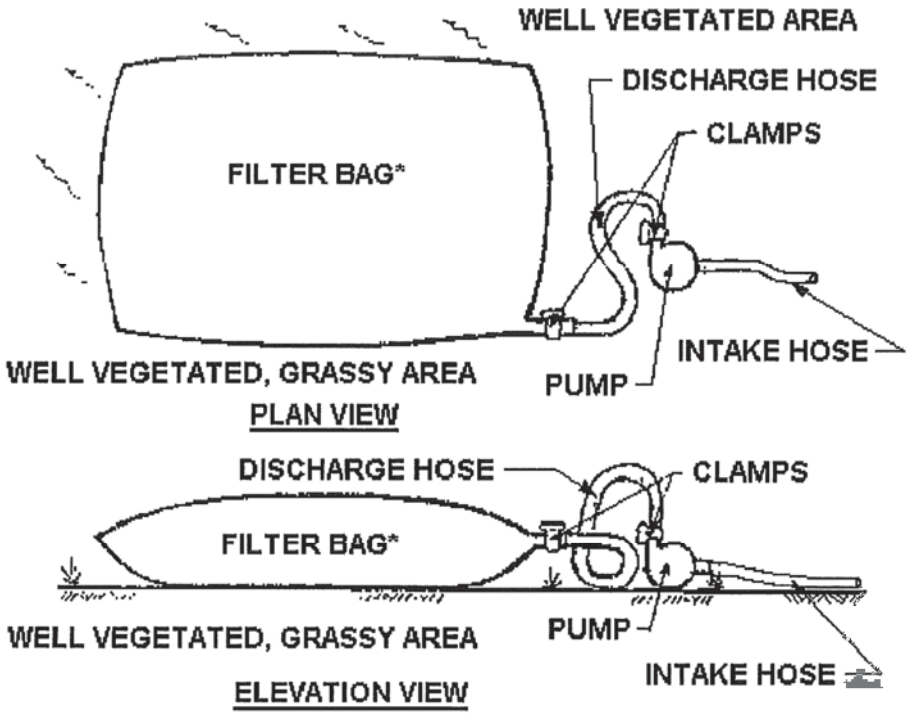
6. Routinely inspect filter socks after each significant rain, maintaining filter socks in a functional condition at all times.
7. Remove sediments collected at the base of the filter socks when they reach 1/3 of the exposed height of the practice.
8. Where the filter sock deteriorates or fails, it will be repaired or replaced with a more effective alternative.
9. Removal – Filter socks will be dispersed on site when no longer required in such as way as to facilitate and not obstruct seedings.

Note1: Filter socks may not require stakes if used in areas of little to no slope, for short duration, and/or for relatively small disturbances such as sidecast piles from service line tie-ins.

Note 2: Observe surroundings for any indications of rip rap or other materials close to ground surface which may have voids allowing drilling mud or sediment laden water to bypass the filter sock. "Toeing in" the filter sock may be necessary in these situations.

DETAIL F-3

PUMPED WATER FILTER BAG DETAIL



Filter bags shall be made from non-woven geotextile material sewn with high strength, double stiched "J" type seams. They shall be capable of trapping particles larger than 150 microns.

A suitable means of accessing the bag with machinery required for disposal purposes must be provided. Filter bags shall be replaced when they become 1/2 full. Spare bags shall be kept available for replacement of those that have failed or are filled.

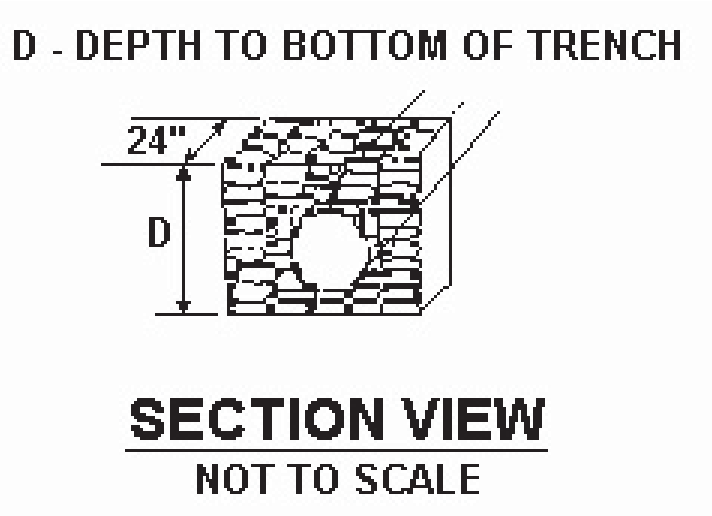
Bags shall be located in a well-vegetated (grassy) area, and discharge onto stable, erosion resistant areas. Where this is not possible, a geotextile flow path shall be provided. Bags should not be placed on slopes greater than 5%.

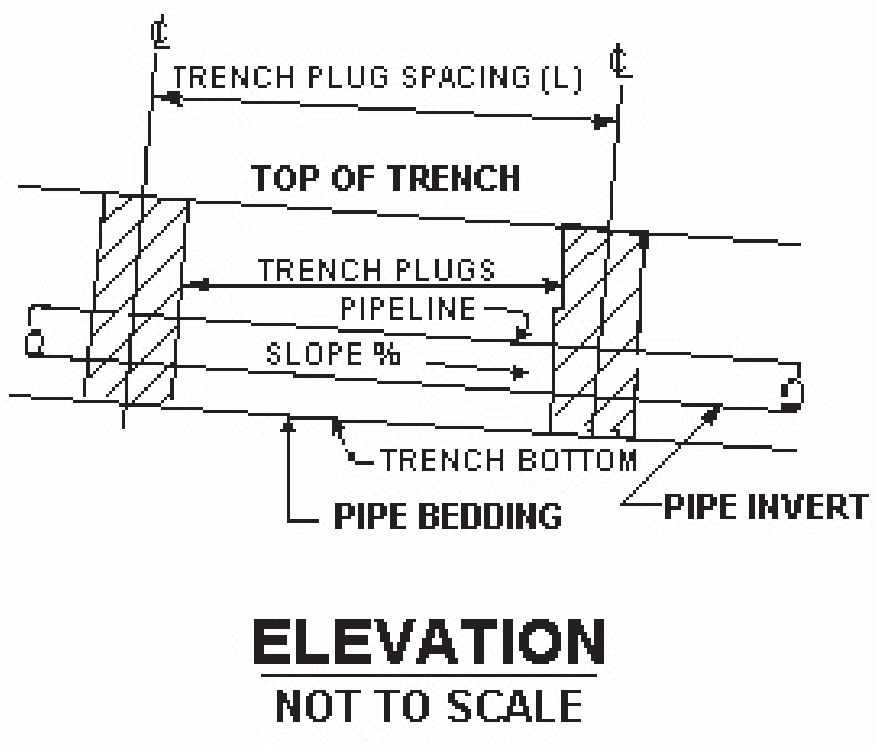
For hydrostatic discharge, the pumping rate is 350-500 gallons per minute (gpm). For trench dewatering, the pumping rate shall be no more than 750 gpm. Floating pump intakes should be considered to allow sediment-free water to be discharged during dewatering.

Filter bags shall be inspected daily. If any problem is detected, pumping shall cease immediately and not resume until the problem is corrected.

DETAIL F-**4**

TRENCH PLUG INSTALLATION DETAIL

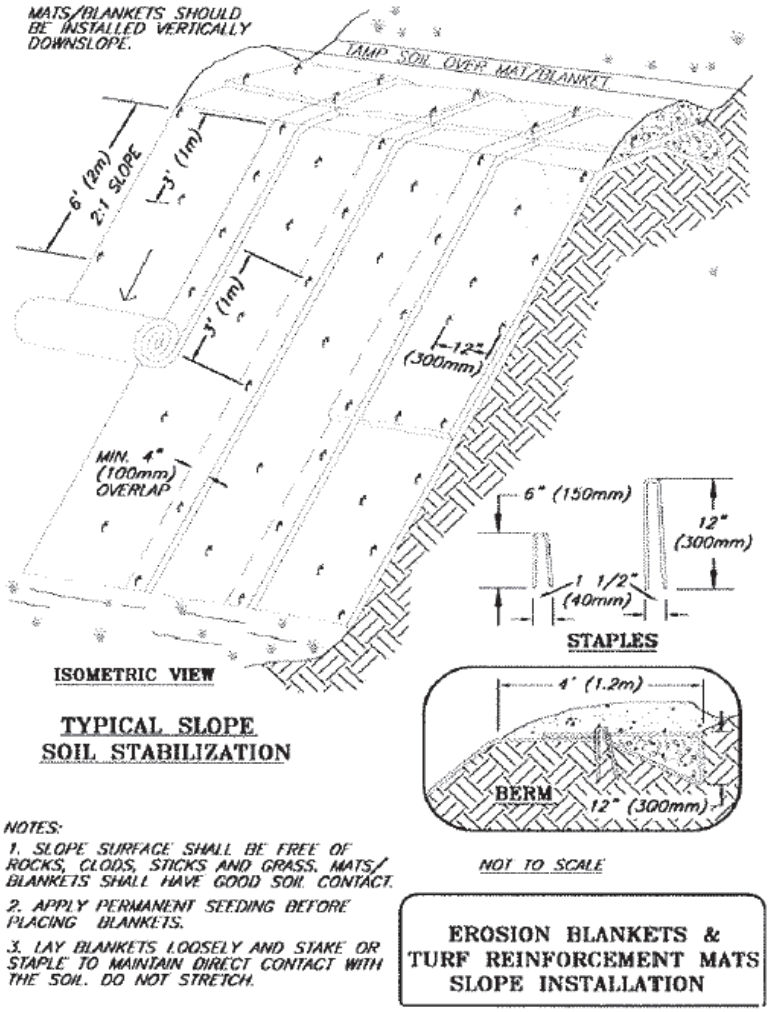




DETAIL F-**5**

EROSION CONTROL MATTING DETAIL

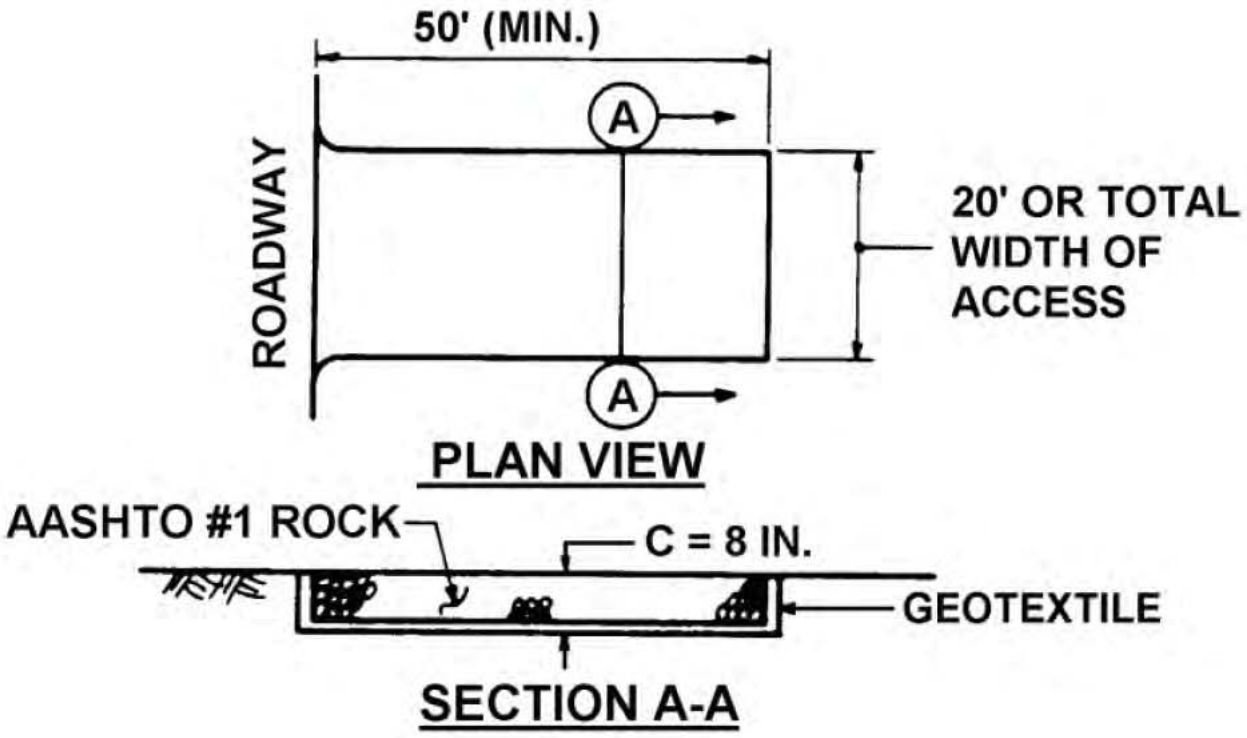
EROSION CONTROL BLANKET DETAIL



Refer to manufacturer's lining installation detail for overlap, embedment, staple patterns, and vegetative stabilization specifications

DETAIL F-6

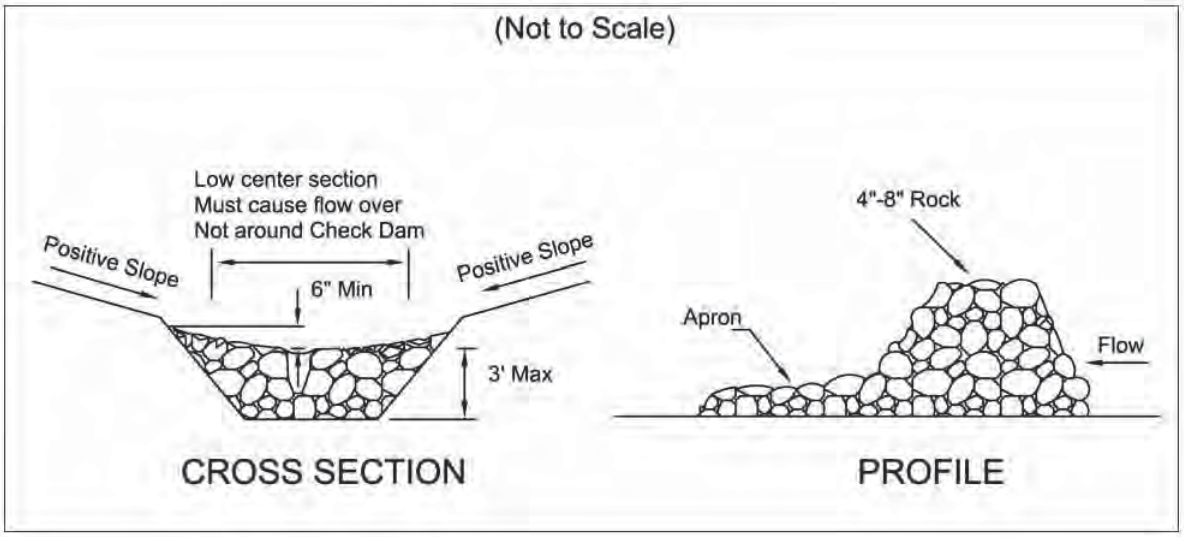
ROCK CONSTRUCTION ENTRANCE DETAIL



MAINTENANCE: Rock Construction Entrance thickness shall be constantly maintained to the specified dimensions by adding rock. A stockpile shall be maintained onsite for this purpose. At the end of each construction day, all sediment deposited on paved roadways shall be removed and returned to the construction site. Steel plates, timber mats, and tires are also acceptable materials for short-term construction entrances.

DETAIL F-**7**

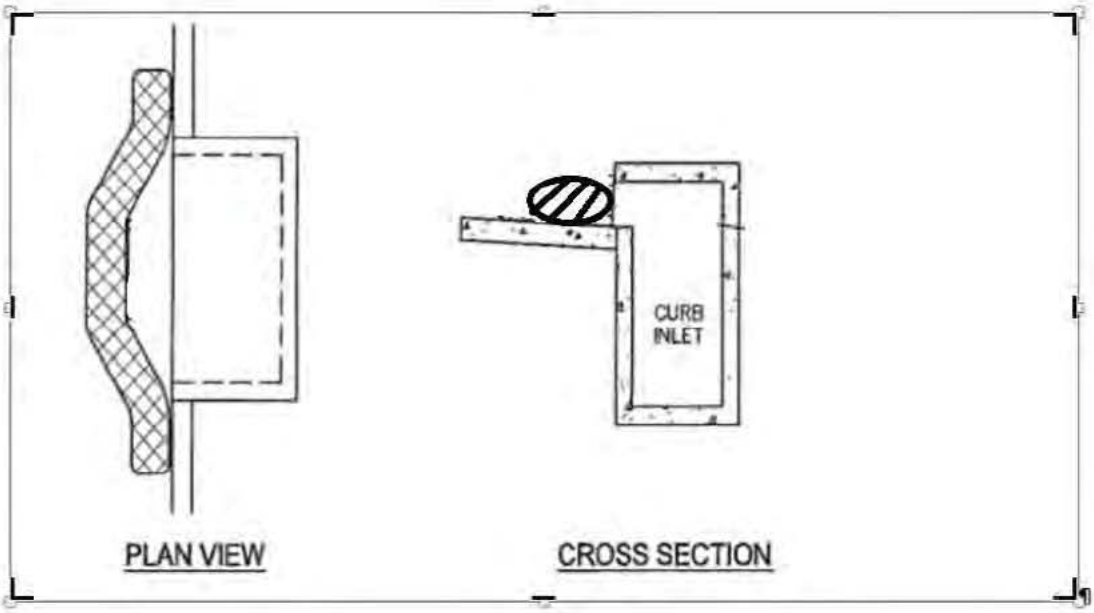
ROCK CHECK DAM DETAIL



1. The check dam shall be constructed of 4-8 inch diameter stone, placed so that it completely covers the width of the channel. ODOT Type D stone is acceptable, but should be underlain with a gravel filter consisting of ODOT No. 3 or 4 or suitable filter fabric.
2. Maximum height of check dam shall not exceed 3.0 feet.
3. The midpoint of the rock check dam shall be a minimum of 6 inches lower than the sides in order to direct across the center and away from the channel sides.
4. The base of the check dam shall be entrenched approximately 6 inches.
5. Spacing of check dams shall be in a manner such that the toe of the upstream dam is at the same elevation as the top of the downstream dam.
6. A Splash Apron shall be constructed where check dams are expected to be in use for an extended period of time, a stone apron shall be constructed immediately downstream of the check dam to prevent flows from undercutting the structure. The apron should be 6 in. thick and its length two times the height of the dam.
7. Stone placement shall be performed either by hand or mechanically as long as the center of check dam is lower than the sides and extends across entire channel.
8. Side slopes shall be a minimum of 2:1.

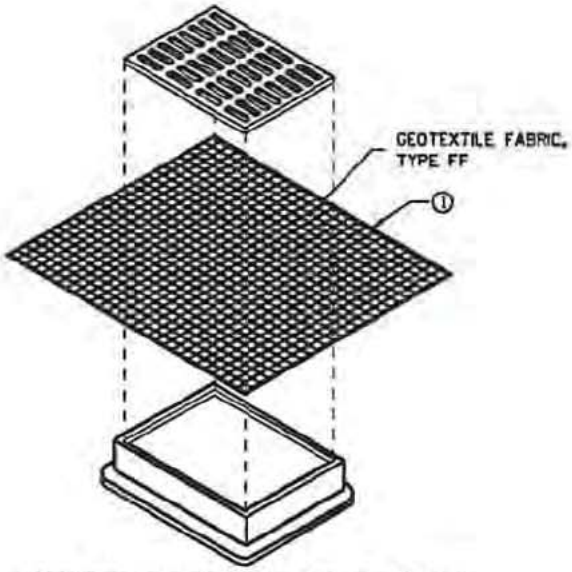
DETAIL F-8A

CURB INLET PROTECTION

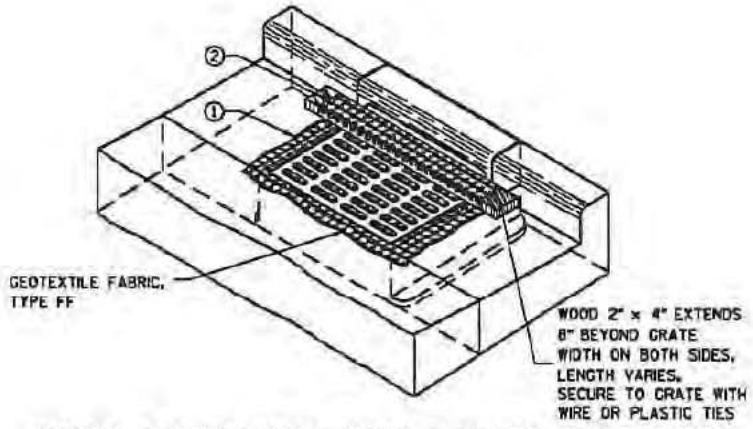


DETAIL F-8B

CURB INLET PROTECTION



INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

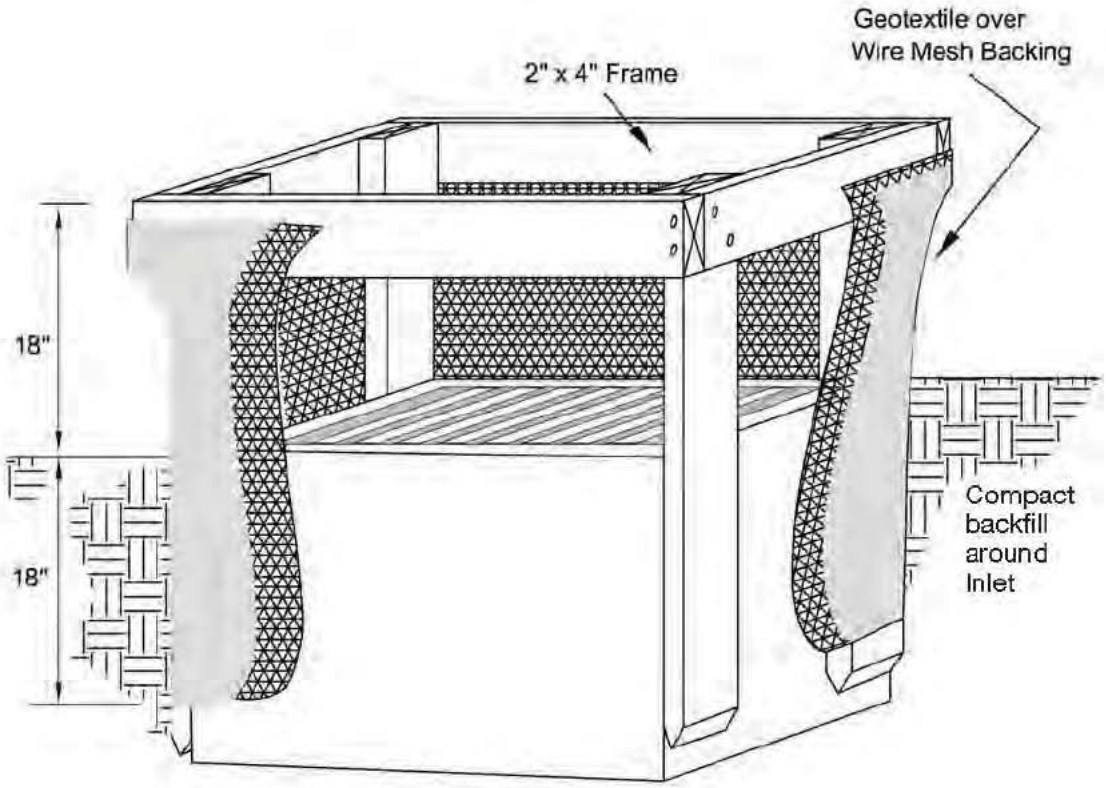
TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

DETAIL F-8C

GEOTEXTILE INLET PROTECTION DETAIL



SECTION

1. Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.

2. The earth around the inlet shall be excavated completely to a depth at least 18 inches.

3. The wooden frame shall be constructed of 2-inch by 4-inch construction grade lumber. The 2-inch by 4-inch posts shall be driven one (1) ft. into the ground at four corners of the inlet and the top portion of 2-inch by 4-inch frame assembled using the overlap joint shown. The top of the frame shall be at least 6 inches below adjacent roads if ponded water will pose a safety hazard to traffic.

4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.

5. Geotextile material shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 inches below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.

6. Backfill shall be placed around the inlet in compacted 6inch layers until the earth is even with notch elevation on ends and top elevation on sides.

7. A compacted earth dike or check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression. The top of the dike shall be at least 6 inches higher than the top of the frame.

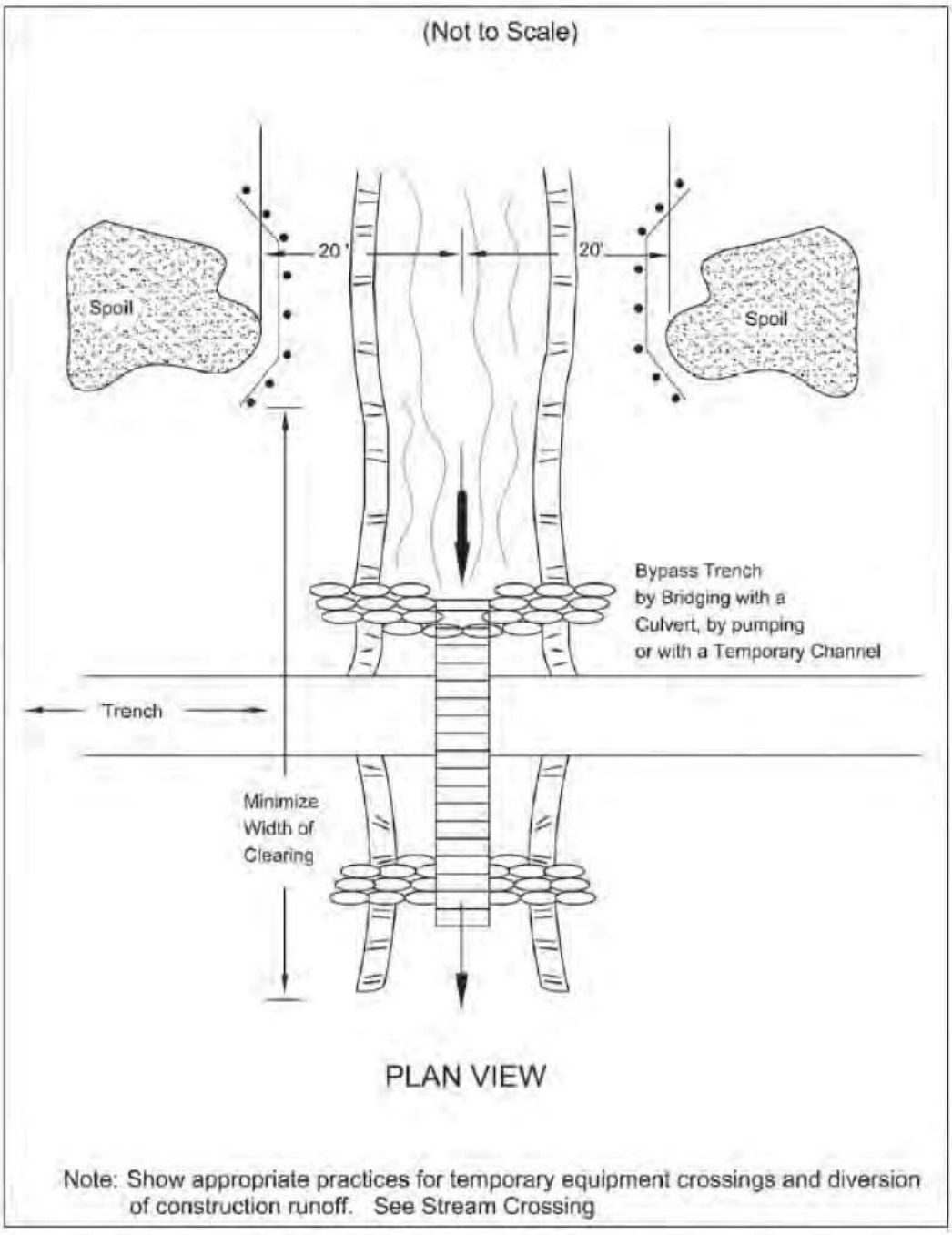
8. Filter fabric and filter socks can also be used as inlet protection.

APPENDIX G

Typical Wetland Crossing Drawings

DETAIL G-1

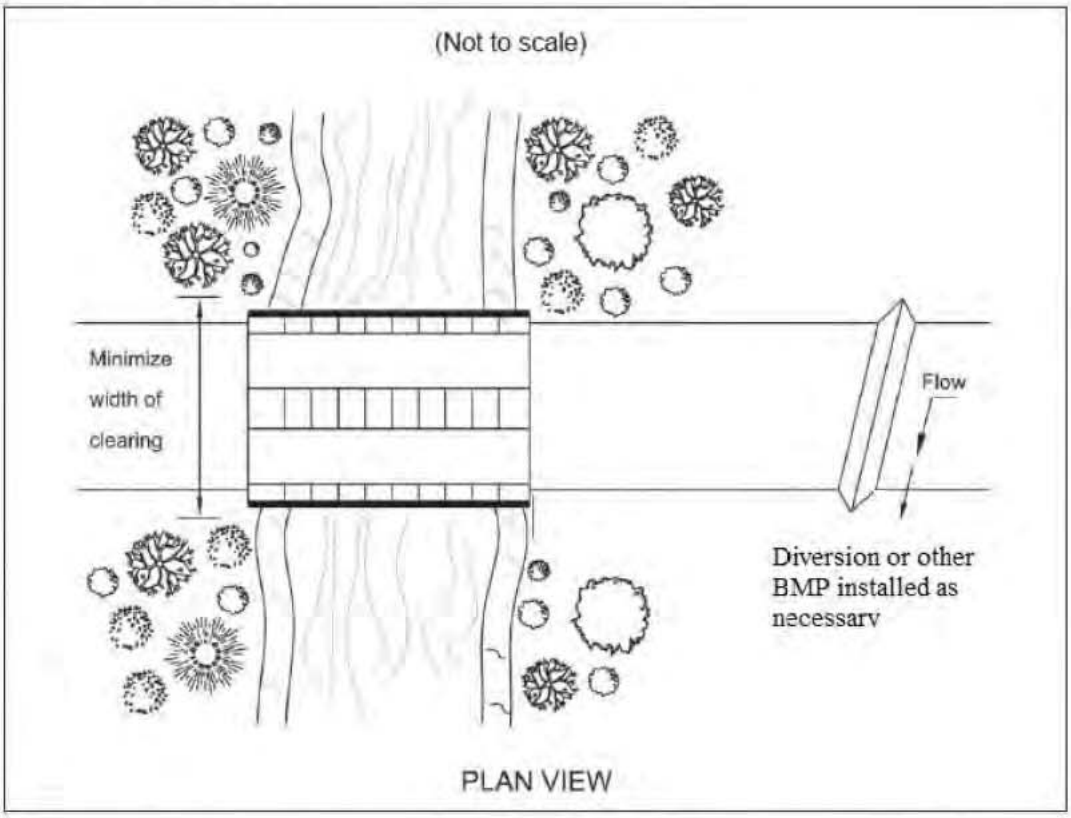
SMALL STREAM UTILITY CROSSING



Notes: A diversion barrier may also be used to direct water away from the pipe trench
Trench plugs will be installed as necessary on each side of water body crossings.

DETAIL G-2

TEMPORARY ACCESS BRIDGE

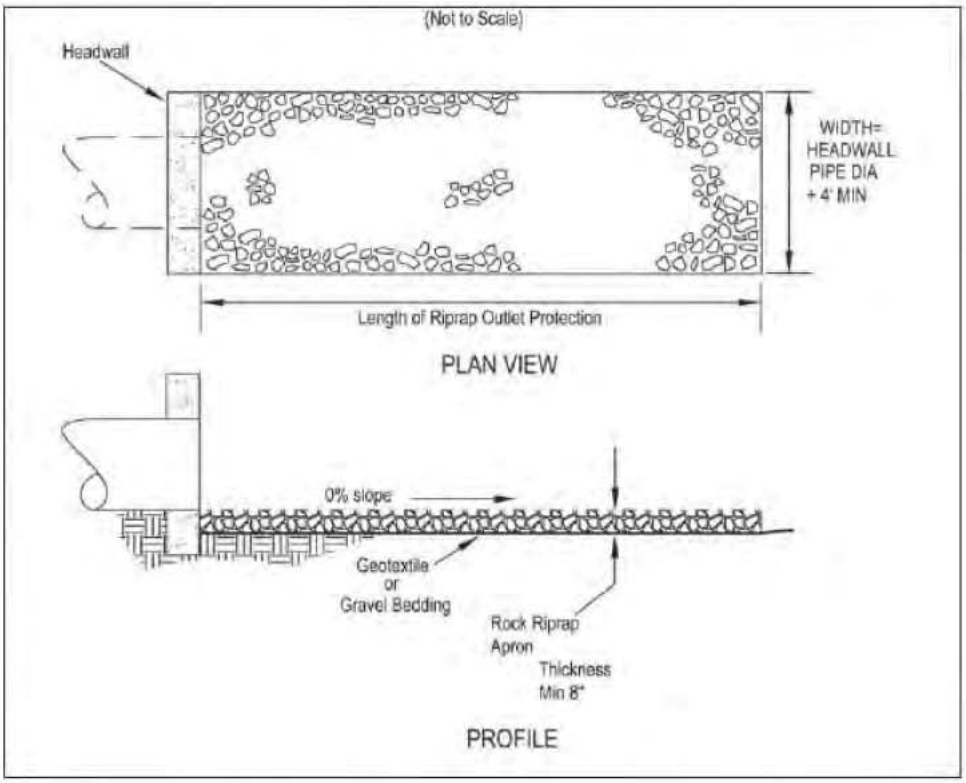


1. Stream Disturbance -Disturbance to the stream shall be kept to a minimum. Streambank vegetation shall be preserved to the maximum extent practical and the stream crossing shall be as narrow as practical.
2. Clearing shall be done by cutting NOT grubbing. The roots and stumps shall be left in place to help stabilize the banks and accelerate revegetation.
3. Water shall be prevented from flowing along the road directly to the stream. Diversions and swales shall direct runoff away from the access road to a sediment-control practice.
4. Bridges shall be constructed to span the entire channel. If the channel width exceeds 8 ft. as measured from the top-of-bank, then a footing, pier or bridge support may be constructed within the waterway. No more than one additional footing, pier or bridge support shall be permitted for each additional 8-ft. width of the channel. However, no footing, pier or bridge support will be permitted within the channel for waterways less than 8 ft. wide.
5. Some steep watersheds subject to flash flood events may require that the bridge be cabled ore secured to prevent downstream damage or hazard.
6. No fill other than clean stone free from soil shall be placed within the stream channel.

Notes: 1. Culvert Pipes may be utilized instead of footings, piers or other bridge supports.
2. Bridge will be temporarily removed during high water events.
3. Bridge to remain until the completion of final restoration.
4. Filter socks shall surround the bridge structure above the water line; removed during use, and replaced at night.
5. Ramp approaches can be either graded or dug into the ground. Stone may be used on approaches.

DETAIL G-3

ROCK OUTLET PROTECTION

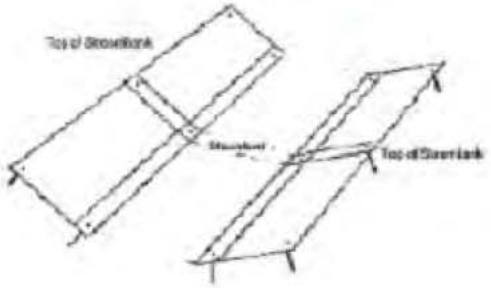


1. Subgrade for the filter or bedding and riprap shall be prepared to the required lines and grades as shown on the plan. The subgrade shall be cleared of all trees, stumps, roots, sod, loose rock, or other material.
2. Riprap shall conform to the grading limits as shown on the plan.
3. Geotextile shall be securely anchored according to manufacturers' recommendations.
4. Geotextile shall be laid with the long dimension parallel to the direction of flow and shall be laid loosely but without wrinkles and creases. Where joints are necessary, strips shall be placed to provide a 12-in. minimum overlap, with the upstream strip overlapping the downstream strip.
5. Gravel bedding shall be ODOT No. 67's or 57's unless shown differently on the drawings.
6. Riprap may be placed by equipment but shall be placed in a manner to prevent slippage or damage to the geotextile.
7. Riprap shall be placed by a method that does not cause segregation of sizes. Extensive pushing with a dozer causes segregation and shall be avoided by delivering riprap near its final location within the channel.
8. Construction shall be sequenced so that outlet protection is placed and functional when the storm drain, culvert, or open channel above it becomes operational.
9. All disturbed areas will be vegetated as soon as practical.

DETAIL G-4

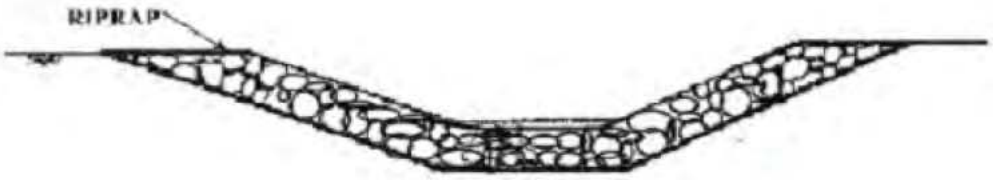
STREAM BANK RESTORATION DETAIL

Erosion Control Mat Details



Refer to matting manufacturer's installation detail for overlap, embedment, staple patterns, and vegetative stabilization specifications

Stream Rip-Rap Details



The following guidelines will be used to select riprap size and thickness:

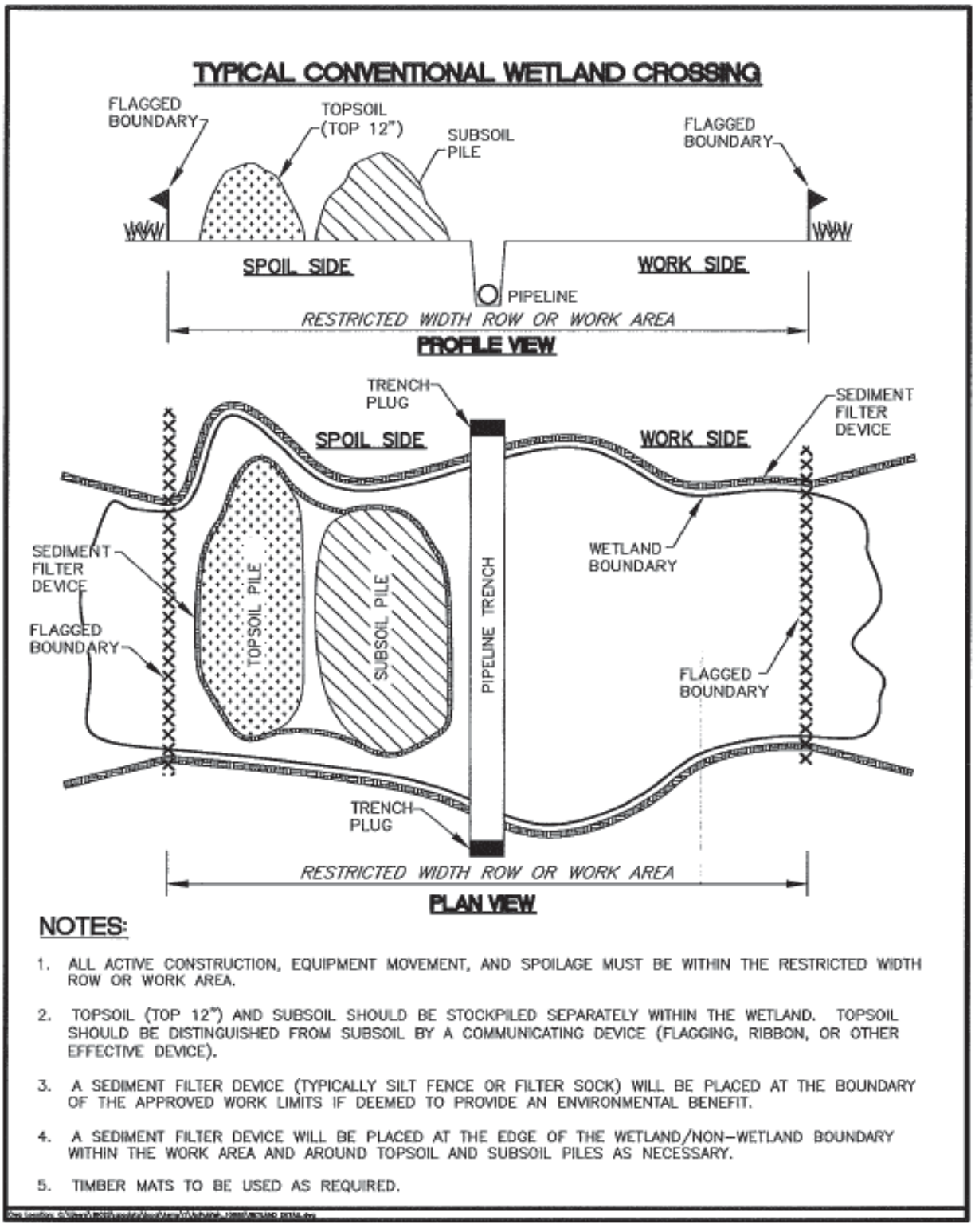
- For channels with water depth > 3 feet, use R-5 at 6" thick.
- For channels with water depth between 2 and 3 feet, use R-4 at 4" thick
- For channels with water depth between 1 and 2 feet, use R-3 at 3" thick
- For channels with water depth < 1 feet, use R-2 at 3" thick

APPENDIX H

Typical Stream Crossing Drawings

DETAIL H-1

TYPICAL WETLAND CROSSING



NOTES:

1. ALL ACTIVE CONSTRUCTION, EQUIPMENT MOVEMENT, AND SPOILAGE MUST BE WITHIN THE RESTRICTED WIDTH ROW OR WORK AREA.
2. TOPSOIL (TOP 12") AND SUBSOIL SHOULD BE STOCKPILED SEPARATELY WITHIN THE WETLAND. TOPSOIL SHOULD BE DISTINGUISHED FROM SUBSOIL BY A COMMUNICATING DEVICE (FLAGGING, RIBBON, OR OTHER EFFECTIVE DEVICE).
3. A SEDIMENT FILTER DEVICE (TYPICALLY SILT FENCE OR FILTER SOCK) WILL BE PLACED AT THE BOUNDARY OF THE APPROVED WORK LIMITS IF DEEMED TO PROVIDE AN ENVIRONMENTAL BENEFIT.
4. A SEDIMENT FILTER DEVICE WILL BE PLACED AT THE EDGE OF THE WETLAND/NON-WETLAND BOUNDARY WITHIN THE WORK AREA AND AROUND TOPSOIL AND SUBSOIL PILES AS NECESSARY.
5. TIMBER MATS TO BE USED AS REQUIRED.

DETAIL H-2

WETLAND TIMBER MAT CROSSING

APPENDIX I

NOI Application Documentation and General Conditions

APPENDIX J

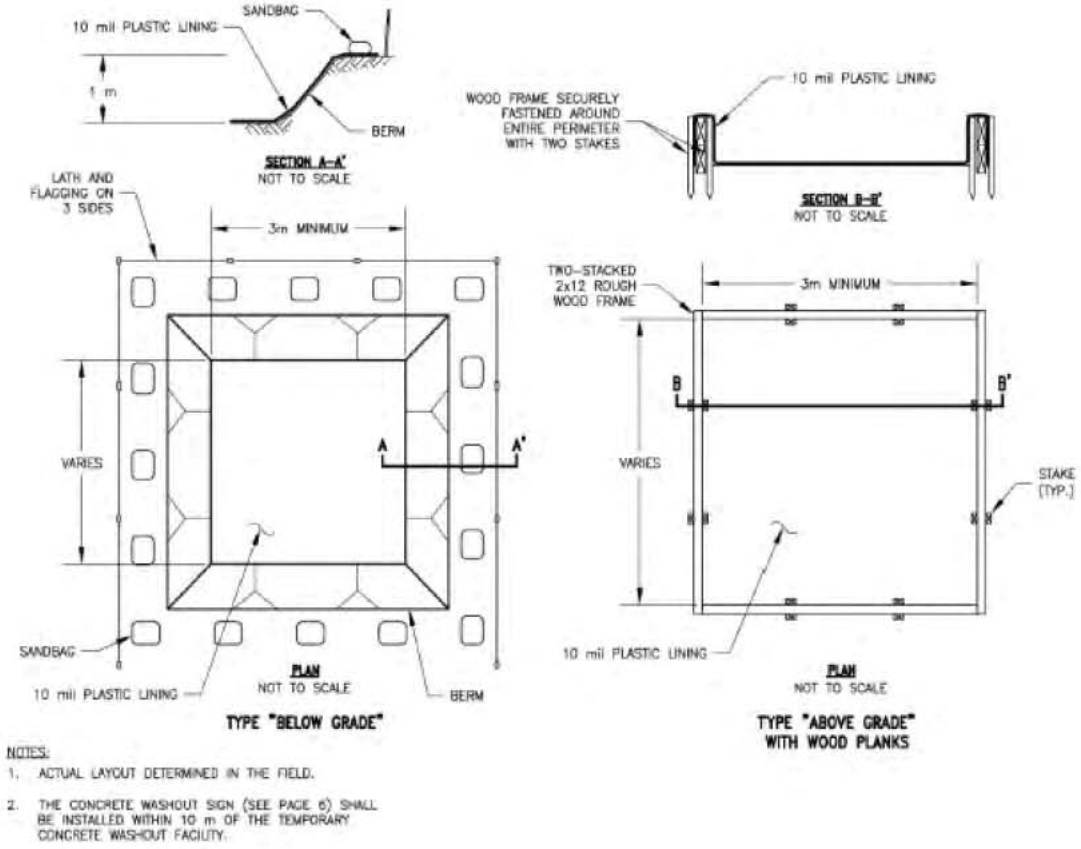
Concrete Washout Typical Detail

DETAIL J-1

Concrete Washout Detail*

Note: This detail to be used in the absence of the following concrete washout BMPs:

1. **Washout into a depressional area where new sidewalks will be poured.**
2. **Washout into a lined pit in the ground with filter socks as perimeter control.**



NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE PAGE 6) SHALL BE INSTALLED WITHIN 10 m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

Sign Examples

Photograph of the "ABOVE GRADE" concrete washout structure

* 1. Concrete washout location is subject to change and will be located by the contractor before construction begins.
2. Concrete washout will be installed away from wetlands and streams.
3. Proper removal and disposal of concrete washout material is required once the project is complete.

APPENDIX K

SWP3 Inspection Forms

ECTS Checklist Guidance

Checklist Title: SWP3 Inspection Form

(For Dominion Energy Construction Projects with a SWP3)

THIS CHECKLIST IS TO BE COMPLETED BY AN ENVIRONMENTAL INSPECTOR (EI) CONTRACTED BY DOMINION ENERGY OR A DOMINION ENERGY INSPECTOR DURING SCHEDULED OR UNSCHEDULED SITE INSPECTIONS OF ACTIVE CONSTRUCTION SITES WITH A SWP3.

- **Information at the top of the form.**
  - **Site Name**: Note the Project name and/or location of the construction activity.
  - **Inspector**: Note the inspector's name and circle the appropriate title.
  - **Qualifications**: Note applicable qualifications.
    - Eight-Hour Stormwater Management During Construction Course - A course administered by numerous third-party trainers.
    - CESSWI - Certified Erosion, Sediment and Stormwater Inspector. A federal certification program administered by EnviroCert International. If "Yes" include certification number.
    - Dominion SWP3 Training - A training module prepared by Dominion Energy Environment and Sustainability for Dominion Energy construction Sites
    - Other – List other applicable qualifications
  - **Signature:** Include the signature of the inspector on paper copy maintained at the site.

- **Inspection Documentation Area**:
  - Circle the applicable inspection type:
    - "Weekly" - Inspection required at least once every seven calendar days during active construction and restoration.
    - "Monthly" - Inspection required after all construction and restoration activity has ceased.
    - "Routine" - Minimum weekly inspection interval
    - "Precipitation Event" - Must be completed at least once every seven (7) calendar days and after any storm event greater than one-half inch of rain per 24-hour period by the end of the next calendar day, excluding weekends and holidays, unless work is scheduled. Rainfall amounts will be determined by Dominion Energy personnel or a designated representative using National Weather Service or other acceptable resources such as an on-site rain gauge.
    - "Other" - Random inspection, Compliance Inspection, Follow-up, etc.
  - **Has it rained since last inspection?** (Y/N) Circle as appropriate and note the time started and duration of the previous storm event. If the precipitation amount is known, insert this information here.
  - **Current Conditions**: Describe the weather conditions during this inspection. Circle the most appropriate soil condition. "Saturated" = standing water is visible on the ground surface.
  - **Features Inspected**: List each feature inspected at the site. The Feature ID must correspond to the site plan submitted with the SWP3 or E&S Control Plan. Record any

repairs or maintenance necessary for each device; include an accurate description of the location of repair and a date when the repair must be completed.

- **Information on second page.**
  - **Construction Inspector(s)**: Note the inspection date, site name, and inspector'(s) name.
  - **Previous Inspections**: Review the previous site inspection form, including action items and dates of completion. Comment on any ongoing activities and its progress. The site has three days from discovery to complete applicable repairs and 10 days from discovery to install new controls if warranted.
  - **Necessary Documents**: Confirm the presence of environmental permit, plans, and notices. These must include: a Stormwater Pollution Prevention Plan (SWP3) or Erosion and Sediment (E&S) Control Plan; Construction Permit/Land Disturbance Permit; Notice of Intent (NOI) to begin disturbance; and Notices of Termination.
  - **Disturbed Areas**: Any disturbed areas that are anticipated to lie dormant for more than 14 days must be stabilized to prevent potential erosion. Stabilization may include: permanent cover (e.g., building, parking lot, etc.); vegetation (seed and straw), mulch or tack; gravel, stone or rip rap.
  - **E/SCDs**: Are Erosion/Sediment Control Devices (E/SCDs) of appropriate design for the areas they are controlling, properly installed and being maintained? The E/SCDs installed must be described in the SWP3 or E&S Control Plan. Furthermore, design details must meet the minimum design details described in the state stormwater control manual. If alternate control methods were installed: notify the site manager and engineer to confirm the controls installed are sufficiently designed; revise the plans accordingly; or remove and replace insufficient controls. The site has three days from discovery to complete applicable repairs and 10 days from discovery to install new controls if warranted.
  - **Final Grade**: List any areas at final grade since last inspection. Areas at final grade are not likely to be disturbed again and must be stabilized. See Question # 9 above.
  - **Untreated Discharges**: Observations of untreated discharge may include:
    - A sheen indicating petroleum products;
    - Foam or froth indicating a chemical or other discharge;
    - Suspended particles or sludge beneath the surface;
    - Discolored water, including dirty/muddy characteristics of sedimentation;
    - A change in water temperature; and
    - Damaged or stressed vegetation or wildlife.
  - **Notification**: Review the inspection findings with a site manager or other responsible person and note this individual.

Checklist Owner: Tara Buzzelli
Local: 8-657-2579
Work: 330-664-2579
Cell: 330-604-8871
Email: Tara.E.Buzzelli@DominionEnergy.com

Subject Matter Expert: Greg Eastridge
Local: 8-657-2576
Work: 330-664-2576
Cell: 330-571-7855
Email: Gregory.K.Eastridge@DominionEnergy.com

Date of Last Revision: July 2020

OHIO SWP3 INSPECTION FORM

Site Name: Date:

Environmental Inspection Company:
Environmental Inspector:

Qualifications:	Completed 8-HR Stormwater Management During Construction Course	Y	N
	CESSWI	Y	N
	Dominion SWP3 Training	Y	N
	Other:_____		

Inspector Signature:

Weekly **Monthly**

Routine Inspection **Precipitation Event >0.5-inch** **Other** _____
(circle all applicable)

Has it rained since last inspection? *(circle one)*

Yes: Date(s) & Approx. Amount_____ **No**

Current Conditions: _____

Soil Conditions: **Dry** **Wet** **Saturated** **Frozen**
(circle applicable conditions)

Feature ID	BMP, ECD, SCD Applied	Recommendations

BMP: Best Management Practice E/SCD: Erosion/Sediment Control Device SF: Silt Fence SW: Straw Wattle W: Wetland S: Stream
TM: Timber Mat IP: Inlet Protection WB: Waterbar RCE: Rock Construction Entrance ECM: Erosion Control Matting FS: Filter Sock

Date: Site:

Stormwater Pollution Prevention Plan Inspection Form

Construction Inspector(s) On Site:

Unresolved issues from previous inspections:

Are the SWP3, NOI and General Permit Letter on-site? Yes No
If no, explain.

List newly disturbed areas likely to lie dormant for more than 14 days:

Have soil stockpiles been placed at least 50 feet from drainageways?

List construction entrances and SCDs used to prevent tracking into roadway:

Are E/SCDs of appropriate design for area they are controlling, properly installed and being maintained?

List any new areas at final grade since last inspection:

Is the inlet protection of appropriate design?

Were any untreated discharges into streams, wetlands or inlets observed? If yes, document location(s):

Note person(s) notified of any inspection finding(s) and expected date of correction:

Notes

APPENDIX L

Inadvertent Return Plan

Introduction

The East Ohio Gas Company (EOG) utilizes horizontal directional drilling (HDD) to install pipeline crossings on construction projects, depending on site specific conditions. HDD is a widely used trenchless construction method which accomplishes the installation of pipelines and buried utilities with minimal disturbance to the surface or streams and wetlands. However, HDD is not totally without impact. The primary environmental impact associated with HDD revolves around the use of drilling fluids. The purpose of this document is to present EOG's plan for minimizing environmental impact associated with drilling fluids that inadvertently escape to the ground surface (known as an inadvertent return). This document may require additional site specific information depending on the sensitivity of the project and requests from the permitting agencies.

If a site specific contingency plan is developed for a particular bore the plan should be submitted to the appropriate United States Army Corps of Engineers (USACE) District as described in Attachment A of this document.

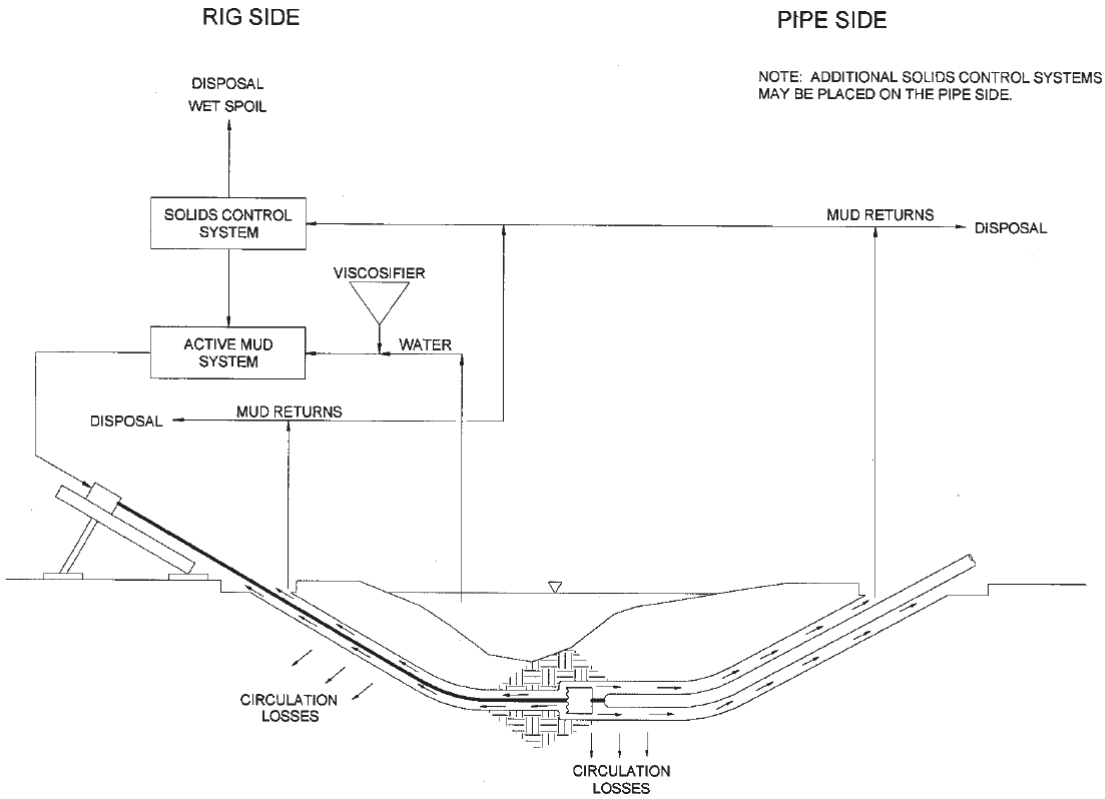
Background

An awareness of the function and composition of HDD drilling fluids (also referred to as drilling mud) is imperative in producing a permittable and constructable HDD crossing design. The principal functions of drilling fluid in HDD pipeline installation are listed below.

- **Transportation of Spoil**. Drilled spoil, consisting of excavated soil or rock cuttings, is suspended in the fluid and carried to the surface by the fluid stream flowing in the annulus between the bore hole and the pipe.
- **Cooling and Cleaning of Cutters**. Drilled spoils build-up on bit or reamer cutters is removed by high velocity fluid streams directed at the cutters. Cutters are also cooled by the fluid.
- **Reduction of Friction**. Friction between the pipe and the hole wall is reduced by the lubricating properties of the drilling fluid.
- **Hole Stabilization**. Stabilization of the drilled hole is accomplished by the drilling fluid building up a "wall cake" which seals pores and holds soil particles in place. This is critical in HDD pipeline installation as holes are often in soft soil formations and are uncased.
- **Transmission of Hydraulic Power**. Power required to turn a bit and mechanically drill a hole is transmitted to a downhole motor by the drilling fluid.
- **Hydraulic Excavation**. Soil is excavated by erosion from high velocity fluid streams directed from jet nozzles on bits or reaming tools.
- **Soil Modification**. Mixing of the drilling fluid with the soil along the drilled path facilitates installation of a pipeline by reducing the shear strength of the soil to a near fluid condition. The resulting soil mixture can then be displaced as a pipeline is pulled into it.

The major component of drilling fluid used in HDD pipeline installation is fresh water, typically obtained at the crossing location. In order for water to be fully functional, it is generally necessary to modify the properties by adding a viscosifier. The viscosifier used almost exclusively in HDD drilling fluids is naturally occurring bentonite clay, which is principally sodium montmorillonite. It is not listed as a hazardous material/substance as defined by the U.S. Environmental Protection Agency's EPCRA or CERCLA regulatory criteria. If the product becomes a waste, it does not meet the criteria of a hazardous waste, as defined by USEPA.

All stages of HDD involve circulating drilling fluid from equipment on the surface, through a drill pipe, and back to the surface through a drilled annulus. Drilling fluid returns collected at the entry and exit points are stored in a steel tank and processed through a solids control system which removes spoil from the drilling fluid allowing the fluid to be reused. The cleaned fluid is trucked back to the entrance point for reuse. The basic method used by the solids control system is mechanical separation using shakers, desanders, and desilters. The excess spoil and drilling fluid are transported to, and disposed of, at an approved permitted solid waste landfill. A typical HDD drilling fluid circuit is illustrated schematically below.



Drilling fluid expended downhole will flow in the path of least resistance. In the drilled annulus, the path of least resistance may be an existing fracture or fissure in the soil or rock substrate. When this happens, circulation can be lost or reduced. This is a common occurrence in the HDD process, but does not prevent completion. However, the environment may be impacted if the fluid inadvertently returns to the surface at a location on a waterway's banks or within a waterway or wetland.

Inadvertent Return Minimization

The risk of an inadvertent return can be mitigated through profile design and implementation of specific measures throughout the installation process.

The HDD profile is designed to minimize the potential for the release of drilling fluid in sensitive areas. Cohesive soils, such as clays, dense sands, and competent rock are considered ideal materials for containment of drilling fluids. Case by case analysis of the overburden will be conducted to determine the depth of the bore to provide a margin of safety against inadvertent returns in a sensitive area. In non-cohesive soils, such as gravel, a greater depth of cover will be used.

During the design phase, substrate test bores if required, should be minimum of twenty (20) feet from the HDD centerline where practical. The bore holes should be filled with concrete prior to the HDD process.

Key preventive measures implemented during installation are geared toward keeping the drill fluid contained in the borehole and prevent its escape to the surface. This is accomplished through monitoring and management of drill fluid pressures and drill fluid volumes. A key to containing and controlling an inadvertent return is early detection and quick response by the HDD crew.

Minimization of Environmental Impact

The most effective way to minimize environmental impact associated with HDD drilling fluids is to maintain fluid circulation to the extent practical. Maintenance of fluid circulation is the responsibility of the HDD contractor. EOG's construction specifications defining this responsibility is presented below.

> CONTRACTOR shall employ his best efforts to maintain full annular circulation of drilling fluids. Drilling fluid returns at locations other than the entry and exit points shall be minimized. In the event that annular circulation is lost, CONTRACTOR shall take steps to restore circulation.

However, it should be recognized that restoration of circulation may not be practical or possible and that environmental impact will be minimized by completing construction as soon as possible. Therefore, absent a threat to public health and safety, drilling operations will continue in the event of lost circulation if deemed to reduce the duration of construction operations.

Drilling fluid is easily contained by standard erosion and sediment control measures within upland areas. Within the boundaries of the worksite, drilling fluid is controlled through the use of pits at the crossing entry and exit points, and typical fluid handling equipment such as trash pumps.

The environmental impact of a release of drilling fluid into a water body is a temporary increase in local turbidity until drilling fluid dissipates with the current and settles to the bottom. In the

immediate vicinity of a release, benthic organisms may be smothered if sufficient quantities of bentonite settle upon them.

Response to an Inadvertent Return

The HDD contractor shall immediately notify the Construction Inspector (CI) and Environmental Inspector (EI) or EOG Environmental Compliance Coordinator (ECC) of any sudden losses in returns or any inadvertent return to the surface. If an inadvertent return is observed, the HDD contractor will take certain reasonable measures to eliminate, reduce, or control the release. The actions to be taken will depend on the location and time of release, site specific geologic conditions, and the volume of the release.

If a release occurs in an upland area, the HDD contractor will immediately take appropriate reasonable actions to reduce, eliminate, or control the release. The action shall include:

- Constructing a small pit or sandbag coffer around the release point, installing a section of silt-fence or compost filter sock to trap as much sediment as possible, and placing a pump hose in the pit to pump the drilling fluid back to the bore site
- Reducing drilling fluid pressures
- Thickening drilling fluid mixture
- Adding pre-approved loss circulation materials to the fluid mixture, such as wood fibers or shredded paper

The HDD contractor in consultation with the CI and EI/ECC will determine which methods are most appropriate to eliminate, reduce or control the release. Prior to the end of the shift, the EI or CI will notify the local Dominion Environmental Department concerning the inadvertent return event. Recovered drilling fluid will be recycled and reused to the extent that is practical. Waste drilling fluid will be disposed of in a permitted solid waste landfill in accordance with Dominion protocols.

If an inadvertent return occurs on a stream's bank or within a stream or wetland, it will be the responsibility of the HDD contractor to contain and collect drilling fluid, and ultimately restore the disturbed area, as practical. Drilling operations will be temporarily suspended to allow contractor to set up a containment and collection system. EOG's construction specifications defining this responsibility are presented below.

> If inadvertent return of drilling fluids occur, it shall be immediately contained with hand placed barriers (i.e. straw bales, sand bags, silt fences, etc.) and collected using pumps as practical. If the amount of the release is not great enough to allow practical collection, the affected area shall be diluted with fresh water and the fluid will be allowed to dry and dissipate naturally. If the amount of the release exceeds that which can be contained with hand placed barriers, small collection sumps may be used. If the amount of the release exceeds that which can be contained and collected using small sumps, drilling operations shall be suspended until surface return volumes can be brought under control.

If an inadvertent return occurs in a **wetland**, **or in close proximity to a stream**, where there is imminent danger of the drilling fluid migrating into a stream, then drilling operations will cease until HDD personnel, CI and EI/ECC have had an opportunity to examine the site and evaluate the threat to the waterbody. If an ECC has not been involved, EOG's local ECC shall be contacted immediately and will assist in the response and cleanup, as needed, and make all required and appropriate Agency notifications. The release shall be reported to the Ohio Environmental Protection Agency (Ohio EPA) and the USACE. Based on review of the information submitted, the action taken and the aquatic resource impacted, Ohio EPA or USACE will determine what the appropriate response/action will be on a case by case basis.

A plan for avoiding additional impacts, which may include some or all of the actions items listed below, will be implemented. Efforts will be made to minimize ground disturbance in wetlands while accessing the inadvertent return area by utilizing swamp mats and lightweight equipment, such as bobcats and pick-up trucks, and minimizing travel into and out of the wetland. The cutting of shrubs and trees will be minimized, as much as practical, in order to reach the inadvertent return area. The HDD activity may be resumed only after it has been determined with reasonable certainty that any additional release of drilling fluid will be minimal and can be adequately contained without posing additional impact to wetlands and streams. The release site(s) will be closely monitored for additional inadvertent return activity until the HDD work in the area is completed. For longer stretches of right-of-way (ROW) that are not within sight of the HDD personnel, the pipeline ROW will be walked on an hourly basis.

If an inadvertent return occurs in a **stream or river**, then drilling operation will cease until HDD personnel, CI and EI/ECC have had an opportunity to examine the site and evaluate the threat to the waterbody. The release shall be reported to the Ohio EPA and the USACE. Based on review of the information submitted, the action taken and the aquatic resource impacted, Ohio EPA or USACE will determine what the appropriate response/action will be on a case by case basis.

A plan for avoiding additional impacts, which may include a pump or flume bypass with secondary containment, in addition to all of the action items listed above will be implemented. The HDD activity may be resumed only after it has been determined with reasonable certainty that any additional release of drilling fluid will be minimal and can be adequately contained without posing further impacts to wetlands and streams. The release site(s) should continue to be closely monitored for any additional further inadvertent return activity until the HDD work in the area is completed. For inadvertent return situations in streams and wetlands only, the EI/ECC may conduct stream monitoring/sampling such as pH and turbidity, comparing upstream conditions with downstream conditions. Also, the stream will be walked to verify the extent of drilling fluid sediment dispersal and settling.

One **exception to ceasing drilling operations** until containment is developed would be a release of drilling fluids during the pipe pullback process. Ceasing operations would pose significant risk of causing the pull to be stuck and not able to resume.

Containment and Clean-up Material and Equipment

The HDD contractor will be required to have the necessary containment and clean-up equipment onsite, readily available to use. At a minimum, the following material and equipment should be onsite in ample supply depending on the extent of sensitive areas:

- Spill absorbent pads and booms
- Compost filter socks
- Silt fence
- Wood stakes
- Sand bags
- Plastic sheeting
- Corrugated plastic pipe
- Shovels
- Push brooms
- Centrifugal, trash and sump pumps
- Vacuum trucks
- Rubber tired or wide track back hoe
- Bobcat
- Storage tanks
- Floating turbidity curtain

If necessary a local 24-hour outside emergency response company may be called for assistance.

EnviroServe – 1-800-642-1311

The following lists local Energy Infrastructure Environmental Services personnel.

• Dave Fredle (Construction ECC)	Office: (330) 664-2615 Cell: (330) 703-3603
• Greg Eastridge (EOG Environmental Specialist)	Office: (330) 664-2576 Cell: (330) 571-7855
• Tara Buzzelli (EOG Environmental Specialist)	Office: (330) 664-2579 Cell: (330) 604-8871
• Stephan Ryder (EOG/EOG Environmental Advisor)	Office: (330) 664-2531 Cell: (330) 813-8805

Agency Notifications

Typically, EOG's ECC will make the necessary calls to any regulatory agency.

- Ohio EPA Spill Hotline: 1-(800)-282-9378: Make call upon gathering of the information listed in Attachment A. (Not considered a spill; rather an unpermitted discharge)
- USACE – Refer to Attachment A of this document
- Other agencies that may have to be notified dependent upon permit approvals and site conditions include National Response Center 1-(800)-424-8802; Ohio Department of Natural Resources (ODNR); the United States Fish and Wildlife Service (USFWS); and Ohio Power Siting Board

Inadvertent Return Site Restoration

All areas impacted will be restored to pre-existing condition and contour. Impacted upland areas will be restored through normal right-of-way practices of seeding and mulching.

Restoration of wetlands will vary depending on the extent of disturbance to the upper soil layer and vegetation during the initial inadvertent return response. Recommendations will be sought first from the respective District Corp office for restoration activities in any Category 3 wetland. Residual drilling mud will be washed off the vegetation as much as practical. Upon review of any submitted information to the Ohio EPA and/or USACE; it will be determined if further action is required.

Restoration of stream beds will be dependent upon it's classification. Recommendations will be sought first from the respective USACE office/Ohio EPA for restoration activities in streams classified as Exceptional Warmwater Habitat, Seasonal Salmonid Stream or Coldwater Habitat. All other perennial, intermittent and ephemeral streams will have as much residual drilling mud pumped out as practical, so as not to disturb the original streambed. This may include a light wash of the streambed utilizing upstream water and collecting the wash water immediately downstream. Similar to an inadvertent return occurring in wetlands, upon review of any submitted information, Ohio EPA and/or USACE will review the restoration activities performed and determine if further action is warranted.

Attachment A

Coordination Procedures between the U.S Army Corps of Engineers (USACE) and East Ohio Gas (Dominion) for Inadvertent Return:

If specific inadvertent return contingency/corrective action plans have been developed for particular Horizontal Directional Drills (HDD), these should be provided to the appropriate USACE District prior to initiation of the HDD. Of particular importance is for Dominion to identify any potential corrective actions that may require USACE authorizations to implement the corrective actions (i.e. temporary access roads to facilitate containment/clean-up in areas regulated by the USACE).

Inadvertent Return Occurs:

The procedures outlined below shall be implemented when an inadvertent return occurs in an area regulated the USACE in the state of Ohio:

1. Identify the responsible USACE District (Buffalo, Huntington, Pittsburgh) based on the geographical location of the inadvertent return.

2. Immediately notify the point of contact at the responsible USACE District.
   -Mark Scalabrino (Buffalo): (716) 879-4327, mark.w.scalabrino@usace.army.mil
   -Mark Taylor (Huntington): 304-399-5610, mark.a.taylor@usace.army.mil
   -Nancy Mullen (Pittsburgh): 412-395-7155, nancy.j.mullen@usace.army.mil

*Notification shall occur via e-mail with potential phone contact as the situation warrants.

3. The notification shall include the following information:
   - USGS location map depicting the inadvertent return location.
   -Identify the regulated water of the U.S. and provide a brief description of that resource (i.e. stream/river name, forested wetland, etc).
   -Characterize the scope of the inadvertent return. Identify the approximate quantity of material discharged and area impacted by that discharge.
   -Provide the date an inadvertent return occurred and status of the situation (i.e. stopped, on-going).
   -State corrective actions taken by Dominion to address the situation.
   -Representative photos of the area impacted by the inadvertent return and representative photos of the area after corrective/restoration efforts.
   -Identify the potential for any additional USACE authorizations required to perform corrective actions (i.e. temporary access road in areas regulated by the USACE).

Based on review of any information submitted, the action taken by Dominion, and the aquatic resource impacted, the responsible USACE District will determine what the appropriate USACE response/action will be on a case by case basis.

NOTE: The USACE may update this guidance at any time based on an assessment of the situations which are encountered and how they are handled by Dominion.

ATTACHMENT L

STARK COUNTY SOIL AND WATER CONSERVATION COORDINATION

STARK SOIL & WATER CONSERVATION DISTRICT
2650 RICHVILLE DR SE, SUITE 100 * MASSILLON, OH 44646 * (330) 451-7645

Approval Letter

July 20, 2021

Mr. Greg Eastridge
Dominion Energy Ohio
320 Springside Drive
Suite 320
Akron, OH 44333

Re: **DOM PIR 2647 – 37th and Cleveland**
Parcel No. – Multiple
NPDES # 3GC12377*AG
Project # 2021-69
Plan Approval

Dear Mr. Eastridge,

The Storm Water Pollution Prevention Plan (SWPPP) dated 06/17/2021 for the above-mentioned project received on 07/08/2021 has been reviewed and approved by our office and will be used as a reference when inspecting this site during construction. Please ensure this letter remains on site during the construction process along with the approved NOI and approved set of plans.

1. All review and inspections fees (Invoice #2021-69) have been paid as of 07/20/2021.

2. Please provide our office with the contact information of the contractor who will be responsible for implementing (installing & removing practices) the SWPPP and writing the inspection reports. NOTE: If the contractor is unknown at this time, the information will be required before a pre-construction meeting is scheduled.

3. If desired by the developer, the contractor will need Co-Permittee NOI coverage prior to the start of the project. Please provide a copy to our office once/if obtained.

4. Signed and dated copies of the SWPPP Owner/Developer and Contractor Certification statements will need provided to our office either before or on the date of the pre-construction meeting.

5. A pre-construction meeting is required before any earthmoving operations begin. Please contact our office at 330-451-7645 to schedule a time. *This may take place once all reviewing agencies have provided their approval to you.

This approval shall remain valid for two (2) years from the date of this approval letter. An extension may be requested in writing before the termination of the two (2) years. If you have any questions, please contact me at 330-451-7647 or SEMatheny@starkcountyohio.gov.

Respectfully,

Sarah Matheny

Sarah Matheny
Storm Water Manager

cc: Dave Hollendonner – Dominion Energy Ohio
Chris Neisel – Canton Township

Stark Soil & Water Conservation District
2650 Richville Dr SE, Ste 100
Massillon, OH 44646
(330) 451-7646
jsweedon@starkcountyohio.gov
www.starkswcd.org

INVOICE

INVOICE # 2021-69
DATE 07/20/2021
DUE DATE 07/31/2021
TERMS 45 days

BILL TO
Dominion East Ohio Gas
Greg Eastridge
320 Springside Dr, Ste 320
Akron, OH 44333

PLEASE DETACH TOP PORTION AND RETURN WITH YOUR PAYMENT.

ACRES / COMMUNITY
3.8 / Canton Township

SITE NAME
DOM PIR 2647 - 37th & Cleveland

ACTIVITY	QTY	RATE	AMOUNT
SWPPP Storm Water Pollution Prevention Plan Review Fee ($30/acre - Minimum charge of $150.00)	5	30.00	150.00
Site Inspection Fee:Site Inspection Fee - Sites 1 - 4.9 Acr Inspection of Sites 1 to 4.9 acres disturbed - flat fee charg	1	500.00	500.00

PAID

Please remit payment to:
Stark SWCD
2650 Richville Dr SE, Ste 100
Massillon, OH 44646

PAYMENT 650.00
BALANCE DUE **$0.00**

ATTACHMENT M

STARK COUNTY FLOODPLAIN COORDINATION

STARK SOIL & WATER CONSERVATION DISTRICT
2650 RICHVILLE DR SE, SUITE 100 * MASSILLON, OH 44646 * (330) 451-7645

Approval Letter

July 20, 2021

Mr. Greg Eastridge
Dominion Energy Ohio
320 Springside Drive
Suite 320
Akron, OH 44333

Re: **DOM PIR 2647 – 37th and Cleveland**
Parcel No. – Multiple
NPDES # 3GC12377*AG
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Plan Approval

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5. A pre-construction meeting is required before any earthmoving operations begin. Please contact our office at 330-451-7645 to schedule a time. *This may take place once all reviewing agencies have provided their approval to you.

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Respectfully,

Sarah Matheny

Sarah Matheny
Storm Water Manager

cc: Dave Hollendonner – Dominion Energy Ohio
Chris Neisel – Canton Township

Stark Soil & Water Conservation District
2650 Richville Dr SE, Ste 100
Massillon, OH 44646
(330) 451-7646
jsweedon@starkcountyohio.gov
www.starkswcd.org

INVOICE

INVOICE # 2021-69
DATE 07/20/2021
DUE DATE 07/31/2021
TERMS 45 days

BILL TO
Dominion East Ohio Gas
Greg Eastridge
320 Springside Dr, Ste 320
Akron, OH 44333

PLEASE DETACH TOP PORTION AND RETURN WITH YOUR PAYMENT.

ACRES / COMMUNITY
3.8 / Canton Township

SITE NAME
DOM PIR 2647 - 37th & Cleveland

ACTIVITY	QTY	RATE	AMOUNT
SWPPP Storm Water Pollution Prevention Plan Review Fee ($30/acre - Minimum charge of $150.00)	5	30.00	150.00
Site Inspection Fee:Site Inspection Fee - Sites 1 - 4.9 Acr Inspection of Sites 1 to 4.9 acres disturbed - flat fee charg	1	500.00	500.00

PAID

Please remit payment to:
Stark SWCD
2650 Richville Dr SE, Ste 100
Massillon, OH 44646

PAYMENT 650.00
BALANCE DUE **$0.00**

ATTACHMENT N

TRANSMITTAL LETTER TO PUBLIC OFFICALS

whittsturtevant LLP

MARK A. WHITT
Direct: 614.224.3911
whitt@whitt-sturtevant.com

Via FedEx

[DATE]

<NAME>
<ADDRESS>
<ADDRESS>

Re: Dominion Energy Ohio Letter of Notification for PIR 2647
37th & Cleveland, Canton Township, Stark County,
Ohio Power Siting Board Case No. 21-0874-GA-BLN

Dear <NAME>,

Dominion Energy Ohio (DEO) is planning to replace approximately 5,320 feet of an existing eight (8)-inch and six (6)-inch diameter pipeline with 6,350 feet of 12-inch and 6-inch diameter pipeline. The new pipeline route is located within Canton Township, Stark County, Ohio. The pipeline will be installed in public road right-of-way and DEO easements and will be replaced across Maplewood Avenue, through the intersection of Forestdale Avenue and 37th Street, across Diane Avenue, along Highview Avenue heading north to Carnwise Street and heading east along Carnwise Street ending approximately 1,675 feet east of Cleveland Avenue. Existing public roadways and temporary construction DEO easements will provide the required equipment access.

In accordance with Ohio Revised Code Section 4906.03(F)(3), this project falls within the Ohio Power Siting Board's (Board) accelerated review or within its requirements for a Letter of Notification. Therefore, in compliance with Ohio Administrative Code Rule 4906-6-07(A)(1), enclosed please find a copy of the Letter of Notification application that has been filed today with the Board for its review and approval.

If you have any questions concerning this pipeline replacement project, please contact Dominion Energy Ohio's Land Services Department at 1-855-226-6022.

Sincerely,

Mark A. Whitt

Enclosure: Copy of Letter of Notification Application