



Legal Department

American Electric Power
1 Riverside Plaza
Columbus, OH 43215-2373
AEP.com

Ms. Betty McCauley
Director, Administration Department
Secretary to the Commission
Docketing Division
The Public Utilities Commission of Ohio
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215

Yazen Alami
Regulatory Services
(614) 716-2920 (P)
(614) 716-2950 (F)
yalami@aep.com

February 28, 2013

RE: Letter of Notification
Case No. 13-0452-EL-BLN--Steamtown 138kv Loop Project

Dear Ms. McCauley:

In accordance with Rules 4906-5-02 and 4906-11-01, Ohio Administrative Code, AEP Ohio Transmission Company ("AEP Ohio Transco") submits this Letter of Notification for expedited approval. A copy of a check in the amount of \$2,000 for the expedited application processing fee will be submitted under separate cover. The requested start date of construction is May 2013, and construction is scheduled to be completed by September 2013.

As required by Rule 4906-11-01(D)(4), AEP Ohio Transco has submitted a copy of this Letter of Notification to the chief executive officer of each municipal corporation and county and the head of each public agency charged with protecting the environment or of planning land use in the area in which the proposed project will be located. Attached to the Letter of Notification are copies of cover letters that have been submitted to the Noble County Commissioners, Marion Township Trustees, and the Caldwell public library.

Should you have any questions, please do not hesitate to contact me.

Respectfully submitted,

/s/ Yazen Alami
Yazen Alami

Attachments

**LETTER OF NOTIFICATION FOR THE
STEAMTOWN 138kV LOOP PROJECT**

PUCO Case Number 13-452-EL-BLN

Submitted pursuant to OAC 4906-11-01

**AEP Ohio Transmission Company
("AEP Transo")**

FEBRUARY 2013

Letter of Notification

In accordance with Ohio Administrative Code Section 4906-11-01 Letter of Notification, AEP Ohio Transmission Company submits the following information:

4906-11-01 (B) General Information

4906-11-01 (B) (1) Project Name and Reference Number

The name of this project is the Steamtown 138 kV Loop, and the OPSB Case number is 13-452-EL-BLN.

4906-11-01 (B) (1) Description of the Project

This project consists of installing 0.8 miles of new double circuit steel structures. The project will be a loop from the existing South circuit of AEP's Muskingum River – Summerfield 138kV line to the new Steamtown station. The loop will tap the Muskingum River – Summerfield line at Tower 101 and generally run in a Southeast orientation. The line and station are being constructed to provide electrical service for a new MarkWest Energy Partners facility to be located northwest of Summerfield, Ohio in Noble County. In total, there will be 7 structures installed. Two (2) single circuit steel deadend poles will be constructed South of Tower 101 as the tap structures for the Muskingum River – Summerfield existing line. Additionally, the new line will require construction of one (1) single pole double circuit steel tangent, two (2) two pole steel double circuit running angles, and two (2) two pole steel double circuit deadends. All tangents and running angles are direct embedded. The deadends will have pier foundations. The transmission line will be 138kV with no underbuild. This project is on land owned by MarkWest Energy Partners.

4906-11-01 (B) (1) Reason the Project Meets Letter of Notification Requirements

The project is defined by Item (1)(e) of the Ohio Administrative Code Chapter 4906-01, Appendix A “Application Requirement Matrix for Electric Power

Transmission Lines”, which requires a Letter of Notification. This project consists of new construction of a line which is primarily needed to attract or meet the requirements of a specific customer.

4906-11-01 (B) (2) Need for the Project

MarkWest Energy Partners has requested 138kV service due to the construction of their facility. This project will extend the Muskingum River-Summerfield 138kV circuit to the new Steamtown 138kV/12kV station being built to serve MarkWest Energy Partners.

4906-11-01 (B) (3) Project Location Relative to Existing or Proposed Lines

The location of this project in relation to existing transmission lines is shown on Map 1.

4906-11-01 (B) (4) Alternatives Considered

Consideration was given to tapping the Muskingum – Summerfield 138kV line at Tower 103 and running the Steamtown 138kV loop South to the MarkWest facility. However, this option was not feasible once MarkWest selected a substation location on the Southwest corner of the facility. Pole locations were dictated by the property topography. The topography along the transmission line route is hilly and the poles were located at higher elevations to minimize pole heights and loads on the poles/foundations.

4906-11-01 (B) (5) Anticipated Construction Schedule

Construction of the 0.8 mile transmission line is expected to begin in May of 2013 and is scheduled to be completed in September 2013.

4906-11-01 (B) (6) Maps Depicting Project Location

Map 1 has been prepared to show the project location. Included on the map is the Steamtown substation and the MarkWest facilities which will be constructed. The

project site is located approximately 113 miles East of Columbus. To visit the proposed line, take I-70 East out of Columbus, OH. Near Cambridge, OH take I-77 South toward Marietta. Take Exit 25 for OH-78 toward Caldwell/Woodsfield. Continue on OH-78 for approximately 13.2 miles and then turn left onto S Main St. Turn left onto West Cross St. which turns into Zep Rd or OH-146W. Stay on OH-146 for approximately .5 miles. The MarkWest facility will be located on the West side of the road. The project area is an active construction zone. Please make appropriate arrangements before entering MarkWest's property.

4906-11-01 (B) (7) Property Easements

The project will be located on new easements obtained by American Electric Power on property owned by the requesting customer, Markwest Energy Partners. No other additional right-of-way rights are required. The name and address of the owner is listed below:

Markwest Energy Partners, L.P.
2448 East 81st Street, Suite 5400
Tulsa, OK 74137

4906-11-01 (C) Technical Features of the Project

4906-11-01 (C) (1) Description of Technical Features

The proposed line will be designed for and operated at 138 kV. Figures 2 through 6 show the typical steel pole structures to be installed. Six (6) 556 kcmil ACSR 26/7 conductors and two (2) 7 Strand Number 10 alumoweld shield wires will be installed and supported by the new structures.

4906-11-01 (C) (1) Number and Type of Structures

Two (2) single steel pole deadend structures (Figure 2), one (1) single pole steel tangent (Figure 3), two (2) steel two pole running angle structures (Figure 4), and two (2) steel two pole dead end structures (Figures 5 & 6) are to be installed.

4906-11-01 (C) (1) Right of Way and Land Requirements

The line will be constructed on land owned by MarkWest Energy Partners. American Electric Power will obtain one (1) new easement from MarkWest Energy Partners. No other land rights will be required.

4906-11-01 (C) (2) (a) Calculated Electric and Magnetic Field Levels

Line Loadings & Rating

Line	Normal Maximum Loading	Emergency Line Loading	Winter Normal Conductor Rating
	(Amps)	(Amps)	(Amps)
Steamtown 138kV Loop	350	401	1079

The electrical and magnetic field levels for the proposed project were calculated for the conductor configurations that are to be used on this project. The configurations A and B are shown in Figures 7 and 8 respectively.

Conductor Condition	Electrical Field (kV/M)		Magnetic Field (mG)	
	Max Under Line	Edge of R.O.W.	Max Under Line	Edge of R.O.W.
Normal Maximum Loading				
Steamtown 138kV Loop	1.6	0.4	25	17
Emergency Line Loading				
Steamtown 138kV Loop	1.6	0.4	29	19
Winter Normal Condition Rating				
Steamtown 138kV Loop	2.2	0.4	135	63

4906-11-01 (C) (2) (b) Discussion of Design Alternatives

Structures were spotted on top of peaks with sags located over valleys. This configuration minimizes locations where the conductor is close to the ground.

4906-11-01 (C) (3) Estimated Capital Costs

The following estimated 2013 capital costs for the proposed project have been tabulated by the Federal Energy Regulatory Commission (FERC) Electric Plant Transmission Accounts:

FERC Accounts	Estimated Capital Costs
350 Land and Land Rights (R/W)	\$ 1
355 Poles and Fixtures	\$ 326,352
356 Overhead Conductors and Devices	\$ 66,221
Total	\$ 392,574

4906-11-01 (D) Socioeconomic Data

4906-11-01 (D) (1) Land Use and Population Density

This project is located in Marion Township, near the Village of Summerfield, Noble County, Ohio. The immediate vicinity of the project location consists of an area under active development consisting of a new MarkWest Energy Partners gas processing plant, and also includes electric and natural gas transmission line rights-of-way. Current aerial photography shown on Map 1 indicates the presence of wooded areas along the proposed route; however MarkWest Energy Partners has cleared this area of vegetation. The project area (Noble County, Ohio) has a population density of 36.8 people per square mile based upon 2010 census data.

4906-11-01 (D) (2) Location and Description of Existing Agricultural Districts

The proposed transmission line is not located within any agricultural land and/or within the limits of an Agricultural District as defined by Chapter 929 of the Ohio Revised Code.

4906-11-01 (D) (3) Archaeological and Cultural Resources

This project area is located within a future industrial site that is currently under active development. A search of the Ohio Historic Preservation Office (OHPO) National Register of Historic Places on-line databases was conducted and did not identify the existence of any historic sites within the project area. Properties on the OHPO database include all listings on the National Register of Historic Places as well as districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering and culture.

4906-11-01 (D) (4) Local Officials to be Notified

Copies of this Letter of Notification have been sent to the Noble County Commissioners, and the Trustees of Marion Township. Copies of these cover letters are attached. A copy will also be sent to the Caldwell Public library.

4906-11-01 (D) (4) Public Information Program

This project is completely located on land owned by MarkWest Energy Partners. Adjacent property owners will not be affected by this proposed project.

4906-11-01 (D) (5) Current or Pending Litigation

There is no litigation involving this project and none is expected.

4906-11-01 (D) (6) Local, State and Federal Requirements

This line will be designed, constructed and operated to meet or exceed the requirements of the National Electric Safety Code, AEP design standards and all applicable OSHA standards. If required, a Notice of Intent will be filed with the Ohio Environmental Protection Agency (OEPA) for authorization of construction stormwater discharge under General Permit OHC000003. No other permits or authorizations are required for the project.

4906-11-01 (E) Environmental

4906-11-01 (E) (1) Endangered or Threatened Species

MarkWest Engery Partners, LLC conducted a wetland determination for their property. A copy of their report is attached. As part of their report, MarkWest conducted a threatened and endangered species review. The United States Fish and Wildlife Service's species list for Noble County, Ohio was reviewed to determine the presence of threatened and endangered species in the project area. Two species were listed as potentially occurring in Noble County, which include the Indiana bat (endangered), and the bald eagle (species of concern).

The project area has been previously cleared of existing vegetation, therefore no impacts to the Indiana bat are anticipated.

The USFWS was contacted to determine potential impacts to the bald eagle. The nearest recorded bald eagle nest is located approximately 5 miles from the project site, therefore no impacts to the bald eagle are anticipated. A copy of this response is attached.

The Ohio Department of Natural Resources (ODNR) was contacted regarding the presence of any endangered, threatened, or rare species that may be affected by this project. The ODNR responded and found no evidence or records of endangered / threatened species within the project area. A copy of the response is attached.

4906-11-01 (E) (2) Areas of Ecological Concern

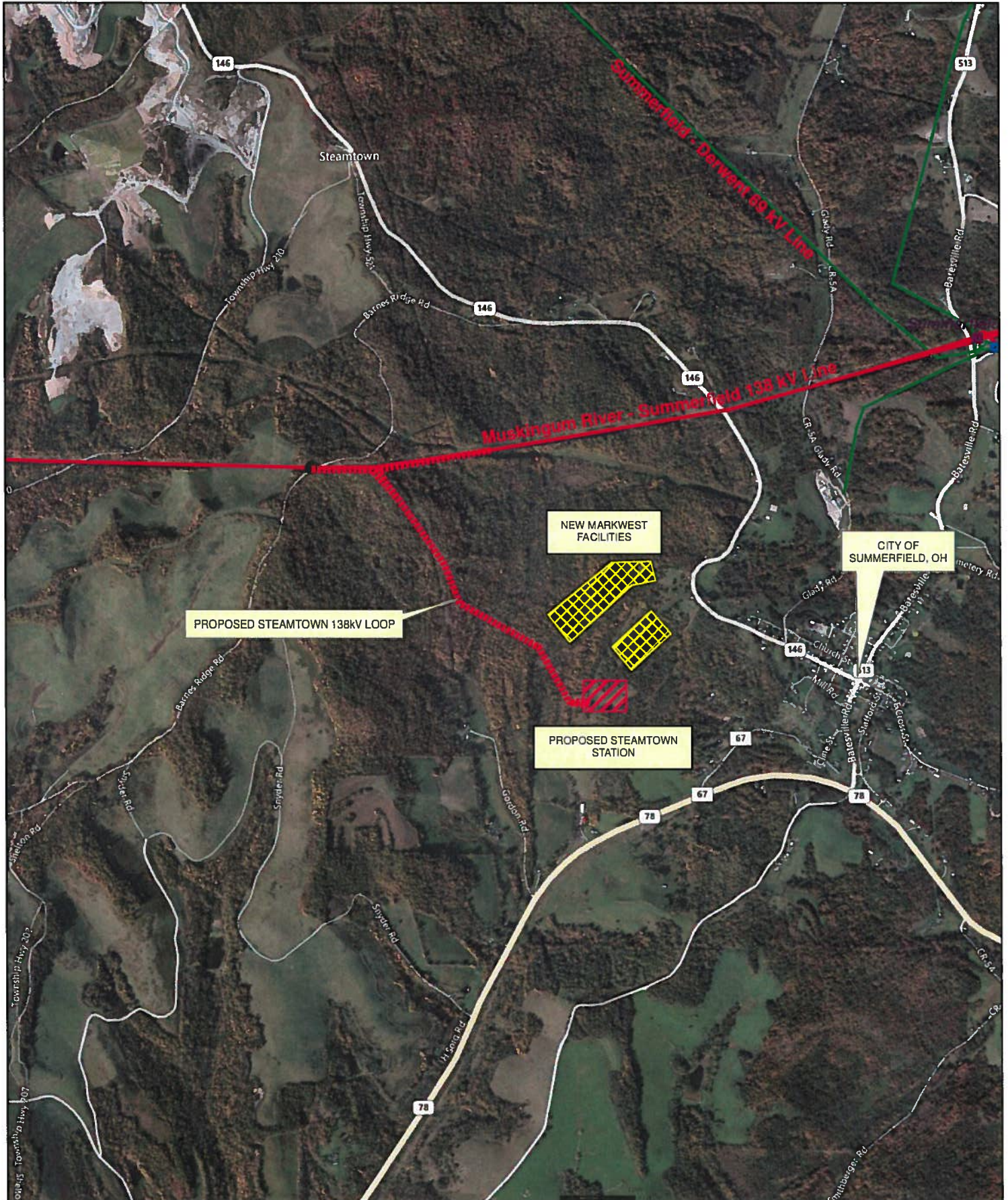
The Ohio Department of Natural Resources was contacted regarding areas of ecological concern in the vicinity of the project. The ODNR has no record of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state

wildlife area, nature preserves, parks or forests, national wildlife refuges or other protected natural areas within a one mile radius of the project area. A copy of their response is attached.

Two streams are located within the project area of the transmission line. No impacts to these streams are anticipated, as the new transmission line will span the stream crossings, and existing roads will be used for access to the structures.

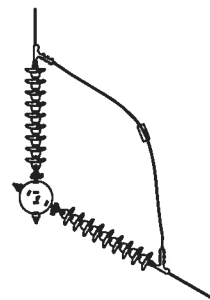
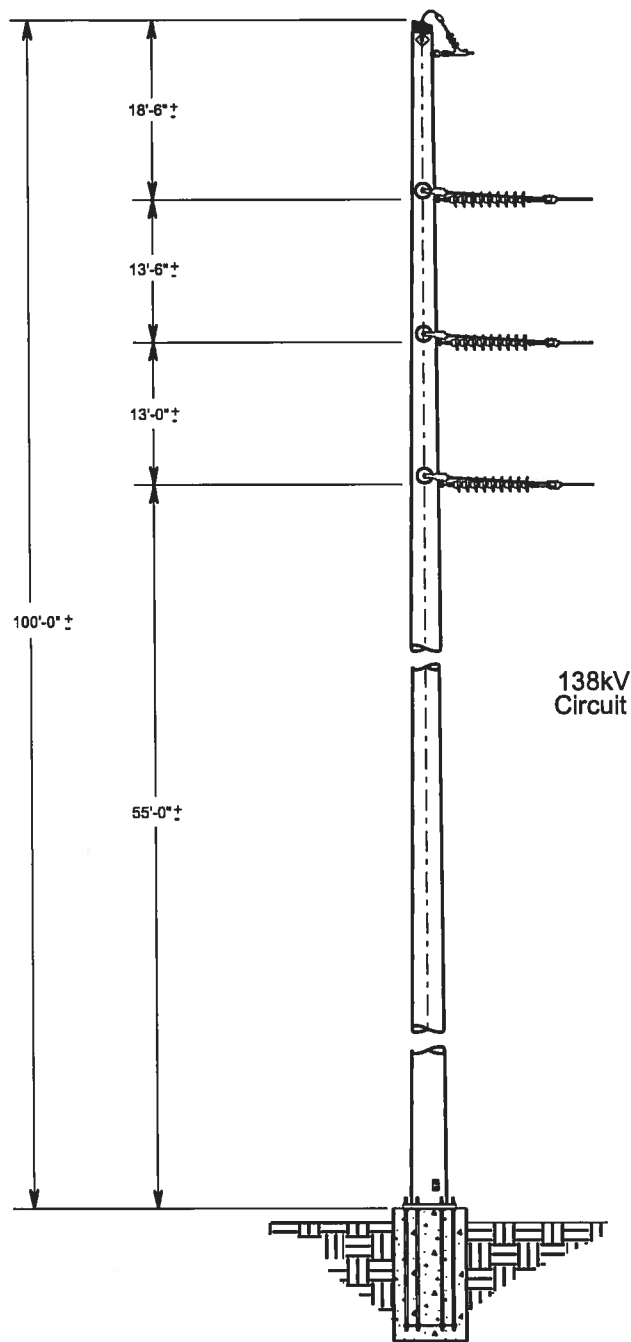
4906-11-01 (E) (3) Additional Information

There are no unusual conditions that will result in significant environmental or social impacts from the installation and operation of this new 138 kV transmission line project.



		<p>LEGEND</p> <ul style="list-style-type: none"> - EXISTING 138kV LINE - PROPOSED STEAMTOWN 138kV LOOP - EXISTING 69kV LINE - STEAMTOWN STATION - MARKWEST FACILITIES 		<p>MAP 1 Steamtown 138kV Loop - Project Location</p> <p>Transmission Line Engineering Group</p> <p><small>Source: American Electric Power (AEP) Prepared: [blank] Comments: Coordinates in State Plane 83201 Ohio South Drawn By: JAM Date: 11/11 Approved By: [blank]</small></p>
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This drawing from the Transmission Line Projects Engineering Group of American Electric Power is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender and destroy all copies of the original document.



TOP VIEW

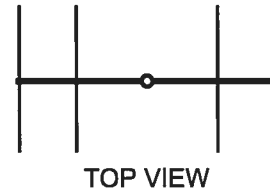
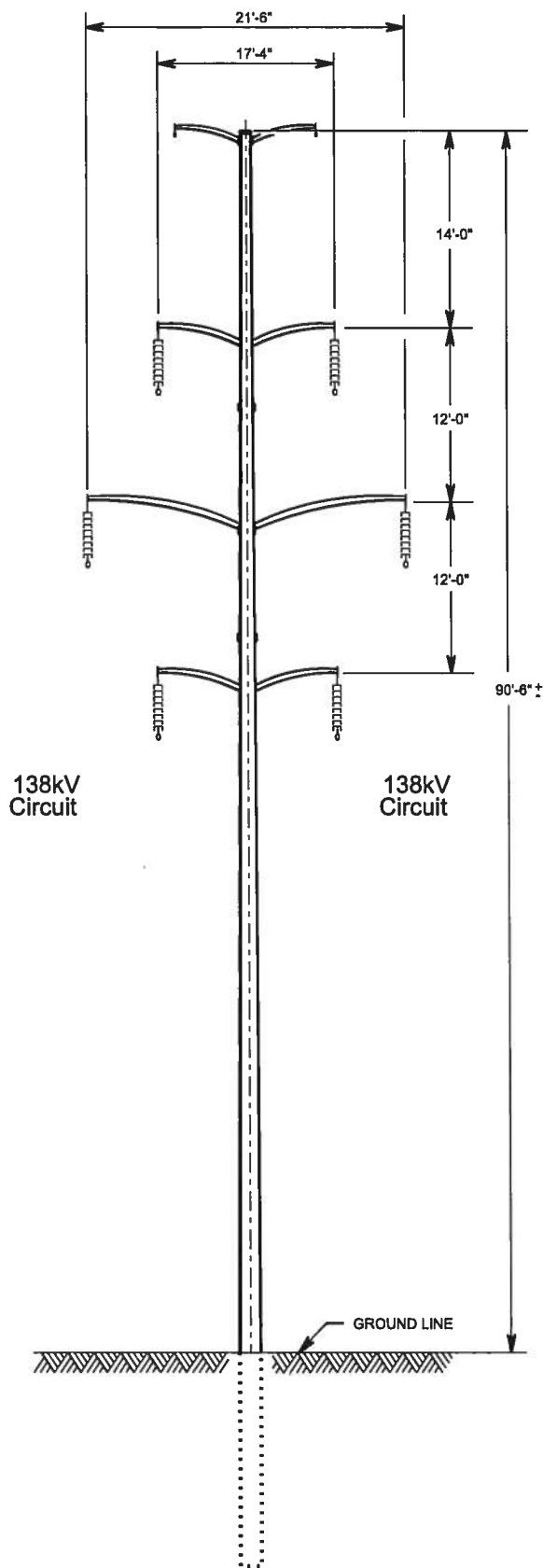
STEAMTOWN 138kV LOOP



PROPOSED LINE
DEADEND SINGLE POLE STRUCTURE
TYPICAL CONFIGURATION

NOT TO SCALE

FIGURE 2



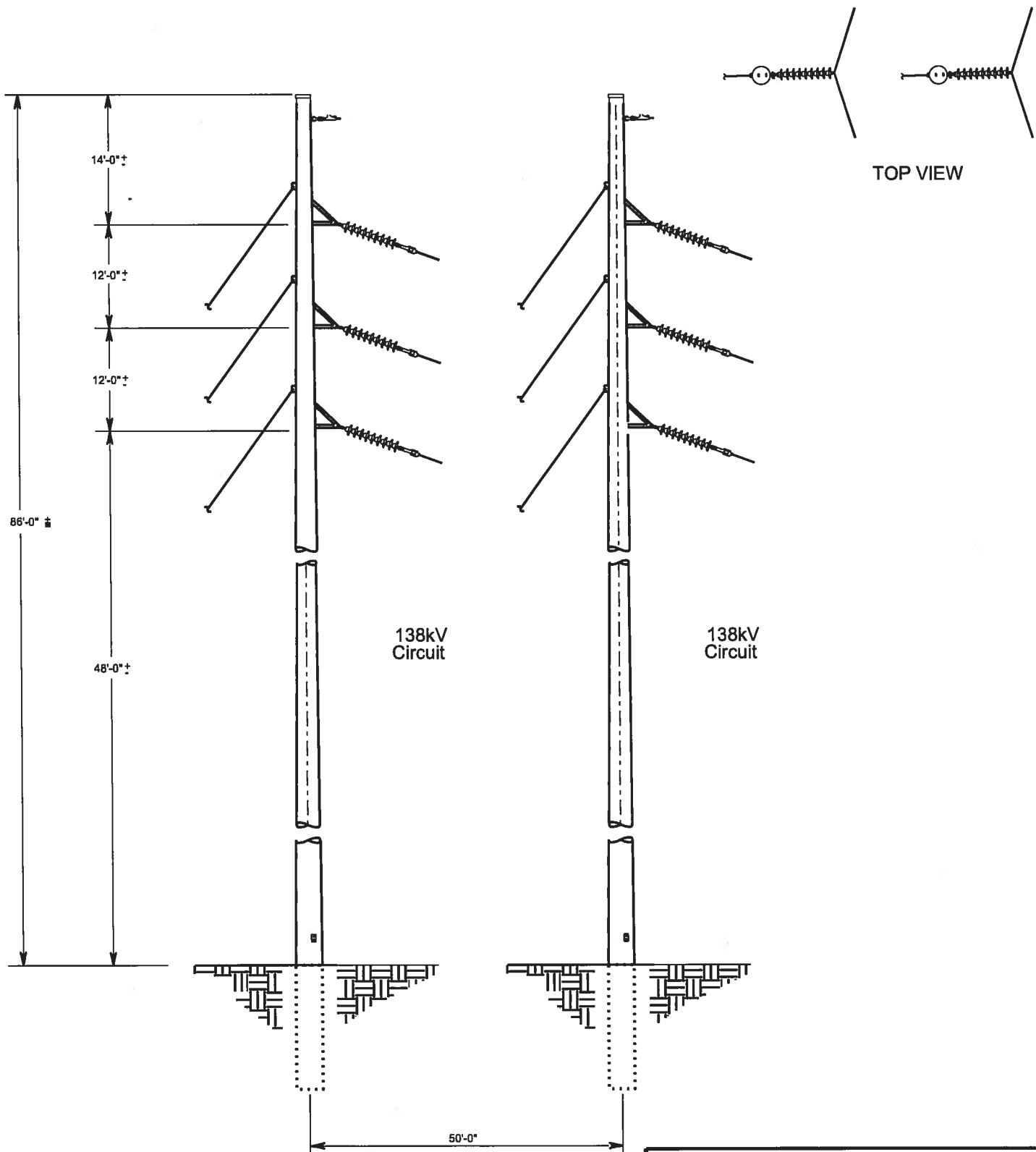
STEAMTOWN 138kV LOOP



PROPOSED LINE
TANGENT STRUCTURE
TYPICAL CONFIGURATION

NOT TO SCALE

FIGURE 3



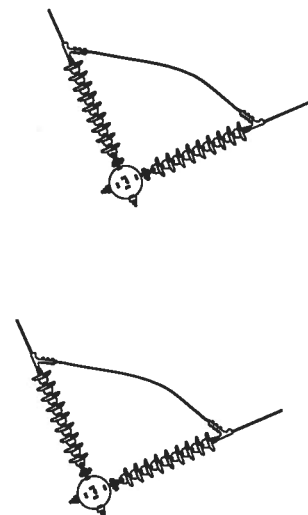
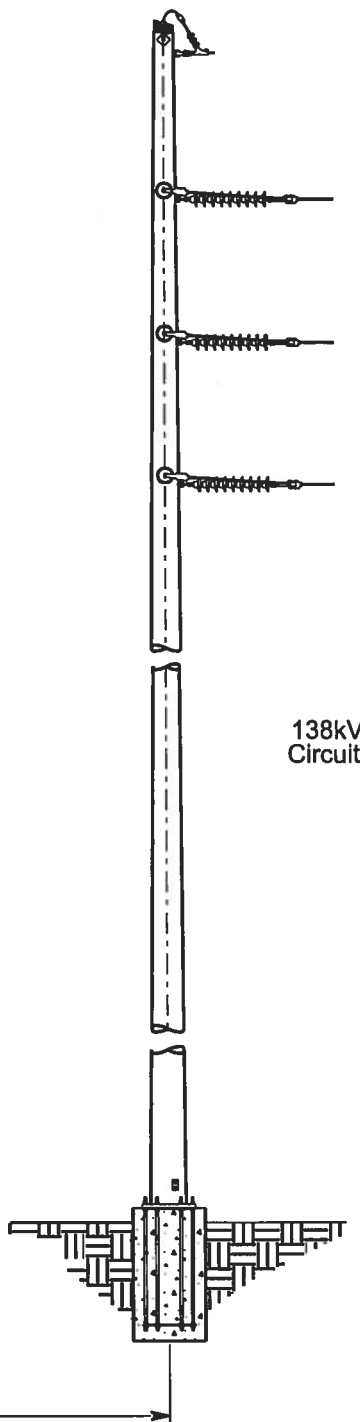
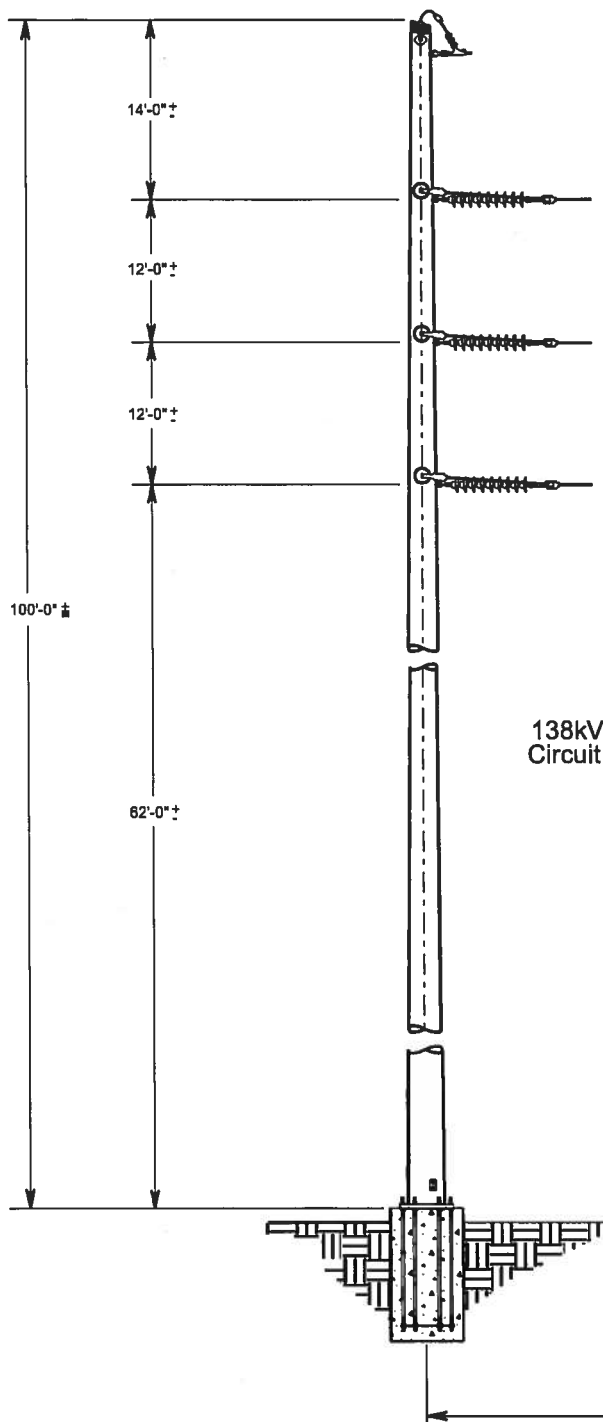
STEAMTOWN 138kV LOOP



PROPOSED LINE
RUNNING ANGLE TWO POLE STRUCTURE
TYPICAL CONFIGURATION

NOT TO SCALE

FIGURE 4



TOP VIEW

50'-0"

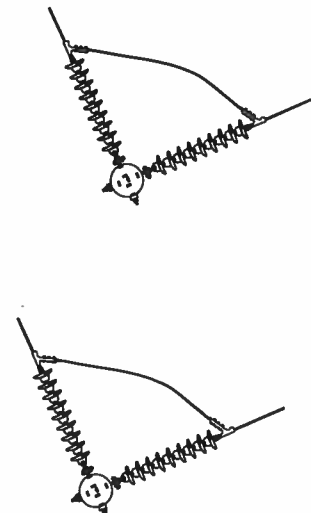
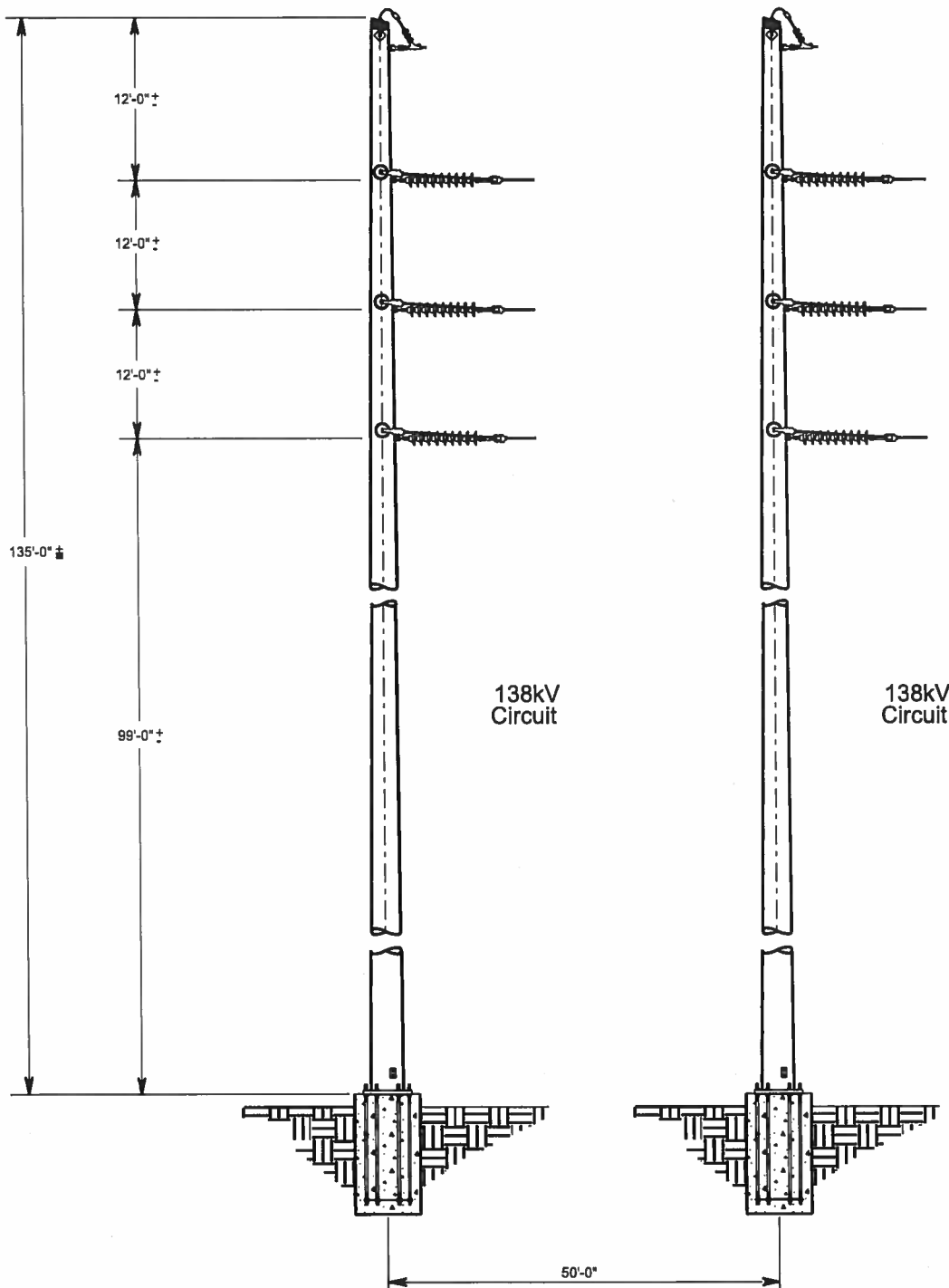
STEAMTOWN 138kV LOOP



PROPOSED LINE
DEADEND TWO POLE STRUCTURE #2
CONFIGURATION

NOT TO SCALE

FIGURE 5



TOP VIEW

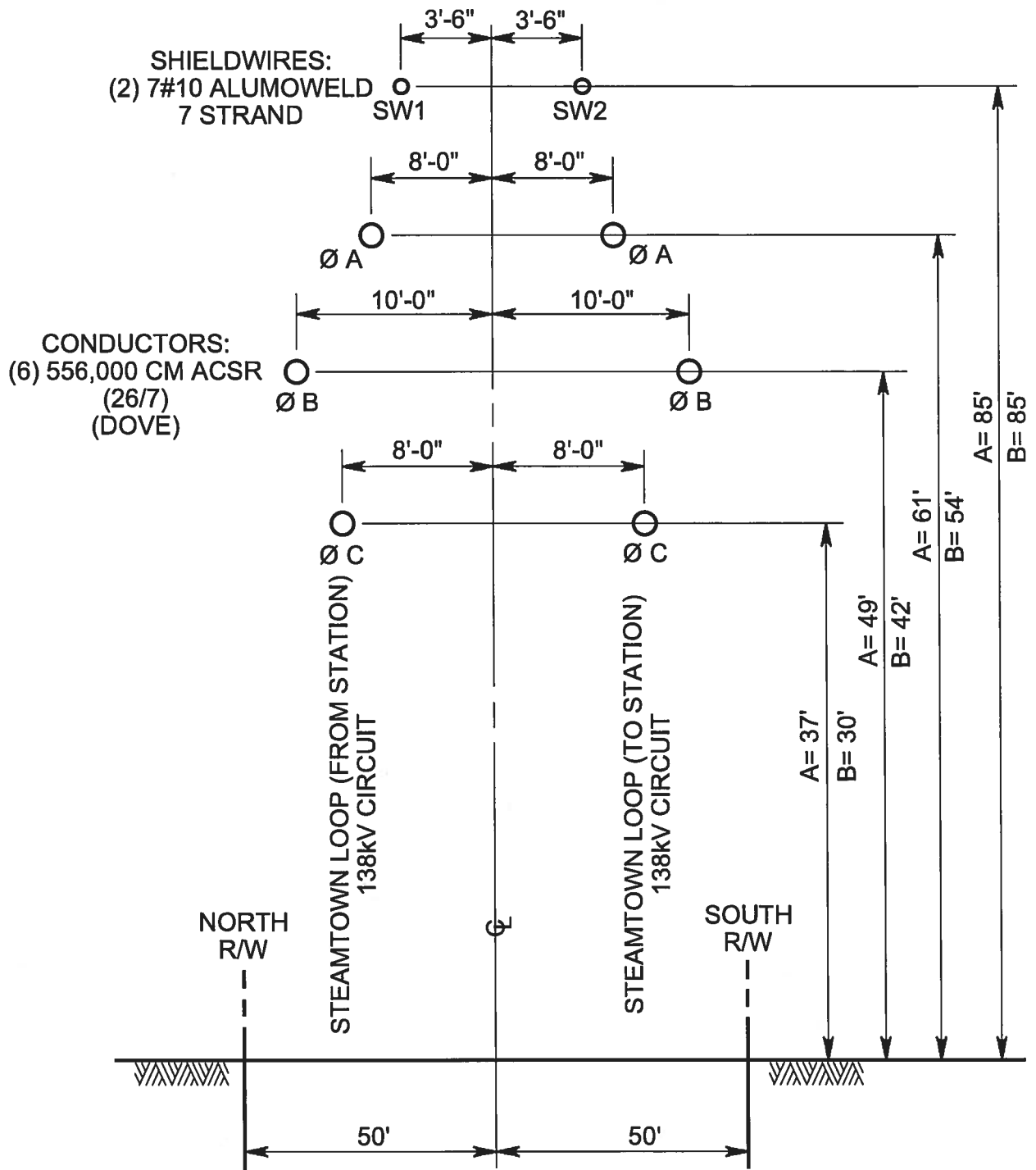
STEAMTOWN 138kV LOOP



PROPOSED LINE
DEADEND TWO POLE STRUCTURE #5
CONFIGURATION

NOT TO SCALE

FIGURE 6



DIMENSION "A" - DOUBLE CIRCUIT - VERTICAL CONFIGURATION.
(UNDER EMERGENCY & NORMAL MAX. LINE LOADING)

DIMENSION "B" - DOUBLE CIRCUIT - VERTICAL CONFIGURATION.
(UNDER WINTER NORMAL
CONDUCTOR RATING)



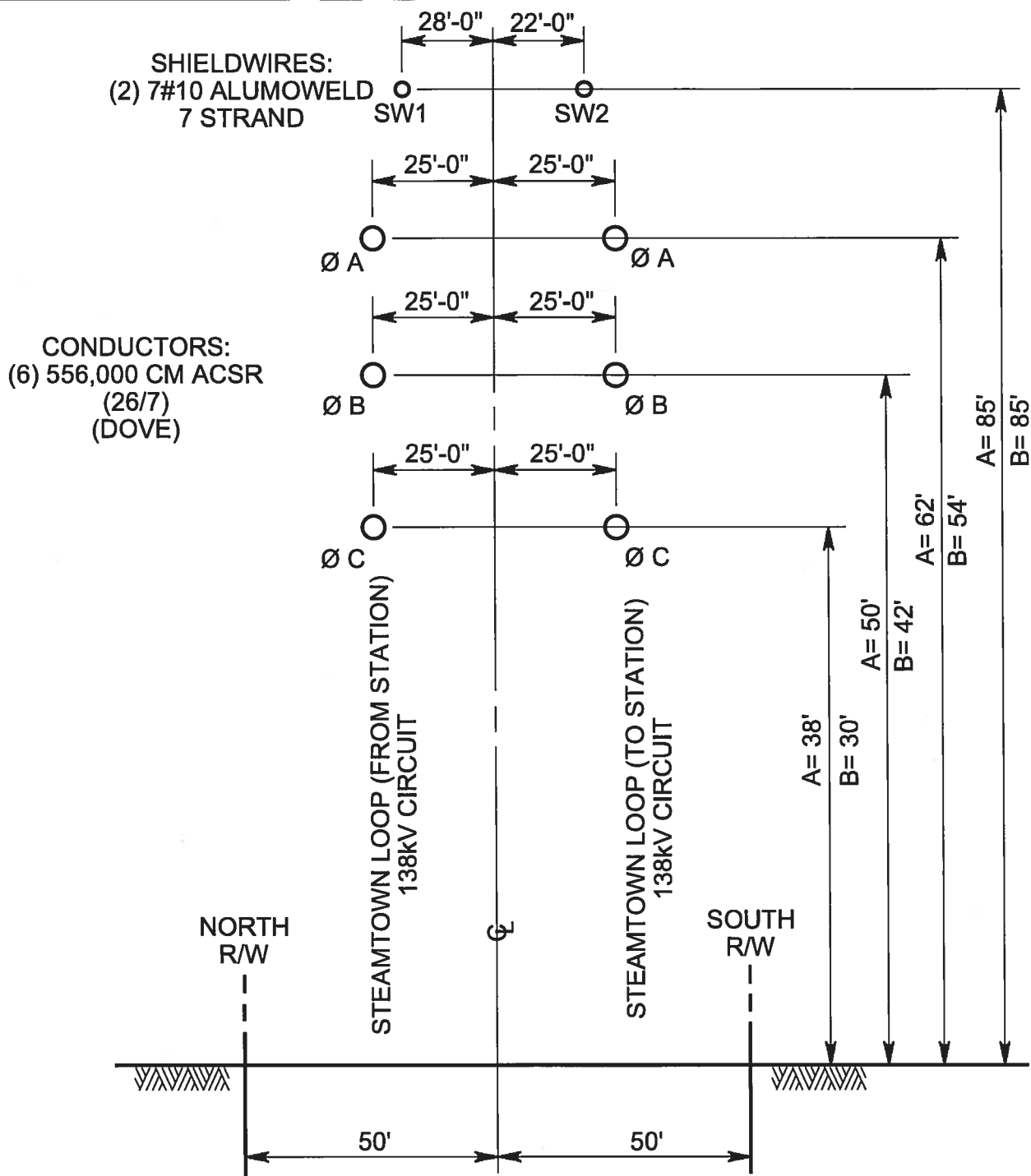
MUSKINGUM -
SUMMERFIELD
138kV LINE

138kV TYPICAL PHASE ARRANGEMENT
STEEL POLES- TANGENT STRUCTURE
STEAMTOWN LOOP STR 1 TO STR 2

W:\AEP\ISITING\MUSKINGUM_SUMMERFIELD\STEAMTOWN LOOP 138KV FIG_A.DGN

NOT TO SCALE

FIGURE 'A'



DIMENSION "A" - DOUBLE CIRCUIT - VERTICAL CONFIGURATION.
(UNDER EMERGENCY & NORMAL MAX. LINE LOADING)

DIMENSION "B" - DOUBLE CIRCUIT - VERTICAL CONFIGURATION.
(UNDER WINTER NORMAL
CONDUCTOR RATING)



MUSKINGUM -
SUMMERFIELD
138kV LINE

138kV TYPICAL PHASE ARRANGEMENT
STEEL POLES- RUNNING ANGLE AND DEAD ENDS
STEAMTOWN LOOP STR 2 TO
STEAMTOWN STATION

W:\AEP\SITING\MUSKINGUM_SUMMERFIELD\STEAMTOWN LOOP 138KV FIG_B.DGN

NOT TO SCALE

FIGURE 'B'



American Electric Power
700 Morrison Road
Gahanna, OH 43230

February 26, 2013

Noble County Commissioners
John Pyles
Carl Davis
Tim Price
210 Court House
Caldwell, Ohio 43724

Letter of Notification
Steamtown 138kV Loop
New Transmission Line

Dear Commissioners:

In accordance with Chapter 4906 of the Ohio Administrative Code, American Electric Power is required to submit a Letter of Notification to the State of Ohio Power Siting Board when certain changes are made to its transmission facilities.

American Electric Power is planning to build 0.8 miles of new 138kV transmission line for MarkWest Energy Partners, LLC (MarkWest), due to their new facility near Summerfield, Ohio. The new transmission line will be located completely on MarkWest property.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notification contains details on the structures, structure types and construction schedules and is hereby submitted for your information.

Cordially,

A handwritten signature in black ink, appearing to read 'Eric Miller', enclosed within a simple oval outline.

Eric Miller
American Electric Power
Transmission Line Engineering

Enclosure

cc. Ohio Power Siting Board



American Electric Power
700 Morrison Road
Gahanna, OH 43230

February 26, 2013

Marion Township Trustee
John George Smitherberger
231 South Main Street
Summerfield, OH 43788

Letter of Notification
Steamtown 138kV Loop
New Transmission Line

Dear Trustee:

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Eric Miller
American Electric Power
Transmission Line Engineering

Enclosure

cc. Ohio Power Siting Board



American Electric Power
700 Morrison Road
Gahanna, OH 43230

February 26, 2013

Marion Township Trustee
Maurice A. Warner
305 Cross Street
Summerfield, OH 43788

Letter of Notification
Steamtown 138kV Loop
New Transmission Line

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Eric Miller
American Electric Power
Transmission Line Engineering

Enclosure

cc. Ohio Power Siting Board



American Electric Power
700 Morrison Road
Gahanna, OH 43230

February 26, 2013

Marion Township Trustee
William L. Warner
701 Stafford Street
Summerfield, OH 43788

Letter of Notification
Steamtown 138kV Loop
New Transmission Line

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Eric Miller
American Electric Power
Transmission Line Engineering

Enclosure

cc. Ohio Power Siting Board



American Electric Power
700 Morrison Road
Gahanna, OH 43230

February 26, 2013

Caldwell Public Library
517 Spruce Street
Caldwell, OH 43724

Letter of Notification
Steamtown 138kV Loop
New Transmission Line

To Whom it May Concern:

In accordance with Chapter 4906 of the Ohio Administrative Code, American Electric Power is required to submit a Letter of Notification to the State of Ohio Power Siting Board when certain changes are made to its transmission facilities.

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Eric Miller
American Electric Power
Transmission Line Engineering

Enclosure

cc. Ohio Power Siting Board

Appendix A



WETLAND DETERMINATION AND DELINEATION REPORT

**Consol Seneca Property
Marion Township, Noble County, Ohio**

August 23, 2012

PREPARED FOR: Mr. Tom Neidecker
Preconstruction Manager
Joe Knows Energy
1400 Goodale Boulevard, Suite 100
Columbus, Ohio 43212
PN#: 1075.04

PREPARED BY: Partners Environmental Consulting, Inc.
31100 Solon Road, Suite G
Solon, Ohio 44139
(440) 248-6005 (phone)
(440) 248-6374 (fax)

This report has been prepared by Partners Environmental Consulting, Inc. (Partners) for the benefit of our Client in accordance with the approved scope of work. Partners assumes no liability for the unauthorized use of information, conclusions or recommendations included in this report by a third party. Copyright © 2012, Partners Environmental Consulting, Inc.

Partners Environmental Consulting, Inc.

Corporate Office: 31100 Solon Road, Suite G • Solon, Ohio 44139 • phone: (440) 248.6005 • fax: (440) 248.6374

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FIGURES

- Figure 1 Property Location Map
- Figure 2 2011 Aerial Photograph
- Figure 3 Wetland Delineation Map

APPENDICES

- Appendix A Wetland Data Sheets and Scoring Forms
- Appendix B County Soil Survey
- Appendix C U.S. Fish and Wildlife Endangered Species List
- Appendix D Ohio Natural Biodiversity Database
- Appendix E National Wetland Inventory and Ohio Wetland Inventory Map
- Appendix F Photographs
- Appendix G Professional Resumes

1.0 EXECUTIVE SUMMARY

Partners conducted the site reconnaissance for this Wetland Determination and Delineation on August 9, 2012. Based on the findings, there are two (2) wetlands totaling 2.26-acres and 16 streams totaling 10,123-linear feet on or near the Property, as summarized below and shown on **Figure 3**.

Table 1. Wetlands

Wetland	Type	Connectivity to Waters of the U.S.	Ohio Rapid Assessment Method Category	Area (Acres) On-Property
A	Emergent	Connected to Waters of the U.S.	1	0.02
B	Emergent	Connected to Waters of the U.S.	2	2.24
TOTAL				2.26

Table 2. Streams

Stream	Type	Average Bankfull Width (feet)	Length (Linear Feet)
Barnes Run	Perennial	15	2,933
1	Ephemeral	4	711
2	Ephemeral	4	565
3	Ephemeral	4	995
4	Ephemeral	3	118
5	Ephemeral	3	88
6	Ephemeral	4	1,244
7	Ephemeral	3	118
8	Ephemeral	4	688

Stream	Type	Average Bankfull Width (feet)	Length (Linear Feet)
9	Ephemeral	3	179
10	Ephemeral	4	368
11	Ephemeral	3	368
12	Ephemeral	4	365
13	Ephemeral	4	234
14	Ephemeral	4	668
15	Ephemeral	4	481
TOTAL			10,123

2.0 INTRODUCTION

Partners Environmental Consulting, Inc. (Partners) was contracted by Joe Knows Energy (Client) to conduct a Wetland Determination and Delineation at the proposed Consol Seneca facility located near the Village of Summerfield, Noble County, Ohio (Property). The proposed Consol Seneca Facility is being developed by MarkWest Energy Partners, LLP (MarkWest). The location of the facility is depicted on the Summerfield, Ohio Quadrangle, United States Geological Survey (USGS) 7.5-Minute Topographic Map (Figure 1).

2.1 Property Setting

The Property is located along the west side of State Route 146 (Zep Road) just west of the Village of Summerfield, Noble County, Ohio. The location of the Property is depicted on the Summerfield, Ohio Quadrangle, United States Geological Survey (USGS) 7.5-Minute Topographic Map (Figure 1). The Property is in an area that is primarily rural with rolling hills and consisting generally of vacant and wooded, agricultural and pasture land and residential sites (Figure 2).

The Property consists of approximately 185-acres and is bound to the north by an overhead electric transmission utility corridor and wooded or scrub brush covered land, to the east by Zep Road and vacant or residential sites, to the south by vacant and wooded land, and to the west by Barnes Run (a tributary of Duck Creek [East Fork]) and vacant wooded land. The surface topography of the surrounding area is highly variable due the numerous hills and valleys located throughout the surrounding area.

2.2 Literature Review

Partners reviewed published documents to determine the likely presence, location, size and type of wetlands and other features that may be located on the Property. These publications included:

- Historic USGS Topographic Maps for years 1911, 1961, 1976, 1994 and 2002;

- County Soil Survey and the United States Department of Agriculture (USDA) Natural Resources Conservation Service Web Soil Survey (**Appendix B**);
- United States Fish & Wildlife Service (USFWS) Threatened and Endangered Species listing for Ohio (**Appendix C**);
- The Ohio Department of Natural Resources (ODNR) Ohio National Biodiversity Database (**Appendix D**);
- National Wetland Inventory (NWI) and Ohio Wetland Inventory (OWI) mapping (**Appendix E**);
- Historic Aerial Photographs for Years 1960, 1973, 1975, 1984, 1991 and 1994.

These publications were used in evaluating the Property and to develop an understanding of current and past conditions at the Property.

2.3 History

Review of historical aerial photographs and topographic maps indicates that portions of the Property have been utilized for pasture or agricultural purposes since at least 1911. The remaining balance of the land has been vacant and wooded. Although some mining operations appear to have occurred on surrounding sites, none appear to have occurred on the Property.

2.4 Methodology

Partners prepared this Wetland Determination and Delineation Report for Client in general accordance with the *Army Corps of Engineers (USACE) Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Manual: Eastern Mountains and Piedmont Region Version 2.0* (USACE 2012).

2.4.1 General

Field data collection involved selecting six (6) data points. Vegetation, soil and hydrology data was collected and recorded on Wetland Data Sheets developed by the USACE. Wetland Data Sheets from each data point are included in **Appendix A**.

Dominant plants were identified by species (using scientific names) and their wetland indicator status listed according to the USFWS designations (Reed 1988). At each data point, the percent cover of trees and vines was visually estimated within an approximate 30-foot radius. Percent covers of sapling and shrubs were visually estimated within a 15-foot radius and herbaceous plants were visually estimated in an approximate 3.3 feet by 3.3 feet quadrant. Percent dominance of each species in each stratum was determined and recorded in the field.

Soil profiles (various horizons within 20 inches) were completed, including the depth from where the soil was taken and the hue, value and chroma of the sample. These soil characteristics were evaluated with a Munsell Color Chart to determine if the soil exhibited characteristics consistent with hydric soils.

Hydrology was determined based on the indication of inundation, saturation and/or secondary hydrological indicators including watermarks, drift lines, sediment deposits, drainage patterns, blackened leaves and morphological adaptations. Soil indicators such as oxidized root channels and iron/manganese concretions were also determining factors for hydrology.

The field reconnaissance was conducted by Mr. Stephan W. Ryder of Partners and Mr. Lawrence N. Ludwig Professional Wetland Scientist (PWS) of Chagrin Valley Engineers on August 9, 2012. The weather conditions were warm with overcast skies and an average temperature of 85°F. Mr. Ryder and Mr. Ludwig conducted several transects across the Property in an effort to identify wetlands and streams. Data points were selected in six (6) locations. Vegetation, hydrology and soil data was collected and logged at each data point location. The locations of the data points (UPL, A or B) are shown on **Figure 3** and the data sheets are included in **Appendix A**.

August 23, 2012

The wetland boundaries were flagged by Partners' wetland specialist. A hand-held Global Positioning System (GPS) was used to map the wetland and data points (A or B). The wetland survey data was processed and provided to Partners as a CAD document in AutoCAD 2004 format.

2.4.2 Ohio Rapid Assessment Method

Partners completed Ohio Rapid Assessment Method (ORAM) Version 5.0 evaluation forms for each wetland. ORAM scores are used to categorize wetlands. The table below summarizes the scoring method. Category 1 wetlands typically indicate small or low-quality wetlands, while Category 3 wetlands are generally considered to be large, relatively undisturbed and high quality wetlands. An ORAM score that falls into one (1) of the "Transitional" zones between the two (2) categories, are placed in the higher of the two (2) categories unless proven otherwise. Ultimately, the category assigned to wetlands is subject to verification by the Ohio Environmental Protection Agency (Ohio EPA). ORAMs for the Property are included in **Appendix A**.

Wetland ORAM Scores and Corresponding Categories¹

ORAM Score	0-29.9	30-34.9	35-59.9	60-64.9	≥65
	Category 1	Transitional	Category 2	Transitional	Category 3

¹Source: Ohio EPA Ohio Rapid Assessment Method Quantitative Score Calibration Revised August 15, 2000

2.4.3 Headwater Habitat Evaluation Index

Partners completed Headwater Habitat Evaluation Index HHEI forms for select streams within the Property based on their location in proximity to anticipated activities. The Ohio EPA defines Headwater streams as "very small swales, creeks and streams that are the origins of larger rivers in the state." When a stream has a drainage area less than one (1) square mile, a Primary Headwater Habitat Stream Evaluation (PHWH) must be performed. To determine the PHWH biological potential, the evaluator must complete the Headwater Habitat Evaluation Index (HHEI) section. The HHEI involves the calculation of the three (3) metrics: stream channel substrate, maximum pool depth and average bankfull width. The metrics from the HHEI are then used to determine the PHWH stream types (Class I, Class II and Class III). HHEIs for the Property are located in **Appendix A**.

Primary Headwater Streams in Ohio

PHWH Class	Description
Class I	Ephemeral stream, seasonal dry
Class II	Warm water adapted native fauna
Class III	Cool water adapted native fauna

3.0 SITE RECONNAISSANCE & CHARACTERISTICS

Partners conducted the site reconnaissance, data collection, and wetland and stream flagging at the Property on August 9, 2012. Partners identified a total of two (2) wetlands and 15 streams on or near the Property. The wetland and stream locations and boundaries are shown on the Property Wetland Delineation Map (**Figure 3**).

The Property is accessed from a tractor road located on the west side of Zep Road. The tractor road extends westward to about the center of the Property. There are smaller trails (four-wheeler paths) that cross the northern portion of the Property. There is a ridge (topographic high) that runs northeast to southwest through the center of the Property. There are two (2) ravines on either side of the ridge.

August 23, 2012

The northern portion of the Property is mostly wooded with a variety of deciduous trees including maple, tulip, black locust, and walnut. The northern portion of the Property slopes steeply northward down a ravine to Barnes Run. Many small ephemeral streams (Streams 1 through 5 and 8 through 14) were observed within the ravine, each flowing northerly to westerly towards Barnes Run. A riparian wetland (Wetland B) is located in the Barnes Run stream valley. The southern portion of the Property is mostly pasture land covered with scrub brush and old field consisting of Osage Orange (*Maclura pomifera*), Rose (*Rosa multiflora*) and Northern spicebush (*Lindera benzoin*). The pasture area is surrounded by a barbed wire fence. Cattle appear to have access to grazing within the fenced area. One (1) small wetland (Wetland A) was observed near the center of the Property within the pasture area. There is an ephemeral stream (Stream 6) and adjoining tributary (Stream 7) flowing northeast to southwest across the southern portion of the Property.

Barnes Run is a tributary of the Duck Creek (East Fork) that eventually flows to the Ohio River. The Hydrologic Unit Code is 05030201110. Based on the watershed that the Property occupies, the Huntington District of the USACE would have jurisdiction in this area.

4.0 LIMITATIONS

Partners conducted this Wetland Determination and Delineation in a manner consistent with the level of care and skill ordinarily exercised by other environmental consulting professionals who perform similar environmental services under similar conditions in the locality of the project.

This Wetland Determination and Delineation has been conducted in general accordance with the USACE Wetlands Delineation Manual. The USACE has final authority in verifying the wetland boundaries and determining jurisdiction. Statements in this document pertaining to the quantities and area of wetlands and streams are subject to USACE review and approval.

Although Partners has made reasonable efforts to transverse the entire Property, there is a possibility, due to the terrain and vegetated state of the Property, that some small wetlands and streams may not have been identified during the site reconnaissance.

5.0 CONCLUSIONS

Based on the findings of this Wetland Determination and Delineation, Partners determined that following features are present on or near the Property:

Wetland A – This emergent wetland is approximately 0.02-acres and is located in the southeastern portion of the Property. Wetland A is located at the head of Stream 6 and apparently receives hydrology from a groundwater seep. The vegetation is dominated by Rice-Cut Grass (*Leersia oryzoides*). Soils were saturated with a hydrogen sulfide odor, thick dark surfaces and a depleted matrix. Based on the ORAM, this wetland is Category 1, with an overall score of 23. There appears to be a surface connection to a "navigable water"; therefore, this wetland is presumed to be "waters of the United States" and within the jurisdiction of the USACE.

Wetland B – This riparian wetland is approximately 2.24-acres and is located in the north central portion of the Property. Wetland B is a riparian wetland associated with Barnes Run. The vegetation is dominated mostly by *Leersia oryzoides* and Boneset (*Eupatorium perfoliatum*). Soils exhibited a loamy gleyed matrix and iron-manganese mass. Hydrology is provided via groundwater seeps, seasonal surface water and rainfall. Based on the ORAM, this wetland is Category 2, with an overall score of 57. There appears to be a surface connection to a "navigable water"; therefore, this wetland is presumed to be "waters of the United States" and within the jurisdiction of the USACE.


Barnes Run – This perennial stream is approximately 2,933-linear feet on the Property and is located in the northern portion of the Property. The source of hydrology to the stream is apparently from up-gradient ground and surface water. This stream has a bedrock and gravelly substrate. There are pool and riffle complexes located through the stream channel. This stream is presumed to be "waters of United States" and within the jurisdiction of the USACE.

August 23, 2012


Streams 1 through 15— These ephemeral streams are tributaries of Barnes Run with a combined length of approximately 7,190 linear feet. They range from about two (2) to four (4) feet in width and contain a gravel/boulder substrate. These streams are presumed to be “waters of United States” and within the jurisdiction of the USACE. HHEIs were performed for Streams 1, 2, 3 and 6. Streams 1, 2, 3 and 6 were given HHEI scores ranging from 42 to 61. All four (4) of these streams were determined to be Modified Class II Primary Headwater Habitats (PHWH).

6.0 CLOSING

This Wetland Determination and Delineation was completed in general accordance with the USACE Wetlands Delineation Manual by staff that has the experience and qualifications to perform such assessments. The USACE has final authority in determining jurisdiction. If any of the wetlands and/or streams are anticipated to be filled or dredged, a jurisdictional determination should be completed.



Stephan W. Ryder
Associate Director of Due Diligence Services



John B. Chapman, P.G.
Technical Director

FIGURES

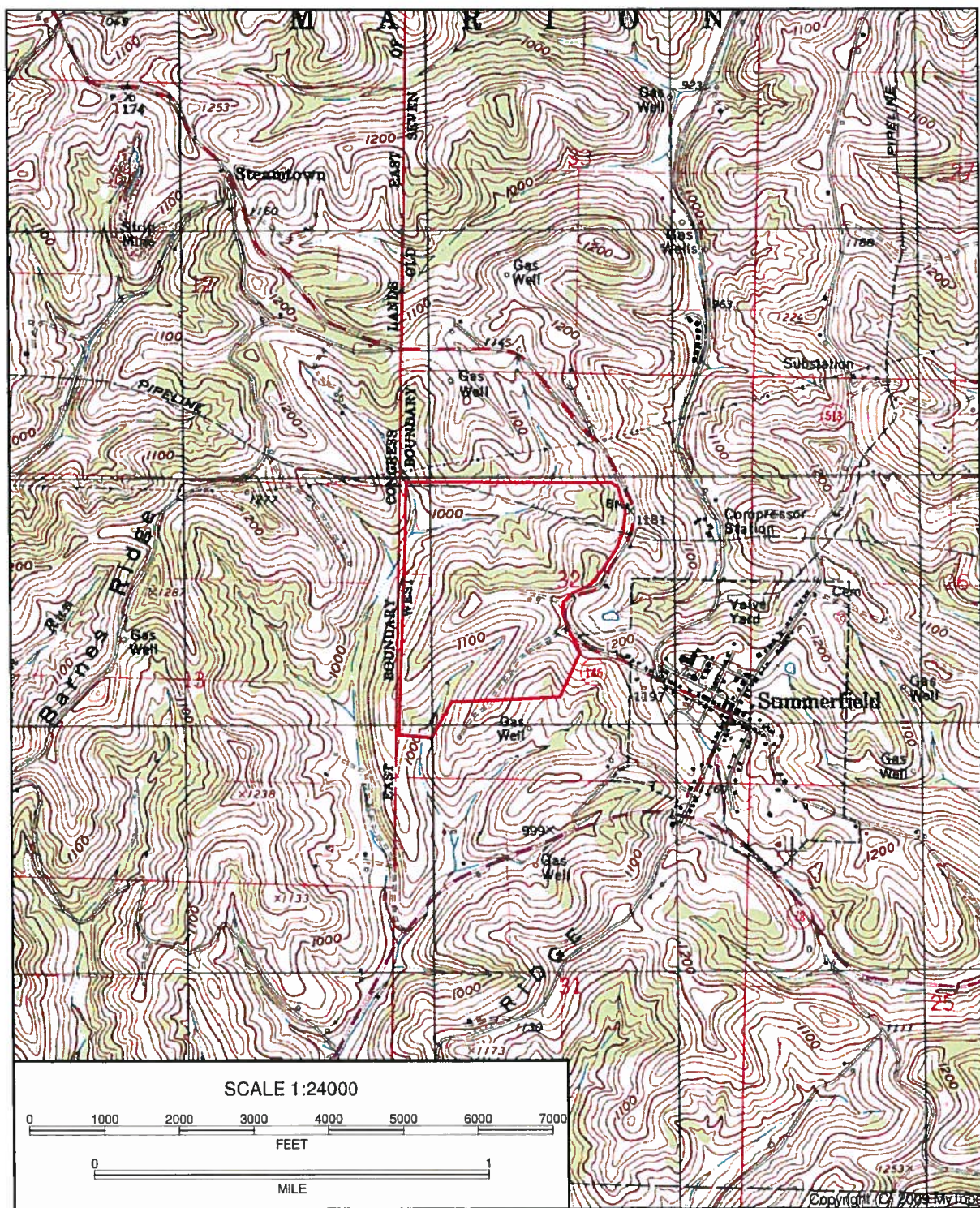
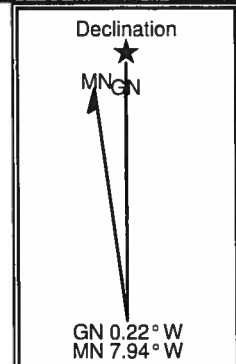


Figure 1: Property Location Map
 Consol Seneca Property
 Summerfield Twp., Noble County,
 Ohio

— Property Boundary

Map Name: SUMMERFIELD
 Print Date: 08/13/12
 Scale: 1 inch = 2,000 ft.
 Map Center: 039° 48' 01.85" N 081° 20' 50.37" W
 Horizontal Datum: NAD27



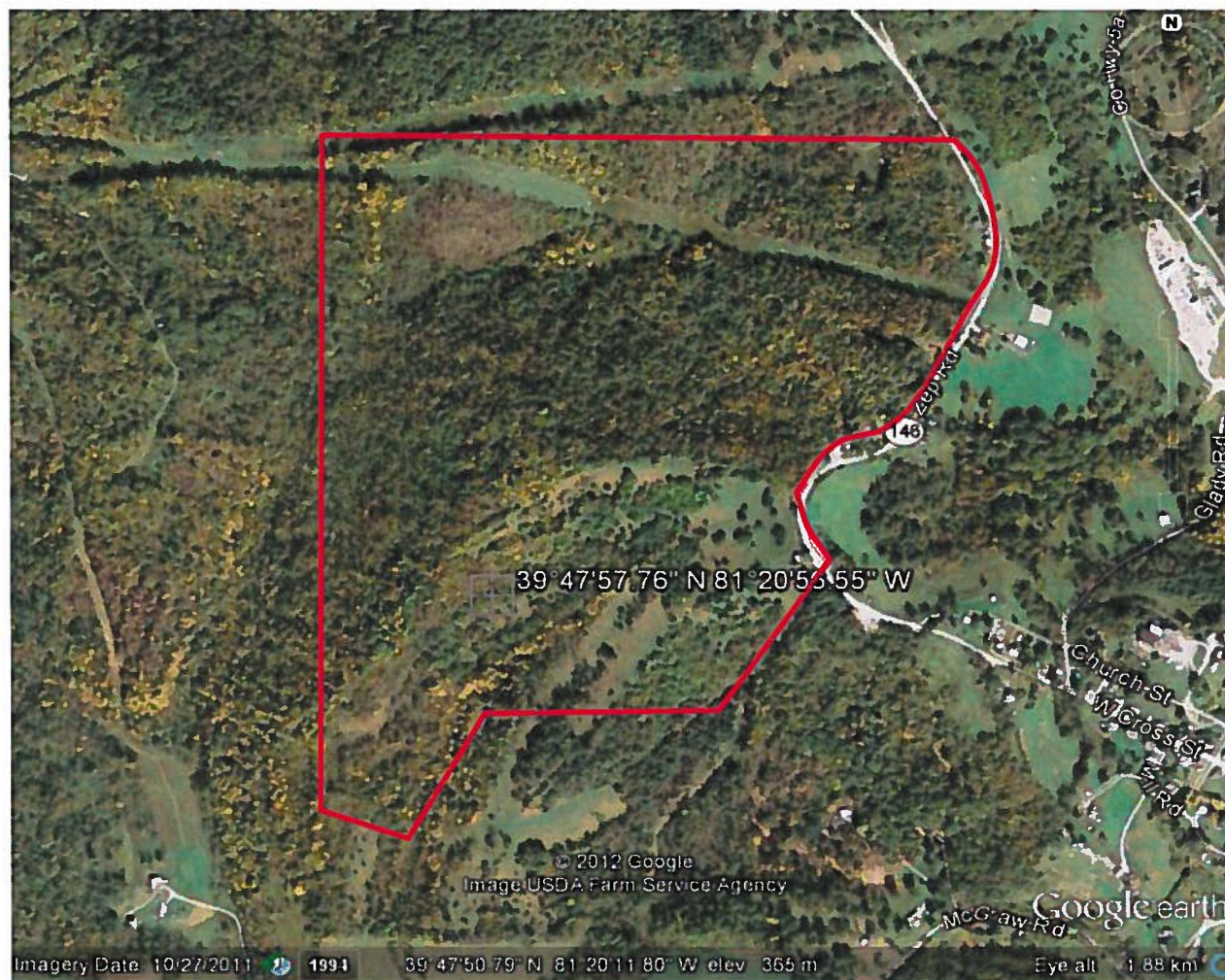
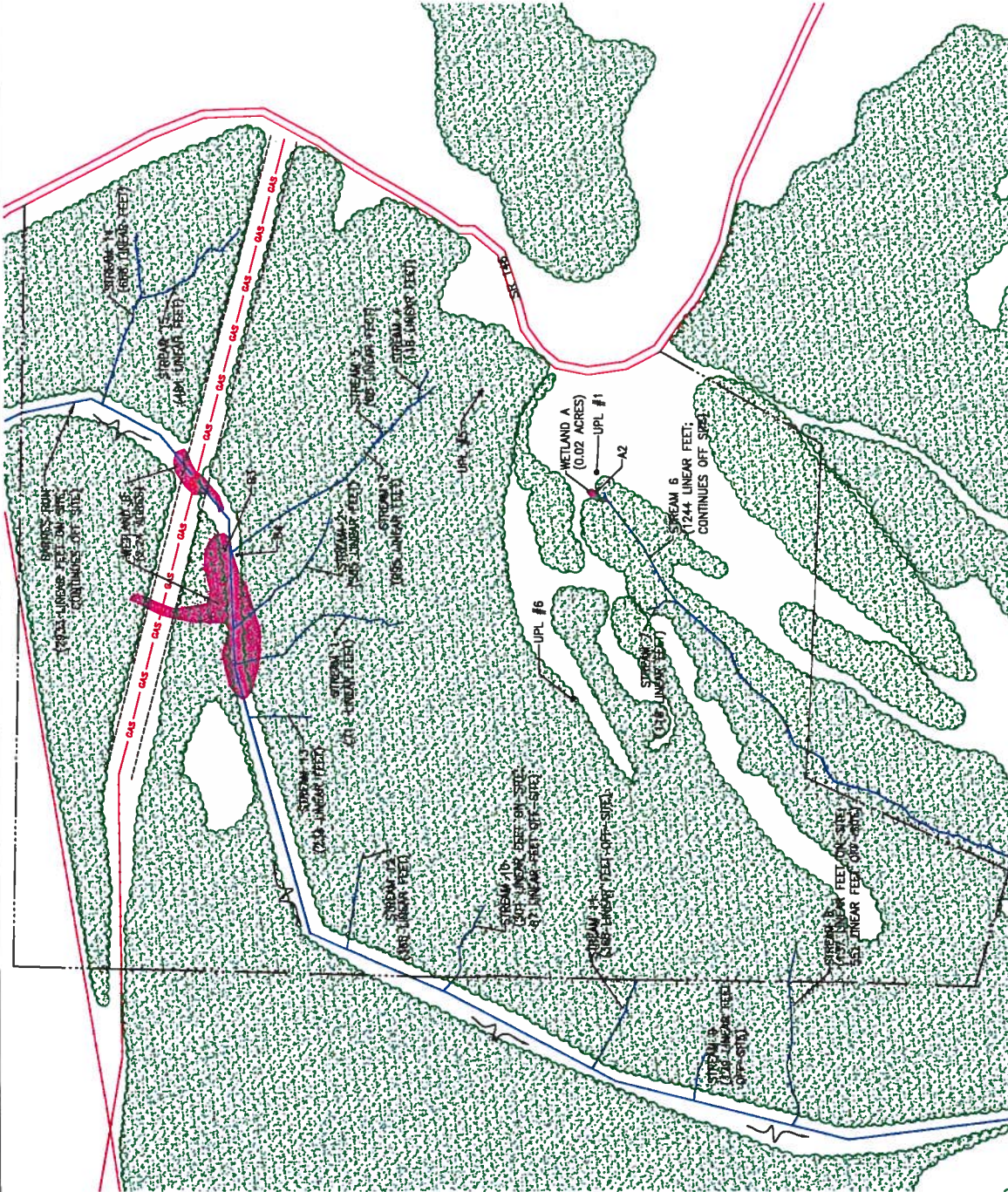


Figure 2: 2011 - Aerial Photograph

Source: Google Earth

**Consol Seneca Property
Marion Township, Noble County, Ohio**






- LEGEND**
- PROPERTY LINE
 - DITCH OR STREAM
 - UNDERGROUND GAS LINE
 - PAVED ROAD
 - R/W LINE
 - POND
 - WETLAND
 - TREES
 - FLOW DIRECTION
 - A2 WETLAND DATA POINT
 - UPL #1 UPLAND DATA POINT

GRAPHIC SCALE



 PARTNERS ENVIRONMENTAL	Date 9/2012	WETLAND DELINEATION MAP		Figure 3
	Project No. 1075.04	CONSOL-SENECA SITE MARION TOWNSHIP, NOBLE COUNTY, OHIO		

APPENDIX A WETLAND DATA SHEETS AND SCORING FORMS

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Consol Seneca City/County: Summerfield/Noble Sampling Date: 8/9/2012
 Applicant/Owner: Joe Knows Energy State: OH Sampling Point: UPL 1
 Investigator(s): Stephan Ryder Section, Township, Range:
 Landform (hillslope, terrace, etc.): hillside Local relief (concave, convex, none): convex Slope (%): 10
 Subregion (LRR or MLRA): LRR Lat: 39N 48' 07.69" Long: 81W 20'49.09 Datum:
 Soil Map Unit Name: Lowell-Gilpin silt loam, 25 to 30% slope NWI classification:

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 <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ 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)		<u>Secondary Indicators (minimum of two required)</u> _____ 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) _____ 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? Yes _____ No _____ Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: **UPL 1**

Tree Stratum (Plot size: <u>none</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	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)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
			= Total Cover	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = _____</td> </tr> </table>	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 = _____	
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 = _____																				
Sapling/Shrub Stratum (Plot size: <u>none</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
			= Total Cover																	
Herb Stratum (Plot size: <u>5'</u>)																				
1. Daucus carota	30	X	FACU	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. Phleum pratense	30	X	FACU																	
3. Leucanthemum vulgare	20	X	UPL																	
4. Cichorium intybus	10		FACU																	
5. Trifolium repens	10		FACU																	
6. Persicaria bicornis	10		FACW																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
			110 = Total Cover																	
Woody Vine Stratum (Plot size: <u>none</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
			= Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)																				

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/Shrub – Woody plants, excluding vines, 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ☒

SOIL

Sampling Point: **UPL 1**

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

[illegible]

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils³:

- | | | |
|---|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Dark Surface (S7) | <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) | <input type="checkbox"/> Coast Prairie Redox (A16) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> (MLRA 147, 148) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> (MLRA 136, 147) |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR N) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) | |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) | |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators 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 ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Consol Seneca City/County: Summerfield/Noble Sampling Date: 8/9/2012

Applicant/Owner: Joe Knows Energy State: OH Sampling Point: A-2

Investigator(s): Stephan Ryder Section, Township, Range:

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

Subregion (LRR or MLRA): LRR Lat: 39N 48' 07.69" Long: 81W 20'49.09 Datum:

Soil Map Unit Name: Lowell-Gilpin silt loam, 25 to 30% slope NWI classification:

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 <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u> </u>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<u> </u> Surface Water (A1)	<u> </u> True Aquatic Plants (B14)	<u> </u> Surface Soil Cracks (B6)	
<u> </u> High Water Table (A2)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Sparsely Vegetated Concave Surface (B8)	
<u> </u> Saturation (A3)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Drainage Patterns (B10)	
<u> </u> Water Marks (B1)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Moss Trim Lines (B16)	
<u> </u> Sediment Deposits (B2)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Dry-Season Water Table (C2)	
<u> </u> Drift Deposits (B3)	<u> </u> Thin Muck Surface (C7)	<u> </u> Crayfish Burrows (C8)	
<u> </u> Algal Mat or Crust (B4)	<u> </u> Other (Explain in Remarks)	<u> </u> Saturation Visible on Aerial Imagery (C9)	
<u> </u> Iron Deposits (B5)		<u> </u> Stunted or Stressed Plants (D1)	
<u> </u> Inundation Visible on Aerial Imagery (B7)		<u> </u> Geomorphic Position (D2)	
<u> </u> Water-Stained Leaves (B9)		<u> </u> Shallow Aquitard (D3)	
<u> </u> Aquatic Fauna (B13)		<u> </u> Microtopographic Relief (D4)	
		<u> </u> FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes <u>X</u> No <u> </u> Depth (inches): <u>2</u>	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	
Water Table Present?	Yes <u> </u> No <u>X</u> Depth (inches): <u> </u>		
Saturation Present? (includes capillary fringe)	Yes <u>X</u> No <u> </u> Depth (inches): <u>0</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: **A-2**

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	20	X	FACW	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)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ = Total Cover				Prevalence Index worksheet: <div style="display: flex; justify-content: space-between;"> Total % Cover of: Multiply by: </div> 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 =
Sapling/Shrub Stratum (Plot size: <u>none</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 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)
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Leersia oryzoides</u>	100	X	OBL	
2. <u>Eupatorium perfoliatum</u>	10		FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ = Total Cover				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/Shrub – Woody plants, excluding vines, 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 vine – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>none</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present? Yes <u>X</u> No

SOIL

Sampling Point: **A-2**

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

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

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils³:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ X Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (**LRR N**)
- ☐ Depleted Below Dark Surface (A11)
- ☒ X 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) **(MLRA 147, 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)**

- ☐ 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)

³Indicators 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:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Consol Seneca City/County: Summerfield/Noble Sampling Date: 8/9/2012
 Applicant/Owner: Joe Knows Energy State: OH Sampling Point: B-3
 Investigator(s): Stephan Ryder Section, Township, Range:

Landform (hillslope, terrace, etc.): riparian corrior Local relief (concave, convex, none): convex Slope (%): 10

Subregion (LRR or MLRA): LRR Lat: 39N 48' 07.69" Long: 81W 20'49.09 Datum:

Soil Map Unit Name: Guernsey silt loam, 15 to 25% slope NWI classification:

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 <u>X</u> No	Is the Sampled Area within a Wetland?	Yes <u>X</u> No
Hydric Soil Present?	Yes <u>X</u> No		
Wetland Hydrology Present?	Yes <u>X</u> No		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<u>X</u> Surface Water (A1)	____ True Aquatic Plants (B14)	____ Surface Soil Cracks (B6)	
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Sparsely Vegetated Concave Surface (B8)	
<u>X</u> Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Drainage Patterns (B10)	
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Moss Trim Lines (B16)	
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Dry-Season Water Table (C2)	
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Crayfish Burrows (C8)	
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Saturation Visible on Aerial Imagery (C9)	
____ Iron Deposits (B5)		____ Stunted or Stressed Plants (D1)	
____ Inundation Visible on Aerial Imagery (B7)		____ Geomorphic Position (D2)	
____ Water-Stained Leaves (B9)		____ Shallow Aquitard (D3)	
____ Aquatic Fauna (B13)		____ Microtopographic Relief (D4)	
		____ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes <u>X</u> No _____ Depth (inches):		
Water Table Present?	Yes _____ No <u>X</u> Depth (inches): <u>22</u>		
Saturation Present?	Yes <u>X</u> No _____ Depth (inches):		
(includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: **B-3**

Tree Stratum (Plot size: <u>none</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	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)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			_____ = Total Cover	Prevalence Index worksheet: <div style="display: flex; justify-content: space-between;"> Total % Cover of: Multiply by: </div> 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 =
Sapling/Shrub Stratum (Plot size: <u>none</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
			_____ = Total Cover	
Herb Stratum (Plot size: <u>5'</u>)				
1. Leersia oryzoides	60	X	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. Eupatorium perfoliatum	15		FACW	
3. Acorus americanus	10		OBL	
4. Impatiens capensis	10		FACW	
5. Boehmeria cylindrica	20	X	FACW	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
			_____ = Total Cover	
Woody Vine Stratum (Plot size: <u>none</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
			_____ = Total Cover	
Remarks: (Include photo numbers here or on a separate sheet.)				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/Shrub – Woody plants, excluding vines, 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 vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <u>X</u> No

SOIL

Sampling Point: **B-3**

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Consol Seneca City/County: Summerfield/Noble Sampling Date: 8/9/2012

Applicant/Owner: Joe Knows Energy State: OH Sampling Point: B-4

Investigator(s): Stephan Ryder Section, Township, Range:

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

Subregion (LRR or MLRA): LRR Lat: 39N 48' 07.69" Long: 81W 20'49.09 Datum:

Soil Map Unit Name: Guernsey silt loam, 15 to 25% slope NWI classification:

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 <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches):	Wetland Hydrology Present? Yes _____ No <u>X</u>	
Water Table Present? Yes _____ No <u>X</u>	Depth (inches):		
Saturation Present? Yes _____ No <u>X</u>	Depth (inches):		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: **B-4**

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ulmus rubra</u>	10		FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>10</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>2</u> x 3 = <u>6</u> FACU species <u>4</u> x 4 = <u>16</u> UPL species _____ x 5 = _____ Column Totals: <u>6</u> (A) <u>22</u> (B) Prevalence Index = B/A = <u>3.6</u>
<u>20</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>Lindera benzoin</u>	20	X	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>20</u> = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
<u>40</u> = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Ambrosia artemisiifolia</u>	40	X	FACU	
2. <u>Viola walteri</u>	20	X	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>60</u> = Total Cover				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/Shrub – Woody plants, excluding vines, 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 vine – All woody vines greater than 3.28 ft in height.
<u>20</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>5'</u>)				
1. <u>Parthenocissus quinquefolia</u>	20	X	FACU	
2. <u>Toxicodendron radicans</u>	20	X	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
<u>40</u> = Total Cover				
<u>40</u> = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

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

SOIL

Sampling Point: B-4

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

[illegible]

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils³:

- | | | |
|--|--|--|
| <input type="checkbox"/> Histosol (A1)
<input type="checkbox"/> Histic Epipedon (A2)
<input type="checkbox"/> Black Histic (A3)
<input type="checkbox"/> Hydrogen Sulfide (A4)
<input type="checkbox"/> Stratified Layers (A5)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)
<input type="checkbox"/> Depleted Below Dark Surface (A11)
<input type="checkbox"/> Thick Dark Surface (A12)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Other (Explain in Remarks) |
|--|--|--|
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators 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:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Consol Seneca City/County: Summerfield/Noble Sampling Date: 8/9/2012
 Applicant/Owner: Joe Knows Energy State: OH Sampling Point: UPL 5
 Investigator(s): Stephan Ryder Section, Township, Range:
 Landform (hillslope, terrace, etc.): hilltop Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR or MLRA): LRR Lat: 39N 48'07.69" Long: 81W20'49.09" Datum:
 Soil Map Unit Name: Lowell-Gilpin silt loam, 35 to 75% slope NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (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 <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes _____ No _____ Depth (inches):	Wetland Hydrology Present? Yes _____ No <u>X</u>	
Water Table Present? Yes _____ No _____ Depth (inches):		
Saturation Present? Yes _____ No _____ Depth (inches): (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: UPL 5

Tree Stratum (Plot size: <u>30'</u>)				Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Prunus cerasus</u>	<u>30</u>	<u>X</u>	<u>FACU</u>		
2.	<u>Robinia pseudoacacia</u>	<u>50</u>	<u>X</u>	<u>FACU</u>		
3.	<u>Juglans nigra</u>	<u>20</u>	<u>X</u>	<u>UPL</u>		
4.	<u>Acer saccharum</u>	<u>20</u>	<u>X</u>	<u>FACU</u>		
5.						
6.						
7.						
8.						
		<u>120</u>	= Total Cover			
Sapling/Shrub Stratum (Plot size: <u>none</u>)						
1.	<u>Rosa multiflora</u>	<u>40</u>	<u>X</u>	<u>FACU</u>		
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
		<u>40</u>	= Total Cover			
Herb Stratum (Plot size: <u>5'</u>)						
1.	<u>Toxicodendron radicans</u>	<u>30</u>	<u>X</u>	<u>FACU</u>		
2.	<u>Ambrosia artemisiifolia</u>	<u>20</u>	<u>X</u>	<u>FACU</u>		
3.	<u>Ranunculus acris</u>	<u>10</u>		<u>FAC</u>		
4.	<u>Viola septentrionalis</u>	<u>5</u>		<u>FACU</u>		
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
		<u>65</u>	= Total Cover			
Woody Vine Stratum (Plot size: <u>none</u>)						
1.						
2.						
3.						
4.						
5.						
6.						
			= 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:
☒ 1 - Rapid Test for Hydrophytic Vegetation
 _____ 2 - Dominance Test is >50%
 _____ 3 - Prevalence Index is ≤3.0¹
 _____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

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

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/Shrub – Woody plants, excluding vines, 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>
---------------------------------	-----------	--

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

SOIL

Sampling Point: UPL 5

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

[illegible]

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils³:

- | | | |
|---|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Dark Surface (S7) | <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) | <input type="checkbox"/> Coast Prairie Redox (A16) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> (MLRA 147, 148) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> (MLRA 136, 147) |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR N) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) | |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) | |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators 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:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Consol Seneca City/County: Summerfield/Noble Sampling Date: 8/9/2012
 Applicant/Owner: Joe Knows Energy State: OH Sampling Point: UPL 6
 Investigator(s): Stephan Ryder Section, Township, Range:
 Landform (hillslope, terrace, etc.): hilltop Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR or MLRA): LRR Lat: 39N48'07.69" Long: 81N20'49.09" Datum:
 Soil Map Unit Name: Lowell-Gilpin silt loam, 25 to 35% slope NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (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 <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes _____ No _____ Depth (inches):	Wetland Hydrology Present? Yes _____ No <u>X</u>	
Water Table Present? Yes _____ No _____ Depth (inches):		
Saturation Present? Yes _____ No _____ Depth (inches): (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: UPL 6

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Robinia pseudoacacia</u>	<u>50</u>	<u>X</u>	<u>UPL</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
2. <u>Juglans nigra</u>	<u>20</u>	<u>X</u>	<u>UPL</u>	
3. <u>Carya ovata</u>	<u>10</u>		<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>80</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>1</u> x 3 = <u>3</u> FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>2</u> x 5 = <u>10</u> Column Totals: <u>4</u> (A) <u>17</u> (B) Prevalence Index = B/A = <u>4.25</u>
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>Lindera benzoin</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
2. <u>Celtis occidentalis</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>40</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Galium boreale</u>	<u>15</u>		<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Parthenocissus quinquefolia</u>	<u>15</u>		<u>FACU</u>	
3. <u>Toxicodendron radicans</u>	<u>15</u>		<u>FACU</u>	
4. <u>Oxalis montana</u>	<u>10</u>		<u>FACU</u>	
5. <u>Celtis occidentalis</u>	<u>15</u>		<u>FACU</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>70</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>none</u>)				
1. _____				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/Shrub – Woody plants, excluding vines, 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 vine – All woody vines greater than 3.28 ft in height.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
<u> </u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: **UPL 6**

[illegible]

Version 5.0	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization	
	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx>

Background Information

Name:	STEPHAN RYDER		
Date:	8/9/2012		
Affiliation:	PARTNERS ENVIRONMENTAL		
Address:	31100 SOLON ROAD, SUITE G		
Phone Number:	440-248-6005		
e-mail address:	sryder@partnersenv.com		
Name of Wetland:	WETLAND A		
Vegetation Community(ies):	EMERGENT		
HGM Class(es):			
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.			
SEE WETLAND DELINEATION MAP			
Lat/Long or UTM Coordinate	39°21'57.76"N 81°20'56.55"W		
USGS Quad Name	Summit 1820		
County	NOBLE		
Township	MARION		
Section and Subsection			
Hydrologic Unit Code	0509010080		
Site Visit	8/9/2012		
National Wetland Inventory Map	NONE SHOWN		
Ohio Wetland Inventory Map	N/A		
Soil Survey	LOWELL-GILPIN SILT LOAM		
Delineation report/map	NOBLE Co. ATTACHED		

This foregoing document was electronically filed with the Public Utilities

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2/28/2013 3:26:00 PM

in

Case No(s). 13-0452-EL-BLN

Summary: Letter of Notification Steamtown 138kv Loop Project(Part 1 of 2) electronically filed by Mr. Yazen Alami on behalf of AEP Ohio Transmission Company