



PROJECT LOCATION



JEFFERSON AND
HARRISON COUNTIES, OH

REFERENCE:
WORLD IMAGERY 2012, ESRI,
MICROSOFT CORPORATION
AND ITS DATA SUPPLIERS,
ACCESSED 5/2014.

LEGEND

Access Road

Existing/Proposed Transmission Line

Study Area

Roost Tree Score

- High
- Moderate
- Low
- None

Northern Long-Eared Bat Score

Indiana Bat Score

0 150 300 600 Feet


FIGURE 2
ROOST TREE LOCATION MAP
SHEET 13 OF 18

EAST AMSTERDAM - MILLER SWITCH
138 kV REBUILD PROJECT
AEP

DRAWN BY: TER
CHECKED: JAD

DATE: 6/20/2014
APPROVED: MAF



<p>PROJECT LOCATION</p>  <p>JEFFERSON AND HARRISON COUNTIES, OH</p>	<p>REFERENCE: WORLD IMAGERY 2012, ESRI, MICROSOFT CORPORATION AND ITS DATA SUPPLIERS, ACCESSED 5/2014.</p>	<p>LEGEND</p> <div><div><div>Access Road</div><div>Existing/Proposed Transmission Line</div><div>Study Area</div></div><div><p>Roost Tree Score</p><div><div>High</div><div>Moderate</div><div>Low</div><div>None</div></div></div><div><p>Northern Long-Eared Bat Score</p><p>Indiana Bat Score</p></div></div> <div><div><div>0</div><div>150</div><div>300</div><div>600</div></div><div>Feet</div></div>	<p>FIGURE 2 ROOST TREE LOCATION MAP SHEET 14 OF 18</p> <p>EAST AMSTERDAM - MILLER SWITCH 138 KV REBUILD PROJECT AEP</p> <div><div><div>DRAWN BY: TER</div><div>CHECKED: JAD</div></div><div><div>DATE: 6/20/2014</div><div>APPROVED: MAF</div></div></div>
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LEGEND

Access Road

Existing/Proposed Transmission Line

Study Area

Roost Tree Score

- High
- Moderate
- Low
- None

Northern Long-Eared Bat Score

Indiana Bat Score


0 150 300 600 Feet

FIGURE 2
ROOST TREE LOCATION MAP
SHEET 15 OF 18

EAST AMSTERDAM - MILLER SWITCH
138 KV REBUILD PROJECT
AEP

DRAWN BY: TER DATE: 6/20/2014
CHECKED: JAD APPROVED: MAF



<p>PROJECT LOCATION</p>  <p>JEFFERSON AND HARRISON COUNTIES, OH</p>	<p>REFERENCE: WORLD IMAGERY 2012, ESRI, MICROSOFT CORPORATION AND ITS DATA SUPPLIERS, ACCESSED 5/2014.</p>	<p>LEGEND</p> <div><p>Access Road</p><p>Existing/Proposed Transmission Line</p><p>Study Area</p></div> <div><p>Roost Tree Score</p><ul style="list-style-type: none">HighModerateLowNone</div> <div><p>Northern Long-Eared Bat Score</p><p>Indiana Bat Score</p></div> <div><p>0 150 300 600 Feet</p></div>	<p>FIGURE 2 ROOST TREE LOCATION MAP SHEET 16 OF 18</p> <p>EAST AMSTERDAM - MILLER SWITCH 138 kV REBUILD PROJECT AEP</p> <div><p>DRAWN BY: TER</p><p>CHECKED: JAD</p></div> <div><p>DATE: 6/20/2014</p><p>APPROVED: MAF</p></div>
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LEGEND

Access Road
Existing/Proposed Transmission Line
Study Area

Roost Tree Score

- High
- Moderate
- Low
- None

Northern Long-Eared Bat Score

Indiana Bat Score

0 150 300 600 Feet




FIGURE 2
ROOST TREE LOCATION MAP
SHEET 17 OF 18

EAST AMSTERDAM - MILLER SWITCH
138 kV REBUILD PROJECT
AEP

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<p>PROJECT LOCATION</p>  <p>JEFFERSON AND HARRISON COUNTIES, OH</p>	<p>REFERENCE: WORLD IMAGERY 2012, ESRI, MICROSOFT CORPORATION AND ITS DATA SUPPLIERS, ACCESSED 5/2014.</p>	<p>LEGEND</p> <div><div><div>— Access Road</div><div>— Existing/Proposed Transmission Line</div><div>□ Study Area</div></div><div><div>● High</div><div>● Moderate</div><div>● Low</div><div>○ None</div></div><div><div>Northern Long-Eared Bat Score</div><div>Indiana Bat Score</div></div></div> <div><div>0150300600</div><div>Feet</div></div>	<p>FIGURE 2 ROOST TREE LOCATION MAP SHEET 18 OF 18</p> <hr/> <p>EAST AMSTERDAM - MILLER SWITCH 138 KV REBUILD PROJECT AEP</p> <div></div> <div><div>DRAWN BY: TER</div><div>CHECKED: JAD</div></div> <div><div>DATE: 6/20/2014</div><div>APPROVED: MAF</div></div>
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Wetland Delineation and Stream Identification Report

American Electric Power
East Amsterdam – Miller Switch 138 kV Rebuild Project
German and Springfield Townships
Harrison and Jefferson Counties, Ohio

GAI Project Number: C091118.47.002

June 2014

Prepared For: American Electric Power
700 Morrison Road
Gahanna, Ohio 43230

Prepared By: GAI Consultants, Inc.
Greater Cincinnati Office
1830 Airport Exchange Boulevard, Suite 220
Erlanger, Kentucky 41018



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1.0 Introduction

American Electric Power (AEP) is proposing to rebuild an electric transmission line which is referred to as the East Amsterdam–Miller Switch 138 kilovolt (kV) Rebuild Project (Project), located in Harrison and Jefferson Counties, Ohio. The Project involves the rebuild of an approximately 9.7-mile overhead 69 kV electric transmission line, beginning at the East Amsterdam Substation near Amsterdam, Ohio and terminating at the Miller Switch Station, north of the town of Hopedale, Ohio. Construction of this Project will involve the replacement of approximately 200 existing wooden poles with new pole structures consisting of approximately 123 pre-engineered wood pole equivalent (WPE) (steel single-pole) structures, 15 WPE steel single-pole running angle structures, 12 WPE steel pole deadend structures, and two switch structures. The new line will be capable of being energized to 138 kV. Construction of this Project will also include the clearing and widening of AEP's existing 50-foot right-of-way (ROW) to a 100-foot wide ROW. A Project Location Map is included as Figure 1.

GAI Consultants, Inc. (GAI), on behalf of AEP, conducted an environmental field survey of the Project study area March 31 through April 3, 2014, May 7, and June 19, 2014. The purpose of the environmental field survey was to identify wetlands and streams present within the proposed Project Area of Interest (AOI). A 100-foot wide study corridor along the existing transmission line route and a 50-foot wide study corridor along access roads were surveyed for ecological resources.

The following sections of this report describe the methods used to identify and delineate wetlands and streams within the Project AOI, the results of the field survey, and the associated documentation of any streams and wetlands identified within the AOI. It will be used to assist AEP's efforts to avoid impacting these areas to the extent feasible during site design and development and will serve as a supporting document to the Letter of Notification that will be submitted to the Ohio Power Siting Board.

2.0 Transmission Line ROW Description

Information available for the Project AOI was collected and examined prior to the initial field visit. The United States Geological Survey (USGS) 7.5-minute topographic quadrangle of Cadiz, Ohio and Amsterdam, Ohio, and United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping (USFWS, 2012) were examined for documented wetlands. The USGS National Hydrography Dataset (NHD) mapping was examined for documented streams. United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) soil mapping was also reviewed (USDA-NRCS, 2010). These publications were examined and evaluated in order to gain a preliminary understanding of the Project AOI.

For the field surveys, the AOI consisted of a 100-foot corridor along the proposed transmission line ROW and a 50-foot corridor along proposed access roads, which were evaluated to determine the extent of ecological resources. Wetlands and streams were identified and assigned a GAI designation code identifying each feature by type, state, personnel, feature number and sequential flag number. For example, a wetland or stream would be identified as WOH-TER-001 or SOH-TER-001, respectively. The methods used during the field review are described further in the following sections.

2.1 Methods For Field Identification Of Wetlands And Streams

Section 404 of the United States Clean Water Act (CWA) and state regulations in Ohio serve to protect wetlands. The United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (Delineation Manual, Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain and Piedmont Region* (Regional Supplement, USACE, 2012) were used to identify wetlands that may be under the jurisdiction of the USACE or Ohio Environmental Protection Agency (OEPA). Wetlands were delineated by evaluating three wetland indicators: hydrophytic vegetation, hydric soils, and hydrology.

As regulated by Ohio Administrative Code (OAC) rules 3745-1-50 through 3745-1-54, wetlands were also evaluated using the Ohio Rapid Assessment Method for Wetlands v. 5.0 (ORAM) to determine the appropriate wetland category. Any wetland score that fell within a zone between categories was scored

one of two ways. Either the wetland was assigned to the higher of the two categories or it was assessed using a non-rapid method to determine its quality (Mack, 2001). The category assigned to a particular wetland determines the requirement, if any, for additional levels of protection administered by the OEPA.

As regulated by Sections 404 of the CWA, and Section 10 of the Rivers and Harbors Act of 1899, streams were classified as perennial, intermittent, or ephemeral based upon presence of flow, estimated duration of flow, stream bed characteristics, and presence of aquatic biota. The USACE Jurisdictional Determination Form Instructional Guidebook (USACE, 2007) was used to determine stream classification and flow status.

As regulated by OAC Chapter 3745 and the Section 401 Water Quality Certification, streams were also assessed according to OEPA guidance using either the Primary Headwater Habitat Evaluation Index (HHEI) for watersheds less than one square mile in size, or the Qualitative Habitat Evaluation Index (QHEI) for watersheds between one and 20 square miles in size.

Plant species in all strata and stream habitats were used to evaluate the location and extent of wetlands, streams and groundwater features that exist within the Project AOI. The USACE Cold Regions Research and Engineering Laboratory Eastern Mountain and Piedmont Region National Wetland Plant List (Lichvar, 2012) was used to determine the indicator status of identified plants.

3.0 Results

3.1 Desktop Evaluation And General Habitat Description

The proposed Project is located in the northwestern portion of Harrison County and in the southwestern portion of Jefferson County. The Project AOI is located near rural residential and farm properties and public/county roads. Land uses within the Project AOI include deciduous forest fragmented by agricultural and rural residential areas.

According to a desktop review of available USFWS NWI digital data for the Project, three previously identified wetlands were found within the AOI. An examination of the USGS NHD stream mapping showed nineteen USGS streams intersecting the AOI. USDA soil mapping indicated seven hydric soil units crossing the proposed Project (Figure 3). The topography of the proposed Project is primarily composed of gentle to moderately rolling hills, ridge tops, and stream or river valleys. Land surface elevations range from approximately 1,220-feet above mean sea level (msl) to approximately 980-feet above msl in the stream valley.

All hydrologic features in the Project AOI are within the Upper Ohio River (HUC 05030101) watershed. A review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Panel 39081C and 39067C revealed that approximately 0.5 acres of the Project AOI is within the limits of a designated regulatory floodplain (FEMA, 2012, Figure 2).

The field-identified wetlands and waterbodies are summarized in Tables 1 and 2. Color photographs of each feature accompany these tables. Soil maps are provided in Figure 3.

3.2 Wetlands

Eleven wetlands were identified and delineated within the Project AOI (Figure 2).

Nine wetlands were classified as a Palustrine Emergent (PEM), and comprise approximately 1.88 acres (total) within the AOI. One wetland was classified as Palustrine Scrub Shrub (PSS), and comprised approximately 0.28 acres (total) within the AOI. One wetland was classified as a PEM/ Palustrine Forested (PFO) wetland, and comprised approximately 0.74 acres within the AOI.

Six wetlands were classified as Category 1, two wetlands were classified as Modified Category 2, and three wetlands were classified as Category 2 according to the ORAM scoring. No wetlands were classified as Category 3.

Table 1 lists the wetlands that were identified within the AOI, including corresponding ORAM scores and category determinations. The attached photographs section of this document includes depictions of all the wetlands identified within the AOI.

3.3 Streams

Thirty-two streams were identified and delineated within the Project AOI (Figure 2).

Seven perennial streams, fourteen intermittent streams, and eleven ephemeral streams were identified within the AOI (Figure 2).

The Project study area is found within two watersheds:

- Yellow Creek above Elkhorn Creek (Hydrologic Unit Code [HUC] 05030101180010), and
- Cross Creek (OH) to below North Branch Cross Creek (HUC 05030101340010).

Stream SOH-TER-005 is named North Branch Cross Creek, Stream SOH-TER-016 is named Goose Creek, and Stream SOH-TER-022 is named Wolf Run. All streams identified within the AOI are unnamed tributaries to either Cross Creek, North Branch Cross Creek, Goose Creek, or Wolf Run, which eventually flows into the Ohio River, a traditional navigable waterway.

Table 2 describes the stream, including corresponding HHEI or QHEI scoring and habitat type determination. The attached photographs section of this document includes depictions of all the streams identified within the AOI.

4.0 Conclusions

GAI conducted an environmental field survey of the Project AOI from March 31 through April 3, 2014, May 7, and June 19, 2014 to identify wetlands and streams. The proposed project consists of the rebuild of an approximately 9.7-mile long transmission line within an existing ROW, construction of associated new access roads or routes, and tree clearing to widen the cleared area beneath the transmission line from the existing 50 feet width to 100 feet width.

Thirty-two streams, eleven wetlands, and one pond were identified and delineated within the Project AOI. The streams consist of perennial (7), intermittent (14), and ephemeral (11) in terms of flow classification. The wetlands consist PEM (9), PSS (1), and PFO/PEM (1) categories. All wetlands are likely jurisdictional due to a hydrologic connection to receiving jurisdictional waters.

All statements in this document pertaining to the jurisdictional status of wetlands with regard to USACE and OEPA regulations represent the opinion of GAI and are based on present regulatory guidance. The jurisdictional statuses of water resources have not been confirmed by the USACE jurisdictional determination process.

Respectfully submitted,

GAI Consultants, Inc.



Tyler E. Rankin
Senior Environmental Specialist



Michael A. Frank
Senior Director, Environmental Services

MAF:TER/vel

5.0 References

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TABLES

Table 1
Wetlands Identified Within The Project Area of Interest

Map Designation ¹	Cowardin Classification ²	Status ³	Area in AOI (acres)	ORAM v 5.0 Score ⁴	Category ⁵	Latitude ⁶	Longitude ⁶	Figure (Sheet)
WOH-TER-001	PSS	Abutting	0.28	43	Category Modified 2	40.37620	-80.91544	2 (15,16)
WOH-TER-002	PEM	Abutting	0.08	22.5	Category 1	40.38709	-80.91480	2 (14)
WOH-TER-003	PEM	Abutting	0.04	22	Category 1	40.39124	-80.91464	2 (14)
WOH-TER-004	PEM	Abutting	0.79	40.5	Category Modified 2	40.39605	-80.91458	2 (13)
WOH-TER-005	PEM	Abutting	0.36	25	Category 1	40.40889	-80.91394	2 (12)
WOH-TER-006	PEM	Abutting	0.10	27	Category 1	40.41220	-80.91384	2 (11)
WOH-TER-007	PEM	Abutting	0.37	46	Category 2	40.44109	-80.90994	2 (8)
WOH-TER-008	PEM	Abutting	0.04	20	Category 1	40.46076	-80.92095	2 (5,6)
WOH-TER-009	PEM	Adjacent	0.02	26	Category 1	40.47315	-80.88996	2 (1)
WOH-TER-010	PEM/PFO	Abutting	0.74	48	Category 2	40.42457	-80.91079	2 (10)
WOH-TER-011	PEM	Abutting	0.08	46	Category 2	40.41734	-80.91465	2 (11)

Notes:

- ¹ GAI map designation.
- ² PEM – Palustrine Emergent, PSS – Palustrine Scrub/Shrub, PFO – Palustrine Forested, PUB – Palustrine Unconsolidated Bottom, PAB – Palustrine Aquatic Bed
- ³ Jurisdictional wetlands are regulated under USACE CWA Section 404 authority, and isolated wetlands are regulated under Ohio Revised Code 6111.02 to 6111.028.
- ⁴ Interim scoring breakpoints for wetland regulatory categories for ORAM v 5.0 Score: Category 1 score 0 - 29.9; Category 1 or 2 gray zone ORAM score 30 - 34.9; Category modified 2 ORAM score 35 - 44.9; Category 2 ORAM score 45 - 59.9; Category 2 or 3 ORAM score 60 - 64.9; Category 3 ORAM score 65 - 100. OEPA Wetland Ecology Unit Division of Surface Water. *ORAM v. 5.0 Qualitative Score Calibration*. Dated August 15, 2000.
http://www.epa.ohio.gov/portals/35/401/oram50sc_s.pdf.
- ⁵ OAC Rule 3745-1-54(C)(2) defines Category 1 wetlands as wetlands which "...support minimal wildlife habitat, and minimal hydrological and recreation functions," and as wetlands which have "...hydrologic isolation, low species diversity, a predominance of non-native species, no significant habitat or wildlife use, and limited potential to achieve beneficial wetland functions." Category 2 wetlands are defined as wetlands which "...support moderate wildlife habitat, or hydrological or recreational functions," and as wetlands which are "...dominated by native species but generally without the presence of, or habitat for, rare, threatened or endangered species; and wetlands which are degraded but have a reasonable potential for reestablishing lost wetland functions." Degraded but Restorable Category 2 Wetlands are according to OAC Rule 3745-1-54(C) states that wetlands that are assigned to Category 2 constitute the broad middle category that "...support moderate wildlife habitat, or hydrological or recreational functions," but also include "...wetlands which are degraded but have a reasonable potential for reestablishing lost wetland functions."
- ⁶ North American Datum, 1983.

Table 2
Stream Identified Within The Project Area of Interest

Map Designation¹	Stream Name	Flow Regime²	State Water Quality Classification³	Class⁴	HHEI Score⁴	QHEI Score	Channel Width (feet)⁵	Channel Length in AOI (feet)	Latitude⁶	Longitude⁶	Figure (sheet)
SOH-TER-001	Unnamed Trinitary (UNT) to Cross Creek	Intermittent	N/A	I	24	N/A	4	189	40.37839	-80.91507	2 (15)
SOH-TER-002	UNT to Cross Creek	Perennial	N/A	Modified II	59	N/A	5	132	40.37621	-80.91541	2 (15,16)
SOH-TER-003	UNT to North Branch Cross Creek	Intermittent	N/A	Modified II	35	N/A	4	20	40.38737	-80.91459	2 (14)
SOH-TER-004	UNT to North Branch Cross Creek	Intermittent	N/A	II	58	N/A	4	125	40.39122	-80.91468	2 (14)
SOH-TER-005	North Branch Cross Creek	Perennial	WWH,AWS,IWS,PCR	N/A	N/A	61.5	8	183	40.39585	-80.91456	2 (13)
SOH-TER-006	UNT to North Branch Cross Creek	Intermittent	N/A	Modified II	36	N/A	3	50	40.40887	-80.91380	2 (12)
SOH-TER-007	UNT to North Branch Cross Creek	Ephemeral	N/A	Modified I	19	N/A	2	140	40.41098	-80.91385	2 (11,12)
SOH-TER-008	UNT to North Branch Cross Creek	Intermittent	N/A	Modified II	32	N/A	3	131	40.41221	-80.91389	2 (11)
SOH-TER-009	UNT to North Branch Cross Creek	Perennial	N/A	III	75	N/A	5	363	40.41574	-80.91379	2 (11)
SOH-TER-010	UNT to North Branch Cross Creek	Intermittent	N/A	II	40	N/A	3	413	40.41792	-80.91377	2 (10,11)
SOH-TER-011	UNT to North Branch Cross Creek	Ephemeral	N/A	I	17	N/A	2	56	40.42025	-80.91349	2 (10)
SOH-TER-012	UNT to Goose Creek	Perennial	N/A	N/A	N/A	58	10	153	40.44120	-80.91019	2 (8)
SOH-TER-013	UNT to Goose Creek	Perennial	N/A	III	60	N/A	5	160	40.45212	-80.91827	2 (6,7)
SOH-TER-014	UNT to Goose Creek	Ephemeral	N/A	I	29	N/A	4	47	40.45814	-80.92055	2 (5,6)
SOH-TER-015	UNT to Goose Creek	Intermittent	N/A	Modified II	64	N/A	3	584	40.46081	-80.92067	2 (5,6)
SOH-TER-016	Goose Creek	Perennial	WWH,AWS,IWS,PCR	N/A	N/A	59.5	12	118	40.46112	-80.91977	2 (5)
SOH-TER-017	UNT to Goose Creek	Intermittent	N/A	II	49	N/A	2	251	40.46218	-80.91598	2 (4,5)
SOH-TER-018	UNT to Goose Creek	Intermittent	N/A	II	38	N/A	2	157	40.46591	-80.90594	2 (3)
SOH-TER-019	UNT to Wolf Run	Ephemeral	N/A	I	17	N/A	3	96	40.46873	-80.89929	2 (2)
SOH-TER-020	UNT to Wolf Run	Ephemeral	N/A	I	17	N/A	1	152	40.46891	-80.89917	2 (2)
SOH-TER-021	UNT to Wolf Run	Intermittent	N/A	III	57	N/A	4	446	40.46954	-80.89561	2 (2)
SOH-TER-022	Wolf Run	Perennial	WWH,AWS,IWS,PCR	N/A	N/A	53.5	8	1990	40.47220	-80.88969	2 (1)
SOH-TER-023	UNT to Wolf Run	Intermittent	N/A	III	56	N/A	4	154	40.47173	-80.88954	2 (1)
SOH-TER-024	UNT to Wolf Run	Ephemeral	N/A	Modified I	29	N/A	1	41	40.47329	-80.88975	2 (1)
SOH-TER-025	UNT to Wolf Run	Ephemeral	N/A	Modified I	19	N/A	3	93	40.47408	-80.89006	2 (1)
SOH-TER-026	UNT to Wolf Run	Intermittent	N/A	Modified II	46	51	4	123	40.47669	-80.89070	2 (1)
SOH-TER-027	UNT to North Branch Cross Creek	Ephemeral	N/A	I	18	N/A	2	59	40.42584	-80.90967	2 (10)
SOH-TER-028	UNT to North Branch Cross Creek	Intermittent	N/A	II	40	N/A	3	662	40.42436	-80.91094	2 (10)
SOH-TER-029	UNT to Goose Creek	Ephemeral	N/A	Modified II	31	N/A	4	25	40.43009	-80.90653	2 (9)
SOH-TER-030	UNT to Goose Creek	Ephemeral	N/A	Modified I	16	N/A	3	130	40.43916	-80.90844	2 (8)
SOH-TER-031	UNT to Goose Creek	Ephemeral	N/A	II	35	N/A	4	117	40.43932	-80.90851	2 (8)
SOH-TER-032	UNT to Goose Creek	Intermittent	N/A	I	24	N/A	4	36	40.43641	-80.90712	2 (8)

Notes:

- ¹ GAI map designation.
- ² Flow regime determined through field observations and a review of available mapping.
- ³ Flow Water uses of streams are defined under the OAC 3745-1. Applicable use designations (OAC 3745-1-07), for aquatic life include: Warmwater Habitat (WWH). Water Supply designations include: Agricultural Water Supply (AWS), and Industrial Water Supply (IWS). Recreation designated uses include: Primary Contact Recreation (PCR). Most primary headwater streams are not named in the rules. Dated January 23, 2008. http://www.epa.ohio.gov/dsw/rules/3745_1.aspx. Downstream classification based upon Little Beaver Creek.
- ⁴ Classified based on the OEPA Headwater Habitat Evaluation Index (HHEI). Class I PHWH (primary headwater habitats) streams are those that have “normally dry channels with little or no aquatic life present” with an HHEI score of 0 to 29.9. Class II PHWH streams are equivalent to “warm water habitat” streams with an HHEI score of 30 to 69.9. Class III PHWH streams usually have perennial water flow with cool-cold water adapted native fauna with and HHEI score of 70 to 100.
- ⁵ Channel width is the average length, determined by bankfull width, measured in feet.
- ⁶ North American Datum, 1983.

FIGURES



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PROJECT LOCATION



HARRISON AND
JEFFERSON COUNTIES, OHIO

LEGEND

- Existing/Proposed Transmission Line
- County Boundary
- Township Boundary
- Map Index Page

0 0.75 1.5 3
Miles

FIGURE 1 PROJECT LOCATION MAP INDEX

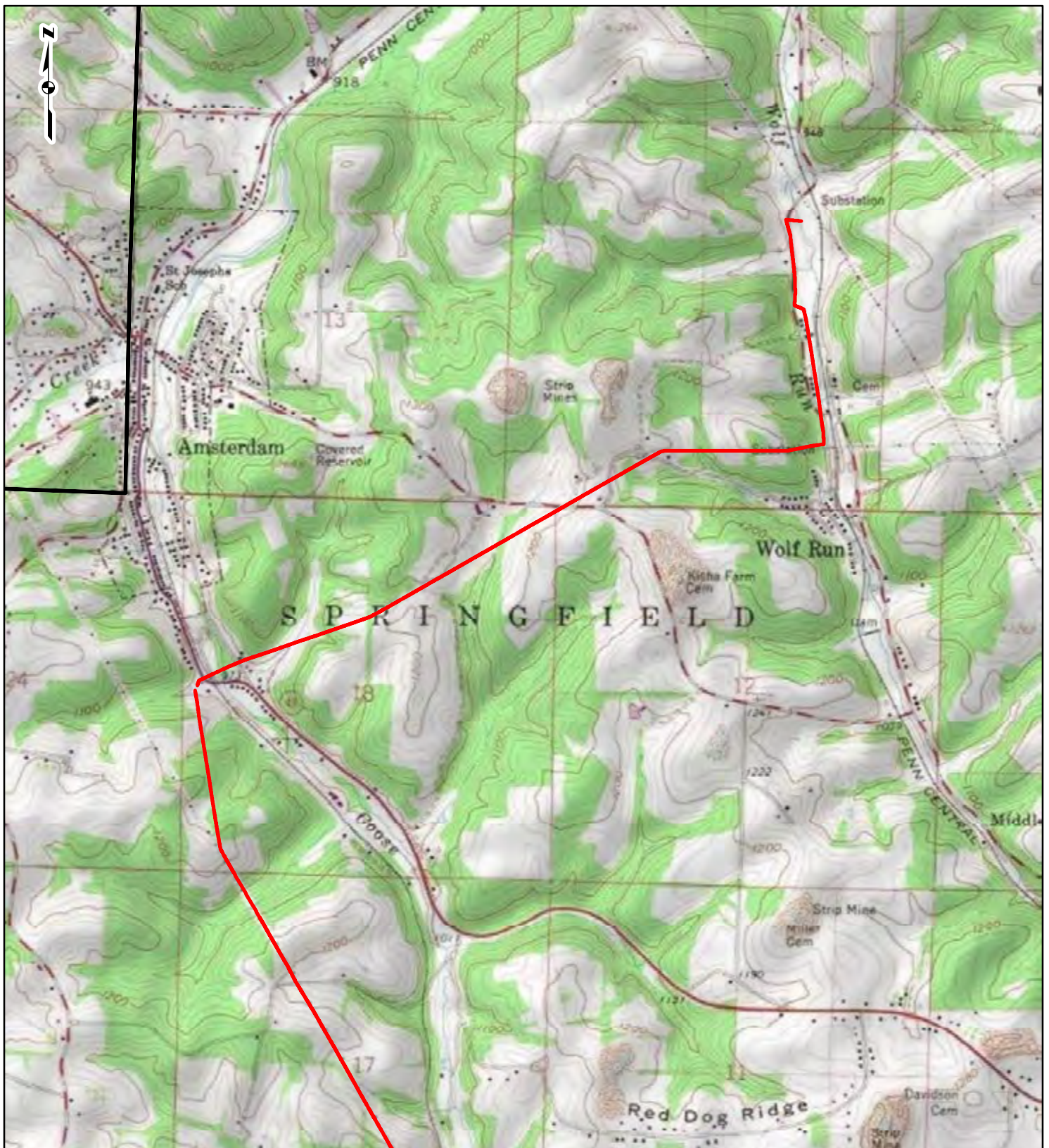
EAST AMSTERDAM - MILLER SWITCH
138 KV REBUILD PROJECT
AEP

DRAWN BY: TER
CHECKED: MAF

DATE: 5/15/2014
APPROVED: MAF

REFERENCE: 7.5-Minute USGS Topographic Quadrangle Maps: Cadiz, OH; Amsterdam, OH; Richmond, OH; Smithfield, OH.

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PROJECT LOCATION



HARRISON AND
JEFFERSON COUNTIES, OHIO

LEGEND

- Existing/Proposed Transmission Line
- County Boundary
- Township Boundary

0 0.25 0.5 1
Miles

FIGURE 1 PROJECT LOCATION MAP SHEET 1 OF 4

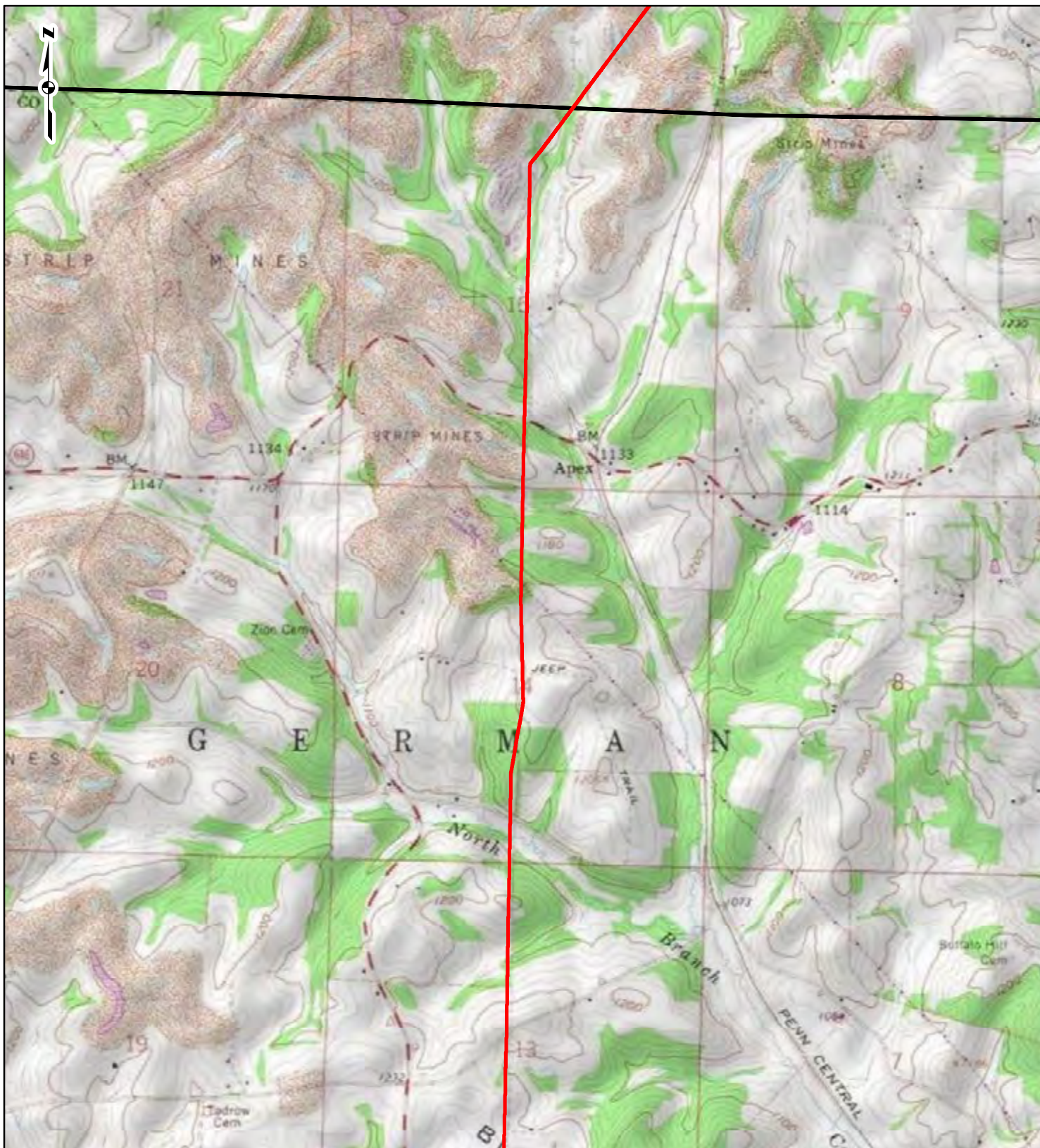
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PROJECT LOCATION



HARRISON AND
JEFFERSON COUNTIES, OHIO

LEGEND

- Existing/Proposed Transmission Line
- County Boundary
- Township Boundary

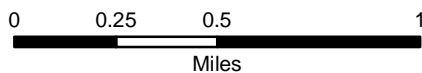


FIGURE 1 PROJECT LOCATION MAP SHEET 2 OF 4

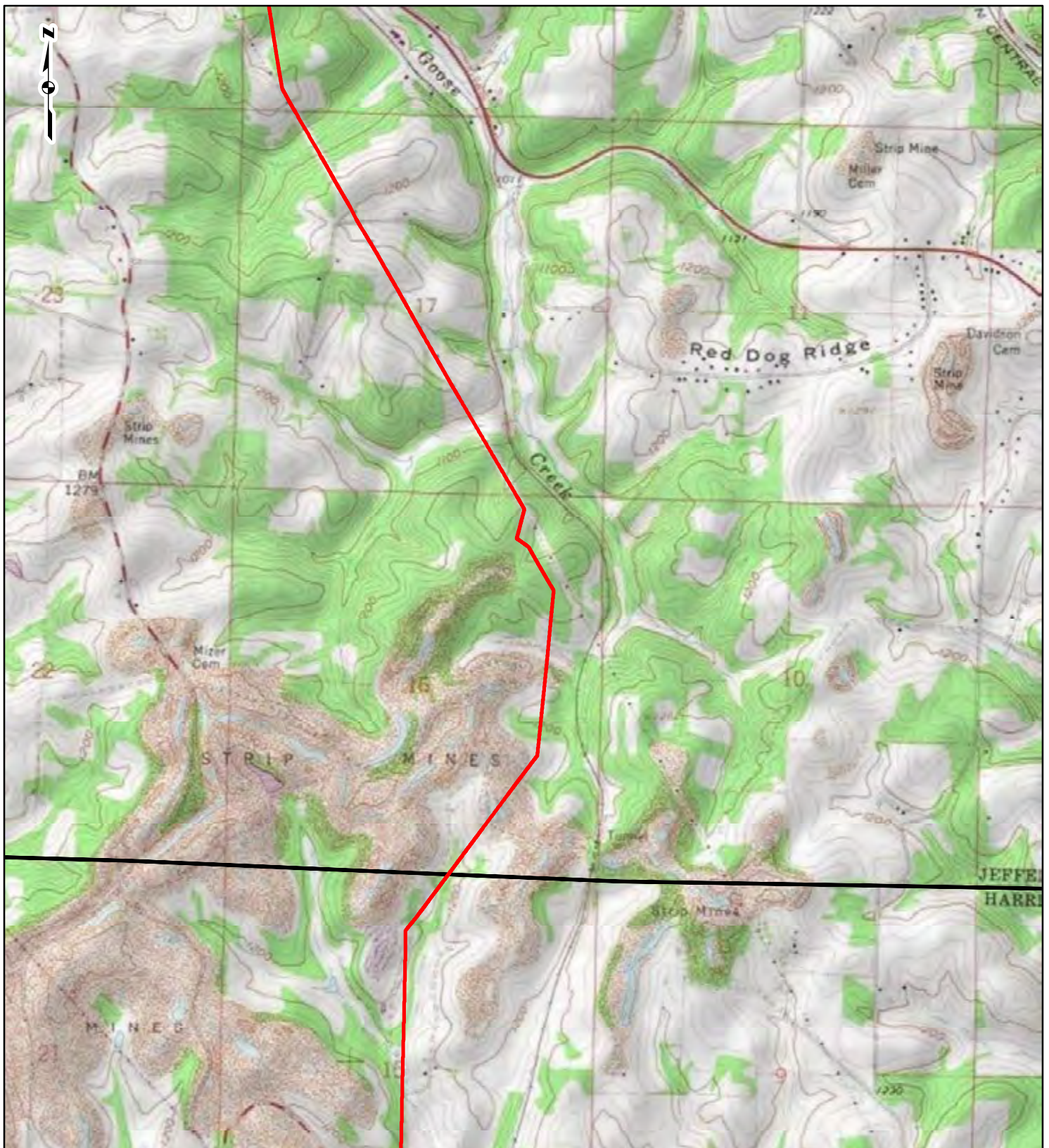
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PROJECT LOCATION



HARRISON AND
JEFFERSON COUNTIES, OHIO

LEGEND

- Existing/Proposed Transmission Line
- County Boundary
- Township Boundary

0 0.25 0.5 1
Miles

FIGURE 1 PROJECT LOCATION MAP SHEET 3 OF 4

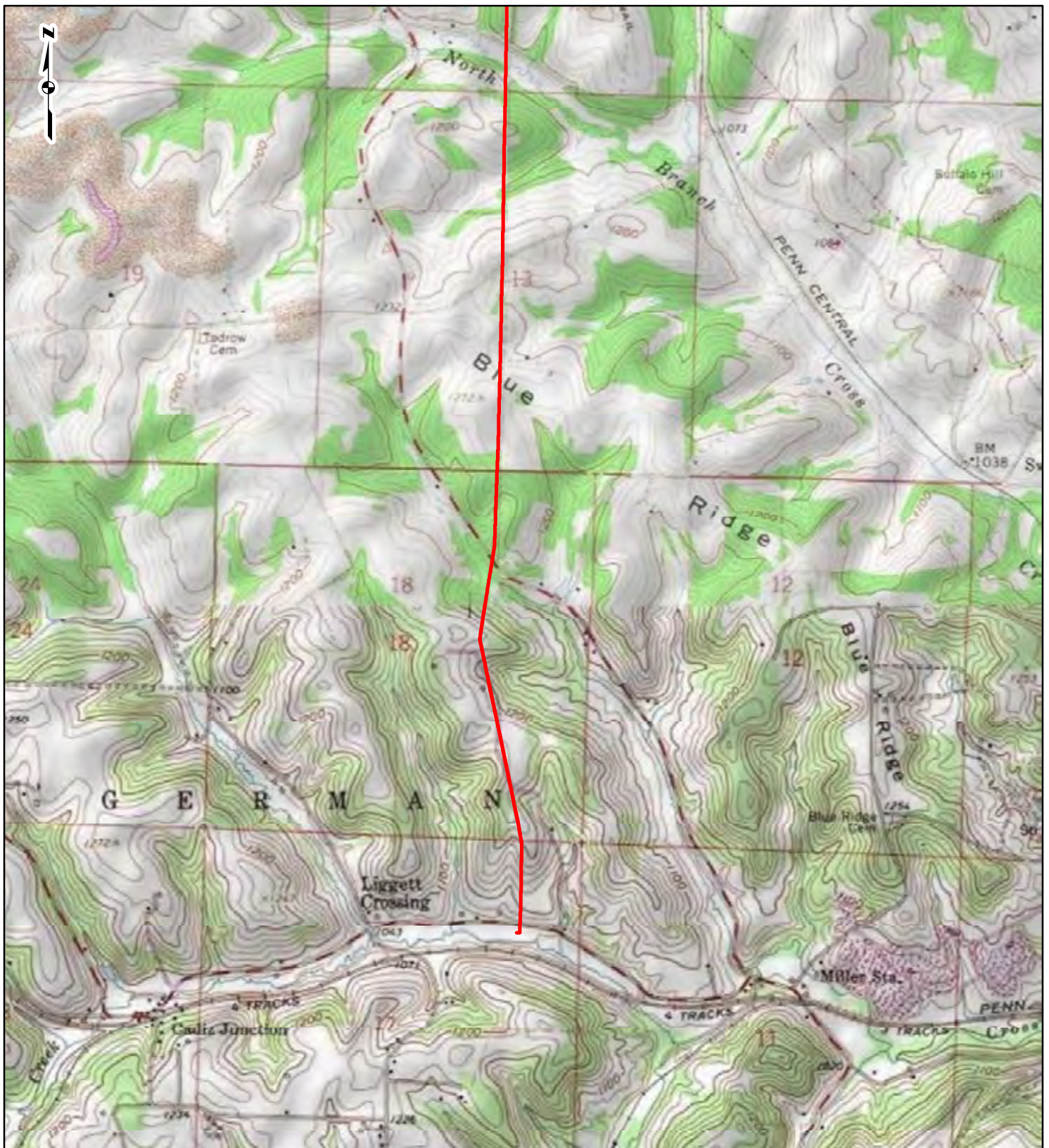
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HARRISON AND
JEFFERSON COUNTIES, OHIO

LEGEND

- Existing/Proposed Transmission Line
- County Boundary
- Township Boundary

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Miles

FIGURE 1 PROJECT LOCATION MAP SHEET 4 OF 4

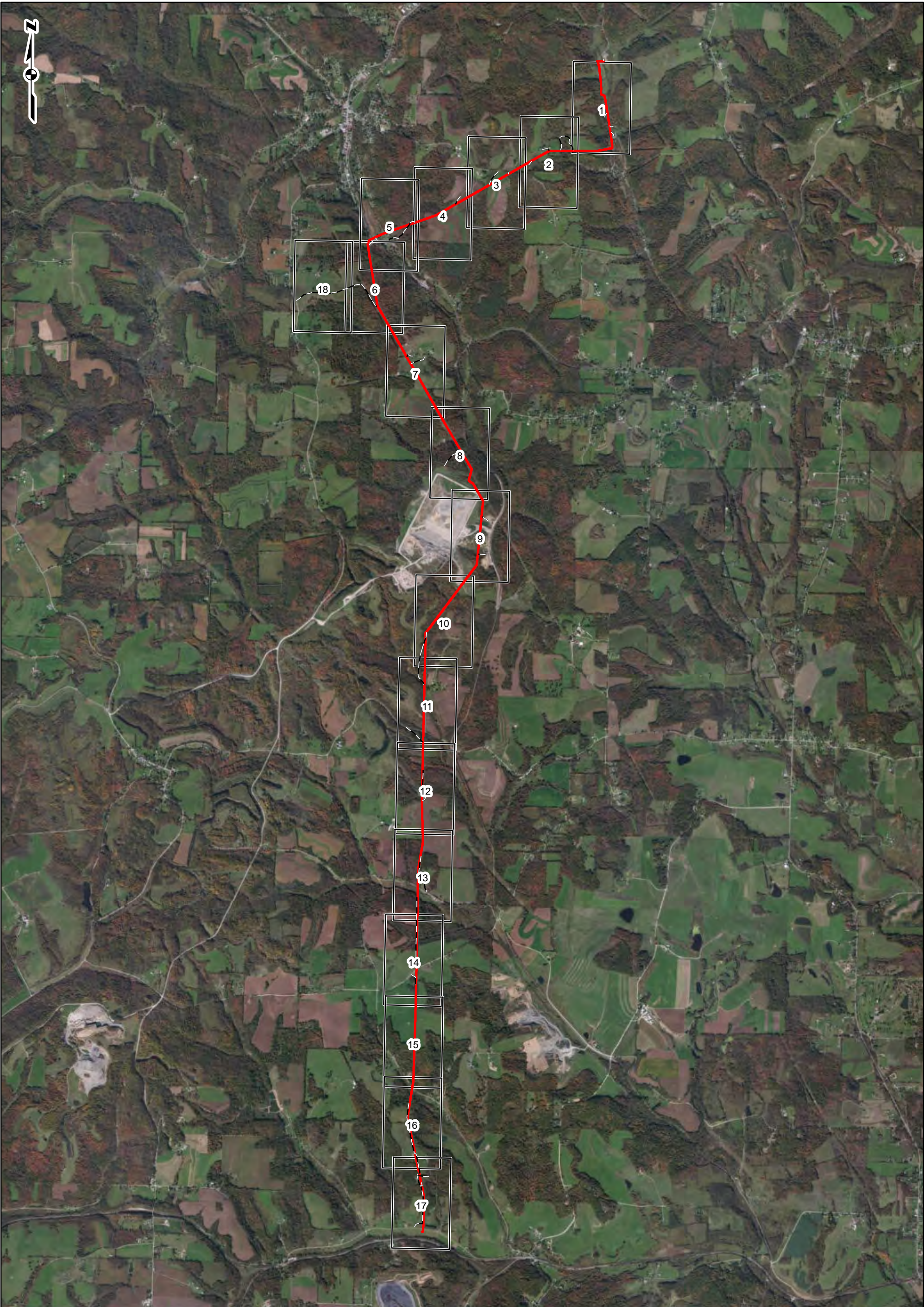
EAST AMSTERDAM - MILLER SWITCH
138 kV REBUILD PROJECT
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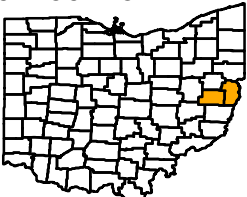
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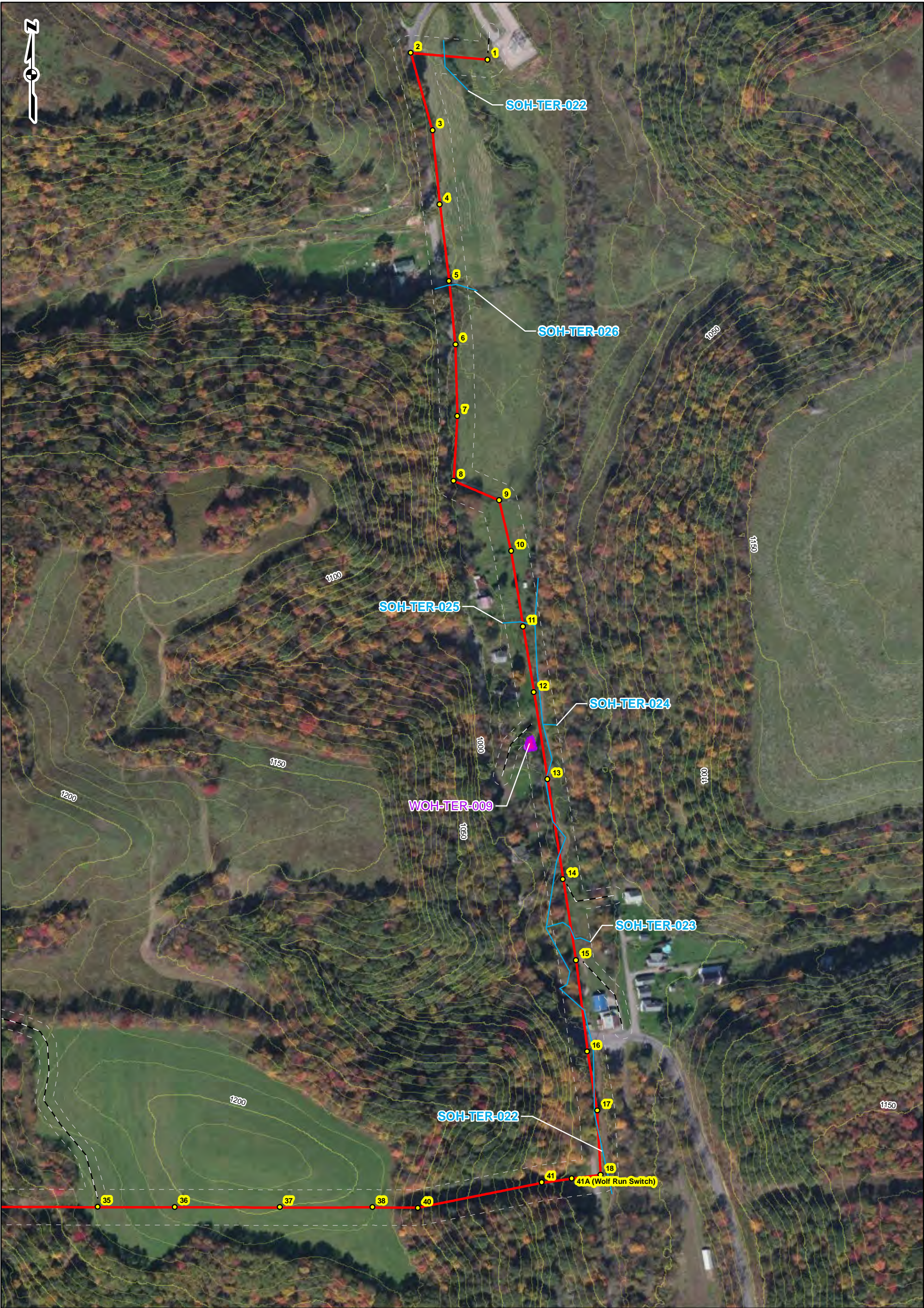
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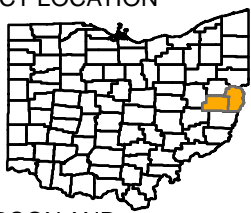
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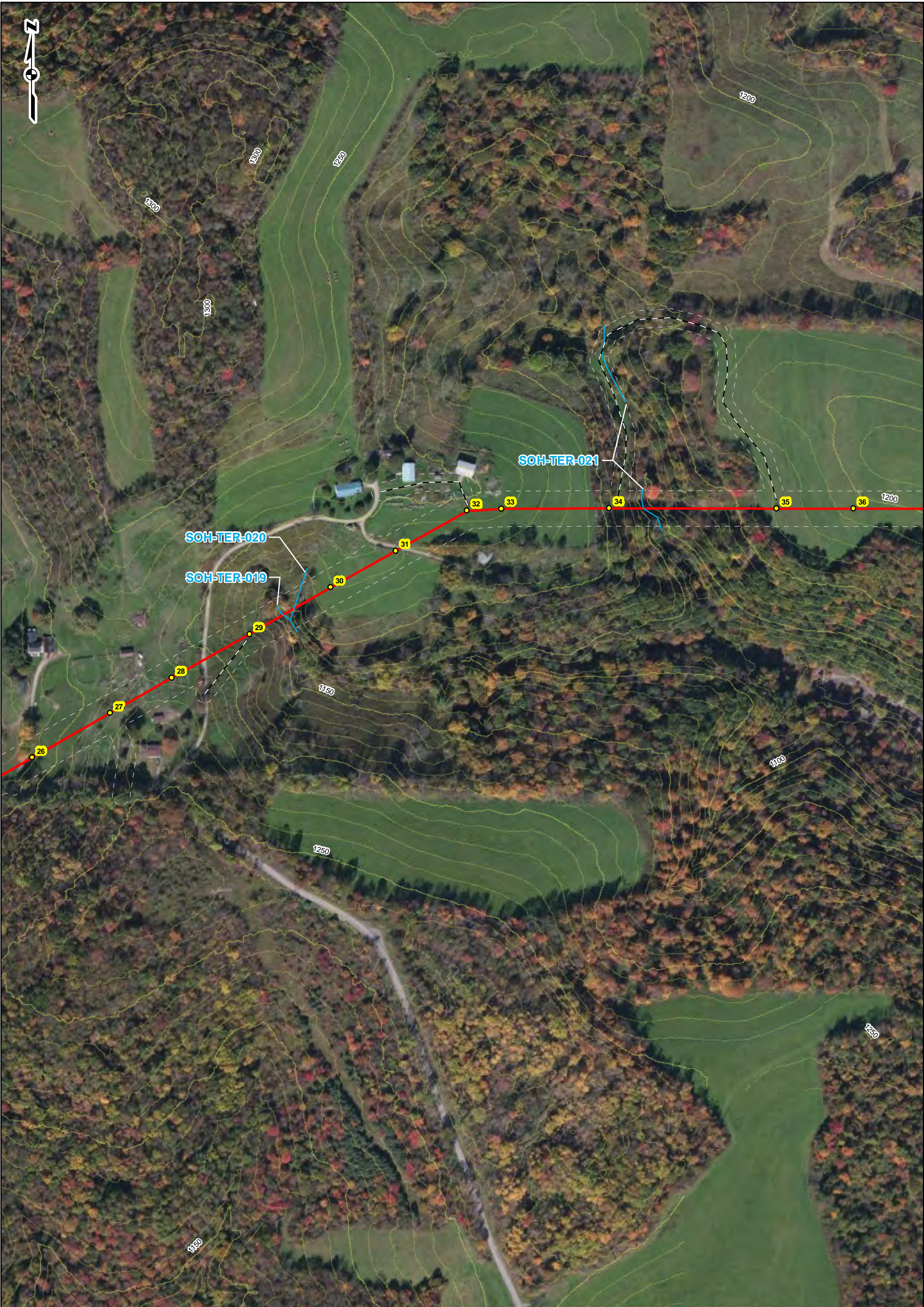
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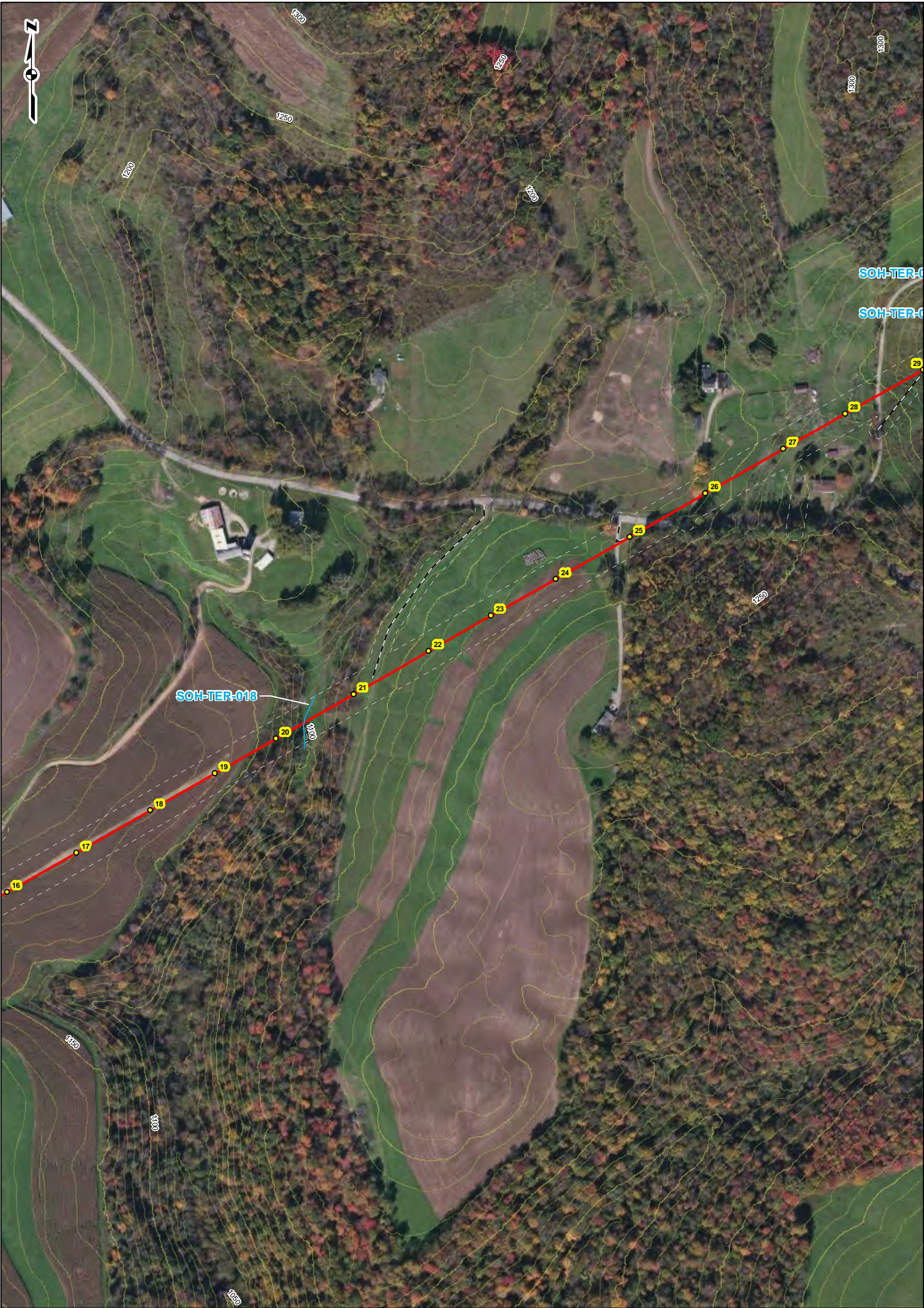
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PROJECT LOCATION

JEFFERSON AND HARRISON COUNTIES, OH

REFERENCE:
WORLD IMAGERY 2012, ESRI,
MICROSOFT CORPORATION
AND ITS DATA SUPPLIERS,
ACCESSED 5/2014.

LEGEND

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Existing Pole	Delineated Pond
Study Area	Delineated Wetland
Planned Access Road	FEMA 100-Year Floodplain Map
10-ft Contour	

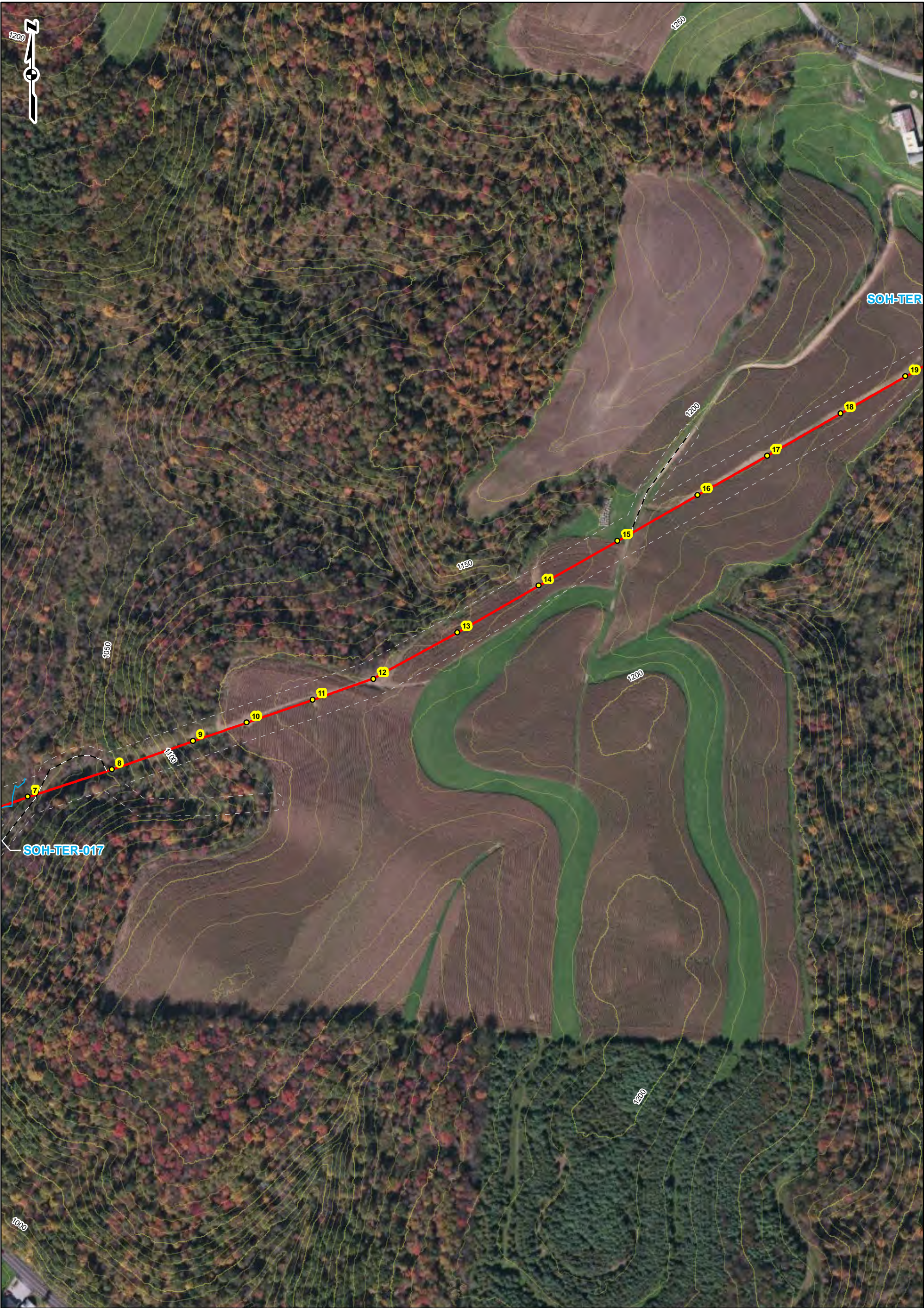
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FIGURE 2
RESOURCE LOCATION MAP
SHEET 3 OF 18

EAST AMSTERDAM - MILLER SWITCH
138 kV REBUILD PROJECT
AEP

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PROJECT LOCATION



JEFFERSON AND
HARRISON COUNTIES, OH

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10-ft Contour	

0 150 300 600 Feet


FIGURE 2
RESOURCE LOCATION MAP
SHEET 4 OF 18

EAST AMSTERDAM - MILLER SWITCH
138 KV REBUILD PROJECT
AEP

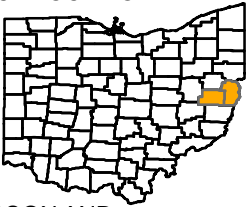
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Commission of Ohio Docketing Information System on

6/27/2014 12:27:27 PM

in

Case No(s). 14-0531-EL-BLN

Summary: Application In the Matter of the Letter of Notification for the East Amsterdam-Miller Switch 138 Kv Transmission Line Rebuild Project Part 2 of 4 electronically filed by Mr. Yazen Alami on behalf of AEP Ohio Transmission Company