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November 26, 2019

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**Re: Case No. 19-2024-EL-BTA**  
**In the Matter of the Amendment Application of AEP Ohio Transmission Company, Inc. for a Certificate of Environmental Compatibility and Public Need for the Vigo - Pine Ridge Switch 138 kV Transmission Line Project**

Dear Chairman Randazzo:

Attached, please find a copy of the Amendment Application of AEP Ohio Transmission Company, Inc. for a Certificate of Environmental Compatibility and Public Need (“Application”) for the above-referenced project. This filing is made pursuant to O.A.C. 4906-5-01, *et seq.*, and 4906-2-01, *et seq.*

Filing of this Amendment Application is effected electronically pursuant to O.A.C. 4906-2-02 (A) and (D). Five printed copies and ten additional electronic copies (CDs) of this filing will also be submitted to the Staff of the Ohio Power Siting Board for its use.

The following information is included pursuant to O.A.C. 4906-2-04(A)(3):

- (a) Applicant:  
AEP Ohio Transmission Company, Inc.  
c/o American Electric Power  
Energy Transmission  
8600 Smiths Mill Road  
New Albany, Ohio 43054
- (b) Facilities to be Certified:  
Vigo-Pine Ridge Switch 138 kV Transmission Line Project

(c) Applicant's Authorized Representative with respect to this Application:  
Robert S. Howard  
Project Manager  
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If you have any questions, please do not hesitate to contact me.

/s/ Tanner S. Wolfram

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Counsel for AEP Ohio Transmission Company, Inc.

cc: Executive Director and Counsel, c/o Jon Pawley, OPSB Staff



**Application for Amendment to the**

**VIGO - PINE RIDGE SWITCH 138 kV**

**TRANSMISSION LINE PROJECT**

**OPSB CASE NO. 19-2024-EL-BTA**

**Submitted pursuant to O.A.C. 4906-5**

**AEP Ohio Transmission Company, Inc.**

**November 2019**

**BEFORE THE OHIO POWER SITING BOARD**  
**Certificate Application for Electric Transmission Facilities**

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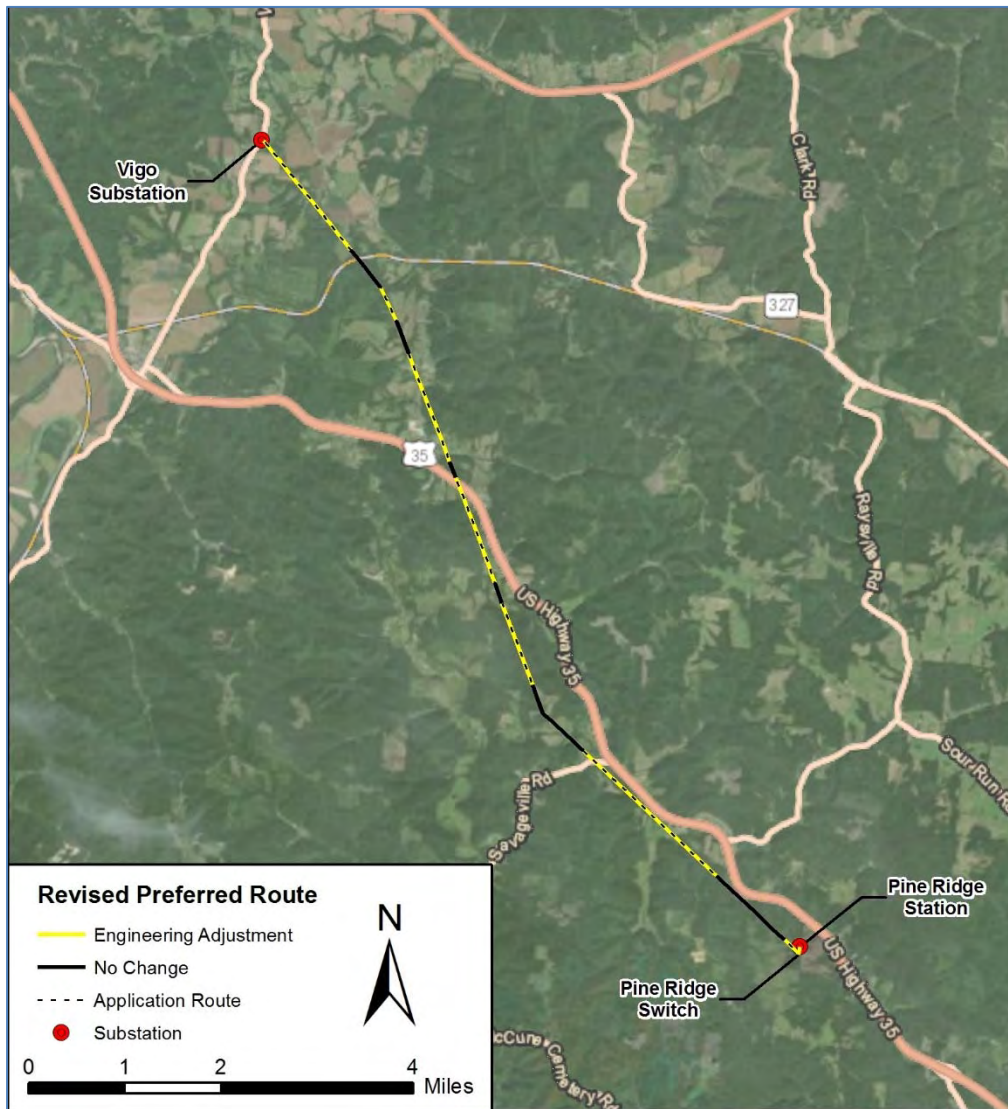
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**AMENDMENT CHANGE SUMMARY**

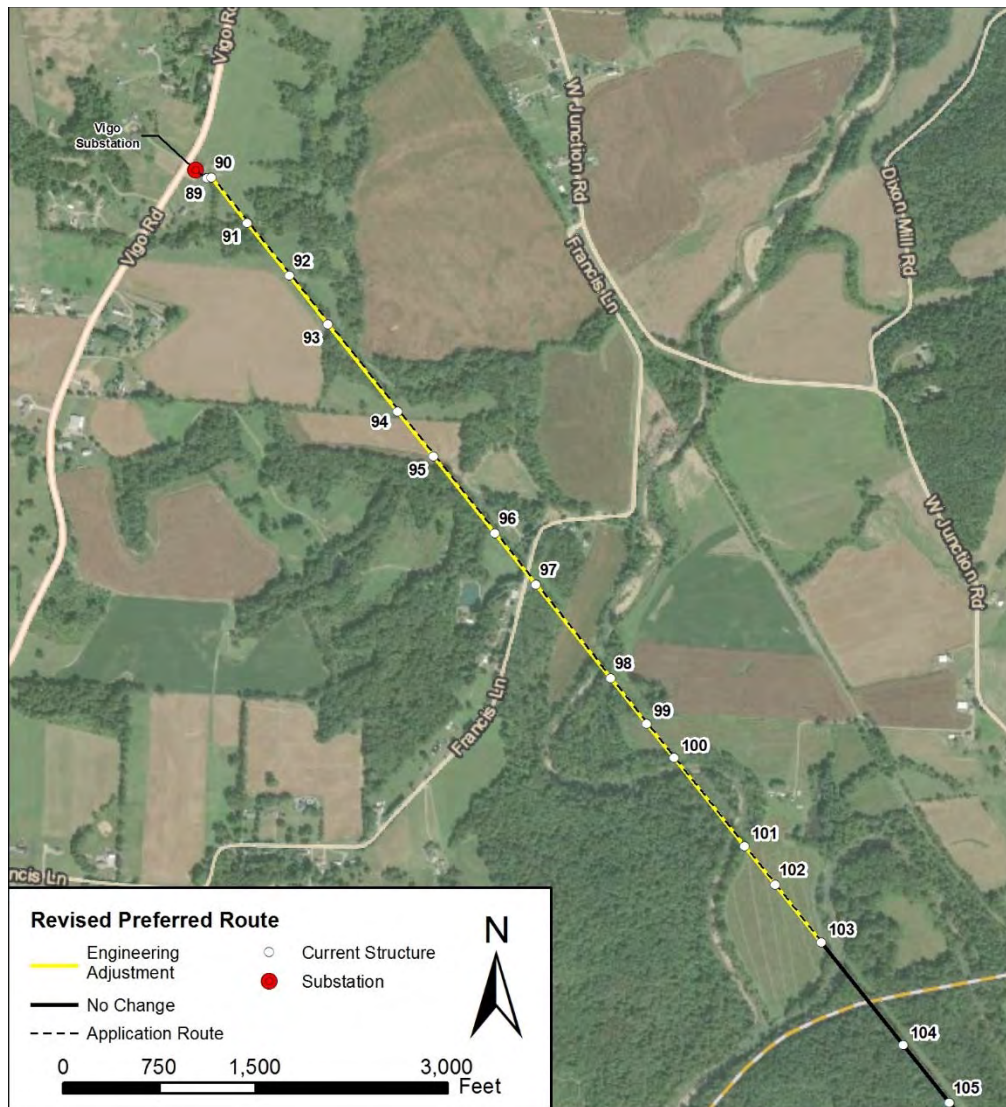
AEP Ohio Transmission Company, Inc. (“AEP Ohio Transco” or “Company”) submitted a Certificate Application to the Ohio Power Siting Board (“OPSB”) on March 29, 2018 for the Vigo – Pine Ridge Switch 138 kV Transmission Line Project (“Project”). On February 21, 2019, the OPSB issued its Certificate of Environmental Compatibility and Public Need for the Preferred Route.

The purpose of this amendment is to document the changes to the Preferred Route alignment since the OPSB’s approval of the Preferred Route, and to seek OPSB’s approval of the revised alignment. This Amendment Application does not provide updated information for the Alternate Route because the purpose of this amendment is to document the changes to the Preferred Route alignment since the OPSB’s approval of the Preferred Route.

As detailed engineering of the transmission line progressed after submittal of the certificate application in March 2018, 7 alignment changes, affecting 46 structures, were necessary along the Preferred Route. These changes are categorized as engineering adjustments (adjustments located within the 100-foot right of-way [“ROW”] of the OPSB-approved alignment) and alignment reroutes or extensions (deviations outside the 100-foot ROW of the OPSB-approved alignment). A summary of the adjustments is provided in Exhibit 1.

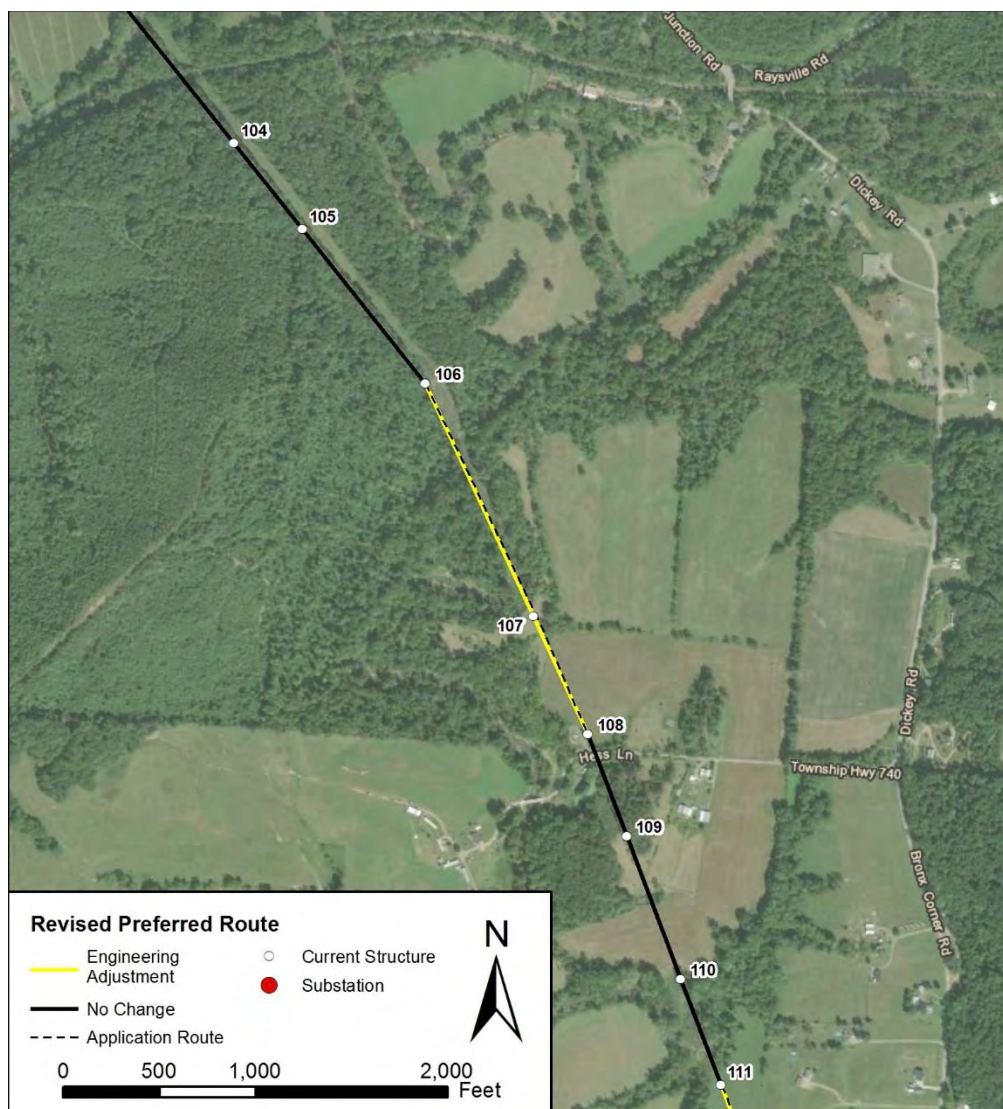
**EXHIBIT 1: Summary of Engineering Adjustments to the Preferred Route****Engineering Adjustments**

Seven engineering adjustments were made along the OPSB-approved Preferred Route. These engineering adjustments were necessary to 1) improve structure locations due to engineering and constructability concerns related to difficult terrain at the approved structure locations; 2) reduce line angles resulting from other structure shifts; 3) position structures outside of, and avoid impacts to, sensitive environmental resources; 4) move structures outside of road ROW; and 5) relocate the proposed Pine Ridge Switch to allow the existing Switch to remain in operation during construction of the Project. These engineering adjustments are described in greater detail below in **Exhibits 2 through 8**.

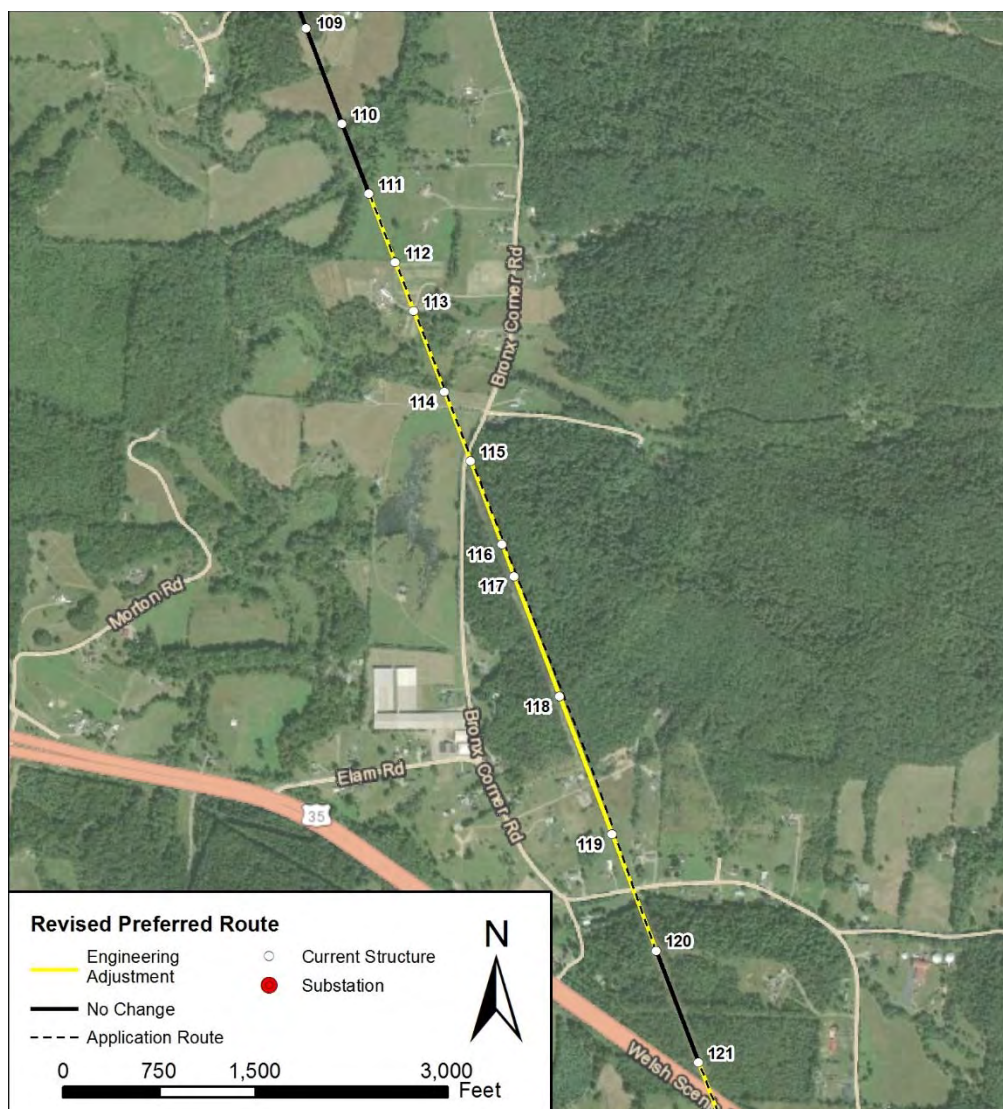
**EXHIBIT 2: Map Illustration of Engineering Adjustments (Structures 89 through 103)**

The Company has plans to expand the existing Vigo Station, which is a distribution substation located in Ross County, Ohio. Structure 89 shifted approximately 35 feet to accommodate the future expansion of the Vigo Station, as the approved location for Structure 89 would create clearance issues to the new Vigo Station fence. This shift also provides additional clearance to a nearby palustrine emergent wetland. Structure 90 shifted approximately 15 feet to avoid a stream culvert. Due to the shifts to Structures 89 and 90, Structures 91 through 103 were adjusted between 5-13 feet in order to utilize tangent structures, which have smaller diameter structures compared to angle structures.



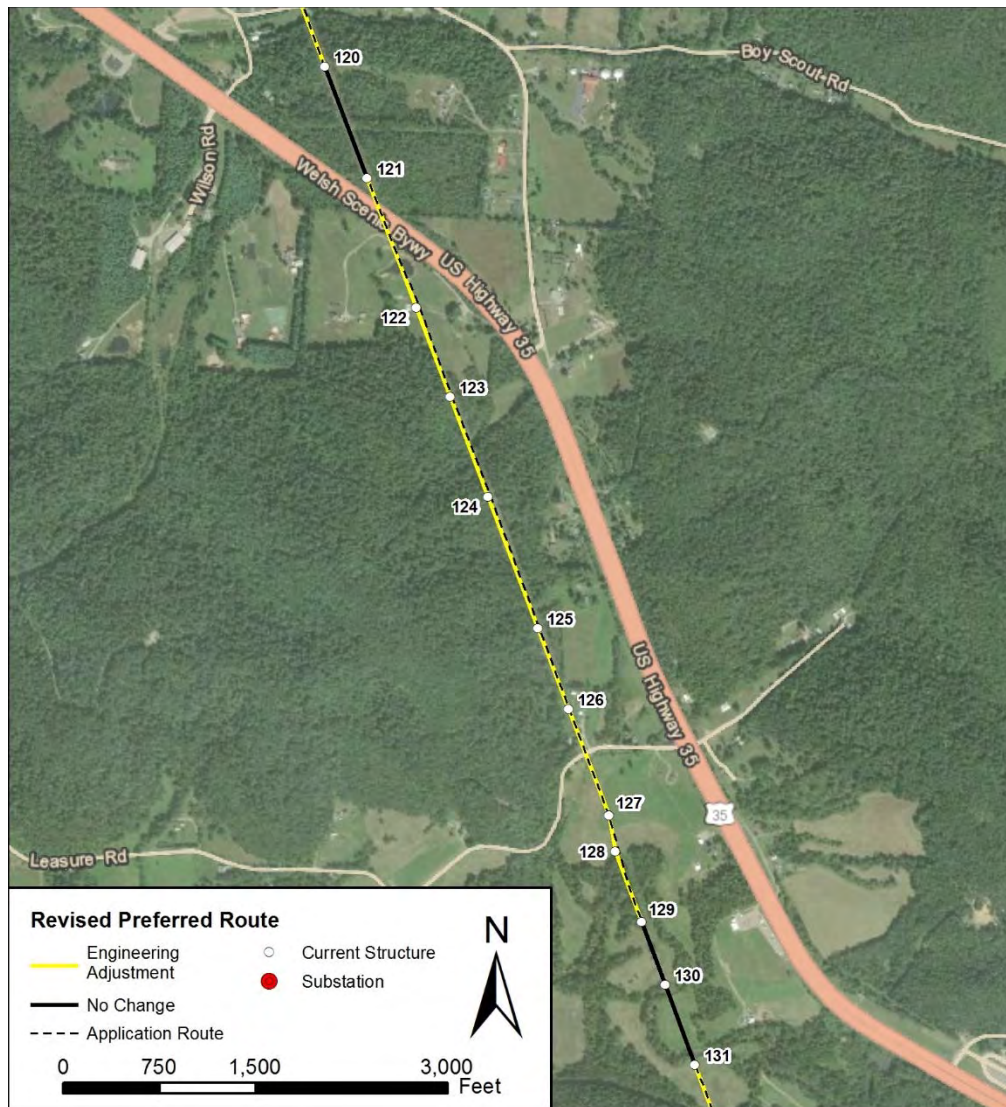
**EXHIBIT 3: Map Illustration of Engineering Adjustments (Structure 107)**

The Company shifted Structure 107 approximately 15 feet west to optimize the structure's location and to avoid unfavorable terrain at the approved structure location. The approved structure location was in a sloped area of a hillside; the revised placement provides a safer location for construction.

**EXHIBIT 4: Map Illustration of Engineering Adjustments (Structures 112 through 119)**

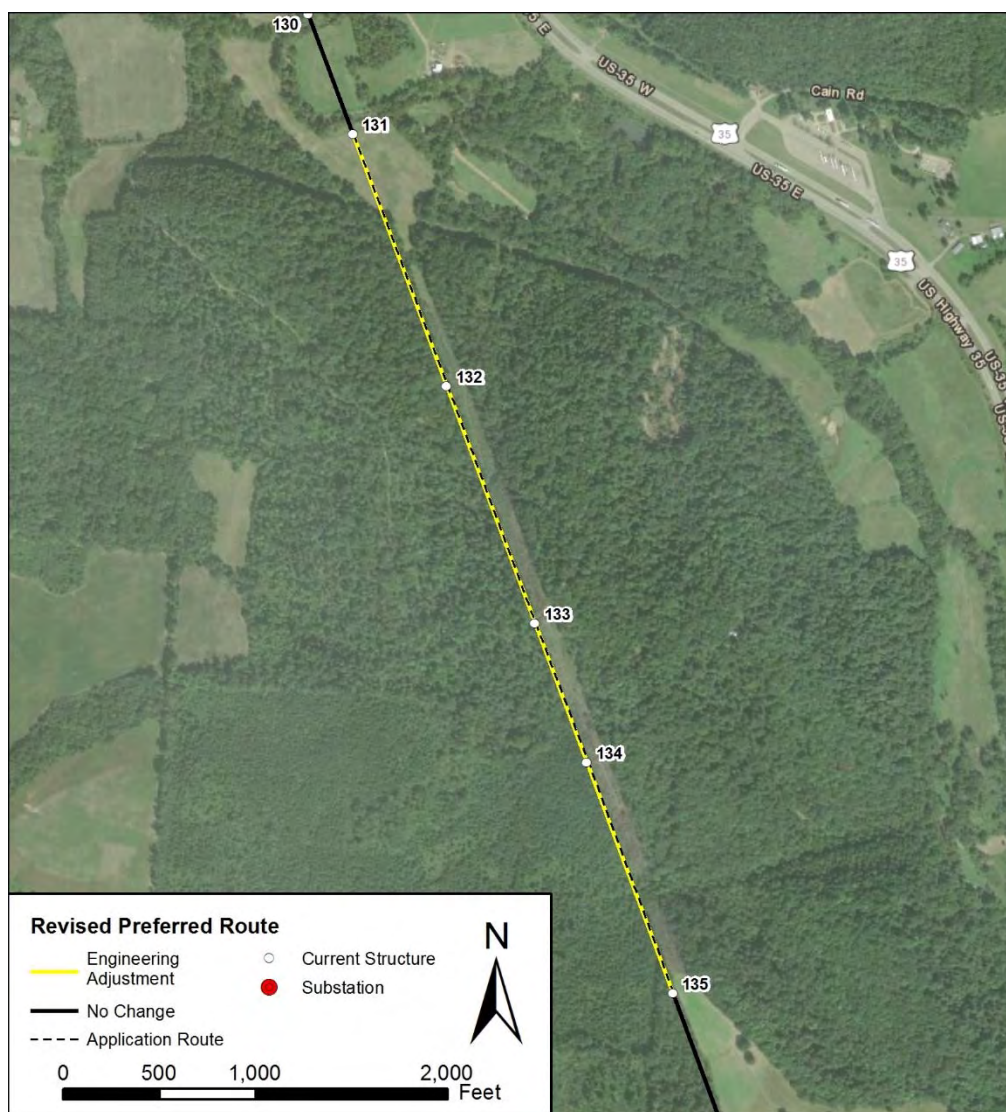
The Company shifted Structure 119 approximately 600 feet south, along centerline, and 20 feet west in order to avoid difficult terrain at the approved structure location, to provide better access to the structure, and to improve constructability. As a result of this change, Structures 112-118 shifted between 7 and 30 feet in order to retain the tangent structure alignment; the tangent structures are smaller diameter structures as compared to angle structures.



**EXHIBIT 5: Map Illustration of Engineering Adjustments (Structures 122 through 128)**

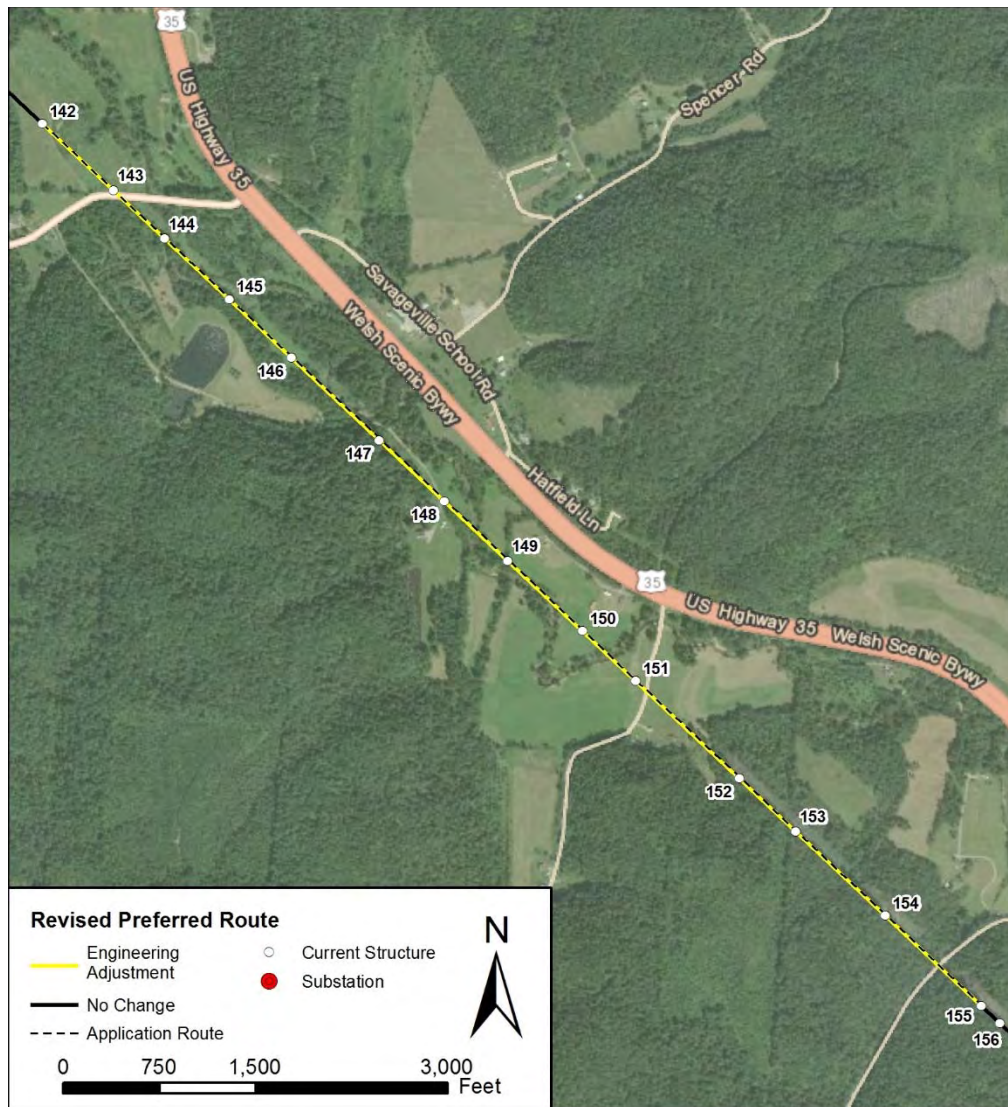
The Company shifted Structure 122 to avoid an unnecessary line angle. To avoid the unnecessary line angle, the Company changed the original angle structure to a tangent structure and shifted the new tangent structure approximately 25 feet west. In addition, Structure 128 was originally located on an isolated area of high ground surrounded by a wetland and stream. Access to this structure would have been difficult and resulted in additional environmental impacts; therefore, the Company shifted Structure 128 approximately 280 feet north, along centerline, and 25 feet west to avoid the need for wetland and stream crossings for construction. Based on these shifts, the Company was required to shift Structures 123 through 126 between 5 and 20 feet to maintain a tangent alignment in this section.

**EXHIBIT 6: Map Illustration of Engineering Adjustments (Structures 132 and Structures 134 through 135)**

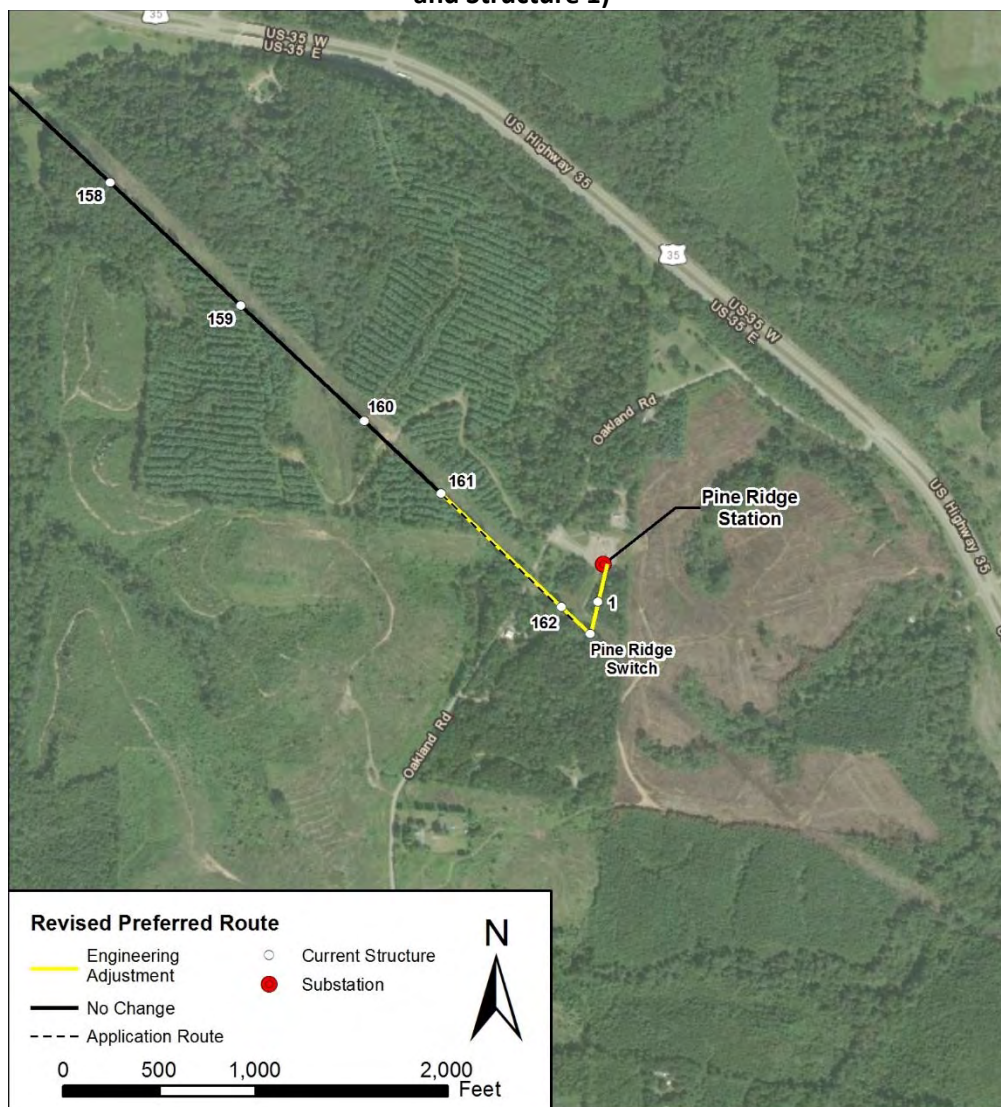


Structures 132, 134, and 135 were previously located on unfavorable terrain; specifically, along hillslopes. The Company shifted these structures between 5 and 10 feet in order to have the structures located on more suitable terrain and to improve constructability in these areas.



**EXHIBIT 7: Map Illustration of Engineering Adjustments (Structures 143 through 154)**

Structure 143 was previously positioned within road ROW. After detailed survey was completed, it was determined that Structure 143 was required to shift north of Savageville Road and approximately 5 feet east to move the structure outside of road ROW and to optimize structure location. In addition, Structure 145 required an approximately 150-foot shift south, along centerline, and 6-foot shift west in order to provide additional clearance to the Salt Lick Creek stream bank and avoid additional riparian stream impacts during construction. Finally, Structure 147 was shifted to more optimal terrain for constructability purposes. These shifts required adjustments to Structures 144, 146, and 148-154 to maintain a tangent alignment through this section.

**EXHIBIT 8: Map Illustration of Alignment Reroute or Extension (Structure 162, Pine Ridge Switch and Structure 1)****Alignment Reroutes or Extension**

Structure 162 was an additional structure added to reduce loading on the Pine Ridge switch pole in order to meet design code standards. Additionally, the Company shifted the new Pine Ridge Switch approximately 100 feet south to provide additional clearance to the current switch; this shift allows the current switch to continue operating during construction of the new Pine Ridge Switch. As a result of these shifts, the Company was required to add Structure 1 between Pine Ridge Switch and the Pine Ridge Substation in order to meet the clearance requirements of the span into the Pine Ridge Station.

**4906-5-02 PROJECT SUMMARY AND APPLICANT INFORMATION****(A) PROJECT SUMMARY**

American Electric Power Ohio Transmission Company, Inc. (“AEP Ohio Transco” or “Company”) is proposing the Vigo-Pine Ridge Switch 138 kilovolt (“kV”) Transmission Line Project (“Project”) located in Ross and Jackson Counties, Ohio (“OH”). The Project is externally known as the Jackson Township 138 kV Transmission Line Project. The Project is part of the overall Ross-Jackson County Area Improvements Project, which has been implemented to improve the reliability of the electric transmission grid in Ross and Jackson Counties, OH. The Project involves rebuilding 10.3 miles of the existing Berlin-Ross 69 kV transmission line to 138 kV standards. Construction of the Project will be phased and is anticipated to begin in fall 2021, with an in-service date of February 2022. Restoration efforts for the Project will continue through summer 2023. Upon completion of the new line, the existing 69 kV transmission line is planned to be removed.

**(1) General Purpose of the Facility**

Text provided in the March 29, 2018 filing remains unchanged.

**(2) General Location, Size, and Operating Characteristics**

The Project starts at the existing Vigo Substation located east of C.R. 207 (Vigo Road) and continues approximately 10.4 miles southeast to the existing Pine Ridge Switch. Improvements to the Pine Ridge Switch are required as part of this rebuild effort and are included as part of this amendment application ~~and will be filed in a separate Letter of Notification application to the Ohio Power Siting Board.~~ The existing Pine Ridge Switch is located east of C.R. 21 (Oakland Road) and approximately 5 miles ~~northeast~~ northwest of Jackson, OH. The Project is located within Jefferson Township in Ross County, OH, and Jackson and Liberty Townships in Jackson County, OH. The study corridor for this rebuild siting evaluation does not cross any designated communities or otherwise incorporated municipalities. The Project will require a 100-foot-wide permanent right-of-way (“ROW”). Revised Figure 2-1, Project Overview, shows the Project end points and the Preferred and Alternate Routes identified by AEP Ohio Transco.

**(3) Suitability of Preferred and Alternate Routes**

Text provided in the March 29, 2018 application filing remains unchanged.

**(i) Preferred Route**

The Preferred Route begins at the existing Vigo Substation and proceeds southeast, paralleling the southern edge of the existing Berlin-Ross 69 kV transmission line ROW through agricultural and forested land uses for approximately 2.1 miles. It then crosses to the northern/eastern edge of the existing ROW. The Preferred Route parallels the northern/eastern edge of the existing ROW through



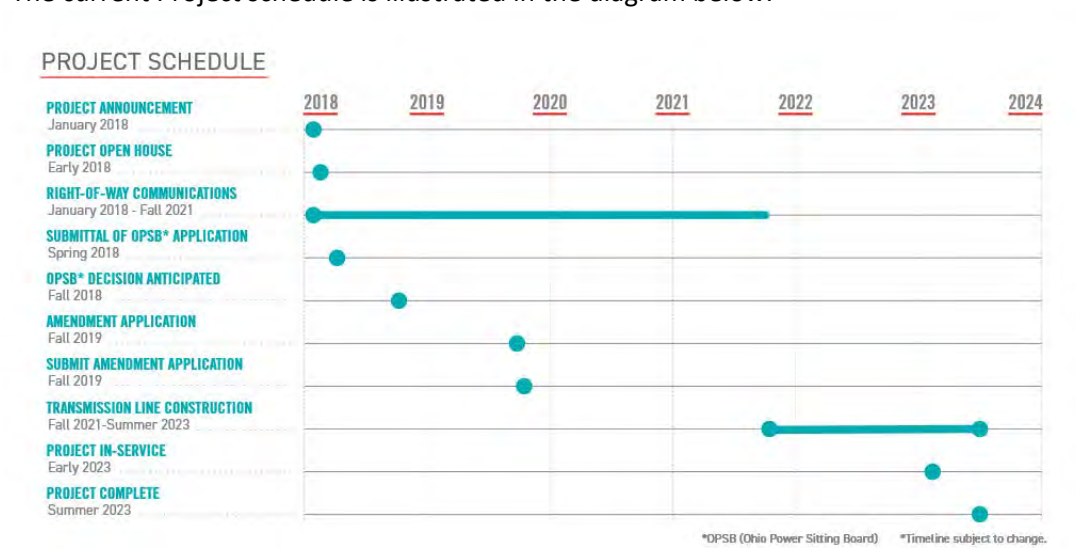
agricultural and forested land uses and rural residential areas for approximately 1.8 miles. The Preferred Route then aligns with the existing 69 kV line near C.R. 27 (Bronx Corner Road) and continues approximately ~~1.2~~ 0.2 miles through forested land use ~~and rural residential areas. Within this 1.2 miles,~~ Following the overlap of the Preferred Route with the existing 69 kV line, the alignment incorporates a slight adjustment away from the existing 69 kV line to maximize distance between an outbuilding just south of U.S. Highway 35. The Preferred Route then proceeds southeast, paralleling the southern edge of the existing ROW through agricultural and forested land uses and rural residential areas for approximately 5.2 6.1 miles, along with a 0.2-mile of section where the Preferred Route is in common with the existing line at the Springer Road crossing, before reaching its southern terminus at the existing Pine Ridge Switch. In total, approximately ~~1.0~~ 0.2 mile of the Preferred Route is also common to the Alternate Route. ~~Of the 1.0 mile in common, approximately 0.8 mile and~~ is to be rebuilt on the existing 69 kV centerline. The total length of the Preferred Route is ~~10.3~~ 10.4 miles.

## (ii) Alternate Route

Text provided in the March 29, 2018 application filing remains unchanged.

## (4) Schedule

The current Project schedule is illustrated in the diagram below.



## (B) APPLICANT INFORMATION

### (1) Company History

Text provided in the March 29, 2018 application filing remains unchanged.

### (2) Current Operations and Affiliate Relationships

Text provided in the March 29, 2018 application filing remains unchanged.

**4906-5-03      REVIEW OF NEED AND SCHEDULE**

Text provided in the March 29, 2018 application filing remains unchanged.

**4906-5-04      ROUTE ALTERNATIVES ANALYSIS**

Text provided in the March 29, 2018 application filing remains unchanged.

**4906-5-05 PROJECT DESCRIPTION****(A) PROJECT AREA DESCRIPTION**

Text provided in the March 29, 2018 application filing remains unchanged.

**(1) Project Area Map**

Revised Figures 7-1 and 7-2 provide maps at 1:12,000-scale, showing the Preferred and Alternate Routes for the Project. These maps include a 1,000-foot buffer on each side of the proposed transmission centerlines (hereafter referred to as the 2,000-foot corridor). These maps depict the proposed transmission lines, roads, parks, and recreational areas that are publicly owned, existing AEP Ohio Transco electric transmission line corridors, named lakes, reservoirs, streams, canals, rivers, and land use.

The information on the map was updated by reviewing digital, georeferenced aerial photography, and property parcel data from the Ross County Auditor and Jackson County Engineer, and field reconnaissance completed in July and August 2017. The aerial photographs are georeferenced, orthorectified color images derived from ESRI ArcGIS Online.

**(2) Proposed Right-of-Way, Transmission Length, and Properties Crossed**

The proposed ROW width is 100 feet. Revised Table 5-1 provides information about the Preferred and Alternate Routes ROW acreage, length, and properties crossed based on the proposed centerline.

**TABLE 5-1**  
**Right-of-Way Area, Length, and Number of Properties Crossed**

	Route Alternatives	
	Preferred	Alternate
Proposed ROW area (in acres)	<del>125.5</del> <u>126.5</u>	125.6
Length (in miles)	<del>10.3</del> <u>10.4</u>	10.3
Number of Properties Crossed (by ROW)	<del>83</del> <u>85</u>	82

**(B) ROUTE OR SITE ALTERNATIVE FACILITY LAYOUT AND INSTALLATION****(1) Site Clearing, Construction, and Reclamation**

Text provided in the March 29, 2018 application filing remains unchanged.

**(a) Surveying and Soil Testing**

Text provided in the March 29, 2018 application filing remains unchanged.

**(b) Grading and Excavation**

Text provided in the March 29, 2018 application filing remains unchanged.

**(c) Construction of Temporary and Permanent Access Roads and Trenches**

Construction access will be required for installation of the pole structures and stringing of the conductor cable or wire. Access roads will require the landowner's input and approval. Preliminary access roads for the Preferred Route are presented on revised Figures 8-2A to 8-2G. Note these access roads cannot be fully planned and identified until after a final route is approved and contact with affected landowners for transmission line easements has been completed by AEP Ohio Transco. Where access across wetlands or streams is necessary, timber mats or equivalent will be used to minimize the environmental impacts. If field conditions necessitate the modification of the finalized access road locations during construction, the concurrence of the property owner will be obtained, necessary environmental field studies will be performed, and necessary permits will be obtained/updated.

**(d) Stringing of Cable**

Text provided in the March 29, 2018 application filing remains unchanged.

**(e) Installation of Electric Transmission Line Poles and Structures, Including Foundations**

Text provided in the March 29, 2018 application filing remains unchanged.

**(f) Post-Construction Reclamation**

Text provided in the March 29, 2018 application filing remains unchanged.

**(2) Facility Layout**

Text provided in the March 29, 2018 application filing remains unchanged.

**(a) Transmission Line Route Map**

Revised Figures 8-2A to 8-2G show maps at 1:12,000-scale of the Preferred and Alternate Routes. These maps illustrate the data required by O.A.C. 4906-5-05(A)(1). ~~Although the additional information required by O.A.C. 4906-5-05(B)(2)(a) (for example, pole structure locations) will not be finalized until a final route is approved by the OPSB and the final engineering design is complete.~~ Revised Figure 8-2A through 8-2E has been updated to include the location of the OPSB-approved structures as well as proposed locations of the 46 structures location changes. The data and information defined in O.A.C. 4906-5-05(B)(2)(a) includes temporary access roads and proposed



locations of transmission line poles and buildings. No fenced-in or secured areas are planned for the Project.

AEP Ohio Transco is currently identifying staging areas and laydown areas for the Project. To date, none have been identified within the Project area. After sites are identified, AEP Ohio Transco will provide final locations that support this Project.

**(b) Proposed Layout Rationale**

Text provided in the March 29, 2018 application filing remains unchanged.

**(c) Plans for Future Modifications**

Text provided in the March 29, 2018 application filing remains unchanged.

**(C) DESCRIPTION OF PROPOSED TRANSMISSION LINES**

Text provided in the March 29, 2018 application filing remains unchanged.

**4906-5-06      ECONOMIC IMPACT AND PUBLIC INTERACTION**

Text provided in the March 29, 2018 application filing remains unchanged.

**4906-5-07 HEALTH AND SAFETY, LAND USE, AND REGIONAL DEVELOPMENT****(A) HEALTH AND SAFETY**

Text provided in the March 29, 2018 application filing remains unchanged.

**(B) LAND USE****(1) Map of the Site and Route Alternatives**

An applicant for a Certificate of Environmental Compatibility and Public Need for electric transmission facilities is required to evaluate both the Preferred and Alternate Route for the transmission line within the application. Maps at 1:12,000-scale, including the area 1,000 feet on either side of the centerline (also referred to as the 2,000-foot corridor), are presented as revised Figures 7-1A to 7-1G (refer to Section 4906-5-05) and include the following information:

- Centerline and 2,000-foot corridor for the Preferred and Alternate Route;
- AEP facilities including existing switch, substation, and interconnect locations; and
- Land use types, road names, residences, cemeteries, waterbodies, and agricultural districts.

**(2) Impact on Identified Land Uses**

Comparisons of the various land use types and land use features for both routes are included in revised Tables 7-5 through 7-7 for the Preferred and Alternate Route. The estimates (i.e., linear feet, acreage, and percentages) of each land use type being crossed by the transmission line, land use within the 100-foot-wide construction ROW, and the permanent 100-foot-wide ROW were determined using GIS software calculations. The potential disturbance area during construction activities (e.g., vegetation clearing, pole installations, etc.) consists of the 100-foot-wide construction ROW. The 100-foot-wide permanent ROW will be restored through soil grading, seeding, and mulching, thus the permanent impact to the ROW is primarily limited to the removal of existing trees and other vegetation. Property owners may continue to utilize most of the ROW area for general uses that will not affect the safe and reliable operation of the transmission line such as lawn maintenance or agricultural crop production. Some portions of the existing ROW within the rebuild segment(s) may also be used as pasture or hayfield. However, the utility ROW land use is the primary land use for these areas along the proposed centerline. Therefore, these areas are categorized as Utility ROW in revised Table 7-5. Additionally, revised Table 7-6 shows an acreage for Agriculture Land. This acreage accounts for the additional 50' of ROW width in the rebuild segment, outside of the ROW of the existing 69kV line.

TABLE 7-5

## Length and Percent of Land Uses Crossed By the Proposed Centerline

Land Use	Preferred Route		Alternate Route	
	Linear Feet	Percent	Linear Feet	Percent
Agriculture Land <sup>a</sup>	<del>1,082</del> <u>1,119</u>	2.0	0	0.0
Industrial/Commercial	0	0.0	0	0.0
Open Land/Pasture	<del>23,744</del> <u>22,304</u>	<del>43.5</del> <u>40.5</u>	0	0.0
Residential	<del>498</del> <u>507</u>	0.9	0	0.0
Institutional	0	0.0	0	0.0
Recreational	0	0.0	0	0.0
Road Right-of-Way	<del>229</del> <u>231</u>	0.5	0	0.0
Utility Right-of-Way	<del>8,129</del> <u>10,020</u>	<del>14.9</del> <u>18.2</u>	54,321	99.5
Woodlot	<del>19,286</del> <u>19,263</u>	<del>35.3</del> <u>35.0</u>	0	0.0
Water/Wetlands	<del>1,621</del> <u>1,566</u>	<del>3.0</del> <u>2.9</u>	301	0.5
<b>Total</b>	<b><del>54,590</del> <u>54,983</u></b>	<b>100</b>	<b>54,623</b>	<b>100</b>

Note:

- <sup>a</sup> The Agriculture Land category includes parcels that may have specifically been given the Agricultural District Land designation, and may contain areas which would also be considered Open Land/Pasture.

TABLE 7-6

## Acreage and Percent of Land Uses Crossed by the Proposed 100-foot Right-of-Way

Land Use	Preferred Route <sup>a</sup>		Alternate Route <sup>a</sup>	
	Acreage	Percent	Acreage	Percent
Agriculture Land	<del>2.0</del> <u>2.1</u>	2	1.3	1
Industrial/Commercial	0.1	< 1	0.1	< 1
Open Land/Pasture	<del>43.6</del> <u>44.5</u>	35	44.2	35
Residential	1.8	1	1.8	1
Institutional	0.0	0	0.0	0
Recreational	0.0	0	0.0	0
Road Right-of-Way	0.7	1	0.6	< 1
Utility Right-of-Way	<del>35.6</del> <u>33.4</u>	<del>28</del> <u>26</u>	62.5	50
Woodlot	<del>38.6</del> <u>40.6</u>	<del>31</del> <u>32</u>	12.5	10
Water/Wetlands	<del>3.2</del> <u>3.3</u>	3	2.5	2
<b>Total</b>	<del>125.5</del> <u>126.5</u>	<b>100</b>	<b>125.6</b>	<b>100</b>

Note:

<sup>a</sup> The planned potential disturbance area is a nominal 100-foot-wide corridor centered on the route. The permanent ROW is the same as the construction ROW.

TABLE 7-7

## Number of Sensitive Features Within or Near the Potential Disturbance Area

	Route Alternatives	
	Preferred <sup>a</sup>	Alternate <sup>a, b</sup>
Length (in miles)	<del>10.3</del> <u>10.4</u>	10.3
<b>Features within 100-foot wide ROW</b>		
Historic Structures	0	0
National Register of Historic Places	0	0
Previously Identified Archaeological Sites <sup>c</sup>	<del>0</del> <u>1</u>	1
Residences	0	3
Commercial Buildings	0	0
Industrial Buildings	0	0
Schools and Hospitals	0	0
Churches and Civic Buildings	0	0
State/Federal Forests and Recreational Lands	0	0

TABLE 7-7

## Number of Sensitive Features Within or Near the Potential Disturbance Area

	Route Alternatives	
	Preferred <sup>a</sup>	Alternate <sup>a, b</sup>
Airports	0	0
<b>Features within 1,000 feet of Route Alternatives (centerline)</b>		
Historic Structures	1	1
National Register of Historic Places	0	0
Previously Identified Archaeological Sites	<del>10</del> <u>21</u>	10
Residences	<del>121</del> <u>119</u>	121
Commercial Buildings	<del>13</del> <u>16</u>	17
Industrial Buildings	0	0
Schools and Hospitals	0	0
Churches and Civic Buildings	1	1
State/Federal Forests and Recreational Land	0	0
Airports	0	0

Note:

- <sup>a</sup> The planned potential disturbance area is a nominal 100-foot-wide corridor centered on the route.
- <sup>b</sup> The Preferred Route has been selected, therefore no changes are being made to the Alternate Route.
- <sup>c</sup> Cultural resource data has been updated since the state database was queried in 2017 for the original application.

**(a) Residential**

**Preferred Route:** The Preferred Route is located within 1,000 feet of ~~121~~ 119 residences, none of which are within the planned potential disturbance area. As shown in revised Table 7-6, there is one percent (1%) residential land within the Preferred Route ROW (1.8-acres).

**Alternate Route:** The Alternate Route is located within 1,000 feet of 121 residences, three of which are within the planned potential disturbance area, two of which are in the existing ROW of the Berlin-Ross 69 kV transmission line. As shown in Table 7-6, there is one percent (1%) residential land within the Alternate Route ROW (1.8-acres).

**(b) Commercial**

**Preferred Route:** The Preferred Route is located within 1,000 feet of ~~13~~ 16 commercial buildings, none of which are within the planned disturbance area. As shown in revised Table 7-6, there is less than one percent (<1%) commercial land within the Preferred Route ROW (0.1-acre).

**Alternate Route:** The Alternate Route is located within 1,000 feet of 17 commercial buildings, none of which are within the planned disturbance area. As shown in Table 7-6, there is less than one percent (<1%) commercial land within the Alternate Route ROW (0.1-acre).

**(c) Industrial**

Text provided in the March 29, 2018 application filing remains unchanged.

**(d) School and Hospitals**

Text provided in the March 29, 2018 application filing remains unchanged.

**(e) Churches and Civic Buildings**

Text provided in the March 29, 2018 application filing remains unchanged.

**(f) Recreational**

Text provided in the March 29, 2018 application filing remains unchanged.

**(g) Agricultural**

As shown in revised Table 7-5, approximately 2.0 percent (~~1,082~~ 1,119 feet) of the Preferred Route centerline crosses agricultural land. Approximately ~~2.0~~ 2.1 acres of agricultural land is located within the ROW of the Preferred Route. The centerline of the Alternate Route does not cross agricultural land, but approximately 1.3 acres of agricultural land is located within the ROW of the Alternate Route. A discussion of agricultural land and Agricultural District Land is provided in section (C) below.

**(3) Impact on Identified Structures****(a) Structures within 200 Feet of Proposed Right-of-way**

There are 16 and 13 single-family residences within 200 feet of the ROW of the Preferred and Alternate Route, respectively. For the Preferred Route, ~~six~~ five residences are within 50 feet of the ROW, ~~two~~ three residences are between 51 and 100 feet of the ROW, four residences are between 101 and 150 feet of the ROW, and four residences are between 151 and 200 feet of the ROW. For the Alternate Route, there are three residences within 50 feet of the ROW, three residences between 51 and 100 feet of the ROW, four residences between 101 and 150 feet of the ROW, and three residences between 151 and 200 feet of the ROW.

There are no commercial centers or buildings, industrial buildings and installations, schools, hospitals, churches, civic buildings, or other occupied places within 200 feet of either the Preferred or Alternate Route ROW.

**(b) Destroyed, Acquired, or Removed Buildings**

The potential removal of structures within the proposed ROW was mitigated during the RSS of the Preferred and Alternate Route by designing route options that avoid structure impacts to the extent feasible. However, there is one garage located within 50 feet of the Preferred Route centerline in

proximity of Structures 118 and 119. Additionally, there is one barn within 50 feet of the Preferred Route ROW near Structure 122.

~~There are no barns, outbuildings, sheds, garages, silos, or other structures within the existing 50-foot Berlin-Ross 69 kV ROW for the Preferred Route, but there are two (2) within the proposed 100-foot ROW for the Alternate Route. Also, for the Alternate Route, three (3) residences are located within the proposed 100 foot ROW; one off of Hess Lane, one northwest of Francis Lane, and one south of Oakland Road at the southern end of the route. No residences are located within the ROW of the Preferred Route.~~

**(c) Mitigation Procedures**

Text provided in the March 29, 2018 application filing remains unchanged.

**(C) AGRICULTURAL LAND IMPACTS**

The potential impacts of the Project on agricultural land use include damage to crops that may be present, disturbance of underground field drainage systems, compaction of soils and temporary reduction of crop productivity. Agricultural land within the Preferred and Alternate Route ROWs is estimated at ~~2.0~~ 2.1 acres and 1.3 acres, respectively. Other agricultural pastureland comprises ~~43.6~~ 44.5 acres of the Preferred Route and 44.2 acres of the Alternate Route.

Soil compaction resulting from construction activities is typically a temporary issue and is resolved within a few seasons of plowing and tilling. AEP Ohio Transco will work with the agricultural landowners to resolve conflicts with drainage tiles and irrigation systems that are affected by the Project where necessary.

**(1) Agricultural Land Map**

The various categories of agricultural land use are depicted on revised Figures 7-1A to 7-1G for both the Preferred and Alternate Route.

**(2) Impacts to Agricultural Lands and Agricultural Districts**

The Ross and Jackson County Auditors were contacted to obtain information on current Agricultural District land records; current data was received on ~~February 22, 2018~~ October 14, 2019 for Ross County and ~~March 2, 2018~~ October 30, 2019 for Jackson County. The proposed permanent 100-foot-wide ROW for either the Preferred or Alternate Route does not cross a designated Agricultural District.

**(a) Acreage Impacted**

Revised Table 7-6 provides the acreage impacted for agricultural land use and open land/pasture. The agricultural land use was based on aerial imagery and field observations. The Agriculture Land category may include parcels that have specifically been given the Agricultural District land designation, and may contain areas which would also be considered Open Land/Pasture.



**(b) Evaluation of Construction, Operation, and Maintenance Impacts**

Text provided in the March 29, 2018 application filing remains unchanged.

**(i) Field Operations**

Text provided in the March 29, 2018 application filing remains unchanged.

**(ii) Irrigation**

Text provided in the March 29, 2018 application filing remains unchanged.

**(iii) Field Drainage Systems**

Text provided in the March 29, 2018 application filing remains unchanged.

**(iv) Structures Used for Agricultural Operations**

~~There are five barns and two sheds with unknown agricultural uses that lie within 200 feet of the Preferred and Alternate Route that may be adversely affected by the construction and operation of the transmission line. Barns or sheds within the permanent ROW may require removal.~~

There are two barns with unknown agricultural uses that are located within 200 feet of the Preferred and Alternate Routes. There are three additional sheds with unknown agricultural uses that are located within 200 feet of the Preferred Route. There are seven sheds with unknown agricultural uses that are located within 200 feet of the Preferred and Alternate Routes. These agricultural use structures may be adversely affected by the construction and operation of the transmission line. Barns or sheds within the permanent ROW may require removal. However, of the structures within 200 feet of the Preferred and Alternate Routes, only those within the approved ROW have potential for removal.

**Agricultural Land Viability for Agricultural Districts**

Agricultural Districts are not crossed by either the Preferred or Alternate Route.

**(c) Mitigation Procedures**

Text provided in the March 29, 2018 application filing remains unchanged.

**(D) LAND USE PLANS AND REGIONAL DEVELOPMENT**

Text provided in the March 29, 2018 application filing remains unchanged.

**(1) Impacts to Regional Development**

Text provided in the March 29, 2018 application filing remains unchanged.

**(2) Compatibility of Proposed Facility with Current Regional Land Use Plans**

Text provided in the March 29, 2018 application filing remains unchanged.

**(E) CULTURAL AND ARCHAEOLOGICAL RESOURCES**

Text provided in the March 29, 2018 application filing remains unchanged.

**4906-5-08 ECOLOGICAL INFORMATION AND COMPLIANCE WITH PERMITTING REQUIREMENTS**

In summer 2017, AEP Ohio Transco conducted a study to assess the potential effects of construction and operation of the proposed Project on the ecology of the Project area. A map and literature search was conducted for a 1,000-foot corridor on either side of the centerline of the existing Berlin-Ross 69 kV transmission line, which includes both the Preferred and Alternate Route. A field survey of ecological habitat and features was performed within 200 feet on either side of the existing Berlin-Ross 69 kV transmission line (hereafter referred to as the “Field Survey Area”), which encompasses the entirety of the Preferred and Alternate Routes. Field surveys were conducted from July 2017 through August 2017 during several mobilizations. While preliminary access roads have been identified and included with this Application, it should be noted that additional field surveys are required. Information in the following paragraphs addresses AEP Ohio Transco’s ecological study conducted for both the Preferred and Alternate Route.

**(A) Ecological Map**

A map at a scale of 1:12,000 (one-inch = 1,000 feet) including the corridor 1,000 feet either side of the centerline (referred to as the 2,000-foot corridor) of the Preferred and Alternate Route is presented as revised Figure 8-1. This map depicts soils data, soils exceeding 12 percent slope within the 2,000-foot corridor, lakes, ponds, reservoirs, waterbodies, NWI wetlands, and 100-year floodplains. All features were identified from published data. Revised Figure 8-2 (at 1:12,000 scale) depicts field-delineated water features within the Field Survey Area.

**(B) Field Survey Report for Vegetation and Surface Waters**

Text provided in the March 29, 2018 application filing remains unchanged.

**(1) Vegetative Communities, Wetlands, and Streams in Study Area****(a) Vegetative Communities**

Vegetative communities and land use types within the Field Survey Area include: agricultural and pasture fields, old field and scrub-shrub habitats, palustrine emergent (“PEM”) wetlands, palustrine unconsolidated bottom (“PUB”) wetlands, palustrine scrub-shrub (“PSS”) wetlands, palustrine forested (“PFO”) wetlands, residential, existing utility ROW, upland forest, and riparian woodland, in addition to the identified waterbodies. Habitat descriptions are provided below. Details on the anticipated impacts from construction of the Project are provided in Section 4906-5-08(B)(3)(a) below and in revised Table 8-5.

**(i) Agricultural and Pasture Fields**

Text provided in the March 29, 2018 application filing remains unchanged.

**(ii) Old Field and Scrub-Shrub**

Text provided in the March 29, 2018 application filing remains unchanged.

**(iii) Wetlands**

Text provided in the March 29, 2018 application filing remains unchanged.

**(iv) Residential**

Text provided in the March 29, 2018 application filing remains unchanged.

**(v) Utility ROW**

Text provided in the March 29, 2018 application filing remains unchanged.

**(vi) Upland and Riparian Forest**

Text provided in the March 29, 2018 application filing remains unchanged.

**(b) Wetlands**

Text provided in the March 29, 2018 application filing remains unchanged.

**(i) Summary of National Wetland Inventory Data**

USFWS NWI data, including freshwater wetlands and riverine areas, were mapped within 1,000 feet of the Preferred and Alternate Route, and reviewed to guide the field ecological survey as one factor in identifying potential wetland locations (USFWS, 2017). The NWI-mapped areas for the Preferred and Alternate Route are shown on revised Figure 8-1. Revised Table 8-1 summarizes the NWI data by wetland classification and habitat type. The actual extent and type of field-delineated wetlands along the routes are discussed in the next section.

TABLE 8-1

## NWI Wetlands Within 1,000 feet of the Preferred and Alternate Route

Wetland Type	NWI Code	NWI Habitat Type*	Total Number of Each Habitat Type Preferred/ Alternate
Freshwater Emergent Wetland	PEM1A	Palustrine Emergent Persistent Temporary Flooded	7 - Preferred 7 - Alternate
Freshwater Emergent Wetland	PEM1C	Palustrine Emergent Persistent Seasonally Flooded	22 - Preferred 22 - Alternate
Freshwater Forested/Scrub-Shrub Wetland	PFO1/SS1A	Palustrine Forested Broad-Leaved Deciduous Scrub-Shrub Broad-Leaved Deciduous Temporary Flooded	4 - Preferred 4 - Alternate
Freshwater Forested/Scrub-Shrub Wetland	PFO1/SS1C	Palustrine Forested Broad-Leaved Deciduous Scrub-Shrub Broad-Leaved Deciduous Seasonally Flooded	2 - Preferred 2 - Alternate
Freshwater Forested/Scrub-Shrub Wetland	PFO1/SS1F	Palustrine Forested Broad-Leaved Deciduous Scrub-Shrub Broad-Leaved Deciduous Semipermanently Flooded	1 - Preferred 1 - Alternate
Freshwater Forested Wetland	PFO1A	Palustrine Forested Broad-Leaved Deciduous Temporary Flooded	<del>8</del> 9 - Preferred 8 - Alternate
Freshwater Scrub-Shrub/Emergent Wetland	PSS1/EM1A	Palustrine Scrub-Shrub Broad-Leaved Deciduous Emergent Persistent Temporary Flooded	2 - Preferred 2 - Alternate
Freshwater Scrub-Shrub/Emergent Wetland	PSS1/EM1C	Palustrine Scrub-Shrub Broad-Leaved Deciduous/Emergent Persistent Seasonally Flooded	1 - Preferred 1 - Alternate
Freshwater Scrub-Shrub/Emergent Wetland	PSS1/EM1F	Palustrine Scrub-Shrub Emergent Persistent Semipermanently Flooded	2 - Preferred 2 - Alternate
Freshwater Scrub-Shrub Wetland	PSS1A	Palustrine Scrub-Shrub Broad-Leaved Deciduous Temporarily Flooded	2 - Preferred 2 - Alternate
Freshwater Scrub-Shrub Wetland	PSS1C	Palustrine Scrub-Shrub Broad-Leaved Deciduous Seasonally Flooded	2 - Preferred 2 - Alternate
Freshwater Pond	PUBG	Palustrine Unconsolidated Bottom Intermittently Exposed	1 - Preferred 1 - Alternate
Freshwater Pond	PUBGh	Palustrine Unconsolidated Bottom Intermittently Exposed Diked/Impounded	5 - Preferred 5 - Alternate
Freshwater Pond	PUBGx	Palustrine Unconsolidated Bottom Excavated	5 - Preferred 5 - Alternate
Riverine	R2UBH	Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded	1 - Preferred 1 - Alternate
Riverine	R4SBC	Riverine Intermittent Streambed Seasonally Flooded	17 - Preferred 18 - Alternate
Riverine	R5UBH	Riverine Unknown Perennial Unconsolidated Bottom Permanently Flooded	19 - Preferred 18 - Alternate
Total Number of Preferred Route NWI Wetlands:			<del>101</del> 102
Total Number of Alternate Route NWI Wetlands:			101

TABLE 8-1

NWI Wetlands Within 1,000 feet of the Preferred and Alternate Route

Wetland Type	NWI Code	NWI Habitat Type*	Total Number of Each Habitat Type Preferred/ Alternate
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Notes:

Total number of PEM = 58, PFO = 30, PSS = 18, PUB = 22, R2UBH = 2, R4SBC = 35, R5UBH = 37

\* USFWS, ~~2017~~ 2018**(ii) Field-Delineated Wetlands**

A total of 108 wetlands (totaling 22.46 acres) were delineated within the Field Survey Area. A total of ~~4.58~~ 4.55 acres of wetlands were delineated within the Preferred Route ROW and 4.96 acres within the Alternate Route ROW. These field-delineated wetlands for the Preferred and Alternate Route are mapped on revised Figures 8-2A through 8-2G.

Detailed information on each wetland is provided in revised Table 8-2. The anticipated temporary construction impacts, where unavoidable, on these wetlands are included in revised Table 8-2 and further discussed in Section 4906-05-08(B)(3)(b).

TABLE 8-2

Delineated Wetlands within the Preferred and Alternate Route of the Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type <sup>a</sup>	ORAM Score	ORAM Category	Length Crossed by Centerline (feet)	Acreage within Field Survey Area <sup>b</sup>	Acreage within Potential Disturbance Area/ROW <sup>c</sup>
<b>Preferred Route Wetlands</b>								
W001A-PEM-CAT1	Preferred	8-2A	PEM	17	1	<del>68</del> <u>1</u>	0.04	<del>0.04</del> <u>0.03</u>
W001B-PEM-CAT1	Preferred	8-2A	PEM	17	1	-	0.10	0.01
W001C-PEM-CAT1	Preferred	8-2A	PEM	17	1	-	0.01	-
W002-PEM-CAT2	Preferred	8-2A	PEM	34	2	-	0.01	-
W003-PEM-CAT1	Preferred	8-2A	PEM	23	1	-	0.02	0.01
W004-PEM-CAT1	Preferred	8-2A	PEM	21	1	-	0.01	-
W005-PEM-CATMOD2	Preferred	8-2A	PEM	36	Modified 2	-	0.19	<0.01
W006-PEM-CATMOD2	Preferred	8-2A	PEM	38	Modified 2	-	0.03	-
W007-PEM-CAT1	Preferred	8-2A	PEM	29	1	-	0.02	-
W008-PEM-CAT2	Preferred	8-2A	PEM	45	2	-	0.03	-
W009-PEM-CAT2	Preferred	8-2A	PEM	32	2	<del>55</del> <u>49</u>	0.11	<del>0.08</del> <u>0.07</u>
W010-PFO-CATMOD2	Preferred	8-2A/B	PFO	39	Modified 2	<del>51</del> <u>56</u>	0.08	0.07
W011-PFO-CATMOD2	Preferred	8-2A/B	PFO	39	Modified 2	-	0.01	-
W012-PFO-CAT2	Preferred	8-2A/B	PFO	34	2	-	0.13	-
W013-PEM-CAT1	Preferred	8-2B	PEM	17	1	<del>11</del> <u>17</u>	0.08	<del>0.03</del> <u>0.02</u>
W014-PSS-CAT1	Preferred	8-2B	PSS	27	1	-	0.02	-
W015-PEM-CAT2	Preferred	8-2B	PEM	46	2	<del>23</del> <u>22</u>	0.05	0.03
W016-PUB-CAT2	Preferred	8-2B	PUB	46	2	-	0.31	0.03
W017-PEM-CAT1	Preferred	8-2B	PEM	24	1	25	0.08	0.05
W018-PEM-CATMOD2	Preferred	8-2B	PEM	40	Modified 2	-	0.07	-
W019-PEM-CAT1	Preferred	8-2B/C	PEM	20	1	-	0.18	<del>&lt;0.01</del> <u>0.01</u>
W020-PEM-CAT1	Preferred	8-2B/C	PEM	14	1	-	0.30	<del>&lt;0.01</del> <u>0.01</u>
W021-PUB-CAT1	Preferred	8-2B/C	PUB	27	1	-	0.19	-
W022-PEM-CATMOD2	Preferred	8-2/C	PEM	35	Modified 2	<del>-</del> <u>11</u>	0.04	0.02
W023-PEM-CAT2	Preferred	8-2C	PEM	34	2	-	0.01	-
W024-PEM-CATMOD2	Preferred	8-2C	PEM	40.5	Modified 2	-	0.03	-
W025-PEM-CATMOD2	Preferred	8-2C	PEM	44	Modified 2	-	0.01	0.01
W026-PEM-CAT1	Preferred	8-2C	PEM	12	1	-	0.07	<0.01

TABLE 8-2

Delineated Wetlands within the Preferred and Alternate Route of the Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type <sup>a</sup>	ORAM Score	ORAM Category	Length Crossed by Centerline (feet)	Acreage within Field Survey Area <sup>b</sup>	Acreage within Potential Disturbance Area/ROW <sup>c</sup>
W027-PEM-CAT1	Preferred	8-2C	PEM	29	1	<del>50</del> <u>44</u>	0.15	0.10
W027-PUB-CAT1	Preferred	8-2C	PUB	29	1	-	0.23	-
W028-PEM-CAT1	Preferred	8-2C	PEM	17	1	-	0.02	-
W029-PEM-CAT1	Preferred	8-2C	PEM	20	1	-	0.02	0.02
W030A-PEM-CAT1	Preferred	8-2C	PEM	16	1	-	0.05	-
W030B-PEM-CAT1	Preferred	8-2C	PEM	16	1	-	0.02	-
W031-PEM-CATMOD2	Preferred	8-2C	PEM	37	Modified 2	-	0.01	-
W031-PUB-CATMOD2	Preferred	8-2C	PUB	37	Modified 2	<del>143</del> <u>136</u>	0.63	<del>0.34</del> <u>0.32</u>
W032-PEM-CAT1	Preferred	8-2C/D	PEM	22	1	-	0.05	-
W032-PUB-CAT1	Preferred	8-2C/D	PUB	22	1	-	0.12	-
W033A-PEM-CAT1	Preferred	8-2D	PEM	12	1	20	0.03	0.03
W033B-PEM-CAT1	Preferred	8-2D	PEM	26	1	-	0.20	-
W034-PEM-CAT1	Preferred	8-2D	PEM	25	1	-	0.07	-
W035-PEM-CAT2	Preferred	8-2D	PEM	50	2	-	0.24	<del>0.07</del> <u>0.06</u>
W035-PUB-CAT2	Preferred	8-2D	PUB	50	2	29	0.28	-
W036-PEM-CAT2	Preferred	8-2D	PEM	30	2	-	0.20	-
W037-PFO-CATMOD2	Preferred	8-2D	PFO	36	Modified 2	-	0.05	0.01
W038-PFO-CATMOD2	Preferred	8-2D	PFO	44	Modified 2	-	0.16	-
W039-PFO-CATMOD2	Preferred	8-2D	PFO	37	Modified 2	-	0.03	-
W040-PEM-CATMOD2	Preferred	8-2D	PEM	40	Modified 2	<del>16</del> <u>14</u>	0.38	0.11
W040-PFO-CATMOD2	Preferred	8-2D	PFO	40	Modified 2	-	0.17	-
W041-PEM-CATMOD2	Preferred	8-2D	PEM	36	Modified 2	-	0.10	-
W041-PFO-CATMOD2	Preferred	8-2D	PFO	36	Modified 2	-	0.11	-
W042-PEM-CAT1	Preferred	8-2E	PEM	21	1	-	0.01	-
W043-PEM-CAT1	Preferred	8-2E	PEM	18.5	1	-	0.02	0.02
W044-PEM-CAT1	Preferred	8-2E	PEM	22	1	-	0.04	-
W045-PEM-CAT1	Preferred	8-2E	PEM	28	1	-	0.23	-
W046-PEM-CAT1	Preferred	8-2E	PEM	26	1	<del>24</del> <u>18</u>	0.12	0.11
W046-PUB-CAT1	Preferred	8-2E	PUB	26	1	<del>52</del> <u>44</u>	0.05	0.05



TABLE 8-2

Delineated Wetlands within the Preferred and Alternate Route of the Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type <sup>a</sup>	ORAM Score	ORAM Category	Length Crossed by Centerline (feet)	Acreage within Field Survey Area <sup>b</sup>	Acreage within Potential Disturbance Area/ROW <sup>c</sup>
W047-PEM-CAT2	Preferred	8-2E	PEM	50	2	-	0.07	-
W047-PUB-CAT2	Preferred	8-2E	PUB	50	2	-	0.38	-
W048-PEM-CATMOD2	Preferred	8-2E	PEM	36	Modified 2	-	0.10	-
W048-PSS-CATMOD2	Preferred	8-2E	PSS	36	Modified 2	-	0.23	-
W049-PEM-CAT2	Preferred	8-2E	PEM	51	2	<del>146</del> 149	1.90	0.64
W049-PFO-CAT2	Preferred	8-2E	PFO	51	2	<del>62</del> 61	0.11	0.05
W049-PSS-CAT2	Preferred	8-2E/F	PSS	51	2	<del>311</del> 305	1.93	<del>0.60</del> 0.63
W049-PUB-CAT2	Preferred	8-2E/F	PUB	51	2	<del>13</del> 16	0.15	<del>0.03</del> 0.02
W050-PEM-CATMOD2	Preferred	8-2E/F	PEM	38.5	Modified 2	-	0.06	-
W050-PSS-CATMOD2	Preferred	8-2E/F	PSS	38.5	Modified 2	-	0.01	-
W051-PFO-CAT2	Preferred	8-2E	PFO	54.5	2	-	0.08	-
W052-PEM-CAT2	Preferred	8-2E/F	PEM	54.5	2	-	0.02	-
W052-PFO-CAT2	Preferred	8-2E/F	PFO	54.5	2	<del>1</del> 23	1.14	<del>0.19</del> 0.23
W053-PFO-CATMOD2	Preferred	8-2F	PFO	43.5	Modified 2	-	0.06	-
W054-PFO-CATMOD2	Preferred	8-2F	PFO	43.5	Modified 2	-	1.25	-
W055-PEM-CATMOD2	Preferred	8-2E/F	PEM	41	Modified 2	-	0.05	-
W056-PFO-CAT2	Preferred	8-2F	PFO	48	2	<del>19</del> 48	0.58	<del>0.13</del> 0.16
W056-PSS-CAT2	Preferred	8-2F	PSS	48	2	-	0.07	0.01
W057-PEM-CAT2	Preferred	8-2F	PEM	30	2	<del>28</del> 7	0.18	<del>0.07</del> 0.06
W057-PFO-CAT2	Preferred	8-2F	PFO	30	2	-	0.63	-
W058-PEM-CATMOD2	Preferred	8-2F	PEM	38	Modified 2	-	0.36	<del>0.13</del> 0.08
W058-PFO-CATMOD2	Preferred	8-2F	PFO	38	Modified 2	-	1.44	-
W059-PFO-CAT2	Preferred	8-2F	PFO	50	2	-	0.06	-
W059-PUB-CAT2	Preferred	8-2F	PUB	50	2	-	0.07	-
W060-PEM-CATMOD2	Preferred	8-2F	PEM	42	Modified 2	<del>27</del> 26	0.07	0.04
W060-PFO-CATMOD2	Preferred	8-2F	PFO	42	Modified 2	-	0.09	<0.01
W061-PFO-CATMOD2	Preferred	8-2F	PFO	41	Modified 2	-	0.26	-
W062-PEM-CAT1	Preferred	8-2F	PEM	27	1	-	0.09	-
W062-PFO-CAT1	Preferred	8-2F	PFO	27	1	-	0.11	-

TABLE 8-2

Delineated Wetlands within the Preferred and Alternate Route of the Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type <sup>a</sup>	ORAM Score	ORAM Category	Length Crossed by Centerline (feet)	Acreage within Field Survey Area <sup>b</sup>	Acreage within Potential Disturbance Area/ROW <sup>c</sup>
W063-PEM-CAT2	Preferred	8-2F	PEM	46	2	<del>187</del> <u>21</u>	0.34	<del>0.23</del> <u>0.18</u>
W063-PFO-CAT2	Preferred	8-2F	PFO	46	2	<del>13</del> <u>191</u>	0.71	<del>0.23</del> <u>0.31</u>
W063-PUB-CAT2	Preferred	8-2F	PUB	46	2	-	0.27	-
W064-PFO-CAT2	Preferred	8-2F	PFO	32	2	-	0.16	-
W065-PEM-CAT1	Preferred	8-2F	PEM	20	1	<del>40</del> <u>82</u>	0.23	<del>0.13</del> <u>0.11</u>
W066-PEM-CAT1	Preferred	8-2F	PEM	20	1	-	0.12	0.02
W067-PEM-CAT1	Preferred	8-2F	PEM	21	1	<del>24</del> <u>21</u>	0.13	<del>0.07</del> <u>0.06</u>
W068-PEM-CAT1	Preferred	8-2F	PEM	18	1	<del>11</del> <u>31</u>	0.08	0.04
W069-PEM-CAT2	Preferred	8-2F	PEM	30.5	2	<del>127</del> <u>125</u>	1.36	<del>0.28</del> <u>0.25</u>
W070-PEM-CAT2	Preferred	8-2F	PEM	30.5	2	-	0.10	-
W071-PEM-CAT1	Preferred	8-2F/G	PEM	24	1	-	0.01	-
W072-PEM-CAT1	Preferred	8-2F/G	PEM	26	1	-	0.01	-
W073-PEM-CATMOD2	Preferred	8-2G	PEM	36	Modified 2	-	0.26	-
W073-PSS-CATMOD2	Preferred	8-2G	PSS	36	Modified 2	-	0.12	-
W074-PFO-CATMOD2	Preferred	8-2G	PFO	36	Modified 2	-	0.24	-
W075-PEM-CAT2	Preferred	8-2G	PEM	31.5	2	86	0.11	0.11
W076-PEM-CAT2	Preferred	8-2G	PEM	30	2	<del>18</del> <u>17</u>	0.15	0.08
W077-PEM-CAT2	Preferred	8-2G	PEM	33	2	-	0.05	-
W078-PEM-CAT1	Preferred	8-2G	PEM	16	1	-	0.03	0.01
W079-PEM-CAT1	Preferred	8-2G	PEM	26	1	<del>43</del> <u>42</u>	0.11	0.07
W080-PEM-CAT1	Preferred	8-2G	PEM	25	1	-	0.16	<del>0.04</del> <u>0.05</u>
W081-PEM-CAT1	Preferred	8-2G	PEM	20	1	<del>-</del> <u>7</u>	0.14	<del>0.09</del> <u>0.11</u>
Totals						<del>1,723</del> <u>1,743</u>	22.46	<del>4.58</del> <u>4.55</u>
Alternate Route Wetlands								
W001A-PEM-CAT1	Alternate	8-2A	PEM	17	1	31	0.04	0.04
W001B-PEM-CAT1	Alternate	8-2A	PEM	17	1	-	0.10	0.01
W001C-PEM-CAT1	Alternate	8-2A	PEM	17	1	-	0.01	-
W002-PEM-CAT2	Alternate	8-2A	PEM	34	2	-	0.01	-
W003-PEM-CAT1	Alternate	8-2A	PEM	23	1	15	0.02	0.02

TABLE 8-2

Delineated Wetlands within the Preferred and Alternate Route of the Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type <sup>a</sup>	ORAM Score	ORAM Category	Length Crossed by Centerline (feet)	Acreage within Field Survey Area <sup>b</sup>	Acreage within Potential Disturbance Area/ROW <sup>c</sup>
W004-PEM-CAT1	Alternate	8-2A	PEM	21	1	-	0.01	-
W005-PEM-CATMOD2	Alternate	8-2A	PEM	36	Modified 2	1	0.19	0.02
W006-PEM-CATMOD2	Alternate	8-2A	PEM	38	Modified 2	-	0.03	-
W007-PEM-CAT1	Alternate	8-2A	PEM	29	1	-	0.02	-
W008-PEM-CAT2	Alternate	8-2A	PEM	45	2	-	0.03	-
W009-PEM-CAT2	Alternate	8-2A	PEM	32	2	45	0.11	0.08
W010-PFO-CATMOD2	Alternate	8-2A/B	PFO	39	Modified 2	-	0.08	0.01
W011-PFO-CATMOD2	Alternate	8-2A/B	PFO	39	Modified 2	-	0.01	-
W012-PFO-CAT2	Alternate	8-2A/B	PFO	34	2	-	0.13	0.01
W013-PEM-CAT1	Alternate	8-2B	PEM	17	1	-	0.08	0.01
W014-PSS-CAT1	Alternate	8-2B	PSS	27	1	-	0.02	-
W015-PEM-CAT2	Alternate	8-2B	PEM	46	2	-	0.05	-
W016-PUB-CAT2	Alternate	8-2B	PUB	46	2	77	0.31	0.14
W017-PEM-CAT1	Alternate	8-2B	PEM	24	1	-	0.08	0.03
W018-PEM-CATMOD2	Alternate	8-2B	PEM	40	Modified 2	-	0.07	0.06
W019-PEM-CAT1	Alternate	8-2B/C	PEM	20	1	86	0.18	0.13
W020-PEM-CAT1	Alternate	8-2B/C	PEM	14	1	23	0.30	0.08
W021-PUB-CAT1	Alternate	8-2B/C	PUB	27	1	-	0.19	-
W022-PEM-CATMOD2	Alternate	8-2/C	PEM	35	Modified 2	18	0.04	0.04
W023-PEM-CAT2	Alternate	8-2C	PEM	34	2	-	0.01	-
W024-PEM-CATMOD2	Alternate	8-2C	PEM	40.5	Modified 2	-	0.03	-
W025-PEM-CATMOD2	Alternate	8-2C	PEM	44	Modified 2	12	0.01	0.01
W026-PEM-CAT1	Alternate	8-2C	PEM	12	1	8	0.07	0.02
W027-PEM-CAT1	Alternate	8-2C	PEM	29	1	32	0.15	0.08
W027-PUB-CAT1	Alternate	8-2C	PUB	29	1	-	0.23	-
W028-PEM-CAT1	Alternate	8-2C	PEM	17	1	-	0.02	-
W029-PEM-CAT1	Alternate	8-2C	PEM	20	1	-	0.02	0.02
W030A-PEM-CAT1	Alternate	8-2C	PEM	16	1	-	0.05	-
W030B-PEM-CAT1	Alternate	8-2C	PEM	16	1	-	0.02	-

TABLE 8-2

Delineated Wetlands within the Preferred and Alternate Route of the Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type <sup>a</sup>	ORAM Score	ORAM Category	Length Crossed by Centerline (feet)	Acreage within Field Survey Area <sup>b</sup>	Acreage within Potential Disturbance Area/ROW <sup>c</sup>
W031-PEM-CATMOD2	Alternate	8-2C	PEM	37	Modified 2	-	0.01	-
W031-PUB-CATMOD2	Alternate	8-2C	PUB	37	Modified 2	139	0.63	0.33
W032-PEM-CAT1	Alternate	8-2C/D	PEM	22	1	-	0.05	-
W032-PUB-CAT1	Alternate	8-2C/D	PUB	22	1	-	0.12	-
W033A-PEM-CAT1	Alternate	8-2D	PEM	12	1	20	0.03	0.03
W033B-PEM-CAT1	Alternate	8-2D	PEM	26	1	-	0.20	-
W034-PEM-CAT1	Alternate	8-2D	PEM	25	1	-	0.07	-
W035-PEM-CAT2	Alternate	8-2D	PEM	50	2	-	0.24	-
W035-PUB-CAT2	Alternate	8-2D	PUB	50	2	28	0.28	0.06
W036-PEM-CAT2	Alternate	8-2D	PEM	30	2	-	0.20	-
W037-PFO-CATMOD2	Alternate	8-2D	PFO	36	Modified 2	-	0.05	-
W038-PFO-CATMOD2	Alternate	8-2D	PFO	44	Modified 2	-	0.16	-
W039-PFO-CATMOD2	Alternate	8-2D	PFO	37	Modified 2	-	0.03	<0.01
W040-PEM-CATMOD2	Alternate	8-2D	PEM	40	Modified 2	82	0.38	0.13
W040-PFO-CATMOD2	Alternate	8-2D	PFO	40	Modified 2	-	0.17	-
W041-PEM-CATMOD2	Alternate	8-2D	PEM	36	Modified 2	-	0.10	-
W041-PFO-CATMOD2	Alternate	8-2D	PFO	36	Modified 2	-	0.11	-
W042-PEM-CAT1	Alternate	8-2E	PEM	21	1	-	0.01	0.01
W043-PEM-CAT1	Alternate	8-2E	PEM	18.5	1	-	0.02	-
W044-PEM-CAT1	Alternate	8-2E	PEM	22	1	-	0.04	0.01
W045-PEM-CAT1	Alternate	8-2E	PEM	28	1	-	0.23	-
W046-PEM-CAT1	Alternate	8-2E	PEM	26	1	32	0.12	0.11
W046-PUB-CAT1	Alternate	8-2E	PUB	26	1	-	0.05	0.04
W047-PEM-CAT2	Alternate	8-2E	PEM	50	2	-	0.07	-
W047-PUB-CAT2	Alternate	8-2E	PUB	50	2	-	0.38	0.01
W048-PEM-CATMOD2	Alternate	8-2E	PEM	36	Modified 2	-	0.10	-
W048-PSS-CATMOD2	Alternate	8-2E	PSS	36	Modified 2	-	0.23	-
W049-PEM-CAT2	Alternate	8-2E	PEM	51	2	302	1.90	0.61
W049-PFO-CAT2	Alternate	8-2E	PFO	51	2	-	0.11	0.01

TABLE 8-2

Delineated Wetlands within the Preferred and Alternate Route of the Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type <sup>a</sup>	ORAM Score	ORAM Category	Length Crossed by Centerline (feet)	Acreage within Field Survey Area <sup>b</sup>	Acreage within Potential Disturbance Area/ROW <sup>c</sup>
W049-PSS-CAT2	Alternate	8-2E/F	PSS	51	2	115	1.93	0.38
W049-PUB-CAT2	Alternate	8-2E/F	PUB	51	2	90	0.15	0.13
W050-PEM-CATMOD2	Alternate	8-2E/F	PEM	38.5	Modified 2	-	0.06	0.04
W050-PSS-CATMOD2	Alternate	8-2E/F	PSS	38.5	Modified 2	-	0.01	-
W051-PFO-CAT2	Alternate	8-2E	PFO	54.5	2	-	0.08	-
W052-PEM-CAT2	Alternate	8-2E/F	PEM	54.5	2	-	0.02	-
W052-PFO-CAT2	Alternate	8-2E/F	PFO	54.5	2	-	1.14	<0.01
W053-PFO-CATMOD2	Alternate	8-2F	PFO	43.5	Modified 2	-	0.06	-
W054-PFO-CATMOD2	Alternate	8-2F	PFO	43.5	Modified 2	-	1.25	-
W055-PEM-CATMOD2	Alternate	8-2E/F	PEM	41	Modified 2	-	0.05	-
W056-PFO-CAT2	Alternate	8-2F	PFO	48	2	-	0.58	<0.01
W056-PSS-CAT2	Alternate	8-2F	PSS	48	2	-	0.07	-
W057-PEM-CAT2	Alternate	8-2F	PEM	30	2	68	0.18	0.14
W057-PFO-CAT2	Alternate	8-2F	PFO	30	2	-	0.63	-
W058-PEM-CATMOD2	Alternate	8-2F	PEM	38	Modified 2	237	0.36	0.32
W058-PFO-CATMOD2	Alternate	8-2F	PFO	38	Modified 2	-	1.44	0.13
W059-PFO-CAT2	Alternate	8-2F	PFO	50	2	-	0.06	-
W059-PUB-CAT2	Alternate	8-2F	PUB	50	2	-	0.07	-
W060-PEM-CATMOD2	Alternate	8-2F	PEM	42	Modified 2	-	0.07	0.01
W060-PFO-CATMOD2	Alternate	8-2F	PFO	42	Modified 2	-	0.09	-
W061-PFO-CATMOD2	Alternate	8-2F	PFO	41	Modified 2	-	0.26	-
W062-PEM-CAT1	Alternate	8-2F	PEM	27	1	-	0.09	-
W062-PFO-CAT1	Alternate	8-2F	PFO	27	1	-	0.11	-
W063-PEM-CAT2	Alternate	8-2F	PEM	46	2	163	0.34	0.31
W063-PFO-CAT2	Alternate	8-2F	PFO	46	2	-	0.71	<0.01
W063-PUB-CAT2	Alternate	8-2F	PUB	46	2	-	0.27	-
W064-PFO-CAT2	Alternate	8-2F	PFO	32	2	-	0.16	-
W065-PEM-CAT1	Alternate	8-2F	PEM	20	1	126	0.23	0.19
W066-PEM-CAT1	Alternate	8-2F	PEM	20	1	-	0.12	-

TABLE 8-2

Delineated Wetlands within the Preferred and Alternate Route of the Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type <sup>a</sup>	ORAM Score	ORAM Category	Length Crossed by Centerline (feet)	Acreage within Field Survey Area <sup>b</sup>	Acreage within Potential Disturbance Area/ROW <sup>c</sup>
W067-PEM-CAT1	Alternate	8-2F	PEM	21	1	82	0.13	0.12
W068-PEM-CAT1	Alternate	8-2F	PEM	18	1	7	0.08	0.02
W069-PEM-CAT2	Alternate	8-2F	PEM	30.5	2	219	1.36	0.46
W070-PEM-CAT2	Alternate	8-2F	PEM	30.5	2	-	0.10	-
W071-PEM-CAT1	Alternate	8-2F/G	PEM	24	1	-	0.01	-
W072-PEM-CAT1	Alternate	8-2F/G	PEM	26	1	-	0.01	0.01
W073-PEM-CATMOD2	Alternate	8-2G	PEM	36	Modified 2	-	0.26	-
W073-PSS-CATMOD2	Alternate	8-2G	PSS	36	Modified 2	-	0.12	-
W074-PFO-CATMOD2	Alternate	8-2G	PFO	36	Modified 2	-	0.24	-
W075-PEM-CAT2	Alternate	8-2G	PEM	31.5	2	-	0.11	0.06
W076-PEM-CAT2	Alternate	8-2G	PEM	30	2	39	0.15	0.08
W077-PEM-CAT2	Alternate	8-2G	PEM	33	2	-	0.05	-
W078-PEM-CAT1	Alternate	8-2G	PEM	16	1	37	0.03	0.03
W079-PEM-CAT1	Alternate	8-2G	PEM	26	1	26	0.11	0.06
W080-PEM-CAT1	Alternate	8-2G	PEM	25	1	169	0.16	0.15
W081-PEM-CAT1	Alternate	8-2G	PEM	20	1	115	0.14	0.13
<b>Total</b>						<b>2,444</b>	<b>22.46</b>	<b>4.96</b>

Note

<sup>a</sup> Wetland Type: PEM = palustrine emergent, PSS = palustrine scrub-shrub, PUB = palustrine unconsolidated bottom, PFO = palustrine forested.<sup>b</sup> The width of the Field Survey Area was 400 feet centered on the existing Berlin-Ross 69 kV transmission line.<sup>c</sup> The width of the potential disturbance area and the final maintained ROW is planned to be 100 feet.

**(c) Waterbodies****(i) Field-Delineated Streams**

Streams and drainage channels were delineated and assessed during the ecological survey of the Preferred and Alternate Route. The OEPA's Headwater Habitat Evaluation Index ("HHEI") is used to evaluate streams with a drainage area less than or equal to one square mile, and maximum pool depths less than or equal to 40 centimeters ("cm") (OEPA, 2012). The HHEI is generally used to assess Primary Headwater Habitat ("PHWH") streams that typically fall under the classification of first or second-order streams. The HHEI rates a stream based on its physical habitat and uses that information to determine the biological potential of the stream. The physical habitats scored for the HHEI are substrate type, pool depth, and bank full width. Scores for Class I PHWH Streams range from 0 to 29.9; scores for Class II PHWH Streams range from 30 to 69.9; and scores for Class III PHWH Streams range from 70 to 100. A "Modified" qualifier may be added as a prefix to any of these classes if evidence of anthropogenic alterations, such as channelization and bank stabilization, are observed. A higher PHWH class corresponds with a more continuous flow regime. The flow regime determines the physical habitat of the stream, and is therefore indicative of the biological communities it can support. Streams with scores between 30 and 69 may be classified as potential rheocrene habitat, depending on substrate type, watershed size, and stream flow. The PHWH class for these potential rheocrene streams is then identified by evaluating the biology (fish, salamanders, and benthic macroinvertebrates). Per AEP Ohio Transco's consultant's standard operating procedures, it was not necessary to perform a biotic evaluation, and no potential rheocrene streams were identified within the Field Survey Area.

A total of 104 streams were identified within the Field Survey Area. Of these streams, 96 were evaluated using the HHEI method and three were evaluated using OEPA's Qualitative Habitat Evaluation Index ("QHEI") method for streams with drainage areas greater than one square mile or maximum pool depths of greater than 40 cm.

Streams identified during the ecological survey on the Preferred and Alternate Route are shown on revised Figures 8-2A through 8-2G. Detailed information on each identified stream is included in revised Table 8-3. Aquatic life use designations within the Scioto River drainage basin obtained from O.A.C. 3745-1-09 are also provided. The Scioto River, located approximately 3.0 miles west of the Preferred and Alternate Route, is a traditionally navigable waterway as defined by USACE.

Approximately ~~9,353~~ 9,799 linear feet of streams are located within the Preferred Route ROW, while approximately 8,500 linear feet are located within the Alternate Route ROW.

The Preferred Route centerline has ~~39~~ 52 stream crossings with all the streams being crossed once, with the following exceptions: streams S006, S027 and ~~S078~~ S094 are crossed twice, streams S012 and S059 are crossed three times, and stream S081 is crossed ~~eight~~ six times. The Alternate Route centerline has 35 stream crossings with all the streams being crossed once, with the following exceptions: streams S006, S012 and S059 are crossed three times, and stream S081 is crossed six

times. The total length of streams located within the Field Survey Area is approximately 39,335 linear feet. Construction impacts on these features are included in revised Table 8-3 and further discussed in Section 4906-5-08(B)(3)(c).



TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
<b>Preferred Route</b>												
S001 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Intermittent	7	4	HHEI	40	—	Class II PHWH	Yes	272	<del>139</del> 159
S002 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Perennial	12	12	HHEI	72	—	Class III PHWH	Yes	501	<del>123</del> 129
S003 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Ephemeral	2	0	HHEI	10	—	Modified Class I PHWH	No	245	NC
S004 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	22	—
S005 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Ephemeral	3	0	HHEI	10	—	Modified Class I PHWH	<del>No</del> Yes	97	<del>88</del> 97
S006 Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Perennial	25	—	—	—	WWH	—	Yes	1,654	<del>590</del> 485

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S007 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Ephemeral	3	0	HHEI	10	—	Modified Class I PHWH	No	203	—
S008 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Intermittent	5	4	HHEI	40	—	Modified Class II PHWH	No	136	—
S009 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Perennial	8	9	HHEI	57	—	Class II PHWH	Yes	680	<del>204</del> 166
S010 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Perennial	8	9	HHEI	60	—	Class III PHWH	Yes	413	<del>231</del> 234
S011 UNT to Mulgee Run (Salt Creek RM 5.55)	Preferred	8-2A	Ephemeral	4	0	HHEI	27	—	Class I PHWH	No	53	—
S012 Salt Creek	Preferred	8-2A/B	Perennial	80	—	—	—	EWH	—	Yes	1,890	<del>366</del> 367

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S013 UNT to Salt Creek	Preferred	8-2A	Ephemeral	4	0	HHEI	24	—	Class I PHWH	No	49	—
S014 UNT to Salt Creek	Preferred	8-2A	Intermittent	2	2	HHEI	21	—	Modified Class I PHWH	No	62	—
S015 Salt Lick Creek (Little Salt Creek)	Preferred	8-2A	Perennial	80	—	—	—	WWH	—	Yes	727	<del>199</del> 198
S016 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	13	—	Class I PHWH	No	90	—
S017 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	112	—
S018 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	16	—	Class I PHWH	No	73	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S019 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	15	—	Class I PHWH	No	105	—
S020 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	15	—	Class I PHWH	No	74	—
S021 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Intermittent	3	0	HHEI	30	—	Modified Class II PHWH	Yes	436	108
S022 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	32	—	Class II PHWH	No	160	<del>43</del> 47
S023 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	141	—
S024 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	180	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S025 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	12	—	Class I PHWH	Yes	301	<del>70</del> <u>78</u>
S026 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	214	<del>41</del> <u>47</u>
S027 Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Perennial	80	—	—	—	WWH	—	Yes	1,249	<del>808</del> <u>846</u>
S028 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Intermittent	5	4	HHEI	42	—	Modified Class II PHWH	No	256	<del>28</del> <u>43</u>
S029 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Intermittent	3	0	HHEI	10	—	Modified Class I PHWH	No	50	—
S030 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Intermittent	5	2	HHEI	32	—	Class II PHWH	No	241	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S031 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	10	—	Modified Class I PHWH	Yes	179	179
S032 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	135	—
S033 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Perennial	6	9	HHEI	50	—	Class II PHWH	Yes	415	<del>201</del> 202
S034 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	396	—
S035 Salt Lick Creek (Little Salt Creek)	Preferred	8-2B	Perennial	80	—	—	—	WWH	—	No	752	—
S036 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B/C	Ephemeral	3	0	HHEI	10	—	Modified Class I PHWH	Yes	301	<del>237</del> 254

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S037 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2B/C	Perennial	6	9	HHEI	57	—	Modified Class II PHWH	Yes	471	<del>129</del> <u>131</u>
S038 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Perennial	8	12	HHEI	66	—	Class III PHWH	Yes	769	158
S039 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Ephemeral	4	0	HHEI	31	—	Class II PHWH	Yes	459	<del>132</del> <u>119</u>
S040 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Intermittent	5	0	HHEI	46	—	Modified Class II PHWH	Yes	508	<del>105</del> <u>109</u>
S041 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Ephemeral	4	0	HHEI	40	—	Class II PHWH	No	74	—
S042 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Intermittent	3	0	HHEI	29	—	Modified Class I PHWH	No	691	<del>198</del> <u>78</u>

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S043 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Perennial	25	9	QHEI/ HHEI	62/82	—	Class III PHWH/ Good	Yes	500	<del>403</del> <u>105</u>
S044 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Ephemeral	3	0	HHEI	12	—	Class I PHWH	Yes	359	<del>109</del> <u>109</u>
S045 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Ephemeral	2	0	HHEI	11	—	Class I PHWH	No	16	—
S046 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Intermittent	6	0	HHEI	45	—	Class II PHWH	Yes	630	<del>216</del> <u>214</u>
S047 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Intermittent	4	0	HHEI	41	—	Class II PHWH	No	105	<u>9</u> <u>7</u>
S048 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2C	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	80	—



TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S049 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Intermittent	5	0	HHEI	45	—	Class II PHWH	Yes	536	<del>111</del> 113
S050 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Ephemeral	2	0	HHEI	11	—	Class I PHWH	No	69	—
S051 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Intermittent	6	4	HHEI	52	—	Class II PHWH	Yes	501	<del>116</del> 114
S052 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Ephemeral	3	0	HHEI	31	—	Class II PHWH	No	77	—
S053 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Ephemeral	2	0	HHEI	10	—	Class I PHWH	No	49	—
S054 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Ephemeral	3	0	HHEI	12	—	Class I PHWH	No	200	<del>4</del> =

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S055 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Ephemeral	3	0	HHEI	14	—	Class I PHWH	No	181	— <u>6</u>
S056 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Perennial	8	9	HHEI	61	—	Class II PHWH	No	235	—
S057 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Perennial	9	9	QHEI/ HHEI	46/71	—	Class III PHWH/Fair	Yes	553	<del>127</del> <u>128</u>
S058 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Perennial	4	9	HHEI	54	—	Modified Class II PHWH	No	416	24
S059 Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Perennial	65	—	—	—	WWH	—	Yes	1,964	<del>325</del> <u>529</u>
S060 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Intermittent	2	0	HHEI	10	—	Class I PHWH	No	100	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S061 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	124	—
S062 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D/E	Perennial	7	9	HHEI	71	—	Class III PHWH	Yes	1,150	<del>156</del> <u>158</u>
S063 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D/E	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	36	<del>—</del> <u>5</u>
S064 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2D/E	Ephemeral	3	0	HHEI	13	—	Class I PHWH	No	95	—
S065 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	92	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S066 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Ephemeral	3	0	HHEI	13	—	Class I PHWH	No	94	—
S067 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2E	Ephemeral	3	0	HHEI	12	—	Class I PHWH	No	329	—
S068 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2E	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	54	—
S069 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2E	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	115	—
S070 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Intermittent	6	0	HHEI	28	—	Class I PHWH	No	44	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S071 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Intermittent	5	4	HHEI	46	—	Class II PHWH	Yes	179	<del>97</del> 99
S072 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Ephemeral	2	0	HHEI	16	—	Class I PHWH	Yes	71	<del>65</del> 67
S073 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Intermittent	7	9	HHEI	67	—	Class III PHWH	Yes	576	105
S074 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Ephemeral	3	0	HHEI	27	—	Class I PHWH	No	58	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S075 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Ephemeral	4	0	HHEI	24	—	Class I PHWH	No	135	—
S076 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Preferred	8-2E	Ephemeral	2	0	HHEI	13	—	Class I PHWH	No	37	—
S077 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2E	Perennial	7	12	HHEI	75	—	Class III PHWH	Yes	944	<del>276</del> <u>275</u>
S078 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2E	Perennial	7	12	HHEI	65	—	Modified Class II PHWH	Yes	521	<del>271</del> <u>282</u>
S079 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2E/F	Perennial	4	9	HHEI	45	—	Class II PHWH	No	152	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S080 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2E	Intermittent	4	4	HHEI	41	—	Class II PHWH	Yes	466	<del>170</del> <u>169</u>
S081 Salt Lick Creek (Little Salt Creek)	Preferred	8-2E/F	Perennial	65	—	—	—	WWH	—	Yes	5,319	<del>1,639</del> <u>1,999</u>
S082 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F	Perennial	7	9	HHEI	56	—	Class II PHWH	Yes	176	<del>63</del> <u>69</u>
S083 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F	Perennial	4.5	9	HHEI	56	—	Class II PHWH	No	92	<del>44</del> <u>55</u>
S084 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F	Intermittent	4.5	2	HHEI	31	—	Class II PHWH	No	31	—
S085 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F	Intermittent	4	2	HHEI	15	—	Class I PHWH	No	88	<del>1</del> <u>17</u>

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S086 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F	Intermittent	3	4	HHEI	28	—	Modified Class I PHWH	No	92	—
S087 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	110	—
S088 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F	Perennial	20	12	QHEI/ HHEI	40/71	—	Class III PHWH/ Excellent	No	132	—
S089 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F	Ephemeral	3	0	HHEI	11	—	Modified Class I PHWH	No	105	—
S090 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F/G	Perennial	5	4	HHEI	44	—	Class II PHWH	Yes	421	101
S091 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F/G	Intermittent	3	2	HHEI	20	—	Class I PHWH	No	62	—



TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S092 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F/G	Perennial	9.5	12	HHEI	75	—	Class III PHWH	Yes	520	102
S093 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2F/G	Ephemeral	3	0	HHEI	12	—	Modified Class I PHWH	No	40	—
S094 Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Perennial	60	—	—	—	WWH	—	Yes	2,153	<del>332</del> <u>328</u>
S095 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Intermittent	2	0	HHEI	7	—	Class I PHWH	No	76	<del>43</del> <u>12</u>
S096 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Intermittent	3	2	HHEI	11	—	Class I PHWH	No	107	—
S097 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Ephemeral	3	0	HHEI	9	—	Class I PHWH	No	57	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S098 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Intermittent	4	9	HHEI	64	—	Modified Class II PHWH	Yes	602	175
S099 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Intermittent	2	0	HHEI	12	—	Modified Class I PHWH	No	165	—
S100 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Intermittent	5	4	HHEI	54	—	Modified Class II PHWH	Yes	490	<del>144</del> <u>139</u>
S101 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Intermittent	3	0	HHEI	12	—	Modified Class I PHWH	No	60	—
S102 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Intermittent	3	2	HHEI	43	—	Modified Class II PHWH	No	53	—
S103 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Ephemeral	3	0	HHEI	21	—	Modified Class I PHWH	Yes	285	<del>78</del> <u>59</u>

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S104 UNT to Salt Lick Creek (Little Salt Creek)	Preferred	8-2G	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	420	—
<b>Totals</b>											<b>39,335</b>	<b><del>9,353</del> 9,799</b>
<b>Alternate Route</b>												
S001 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Intermittent	7	4	HHEI	40	—	Class II PHWH	No	272	10
S002 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Perennial	12	12	HHEI	72	—	Class III PHWH	Yes	501	111
S003 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Ephemeral	2	0	HHEI	10	—	Modified Class I PHWH	No	245	—
S004 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	22	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S005 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Ephemeral	3	0	HHEI	10	—	Modified Class I PHWH	No	97	—
S006 Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Perennial	25	—	—	—	WWH	—	Yes	1,654	484
S007 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Ephemeral	3	0	HHEI	10	—	Modified Class I PHWH	No	203	—
S008 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Intermittent	5	4	HHEI	40	—	Modified Class II PHWH	No	136	—
S009 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Perennial	8	9	HHEI	57	—	Class II PHWH	Yes	680	248
S010 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Perennial	8	9	HHEI	60	—	Class III PHWH	Yes	413	129

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S011 UNT to Mulgee Run (Salt Creek RM 5.55)	Alternate	8-2A	Ephemeral	4	0	HHEI	27	—	Class I PHWH	No	53	—
S012 Salt Creek	Alternate	8-2A/B	Perennial	80	—	—	—	EWB	—	Yes	1,890	371
S013 UNT to Salt Creek	Alternate	8-2A	Ephemeral	4	0	HHEI	24	—	Class I PHWH	No	49	—
S014 UNT to Salt Creek	Alternate	8-2A	Intermittent	2	2	HHEI	21	—	Modified Class I PHWH	No	62	—
S015 Salt Lick Creek (Little Salt Creek)	Alternate	8-2A	Perennial	80	—	—	—	WWH	—	Yes	727	214
S016 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	13	—	Class I PHWH	No	90	—
S017 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	112	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S018 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	16	—	Class I PHWH	No	73	—
S019 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	15	—	Class I PHWH	No	105	—
S020 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	15	—	Class I PHWH	No	74	—
S021 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Intermittent	3	0	HHEI	30	—	Modified Class II PHWH	Yes	436	116
S022 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	32	—	Class II PHWH	No	160	—
S023 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	141	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S024 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	180	23
S025 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	12	—	Class I PHWH	No	301	36
S026 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	214	26
S027 Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Perennial	80	—	—	—	WWH	—	Yes	1,249	905
S028 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Intermittent	5	4	HHEI	42	—	Modified Class II PHWH	Yes	256	81
S029 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Intermittent	3	0	HHEI	10	—	Modified Class I PHWH	No	50	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S030 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Intermittent	5	2	HHEI	32	—	Class II PHWH	Yes	241	65
S031 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	10	—	Modified Class I PHWH	No	179	146
S032 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	135	—
S033 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Perennial	6	9	HHEI	50	—	Class II PHWH	Yes	415	215
S034 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	396	—
S035 Salt Lick Creek (Little Salt Creek)	Alternate	8-2B	Perennial	80	—	—	—	WWH	—	No	752	153



TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S036 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B/C	Ephemeral	3	0	HHEI	10	—	Modified Class I PHWH	Yes	301	167
S037 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2B/C	Perennial	6	9	HHEI	57	—	Modified Class II PHWH	Yes	471	144
S038 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Perennial	8	12	HHEI	66	—	Class III PHWH	Yes	769	130
S039 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Ephemeral	4	0	HHEI	31	—	Class II PHWH	Yes	459	111
S040 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Intermittent	5	0	HHEI	46	—	Modified Class II PHWH	Yes	508	111
S041 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Ephemeral	4	0	HHEI	40	—	Class II PHWH	No	74	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S042 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Intermittent	3	0	HHEI	29	—	Modified Class I PHWH	No	691	—
S043 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Perennial	25	9	QHEI/ HHEI	62/82	—	Class III PHWH/ Good	Yes	500	102
S044 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Ephemeral	3	0	HHEI	12	—	Class I PHWH	Yes	359	109
S045 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Ephemeral	2	0	HHEI	11	—	Class I PHWH	No	16	—
S046 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Intermittent	6	0	HHEI	45	—	Class II PHWH	Yes	630	216
S047 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Intermittent	4	0	HHEI	41	—	Class II PHWH	No	105	9

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S048 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2C	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	80	—
S049 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Intermittent	5	0	HHEI	45	—	Class II PHWH	Yes	536	111
S050 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Ephemeral	2	0	HHEI	11	—	Class I PHWH	No	69	—
S051 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Intermittent	6	4	HHEI	52	—	Class II PHWH	Yes	501	116
S052 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Ephemeral	3	0	HHEI	31	—	Class II PHWH	No	77	—
S053 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Ephemeral	2	0	HHEI	10	—	Class I PHWH	No	49	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S054 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Ephemeral	3	0	HHEI	12	—	Class I PHWH	No	200	4
S055 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Ephemeral	3	0	HHEI	14	—	Class I PHWH	No	181	—
S056 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Perennial	8	9	HHEI	61	—	Class II PHWH	No	235	—
S057 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Perennial	9	9	QHEI/ HHEI	46/71	—	Class III PHWH/ Excellent	Yes	553	127
S058 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Perennial	4	9	HHEI	54	—	Modified Class II PHWH	Yes	416	75
S059 Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Perennial	65	—	—	—	WWH	—	Yes	1,964	532

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S060 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Intermittent	2	0	HHEI	10	—	Class I PHWH	No	100	—
S061 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	124	—
S062 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D/E	Perennial	7	9	HHEI	71	—	Class III PHWH	Yes	1,150	157
S063 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D/E	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	36	—
S064 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2D/E	Ephemeral	3	0	HHEI	13	—	Class I PHWH	No	95	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S065 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	92	—
S066 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Ephemeral	3	0	HHEI	13	—	Class I PHWH	No	94	—
S067 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2E	Ephemeral	3	0	HHEI	12	—	Class I PHWH	No	329	—
S068 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2E	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	54	—
S069 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2E	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	115	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S070 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Intermittent	6	0	HHEI	28	—	Class I PHWH	No	44	—
S071 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Intermittent	5	4	HHEI	46	—	Class II PHWH	No	179	27
S072 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Ephemeral	2	0	HHEI	16	—	Class I PHWH	No	71	13
S073 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Intermittent	7	9	HHEI	67	—	Class III PHWH	Yes	576	132

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S074 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Ephemeral	3	0	HHEI	27	—	Class I PHWH	No	58	—
S075 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Ephemeral	4	0	HHEI	24	—	Class I PHWH	No	135	—
S076 UNT to Pigeon Creek (Salt Lick Creek RM 6.35)	Alternate	8-2E	Ephemeral	2	0	HHEI	13	—	Class I PHWH	No	37	—
S077 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2E	Perennial	7	12	HHEI	75	—	Class III PHWH	Yes	944	352



TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S078 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2E	Perennial	7	12	HHEI	65	—	Modified Class II PHWH	Yes	521	231
S079 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2E/F	Perennial	4	9	HHEI	45	—	Class II PHWH	No	152	—
S080 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2E	Intermittent	4	4	HHEI	41	—	Class II PHWH	Yes	466	167
S081 Salt Lick Creek (Little Salt Creek)	Alternate	8-2E/F	Perennial	65	—	—	—	WWH	—	Yes	5,319	1,168
S082 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F	Perennial	7	9	HHEI	56	—	Class II PHWH	No	176	8
S083 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F	Perennial	4.5	9	HHEI	56	—	Class II PHWH	No	92	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S084 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F	Intermittent	4.5	2	HHEI	31	—	Class II PHWH	No	31	—
S085 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F	Intermittent	4	2	HHEI	15	—	Class I PHWH	No	88	—
S086 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F	Intermittent	3	4	HHEI	28	—	Modified Class I PHWH	No	92	31
S087 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F	Ephemeral	3	0	HHEI	10	—	Class I PHWH	No	110	—
S088 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F	Perennial	20	12	QHEI/ HHEI	40/71	—	Class III PHWH/ Excellent	No	132	—
S089 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F	Ephemeral	3	0	HHEI	11	—	Modified Class I PHWH	No	105	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S090 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F/G	Perennial	5	4	HHEI	44	—	Class II PHWH	Yes	421	102
S091 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F/G	Intermittent	3	2	HHEI	20	—	Class I PHWH	No	62	—
S092 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F/G	Perennial	9.5	12	HHEI	75	—	Class III PHWH	Yes	520	138
S093 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2F/G	Ephemeral	3	0	HHEI	12	—	Modified Class I PHWH	No	40	—
S094 Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Perennial	60	—	—	—	WWH	—	Yes	2,153	298
S095 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Intermittent	2	0	HHEI	7	—	Class I PHWH	No	76	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S096 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Intermittent	3	2	HHEI	11	—	Class I PHWH	No	107	—
S097 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Ephemeral	3	0	HHEI	9	—	Class I PHWH	No	57	—
S098 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Intermittent	4	9	HHEI	64	—	Modified Class II PHWH	Yes	602	148
S099 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Intermittent	2	0	HHEI	12	—	Modified Class I PHWH	No	165	—
S100 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Intermittent	5	4	HHEI	54	—	Modified Class II PHWH	Yes	490	118
S101 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Intermittent	3	0	HHEI	12	—	Modified Class I PHWH	No	60	—

TABLE 8-3

Streams within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation <sup>a</sup>	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline <sup>b</sup>	Length (linear feet) within Field Survey Area <sup>c</sup>	Length (linear feet) within Potential Disturbance Area/ROW <sup>d</sup>
S102 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Intermittent	3	2	HHEI	43	—	Modified Class II PHWH	No	53	—
S103 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Ephemeral	3	0	HHEI	21	—	Modified Class I PHWH	No	285	13
S104 UNT to Salt Lick Creek (Little Salt Creek)	Alternate	8-2G	Ephemeral	3	0	HHEI	11	—	Class I PHWH	No	420	—
<b>Totals</b>											<b>39,335</b>	<b>8,500</b>

Notes:

<sup>a</sup> EWH = Exceptional Warm Water Habitat, WWH = Warm Water Habitat<sup>b</sup> NC = Not crossed by proposed ROW.<sup>c</sup> The width of the Field Survey Area was 400 feet centered on the existing Berlin-Ross 69 kV transmission line.<sup>d</sup> The width of the potential disturbance area and the final maintained ROW is planned to be 100 feet.

UNT = unnamed tributary

**(ii) Lakes, Ponds, and Reservoirs**

Text provided in the March 29, 2018 application filing remains unchanged.

**(2) Map of Facility, Right-of-Way, and Delineated Resources**

Detailed maps at 1:12,000 scale depicting the Preferred and Alternate Routes, their ROW, and delineated resources are provided as revised Figure 8-2.

**(3) Construction Impacts on Vegetation and Surface Waters****(a) Construction Impacts on Vegetation**

The construction impacts on woody and herbaceous vegetation along both the Preferred and Alternate Route will be limited to the initial clearing of vegetation within the 100-foot wide ROW for the proposed transmission line and access roads. Preliminary locations for access roads have been identified and will be confirmed at the time of AEP Ohio Transco's transmission line easement acquisition process. Trees adjacent to the ROW that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe construction and operation of the transmission line. Vegetation waste (e.g., tree limbs and trunks) generated during the construction phase will be windrowed or chipped and disposed of appropriately depending on individual landowner requests. The approximate vegetation impacts along the Preferred and Alternate Route ROWs are provided in revised Table 8-4.

**TABLE 8-4**  
**Approximate Vegetation Impacts Along the Potential Disturbance Area/ROW**

Land Use Type	Length of Route (in feet)	Length of Route (in miles)	Acreage within ROW
<b>Preferred Route</b>			
Agricultural	<del>1,082</del> <u>1,119</u>	<del>0.20</del> <u>0.2</u>	<del>2.0</del> <u>2.1</u>
Industrial / Commercial	0	0.0	0.1
Open Land / Pasture	<del>23,744</del> <u>22,304</u>	<del>4.50</del> <u>4.2</u>	<del>43.6</del> <u>44.5</u>
Road / Railroad ROW	<del>229</del> <u>231</u>	<del>0.04</del> <u>&lt;0.1</u>	0.7
Utility ROW	<del>8,129</del> <u>10,020</u>	<del>1.54</del> <u>1.9</u>	<del>35.6</del> <u>33.4</u>
Water	<del>1,621</del> <u>1,566</u>	<del>0.31</del> <u>0.3</u>	<del>3.2</del> <u>3.3</u>
Woodlot	<del>19,286</del> <u>19,263</u>	3.7	<del>38.6</del> <u>40.6</u>
<b>Alternate Route</b>			
Agricultural	0	0	1.3
Industrial / Commercial	0	0	0.1
Open Land / Pasture	0	0	44.2
Road / Railroad ROW	0	0	0.6
Utility ROW	54,321	10.29	62.5
Water	301	0.06	2.5
Woodlot	0	0	12.5

**(b) Construction Impacts on Wetlands**

**Preferred Route:** During wetland and surface water delineations, 49 wetlands were identified within the proposed ROW, totaling ~~4.58~~ 4.55 acres. The delineated wetlands are shown on revised Figures 8-2A through 8-2G. Detailed information about each feature can be found in revised Table 8-2 in Section 4906-05-08(B)(b)(ii). ~~Thirty-one (30)~~ Thirty-one (31) of these wetlands are crossed by the Preferred Route centerline, totaling ~~1,723~~ 1,743 linear feet. Impacts to wetlands will be avoided by placing transmission line structures outside of wetland boundaries. Where temporary construction access through a wetland cannot be avoided, the crossing will occur during dry conditions and protective construction matting will be used to minimize impacts from construction vehicles.

ORAM categories for wetlands delineated in the Preferred Route ROW are detailed below:

- Category 1 wetlands: Twenty-two (22) Category 1 wetlands with ORAM scores ranging from 12 to 29 were identified within the Preferred Route ROW, totaling ~~0.97~~ 0.95-acre. Twenty-one (21) of the Category 1 wetlands are PEM wetlands and one is a PUB wetland. These wetlands will not be impacted through the clearing of trees and shrubs during construction.
- Category 2 wetlands: Seventeen (17) Category 2 wetlands and 10 Category Modified 2 wetlands with ORAM scores ranging from 30 to 54.5 were identified within the Preferred Route ROW, totaling ~~3.62~~ 3.6 acres. Fifteen (15) of these wetlands are PEM wetlands, two are PSS wetlands, seven are PFO wetlands, and three are PUB wetlands.
- Category 3 wetlands: No Category 3 wetlands were identified within the Preferred Route ROW; therefore, no construction impacts are anticipated.

**Alternate Route:** During wetland and waterbody delineations, 52 wetlands were identified within the proposed Alternate Route ROW, totaling 4.96 acres. The delineated wetlands are shown on Figures 8-2A through 8-2G. Detailed information about each feature can be found in Table 8-2 in Section 4906-05-08(B)(b)(ii). Thirty-one (31) of these wetlands are crossed by the centerline, totaling 2,444 linear feet. Impacts to wetlands will be avoided by placing transmission line structures outside wetland boundaries. Where temporary construction access through a wetland cannot be avoided, the crossing will occur during dry conditions and protective matting will be used to minimize impacts from construction vehicles.

ORAM categories for wetlands delineated in the Alternate Route ROW are detailed below:

- Category 1 wetlands: Twenty-three (23) Category 1 wetlands with ORAM scores ranging from 12 to 29 were identified within the proposed Alternate Route ROW, totaling 1.35 acres. Twenty-two (22) of the Category 1 wetlands are PEM wetlands and one (1) is a PUB wetland. These wetlands will not be impacted through the clearing or trees and shrubs during construction.
- Category 2 wetlands: Seventeen (17) Category 2 wetlands and 12 Category Modified 2

wetlands with ORAM scores ranging from 30 to 54.5 were identified within the Alternate Route ROW, totaling 3.60 acres. Fifteen (15) of the wetlands are PEM wetlands, one is a PSS wetland, eight are PFO wetlands, and five are PUB wetlands.

- Category 3 wetlands: For the Alternate Route, no Category 3 wetlands will be crossed; therefore, no construction impacts are anticipated.

Through appropriate planning and permitting, care will be taken near wetlands to avoid or minimize filling and sedimentation during construction. AEP Ohio Transco will avoid the placement of pole structures within wetlands to the extent practical. Selective clearing will be required to remove specific types of woody vegetation in wetlands that might impede construction or interfere with operation of the transmission line. Where wooded or forested wetlands occur within the ROW, the trees will be removed.

To minimize soil erosion and sedimentation during construction, best management practices (“BMPs”) such as utilization of silt fences and construction matting will be implemented as required during construction. Sedimentation potential at wetlands is unlikely because of the plans for structure placement outside of wetlands, and the fact that construction equipment will only cross wetlands if necessary, and will do so using construction matting if wet conditions require.

Disturbance of soils in wetland areas during construction will be minimized. Temporary fill material (in the form of construction matting) may be placed in a wetland area utilized for access. Although not anticipated, if it is necessary to place a pole or guy wires within a wetland, they will be accessed using construction matting if wet conditions exist at the time of construction. No excavation other than the boring of a hole for pole installation will be performed within the wetland. In the event that pole placement is required within a wetland, no additional fill will be placed in the wetland beyond the placement of the pole structure and borehole backfill.

Wetland areas will be clearly staked prior to the commencement of any clearing in order to minimize incidental vehicle impacts. Other than the remote possibility of pole locations within wetlands discussed above, operation of heavy mechanized equipment is not planned within any identified wetland areas, although some construction equipment may need to cross wetland areas on construction matting if wet conditions exist at the time. Woody vegetation in wetlands will be hand-cut by chain saws or other non-mechanized techniques. When necessary, rubber-wheeled vehicles, or vehicles equipped with tracks, will be used to remove vegetation debris. AEP Ohio Transco will perform all construction work in accordance with the conditions and requirements of regulatory permits obtained for the Project.

### **(c) Construction Impacts on Waterbodies**

The Preferred Route centerline has ~~39~~ 40 stream crossings with all the streams being crossed once, with the following exceptions: streams ~~S006~~, S027 and ~~S078~~ S094 are crossed twice, streams S006, S012, and S059 are crossed three times, and stream S081 is crossed ~~eight~~ six times. Detailed information about each stream can be found in Table 8-3 in Section 4906-5-08(B)(c)(i).



Approximately ~~9,353~~ 9,799 linear feet of streams are located within the Preferred Route ROW, while approximately 8,500 linear feet are located within the Alternate Route ROW.

AEP Ohio Transco will not conduct mechanized clearing within 25 feet of any stream, and will only clear (using hand cutting techniques) those trees in this area that are tall enough to or have the potential to interfere with safe construction and operation of the line. No streams will be filled or permanently impacted. Some streams may have to be crossed by construction vehicles. Exact pole locations have not been fully determined to date. Access paths to proposed pole locations will be evaluated when more detailed engineering is performed and landowner negotiations progress. If a new stream crossing were necessary, it would comply with one of the following two proposed methods to cross streams:

- Temporary culvert stream crossings
- Temporary access bridge

**Culvert stream crossings** are proposed for crossing marginal quality perennial, ephemeral, and intermittent streams with a drainage basin of less than one mile. These crossings may be removed or remain in place in order to provide maintenance access to the line (critical if service is to be reliable).

- Disturbance of the stream will be kept to a minimum, stream bank vegetation will be preserved to the maximum extent practical, and the stream crossing width will be kept as narrow as possible. Clearing will be done by hand-cutting techniques rather than grubbing. Roots and stumps will be left in place to aid stabilization and to accelerate re-vegetation.
- Sediment laden runoff will be controlled to minimize flow from the access road directly into the stream. Diversions and swales will be used to direct runoff to stormwater management locations. Silt fence will be used as needed according to local topographic conditions.
- Culvert pipes will be placed on the existing streambed to avoid a drop or waterfall at the downstream end of the pipe, which would be a barrier to fish migration. Crossings will be placed in shallow areas rather than pools.
- Culverts will be sized to be at least three times the depth of the normal stream flow at the crossing location. The minimum diameter culvert that will be used is 18 inches.
- There will be a sufficient number of culvert pipes to cross the stream completely with no more than a 12-inch space between each one.
- Stone, rock, or aggregate of ODOT number 1 as a minimum size will be placed in the channel, and between culverts. To prevent washouts, larger stone may be used with gabion mattresses. No soil will be placed in the stream channel.
- After completion of construction, some rock aggregate and structures such as culvert pipes used for the crossing will be left in place if approved by the landowner. Care will be taken so

that aggregate does not create an impoundment or impede fish passage. Structures such as gabion mattresses will be removed.

- Stream banks will be stabilized and revegetated as appropriate.

**Temporary access bridges or culvert stream crossings** will be used for high quality perennial, ephemeral, and intermittent streams and streams with a drainage basin greater than one square mile.

- Disturbance of the stream will be kept to a minimum, stream bank vegetation will be preserved to the maximum extent practical, and the stream crossing width will be kept as narrow as possible. Clearing will be done by hand cutting rather than grubbing. Roots and stumps will be left in place to aid stabilization and to accelerate re-vegetation.
- Sediment laden runoff will be controlled to minimize flow from the access road directly into the stream. Diversions and swales will be used to direct runoff to stormwater management locations. Silt fence will be used as needed according to local topographic conditions.
- Bridges will be constructed to span the entire channel. If the channel width exceeds eight feet, then a floating pier or bridge support may be placed in the channel. No more than one pier, footing, or support will be allowed for every eight feet of span width. No footings, piers, or supports will be allowed for spans of less than eight feet.
- No fill other than clean stone, free from soil, will be placed within the stream channel.

These crossings will be addressed in the Project Stormwater Pollution Prevention Plan ("SWPPP"). Some of the access routes may be left in place for maintenance activity. Details regarding the proposed access road stream crossing methods will be provided to the OPSB separately.

#### **(4) Operation and Maintenance Impacts on Vegetation and Surface Waters**

Text provided in the March 29, 2018 application filing remains unchanged.

#### **(5) Mitigation Procedures**

Text provided in the March 29, 2018 application filing remains unchanged.

##### **(a) Site Restoration and Soil Stabilization**

Text provided in the March 29, 2018 application filing remains unchanged.

##### **(b) Contingency Plan for Stream and Wetland Crossings**

Text provided in the March 29, 2018 application filing remains unchanged.

**(c) Demarcation and Protection Methods**

Text provided in the March 29, 2018 application filing remains unchanged.

**(d) Procedures for Inspection and Repair of Erosion Control Measures**

Text provided in the March 29, 2018 application filing remains unchanged.

**(e) Storm Water Runoff Measures**

Text provided in the March 29, 2018 application filing remains unchanged.

**(f) Vegetation Protection Methods**

Text provided in the March 29, 2018 application filing remains unchanged.

**(g) Clearing Methods**

Text provided in the March 29, 2018 application filing remains unchanged.

**(h) Expected Use of Herbicides**

Text provided in the March 29, 2018 application filing remains unchanged.

**(C) Literature Survey of Plant and Animal Life Potentially Affected**

Text provided in the March 29, 2018 application filing remains unchanged.

**(D) Site Geology**

Text provided in the March 29, 2018 application filing remains unchanged.

**(1) Slopes and Foundation Soil Suitability**

Slopes exceeding 12 percent, obtained from the NRCS, are identified on revised Figure 8-1. Approximately ~~52~~53 percent of the area within 1,000 feet of the Preferred Route occurs where slopes exceed 12 percent. Similarly, slopes exceeding 12 percent occur within approximately 52 percent of the area within 1,000 feet of the Alternate Route. During construction, AEP Ohio Transco will implement a SWPPP and associated BMPs as necessary to control erosion and sedimentation in areas with slopes exceeding 12 percent. Once construction is complete, soils will be revegetated and stabilized. As a result, no erosional impacts resulting from slopes exceeding 12 percent are expected.

The bedrock geologies consisting primarily of shales and siltstones and overlaying soils consisting of primarily silt loams and silty clay loams, present along both routes, are generally expected to be

suitable for foundation construction. To obtain further site-specific details on the suitability of the soils for foundation construction, AEP Ohio Transco will conduct detailed engineering design and geotechnical soil borings. Engineering design and geotechnical test drilling will likely be completed soon after the Project is certificated by OPSB and engineering plans and boring logs will be provided to the staff shortly thereafter.

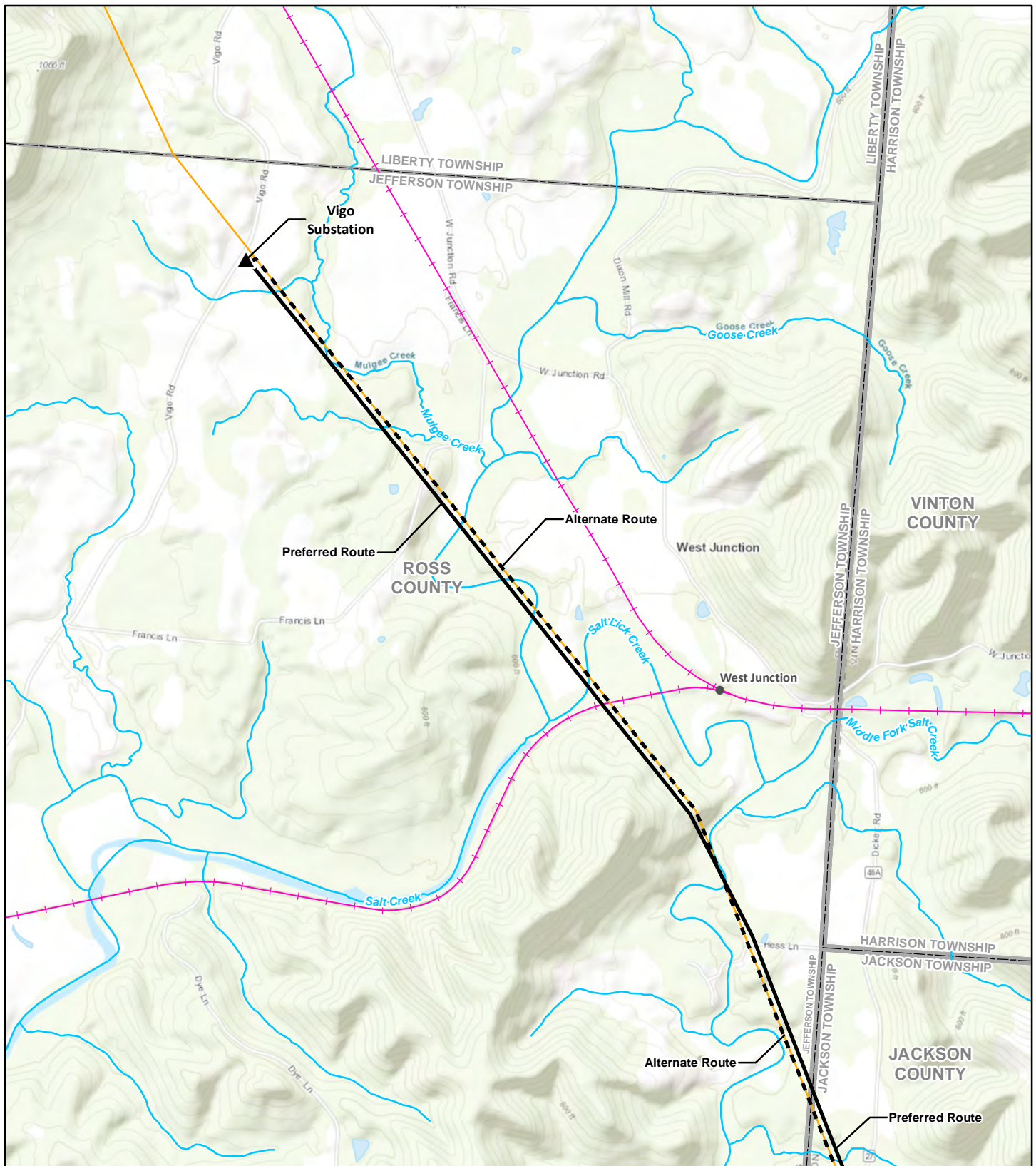
At a minimum, geotechnical soil borings will provide the following information to be utilized for structure placement and foundation design engineering as needed:

- (1) Subsurface Soil Properties
- (2) Static Water Level
- (3) Rock Quality Description
- (4) Percent Recovery
- (5) Depth and Description of Bedrock Contact

AEP Ohio Transco anticipates that foundations will only be required at some angle structures that will be ultimately determined during the engineering design. When required, foundations will be engineered based on the results of geotechnical soil boring and laboratory test results to ensure they are sited in locations considered suitable based on soil and rock properties and surface slope.

**(E) Environmental and Aviation Regulation Compliance**

Text provided in the March 29, 2018 application filing remains unchanged.



#### Legend

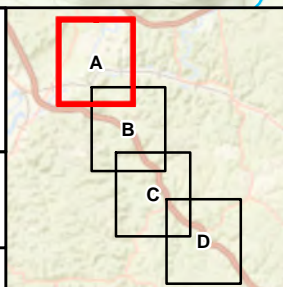
- ▲ Substation
- Populated Place
- Preferred Route
- - - Alternate Route
- Existing 69kV Transmission Line
- Railroad
- Stream or River
- Waterbody
- Administrative Boundary

Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH DOT (2017)

NAD 1983 State Plane  
Ohio South Feet



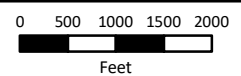
November 22, 2019



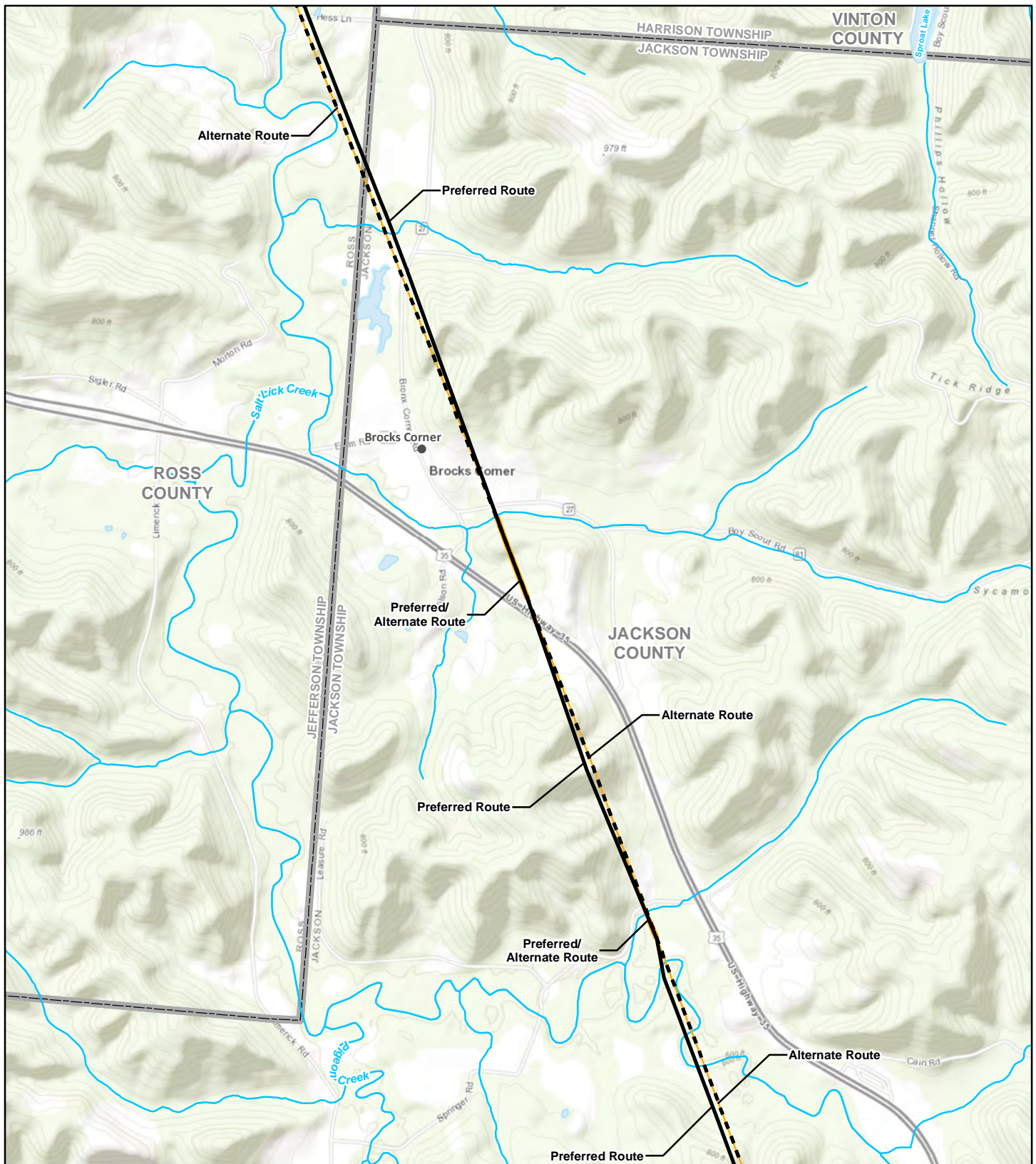
#### Figure 2-1A Project Overview



Vigo to Pine Ridge Switch  
138kV Transmission Line Project







#### Legend

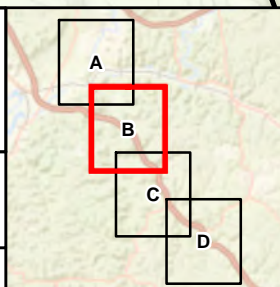
- |                                 |                         |
|---------------------------------|-------------------------|
| Substation                      | Railroad                |
| Populated Place                 | Stream or River         |
| Preferred Route                 | Waterbody               |
| Alternate Route                 | Administrative Boundary |
| Existing 69kV Transmission Line |                         |

Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH DOT (2017)

NAD 1983 State Plane  
Ohio South Feet



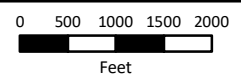
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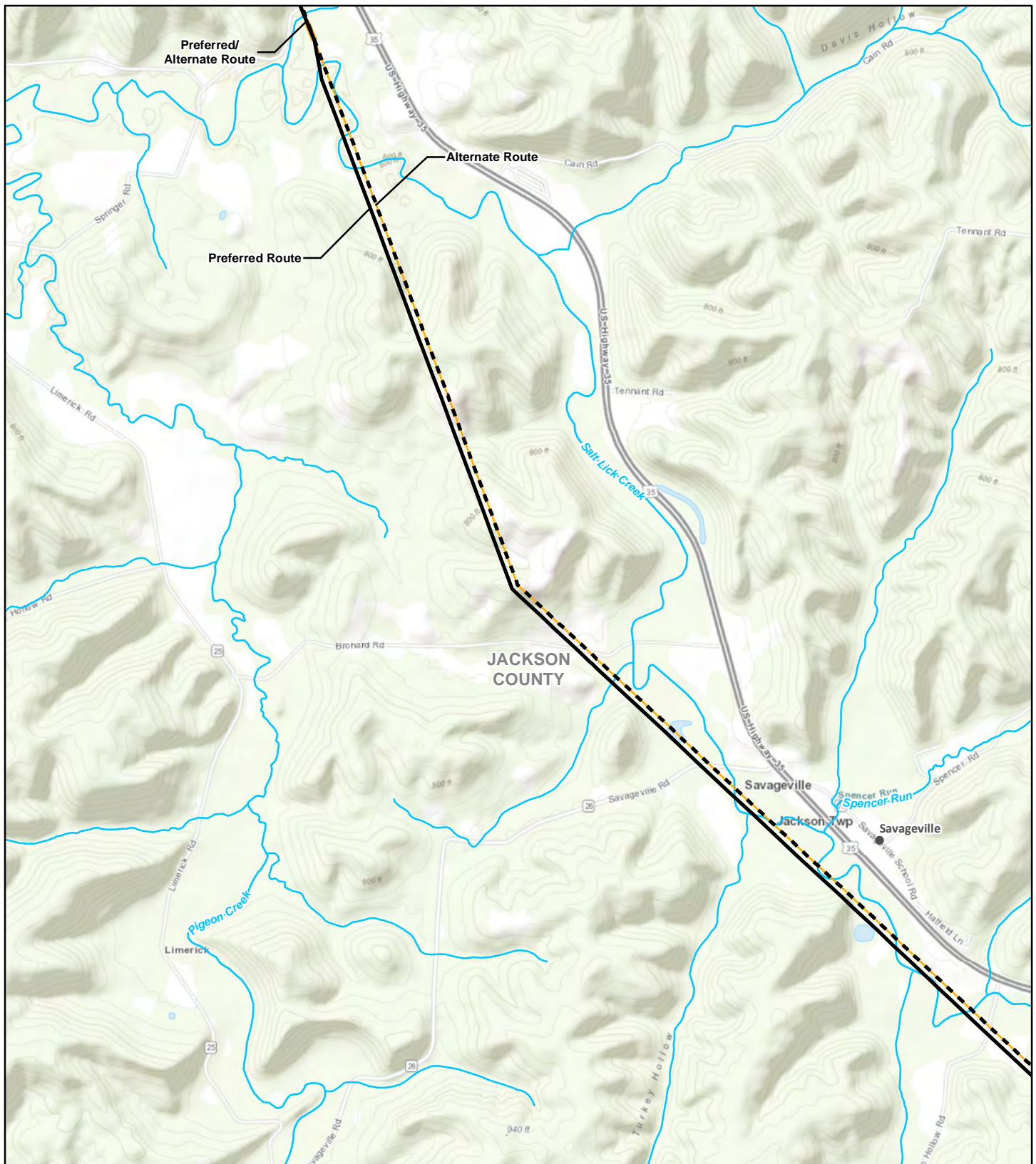
**Figure 2-1B**  
**Project Overview**



**Vigo to Pine Ridge Switch  
138kV Transmission Line Project**







**Legend**

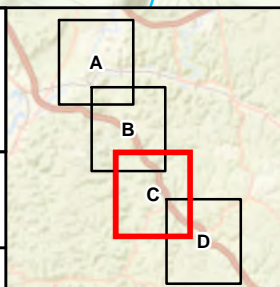
- |                                   |                           |
|-----------------------------------|---------------------------|
| ▲ Substation                      | — Railroad                |
| ● Populated Place                 | — Stream or River         |
| — Preferred Route                 | — Waterbody               |
| - - - Alternate Route             | — Administrative Boundary |
| — Existing 69kV Transmission Line |                           |

Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH DOT (2017)

NAD 1983 State Plane  
Ohio South Feet



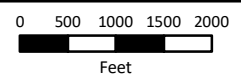
November 22, 2019



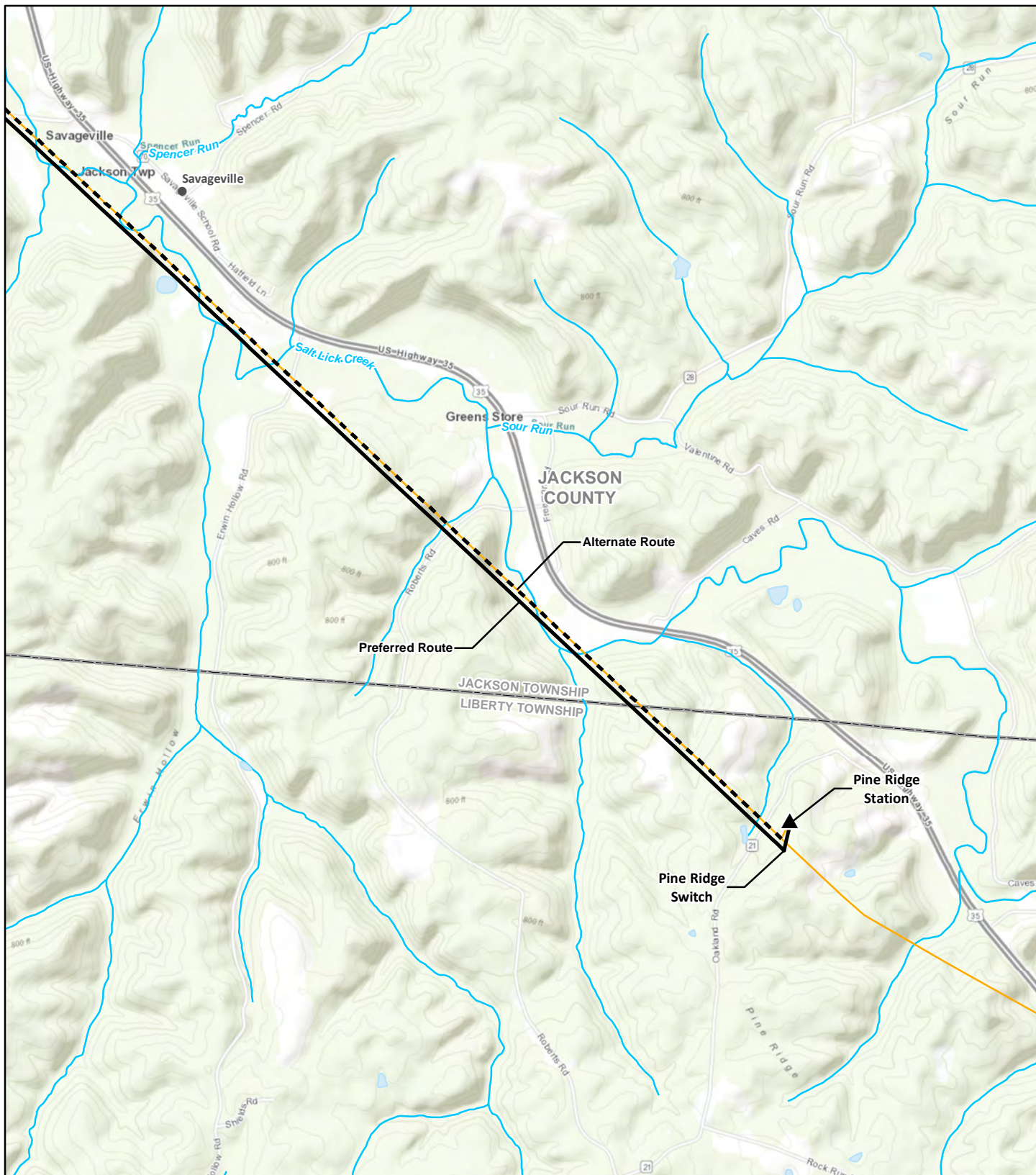
**Figure 2-1C  
Project Overview**



**Vigo to Pine Ridge Switch  
138kV Transmission Line Project**







#### Legend

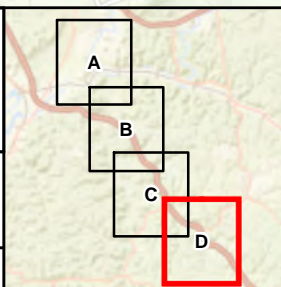
- |  |                                 |  |                         |
|--|---------------------------------|--|-------------------------|
|  | Substation                      |  | Railroad                |
|  | Populated Place                 |  | Stream or River         |
|  | Preferred Route                 |  | Waterbody               |
|  | Alternate Route                 |  | Administrative Boundary |
|  | Existing 69kV Transmission Line |  |                         |

Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH DOT (2017)

NAD 1983 State Plane  
Ohio South Feet



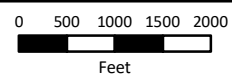
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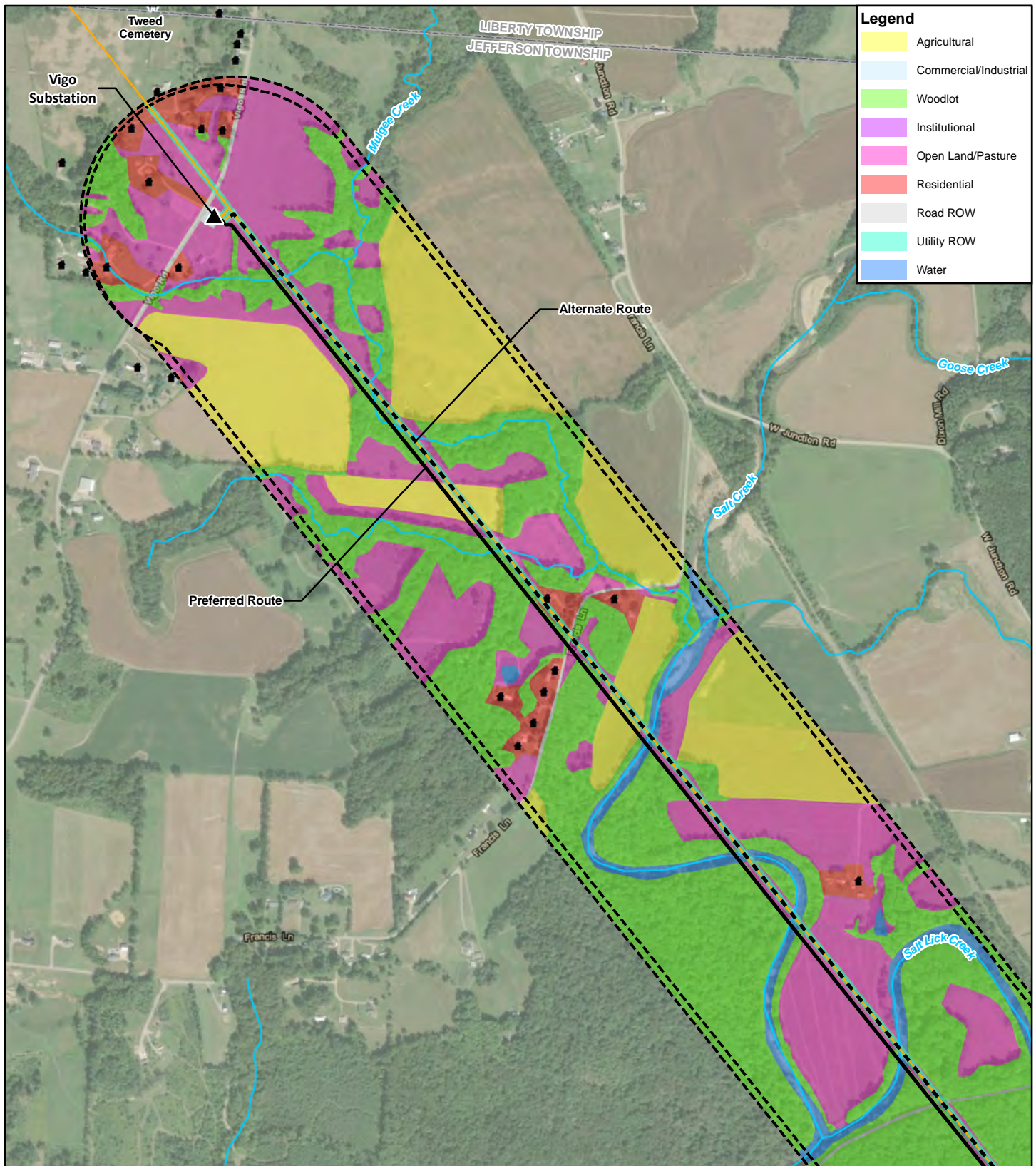
#### Figure 2-1D Project Overview



Vigo to Pine Ridge Switch  
138kV Transmission Line Project





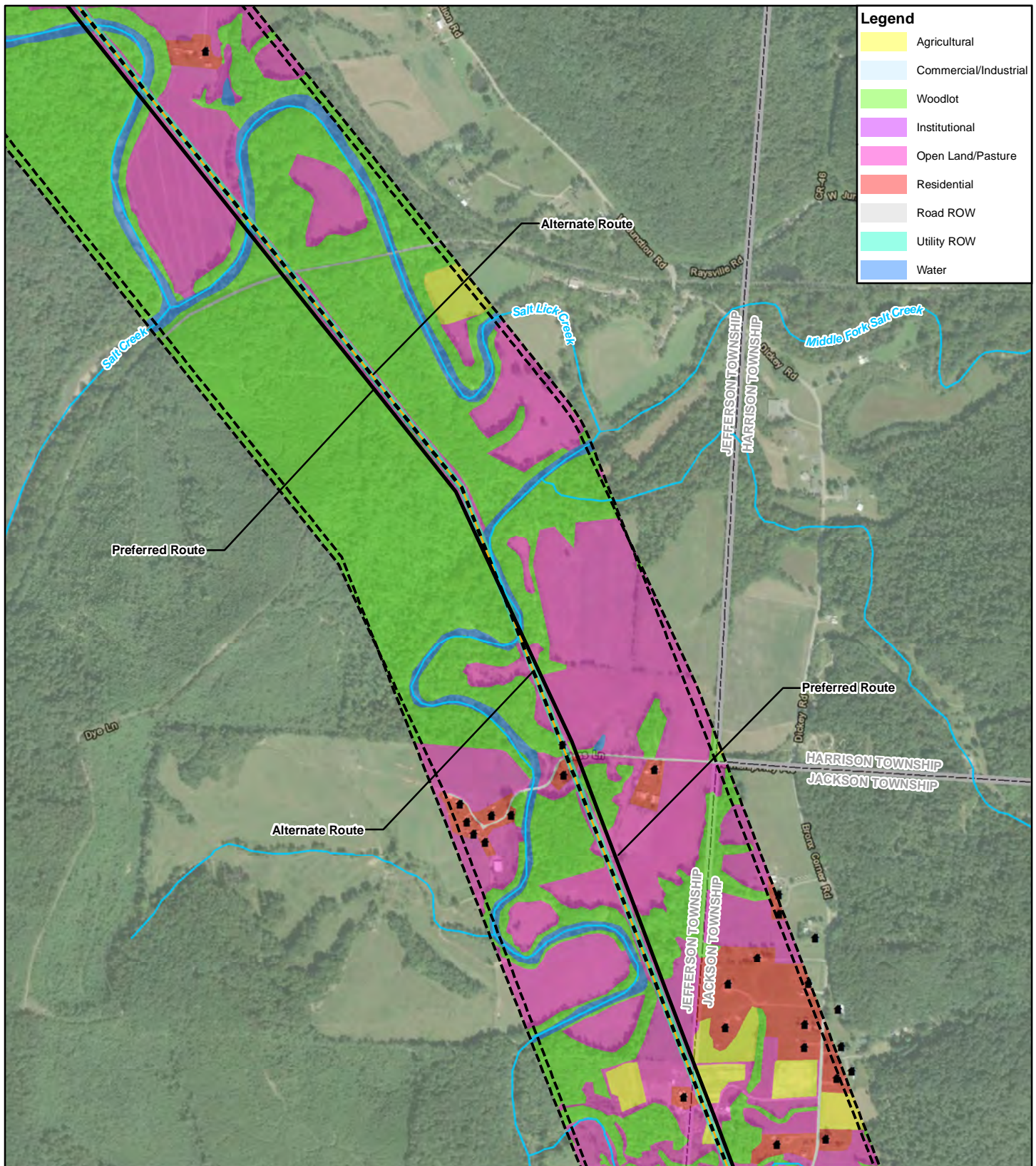


**Legend**

- Agricultural
- Commercial/Industrial
- Woodlot
- Institutional
- Open Land/Pasture
- Residential
- Road ROW
- Utility ROW
- Water

<p><b>Legend</b></p> <ul style="list-style-type: none"> <li>▲ Substation</li> <li>— Preferred Route</li> <li>- - - Alternate Route</li> <li>[ ] 1,000-Foot Buffer</li> <li>— Existing 69kV Transmission Line</li> <li>✠ Cemetery</li> <li>■ Residence</li> <li>⬢ Commercial Building</li> <li>— Stream or River</li> <li>▭ Administrative Boundary</li> </ul>	<p>Data Sources: AEP (2015), USGS (2015), ESRI (2017), OH SHPO (2017), Ross County Assessor (2017)</p> <p>Notes: Agricultural District lands and recreation areas were reviewed but not present within the map area.</p> <p>NAD 1983 State Plane Ohio South Feet</p> <p>November 12, 2019</p>		<p><b>Figure 7-1A</b> <b>Land Use</b></p> <p><b>Vigo to Pine Ridge Switch 138kV Transmission Line Project</b></p> <p>OHIO TRANSMISSION COMPANY</p> <p>0 250 500 750 1000 Feet</p>
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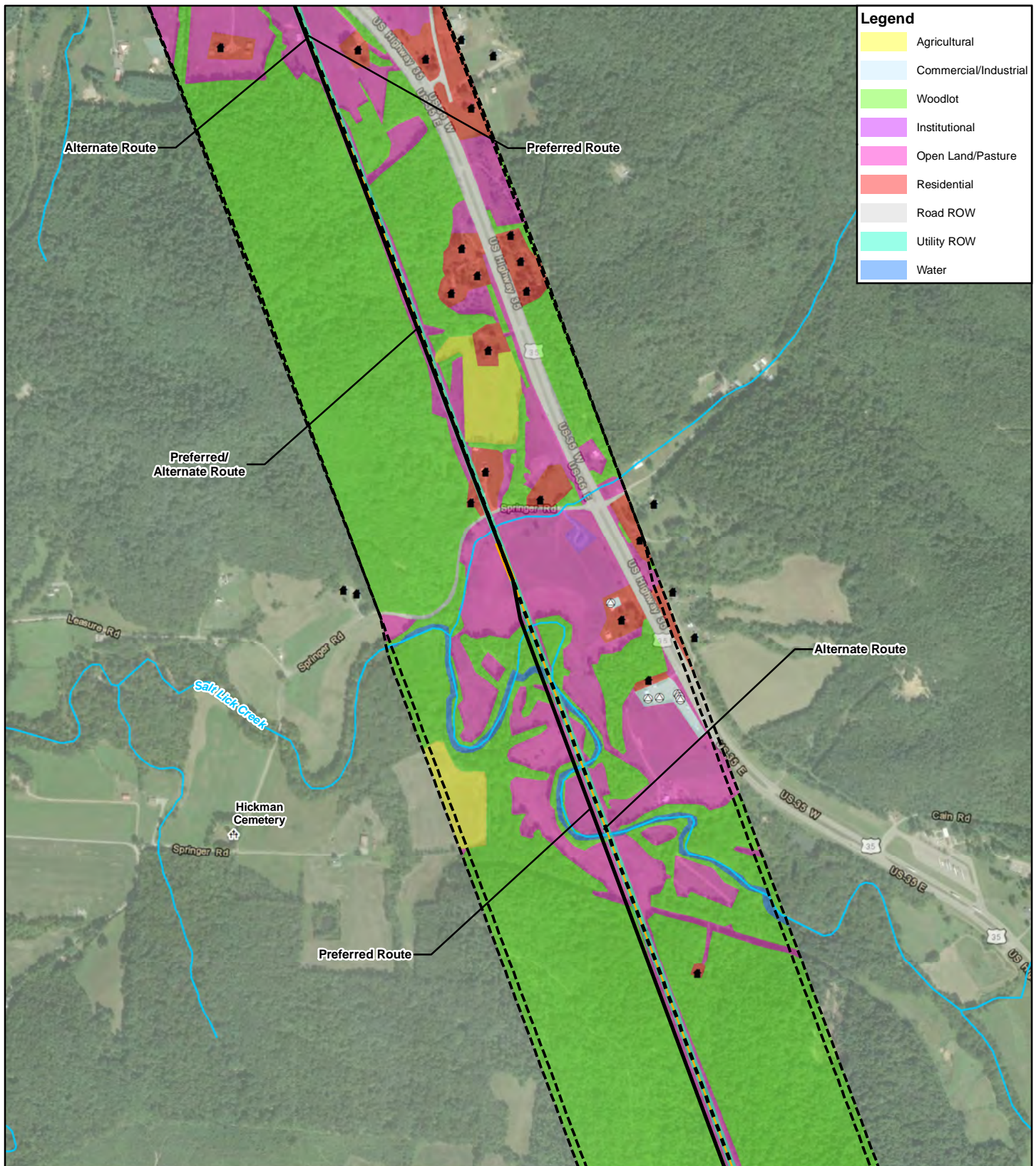
- Legend**
- Agricultural
  - Commercial/Industrial
  - Woodlot
  - Institutional
  - Open Land/Pasture
  - Residential
  - Road ROW
  - Utility ROW
  - Water

<p><b>Legend</b></p> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: black; margin-right: 5px;"></span> Substation</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: black; border: 2px solid black; margin-right: 5px;"></span> Preferred Route</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: black; border: 2px dashed black; margin-right: 5px;"></span> Alternate Route</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: black; border: 2px dotted black; margin-right: 5px;"></span> 1,000-Foot Buffer</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: orange; border: 2px solid orange; margin-right: 5px;"></span> Existing 69kV Transmission Line</li> </ul> </div> <div style="width: 50%;"> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></span> Cemetery</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: black; margin-right: 5px;"></span> Residence</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></span> Commercial Building</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid blue; margin-right: 5px;"></span> Stream or River</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid grey; margin-right: 5px;"></span> Administrative Boundary</li> </ul> </div> </div>	<p>Data Sources: AEP (2015), USGS (2015), ESRI (2017), OH SHPO (2017), Ross County Assessor (2017)</p> <p>Notes: Agricultural District lands and recreation areas were reviewed but not present within the map area.</p> <p>NAD 1983 State Plane Ohio South Feet</p> <p style="text-align: center;"> </p> <p style="text-align: center;">November 12, 2019</p>		<p style="text-align: center;"><b>Figure 7-1B</b> <b>Land Use</b></p> <hr/> <p style="text-align: center;"> <b>OHIO TRANSMISSION COMPANY</b> </p> <p style="text-align: center;"><b>Vigo to Pine Ridge Switch 138kV Transmission Line Project</b></p> <hr/> <div style="text-align: center;"> <p>0   250   500   750   1000</p> <p>Feet</p> </div>
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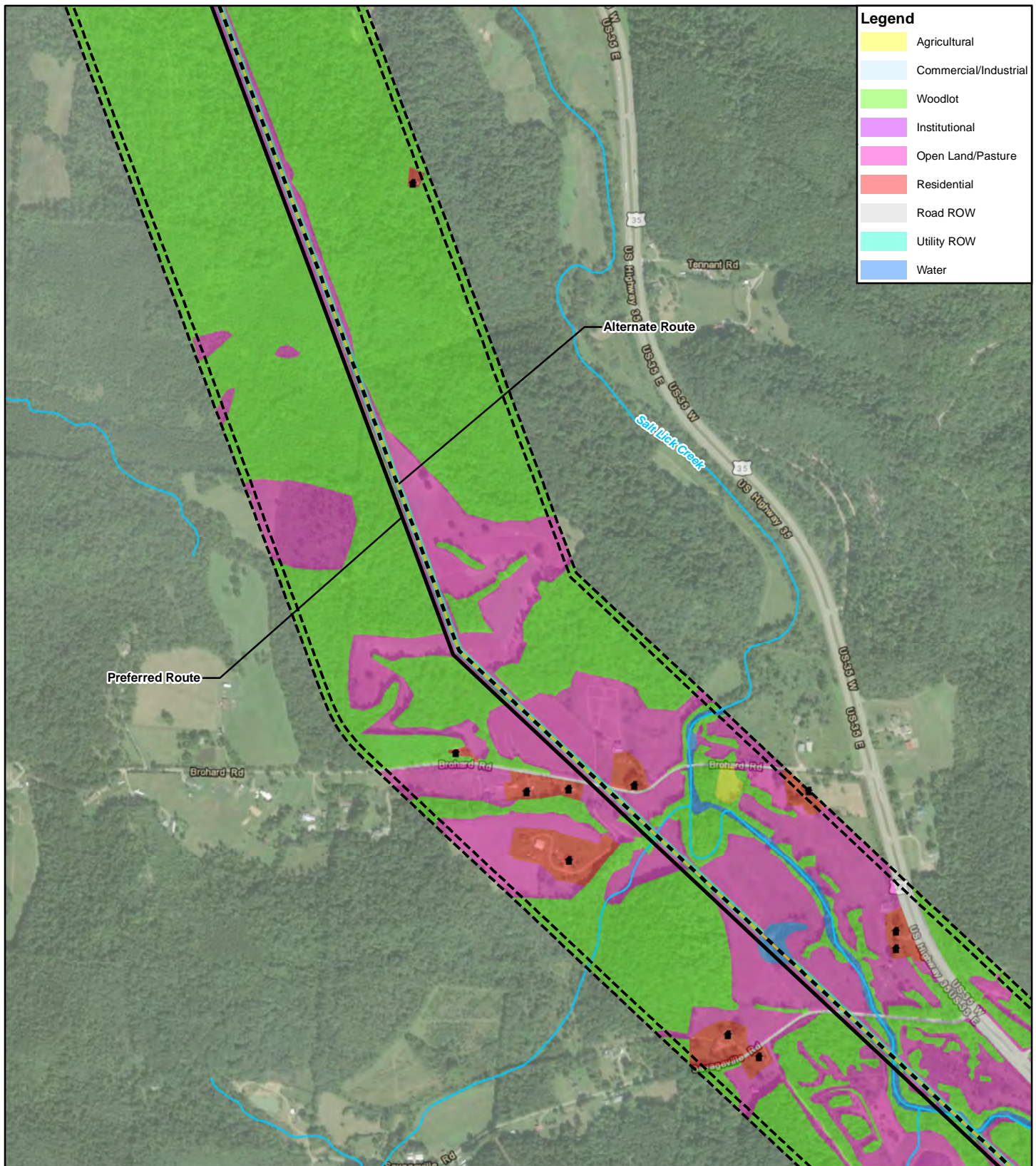




- Legend**
- Agricultural
  - Commercial/Industrial
  - Woodlot
  - Institutional
  - Open Land/Pasture
  - Residential
  - Road ROW
  - Utility ROW
  - Water

<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: black; margin-right: 5px;"></span> Substation</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px solid black; margin-right: 5px;"></span> Preferred Route</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px dashed black; margin-right: 5px;"></span> Alternate Route</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px dotted black; margin-right: 5px;"></span> 1,000-Foot Buffer</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px solid orange; margin-right: 5px;"></span> Existing 69kV Transmission Line</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Cemetery</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Residence</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Commercial Building</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Stream or River</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Administrative Boundary</li> </ul>	<p>Data Sources: AEP (2015), USGS (2015), ESRI (2017), OH SHPO (2017), Ross County Assessor (2017)</p> <p>Notes: Agricultural District lands and recreation areas were reviewed but not present within the map area.</p> <p>NAD 1983 State Plane Ohio South Feet</p> <p style="text-align: center;">November 12, 2019</p>		<p style="text-align: center;"><b>Figure 7-1D</b> <b>Land Use</b></p> <hr/> <p style="text-align: center;"><b>Vigo to Pine Ridge Switch</b> <b>138kV Transmission Line Project</b></p> <hr/> <p style="text-align: center;">0 250 500 750 1000 Feet</p>
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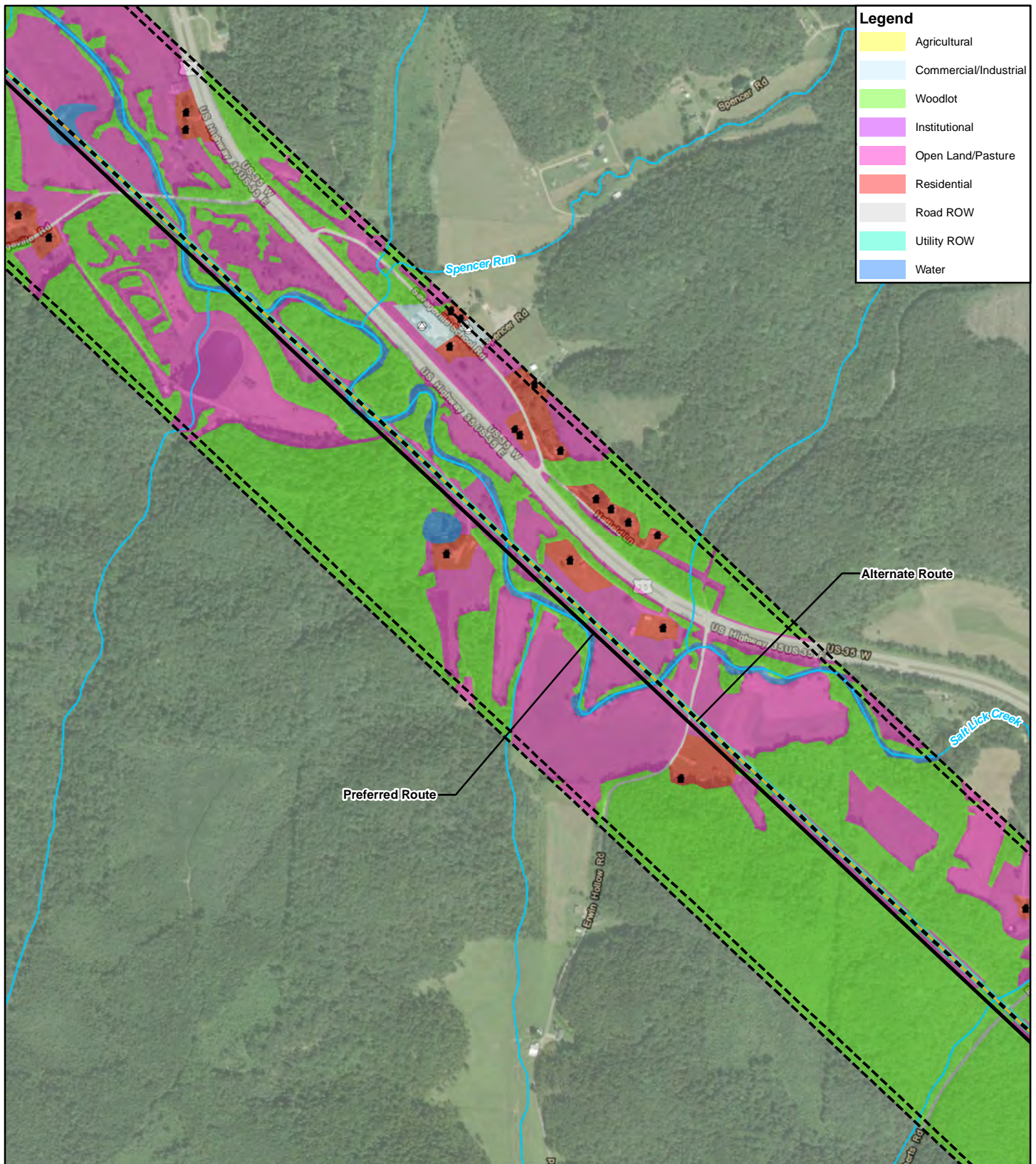




- Legend**
- Agricultural
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  - Woodlot
  - Institutional
  - Open Land/Pasture
  - Residential
  - Road ROW
  - Utility ROW
  - Water

<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: black; margin-right: 5px;"></span> Substation</li> <li><span style="display: inline-block; width: 20px; border-bottom: 2px solid black; margin-right: 5px;"></span> Preferred Route</li> <li><span style="display: inline-block; width: 20px; border-bottom: 2px dashed black; margin-right: 5px;"></span> Alternate Route</li> <li><span style="display: inline-block; width: 20px; border-bottom: 2px dotted black; margin-right: 5px;"></span> 1,000-Foot Buffer</li> <li><span style="display: inline-block; width: 20px; border-bottom: 2px solid orange; margin-right: 5px;"></span> Existing 69kV Transmission Line</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Cemetery</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: black; margin-right: 5px;"></span> Residence</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Commercial Building</li> <li><span style="display: inline-block; width: 20px; border-bottom: 2px solid blue; margin-right: 5px;"></span> Stream or River</li> <li><span style="display: inline-block; width: 20px; border-bottom: 2px solid gray; margin-right: 5px;"></span> Administrative Boundary</li> </ul>	<p>Data Sources: AEP (2015), USGS (2015), ESRI (2017), OH SHPO (2017), Ross County Assessor (2017)</p> <p>Notes: Agricultural District lands and recreation areas were reviewed but not present within the map area.</p> <p>NAD 1983 State Plane Ohio South Feet</p> <p style="text-align: center;"> </p> <p style="text-align: center;">November 12, 2019</p>		<p><b>Figure 7-1E</b> <b>Land Use</b></p> <p><b>Vigo to Pine Ridge Switch</b> <b>138kV Transmission Line Project</b></p> <p> <b>OHIO TRANSMISSION COMPANY</b></p> <p>0 250 500 750 1000 Feet</p>
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### Legend

- Agricultural
- Commercial/Industrial
- Woodlot
- Institutional
- Open Land/Pasture
- Residential
- Road ROW
- Utility ROW
- Water

### Legend

- Substation
- Cemetery
- Residence
- Commercial Building
- Stream or River
- Administrative Boundary
- Preferred Route
- Alternate Route
- 1,000-Foot Buffer
- Existing 69kV Transmission Line

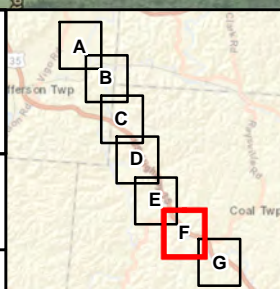
Data Sources: AEP (2015), USGS (2015), ESRI (2017), OH SHPO (2017), Ross County Assessor (2017)

Notes: Agricultural District lands and recreation areas were reviewed but not present within the map area.

NAD 1983 State Plane  
Ohio South Feet



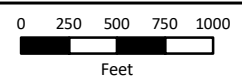
November 12, 2019



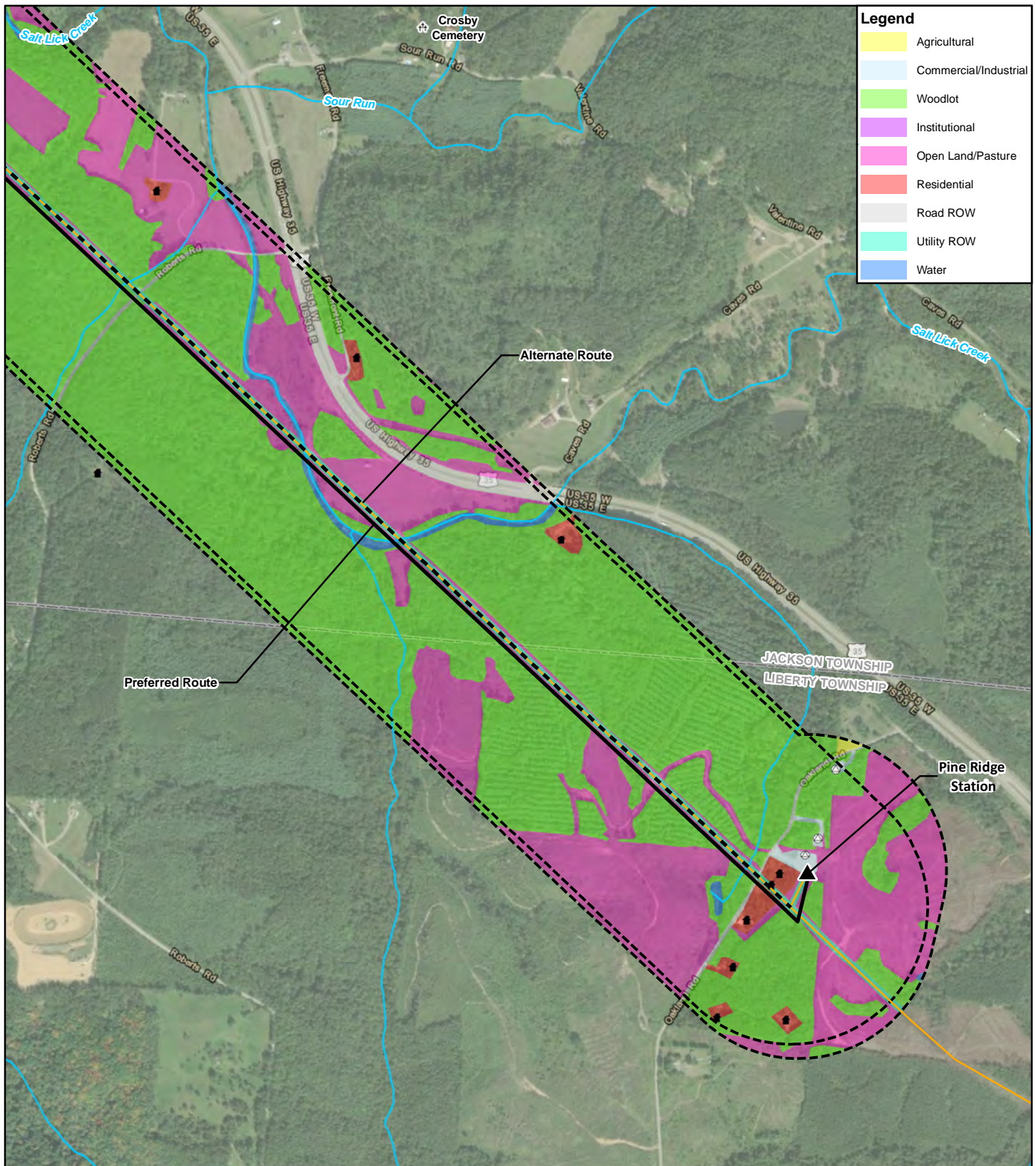
**Figure 7-1F**  
**Land Use**



**Vigo to Pine Ridge Switch**  
**138kV Transmission Line Project**





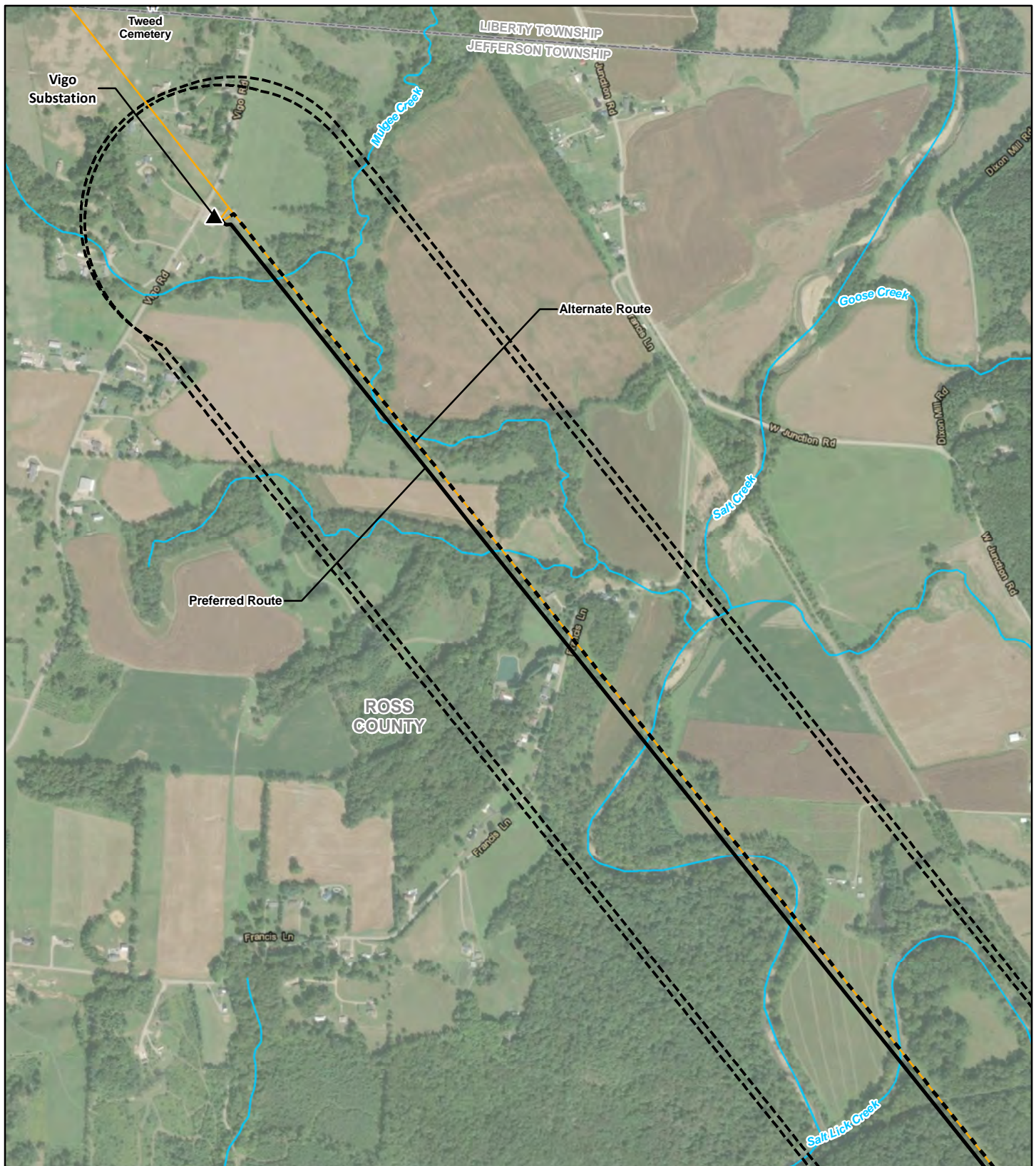


**Legend**

- Agricultural
- Commercial/Industrial
- Woodlot
- Institutional
- Open Land/Pasture
- Residential
- Road ROW
- Utility ROW
- Water

<p><b>Legend</b></p> <ul style="list-style-type: none"> <li>▲ Substation</li> <li>— Preferred Route</li> <li>- - - Alternate Route</li> <li>[ ] 1,000-Foot Buffer</li> <li>— Existing 69kV Transmission Line</li> <li>✠ Cemetery</li> <li>■ Residence</li> <li>⊙ Commercial Building</li> <li>— Stream or River</li> <li>▭ Administrative Boundary</li> </ul>	<p>Data Sources: AEP (2015), USGS (2015), ESRI (2017), OH SHPO (2017), Ross County Assessor (2017)</p> <p>Notes: Agricultural District lands and recreation areas were reviewed but not present within the map area.</p> <p>NAD 1983 State Plane Ohio South Feet</p> <p>November 12, 2019</p>		<p><b>Figure 7-1G</b> <b>Land Use</b></p> <p><b>Vigo to Pine Ridge Switch</b> <b>138kV Transmission Line Project</b></p> <p>OHIO TRANSMISSION COMPANY</p> <p>0 250 500 750 1000 Feet</p>
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#### Legend

- |  |                                 |  |                         |
|--|---------------------------------|--|-------------------------|
|  | Substation                      |  | Historic Structure      |
|  | Preferred Route                 |  | Cemetery                |
|  | Alternate Route                 |  | Stream or River         |
|  | 1,000-Foot Buffer               |  | Administrative Boundary |
|  | Existing 69kV Transmission Line |  |                         |

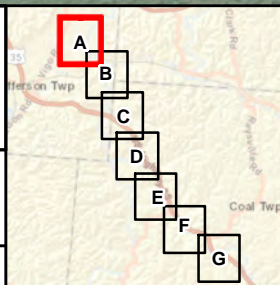
Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2019), ODNR (2018)

Notes: State lands reviewed but not present within the map area.

NAD 1983 State Plane  
Ohio South Feet



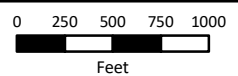
November 22, 2019



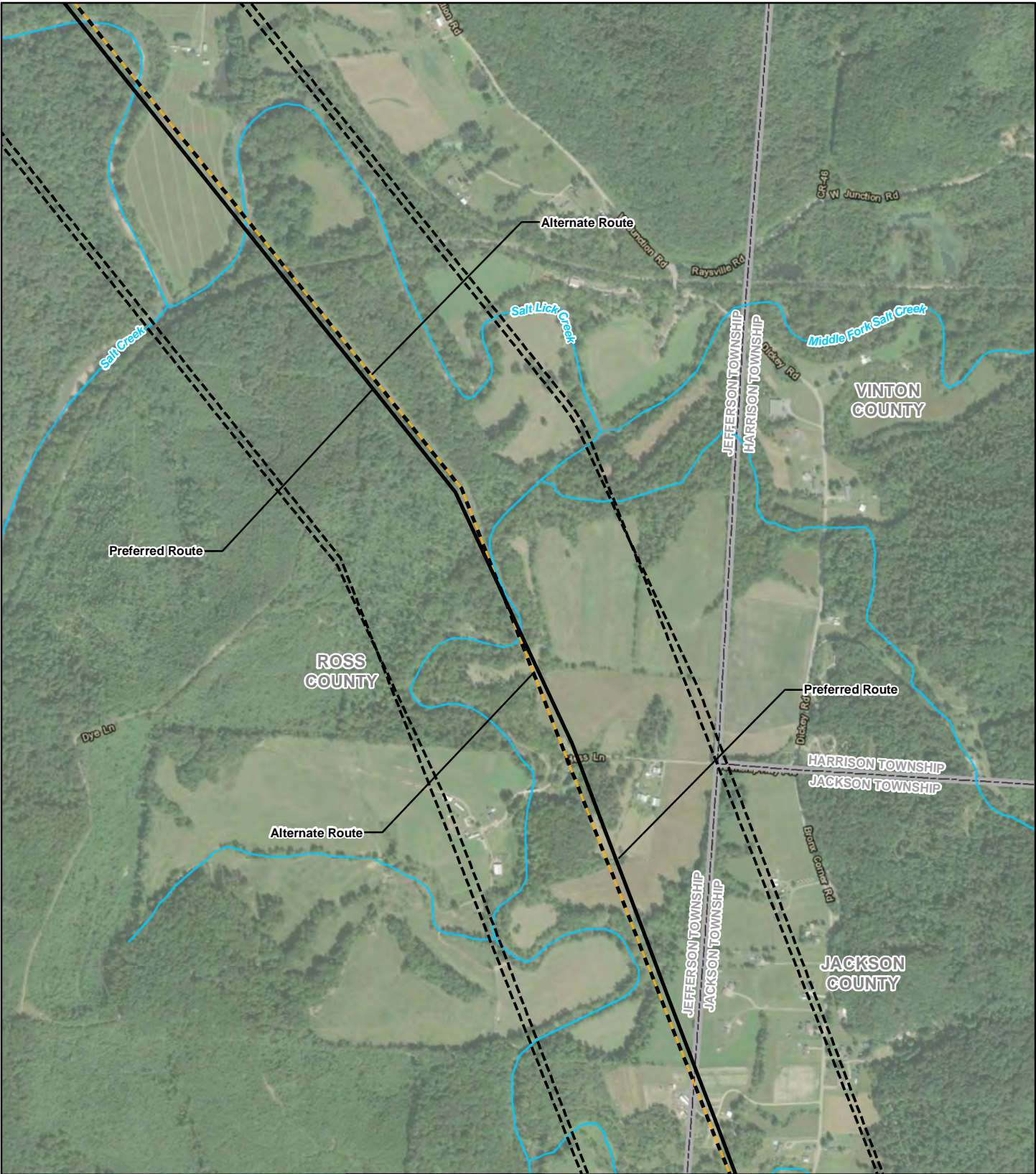
**Figure 7-2A**  
**Recreational and**  
**Cultural Resources**



Vigo to Pine Ridge Switch  
138kV Transmission Line Project

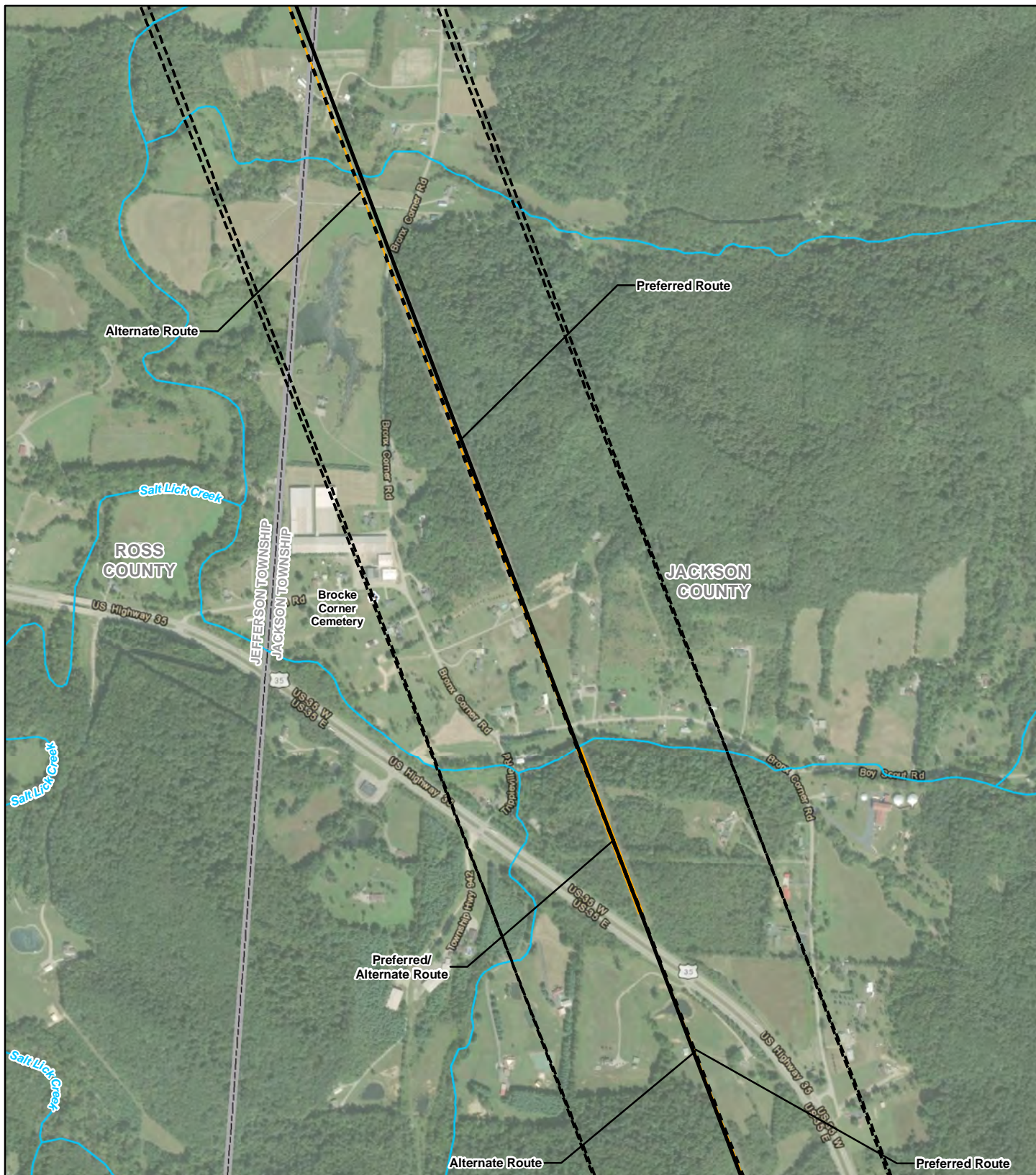






<p><b>Legend</b></p> <ul style="list-style-type: none"><li>Substation</li><li>Preferred Route</li><li>Alternate Route</li><li>1,000-Foot Buffer</li><li>Existing 69kV Transmission Line</li><li>Historic Structure</li><li>Cemetery</li><li>Stream or River</li><li>Administrative Boundary</li></ul>	<p>Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2019), ODNR (2018)</p> <p>Notes: State lands reviewed but not present within the map area.</p> <p>NAD 1983 State Plane Ohio South Feet</p> <p>November 22, 2019</p>		<p><b>Figure 7-2B</b> <b>Recreational and Cultural Resources</b></p> <p><b>Vigo to Pine Ridge Switch</b> <b>138kV Transmission Line Project</b></p> <p>OHIO TRANSMISSION COMPANY</p> <p>0 250 500 750 1000 Feet</p>
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#### Legend

- |  |                                 |  |                         |
|--|---------------------------------|--|-------------------------|
|  | Substation                      |  | Historic Structure      |
|  | Preferred Route                 |  | Cemetery                |
|  | Alternate Route                 |  | Stream or River         |
|  | 1,000-Foot Buffer               |  | Administrative Boundary |
|  | Existing 69kV Transmission Line |  |                         |

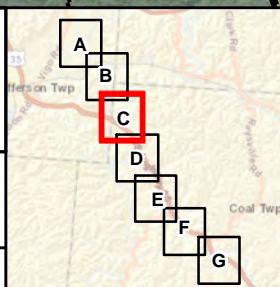
Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2019), ODNR (2018)

Notes: State lands reviewed but not present within the map area.

NAD 1983 State Plane  
Ohio South Feet



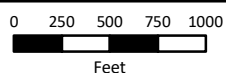
November 22, 2019



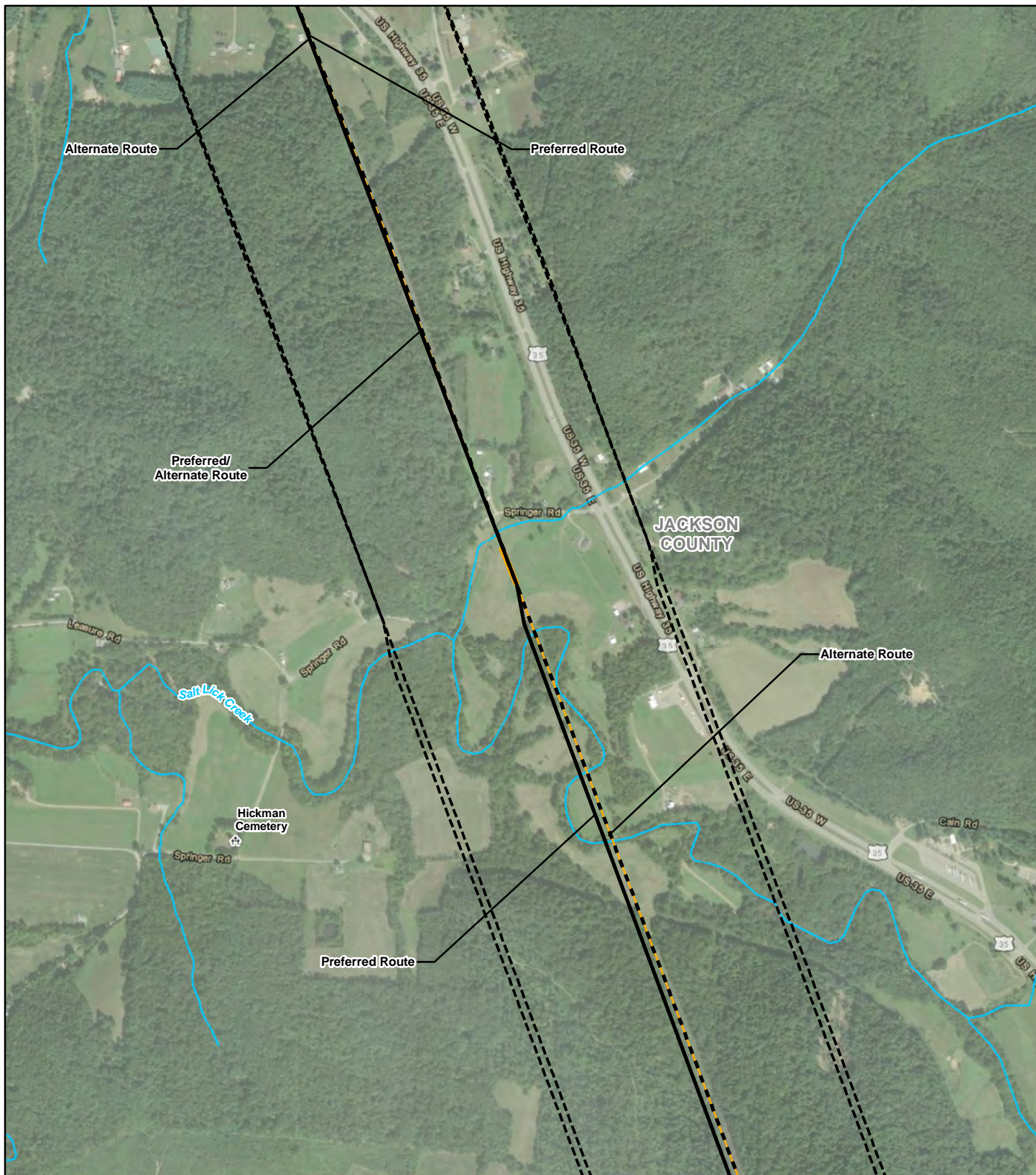
**Figure 7-2C**  
**Recreational and**  
**Cultural Resources**












Vigo to Pine Ridge Switch  
138kV Transmission Line Project







#### Legend

- |   |                                 |   |                         |
|---|---------------------------------|---|-------------------------|
|  | Substation                      |  | Historic Structure      |
|   | Preferred Route                 |  | Cemetery                |
|   | Alternate Route                 |  | Stream or River         |
|   | 1,000-Foot Buffer               |  | Administrative Boundary |
|   | Existing 69kV Transmission Line |   |                         |

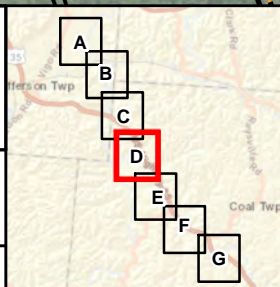
Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2019), ODNR (2018)

Notes: State lands reviewed but not present within the map area.

NAD 1983 State Plane  
Ohio South Feet



November 22, 2019



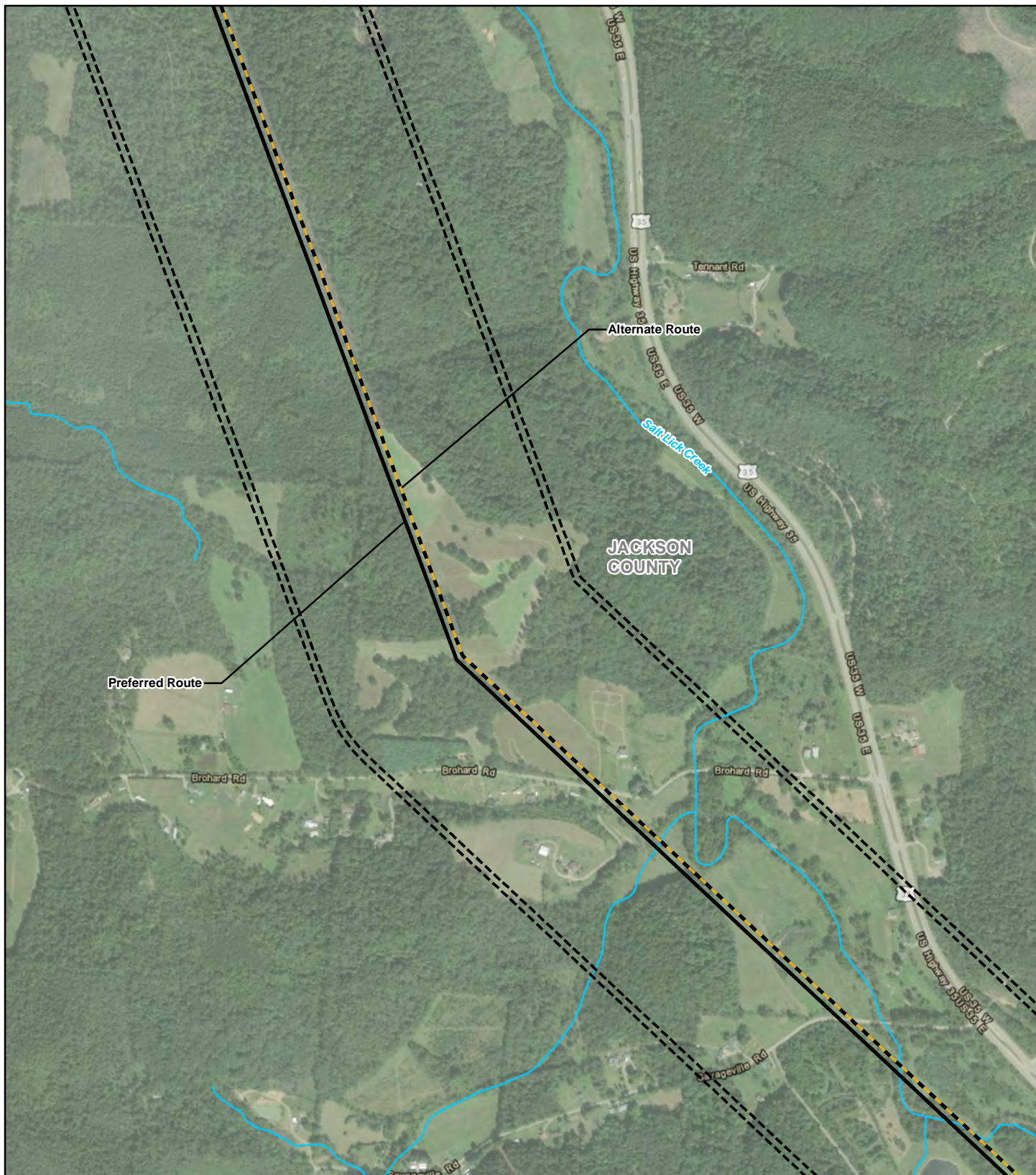
**Figure 7-2D**  
**Recreational and**  
**Cultural Resources**





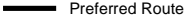

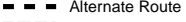
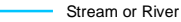
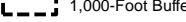
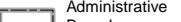
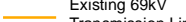
Vigo to Pine Ridge Switch  
138kV Transmission Line Project

0 250 500 750 1000  
Feet





#### Legend

- |   |                                 |   |                         |
|---|---------------------------------|---|-------------------------|
|  | Substation                      |  | Historic Structure      |
|  | Preferred Route                 |  | Cemetery                |
|  | Alternate Route                 |  | Stream or River         |
|  | 1,000-Foot Buffer               |  | Administrative Boundary |
|  | Existing 69kV Transmission Line |   |                         |

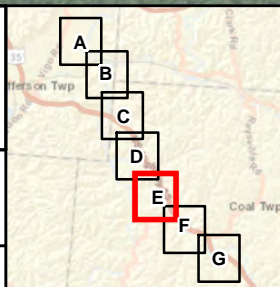
Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2019), ODNR (2018)

Notes: State lands reviewed but not present within the map area.

NAD 1983 State Plane  
Ohio South Feet



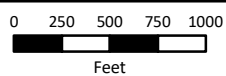
November 22, 2019



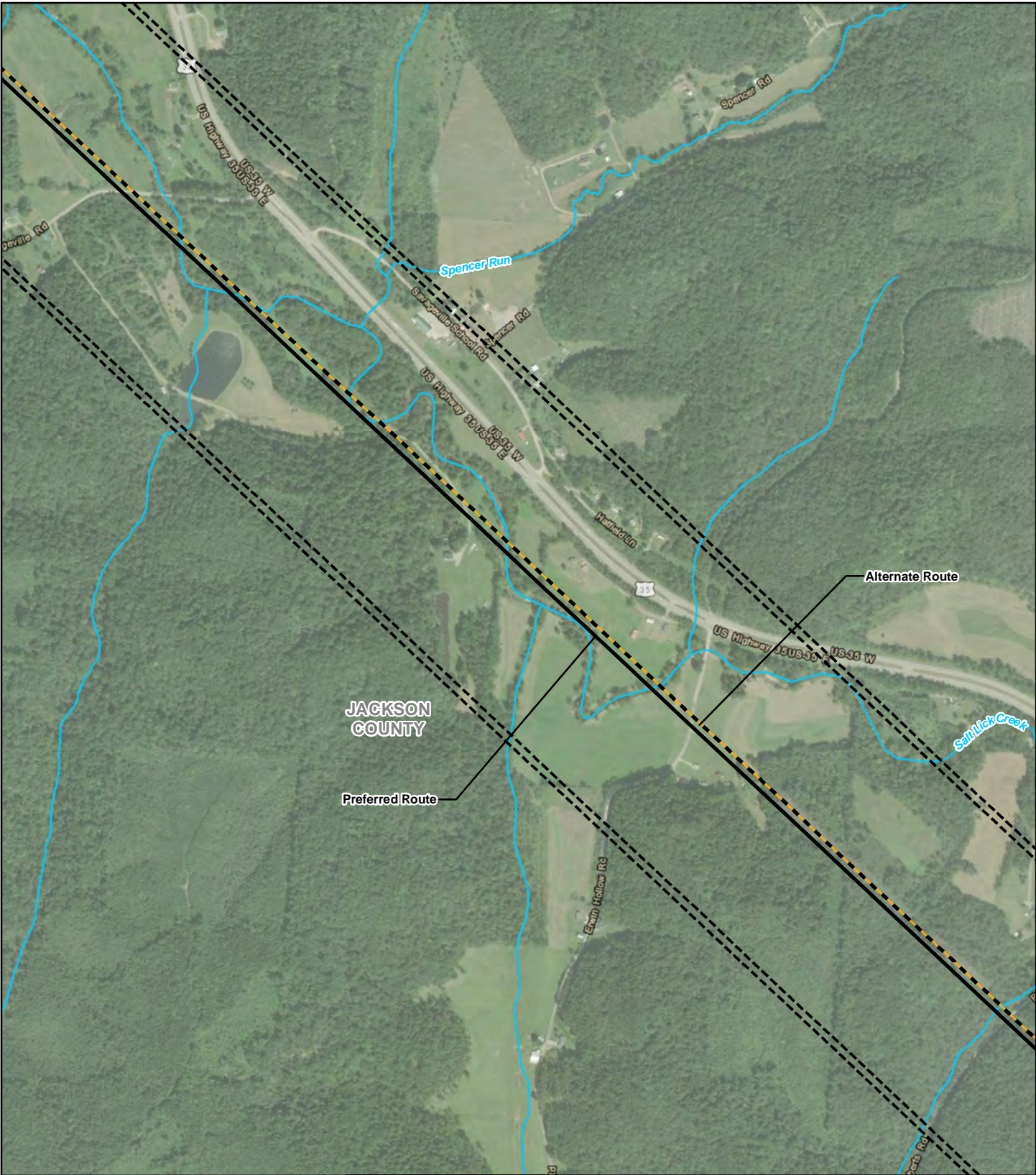
**Figure 7-2E**  
**Recreational and**  
**Cultural Resources**



Vigo to Pine Ridge Switch  
138kV Transmission Line Project







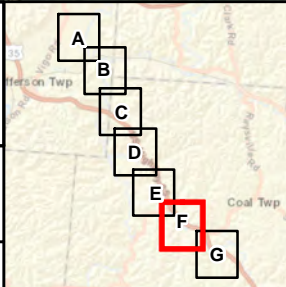
- Legend**
- ▲ Substation
  - Preferred Route
  - - - Alternate Route
  - - - 1,000-Foot Buffer
  - Existing 69kV Transmission Line
  - Historic Structure
  - ✠ Cemetery
  - Stream or River
  - Administrative Boundary

Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2019), ODNR (2018)

Notes: State lands reviewed but not present within the map area.

NAD 1983 State Plane  
Ohio South Feet

November 22, 2019

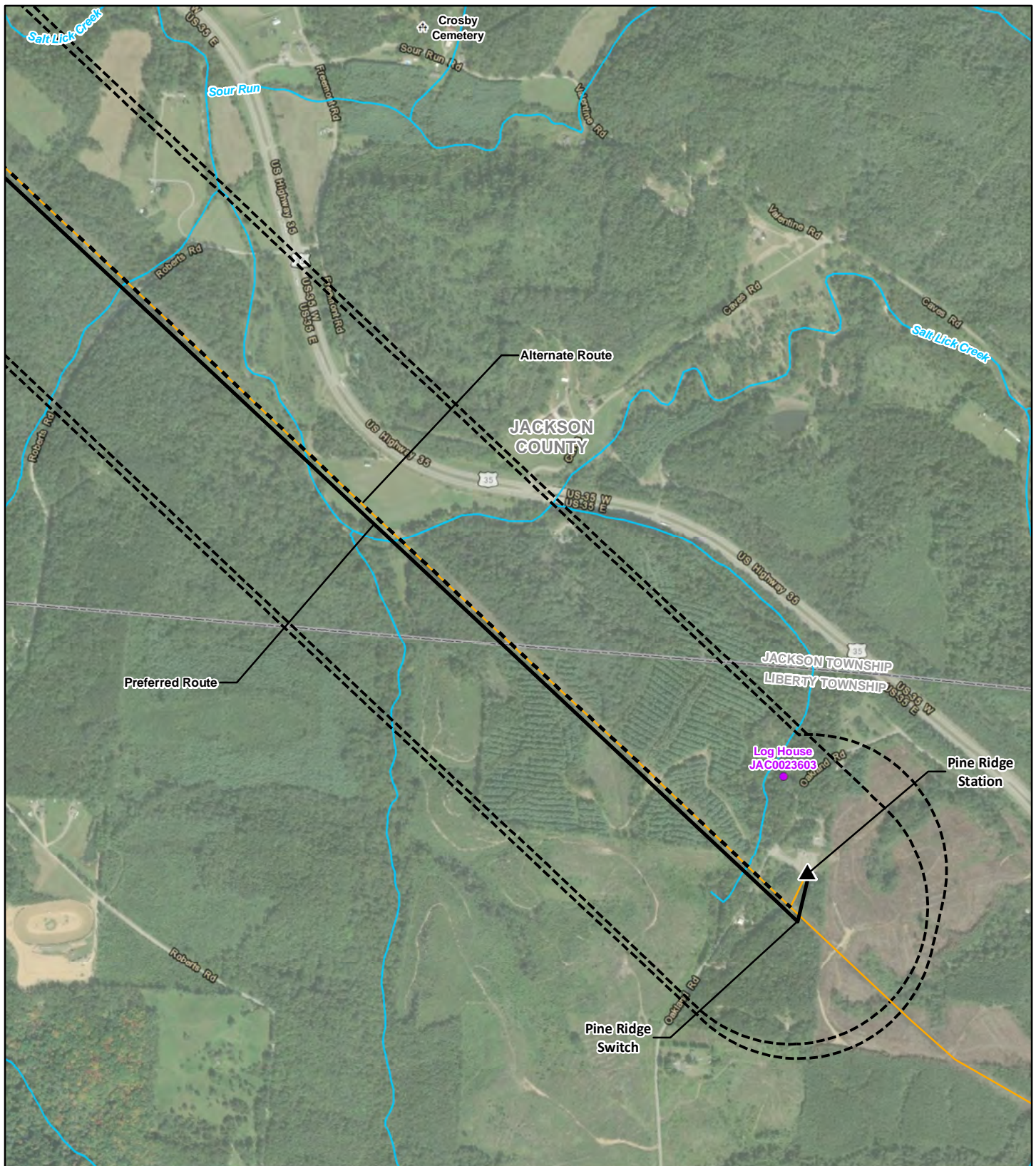


**Figure 7-2F**  
**Recreational and Cultural Resources**

**Vigo to Pine Ridge Switch**  
**138kV Transmission Line Project**

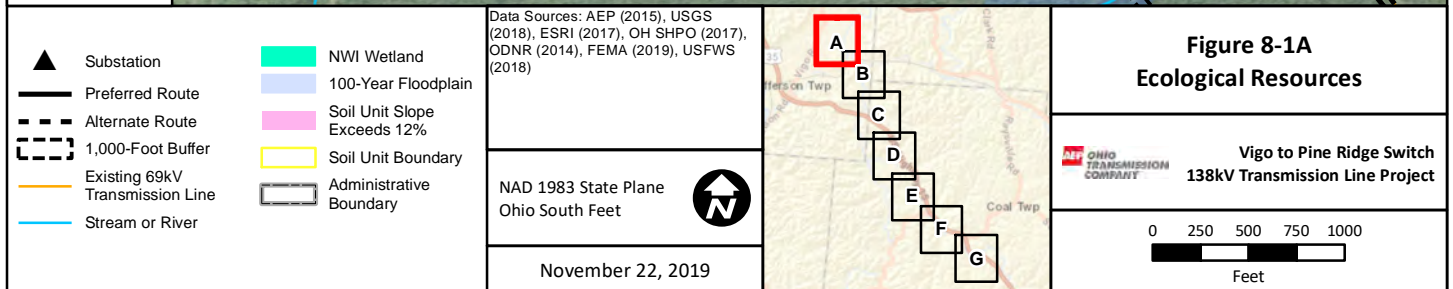
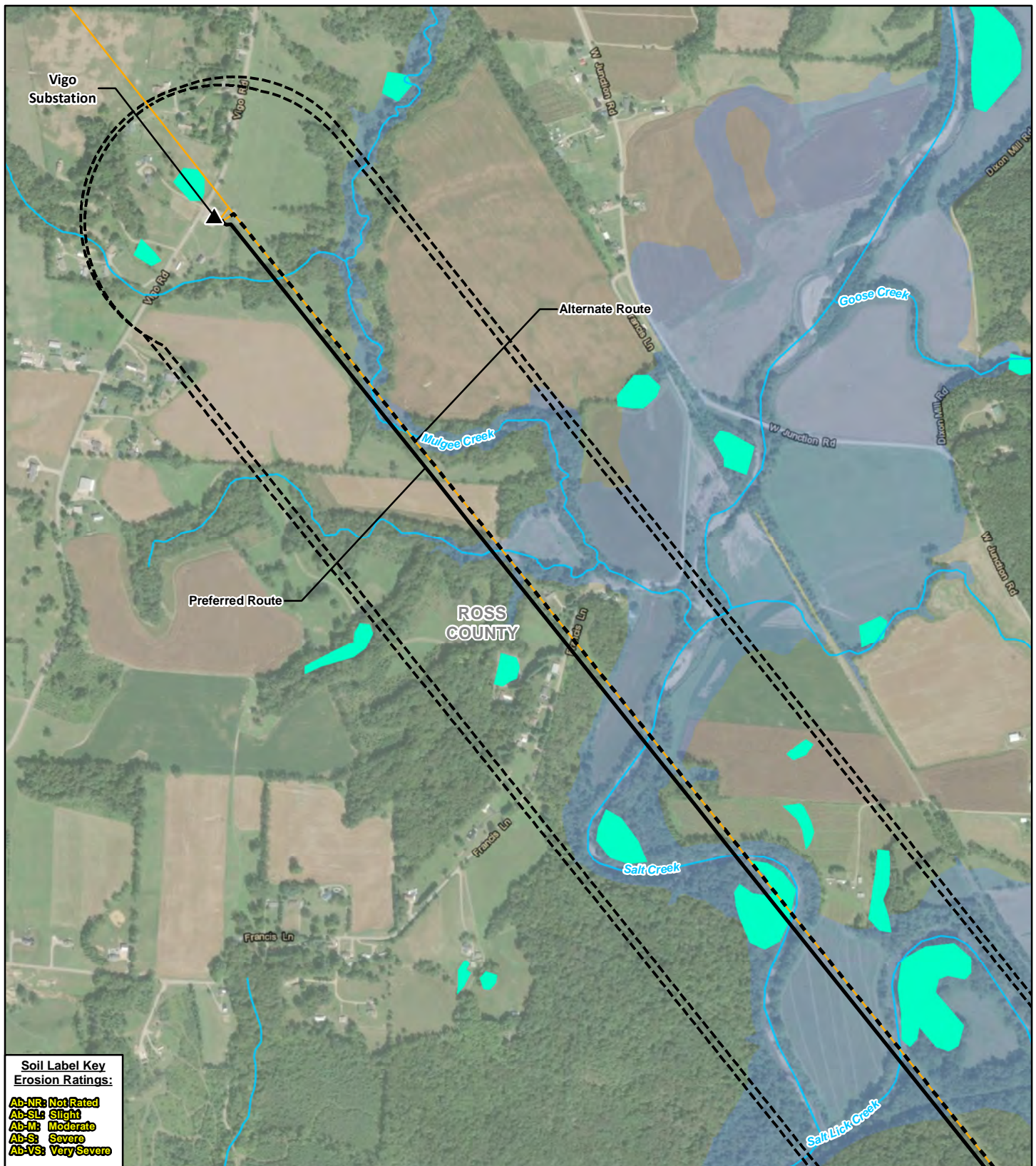
0 250 500 750 1000  
Feet



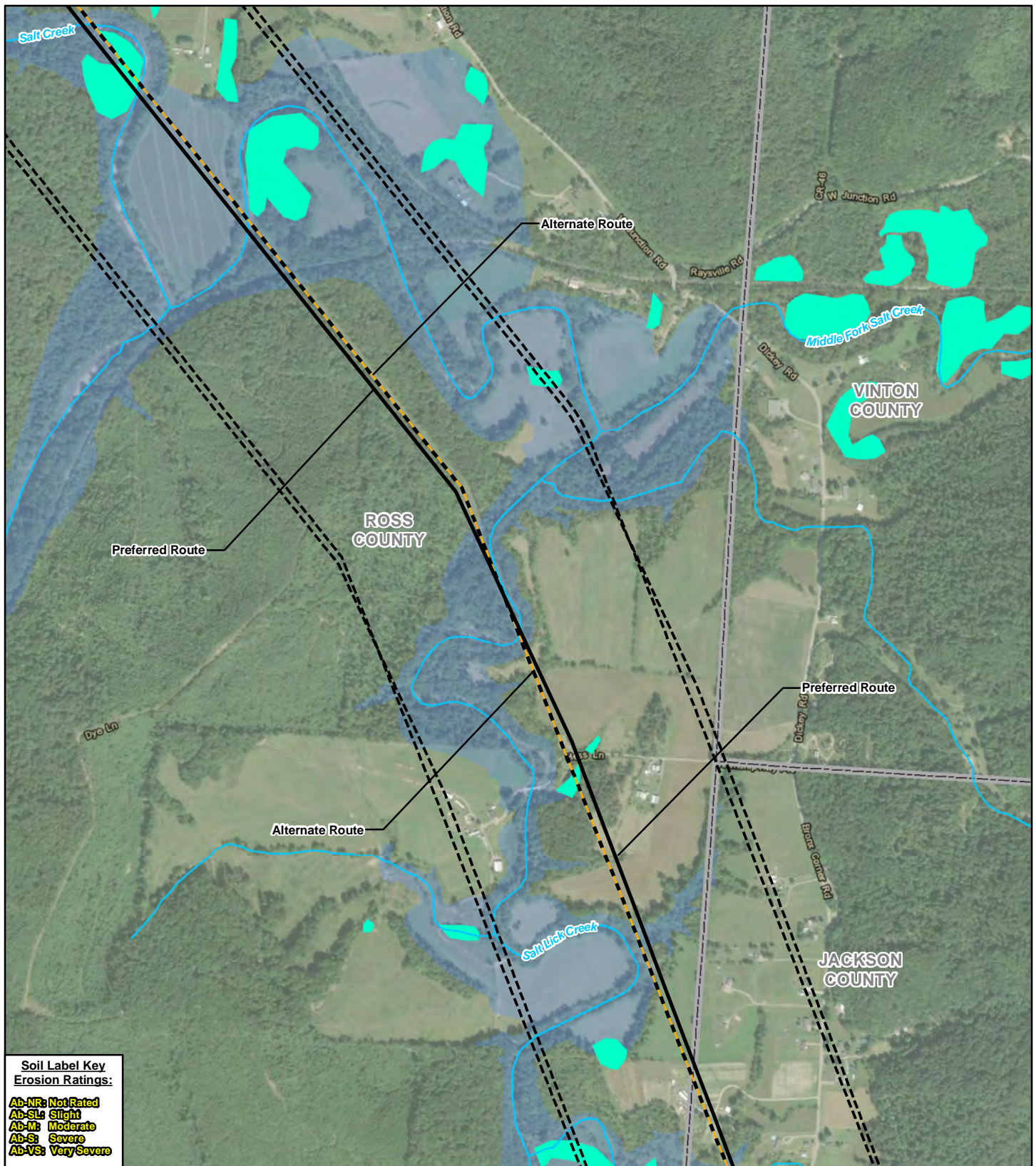


<p><b>Legend</b></p> <ul style="list-style-type: none"> <li>▲ Substation</li> <li>— Preferred Route</li> <li>- - - Alternate Route</li> <li>⋯ 1,000-Foot Buffer</li> <li>— Existing 69kV Transmission Line</li> <li>● Historic Structure</li> <li>✠ Cemetery</li> <li>— Stream or River</li> <li>□ Administrative Boundary</li> </ul>	<p>Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2019), ODNR (2018)</p> <p>Notes: State lands reviewed but not present within the map area.</p> <p>NAD 1983 State Plane Ohio South Feet</p> <p>November 22, 2019</p>		<p><b>Figure 7-2G Recreational and Cultural Resources</b></p> <p><b>Vigo to Pine Ridge Switch 138kV Transmission Line Project</b></p> <p>OHIO TRANSMISSION COMPANY</p> <p>0 250 500 750 1000 Feet</p>
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**Soil Label Key**  
**Erosion Ratings:**  
 Ab-NR: Not Rated  
 Ab-SL: Slight  
 Ab-M: Moderate  
 Ab-S: Severe  
 Ab-VS: Very Severe

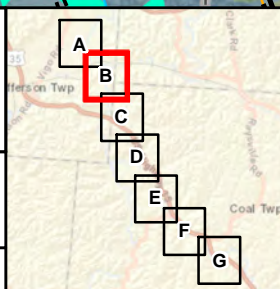
- |                                   |                             |
|-----------------------------------|-----------------------------|
| ▲ Substation                      | NWI Wetland                 |
| — Preferred Route                 | 100-Year Floodplain         |
| - - - Alternate Route             | Soil Unit Slope Exceeds 12% |
| - - - 1,000-Foot Buffer           | Soil Unit Boundary          |
| — Existing 69kV Transmission Line | Administrative Boundary     |
| — Stream or River                 |                             |

Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2017), ODNR (2014), FEMA (2019), USFWS (2018)

NAD 1983 State Plane  
 Ohio South Feet



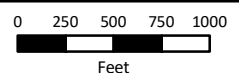
November 22, 2019



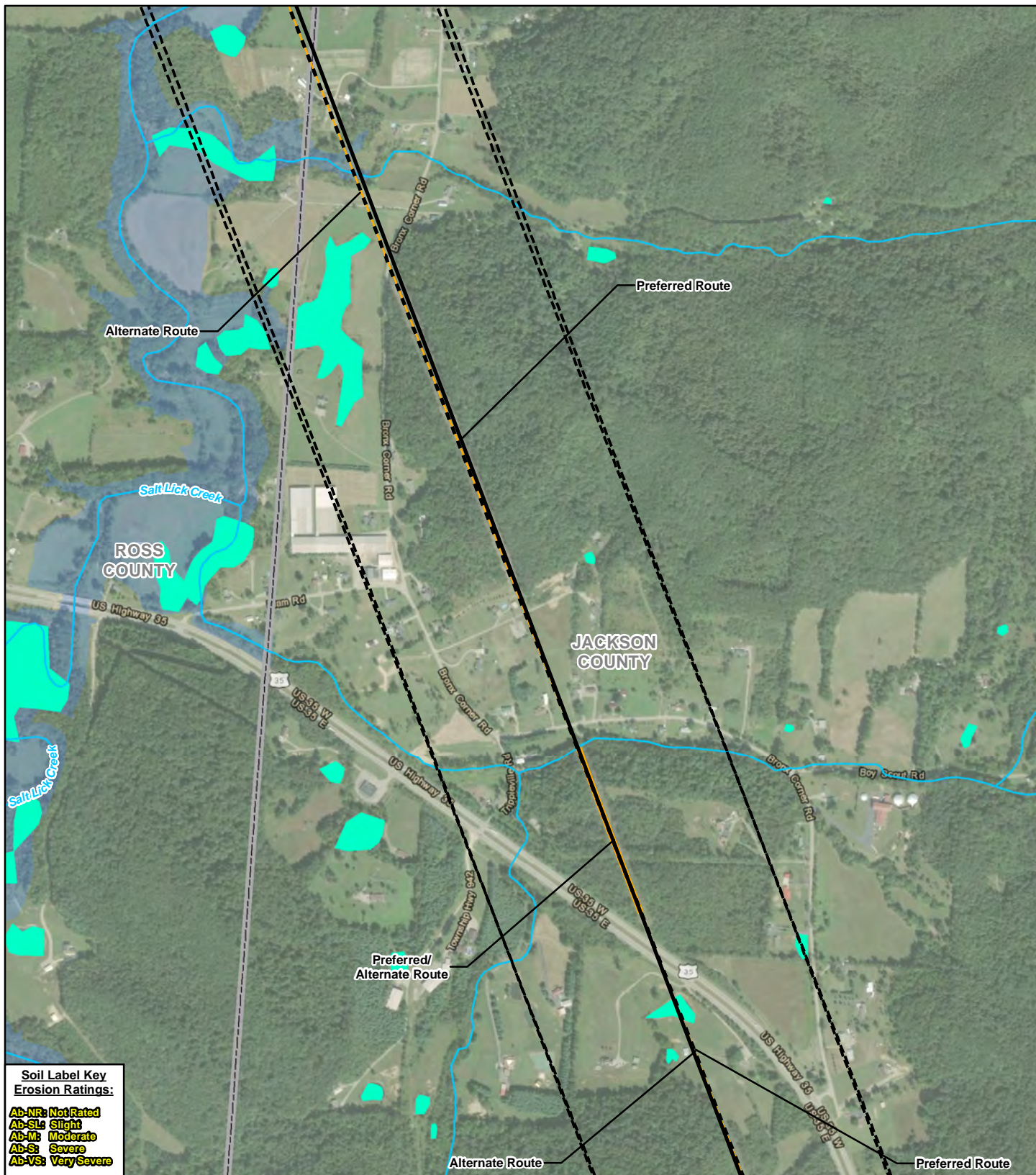
**Figure 8-1B**  
**Ecological Resources**



Vigo to Pine Ridge Switch  
 138kV Transmission Line Project



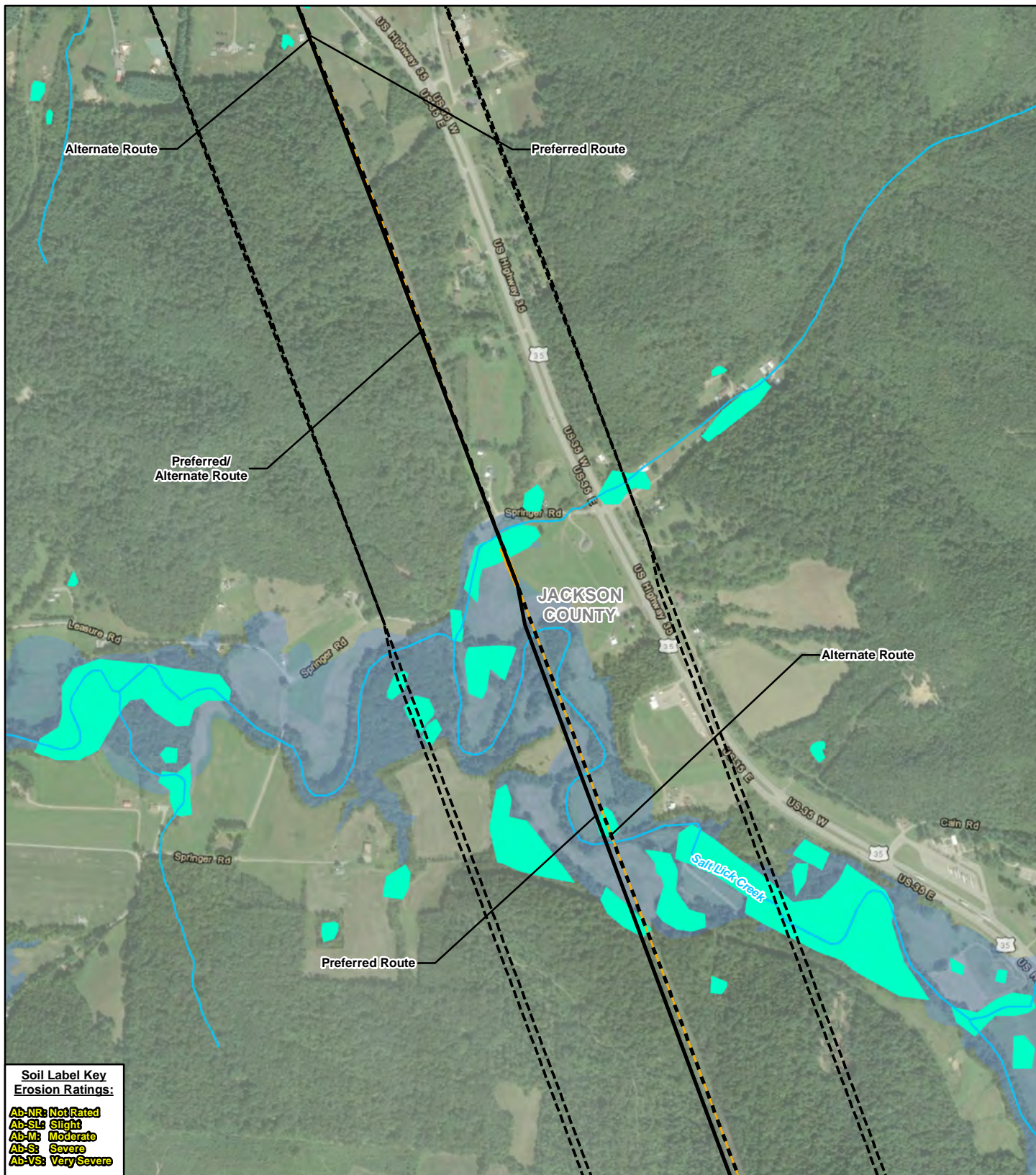




**Soil Label Key**  
**Erosion Ratings:**  
 Ab-NR: Not Rated  
 Ab-SL: Slight  
 Ab-M: Moderate  
 Ab-S: Severe  
 Ab-VS: Very Severe

<p>▲ Substation</p> <p>— Preferred Route</p> <p>- - - Alternate Route</p> <p>[---] 1,000-Foot Buffer</p> <p>— Existing 69kV Transmission Line</p> <p>— Stream or River</p> <p>■ NWI Wetland</p> <p>■ 100-Year Floodplain</p> <p>■ Soil Unit Slope Exceeds 12%</p> <p>■ Soil Unit Boundary</p> <p>■ Administrative Boundary</p>	<p>Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2017), ODNR (2014), FEMA (2019), USFWS (2018)</p> <p>NAD 1983 State Plane Ohio South Feet</p> <p>November 22, 2019</p>		<p><b>Figure 8-1C</b>  <b>Ecological Resources</b></p> <p><b>Vigo to Pine Ridge Switch</b>  <b>138kV Transmission Line Project</b></p> <p>OHIO TRANSMISSION COMPANY</p> <p>0 250 500 750 1000        Feet</p>
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**Soil Label Key**  
**Erosion Ratings:**  
 Ab-NR: Not Rated  
 Ab-SL: Slight  
 Ab-M: Moderate  
 Ab-S: Severe  
 Ab-VS: Very Severe

- ▲ Substation
- Preferred Route
- - - Alternate Route
- - - 1,000-Foot Buffer
- Existing 69kV Transmission Line
- Stream or River

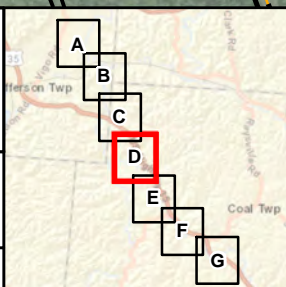
- NWI Wetland
- 100-Year Floodplain
- Soil Unit Slope Exceeds 12%
- Soil Unit Boundary
- Administrative Boundary

Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2017), ODNR (2014), FEMA (2019), USFWS (2018)

NAD 1983 State Plane  
 Ohio South Feet

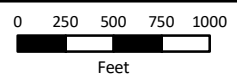


November 22, 2019

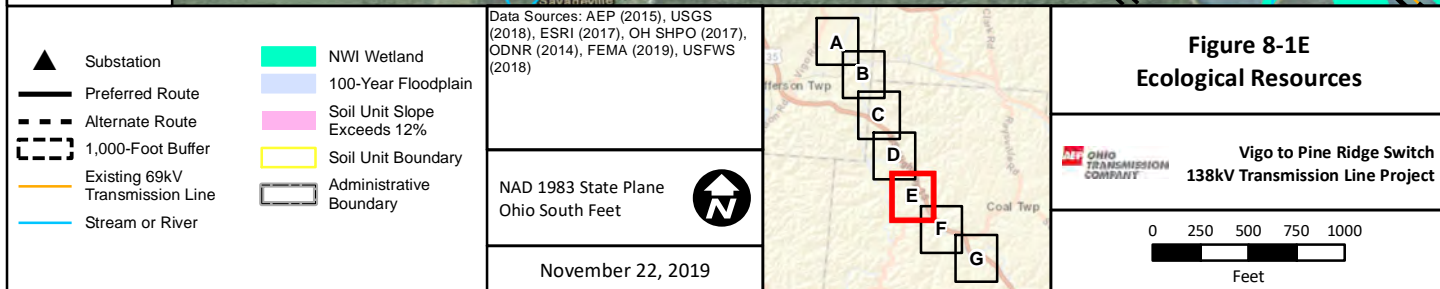
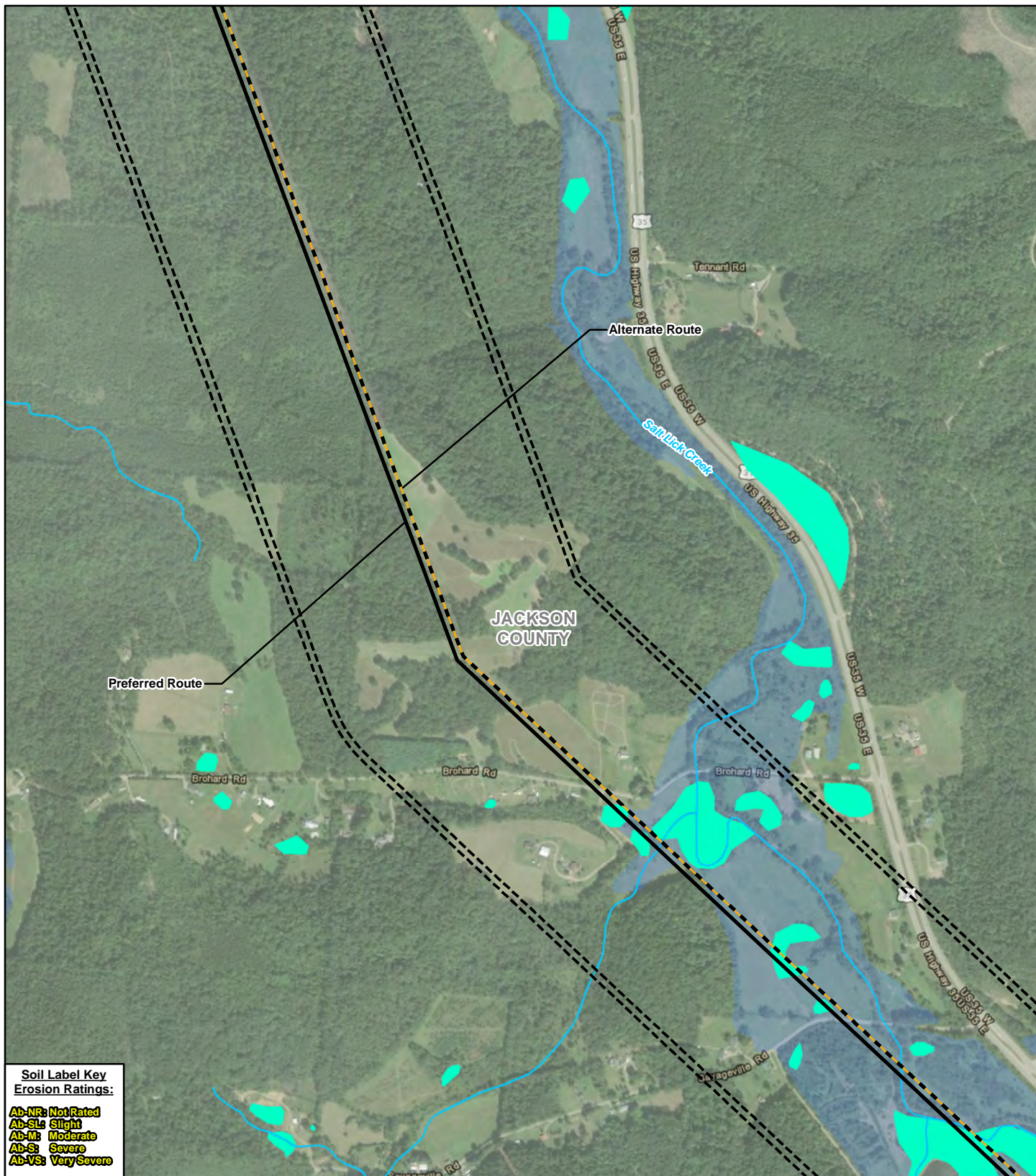


**Figure 8-1D**  
**Ecological Resources**

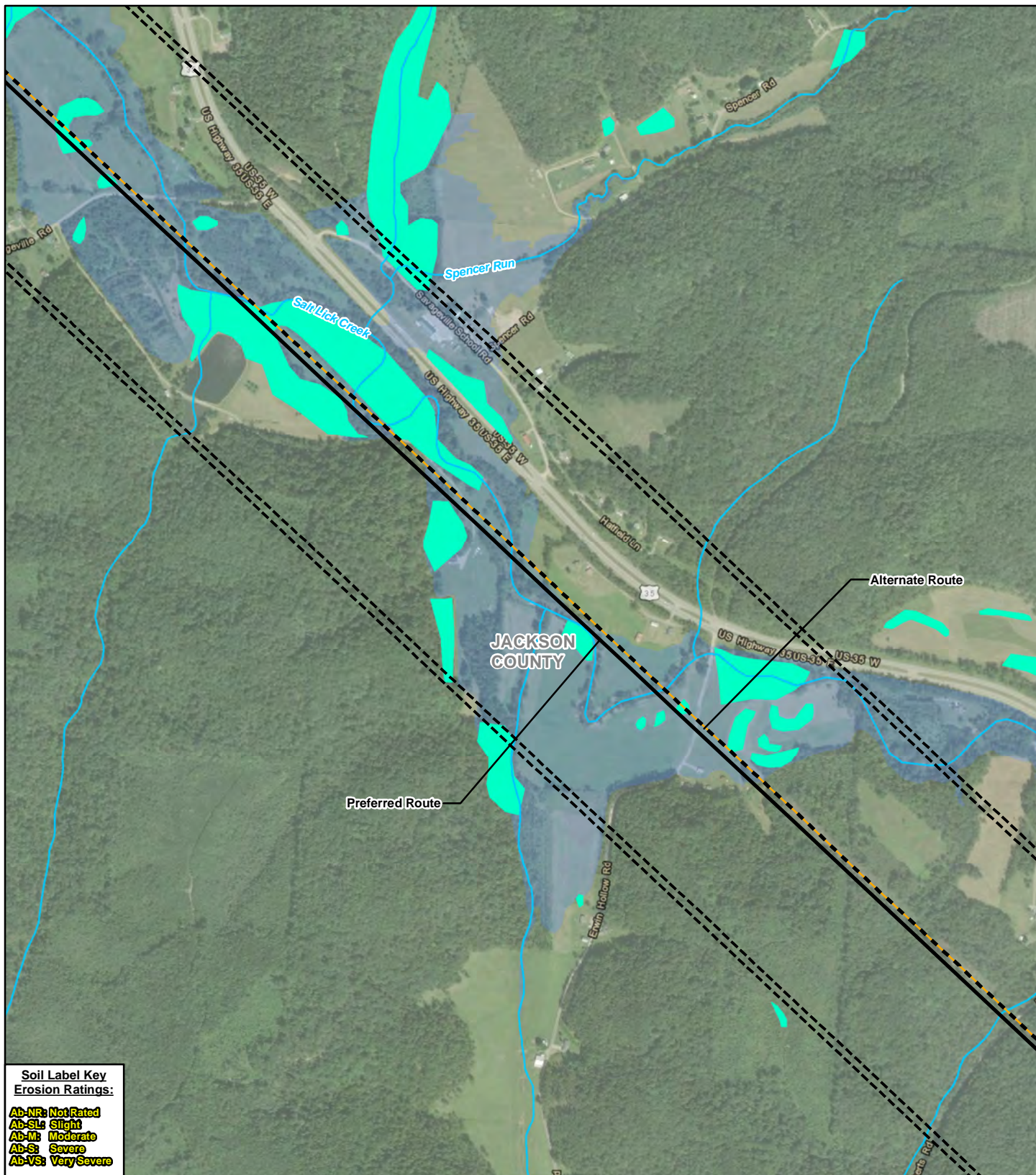
**Vigo to Pine Ridge Switch**  
**138kV Transmission Line Project**











**Soil Label Key**  
**Erosion Ratings:**  
 Ab-NR: Not Rated  
 Ab-SL: Slight  
 Ab-M: Moderate  
 Ab-S: Severe  
 Ab-VS: Very Severe

- ▲ Substation
- Preferred Route
- - - Alternate Route
- - - 1,000-Foot Buffer
- Existing 69kV Transmission Line
- Stream or River

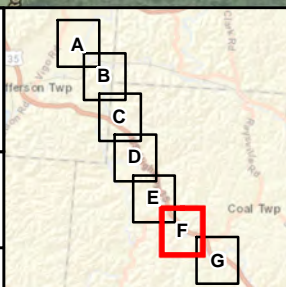
- NWI Wetland
- 100-Year Floodplain
- Soil Unit Slope Exceeds 12%
- Soil Unit Boundary
- Administrative Boundary

Data Sources: AEP (2015), USGS (2018), ESRI (2017), OH SHPO (2017), ODNR (2014), FEMA (2019), USFWS (2018)

NAD 1983 State Plane  
 Ohio South Feet

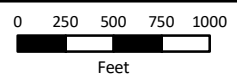


November 22, 2019

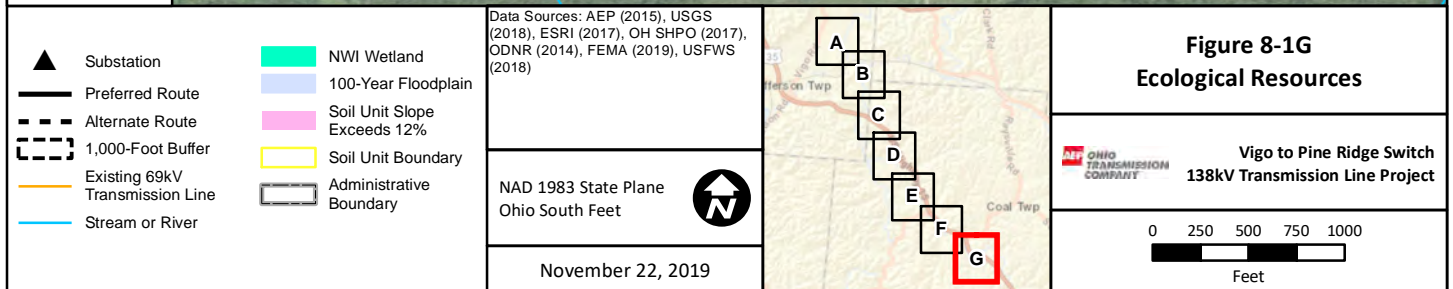
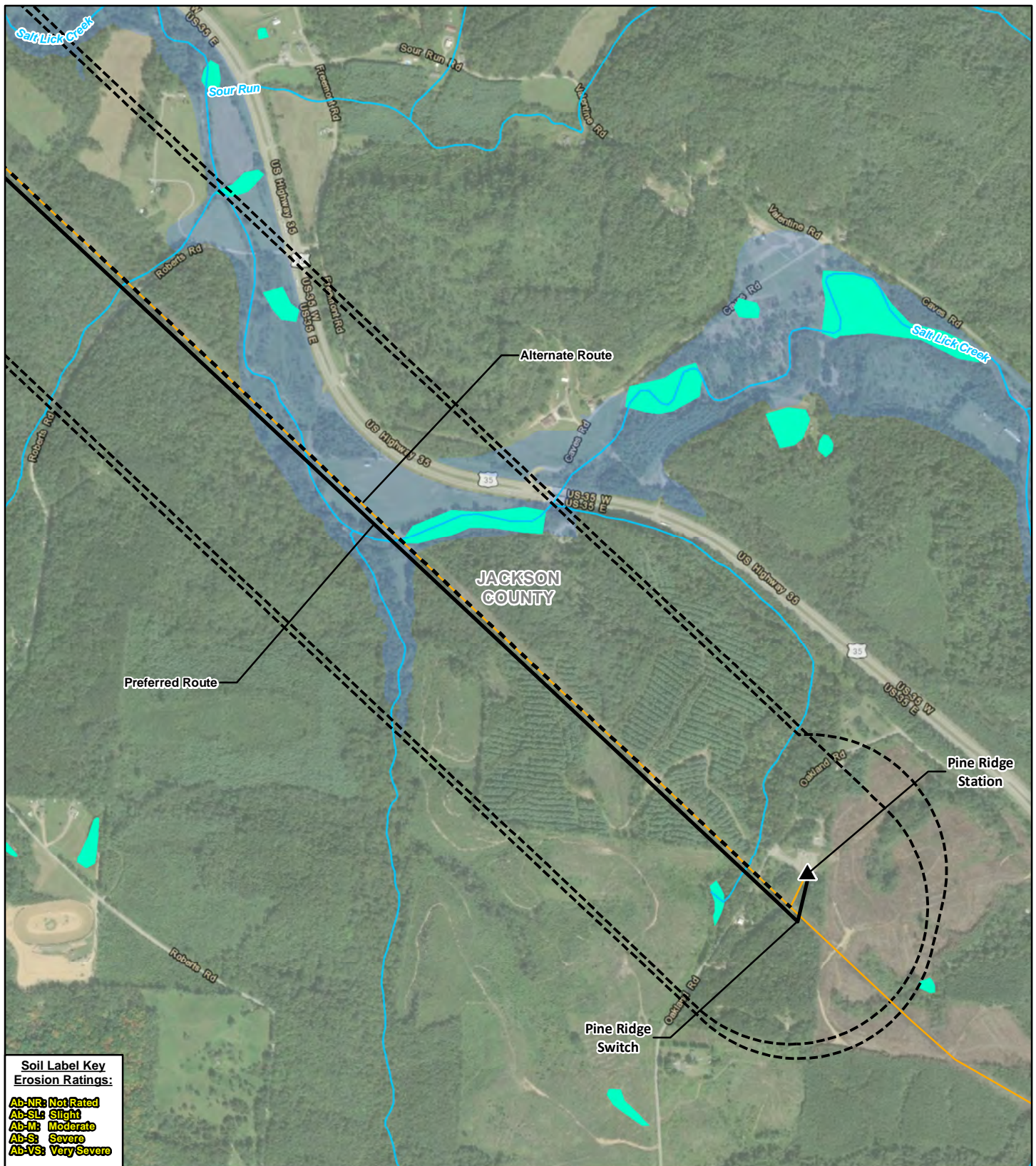


**Figure 8-1F**  
**Ecological Resources**

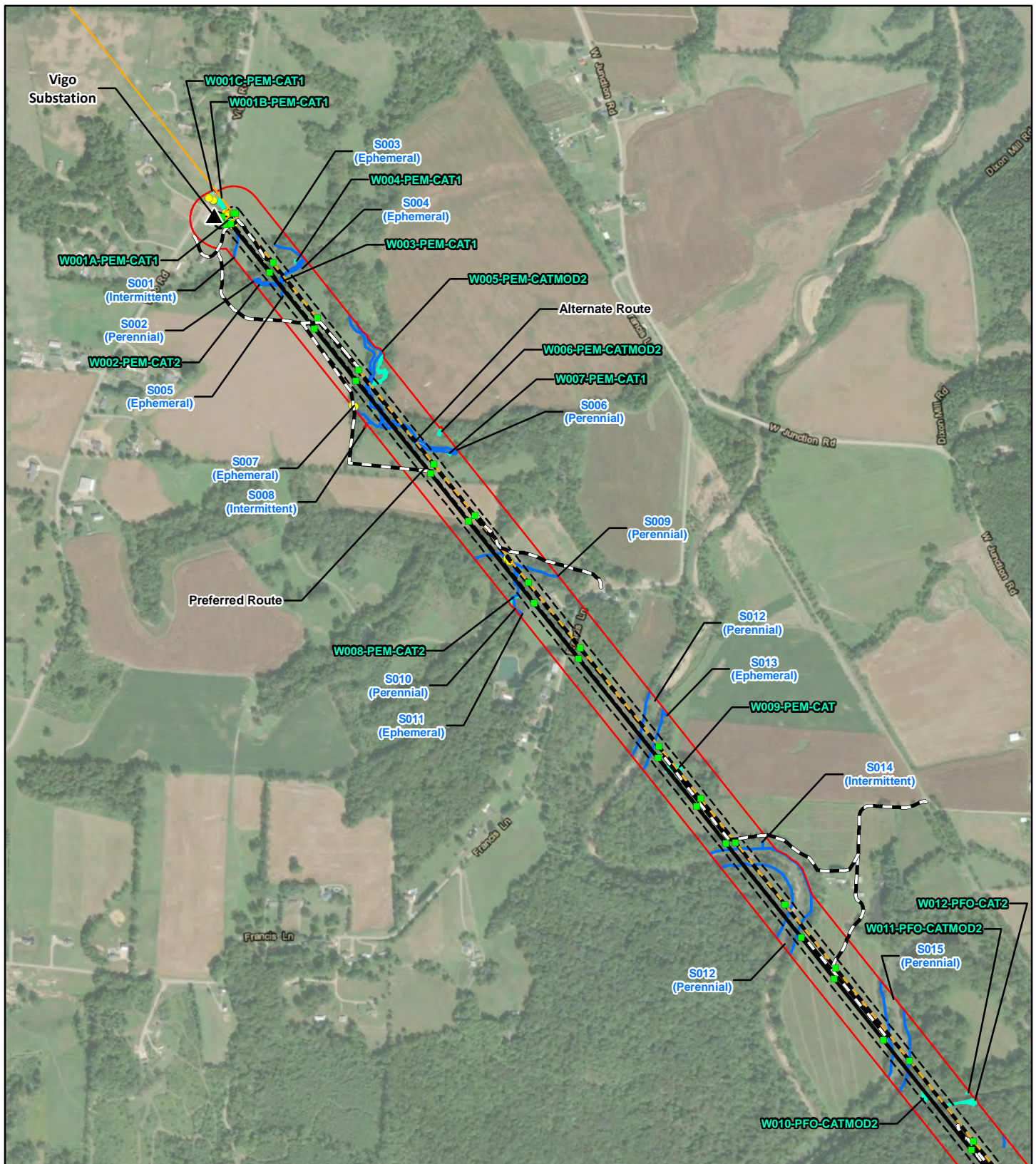
**Vigo to Pine Ridge Switch**  
**138kV Transmission Line Project**











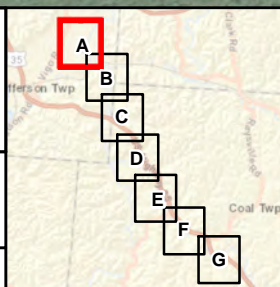
#### Legend

- |                                   |                            |
|-----------------------------------|----------------------------|
| ▲ Substation                      | ● Culvert                  |
| ■ Proposed Structure              | --- Drainage Feature       |
| — Preferred Route                 | — Field-Delineated Stream  |
| - - - Alternate Route             | ■ Field-Delineated Wetland |
| — Proposed Access Road            | ■ Survey Area              |
| - - - 100-Foot ROW                |                            |
| — Existing 69kV Transmission Line |                            |

Data Sources: AEP (2015), USGS (2015), ESRI (2017)

NAD 1983 State Plane  
Ohio South Feet

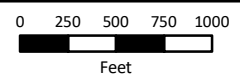
November 22, 2019



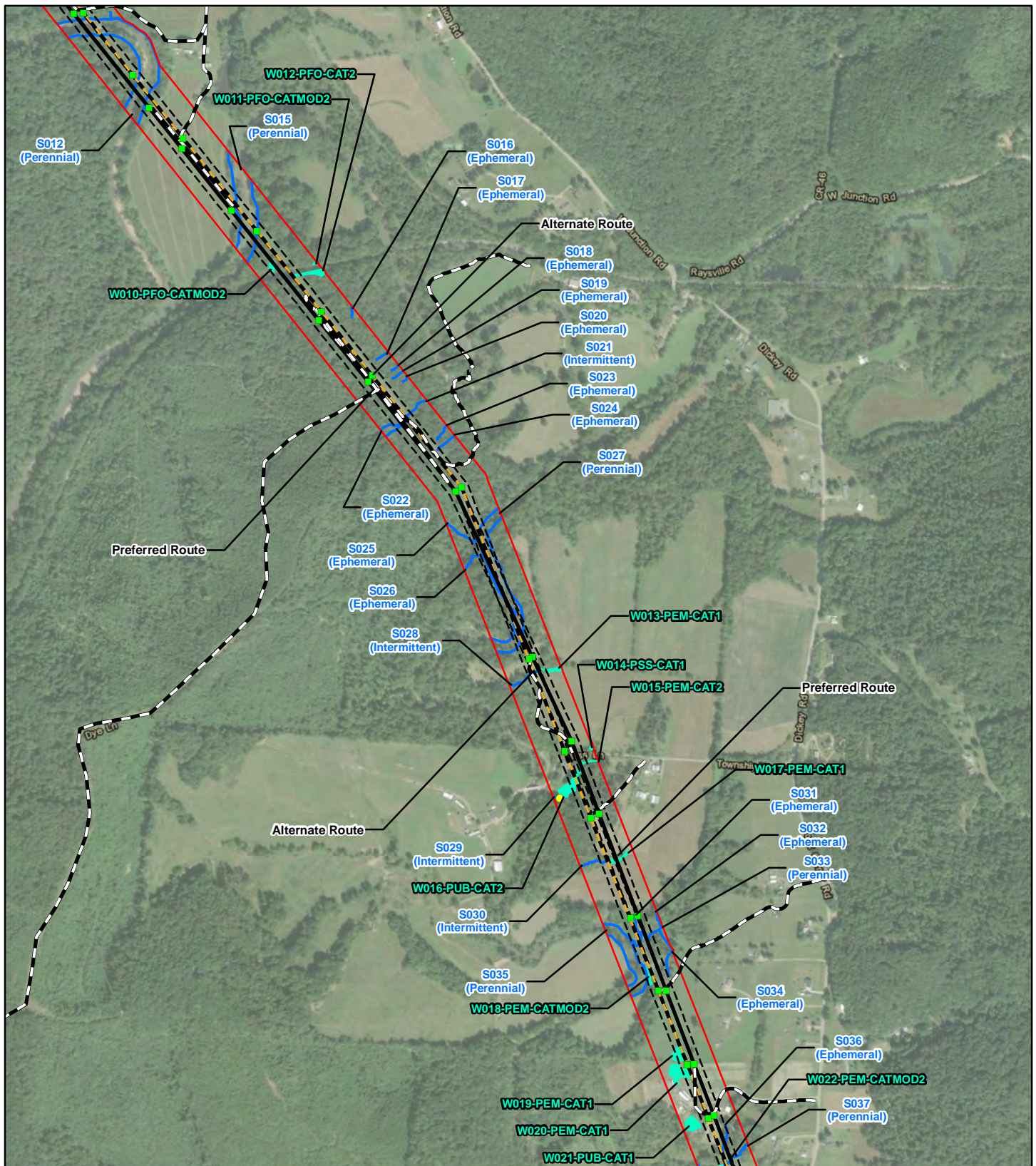
**Figure 8-2A**  
**Delineated Wetlands**  
**and Waterbodies**

AEP  
OHIO  
TRANSMISSION  
COMPANY

Vigo to Pine Ridge Switch  
138kV Transmission Line Project







#### Legend

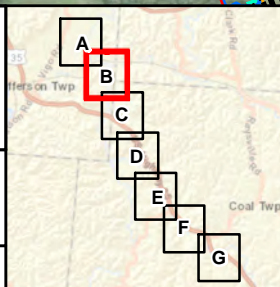
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|-----------------------------------|----------------------------|
| ▲ Substation                      | ● Culvert                  |
| ■ Proposed Structure              | --- Drainage Feature       |
| — Preferred Route                 | — Field-Delineated Stream  |
| - - - Alternate Route             | ■ Field-Delineated Wetland |
| — Proposed Access Road            | □ Survey Area              |
| - - - 100-Foot ROW                |                            |
| — Existing 69kV Transmission Line |                            |

Data Sources: AEP (2015), USGS (2015), ESRI (2017)

NAD 1983 State Plane  
Ohio South Feet



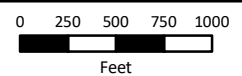
November 22, 2019



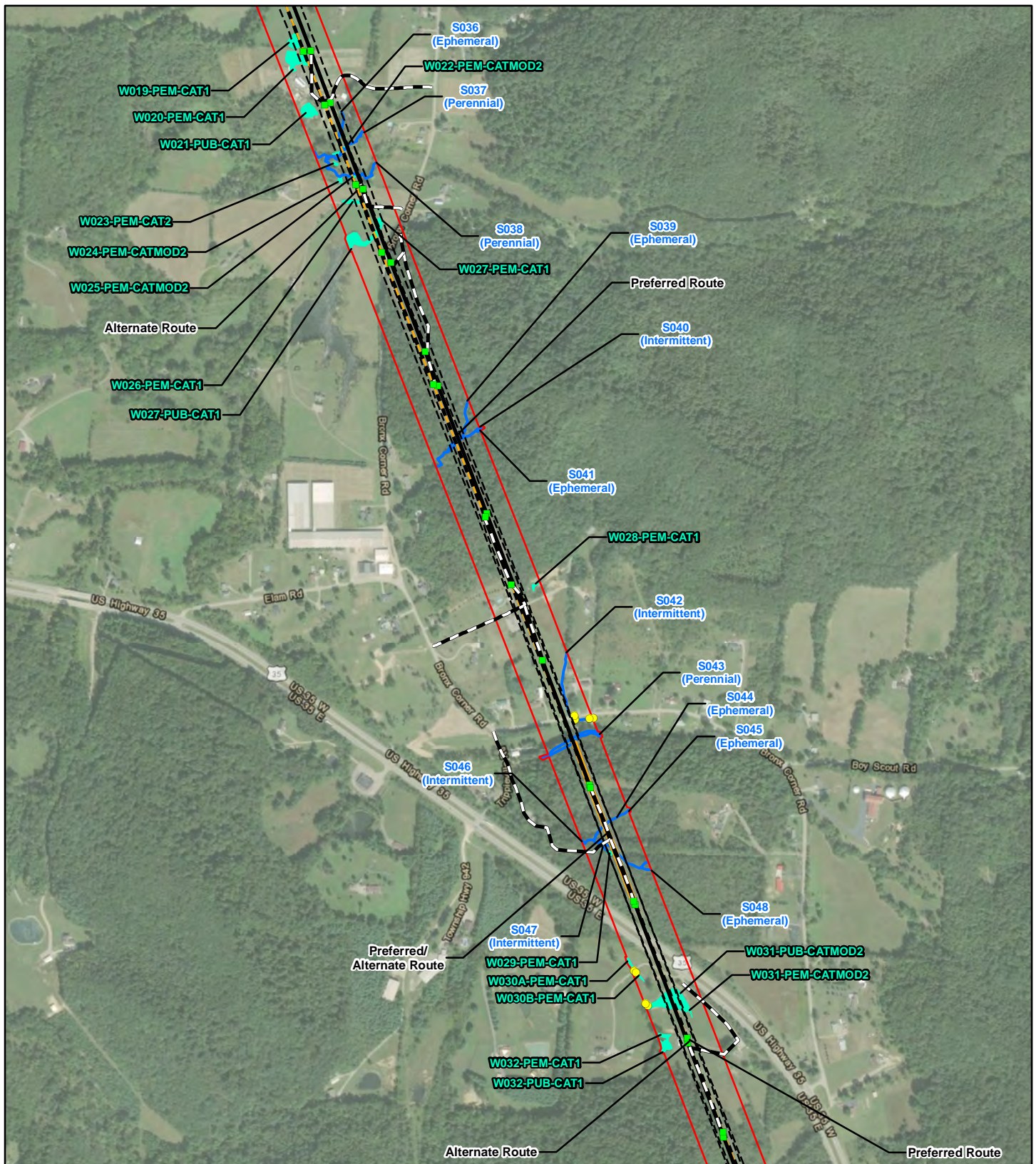
**Figure 8-2B**  
**Delineated Wetlands**  
**and Waterbodies**



Vigo to Pine Ridge Switch  
138kV Transmission Line Project







**Legend**

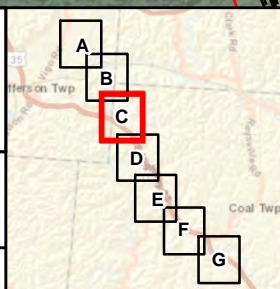
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|-----------------------------------|----------------------------|
| ▲ Substation                      | ● Culvert                  |
| ■ Proposed Structure              | --- Drainage Feature       |
| — Preferred Route                 | — Field-Delineated Stream  |
| - - - Alternate Route             | ■ Field-Delineated Wetland |
| — Proposed Access Road            | □ Survey Area              |
| - - - 100-Foot ROW                |                            |
| — Existing 69kV Transmission Line |                            |

Data Sources: AEP (2015), USGS (2015), ESRI (2017)

NAD 1983 State Plane  
Ohio South Feet



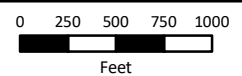
November 22, 2019



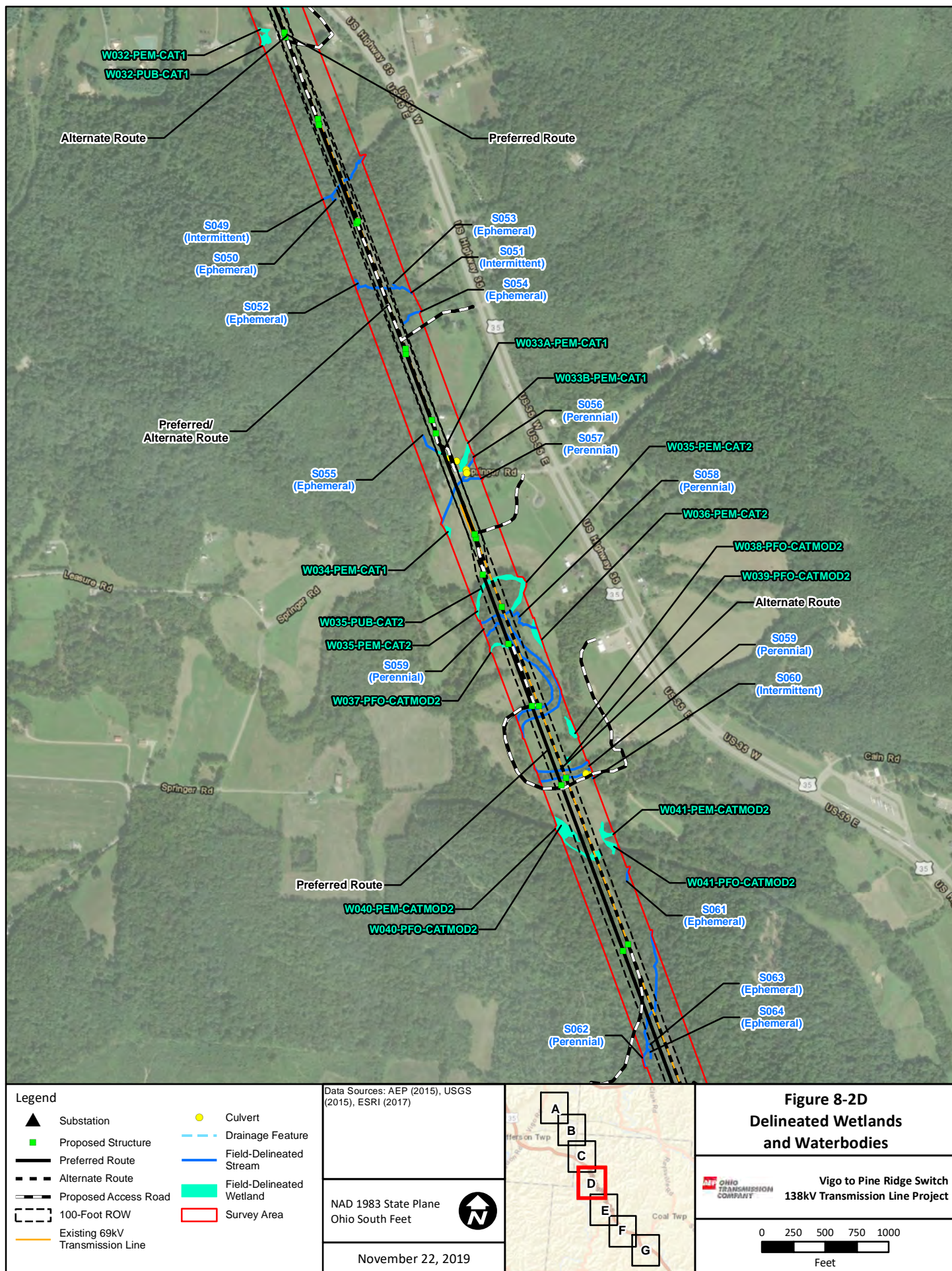
**Figure 8-2C**  
**Delineated Wetlands**  
**and Waterbodies**



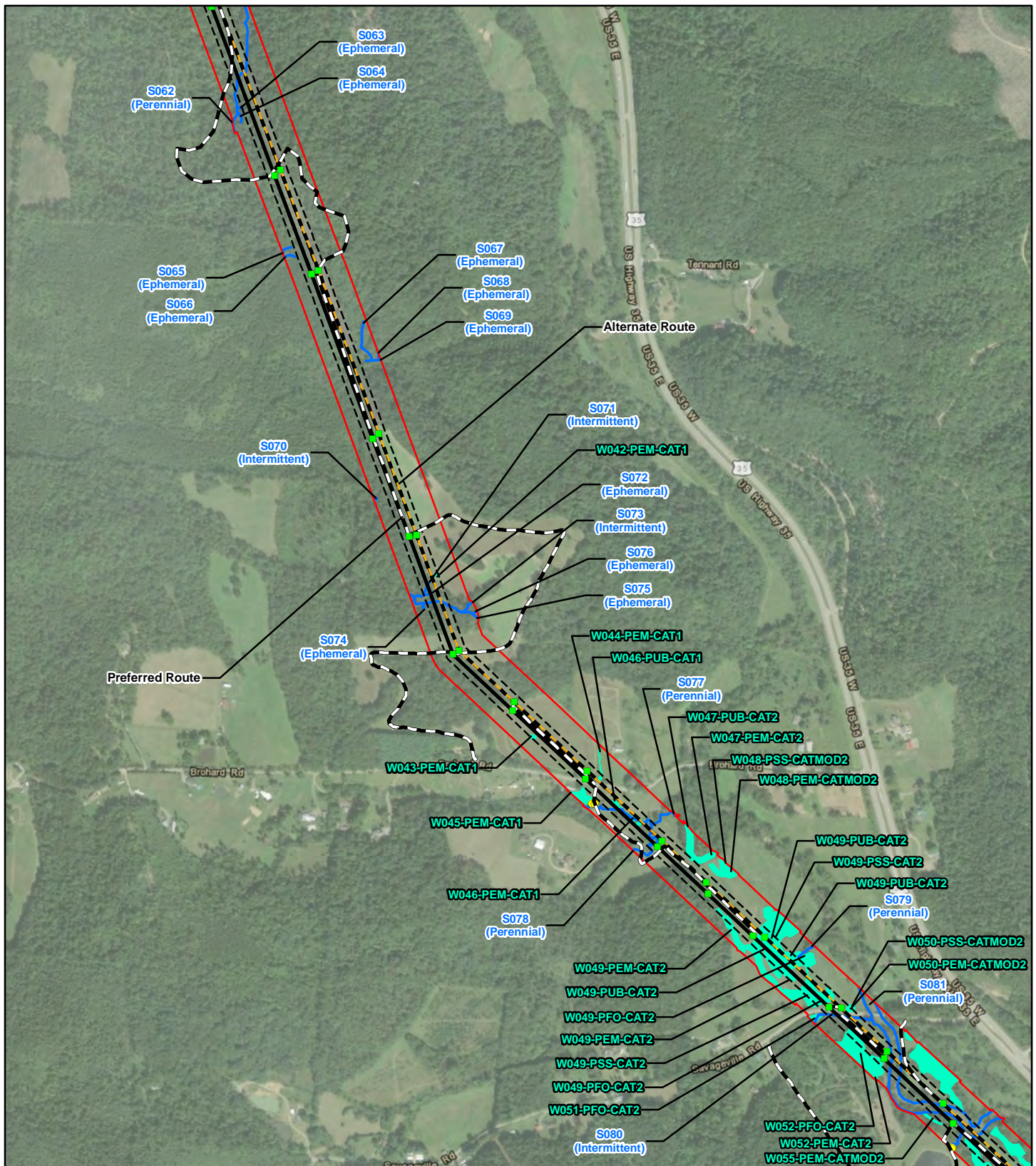
Vigo to Pine Ridge Switch  
138kV Transmission Line Project











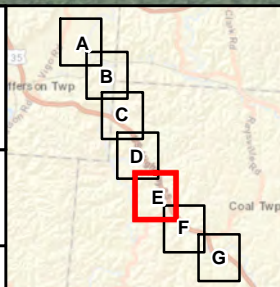
#### Legend

- ▲ Substation
- Proposed Structure
- Preferred Route
- - - Alternate Route
- - - Proposed Access Road
- - - 100-Foot ROW
- Existing 69kV Transmission Line
- Culvert
- - - Drainage Feature
- Field-Delineated Stream
- Field-Delineated Wetland
- Survey Area

Data Sources: AEP (2015), USGS (2015), ESRI (2017)

NAD 1983 State Plane  
Ohio South Feet

November 22, 2019



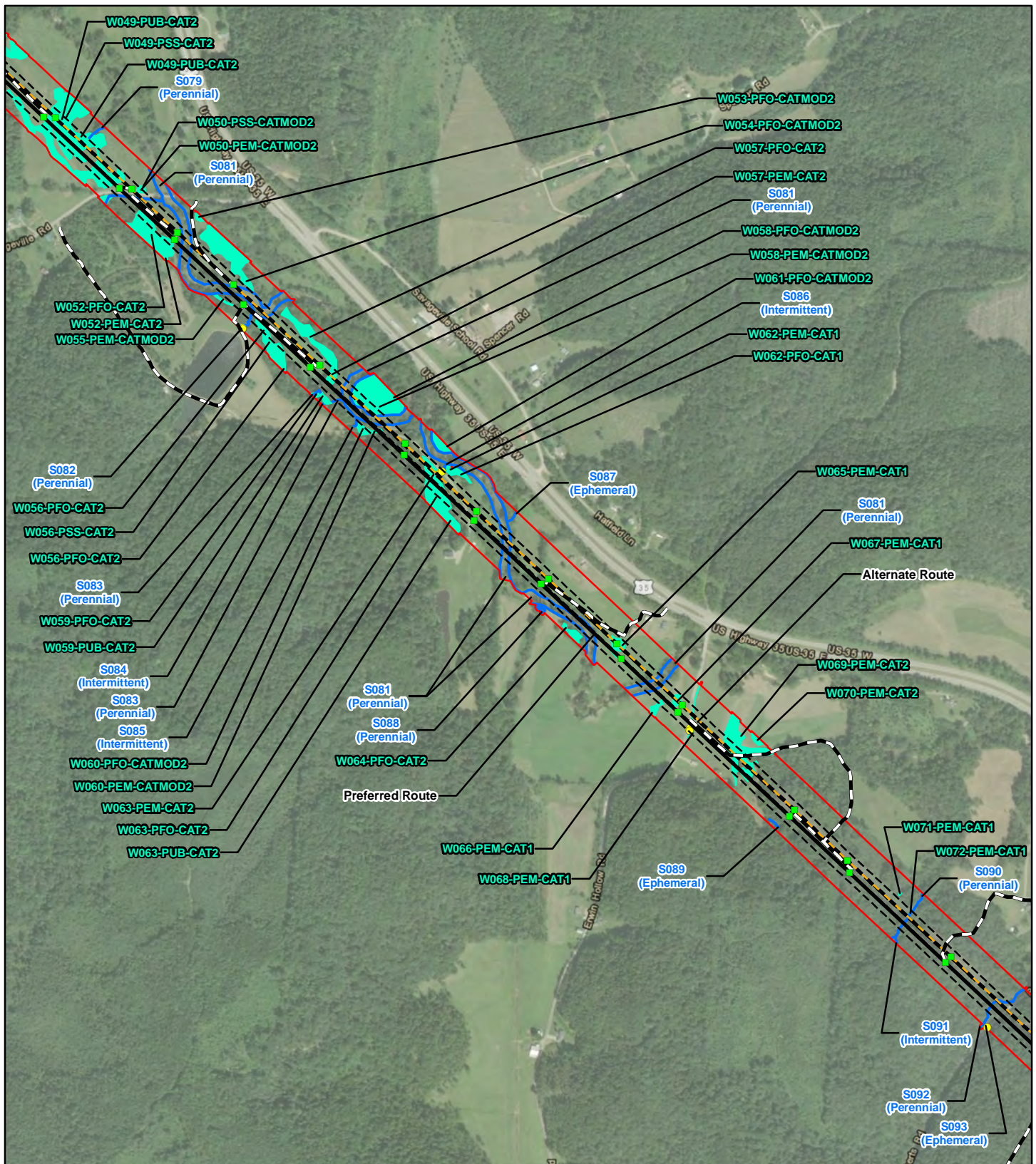
**Figure 8-2E**  
**Delineated Wetlands**  
**and Waterbodies**

AEP  
OHIO  
TRANSMISSION  
COMPANY

Vigo to Pine Ridge Switch  
138kV Transmission Line Project

0 250 500 750 1000  
Feet





#### Legend

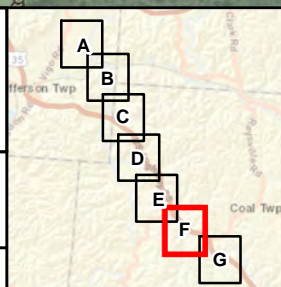
- |                                   |                            |
|-----------------------------------|----------------------------|
| ▲ Substation                      | ● Culvert                  |
| ■ Proposed Structure              | --- Drainage Feature       |
| — Preferred Route                 | — Field-Delineated Stream  |
| - - - Alternate Route             | ■ Field-Delineated Wetland |
| — Proposed Access Road            | ■ Survey Area              |
| - - - 100-Foot ROW                |                            |
| — Existing 69kV Transmission Line |                            |

Data Sources: AEP (2015), USGS (2015), ESRI (2017)

NAD 1983 State Plane  
Ohio South Feet



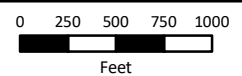
November 22, 2019



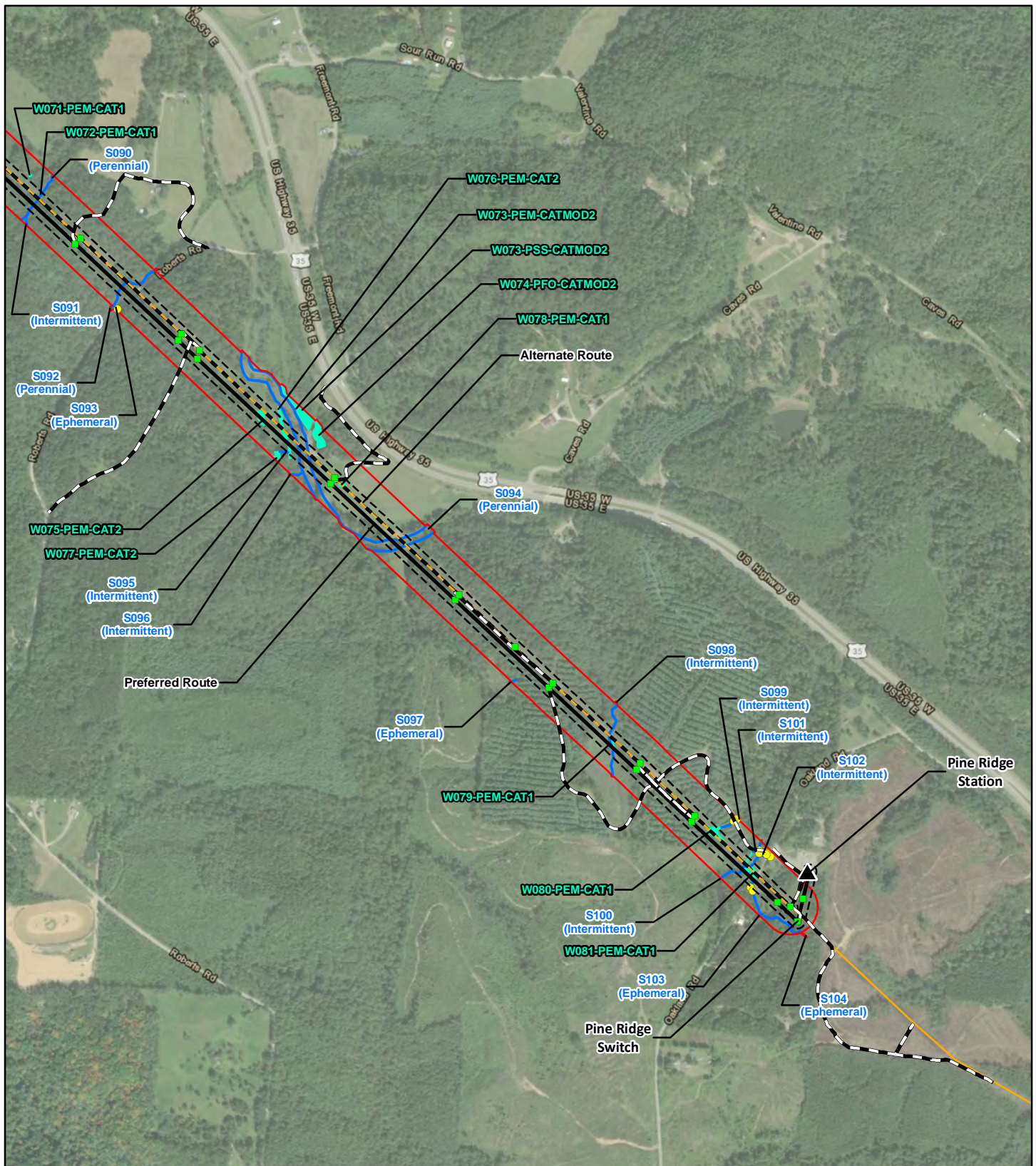
**Figure 8-2F**  
**Delineated Wetlands**  
**and Waterbodies**



Vigo to Pine Ridge Switch  
138kV Transmission Line Project







#### Legend

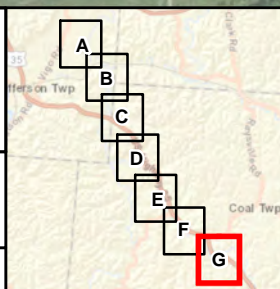
- |                                   |                            |
|-----------------------------------|----------------------------|
| ▲ Substation                      | ● Culvert                  |
| ■ Proposed Structure              | --- Drainage Feature       |
| — Preferred Route                 | — Field-Delineated Stream  |
| - - - Alternate Route             | ■ Field-Delineated Wetland |
| - - - Proposed Access Road        | ■ Survey Area              |
| - - - 100-Foot ROW                |                            |
| — Existing 69kV Transmission Line |                            |

Data Sources: AEP (2015), USGS (2015), ESRI (2017)

NAD 1983 State Plane  
Ohio South Feet



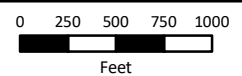
November 22, 2019



**Figure 8-2G**  
**Delineated Wetlands**  
**and Waterbodies**



Vigo to Pine Ridge Switch  
138kV Transmission Line Project



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**Commission of Ohio Docketing Information System on**

**11/26/2019 1:25:53 PM**

**in**

**Case No(s). 19-2024-EL-BTA**

Summary: Notice Amendment Application for the Vigo- Pine Ridge Switch 138kV Transmission Line Project electronically filed by Tanner Wolfram on behalf of AEP Ohio Transmission Company, Inc.