AMERICAN ELECTRIC POWER

BOUNDLESS ENERGY

Legal Department

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August 2, 2019

Chairman Sam Randazzo
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215

Ohio Power Siting Board
Docketing Division
180 East Broad Street
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Re: Case No. 19-1473-EL-BTA
In the Matter of the Application of AEP Ohio Transmission Company, Inc. for an Amendment to the Certificate of Environmental Compatibility and Public Need for the Bell Ridge-Devola 138 kV Transmission Line Project

Dear Chairman Randazzo,

Attached please find a copy of the Application of AEP Ohio Transmission Company, Inc. for an Amendment to the 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 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:
Bell Ridge-Devola 138 kV Transmission Line Project

(c) Applicant's Authorized Representative with respect to this Application:
Matthew Siefker
Project Manager
8600 Smiths Mill Road
New Albany, Ohio 43054

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

/s/ Christen M. Blend
Christen M. Blend (0086881), Counsel of Record

Counsel for AEP Ohio Transmission Company, Inc.

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

Application for Amendment

Bell Ridge-Devola 138 kV Transmission Line Project

OPSB Case No. 19-1473-EL-BTA

Prepared for

AEP OHIO TRANSMISSION COMPANY

An AEP Company

BOUNDLESS ENERGY

Submitted to

Ohio Power Siting Board

August 2, 2019

BEFORE THE OHIO POWER SITING BOARD

Application for Amendment to the Bell Ridge-Devola 138 kV Transmission Line Project

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Acronyms and Abbreviations

AEP	American Electric Power
AEP Ohio Transco	AEP Ohio Transmission Company, Inc.
BMP	best management practice
cm	centimeter
EMF	electric and magnetic field
Field Survey Area	150 feet on either side of the centerline for both the Preferred and Alternate Routes
GIS	geographic information system
HHEI	Headwater Habitat Evaluation Index
I-77	Interstate 77
ID	identification
kV	kilovolt
kV/m	kilovolt per meter
mG	milligauss
NA	not applicable
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O.A.C.	Ohio Administrative Code
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
OEPA	Ohio Environmental Protection Agency
OHI	Ohio Historic Inventory
OHPO	Ohio Historic Preservation Office
OPSB	Ohio Power Siting Board
ORAM	Ohio Rapid Assessment Method
PEM	palustrine emergent
PFO	palustrine forested
PHWH	Primary Headwater Habitat
Project	Bell Ridge to Devola 138 kV Transmission Line Project
PSS	palustrine scrub/shrub
QHEI	Qualitative Habitat Evaluation Index
ROW	right-of-way
SWPPP	stormwater pollution prevention plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

AMENDMENT CHANGE SUMMARY

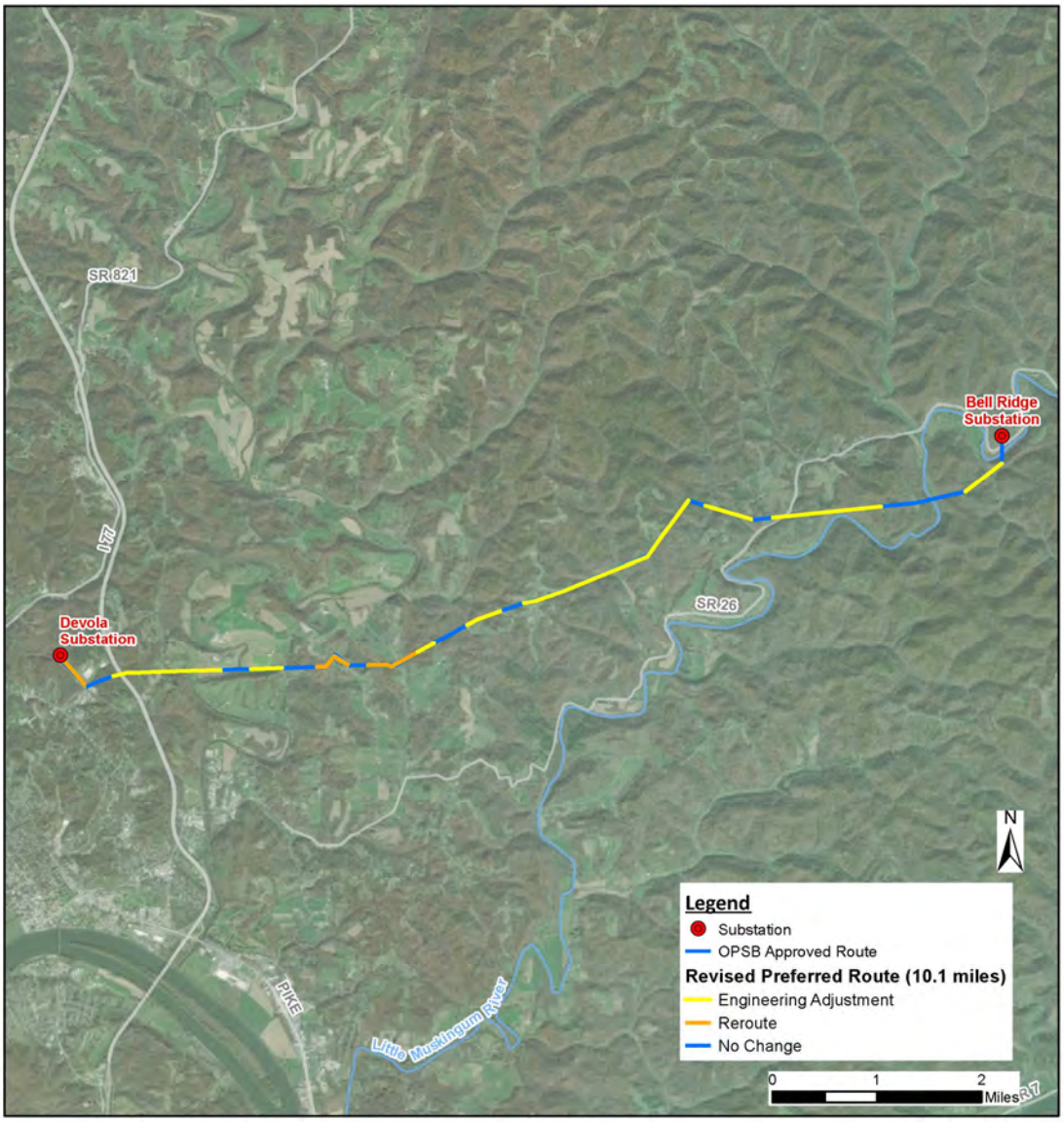
AEP Ohio Transmission Company, Inc. (AEP Ohio Transco) submitted a Certificate Application to the Ohio Power Siting Board (OPSB) for the Bell Ridge to Devola 138 kV Transmission Line Project (Project) on December 21, 2017. On August 16, 2018, the OPSB issued its Certificate of Environmental Compatibility 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 approval of the revised alignment.

As detailed engineering of the transmission line progressed after submittal of the certificate application in December 2017, alignment changes were necessary for the Preferred Route to 1) achieve necessary clearance from an existing distribution facility, 2) align the line with the finalized location of the correct station bay at the proposed Devola Substation, and 3) reduce land use impacts on a residential parcel crossed by the line. These changes are categorized as engineering adjustments (within the 100-foot right-of-way (ROW) of the OPSB-approved alignment) and alignment reroutes (deviations outside the 100-foot ROW of the OPSB-approved alignment). An overview of the changes is provided in the following Exhibit 1 figure.

Changes to the alignment and impacts to woodlots and property owners are discussed for each change within this summary. Changes to land use, wetlands and waterbodies resulting from the alignment changes are provided in Section 7 and Section 8 of the amended OPSB application.

Exhibit 1: Summary of the Alignment Changes to the Preferred Route



Engineering Adjustments

One engineering adjustment was made along 5.8 miles of the 10.2-mile OPSB-approved Preferred Route. During the detailed engineering design phase of the Project (following submittal of the certificate application), the design team determined that the Preferred Route alignment was too close to the existing 23 kV distribution line for operational purposes. Therefore, the alignment was shifted in the range of 5-39 feet to the north or south to provide enough clearance from the 23 kV distribution line to allow the line to remain in operation during construction of the Project. This engineering adjustment would result in an additional 4.9 acres of tree clearing. No new property owners are affected by this adjustment. This engineering adjustment is shown below in the series of Exhibits 2 through 9.

Exhibit 2: Map Illustration of Engineering Adjustment 1 (Structure 6 through Structure 13)

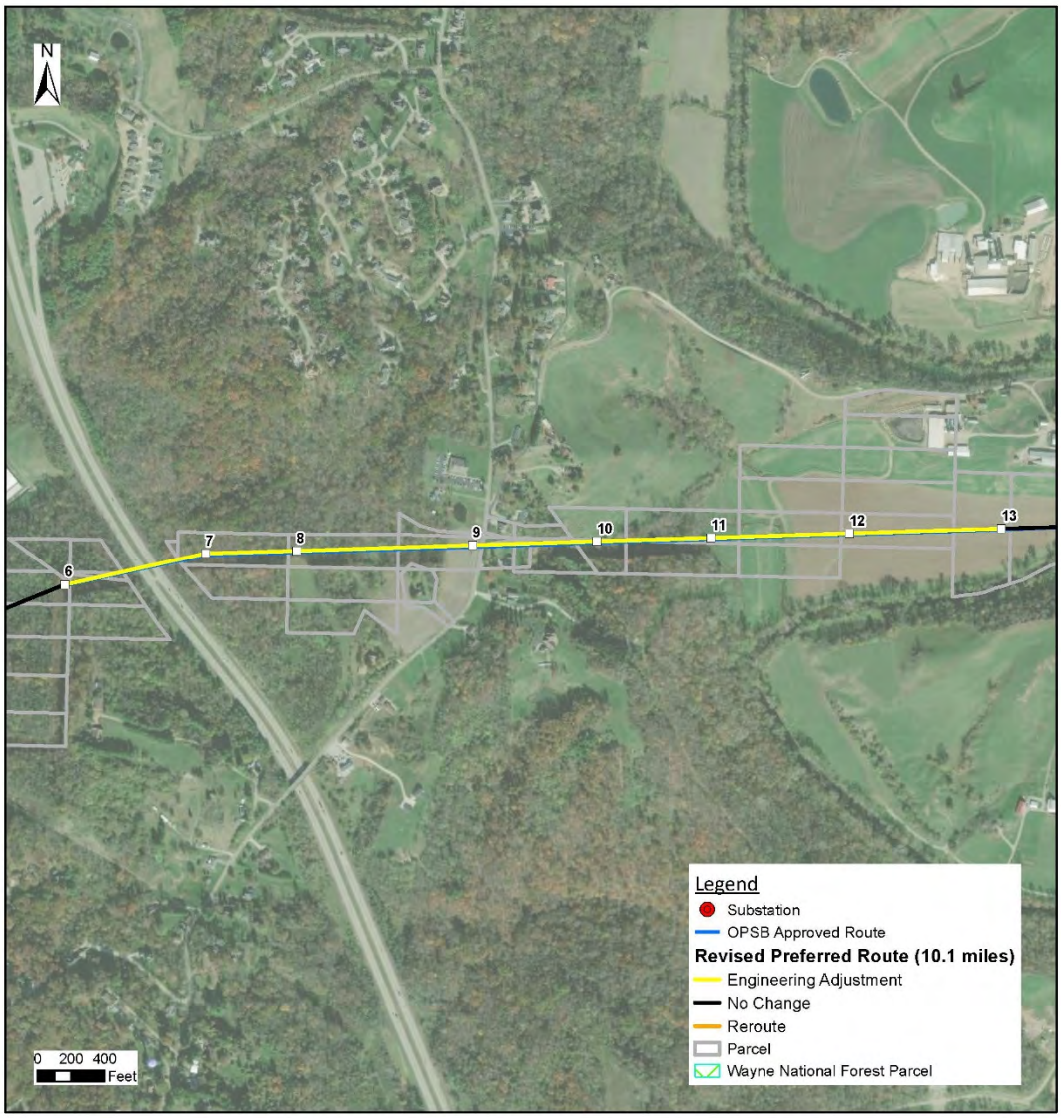


Exhibit 3: Map Illustration of Engineering Adjustment 1 (Structure 15 through Structure 17)

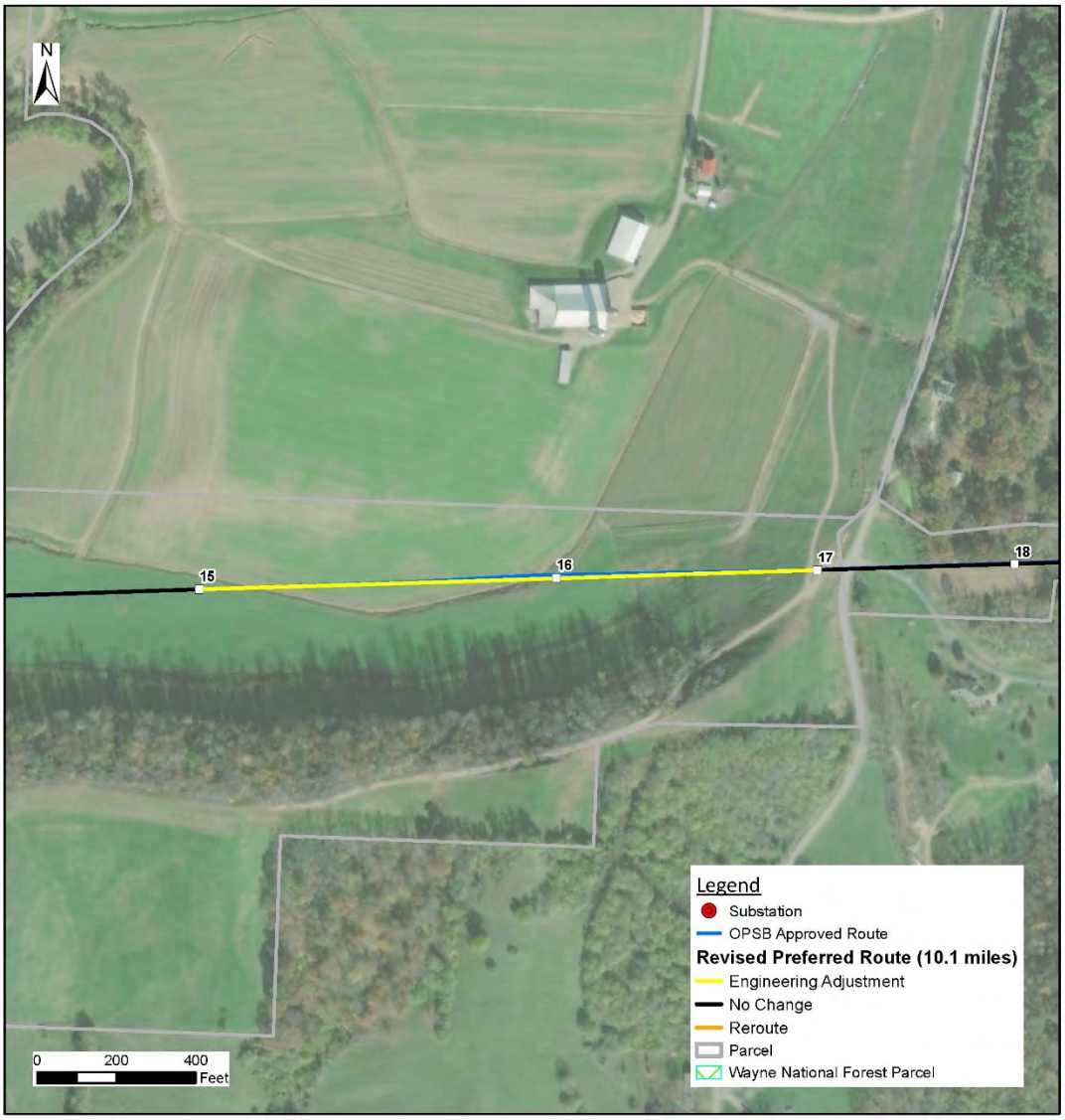


Exhibit 4: Map Illustration of Engineering Adjustment 1 (Structure 29 through Structure 33)

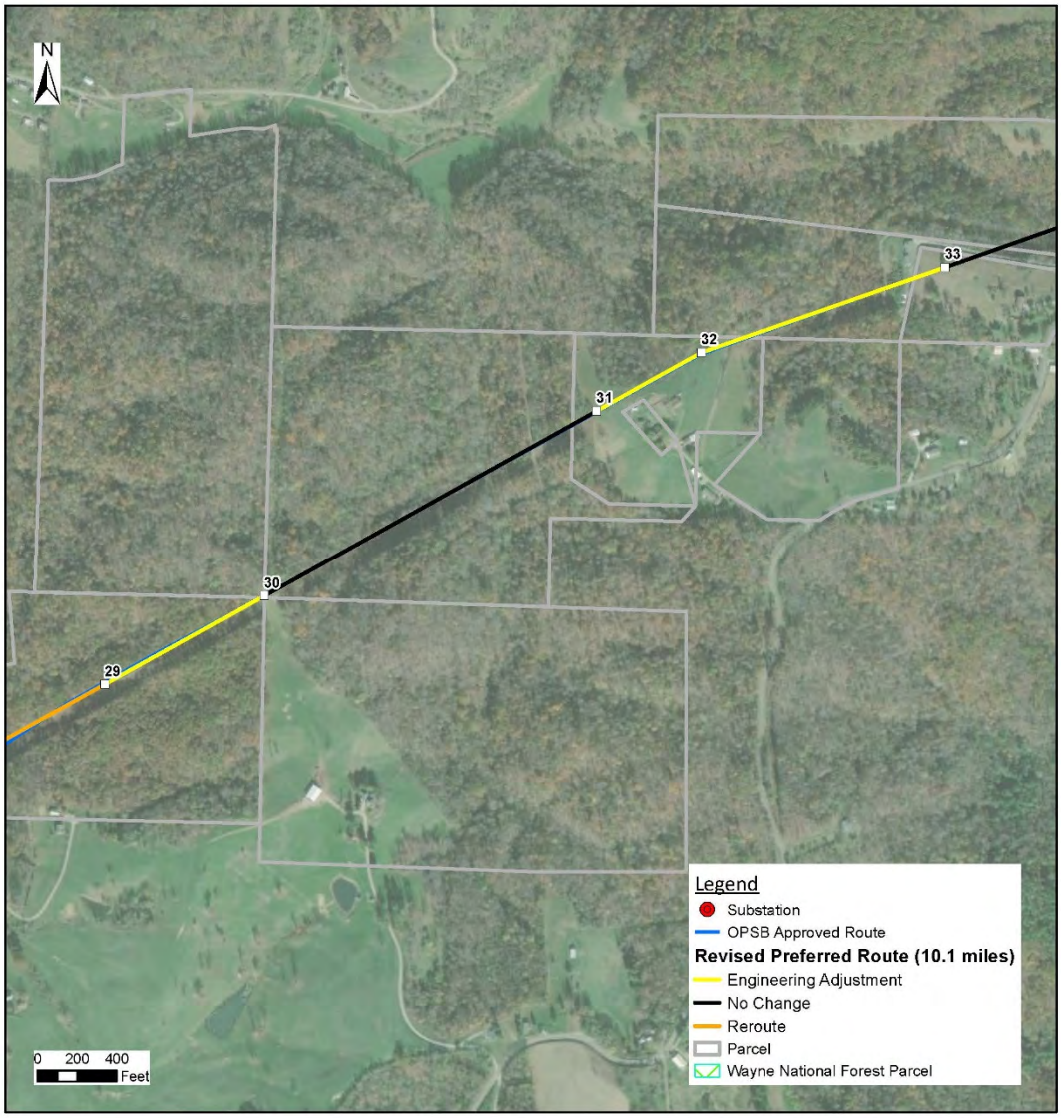


Exhibit 5: Map Illustration of Engineering Adjustment 1 (Structure 34 through Structure 40)

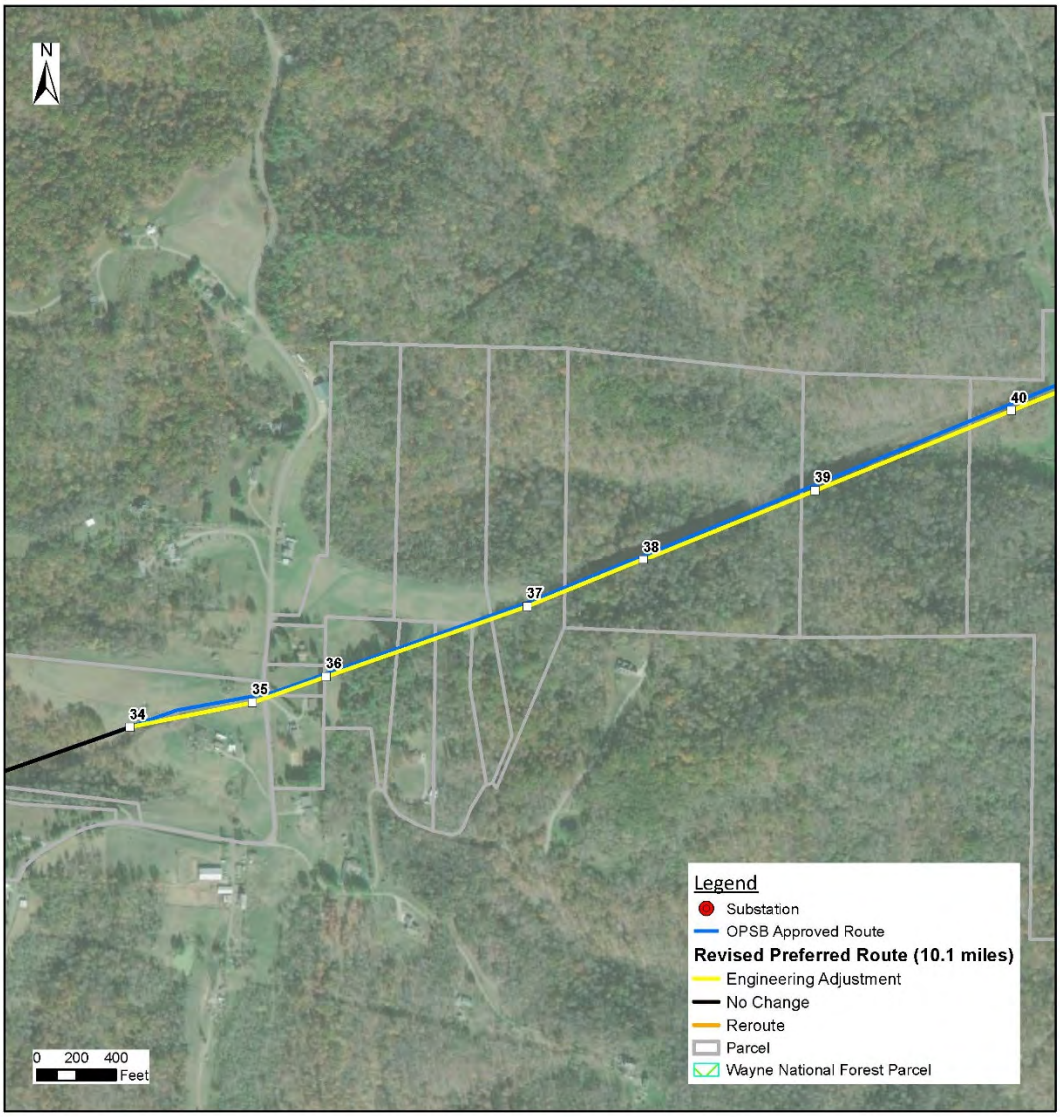


Exhibit 6: Map Illustration of Engineering Adjustment 1 (Structure 40 through Structure 45)

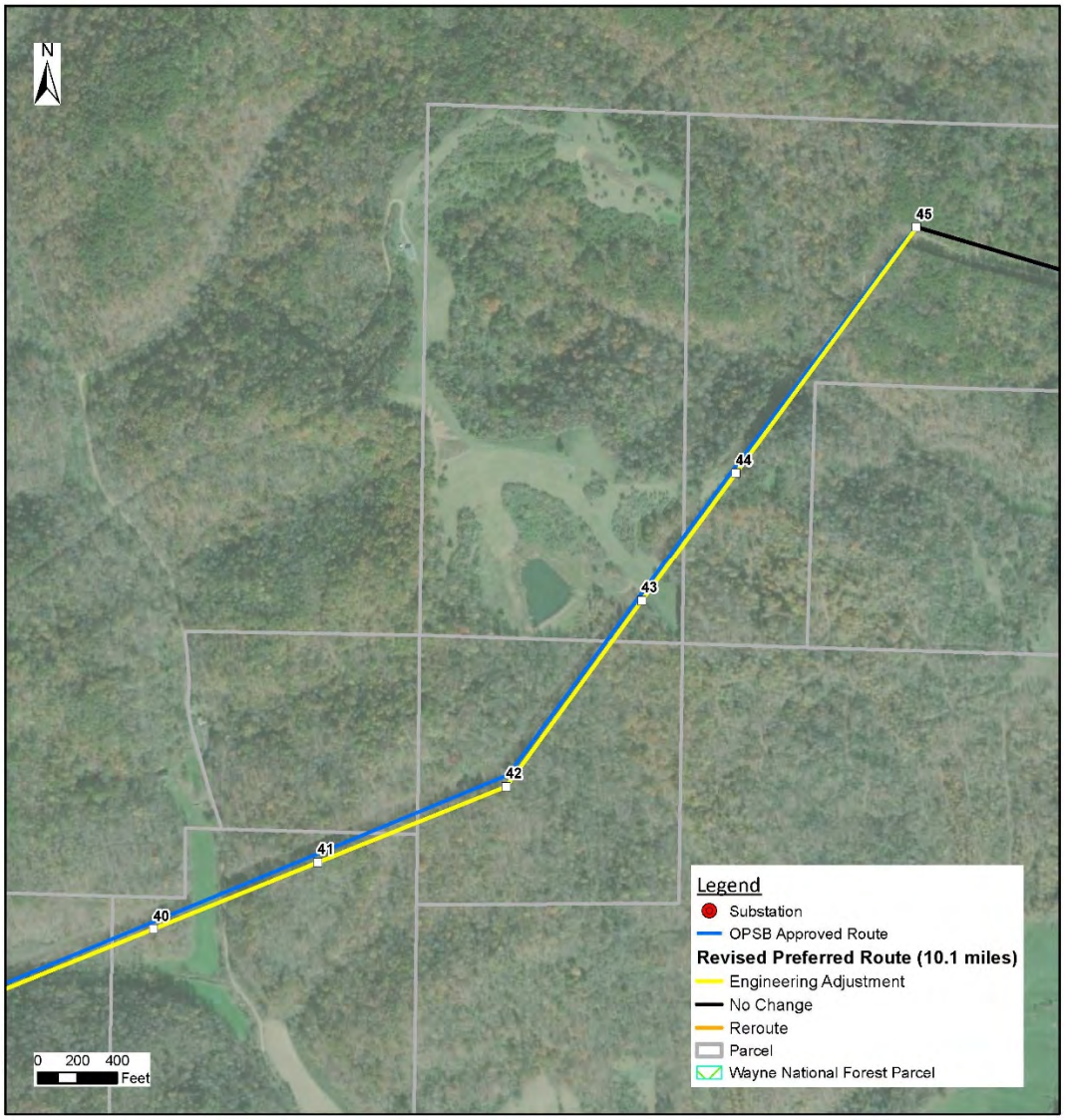


Exhibit 7: Map Illustration of Engineering Adjustment 1 (Structure 46 through Structure 48)

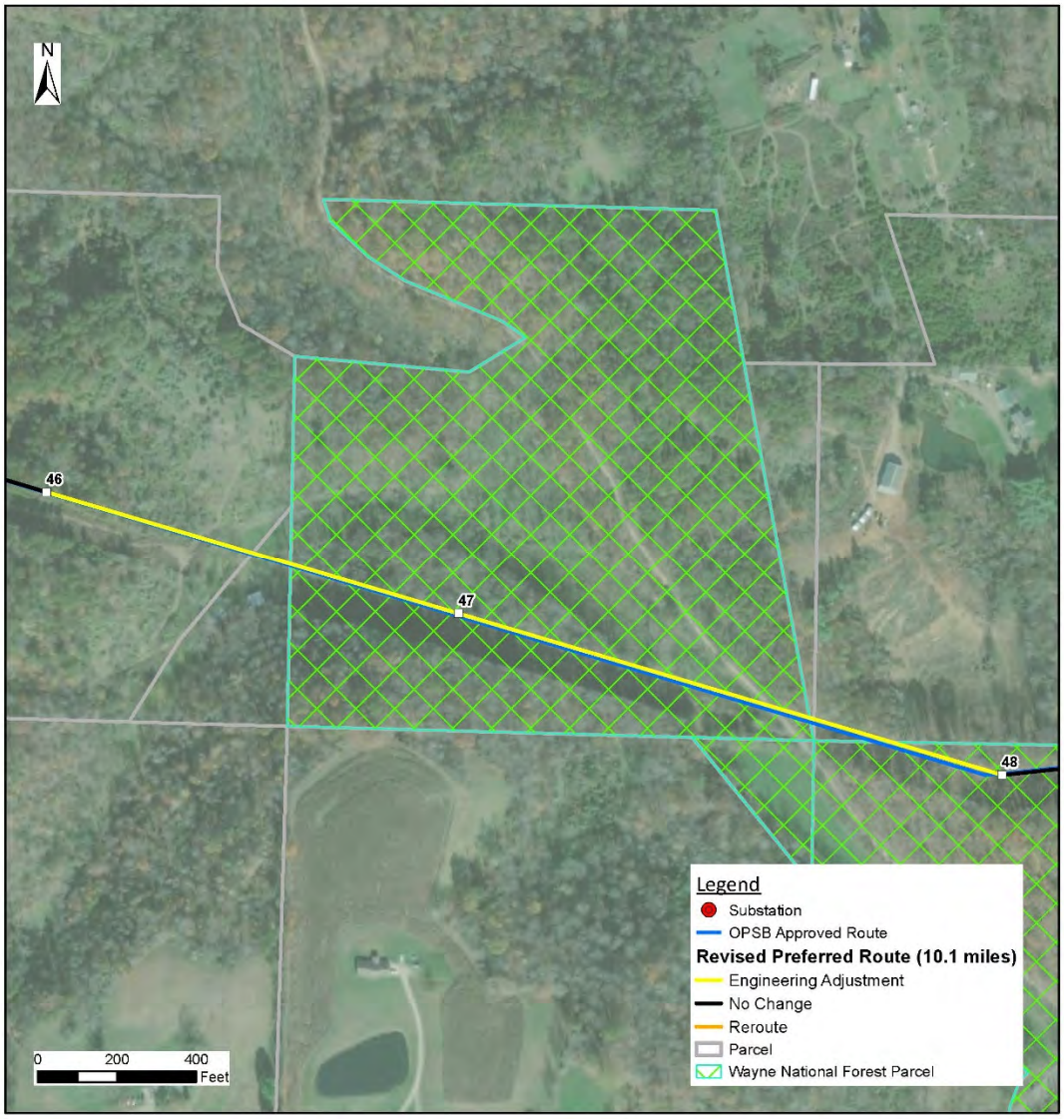


Exhibit 8: Map Illustration of Engineering Adjustment 1 (Structure 49 through Structure 54)

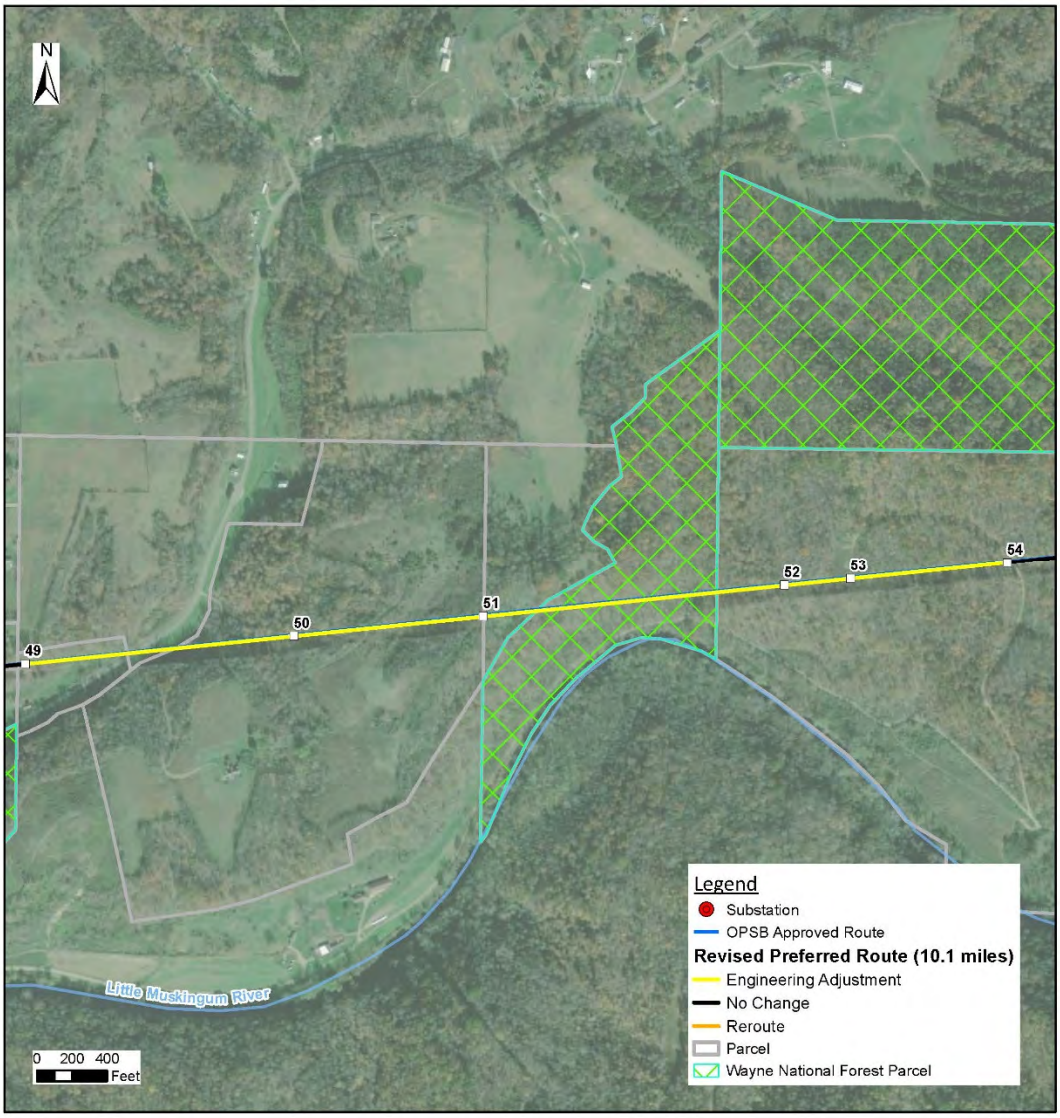
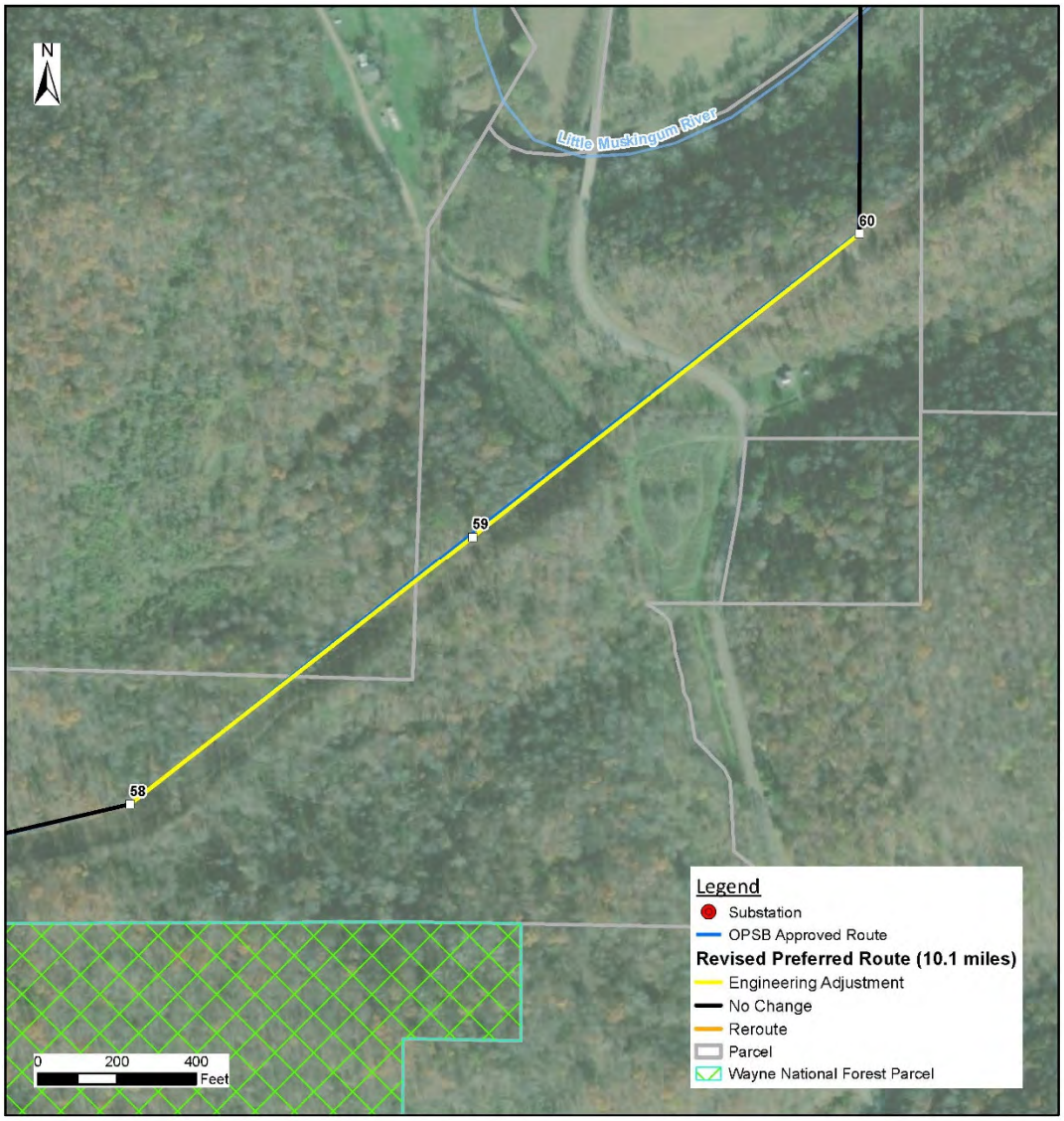


Exhibit 9: Map Illustration of Engineering Adjustment 1 (Structure 58 through Structure 60)

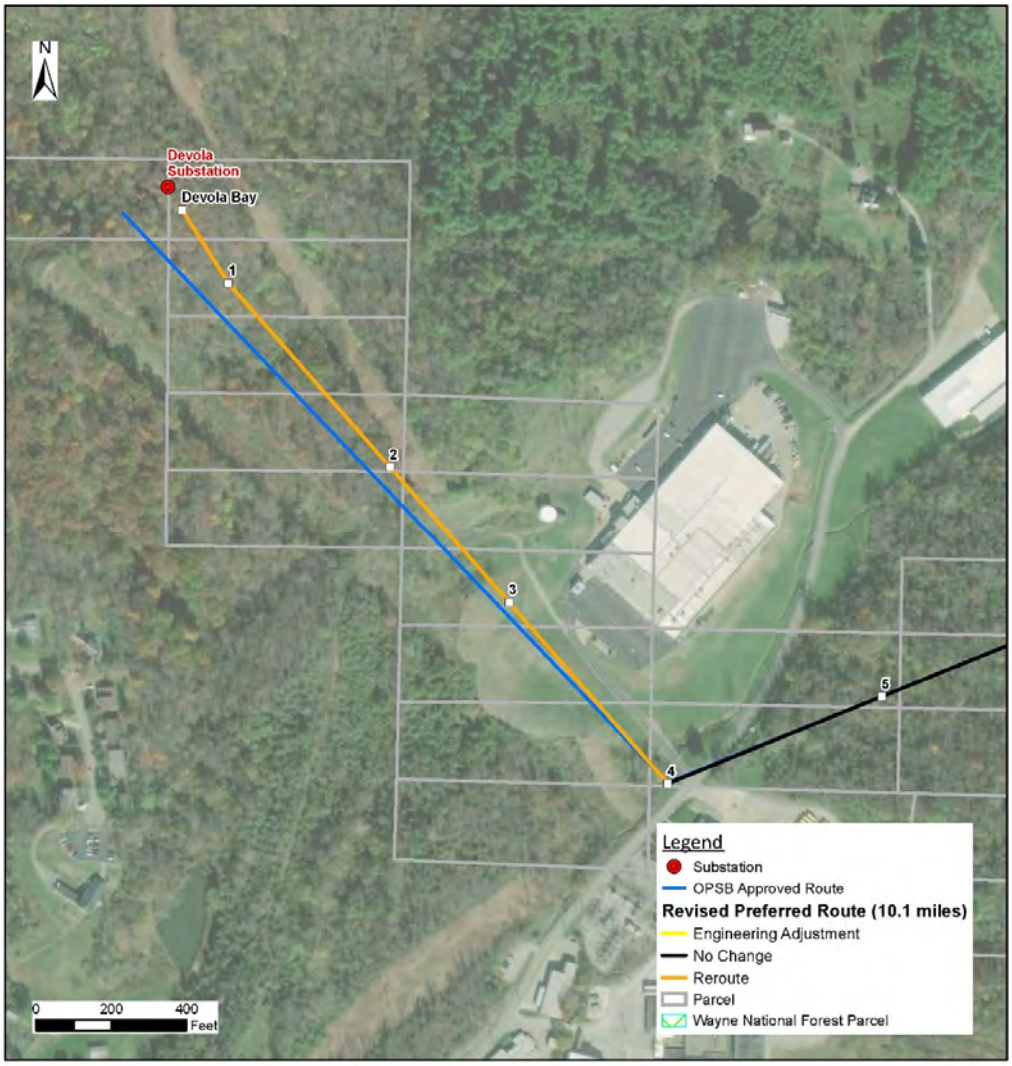


Alignment Reroutes

Three alignment reroutes were made along the OPSB-approved Preferred Route. These reroutes were initiated to 1) align the Bell Ridge-Devola 138 kV transmission line with the station bay at the proposed Devola Substation; 2) minimize the land-use impacts on a residential parcel; and 3) increase clearance from AEP Ohio's existing 23 kV distribution line for operational purposes. These reroutes are described in greater detail below.

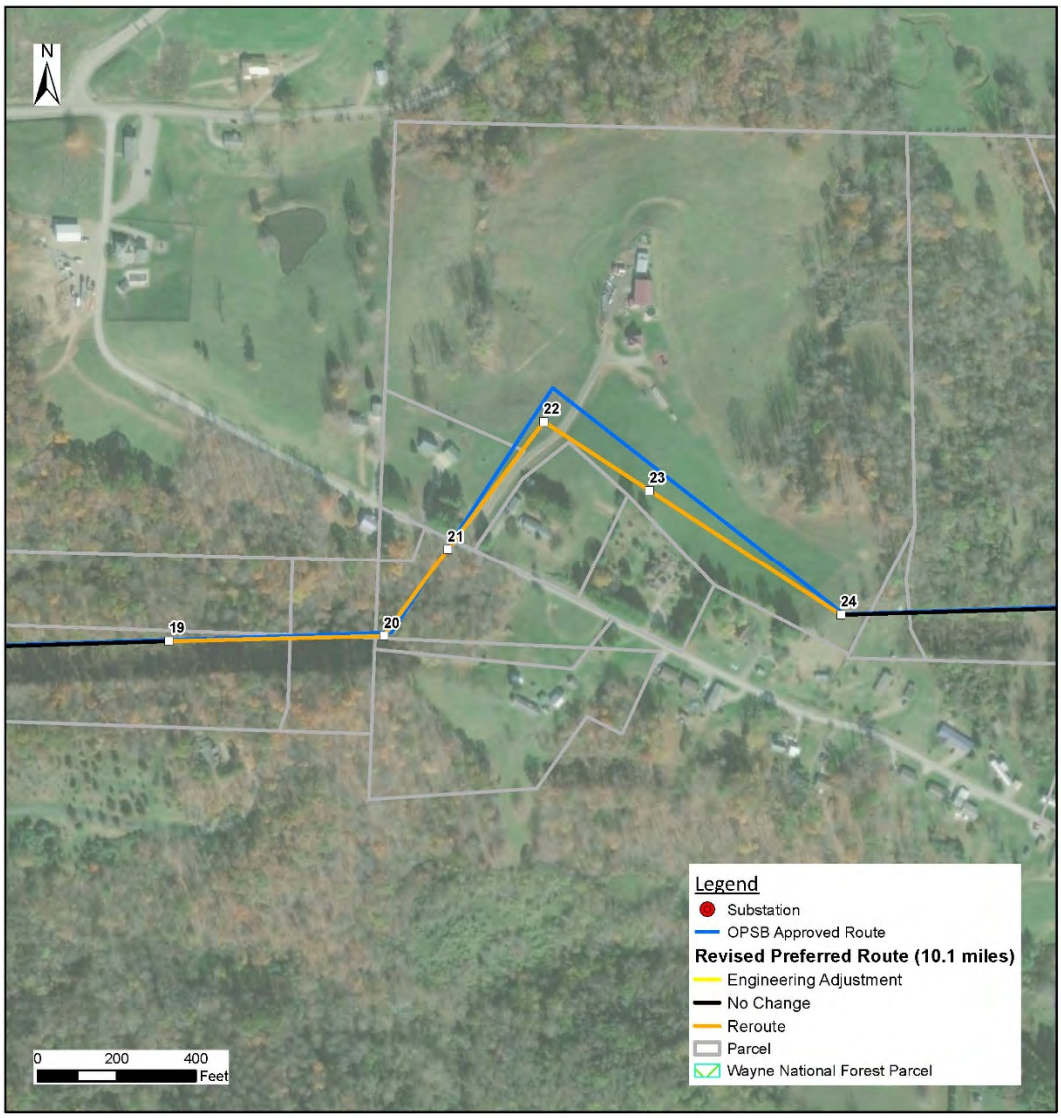
Reroute 1 is from the proposed Devola Substation to Structure 4. This reroute, as shown on Exhibit 10 below, was necessary to meet the requirements and design layout of the Devola Substation. Due to the final location of the station bay, AEP Ohio Tranco was required to shift the Preferred Route alignment between 5 feet and 118 feet from the OPSB-approved alignment in order to connect the line with the proper station bay at the proposed Devola Substation. This reroute would reduce tree clearing by approximately 0.1 acre. No new property owners are affected by this reroute.

Exhibit 10: Map Illustration of Reroute 1 (Devola Substation through Structure 4)



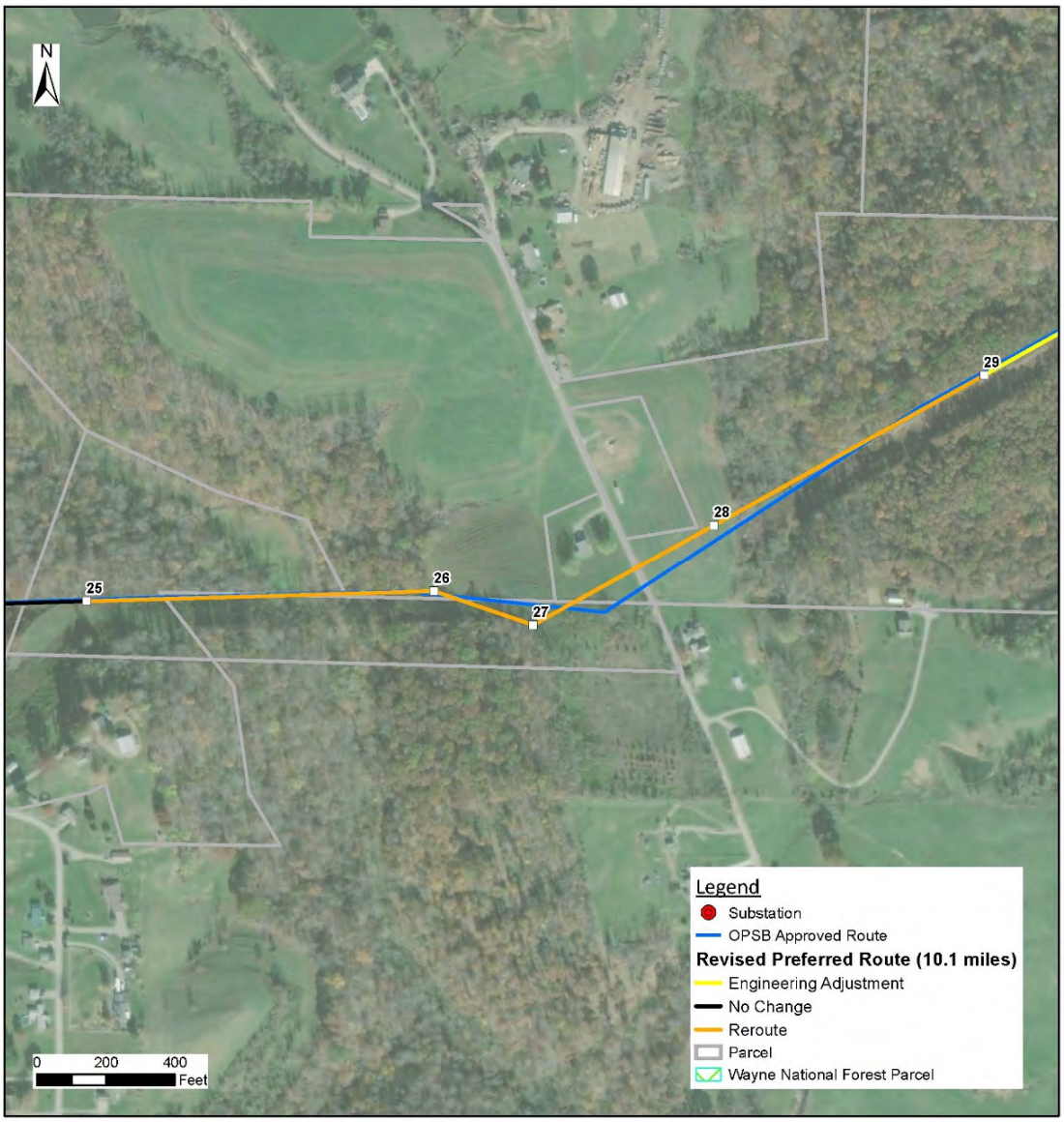
Reroute 2 is from Structure 19 to Structure 24. This reroute shifts the Preferred Route alignment between 5 feet and 88 feet from the OPSB-approved alignment. This reroute, as shown in Exhibit 11 below, primarily orginated with a shift of Structure 22 toward the south approximately 88 feet, which effected a shift of Structures 23 and 24 to the south to accommodate the revised alignment. The relocation of Structure 22 to the south was due to an existing gas distribution line that was identified in a detailed land survey which was performed as part of the detailed engineering design. Two new property owners are affected by this reroute, however, AEP has acquired easements on these properties. This modification would reduce tree clearing by approximately 0.1 acre.

Exhibit 11: Map Illustration of Reroute 2 (Structure 19 through Structure 24)



Reroute 3 is from Structure 25 to Structure 29. This reroute, as shown in Exhibit 12 below, is due to the Preferred Route alignment located too close to the existing 23 kV distribution line. The reroute shifts the alignment to provide enough clearance for operation of both the new 138 kV line and the 23 kV line during construction of the new 138 kV line. The only viable option was to shift Structure 27, (which was formerly on the north side of the 23 kV line) to the south side of the 23 kV line to maintain sufficient distance to the nearby residence (the actual structure itself) so that it was not within the planned 100-foot ROW. This reroute shifts the Preferred Route alignment between 5 feet and 68 feet from the OPSB-approved alignment and would result in an additional 0.3 acre of tree clearing. No new property owners are affected by this reroute.

Exhibit 12: Map Illustration of Reroute 3 (Structure 25 through Structure 29)



4906-5-02 PROJECT SUMMARY AND APPLICANT INFORMATION

(A) PROJECT SUMMARY

Text provided in the December 21, 2017 Application filing remains unchanged.

(1) General Purpose of the Facility

Text provided in the December 21, 2017 Application filing remains unchanged.

(2) General Location, Size, and Operating Characteristics

The proposed Project is located in Washington County, approximately 2.4 miles north of Marietta, Ohio.

The proposed Project begins approximately 4.5 miles southwest of Wingett Run, Ohio at the proposed site of the Bell Ridge Substation, located approximately 0.2 miles north of the intersection of State Route 26 and Bear Run Road. The proposed Project terminates approximately 2.4 miles north of Marietta, Ohio at the proposed site of the Devola Substation, located approximately 0.6 mile east of the intersection of State Route 60 and State Route 821. The proposed Project is approximately 10.1 ~~to 10.2~~ miles in length, ~~depending on the route selected,~~ will be constructed using primarily steel H-frame structures, and will require a new, approximately 100-foot-wide permanent right-of-way (ROW). The actual width of the ROW required for any particular section of the transmission line could vary from the 100-foot planning width, dependent on several factors for a specific location. For purposes of comparison of the features of the Preferred and Alternate Routes throughout this certificate application, AEP Ohio Transco is using the 100-foot ROW width which is estimated to be the average ROW requirement for the Project. Revised Figure 2-1 shows the Project vicinity, substation interconnecting points, and the Preferred and Alternate Routes identified by AEP Ohio Transco.

(3) Suitability of Preferred and Alternate Routes

Text provided in the December 21, 2017 Application filing remains unchanged.

(i) Preferred Route

The entirety of the Preferred Route from the proposed Bell Ridge Substation to the proposed Devola Substation is approximately ~~10.2~~ 10.1 miles in length.

The ~~10.2~~ 10.1-mile route begins at the proposed Bell Ridge Substation and runs immediately south for approximately 0.3 mile until it reaches AEP Ohio's ~~Transco's~~ existing 23 kV ~~transmission~~ distribution line. The route then runs in a general west/southwest direction for approximately 6.9 miles, paralleling AEP Ohio's ~~Transco's~~ existing 23 kV ~~transmission~~ distribution line. Just before the route reaches Lynch Church Road, the route jags northwest for 0.2 mile, then southwest for 0.1 mile, before continuing west along AEP Ohio's ~~Transco's~~ existing 23 kV ~~transmission~~ distribution line for another 1.9 miles. The route continues west for another 0.4 mile, crossing

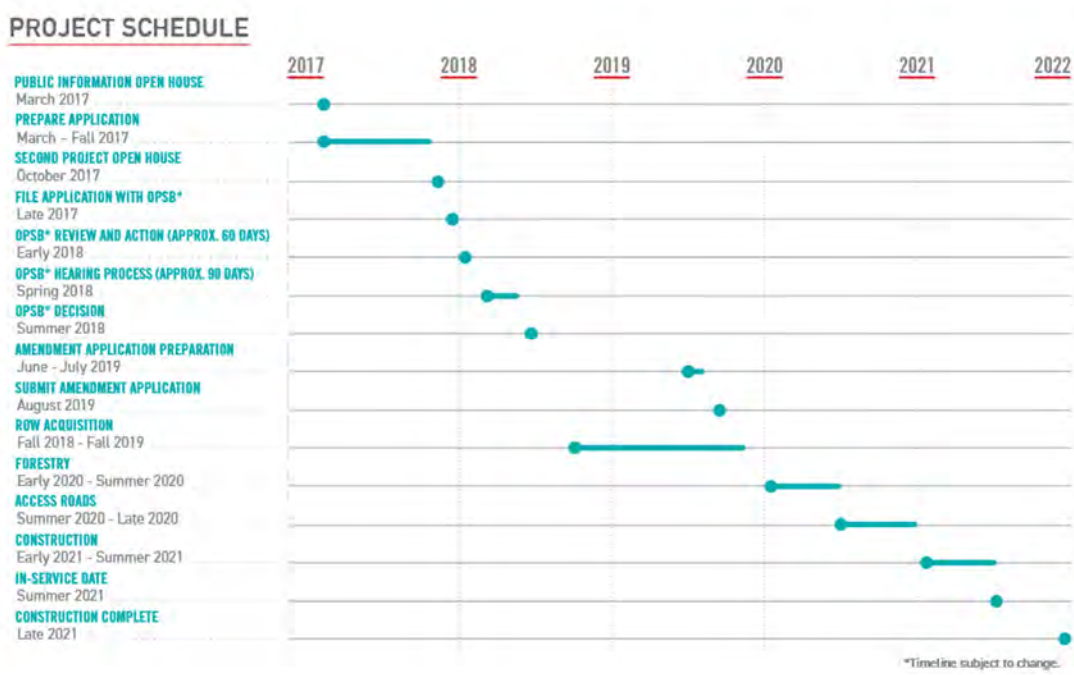
over Interstate 77 (I-77) and Mill Creek Road, before turning northwest and terminating at the proposed Devola Substation.

(ii) Alternate Route

Text provided in the December 21, 2017 Application filing remains unchanged.

(4) Schedule

The current project schedule is illustrated in the diagram below. ~~Note that the estimated end date indicated for construction is based on the latest finish if acquisition of property easements is delayed or longer than expected.~~



(B) APPLICANT DESCRIPTION

Text provided in the December 21, 2017 Application filing remains unchanged.

4906-5-03 REVIEW OF NEED AND SCHEDULE

(A) NEED FOR PROPOSED FACILITY

Text provided in the December 21, 2017 Application filing remains unchanged.

(B) REGIONAL EXPANSION PLANS

Text provided in the December 21, 2017 Application filing remains unchanged.

(C) SYSTEM ECONOMY AND RELIABILITY

Text provided in the December 21, 2017 Application filing remains unchanged.

(D) OPTIONS TO ELIMINATE THE NEED FOR THE PROPOSED PROJECT

Text provided in the December 21, 2017 Application filing remains unchanged.

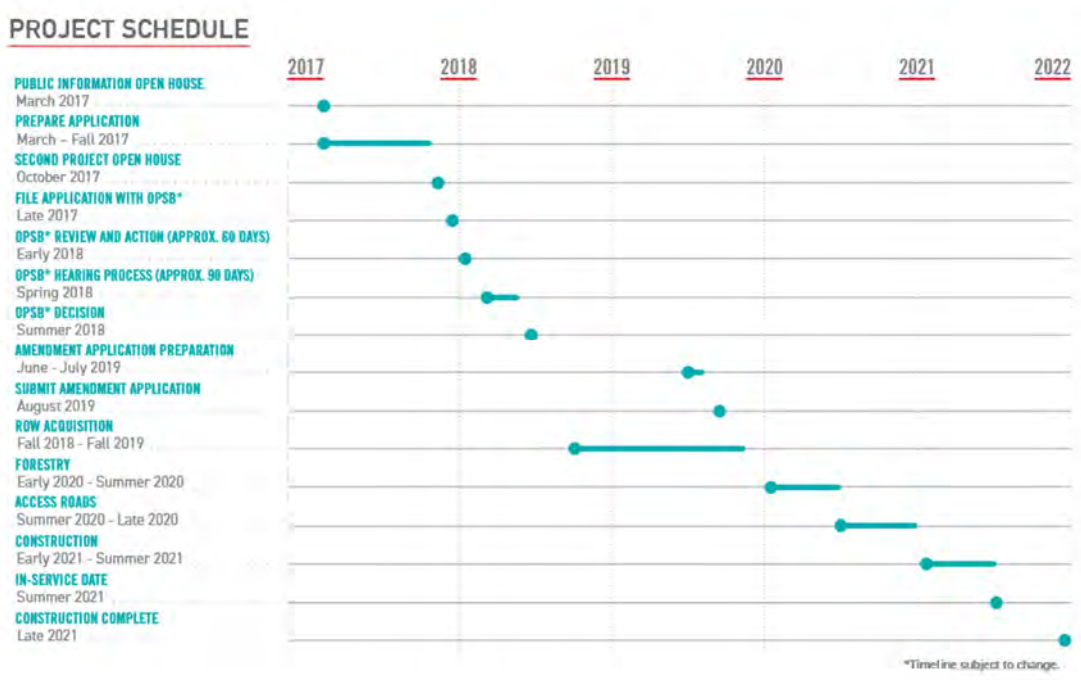
(E) FACILITY SELECTION RATIONALE

Text provided in the December 21, 2017 Application filing remains unchanged.

(F) PROJECT SCHEDULE

(1) Gantt Schedule Bar Chart

A schedule for the proposed Project is presented below.



(2) Impact of Critical Delays

Text provided in the December 21, 2017 Application filing remains unchanged.

4906-5-04 ROUTE ALTERNATIVES ANALYSIS

Text provided in the December 21, 2017 Application filing remains unchanged.

4906-5-05 PROJECT DESCRIPTION

(A) PROJECT AREA DESCRIPTION

Text provided in the December 21, 2017 Application filing remains unchanged.

(1) Project Area Map

Text provided in the December 21, 2017 Application filing remains unchanged.

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

The proposed ROW width is 100 feet for AEP Ohio Transco's planning purposes. Table 5-1 provides information about the Preferred and Alternate Route ROW acreage, length, and properties crossed based on the proposed centerline.

TABLE 5-1
Right-of-way Area, Length, and Number of Properties Crossed for the Preferred and Alternate Routes

	Route Alternatives	
	Preferred	**Alternate**
Proposed ROW area (in acres)	~~123.47~~ 123.0	122.80
Length (in miles)	~~10.2~~ 10.1	10.1
Number of properties crossed (by ROW)[1]	~~106~~ 110	81

[1] Two new property owners are affected by the amended Preferred Route. The two other additional properties (parcels) are owned by landowners that have parcels already crossed by the ROW.

(B) ROUTE OR SITE ALTERNATIVE FACILITY LAYOUT AND INSTALLATION

(1) Site Clearing, Construction, and Reclamation

Text provided in the December 21, 2017 Application filing remains unchanged.

(a) Surveying and Soil Testing

Text provided in the December 21, 2017 Application filing remains unchanged.

(b) Grading and Excavation

Text provided in the December 21, 2017 Application filing remains unchanged.

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

Text provided in the December 21, 2017 Application filing remains unchanged.

(d) Stringing of Cable

Text provided in the December 21, 2017 Application filing remains unchanged.

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

Text provided in the December 21, 2017 Application filing remains unchanged.

(f) Post-Construction Reclamation.

Text provided in the December 21, 2017 Application filing remains unchanged.

(2) Facility Layout

(a) Transmission Line Route Map

Revised Figure 8-2A through ~~8-2N~~ 8-2P and Figure 8-3A through 8-3O show maps at 1:6,000-scale of the Preferred and Alternate Routes, respectively. 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 locations) will not be finalized until a final route is approved by the OPSB and the final engineering design is complete, preliminary locations are provided for the Preferred Route as illustrated in Figures 8-2A through 8-2N. 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.~~ Revised Figure 8-2A through 8-2P has been updated to include the proposed location of transmission line poles. No fenced-in or secured areas are planned for the Project.

AEP Ohio Transco is currently using a laydown yard in Marietta, located at 2633 Waterford Road, Marietta, OH 45750. An additional staging area/laydown area is currently being identified. ~~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 December 21, 2017 Application filing remains unchanged.

(c) Plans for Future Modifications

Text provided in the December 21, 2017 Application filing remains unchanged.

(C) DESCRIPTION OF PROPOSED TRANSMISSION LINES OR PIPELINES

Text provided in the December 21, 2017 Application filing remains unchanged

4906-5-06 ECONOMIC IMPACT AND PUBLIC INTERACTION

Text provided in the December 21, 2017 Application filing remains unchanged.

4906-5-07 HEALTH AND SAFETY, LAND USE, AND REGIONAL DEVELOPMENT

(A) HEALTH AND SAFETY

(1) Compliance with Safety Regulations

Text provided in the December 21, 2017 Application filing remains unchanged.

(2) Electric and Magnetic Fields

Text provided in the December 21, 2017 Application filing remains unchanged.

(a) Calculated Electric and Magnetic Field Strength Levels

Text provided in the December 21, 2017 Application filing remains unchanged.

(b) Current State of EMF Knowledge

Text provided in the December 21, 2017 Application filing remains unchanged.

(c) Line Design Considerations

Text provided in the December 21, 2017 Application filing remains unchanged.

(d) EMF Public Inquiries Policy

Text provided in the December 21, 2017 Application filing remains unchanged.

(3) Estimate of Radio, Television, and Communications Interference

Text provided in the December 21, 2017 Application filing remains unchanged.

(4) Noise from Construction, Operations, and Maintenance

Text provided in the December 21, 2017 Application filing remains unchanged.

(B) LAND USE

(1) Map of the Site and Route Alternatives

Text provided in the December 21, 2017 Application filing remains unchanged.

(2) Impact on Identified Land Uses

Land use in the project area is primarily influenced by topography. The project area is steeply sloped and primarily forested with pockets of residential, commercial and agriculture land use. Residential and commercial structures are mainly located along State Route 26 and I-77. Agricultural land use is mainly located within the Duck Creek and Little Muskingum River valleys.

Comparisons of the various land use types and land use features for both routes are included in Tables 7-4 through 7-6 for the Preferred and Alternate Routes. The estimates of each land use type being crossed by the transmission line, land use within the 100-foot-wide construction ROW, and the permanent ROW (linear feet, acreage, and percentages) were determined using geographic information system (GIS) software calculations. The potential disturbance area during

construction activities (vegetation clearing, pole installations, etc.) consists of the 100-foot-wide construction ROW and access roads. 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.

TABLE 7-4
Length and Percent of Land Uses Crossed by Route Alternatives

Land Use	Preferred Route[1]		Alternate Route[1]	
	Linear Feet	Percent	Linear Feet	Percent
Agriculture / Agricultural District Land	~~6,061~~ 5,892	~~11.3~~ 11.0%	6,218	11.6%
Commercial / Industrial	~~198~~ 175	~~0.4~~ 0.3%	0	0.0%
Institutional	0	0.0%	0	0.0%
Open Land / Pasture	~~364~~ 414	~~0.7~~ 0.8%	360	0.7%
Residential	~~8,731~~ 8,761	~~16.2~~ 16.4%	9,170	17.2%
Road Right-of-Way	~~483~~ 586	~~0.9~~ 1.1%	368	0.7%
Utility Right-of-Way[2]	~~1,358~~ 1,275	~~2.5~~ 2.4%	605	1.1%
Wayne National Forest	~~4,554~~ 3,556	~~8.5~~ 6.7%	0	0.0%
Woodlot	~~30,720~~ 31,761	~~57.2~~ 59.3%	35,477	66.4%
Delineated Wetland	~~112~~ 126	0.2%	206	0.4%
Delineated Stream	~~1,013~~ 926	~~1.9~~ 1.7%	1,009	1.9%
Delineated Pond	~~77~~ 12	~~0.1~~ <0.1%	0	0.0%
Open Water	49	0.1%	7	<0.1%
Total	**~~53,720~~ 53,533**	**100%**	**53,420**	**100%**

[1] Numbers in the table are for the planned potential disturbance area which is a nominal 100-foot-wide corridor centered on the route.

[2] Although the Preferred Route parallels approximately 9.3 miles of AEP Ohio's ~~Transco's~~ 23 kV line, the proposed centerline for the new transmission line ~~is~~, in most cases, is ~~positioned beyond~~adjacent to the edge of the existing 23 kV line ROW. ~~Thus~~ Therefore, the linear feet of the Preferred Route ~~that crosses~~crossing "Utility Right-of-Way" is ~~relatively~~ lower than expected.

TABLE 7-5
Acreage and Percent of Land Uses Crossed by Route Alternatives

Land Use	Preferred Route*		Alternate Route*	
	Acreage	Percent	Acreage	Percent
Agriculture / Agricultural District Land	~~9.98~~ 10.1	~~8.1~~ 8.2%	15.03	12.2%
Commercial / Industrial	~~0.37~~ 0.4	0.3%	0.00	0.0%
Institutional	0.0	0.0%	0.00	0.0%
Open Land / Pasture	~~0.36~~ 0.7	~~0.3~~ 0.6%	0.65	0.5%
Residential	~~14.93~~ 14.7	~~12.1~~ 12.0%	20.64	16.8%
Road Right-of-Way	~~0.92~~ 1.0	~~0.7~~ 0.8%	0.83	0.7%
Utility Right-of-Way	~~33.27~~ 28.3	~~27.0~~ 23.0%	2.18	1.8%
Wayne National Forest	~~6.77~~ 5.3	~~5.5~~ 4.3%	0.01	<0.1%
Woodlot	~~54.06~~ 59.7	~~43.8~~ 48.5%	80.52	65.6%
Delineated Wetland	~~0.49~~ 0.5	0.4%	0.43	0.4%
Delineated Stream	~~2.12~~ 2.1	1.7%	2.48	2.0%
Delineated Pond	~~0.15~~ 0.1	0.1%	0.00	0.0%
Open Water	~~0.05~~ 0.1	~~<0.1~~ 0.1%	0.03	<0.1%
Total	**~~123.47~~ 123.0**	**100%**	**122.80**	**100%**

*Numbers in the table are for the planned potential disturbance area which is a nominal 100-foot-wide corridor centered on the route.

TABLE 7-6
Number of Sensitive Features Within or Near the Potential Disturbance Area for the Route Alternatives

	Route Alternatives	
	Preferred	**Alternate**
Length (in miles)	~~10.2~~ 10.1	10.1
Features within the Potential Disturbance Area of Route Alternatives*		
Historic Structures (OHI)	0	0
National Register of Historic Places	0	0
Previously Identified Archaeological Sites	~~0~~ 1	0
Residences	0	0
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	1	1
Airports	0	0
Features within 1,000 feet of Route Alternatives (centerline)		
Historic Structures (OHI)	~~4~~ 0	4
National Register of Historic Places[1]	0	0
Previously Identified Archaeological Sites	~~2~~ 4	1
Residences	~~114~~ 112	78
Commercial Buildings	9	3
Industrial Buildings	~~5~~ 6	1
Schools and Hospitals	0	0
Churches and Civic Buildings	1	0
State/Federal Forests and Recreational Land	1	1
Airports	0	0

* The planned potential disturbance area is a nominal 100-foot-wide corridor centered on the route.

[1] In the December 21, 2017 Application filing, the number of historic structures within 1,000 feet of the Preferred Route provided was incorrect. The correct number of historic structures is now provided. There was no change in the number of historic structures within 1,000 feet of Preferred Route.

(a) Residential

Preferred Route: The Preferred Route is located within 1,000 feet of ~~114~~ 112 residences, none of which are within the planned potential disturbance area. As shown in Table 7-5, residential land makes up ~~12.1~~ 12.0 percent of the Preferred Route ROW (100 feet wide).

Alternate Route: The Alternate Route is located within 1,000 feet of 78 residences, none of which are within the planned potential disturbance area. As shown in Table 7-5, residential land makes up 16.8 percent of the Alternate Route ROW (100 feet wide).

(b) Commercial

Text provided in the December 21, 2017 Application filing remains unchanged.

(c) Industrial

Preferred Route: The Preferred Route is located within 1,000 feet of ~~five~~ six industrial buildings, none of which are within the planned potential disturbance area. As shown in Table 7-5, commercial/industrial land makes up 0.3 percent of the Preferred Route ROW (100 feet wide).

Alternate Route: The Alternate Route is located within 1,000 feet of one industrial building, which is not within the planned potential disturbance area. As shown in Table 7-5, commercial/industrial land makes up 0.0 percent of the Alternate Route ROW (100 feet wide).

(d) School and Hospitals

Text provided in the December 21, 2017 Application filing remains unchanged.

(e) Churches and Civic Buildings

Text provided in the December 21, 2017 Application filing remains unchanged.

(f) State/Federal Forests and Recreational

Wayne National Forest is located within the planned potential disturbance area and within 1,000 feet of the Preferred and Alternate Route. As shown in Table 7-5, Wayne National Forest makes up ~~5.5~~ 4.3 percent of the Preferred Route ROW (100 feet wide) and less than 0.1 percent Alternate Route ROW (100 feet wide).

(g) Agricultural

~~As shown in Table 7-4, approximately 11.3 percent (6,061 feet) of the Preferred Route and 11.6 percent (6,218 feet) of the Alternate Route cross agricultural fields.~~ As shown in Table 7-5, approximately 8.2 percent (10.1 acres) of the Preferred Route and 12.2 percent (15.03 acres) of the Alternate Route cross agricultural fields. A discussion of agricultural land and Agricultural District Land is provided in section (C) below.

(3) Impact on Identified Nearby Structures

(a) Structures within 200 Feet of Proposed Right-of-Way

There are ~~26~~ 23 residences within 200 feet of the Preferred Route ROW; these residences range from ~~23~~ 22 to ~~181~~ 177 feet from the ROW. There are four residences within 200 feet of the Alternate Route ROW; these residences range from 59 to 181 feet from the ROW. There is one commercial building within 200 feet of the Preferred Route ROW; this building is ~~94~~ 91 feet from the ROW. There are no commercial buildings within 200 feet of the Alternate Route ROW. There is one industrial building within 200 feet of the Preferred Route ROW; this building is 180 feet from the ROW. There are no industrial buildings within 200 feet of the Alternate Route ROW. There are ~~36~~ 40 other structures (i.e., garage, barn) and nine other structures ~~(i.e., garage, barn)~~ within 200 feet of the Preferred Route and Alternate Route ROW, respectively. There are no ~~industrial,~~ institutional, or recreational structures within 200 feet of the proposed ROW for either route.

(b) Destroyed, Acquired, or Removed Buildings

Text provided in the December 21, 2017 Application filing remains unchanged.

(c) Mitigation Procedures

Text provided in the December 21, 2017 Application filing remains unchanged.

(C) AGRICULTURAL LAND IMPACTS

The potential impacts of the Project on agricultural land use include potential damage to crops that may be present, disturbance of underground field drainage systems, compaction of soils and potential for temporary reduction of crop productivity. Agricultural land used for crop cultivation within the Preferred and Alternate Route ROWs is estimated at ~~9.98~~ 10.1 acres and 15.03 acres, respectively. Other agricultural pastureland or other open land comprises ~~0.36~~ 0.7 acre of the Preferred Route and 0.65 acre 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

Text provided in the December 21, 2017 Application filing remains unchanged.

(2) Impacts to Agricultural Lands and Agricultural Districts

The Washington County Auditor was contacted to obtain information on current Agricultural District lands records. The centerline of the Preferred Route crosses eight Agricultural District parcels. The parcels crossed are in the western half of the Project, approximately 0.5 to 1.5 miles east of I-77. Three additional Agricultural District parcels are located within the Preferred Route ROW and 35 additional Agricultural District parcels are located within 1,000 feet of the Preferred

Route. The centerline and ROW of the Alternate Route crosses four Agricultural District parcels. The parcels crossed are in the western half of the Project, approximately 1.8 to 2.7 miles east of I-77. Fifteen additional Agricultural District parcels are located within 1,000 feet of the Alternate Route. The data was received from the Washington County Auditor on ~~December 13, 2017~~ July 10, 2019. The provided data fulfills the requirement of O.A.C. 4906-5-07 (C)(1)(b), which states this data must be collected not more than 60 days prior to submittal.

(a) Acreage Impacted

Text provided in the December 21, 2017 Application filing remains unchanged.

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

Text provided in the December 21, 2017 Application filing remains unchanged.

(c) Mitigation Procedures

Text provided in the December 21, 2017 Application filing remains unchanged.

(D) LAND USE PLANS AND REGIONAL DEVELOPMENT

Text provided in the December 21, 2017 Application filing remains unchanged.

(1) Impacts to Regional Development

Text provided in the December 21, 2017 Application filing remains unchanged.

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

Text provided in the December 21, 2017 Application filing remains unchanged.

(E) CULTURAL AND ARCHAEOLOGICAL RESOURCES

A Phase I archaeological resources survey was completed for the Preferred Route, excluding the Wayne National Forest, in September 2017. Subsequently, a Phase I archaeological resources survey was completed for segments of the Preferred Route within Wayne National Forest, in July and August 2018. Additional Phase I archaeological resources surveys were completed in May 2019 to account for changes to the transmission line alignment and access roads. The Phase I cultural resources investigation reports, along with Section 106 consultation correspondence with the Ohio Historical Preservation Office (OHPO), was provided to the OPSB after the original Certificate application filing. A Phase I addendum report for the May 2019 surveys, covering changes to the transmission line alignment and access roads, will be provided to the OPSB and the OHPO. A Phase I archaeological resources survey was not completed for the Alternate Route.

Two archaeological sites were identified during the aforementioned surveys of the Preferred Route corridor and access roads outside of the Wayne National Forest parcels. These include Sites 33WN502 and 33WN503, historic-period scatters that are not eligible for National Register of Historic Places (NRHP) listing. No cultural resources were identified during the cultural resources survey within the Wayne National Forest.

An architectural and historical resources survey was conducted in September 2017 and identified 14 resources within the Area of Potential Effects (APE), including residences, farms, outbuildings, a manufacturing facility, and a cemetery. Of this total, none are listed in the NRHP. Based on the results of an evaluation for historic and/or architectural significance according to NRHP criteria, as well as the resources' level of integrity, none of the surveyed resources was recommended eligible for listing in the NRHP. The OHPO concurred with this recommendation by letter dated February 12, 2018.

The results of updated OHPO cultural resources database research (accessed May 23, 2019), coupled with the results of the cultural resources surveys conducted in September 2017, July and August 2018, and May 2019, were used to identify cultural resources within 1,000 feet of the Preferred Route centerline. Since no new cultural resources were identified, no changes in findings have occurred since the OPSB's approval of the Preferred Route.

~~Cultural resource studies of the project area were conducted on behalf of AEP Ohio Transco. To date, these studies have included a background records check and literature review using data files from the State Historic Preservation Office (SHPO) for both the Preferred and Alternate Routes, an architectural and historic resources survey of the entirety of the Preferred Route, and a Phase I archaeological reconnaissance field investigation of most of the Preferred Route. A summary of this effort for the Preferred Route will be filed as a confidential filing with the Board because of the sensitive nature of the location information for archaeological sites.~~

(1) Cultural Resources Map

Text provided in the December 21, 2017 Application filing remains unchanged.

(2) Cultural Resources in Study Corridor

Cultural resources studies to date have involved background research utilizing data files from the Ohio Historic Preservation Office (OHPO) online mapping system for both the Preferred and Alternate Routes. In addition, a Phase I archaeological reconnaissance survey and an architectural history investigation were conducted for the original OPSB-approved Preferred Route.

For the background research, a ~~1~~ one-mile buffer was used around both the Preferred and Alternate Routes to identify these previously known cultural resources and to provide information on the probability of identifying cultural resources within the potential disturbance area. The OHPO online mapping database included a review of the Ohio Archaeological Inventory (OAI), the OHI, Determination of Eligibility files, the ~~National Register of Historic Places (~~NRHP~~)~~, historic cemeteries, historic bridges, national historic landmarks, and previous cultural resources surveys.

Phase I cultural resources surveys were completed for the Preferred Route in September 2017, as well as July and August 2018. Additional Phase I cultural resources surveys were completed for amended elements of the Preferred Route in May 2019. The Phase I archaeological reconnaissance resulted in the identification of two historic-period archaeological sites, neither of which is recommended eligible for the NRHP. Of these, one is located within the ROW of the

current Preferred Route. One additional previously recorded historic-period archaeological site is also located adjacent to a segment of proposed access road for the Preferred Route. This site has not been evaluated for NRHP eligibility and no impacts to this resource are anticipated.

~~No known cultural resources were identified within the potential disturbance area of either the Preferred Route or the Alternate Route from the desktop review. A field investigation of the potential disturbance area of the Preferred Route was conducted. To date, the Phase I archaeological reconnaissance resulted in the identification of two prehistoric isolated finds, neither of which is recommended eligible for the NRHP. A total of 4.7 acres of the Preferred Route remains to be investigated through Phase I archaeological surveys. The Phase I archaeological investigation will be completed in these remaining areas in 2018. Once complete, a report of this effort for the Preferred Route will be filed as a confidential filing with the Board.~~

~~Additionally, the architectural and historical resources survey resulted in the identification of 14 architectural and historical resources, none of which are recommended eligible for the NRHP. Once complete, a report of this survey effort will be filed as a confidential filing with the Board.~~

(3) Construction, Operation, and Maintenance Impacts on Cultural Resources

As noted above, two archaeological sites were identified during Phase I cultural resources surveys. The OHPO concurred by letter on February 12, 2018, stating that the sites were not significant, and no further work was required. One previously recorded historic-period archaeological site is also located adjacent to a segment of proposed access road. While this site has not been evaluated for NRHP eligibility, no impacts to this resource are anticipated.

~~Based on the results of the cultural resources desktop review, architectural and historical resources survey, and Phase I archaeological survey conducted to date, impacts to known cultural resources associated with the construction, operation, and maintenance of the proposed Project are not anticipated.~~

(4) Mitigation Procedures

Text provided in the December 21, 2017 Application filing remains unchanged.

(5) Aesthetic Impact

Text provided in the December 21, 2017 Application filing remains unchanged.

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

Text provided in the December 21, 2017 Application filing remains unchanged.

(A) ECOLOGICAL MAP

Text provided in the December 21, 2017 Application filing remains unchanged.

(B) FIELD SURVEY REPORT FOR VEGETATION AND SURFACE WATERS

Text provided in the December 21, 2017 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 fields, dense areas of scrub-shrub, early or second growth successional forests, mesophytic forests, riparian floodplains, palustrine emergent (PEM) wetlands, palustrine scrub-shrub (PSS) wetlands, palustrine forested (PFO) wetlands, residential and commercial lawns, and existing utility ROW, in addition to the identified waterbodies. The Wayne National Forest land occupies a small portion of the Preferred Route (~~6.77~~ 5.3 acres) and Alternate Route (0.01 acre). Habitat descriptions are provided below. Details on the anticipated impacts from construction of the proposed Project are provided in Section 4906-05-08(B)(3)(a) below and in Table 8-5.

(i) Agricultural and Pasture Fields

Text provided in the December 21, 2017 Application filing remains unchanged.

(ii) Old Field and Scrub-Shrub

Text provided in the December 21, 2017 Application filing remains unchanged.

(iii) Successional Forests, Mesophytic Forests, and Forested Riparian Floodplains

Text provided in the December 21, 2017 Application filing remains unchanged.

(iv) Wetlands

Text provided in the December 21, 2017 Application filing remains unchanged.

(v) Residential and Commercial

Text provided in the December 21, 2017 Application filing remains unchanged.

(vi) Utility ROW

Text provided in the December 21, 2017 Application filing remains unchanged.

(b) Wetlands

Text provided in the December 21, 2017 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 Routes, and reviewed to guide the field ecological survey as one factor in identifying potential wetland locations (USFWS, 2017a). The NWI-mapped areas for the Preferred and Alternate Routes are shown on revised Figure 8-2A through ~~8-2N~~ 8-2P and Figure 8-3A through 8-3O, respectively. 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 Routes

Wetland Type	NWI Code	NWI Habitat Type*	Total Number of Each Habitat Type Preferred/ Alternate
Freshwater Emergent Wetland	PEM1A	Palustrine Emergent Persistent Temporary Flooded	1 – Alternate
Freshwater Emergent Wetland	PEM1Ch	Palustrine Emergent Persistent Seasonally Flooded Dike/Impounded	1 – Preferred 1 – Alternate
Freshwater Emergent Wetland	PEM1Fh	Palustrine Emergent Persistent Semipermanently Flooded Dike/Impounded	~~1 – Preferred~~ 1 – Alternate
Freshwater Forested/Shrub Wetland	PSS1C	Palustrine Scrub-Shrub Broad-Leaved Deciduous Seasonally Flooded	1 – Alternate
Freshwater Pond	PUBFh	Palustrine Unconsolidated Bottom Semipermanently Flooded Diked/Impounded	1 - Preferred
Freshwater Pond	PUBGh	Palustrine Unconsolidated Bottom Intermittently Exposed Diked/Impounded	~~6 – Preferred~~ 14 – Alternate
Freshwater Pond	PUBHh	Palustrine Unconsolidated Bottom Permanently Flooded Diked/Impounded	10 - Preferred
Riverine	R2UBH	Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded	~~1~~ 2 – Preferred 1 – Alternate
Riverine	R3UBH	Riverine Upper Perennial Unconsolidated Bottom Permanently Flooded	5 – Preferred 5 – Alternate
Riverine	R4SBC	Riverine Intermittent Streambed Seasonally Flooded	12 – Preferred 10 – Alternate
Riverine	R5UBH	Riverine Unknown Perennial Unconsolidated Bottom Permanently Flooded	2 – Preferred
Total Number of Preferred Route NWI Wetlands:			**~~28~~ 33**
Total Number of Alternate Route NWI Wetlands:			**34**

TABLE 8-1
NWI Wetlands Within 1,000 feet of the Preferred and Alternate Routes

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

Notes:
Total number of PEM = ~~5~~ 4, PSS= 1, Pond = ~~20~~ 25, Riverine = ~~36~~ 37
* USFWS, 2016a

(ii) Field-Delineated Wetlands

A total of 23 wetlands (totaling ~~1.34~~ 1.1 acres) were delineated within the Preferred Route Field Survey Area. Within the Alternate Route Field Survey Area, 23 wetlands (totaling 1.83 acres) were delineated.

A total of ~~0.58~~ 0.4 acre of wetlands were delineated within the Preferred Route ROW and 0.45 acre within the Alternate Route ROW. These field-delineated wetlands for the Preferred and Alternate Routes are mapped on revised Figure 8-2A through ~~8-2N~~ 8-2P and Figure 8-3A through 8-3O, respectively.

Detailed information on each wetland is provided in Table 8-2. The anticipated temporary construction impacts, where unavoidable, on these wetlands are included in 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 Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type [a]	ORAM Score	ORAM Category	Acreage within Field Survey Area [b, d]	Acreage within Potential Disturbance Area/ROW [c, d]	Length Crossed by Centerline (feet)
Preferred Route Wetlands								
WJJ003	Preferred	8-2A	PEM	22	1	~~0.05~~ 0.1	0	0
WME001	Preferred	8-2A	PEM	29	1	~~0.03~~ 0.1	~~0.01~~ <0.1	0
WDS014	Preferred	8-2C	PEM	25	1	~~<0.01~~ <0.1	~~<0.01~~ <0.1	0
WDS013	Preferred	8-2C	PEM	26	1	~~<0.01~~ <0.1	~~<0.01~~ <0.1	0
WTQ019	Preferred	8-2E	PEM	22	1	~~<0.01~~ <0.1	~~<0.01~~ <0.1	4
WTQ008	Preferred	8-2E	PEM	53	2	~~0.03~~ <0.1	~~<0.01~~ <0.1	0
WTQ007	Preferred	8-2E	PEM	12	1	~~0.03~~ <0.1	~~<0.01~~ <0.1	0
WTQ005	Preferred	8-2F	PEM	34	1 or 2 Gray Zone	~~0.03~~ <0.1	0	0
WTQ006	Preferred	8-2F	PEM	22	1	~~0.04~~ 0.1	~~0.02~~ 0	0
WTQ004	Preferred	8-2F	PEM	23	1	~~0.01~~ <0.1	~~<0.01~~ 0	0
WJJ001	Preferred	8-2G	PEM	50	2	~~0.01~~ <0.1	0	0
WJJ002	Preferred	8-2H	PEM	33	1 or 2 Gray Zone	~~0.03~~ <0.1	~~<0.01~~ <0.1	0
WTQ002	Preferred	8-2J	PEM	27	1	~~<0.01~~ <0.1	~~<0.01~~ <0.1	0
WTQ001	Preferred	8-2J	PEM	22	1	~~<0.01~~ <0.1	0	0
WDS008	Preferred	8-2K	PSS	50	2	~~0.03~~ <0.1	~~0.03~~ <0.1	0
WDS009	Preferred	8-2K	PSS	43	Modified 2	~~0.01~~ <0.1	0	0
WDS007	Preferred	8-2K	PEM	49	2	~~<0.01~~ <0.1	0	0
WDS002	Preferred	8-2K	PEM	14	1	~~0.01~~ <0.1	0	0
WDS001A	Preferred	8-2K	PEM	15	1	~~0.03~~ <0.1	0	0

TABLE 8-2
Delineated Wetlands within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type [a]	ORAM Score	ORAM Category	Acreage within Field Survey Area [b, d]	Acreage within Potential Disturbance Area/ROW [c, d]	Length Crossed by Centerline (feet)
WDS001B	Preferred	8-2L	PEM	15	1	~~0.45~~ 0.3	~~0.19~~ 0.2	~~59~~ 50
WDS006	Preferred	8-2L	PEM	26	1	~~0.03~~ <0.1	~~0.03~~ <0.1	0
WDS005	Preferred	8-2L	PEM	35	Modified 2	~~0.02~~ <0.1	0	0
WDS004A	Preferred	8-2L	PEM	41	Modified 2	~~0.38~~ 0.4	~~0.21~~ 0.2	~~66~~ 72
WDS004B	Preferred	8-2L	PFO	41	Modified 2	~~0.05~~ 0.1	0	0
WDS020	Preferred	8-2M	PEM	49	2	~~<0.01~~ <0.1	0	0
					Total	**~~1.34~~ 1.1**	**~~0.58~~ 0.4**	**~~129~~ 126**
Alternate Route Wetlands								
WTQ020	Alternate	8-3A	PEM	22	1	0.31	0.13	57
WTQ027	Alternate	8-3B	PEM	40.5	Modified 2	0.32	0.11	46
WTQ025	Alternate	8-3C	PEM	48	2	0.09	0	0
WTQ026	Alternate	8-3C	PEM	50	2	<0.01	0	0
WTQ024	Alternate	8-3C	PEM	28	1	<0.01	0	0
WTQ022	Alternate	8-3C	PEM	27	1	0.05	0	0
WTQ017	Alternate	8-3H	PEM	25	1	0.04	0	0
WTQ018	Alternate	8-3H	PEM	25	1	0.11	0	0
WTQ016	Alternate	8-3I	PEM	27	1	0.01	0	0
WTQ015	Alternate	8-3J	PEM	29	1	0.03	<0.01	0
WTQ014	Alternate	8-3J	PEM	16	1	<0.01	<0.01	0
WTQ013	Alternate	8-3J	PEM	16	1	0.04	0	0

TABLE 8-2
Delineated Wetlands within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

Wetland Name	Route	Figure	Cowardin Wetland Type [a]	ORAM Score	ORAM Category	Acreage within Field Survey Area [b, d]	Acreage within Potential Disturbance Area/ROW [c, d]	Length Crossed by Centerline (feet)
WJJ100	Alternate	8-3K	PEM	39	Modified 2	0.22	0.07	43
WJJ101	Alternate	8-3K	PEM	41	Modified 2	0.41	0.07	30
WDS018	Alternate	8-3K	PSS	52.5	2	0.02	<0.01	0
WDS019	Alternate	8-3K	PEM	46	2	0.01	0.01	0
WDS021	Alternate	8-3K	PSS	47	2	0.02	0.02	32
WTQ010	Alternate	8-3L	PEM	12	1	0.04	0	0
WDS012	Alternate	8-3M	PEM	46	2	<0.01	0	0
WTQ009	Alternate	8-3N	PEM	24	1	<0.01	<0.01	0
WDS017	Alternate	8-3O	PEM	30	1 or 2 Gray Zone	0.03	0	0
WDS016	Alternate	8-3O	PEM	26	1	<0.01	0	0
WDS015A	Alternate	8-3O	PEM	35.5	Modified 2	<0.01	0	0
WDS015B	Alternate	8-3O	PFO	35.5	Modified 2	<0.01	0	0
					Total	**1.83**	**0.45**	**208**

Notes:

a Wetland Type: PEM = palustrine emergent, PSS = palustrine scrub/shrub, PFO = palustrine forested.

b The width of the Field Survey Area was 300 feet.

c The width of the potential disturbance area and the final maintained ROW is planned to be 100 feet.

d All measurements listed as <0.1 were assumed to be 0 for calculations. All measurements listed as <0.01 were assumed to be 0.01 for calculations.

< = less than

(c) Waterbodies

(i) Field-Delineated Streams

Streams and drainage channels were delineated and assessed during the ecological survey of the Preferred and Alternate Routes. Streams with drainage areas greater than 1 square mile or maximum pool depths greater than 40 centimeters (cm) were assessed using the OEPA Qualitative Habitat Evaluation Index (QHEI). The QHEI is one measure that is used by OEPA, in association with biotic sampling, to determine a stream's aquatic life use designation in accordance with the Ohio water quality standards (OEPA, 2006). The QHEI method classifies streams based on their drainage area. Streams that drain greater than or equal to 20 square miles are classified as "larger streams," while those that drain less than 20 square miles are classified as "headwaters." QHEI-classified streams then receive a narrative rating based upon their score:

- Score less than 30 for both headwaters and larger streams = Very Poor
- Score between 30 and 42 for headwaters, and 30 and 44 for larger streams = Poor
- Score between 43 and 54 for headwaters, and 45 and 59 for larger streams = Fair
- Score between 55 and 69 for headwaters, and 60 and 74 for larger streams= Good
- Score greater than or equal to 70 for headwaters, and 75 for larger streams = Excellent

Twenty-one stream segments (STQ128, STQ128A, STQ128B, STQ128D, STQ128E, STQ128F, SME016, SME005, SDS112, STQ138, SJJ003, SDS053, SDS004, STQ177, STQ143, SDS108, STQ087, STQ074, SJJ002, SDS092, and STQ055) were evaluated using the QHEI method. Of these streams segments, nine were located in the Preferred Route and 12 were located in the Alternate Route. Streams labeled STQ128 are all segments of the Little Muskingum River. Segments of the Little Muskingum River were given a unique identifier to individually evaluate each segment. The OEPA has designated the section of the Little Muskingum River between Witten Fork and Fifteen Mile Creek as a Superior High Quality Water (OEPA, 2003). This includes crossings STQ128D and STQ128E. Field personnel completed the QHEI near the proposed centerline of the transmission line crossing when possible.

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 pools depths less than or equal to 40 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 potential rheocrene streams were listed in Table 8-3 as "Rheocrene Potential."

A total of 285 streams segments were evaluated using the HHEI method. One hundred and ~~thirty-seven~~ thirty-three (~~137~~ 133) stream segments were identified along the Preferred Route Field Survey Area and 136 streams were identified along the Alternate Route Field Survey Area. Twelve (12) stream segments were identified along both the Preferred and Alternate Routes where the routes overlapped. The HHEI evaluations were completed at the proposed transmission line crossing points, if crossed by the proposed alignment.

Streams identified during the ecological survey on the Preferred and Alternate Routes are shown on revised Figure 8-2A through ~~8-2N~~ 8-2P and Figure 8-3A through 8-3O, respectively. Detailed information on each delineated stream is included in Table 8-3. Aquatic life use designations within the Central Ohio tributaries basin obtained from O.A.C. 3745-1-09 are also provided. The Ohio River, located approximately 2.7 miles south of the proposed Devola substation, is a traditionally navigable waterway as defined by USACE.

Approximately ~~13,413~~ 13,621 linear feet of stream are located within the Preferred Route ROW, while approximately 11,688 linear feet are located within the Alternate Route ROW.

The Preferred Route centerline has ~~70~~ 85 stream crossings. The length of delineated streams located within the Preferred Route Field Survey Area is approximately ~~37,826~~ 37,716 linear feet. The Alternate Route centerline has 71 stream crossings. The total length of streams located within the Field Survey Area of the Alternate Route is approximately 33,578 linear feet. Construction impacts on these features are included in Table 8-3 and further discussed in Section 4906-05-08(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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
Preferred Route												
STQ036 UNT Little Muskingum River	Preferred	8-2A	Ephemeral	3	3.1	HHEI	27	-	Modified Class I	No	~~9~~ 5	0
SJJ025 UNT Little Muskingum River	Preferred	8-2A	Perennial	3	6.0	HHEI	37	-	Rheocrene Potential	Yes	~~365~~ 373	121
STQ128E Little Muskingum River	Preferred	8-2A	Perennial	128	60	QHEI	49	Exceptional Warmwater Habitat	Fair	Yes	399	144
SME017 UNT Bear Run	Preferred	8-2B	Intermittent	15	31.0	HHEI	73	-	Class III	Yes	~~271~~ 278	~~104~~ 110
SME016 Bear Run	Preferred	8-2B	Perennial	30	106.0	QHEI	66	Warmwater Habitat	Good	Yes	364	134
SME015 UNT Bear Run	Preferred	8-2B	Intermittent	5	45.0	HHEI	66	-	Modified Class II	Yes	~~475~~ 481	~~212~~ 215
SME014 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	5	0.0	HHEI	39	-	Class II	No	~~101~~ 95	0
SME013 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	6	0.0	HHEI	53	-	Class II	No	~~169~~ 165	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SME012 UNT Little Muskingum River	Preferred	8-2B	Intermittent	8	0.0	HHEI	40	-	Class II	Yes	~~822~~ 813	~~467~~ 458
STQ128F Little Muskingum River	Preferred	8-2B	Perennial	125	60.0	QHEI	62	Exceptional Warmwater Habitat	Good	Yes	~~324~~ 323	108
SDS170 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	2	0.0	HHEI	11	-	Class I	No	~~10~~ 12	0
SDS073 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	1	4.0	HHEI	33	-	Rheocrene Potential	Yes	~~284~~ 281	105
SDS072 UNT Little Muskingum River	Preferred	8-2C	Intermittent	4	3.0	HHEI	24	-	Class I	No	~~143~~ 146	~~3~~ 7
SDS070 UNT Little Muskingum River	Preferred	8-2C	Perennial	10	29.0	HHEI	84	-	Class III	Yes	~~407~~ 402	138
SDS071 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	1	1.0	HHEI	18	-	Class I	No	~~45~~ 40	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS069 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	1	1.0	HHEI	22	-	Class I	No	~~27~~ 31	0
SDS068 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	1	2.0	HHEI	21	-	Class I	No	~~150~~ 156	~~27~~ 33
SDS065 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	2	4.7	HHEI	50	-	Rheocrene Potential	No	9 3	0
SDS066 UNT Little Muskingum River	Preferred	8-2C	Intermittent	3	5.0	HHEI	31	-	Rheocrene Potential	No	~~145~~ 139	~~28~~ 23
SDS067A UNT Little Muskingum River	Preferred	8-2C	Ephemeral	2	4.0	HHEI	24	-	Class I	Yes	381	~~130~~ 129
SDS067B UNT Little Muskingum River	Preferred	8-2C	Intermittent	2	7.0	HHEI	67	-	Class III	No	~~18~~ 24	0
SDS064 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	2	1.0	HHEI	20	-	Class I	No	131	~~13~~ 20

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SME004 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	10	0.0	HHEI	51	-	Class II	Yes	~~376~~ 382	~~109~~ 106
SJJ035 UNT Moss Run	Preferred	8-2D	Ephemeral	2.5	0.0	HHEI	35	-	Class II	Yes	~~328~~ 322	~~138~~ 146
SME008 UNT Moss Run	Preferred	8-2D	Ephemeral	2.5	0	HHEI	30	-	Class II	No	340	0
SME007 UNT Moss Run	Preferred	8-2D	Ephemeral	1	0.0	HHEI	31	-	Class II	No	40	0
SJJ034 UNT Moss Run	Preferred	8-2D	Perennial	4.5	7.9	HHEI	73	-	Class III	No	~~160~~ 84	0
SJJ033 UNT Moss Run	Preferred	8-2D	Intermittent	3	2.0	HHEI	37	-	Modified Class II	Yes	~~372~~ 375	~~142~~ 140
SME005 Moss Run	Preferred	8-2D	Perennial	12	12.0	QHEI	53.5	Warmwater Habitat	Fair	Yes	~~642~~ 651	~~296~~ 302
SJJ023 UNT Moss Run	Preferred	8-2D	Perennial	4.2	6.3	HHEI	72	-	Class III	Yes	~~275~~ 280	~~113~~ 116
SJJ022 UNT Moss Run	Preferred	8-2D	Intermittent	1.6	0.0	HHEI	41	-	Modified Class II	Yes	307	103

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS112 UNT Moss Run	Preferred	8-2D	Perennial	8	12.0	QHEI	51.5	-	Fair	Yes	~~338~~ 337	~~120~~ 123
SDS111 UNT Baker Run	Preferred	8-2D	Ephemeral	1	1.2	HHEI	28	-	Class I	No	~~52~~ 63	0
SDS109 UNT Baker Run	Preferred	8-2D	Ephemeral	1	1.0	HHEI	27	-	Class I	Yes	~~262~~ 281	~~120~~ 137
STQ138 Baker Run	Preferred	8-2E	Perennial	18	17	QHEI	68.75	Warmwater Habitat	Good	Yes	~~396~~ 387	~~142~~ 143
STQ141 UNT Baker Run	Preferred	8-2E	Ephemeral	1	0	HHEI	20	-	Class I	No	108	~~48~~ 55
STQ140 UNT Baker Run	Preferred	8-2E	Perennial	8	3.9	HHEI	50	-	Class II	Yes	~~544~~ 552	~~217~~ 222
STQ050 UNT Baker Run	Preferred	8-2E	Intermittent	3	1.6	HHEI	25	-	Class I	Yes	368	~~172~~ 179
STQ056 UNT Baker Run	Preferred	8-2E	Ephemeral	1.5	1.2	HHEI	12	-	Class I	No	89	~~19~~ 20
STQ051 UNT Baker Run	Preferred	8-2E	Ephemeral	2	0.8	HHEI	17	-	Class I	No	36	0
STQ052 UNT Baker Run	Preferred	8-2E	Ephemeral	1.5	1.6	HHEI	26	-	Class I	Yes	439	304

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ054 UNT Baker Run	Preferred	8-2E	Ephemeral	2	0	HHEI	13	-	Class I	No	90	~~87~~ 85
STQ053 UNT Baker Run	Preferred	8-2E	Ephemeral	2	0	HHEI	13	-	Class I	Yes	175	175
STQ049 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	1.5	0.8	HHEI	26	-	Modified Class I	Yes	127	~~105~~ 115
STQ047 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	2	0	HHEI	14	-	Class I	No	~~214~~ 197	~~76~~ 63
STQ048 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	4	0	HHEI	44	-	Class II	No Yes	~~619~~ 633	~~142~~ 197
STQ046 UNT Little Muskingum River	Preferred	8-2E	Perennial	5	3.5	HHEI	58	-	Modified Class II	Yes	~~280~~ 262	~~108~~ 107
STQ044 UNT Little Muskingum River	Preferred	8-2E	Perennial	5	7.9	HHEI	70	-	Modified Class II	Yes	~~346~~ 331	~~125~~ 134
STQ045 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	4	0	HHEI	20	-	Modified Class I	Yes	51	51

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ043 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	2	0.8	HHEI	26	-	Class I	No	44	0
STQ042 UNT Little Muskingum River	Preferred	8-2E	Intermittent	8	1.2	HHEI	34	-	Rheocrene Potential	Yes	163	~~57~~ 81
STQ041 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	2	0	HHEI	30	-	Class II	Yes	131	~~66~~ 89
STQ040 UNT Little Muskingum River	Preferred	8-2E	Intermittent	3.5	1.6	HHEI	34	-	Rheocrene Potential	Yes	~~324~~ 329	115
STQ039 UNT Little Muskingum River	Preferred	8-2F	Intermittent	2	0	HHEI	29	-	Modified Class I	Yes	~~334~~ 347	~~100~~ 106
STQ038 UNT Little Muskingum River	Preferred	8-2F	Intermittent	2	0	HHEI	19	-	Modified Class I	No	222	0
STQ028 UNT Little Muskingum River	Preferred	8-2F	Ephemeral	3	0	HHEI	19	-	Modified Class I	No	~~85~~ 54	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ030 UNT Little Muskingum River	Preferred	8-2F	Intermittent	3	1.6	HHEI	26	-	Class I	No	~~145~~ 119	~~20~~ 0
STQ029 UNT Little Muskingum River	Preferred	8-2F	Perennial	7	3.1	HHEI	51	-	Modified Class II	Yes	~~371~~ 355	~~120~~ 119
STQ031 UNT Little Muskingum River	Preferred	8-2F	Ephemeral	3	1.2	HHEI	25	-	Modified Class I	Yes	81	~~81~~ 65
STQ035 UNT Little Muskingum River	Preferred	8-2F	Ephemeral	2	1.2	HHEI	33	-	Rheocrene Potential	No	135	0
STQ026 UNT Little Muskingum River	Preferred	8-2F	Ephemeral	2	0	HHEI	23	-	Class I	No	174	174
STQ023 UNT Little Eightmile Creek	Preferred	8-2F	Intermittent	3	1.6	HHEI	36	-	Rheocrene Potential	Yes	319	~~127~~ 154
STQ027 UNT Little Eightmile Creek	Preferred	8-2F	Ephemeral	2.5	0.4	HHEI	27	-	Class I	No	113	~~0~~ 113

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ025 UNT Little Eightmile Creek	Preferred	8-2F	Ephemeral	3	1.2	HHEI	27	-	Class I	No Yes	86	~~46~~ 86
STQ024 UNT Little Eightmile Creek	Preferred	8-2F	Ephemeral/ Intermittent	2	0	HHEI	20	-	Class I	No	~~55~~ 123	0
STQ022 UNT Little Eightmile Creek	Preferred	8-2F	Ephemeral	2	0	HHEI	15	-	Class I	No Yes	~~123~~ 171	~~13~~ 57
SJJ003 Little Eightmile Creek	Preferred	8-2G	Perennial	9.8	6.0	QHEI	52	Exceptional Warmwater Habitat	Fair	Yes	~~328~~ 325	~~109~~ 110
SJJ004 UNT Little Eightmile Creek	Preferred	8-2G	Ephemeral	0.3	0.8	HHEI	23	-	Modified Class I	No Yes	143	~~38~~ 76
SJJ006 UNT Little Eightmile Creek	Preferred	8-2G	Ephemeral	0.65	2.0	HHEI	29	-	Class I	No	~~19~~ 30	0
SJJ005A UNT Little Eightmile Creek	Preferred	8-2G	Perennial	13	9.4	HHEI	84	-	Class III	Yes	~~590~~ 685	~~272~~ 297

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SJJ005B UNT Little Eightmile Creek	Preferred	8-2G	Perennial	6.5	4.0	HHEI	55	-	Class III	No	~~164~~ 132	0
SJJ007 UNT Little Eightmile Creek	Preferred	8-2G	Perennial	6.5	9.0	HHEI	79	-	Class III	Yes	~~760~~ 723	~~397~~ 285
SJJ008 UNT Little Eightmile Creek	Preferred	8-2G	Perennial	5	1.2	HHEI	52	-	Rheocrene Potential	Yes	~~186~~ 209	~~53~~ 77
SJJ009 UNT Little Eightmile Creek	Preferred	8-2G	Ephemeral	2	0.0	HHEI	24	-	Modified Class I	Yes	~~316~~ 340	~~116~~ 125
SJJ010 UNT Little Eightmile Creek	Preferred	8-2G	Ephemeral	0.65	0.0	HHEI	24	-	Modified Class I	No	~~83~~ 58	0
SJJ011 UNT Little Eightmile Creek	Preferred	8-2G	Intermittent	2	1.6	HHEI	33	-	Modified Class II	Yes	~~326~~ 268	109
SJJ012 UNT Little Eightmile Creek	Preferred	8-2G	Ephemeral	1	0.0	HHEI	25	-	Modified Class I	Yes No	68	~~29~~ 46

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SJJ013 UNT Little Eightmile Creek	Preferred	8-2G	Ephemeral	1	0.0	HHEI	25	-	Modified Class I	Yes	186	~~150~~ 114
SJJ014 UNT Little Eightmile Creek	Preferred	8-2G	Intermittent	0.65	0.4	HHEI	30	-	Modified Class II	No	129	~~58~~ 22
SJJ015 UNT Little Eightmile Creek	Preferred	8-2G	Intermittent	1	0.0	HHEI	26	-	Class I	No	~~202~~ 174	0
SJJ016 UNT Little Eightmile Creek	Preferred	8-2G	Intermittent	1.5	0.8	HHEI	31	-	Class II	No	127	~~9~~ 24
SJJ017 UNT Killwell Run	Preferred	8-2H	Intermittent	5	2.0	HHEI	26	-	Modified Class I	No Yes	577	~~323~~ 364
SJJ018 UNT Killwell Run	Preferred	8-2H	Perennial	10	4.7	HHEI	78	-	Class III	Yes	~~567~~ 569	~~198~~ 209
SJJ021 UNT Killwell Run	Preferred	8-2H	Ephemeral	1.6	0.0	HHEI	16	-	Modified Class I	Yes	32	32
SJJ020 UNT Killwell Run	Preferred	8-2H	Ephemeral	5	0.0	HHEI	28	-	Class I	No	82	~~50~~ 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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SJJ019 UNT Killwell Run	Preferred	8-2H	Ephemeral	1.6	0.0	HHEI	17	-	Class I	No	115	~~42~~ 41
STQ017 UNT Killwell Run	Preferred	8-2H	Ephemeral	2	0.4	HHEI	20	-	Modified Class I	No	235	0
STQ018 UNT Killwell Run	Preferred	8-2H	Perennial	16	5.9	HHEI	79	-	Class III	Yes	~~334~~ 330	125
STQ020 UNT Killwell Run	Preferred	8-2H	Ephemeral	2	1.6	HHEI	18	-	Modified Class I	No	50	43
STQ019 UNT Killwell Run	Preferred	8-2H	Intermittent	3.5	3.1	HHEI	45	-	Modified Class II	No	~~178~~ 167	0
STQ006 UNT Negro Run	Preferred	8-2I	Intermittent	2	0.8	HHEI	26	-	Modified Class I	Yes	396	~~239~~ 224
STQ007 Negro Run	Preferred	8-2I	Perennial	12	23.6	HHEI	70	Coldwater Habitat	Modified Class II	Yes	~~354~~ 352	112
STQ008 UNT Negro Run	Preferred	8-2I	Intermittent	3	1.6	HHEI	36	-	Modified Class II	No	~~62~~ 53	0
STQ009 UNT Negro Run	Preferred	8-2I	Perennial	4	7.9	HHEI	70	-	Class III	Yes	985	~~612~~ 618
STQ011 UNT Negro Run	Preferred	8-2I	Intermittent	2.5	2.4	HHEI	37	-	Rheocrene Potential	No	117	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ012 UNT Negro Run	Preferred	8-2I	Intermittent	4	2	HHEI	46	-	Rheocrene Potential	No	~~266~~ 265	~~1~~ 0
STQ013 UNT Burchs Run	Preferred	8-2I	Intermittent	5	0	HHEI	31	-	Class II	No	~~558~~ 540	0
STQ015 UNT Burchs Run	Preferred	8-2J	Intermittent	4	5.9	HHEI	56	-	Class III	No	~~92~~ 80	0
STQ014 UNT Burchs Run	Preferred	8-2J	Intermittent	5	1.6	HHEI	37	-	Rheocrene Potential	No	~~557~~ 593	~~139~~ 46
STQ016 Burchs Run	Preferred	8-2J	Perennial	5	8.7	HHEI	61	Warmwater Habitat	Modified Class II	Yes	~~330~~ 325	~~114~~ 104
SDS053 Brush Run	Preferred	8-2J	Perennial	15	1.0	QHEI	60.5	Warmwater Habitat	Good	Yes	329	106
SDS054 UNT Brush Run	Preferred	8-2J	Intermittent	4	0.4	HHEI	47	-	Class II	No	~~83~~ 67	0
STQ005 UNT Brush Run	Preferred	8-2J	Ephemeral	2	0.4	HHEI	25	-	Class I	No	156	~~43~~ 37
STQ003 UNT Brush Run	Preferred	8-2J	Perennial	4	3.1	HHEI	47	-	Rheocrene Potential	Yes	~~327~~ 331	~~111~~ 108
STQ004 UNT Brush Run	Preferred	8-2J	Ephemeral	1	0	HHEI	13	-	Class I	No	~~6~~ 11	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ002 UNT Brush Run	Preferred	8-2J	Intermittent	2.5	0.4	HHEI	33	-	Rheocrene Potential	No	193	0
STQ001 UNT Brush Run	Preferred	8-2J	Intermittent	1.5	0.8	HHEI	19	-	Class I	No	~~372~~ 370	~~231~~ 226
STQ083 UNT Brush Run	Preferred	8-2K	Ephemeral	2	0.8	HHEI	25	-	Modified Class I	No	~~46~~ 17	0
~~STQ082 UNT Brush Run~~	~~Preferred~~	~~8-2K~~	~~Ephemeral~~	~~2~~	~~0~~	~~HHEI~~	~~20~~	~~-~~	~~Class I~~	~~No~~	~~8~~	~~0~~
~~STQ081 UNT Brush Run~~	~~Preferred~~	~~8-2K~~	~~Ephemeral~~	~~1~~	~~0~~	~~HHEI~~	~~12~~	~~-~~	~~Class I~~	~~No~~	~~3~~	~~0~~
SDS026 UNT Duck Creek	Preferred	8-2K	Intermittent	3.5	2.0	HHEI	51	-	Class III	No Yes	~~184~~ 178	~~137~~ 139
SDS025 UNT Duck Creek	Preferred	8-2K	Perennial	3.6	4.0	HHEI	52	-	Class III	Yes	~~692~~ 686	~~177~~ 157
SDS024 UNT Duck Creek	Preferred	8-2K	Ephemeral	1.5	0.4	HHEI	24	-	Class I	No	~~189~~ 193	0
SDS023 UNT Duck Creek	Preferred	8-2K	Ephemeral	1	0.0	HHEI	33	-	Class II	No	32	0
SDS022 UNT Duck Creek	Preferred	8-2K	Intermittent	3	1.2	HHEI	30	-	Rheocrene Potential	No	~~168~~ 215	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS020 UNT Duck Creek	Preferred	8-2K	Perennial	5.5	5.9	HHEI	66	-	Class III	Yes	~~196~~ 193	~~90~~ 87
SDS018 UNT Duck Creek	Preferred	8-2K	Intermittent	6	3.1	HHEI	58	-	Class III	Yes	385	157
SDS019 UNT Duck Creek	Preferred	8-2K	Ephemeral	2.6	0.4	HHEI	37	-	Class II	No	~~24~~ 21	0
SDS002 UNT Duck Creek	Preferred	8-2K	Ephemeral	1	0.8	HHEI	27	-	Modified Class I	Yes	172	111
SDS001 UNT Duck Creek	Preferred	8-2K	Intermittent	2.5	2.0	HHEI	26	-	Modified Class I	No	212	0
SDS003 UNT Duck Creek	Preferred	8-2L	Perennial	6	5.9	HHEI	61	-	Modified Class II	Yes	~~1605~~ 1604	~~708~~ 728
SDS004 Duck Creek	Preferred	8-2L	Perennial	90	48.0	QHEI	75.5	Warmwater Habitat	Excellent	Yes	~~388~~ 384	~~123~~ 122
SDS007 UNT Duck Creek	Preferred	8-2L	Perennial	3.4	5.9	HHEI	61	-	Modified Class II	Yes	~~310~~ 306	~~102~~ 103
SDS014 UNT Duck Creek	Preferred	8-2L	Intermittent	0.6	1.6	HHEI	44	-	Rheocrene Potential	No	115	0
SDS009A UNT Duck Creek	Preferred	8-2L	Intermittent	2.5	2	HHEI	30	-	Rheocrene Potential	Yes	1508	~~473~~ 461

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS017 UNT Duck Creek	Preferred	8-2L	Ephemeral	1.6	1.2	HHEI	29	-	Class I	No	~~151~~ 143	~~36~~ 26
SDS016 UNT Duck Creek	Preferred	8-2L	Ephemeral	0.6	1.2	HHEI	27	-	Class I	Yes	119	~~79~~ 88
SDS015 UNT Duck Creek	Preferred	8-2L	Ephemeral	0.7	0.4	HHEI	27	-	Class I	No	24	0
SDS013 UNT Duck Creek	Preferred	8-2L	Perennial	4	3.9	HHEI	50	-	Class III	No	~~106~~ 95	0
SDS009B UNT Duck Creek	Preferred	8-2L	Perennial	5.5	5.9	HHEI	73	-	Class III	No	110	~~110~~ 66
SDS011 UNT Duck Creek	Preferred	8-2L	Ephemeral	2	0.8	HHEI	27	-	Class I	No	16	0
SDS010 UNT Duck Creek	Preferred	8-2L	Intermittent	1.3	0.4	HHEI	28.0	-	Class I	Yes	144	~~74~~ 83
SDS035 UNT Muskingum River	Preferred	8-2M	Intermittent	4.3	2.4	HHEI	49	-	Rheocrene Potential	Yes	147	147
SDS036 UNT Muskingum River	Preferred	8-2M	Ephemeral	4	0.0	HHEI	25	-	Class I	No	55	55

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS034 UNT Muskingum River	Preferred	8-2M	Perennial	5.2	3.1	HHEI	60	-	Class III	Yes	~~361~~ 350	130
SDS033 UNT Muskingum River	Preferred	8-2M	Ephemeral	2.3	2.0	HHEI	23	-	Class I	No	193	0
SDS037 UNT Muskingum River	Preferred	8-2M	Perennial	4.2	2.4	HHEI	51	-	Class III	Yes	~~289~~ 278	110
SDS038 UNT Muskingum River	Preferred	8-2M	Ephemeral	2	0.0	HHEI	15	-	Class I	No	23	0
SDS044 UNT Muskingum River	Preferred	8-2M	Ephemeral	1	0.0	HHEI	15	-	Class I	No	27	0
SDS043 UNT Muskingum River	Preferred	8-2M	Ephemeral	2	0.0	HHEI	15	-	Class I	No	~~51~~ 60	0
SDS041 UNT Muskingum River	Preferred	8-2M	Intermittent	2.6	3.1	HHEI	30	-	Rheocrene Potential	No	~~157~~ 179	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS042 UNT Muskingum River	Preferred	8-2M	Ephemeral	3	0.8	HHEI	20	-	Class I	No	47	0
SDS040 UNT Muskingum River	Preferred	8-2M	Ephemeral	2	0.4	HHEI	20	-	Class I	No	~~50~~ 61	0
~~SDS039 UNT Muskingum River~~	~~Preferred~~	~~8-2M~~	~~Ephemeral~~	~~1.3~~	~~0.0~~	~~HHEI~~	~~14~~	~~-~~	~~Class I~~	~~No~~	~~17~~	~~0~~
SDS099 UNT Muskingum River	Preferred	8-2M	Ephemeral	1	0.4	HHEI	23	-	Class I	No	32	32
SDS100 UNT Muskingum River	Preferred	8-2M	Ephemeral	1	0.4	HHEI	23	-	Class I	No	~~58~~ 59	0
SDS101 UNT Muskingum River	Preferred	8-2M	Ephemeral	3	0.4	HHEI	24	-	Class I	No	~~405~~ 404	~~9~~ 8
SDS102 UNT Muskingum River	Preferred	8-2M	Ephemeral	1	0.4	HHEI	20	-	Class I	No	37	~~14~~ 13

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS104 UNT Muskingum River	Preferred	8-2M	Ephemeral	1	0.0	HHEI	24	-	Class I	No	39	0
SDS105A UNT Muskingum River	Preferred	8-2M	Intermittent	3	1.6	HHEI	24	-	Class I	Yes	~~490~~ 487	~~201~~ 225
SDS103 UNT Muskingum River	Preferred	8-2M	Intermittent	3	1.2	HHEI	26	-	Class I	Yes	~~565~~ 568	~~311~~ 313
SDS106 UNT Muskingum River	Preferred	8-2M	Perennial	6.2	10.0	HHEI	61	-	Modified Class II	Yes	~~527~~ 526	~~116~~ 118
SDS107 UNT Muskingum River	Preferred	8-2M	Ephemeral	1	0.0	HHEI	15	-	Class I	No	41	41
STQ106 UNT Muskingum River	Preferred	8-2M	Ephemeral	2	0	HHEI	14	-	Class I	Yes	180	~~124~~ 98
STQ105 UNT Muskingum River	Preferred	8-2M	Ephemeral	2	0	HHEI	14	-	Class I	Yes	~~256~~ 373	~~101~~ 189

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ103 UNT Muskingum River	Preferred	8-2N	Intermittent	4	0.4	HHEI	35	-	Rheocrene Potential	Yes	~~387~~ 316	~~118~~ 131
STQ104 UNT Muskingum River	Preferred	8-2N	Ephemeral	3	0.4	HHEI	24	-	Class I	No	130	~~101~~ 0
~~STQ102 UNT Muskingum River~~	~~Preferred~~	~~8-2N~~	~~Ephemeral~~	~~3~~	~~0~~	~~HHEI~~	~~13~~	~~-~~	~~Class I~~	~~No~~	~~47~~	~~0~~
										Total	~~**37,826**~~ **37,716**	~~**13,413**~~ **13,621**
Alternate Route												
STQ036 UNT Little Muskingum River	Alternate	8-3A	Ephemeral	3	3.1	HHEI	27	-	Modified Class I	No	10	0
STQ034 UNT Little Muskingum River	Alternate	8-3A	Intermittent	4	2.3	HHEI	45	-	Modified Class II	No	258	63
STQ033 UNT Little Muskingum River	Alternate	8-3A	Ephemeral	1	0.0	HHEI	12	-	Modified Class I	Yes	210	164

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ128D Little Muskingum River	Alternate	8-3A	Perennial	128	60.0	QHEI	47	Exceptional Warmwater Habitat	Fair	Yes	347	108
STQ128B Little Muskingum River	Alternate	8-3B	Perennial	110	60.0	QHEI	50	Exceptional Warmwater Habitat	Fair	Yes	308	102
STQ181 UNT Fifteen Mile Creek	Alternate	8-3B	Ephemeral	3	0.0	HHEI	32	-	Modified Class II	Yes	224	112
STQ183 UNT Fifteen Mile Creek	Alternate	8-3C	Ephemeral	3	0.0	HHEI	34	-	Class II	No	105	54
STQ184 UNT Fifteen Mile Creek	Alternate	8-3C	Ephemeral	4	0.0	HHEI	47	-	Class II	Yes	232	109
STQ185 UNT Fifteen Mile Creek	Alternate	8-3C	Perennial	8	3.9	HHEI	59	-	Class III	Yes	354	105
STQ188 UNT Fifteen Mile Creek	Alternate	8-3C	Intermittent	5	2.8	HHEI	67	-	Class III	Yes	291	106

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ187 UNT Fifteen Mile Creek	Alternate	8-3C	Intermittent	5	2.8	HHEI	67	-	Class III	Yes	345	117
STQ189 UNT Fifteen Mile Creek	Alternate	8-3C	Ephemeral	2.5	0.4	HHEI	34	-	Class II	No	30	0
STQ177A UNT Moss Run	Alternate	8-3C	Intermittent	3.3	3.1	HHEI	34	-	Rheocrene Potential	Yes	795	284
STQ176 UNT Moss Run	Alternate	8-3C	Intermittent	5	0.8	HHEI	37	-	Modified Class II	No	60	0
STQ177 UNT Moss Run	Alternate	8-3C	Perennial	10	17.7	QHEI	45.5	-	Fair	No	589	0
STQ178 UNT Moss Run	Alternate	8-3C	Perennial	2.5	3.5	HHEI	59	-	Class III	Yes	396	126
STQ146 UNT Moss Run	Alternate	8-3C	Ephemeral	2	0.8	HHEI	17	-	Class I	No	79	0
STQ147 UNT Moss Run	Alternate	8-3C	Ephemeral	2	0.0	HHEI	12	-	Modified Class I	No	15	0
STQ145 UNT Moss Run	Alternate	8-3C	Perennial	5.2	2.3	HHEI	61	-	Class III	No	708	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ148 UNT Moss Run	Alternate	8-3C	Intermittent	5	3.5	HHEI	50	-	Class III	Yes	329	136
SJJ038 UNT Moss Run	Alternate	8-3C	Ephemeral	2.5	0.0	HHEI	30	-	Class II	Yes	162	58
SJJ037 UNT Moss Run	Alternate	8-3D	Ephemeral	3	0.0	HHEI	23	-	Class I	Yes	325	101
SJJ036 UNT Moss Run	Alternate	8-3D	Ephemeral	2.5	0.0	HHEI	17	-	Class I	No	106	0
SJJ034 UNT Moss Run	Alternate	8-3D	Perennial	4.5	7.9	HHEI	73	-	Class III	Yes	462	148
SJJ035 UNT Moss Run	Alternate	8-3D	Ephemeral	1.6	0.0	HHEI	35	-	Class II	Yes	351	136
SME008 UNT Moss Run	Alternate	8-3D	Ephemeral	2.5	0.0	HHEI	30	-	Class II	No	177	32
SJJ033 UNT Moss Run	Alternate	8-3D	Intermittent	3	2.0	HHEI	37	-	Modified Class II	Yes	334	113
SJJ032 UNT Moss Run	Alternate	8-3D	Ephemeral	2.3	0.0	HHEI	22	-	Class I	No	115	2

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SJJ030 UNT Little Muskingum River	Alternate	8-3D	Ephemeral	1.6	0.0	HHEI	29	-	Class I	No	53	0
SJJ031 UNT Little Muskingum River	Alternate	8-3E	Intermittent	2.5	0.0	HHEI	31	-	Class II	Yes	570	470
SME003 UNT Little Muskingum River	Alternate	8-3E	Ephemeral	3	1.2	HHEI	28	-	Class I	No	97	0
STQ128C Little Muskingum River	Alternate	8-3E	Perennial	125	60.0	QHEI	50	Exceptional Warmwater Habitat	Fair	Yes	429	142
STQ128A Little Muskingum River	Alternate	8-3E	Perennial	160	60.0	QHEI	65	Exceptional Warmwater Habitat	Good	Yes	320	102
STQ142 UNT Little Muskingum River	Alternate	8-3F	Intermittent	4	0.8	HHEI	44	-	Rheocrene Potential	No	264	99
STQ143 UNT Little Muskingum River	Alternate	8-3F	Perennial	15	13.8	QHEI	63.25	-	Good	Yes	390	111

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ144 UNT Little Muskingum River	Alternate	8-3F	Ephemeral	1	0.0	HHEI	21	-	Class I	No	115	46
STQ136 UNT Little Muskingum River	Alternate	8-3F	Intermittent	3	0.8	HHEI	25	-	Class I	Yes	429	311
STQ137 UNT Little Muskingum River	Alternate	8-3F	Perennial	10.8	9.8	HHEI	71	-	Class III	Yes	327	109
STQ135 UNT Little Muskingum River	Alternate	8-3F	Ephemeral	3	0.0	HHEI	20	-	Class I	No	29	0
STQ133 UNT Little Eightmile Creek	Alternate	8-3F	Ephemeral	3	0.0	HHEI	20	-	Class I	No	149	38
STQ134 UNT Little Eightmile Creek	Alternate	8-3F	Ephemeral	2	0.0	HHEI	20	-	Class I	No	65	0
STQ132 UNT Little Eightmile Creek	Alternate	8-3F	Ephemeral	2	0.0	HHEI	20	-	Class I	No	116	11

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ131 UNT Little Eightmile Creek	Alternate	8-3F	Ephemeral	2	0.0	HHEI	20	-	Class I	Yes	216	74
STQ130 UNT Little Eightmile Creek	Alternate	8-3F	Ephemeral	3	0.0	HHEI	21	-	Class I	No	138	30
STQ129 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	2	0.0	HHEI	14	-	Class I	No	34	0
SDS108 Little Eightmile Creek	Alternate	8-3G	Perennial	8	47.2	QHEI	72.5	Exceptional Warmwater Habitat	Excellent	Yes	330	103
STQ127 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	4	0.0	HHEI	30	-	Class II	Yes	464	308
STQ124 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	1	0.0	HHEI	13	-	Class I	No	27	0
STQ123 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	1	0.0	HHEI	13	-	Class I	No	85	35

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ122 UNT Little Eightmile Creek	Alternate	8-3G	Intermittent	3	0.4	HHEI	25	-	Class I	Yes	310	105
STQ125 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	3	0.0	HHEI	21	-	Class I	Yes	227	110
STQ126 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	2	0.0	HHEI	23	-	Class I	No	140	0
SJJ008 UNT Little Eightmile Creek	Alternate	8-3G	Perennial	5	1.2	HHEI	52	-	Class II	Yes	355	146
SJJ009 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	2	0.0	HHEI	24	-	Modified Class I	Yes	148	34
SJJ011 UNT Little Eightmile Creek	Alternate	8-3G	Intermittent	2	1.6	HHEI	33	-	Modified Class II	Yes	214	102
SJJ012 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	1	0.0	HHEI	25	-	Modified Class I	Yes	68	68

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SJJ013 UNT Little Eightmile Creek	Alternate	8-3G	Ephemeral	1	0.0	HHEI	25	-	Modified Class I	Yes	186	102
SJJ014 UNT Little Eightmile Creek	Alternate	8-3G	Intermittent	0.65	0.4	HHEI	30	-	Modified Class II	No	129	25
SJJ015 UNT Little Eightmile Creek	Alternate	8-3G	Intermittent	1	0.0	HHEI	26	-	Class I	No	123	0
STQ114 UNT Killwell Run	Alternate	8-3H	Ephemeral	2	0.0	HHEI	13	-	Class I	No	37	0
STQ115 UNT Killwell Run	Alternate	8-3H	Ephemeral	2	0.0	HHEI	13	-	Class I	No	39	0
STQ108 UNT Killwell Run	Alternate	8-3H	Ephemeral	3	0.0	HHEI	13	-	Modified Class I	No	70	0
STQ109 UNT Killwell Run	Alternate	8-3H	Intermittent	4	2.8	HHEI	46	-	Modified Class II	Yes	399	216
STQ107A UNT Killwell Run	Alternate	8-3H	Perennial	5	1.6	HHEI	40	-	Rheocrene Potential	Yes	643	99
STQ107 UNT Killwell Run	Alternate	8-3H	Perennial	3	0.8	HHEI	17	-	Modified Class I	Yes	1117	685

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ110 UNT Killwell Run	Alternate	8-3H	Ephemeral	3	0.0	HHEI	31	-	Modified Class II	No	159	28
STQ111 UNT Killwell Run	Alternate	8-3H	Ephemeral	3	0.0	HHEI	13	-	Modified Class I	Yes	55	55
STQ112 UNT Killwell Run	Alternate	8-3H	Ephemeral	2	0.0	HHEI	14	-	Class I	Yes	57	57
STQ113 UNT Killwell Run	Alternate	8-3H	Ephemeral	3	0.0	HHEI	23	-	Class I	Yes	216	100
STQ117 UNT Killwell Run	Alternate	8-3H	Ephemeral	2	0.0	HHEI	14	-	Class I	No	51	0
STQ116 UNT Killwell Run	Alternate	8-3H	Ephemeral	4	0.0	HHEI	32	-	Class II	No	155	38
STQ118 UNT Killwell Run	Alternate	8-3H	Intermittent	4	0.0	HHEI	41	-	Class II	Yes	327	116
STQ119 UNT Killwell Run	Alternate	8-3H	Ephemeral	2	0.0	HHEI	13	-	Class I	No	52	0
STQ120 UNT Killwell Run	Alternate	8-3H	Perennial	15	19.7	HHEI	74	-	Class III	Yes	263	127
STQ121 Killwell Run	Alternate	8-3H	Perennial	13	21.7	HHEI	65	Warmwater Habitat	Class III	No	300	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ096 Negro Run	Alternate	8-3I	Perennial	10.5	17.7	HHEI	69	Coldwater Habitat	Modified Class II	Yes	309	101
STQ097 UNT Negro Run	Alternate	8-3I	Ephemeral	3	0.0	HHEI	37	-	Modified Class II	No	513	183
STQ099 UNT Killwell Run	Alternate	8-3I	Ephemeral	3	0.0	HHEI	29	-	Class I	No	115	0
STQ098 UNT Killwell Run	Alternate	8-3I	Ephemeral	3	0.0	HHEI	21	-	Class I	Yes	567	190
STQ100 UNT Killwell Run	Alternate	8-3I	Ephemeral	1	0.0	HHEI	13	-	Class I	Yes	27	27
STQ101 UNT Killwell Run	Alternate	8-3I	Ephemeral	2	0.4	HHEI	25	-	Modified Class I	No	76	0
STQ090 UNT Burch's Run	Alternate	8-3I	Ephemeral	2	0.0	HHEI	35	-	Class II	No	88	88
STQ089 UNT Burchs Run	Alternate	8-3I	Ephemeral	2	0.0	HHEI	21	-	Class I	No	53	0
STQ088 UNT Burchs Run	Alternate	8-3I	Ephemeral	2	0.0	HHEI	21	-	Class I	No	51	0
STQ087 Burchs Run	Alternate	8-3I	Perennial	10	15.7	QHEI	62	Warmwater Habitat	Good	Yes	304	101

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ086 UNT Burchs Run	Alternate	8-3I	Ephemeral	2	0.0	HHEI	22	-	Class I	No	59	0
STQ085 UNT Burchs Run	Alternate	8-3I	Ephemeral	2	0.0	HHEI	23	-	Class I	No	139	0
STQ084 UNT Burchs Run	Alternate	8-3J	Intermittent	3	0.0	HHEI	34	-	Class II	Yes	556	231
STQ092 UNT Duck Creek	Alternate	8-3J	Ephemeral	2	0.0	HHEI	19	-	Class I	No	192	0
STQ094 UNT Duck Creek	Alternate	8-3J	Ephemeral	2	0.0	HHEI	13	-	Class I	No	43	0
STQ091 UNT Duck Creek	Alternate	8-3J	Intermittent	2	1.6	HHEI	24	-	Class I	Yes	234	109
STQ093 UNT Duck Creek	Alternate	8-3J	Ephemeral	2	0.0	HHEI	14	-	Class I	No	206	0
STQ091A UNT Duck Creek	Alternate	8-3J	Intermittent	4	3.1	HHEI	59	-	Class II	Yes	141	17
STQ095 UNT Duck Creek	Alternate	8-3J	Ephemeral	2	0.0	HHEI	13	-	Modified Class I	No	76	0
STQ079 UNT Brush Run	Alternate	8-3J	Intermittent	2	1.6	HHEI	25	-	Class I	Yes	232	89

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ078 UNT Brush Run	Alternate	8-3J	Ephemeral	2	0.0	HHEI	19	-	Modified Class I	No	325	86
STQ076 UNT Brush Run	Alternate	8-3J	Intermittent	3	3.1	HHEI	27	-	Modified Class I	No	210	0
STQ074 Brush Run	Alternate	8-3J	Perennial	15	11.8	QHEI	39	-	Poor	Yes	340	118
STQ077 UNT Brush Run	Alternate	8-3J	Perennial	8	2.4	HHEI	59	-	Modified Class II	Yes	431	178
SJJ040 UNT Duck Creek	Alternate	8-3K	Ephemeral	1	2.0	HHEI	27	-	Modified Class I	Yes	82	82
SJJ041 UNT Duck Creek	Alternate	8-3K	Ephemeral	2	0.0	HHEI	17	-	Modified Class I	No	58	58
SJJ039 UNT Duck Creek	Alternate	8-3K	Ephemeral	2	0.0	HHEI	12	-	Modified Class I	No	63	0
SDS083 UNT Duck Creek	Alternate	8-3K	Ephemeral	3	0.4	HHEI	24	-	Class I	No	81	0
SDS084 UNT Duck Creek	Alternate	8-3K	Ephemeral	2	0.4	HHEI	18	-	Class I	No	59	0
SDS085 UNT Duck Creek	Alternate	8-3K	Ephemeral	1	0.8	HHEI	27	-	Class I	Yes	215	85

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS086 UNT Duck Creek	Alternate	8-3K	Ephemeral	2	0.4	HHEI	24	-	Class I	No	50	0
SDS087 UNT Duck Creek	Alternate	8-3K	Ephemeral	1	1.6	HHEI	19	-	Class I	No	73	0
SDS088 UNT Duck Creek	Alternate	8-3K	Ephemeral	1	0.4	HHEI	27	-	Class I	No	59	0
SDS090 UNT Duck Creek	Alternate	8-3L	Ephemeral	1	0.0	HHEI	11	-	Class I	No	27	0
SDS089 UNT Duck Creek	Alternate	8-3L	Ephemeral	1	0.0	HHEI	12	-	Class I	No	58	0
STQ067 UNT Duck Creek	Alternate	8-3L	Ephemeral	2	1.2	HHEI	17	-	Modified Class I	No	181	33
STQ068 UNT Duck Creek	Alternate	8-3L	Ephemeral	1	1.2	HHEI	17	-	Modified Class I	Yes	183	83
STQ069 UNT Duck Creek	Alternate	8-3L	Ephemeral	3	1.6	HHEI	17	-	Modified Class I	Yes	295	109
STQ070 UNT Duck Creek	Alternate	8-3M	Ephemeral	1	0.0	HHEI	12	-	Modified Class I	No	31	0
SJJ001 UNT Duck Creek	Alternate	8-3M	Intermittent	3.6	1.2	HHEI	29	-	Class I	No	34	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SJJ002 Duck Creek	Alternate	8-3M	Perennial	105	60.0	QHEI	75.5	Warmwater Habitat	Excellent	Yes	318	106
SDS061 UNT Duck Creek	Alternate	8-3M	Ephemeral	0.65	0.0	HHEI	15	-	Class I	No	71	0
SDS062 UNT Duck Creek	Alternate	8-3M	Ephemeral	2	0.4	HHEI	28	-	Class I	Yes	296	248
SDS063 UNT Duck Creek	Alternate	8-3M	Ephemeral	1.6	0.0	HHEI	14	-	Class I	Yes	75	75
SDS050 UNT Duck Creek	Alternate	8-3M	Intermittent	3	1.6	HHEI	56	-	Class III	Yes	703	127
SDS058 UNT Duck Creek	Alternate	8-3M	Ephemeral	4	0.0	HHEI	30	-	Class II	No	264	120
SDS045B UNT Duck Creek	Alternate	8-3M	Perennial	6.6	3.9	HHEI	74	-	Class III	No	158	0
SDS049 UNT Duck Creek	Alternate	8-3M	Ephemeral	2	0.0	HHEI	26	-	Class I	No	180	0
SDS059 UNT Duck Creek	Alternate	8-3M	Ephemeral	2	1.2	HHEI	20	-	Class I	No	54	0
SDS060 UNT Duck Creek	Alternate	8-3M	Ephemeral	2	0.4	HHEI	20	-	Class I	No	31	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS047 UNT Duck Creek	Alternate	8-3M	Ephemeral	2	0.0	HHEI	17	-	Class I	No	86	0
SDS048 UNT Duck Creek	Alternate	8-3M	Ephemeral	1	2.8	HHEI	46	-	Class II	Yes	307	218
SDS046 UNT Duck Creek	Alternate	8-3M	Ephemeral	2	0.0	HHEI	32	-	Class II	No	90	72
SDS057 UNT Duck Creek	Alternate	8-3M	Ephemeral	2	0.0	HHEI	33	-	Class II	No	15	15
SDS055 UNT Duck Creek	Alternate	8-3M	Ephemeral	1	0.0	HHEI	14	-	Class I	No	3	3
SDS045A UNT Duck Creek	Alternate	8-3M	Intermittent	3.5	2.8	HHEI	56	-	Class III	No	330	243
SDS097 UNT Second Creek	Alternate	8-3M	Intermittent	4	0.8	HHEI	46	-	Class II	No	218	114
SDS098 UNT Second Creek	Alternate	8-3M	Ephemeral	2	0.0	HHEI	16	-	Class I	Yes	134	88
SDS095A UNT Second Creek	Alternate	8-3M	Intermittent	3.6	1.6	HHEI	37	-	Class II	Yes	404	279

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS095B UNT Second Creek	Alternate	8-3M	Perennial	5.6	5.1	HHEI	62	-	Class III	No	343	91
SDS096 UNT Second Creek	Alternate	8-3M	Intermittent	2	1.6	HHEI	36	-	Rheocrene Potential	Yes	205	95
SDS094 UNT Second Creek	Alternate	8-3N	Ephemeral	3	0.4	HHEI	28	-	Class I	No	54	0
SDS092 UNT Second Creek	Alternate	8-3N	Perennial	18	17.7	QHEI	67.5	-	Good	No	701	1
SDS093 UNT Second Creek	Alternate	8-3N	Perennial	8.2	3.1	HHEI	55	-	Class III	Yes	229	105
SDS093B UNT Second Creek	Alternate	8-3N	Intermittent	2.5	3.1	HHEI	55	-	Class II	Yes	69	69
SDS091 UNT Second Creek	Alternate	8-3N	Ephemeral	1	0.0	HHEI	13	-	Class I	Yes	192	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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ057 UNT Second Creek	Alternate	8-3N	Ephemeral	2	0.0	HHEI	20	-	Class I	No	42	0
STQ058 UNT Second Creek	Alternate	8-3N	Ephemeral	2	0.0	HHEI	14	-	Class I	No	186	56
STQ055 UNT Second Creek	Alternate	8-3N	Perennial	16	17.7	QHEI	69.5	-	Good	Yes	532	183
STQ059 UNT Second Creek	Alternate	8-3N	Ephemeral	2	0.0	HHEI	24	-	Class I	Yes	117	93
STQ060 UNT Second Creek	Alternate	8-3N	Ephemeral	2.5	0.0	HHEI	23	-	Modified Class I	No	31	0
STQ063 UNT Second Creek	Alternate	8-3N	Ephemeral	2	0.0	HHEI	20	-	Modified Class I	Yes	218	143
STQ062 UNT Second Creek	Alternate	8-3N	Ephemeral	2.5	0.0	HHEI	27	-	Class I	No	34	0

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
STQ064 UNT Second Creek	Alternate	8-3N	Ephemeral	3	0.8	HHEI	24	-	Modified Class I	No	76	49
STQ065 UNT Second Creek	Alternate	8-3N	Intermittent	3	1.6	HHEI	25	-	Modified Class I	Yes	318	110
SDS082 UNT Second Creek	Alternate	8-3O	intermittent	3	2.4	HHEI	51	-	Class III	Yes	321	102
SDS080 UNT Second Creek	Alternate	8-3O	Intermittent	2.5	1.2	HHEI	21	-	Class I	No	71	0
SDS081 UNT Second Creek	Alternate	8-3O	Ephemeral	1.5	0.0	HHEI	13	-	Class I	No	11	0
SDS078 UNT Second Creek	Alternate	8-3O	Ephemeral	1	0.0	HHEI	13	-	Class I	No	115	0
SDS079 UNT Second Creek	Alternate	8-3O	Intermittent	2	3.1	HHEI	39	-	Class II	No	147	45

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	PHWH Class (HHEI)/ Narrative Rating (QHEI)	Crossed by Centerline	Length (linear feet) within Field Survey Area [a]	Length (linear feet) within Potential Disturbance Area/ROW [b]
SDS077 UNT Second Creek	Alternate	8-3O	Ephemeral	2.5	0.4	HHEI	37	-	Class II	No	83	0
SDS074B UNT Second Creek	Alternate	8-3O	Intermittent	4.5	3.1	HHEI	57	-	Class III	No	164	34
SDS074A UNT Second Creek	Alternate	8-3O	Ephemeral	1.6	0.0	HHEI	16	-	Class I	Yes	290	230
SDS075 UNT Second Creek	Alternate	8-3O	Ephemeral	2	0.0	HHEI	17	-	Class I	No	100	0
SDS076 UNT Second Creek	Alternate	8-3O	Ephemeral	2	1.2	HHEI	30	-	Class II	No	152	152
										Total	**33,578**	**11,688**

Notes:

a The width of the Field Survey Area was 300 feet.

b 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

No major lakes or reservoirs were observed along the proposed Preferred or Alternate Routes. Four ponds totaling ~~0.83~~ 0.6 acre were identified during the field evaluation along the Preferred Route. Three ponds totaling 0.62 acre were identified along the Alternate Route. One pond, PJJ001, was delineated within both the Preferred and Alternate Routes where the routes cross. Ponds within the Field Survey Area are shown on revised Figure 8-2A through ~~8-2N~~ 8-2P, and Figure 8-3A through 8-3O and are summarized in Table 8-4.

Impacts to ponds from construction, operation, or maintenance of the proposed transmission line are not anticipated. Best management practices (BMPs) to control soil erosion and sedimentation (for example, using silt fencing and filter sock as appropriate during construction to minimize runoff siltation).

TABLE 8-4
Delineated Ponds within the Preferred Route and Alternate Route Environmental Field Survey Area

Feature Name	Route	Figure	Acreage within Field Survey Area[a]	Acreage within ROW[a, b]	Linear Feet Crossed by Centerline
Preferred Route Ponds					
PDS003	Preferred	8-2A	~~<0.01~~ <0.1	~~<0.01~~ <0.1	12
PJJ001	Preferred	8-2G	~~0.67~~ 0.5	~~0.13~~ 0.1	~~65~~ 0
PDS001	Preferred	8-2K	~~0.14~~ 0.1	~~<0.01~~ <0.1	0
PDS002	Preferred	8-2M	~~<0.01~~ <0.1	0	0
		Total:	**~~0.83~~ 0.6**	**~~0.15~~ 0.1**	**~~77~~ 12**
Alternate Route Ponds					
PTQ003	Alternate	8-3C	0.01	0	0
PJJ001	Alternate	8-2G	0.37	0	0
PTQ002	Alternate	8-2J	0.24	0	0
		Total:	**0.62**	**0**	**0**

Notes:

a All measurements listed as <0.1 were assumed to be 0 for calculations. All measurements listed as <0.01 were assumed to be 0.01 for calculations.

b "0" indicates the pond is not within the ROW.

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

Text provided in the December 21, 2017 Application filing remains unchanged.

(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 Routes will be limited to the initial clearing of vegetation within the 100-foot ROW for the proposed transmission line and access roads. Specific locations for access roads will be identified at the time of AEP Ohio Transco's transmission line easement acquisition process. Trees adjacent to the proposed ROW, that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe operation of the transmission line. Vegetative wastes (such as 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, based on GIS analysis, along the Preferred and Alternate Route ROWs are provided in Table 8-5.

TABLE 8-5
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
Preferred Route			
Agricultural	~~6,061~~ 5,892	~~1.15~~ 1.1	~~9.98~~ 10.1
Industrial/Commercial	~~198~~ 175	~~0.04~~ <0.1	~~0.37~~ 0.4
Open Land / Pasture	~~364~~ 414	~~0.07~~ 0.1	~~0.36~~ 0.7
Road / Railroad ROW	~~483~~ 586	~~0.09~~ 0.1	~~0.92~~ 1.0
Utility ROW	~~1,358~~ 1,275	~~0.25~~ 0.2	~~33.27~~ 28.3
Water	~~1,251~~ 1,113	~~0.23~~ 0.2	~~2.81~~ 2.8
Wayne National Forest	~~4,554~~ 3,556	~~0.86~~ 0.7	~~6.77~~ 5.3
Woodlot	~~30,720~~ 31,761	~~5.82~~ 6.0	~~54.06~~ 59.7
Alternate Route			
Agricultural	6,218	1.18	15.03
Industrial/Commercial	0	0.00	0.00
Open Land / Pasture	360	0.07	0.65
Road / Railroad ROW	368	0.07	0.83
Utility ROW	605	0.11	2.18
Water	1,222	0.23	2.94
Wayne National Forest	0	0.00	<0.01
Woodlot	35,477	6.70	80.52

(b) Construction Impacts on Wetlands

Preferred Route: During wetland and waterbody delineations, ~~14~~ 12 wetlands were identified along the Preferred Route within the proposed ROW, totaling ~~0.58~~ 0.4 acre. The delineated wetlands are shown on revised Figure 8-2A through ~~8-2N~~ 8-2P. Detailed information about each feature can be found in Table 8-2 in Section 4906-05-08(B)(b)(ii). Three of these wetlands are crossed by the Preferred Route centerline, totaling ~~129~~ 126 linear feet. Impacts to the wetlands will be avoided by placing transmission line structures outside of wetland boundaries, where practical. Where temporary construction access through a wetland cannot be avoided, the crossing will occur during dry conditions or protective construction matting will be used to minimize impacts from construction vehicles.

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

- Category 1 wetlands: ~~Ten~~ Eight Category 1 wetlands with ORAM scores ranging from 12 to 29 were identified within the ROW, totaling ~~0.32~~ 0.2 acre. No PFO or PSS wetlands will be impacted during construction.

- Category 1 or 2 Gray Zone wetlands: One Category 1 or 2 Gray Zone wetlands with an ORAM score of 33 was identified within the ROW, totaling ~~<0.01~~ <0.1 acre. No PFO or PSS wetlands will be impacted during construction.

- Category Modified 2 wetlands: One Category Modified 2 wetlands with an ORAM score of 41 was identified within the ROW, totaling ~~0.21~~ 0.2 acre. No PFO or PSS wetlands will be impacted during construction.

- Category 2 wetlands: Two Category 2 wetlands with ORAM scores of 50 and 53 were identified within the proposed ROW, totaling ~~0.04~~ <0.1 acre. Of that total, ~~0.03~~ <0.1 acre of PSS wetland will be impacted through the clearing of trees and shrubs during construction. This will result in the PSS wetland being converted to PEM.

- Category 3 wetlands: No Category 3 wetlands will be crossed; therefore, no construction impacts are anticipated.

Alternate Route: During wetland and waterbody delineations, 10 wetlands were identified along the Alternate Route ROW, totaling 0.45 acre. The delineated wetlands are shown on Figures 8-3I through 8-3O. Detailed information about each feature can be found in Table 8-2 in Section 4906-05-08(B)(b)(ii). Five wetlands are crossed by the centerline of the Alternate Route, totaling 208 linear feet. Impacts to wetlands will be avoided by placing transmission line structures outside wetland boundaries where practical. Where temporary construction access through a wetland cannot be avoided, the crossing will occur during dry conditions or matting will be used to minimize impacts.

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

- Category 1 wetlands: Four Category 1 wetlands with ORAM scores ranging from 16 to 29 were identified within the proposed ROW, totaling 0.16 acre. No PFO or PSS wetlands will be impacted during construction.

- Category 1 or 2 Gray Zone wetlands: No Category 1 or 2 Gray Zone wetlands will be crossed; therefore, no construction impacts are anticipated.

- Category Modified 2 wetlands: Three Category Modified 2 wetlands with ORAM scores ranging from 39 to 41 were identified within the ROW, totaling 0.25 acre. No PFO or PSS wetlands will be impacted during construction.

- Category 2 wetlands: Three Category 2 wetlands with ORAM scores ranging from 46 to 52.5 were identified within the proposed ROW, totaling 0.04 acre. Of that total, 0.03 acre of PSS wetland will be impacted through the clearing of trees and shrubs during construction. This will result in the PSS wetland being converted to PEM.

- Category 3 wetlands: 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 poles 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, 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 pole 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. No permanent fill material will be placed in any wetland area. 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 or excavation of a hole for pole installation will be performed within the wetland. If pole placement is required within a wetland, no additional fill will be placed in the wetlands beyond the placement of the pole and borehole backfill.

Wetland areas will be clearly staked prior to the commencement of any clearing 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 crosses ~~70~~ 85 streams. The Alternate Route centerline crosses 71 streams. Detailed information about each feature can be found in Table 8-3 in Section 4906-05-08(B)(c)(i).

Approximately ~~13,413~~ 13,621 linear feet of stream are located within the Preferred Route ROW, while approximately 11,688 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 although preliminary locations have been identified. 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 three proposed methods to cross streams:

- Temporary stream ford
- Temporary culvert stream crossings
- Temporary access bridge

Temporary stream fords are proposed for crossing low quality ephemeral and intermittent streams with a drainage basin less than 1 square mile. This will involve minimum clearing necessary to gain access to the stream and for passage of construction vehicles.

- 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.

- Sediment-laden runoff will be prevented from flowing from the access road directly into the stream. Diversions and swales will be used to direct runoff to stormwater management locations. Silt fences will be used as needed according to local topographic conditions.

- Following completion of the work, the areas cleared for the temporary access crossing will be stabilized through plantings of woody species where appropriate. Areas of exposed soil will be stabilized in accordance with the stormwater pollution prevention plan (SWPPP) for the Project.

Culvert stream crossings are proposed for crossing marginal quality perennial, ephemeral, and intermittent streams with a drainage basin of less than 1 mile. These crossings may be removed or remain in place 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 controlled to minimize from flowing 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.

- There will be enough 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 and authorized within environmental permits. 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 woody species planted 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 1 square mile (or possibly less in some cases).

- 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 flowing 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 8 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 8 feet of span width. No footings, piers, or supports will be allowed for spans of less than 8 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 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.

Impacts to ponds are not anticipated by the construction, operation, or maintenance of the proposed transmission line. BMPs, including utilization of silt fence or filter sock, will be used as appropriate during construction to minimize runoff siltation.

(4) Operation and Maintenance Impacts on Vegetation and Surface Water

Text provided in the December 21, 2017 Application filing remains unchanged.

(5) Mitigation Procedures

Text provided in the December 21, 2017 Application filing remains unchanged.

(C) LITERATURE SURVEY OF PLANT AND ANIMAL LIFE POTENTIALLY AFFECTED

Text provided in the December 21, 2017 Application filing remains unchanged.

(D) SITE GEOLOGY

(1) Site Geology

Both routes are located within the Marietta Plateau region of the greater Allegheny Plateau Province within the greater Appalachian Plateaus physiographic province (ODNR, 1998). The route is within the unglaciated region of Ohio (ODNR, 2003). The Marietta Plateau Section is characterized by high-relief (350 to 600 feet) dissected plateau with elevations from 515 to 1,400 feet above mean sea level. This section of the Allegheny Plateau has mostly fine-grained rocks, and red shales and red soils are relatively common. These bedrock units are within the Pennsylvanian-age Upper Conemaugh Group through the Permian-age Dunkard Group in cyclic sequences of red and gray shales, siltstones, sandstones, limestones, and coals. The Pleistocene (Teays)-age lacustrine Minford clay, remnants of ancient drainage system, is also found within this Section. Landslides deposits can also be found in the Marietta Plateau Section due to the common occurrence of landslides (ODNR, 1998).

Approximately 47 percent of the area within 1,000 feet of the Preferred Route and approximately 40 percent of the area within 1,000 feet of the Alternate Route occurs atop the Permian- and/or Pennsylvanian-aged Dunkard Group (USGS, 2005).

Approximately ~~47~~ 48 percent of the area within 1,000 feet of the Preferred Route and approximately 56 percent of the area within 1,000 feet of the Alternate Route occurs within the Pennsylvanian-aged Monongahela Group (USGS, 2005).

Approximately ~~6~~ 5 percent of the area within 1,000 feet of the Preferred Route and approximately 4 percent of the area within 1,000 feet of the Alternate Route occurs within the Pennsylvanian-aged Conemaugh Group (USGS, 2005).

(2) Slopes and Foundation Soil Suitability

Text provided in the December 21, 2017 Application filing remains unchanged.

(E) ENVIRONMENTAL AND AVIATION REGULATION COMPLIANCE

Text provided in the December 21, 2017 Application filing remains unchanged.

REFERENCES

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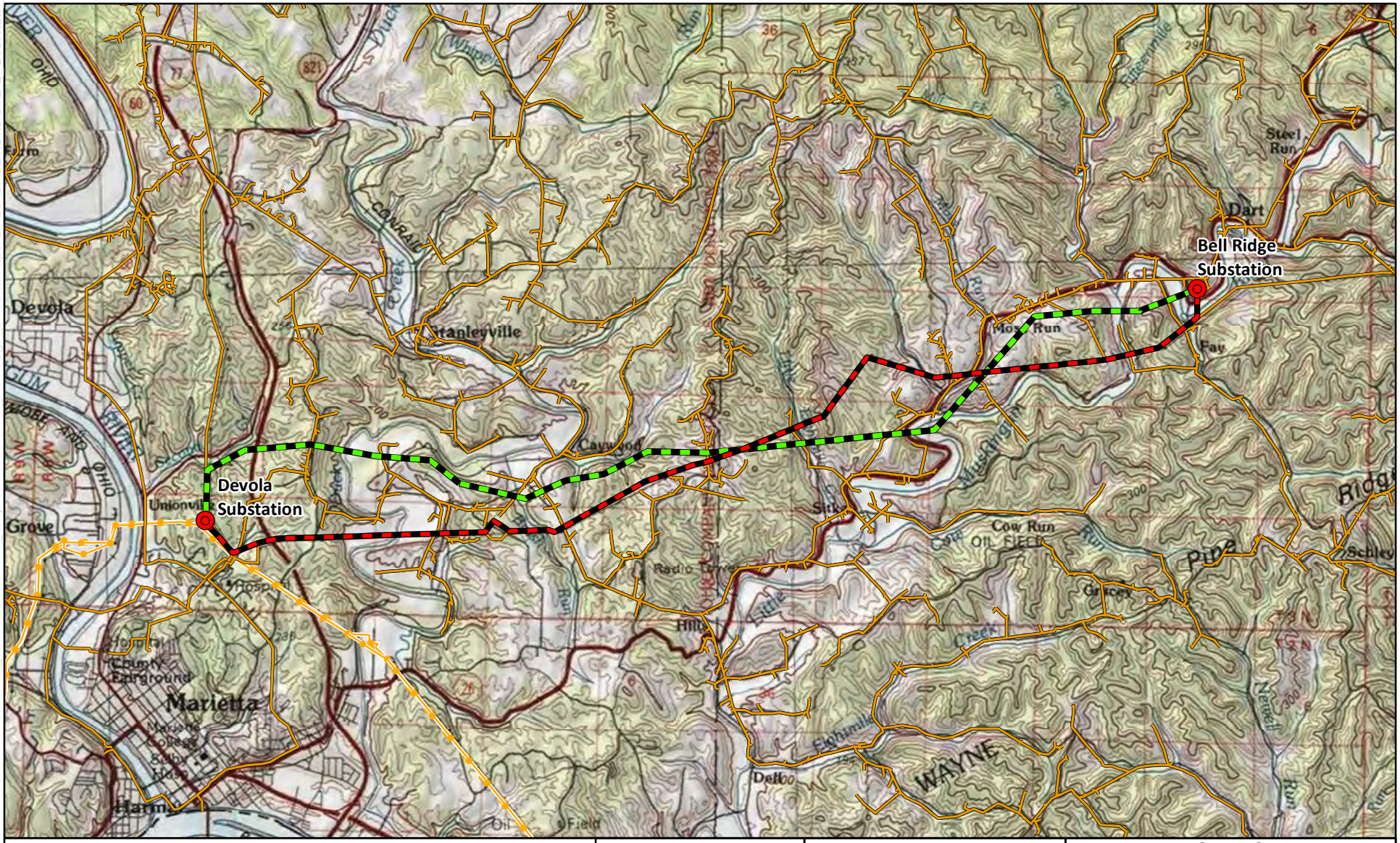
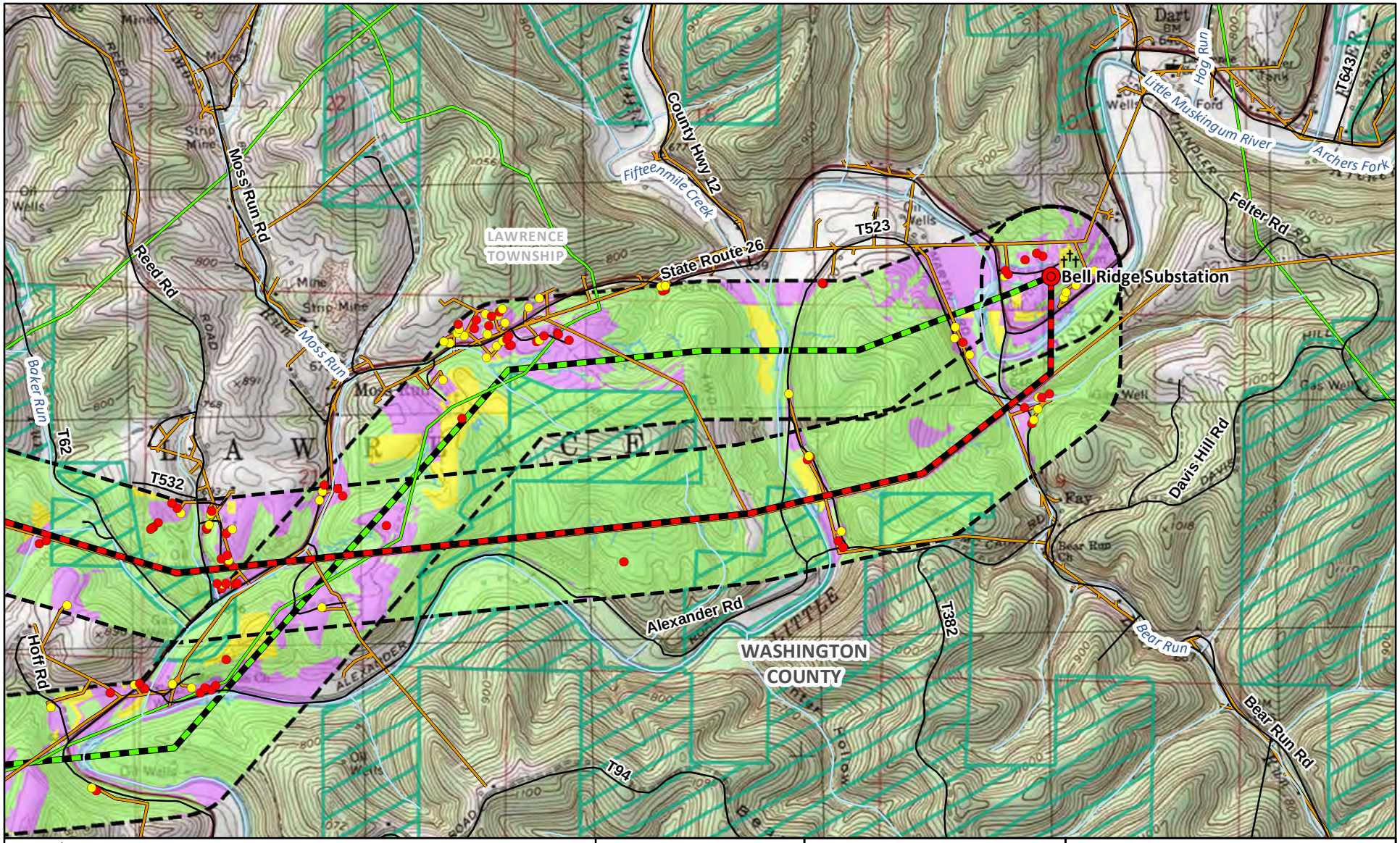
Figures


Bell Ridge Substation
Devola Substation
Devola
Stanleyville
Marietta
Dart
Fay
Steel Run
Cow Run Oil Field
Cavwood
Radio Tower
Hills
Delloo
WAYNE
Oil Field
County Fairground
Marietta College
Hospital
Union
Grove
Harm
Max Run
Muskingum
Ridge
Pipe
Schley
Grover
Neuell Run
Sickle
Fitzenville
Duck Creek
Conrad Creek
Whipple Run
Little Muskingum Creek
Elephant Run
Little Muskingum River
Moore Run
Gum Run
Ohio River
Ohio
Substation
Preferred Route
Alternate Route
Existing Electric Distribution Line
Existing Transmission Line
BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Marietta, Belmont
Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:80,000
July 17, 2019
LOCATOR MAP
Washington County
FIGURE 2-1
PROJECT OVERVIEW AND AREA FEATURES
AEP OHIO
Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH
0
1
2
Miles



Legend

- Substation
- Alternate Route
- Preferred Route
- 1,000-Foot Buffer
- Cemetery
- OHI Structure
- Existing Electric Distribution Line
- Existing Transmission Line
- Existing Gas Pipeline
- Water Resources
- Woodlot
- Wayne National Forest
- Stream (NHD)
- Street
- Township
- Marietta

Structure

- Church
- Commercial
- Industrial
- Other
- Residential

Land Use

- Agriculture/Pasture
- Developed
- Industrial and Commercial
- Institutional
- Residential
- Utility ROW

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Marietta, Belmont

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:24,000

July 17, 2019

LOCATOR MAP

FIGURE 7-1A
LAND USE MAP

Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH

0 0.25 0.5
Miles

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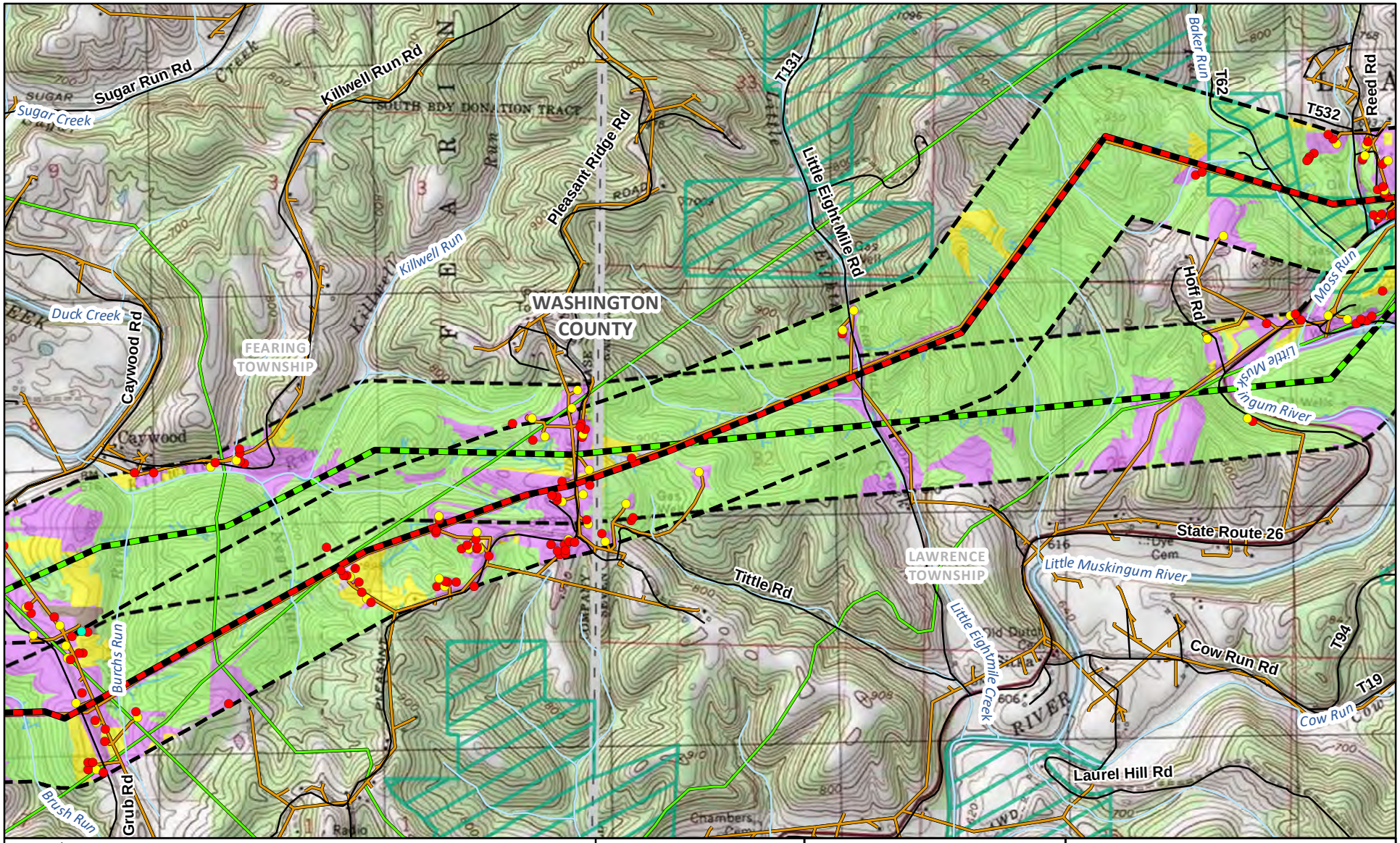

Legend

- Substation
- Alternate Route
- Preferred Route
- 1,000-Foot Buffer
- Cemetery
- OHI Structure
- Existing Electric Distribution Line
- Existing Transmission Line
- Existing Gas Pipeline
- Water Resources
- Woodlot
- Wayne National Forest
- Stream (NHD)
- Street
- Township
- Marietta

Structure

- Church
- Commercial
- Industrial
- Other
- Residential

Land Use

- Agriculture/Pasture
- Developed
- Industrial and Commercial
- Institutional
- Residential
- Utility ROW

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Marietta, Belmont

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:24,000

July 17, 2019

LOCATOR MAP

FIGURE 7-1B
LAND USE MAP

Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH

0 0.25 0.5
Miles

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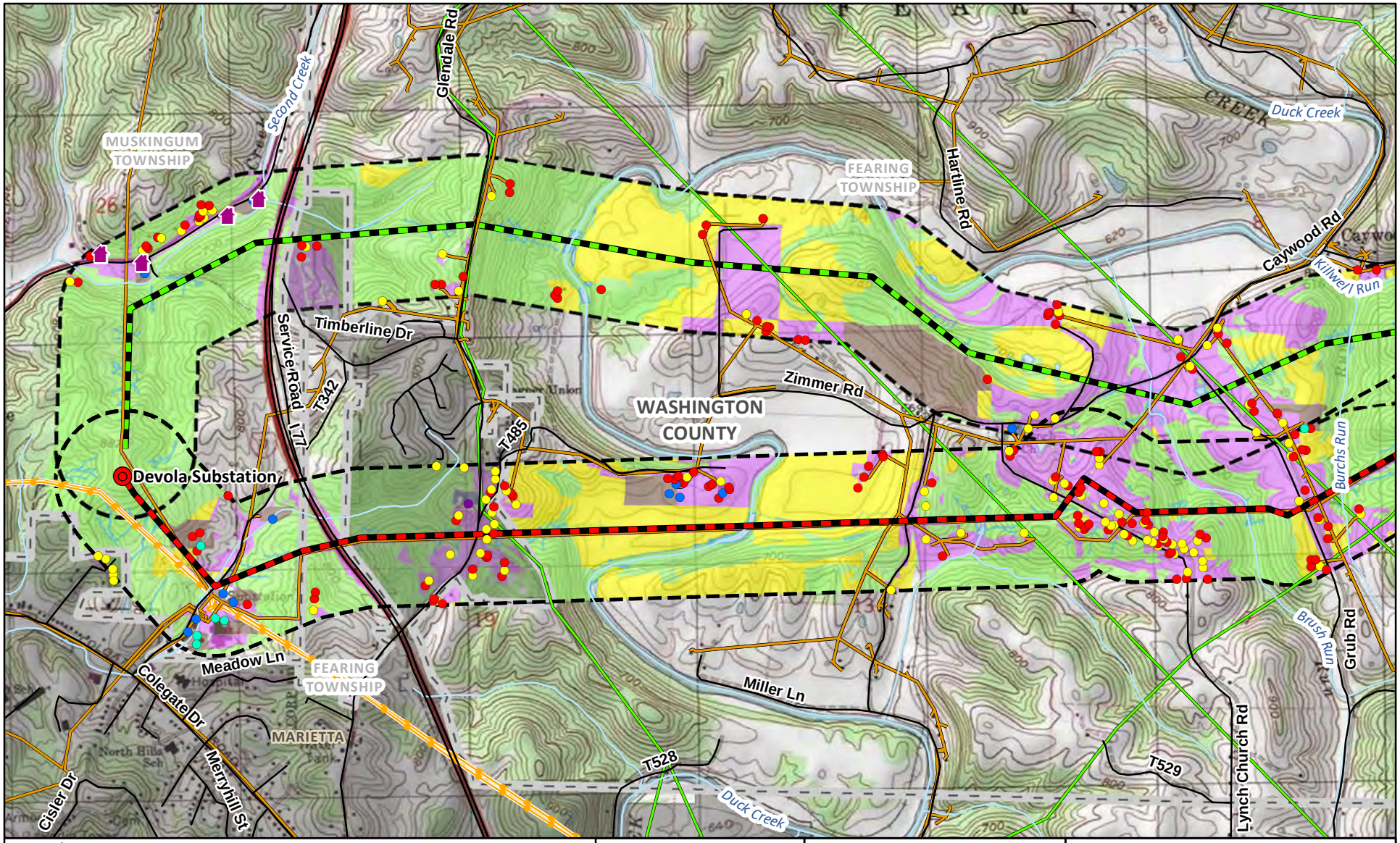

Legend

- Substation
- Alternate Route
- Preferred Route
- 1,000-Foot Buffer
- Cemetery
- OHI Structure
- Existing Electric Distribution Line
- Existing Transmission Line
- Existing Gas Pipeline
- Water Resources
- Woodlot
- Wayne National Forest
- Stream (NHD)
- Street
- Township
- Marietta

Structure

- Church
- Commercial
- Industrial
- Other
- Residential

Land Use

- Agriculture/Pasture
- Developed
- Industrial and Commercial
- Institutional
- Residential
- Utility ROW

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Marietta, Belmont

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:24,000

July 17, 2019

LOCATOR MAP

FIGURE 7-1C
LAND USE MAP

Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH

0 0.25 0.5
Miles

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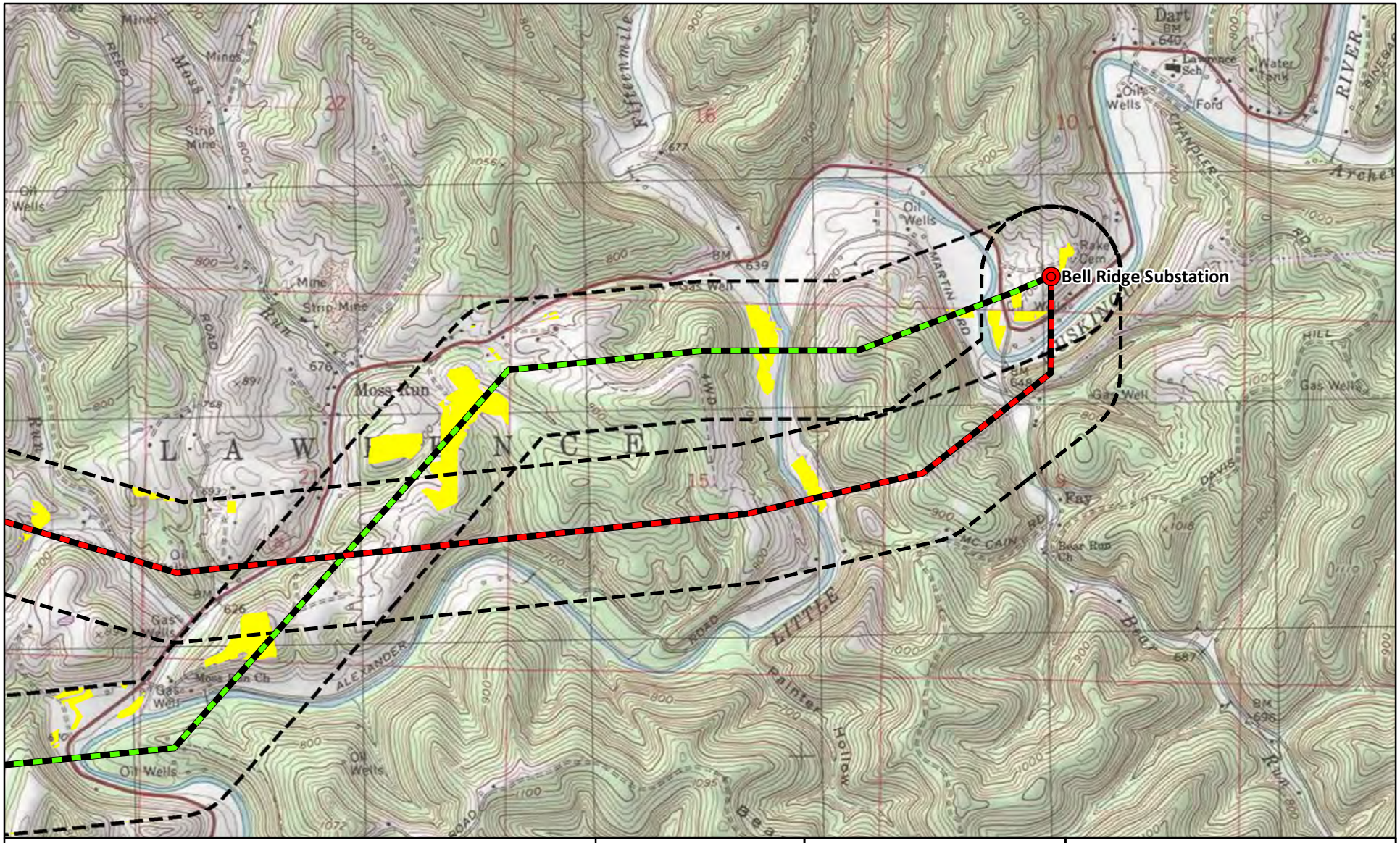

Legend

- Substation
- Preferred Route
- Alternate Route
- 1,000-Foot Buffer
- Agricultural District Land within 1,000 feet
- Agriculture Land Use

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Marietta, Belmont

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:24,000

July 17, 2019

LOCATOR MAP

FIGURE 7-2A
AGRICULTURAL LAND USE MAP

AEP OHIO

Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH

0 0.25 0.5
Miles

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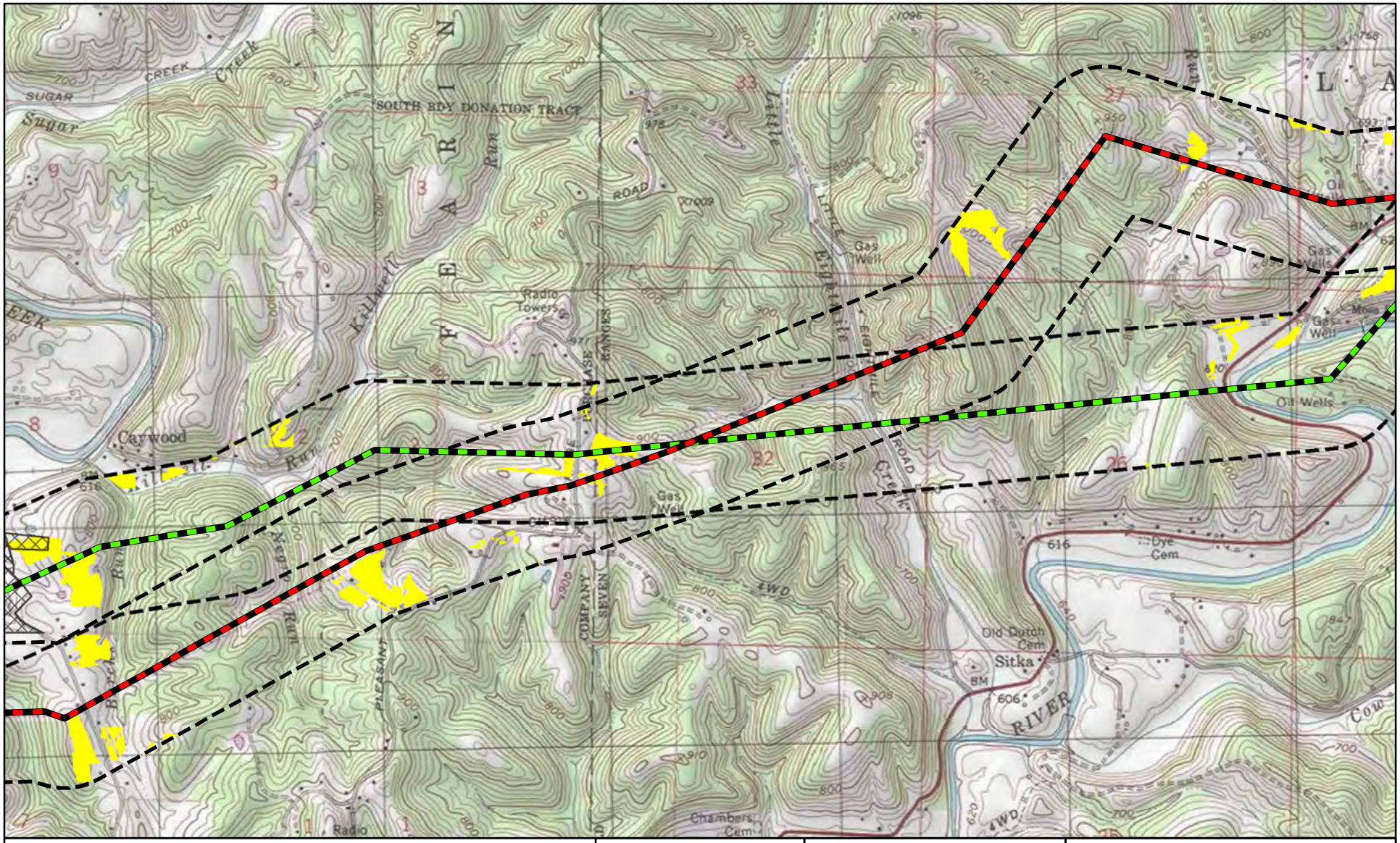

Legend

- Substation
- Preferred Route
- Alternate Route
- 1,000-Foot Buffer
- Agricultural District Land within 1,000 feet
- Agriculture Land Use

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Marietta, Belmont

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:24,000

July 17, 2019

LOCATOR MAP

FIGURE 7-2B
AGRICULTURAL LAND USE MAP

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 0.25 0.5
Miles

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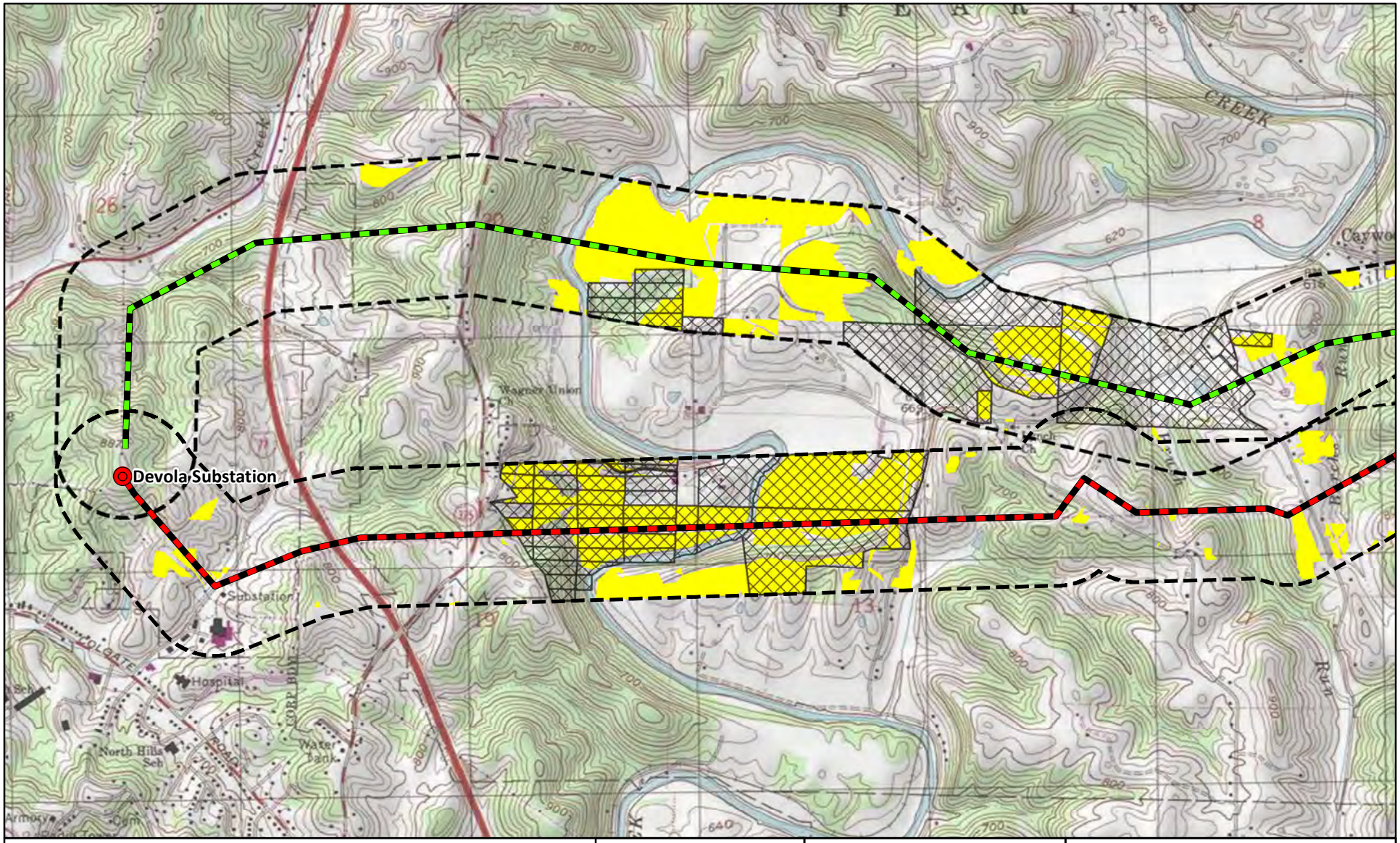

Legend

- Substation
- Preferred Route
- Alternate Route
- 1,000-Foot Buffer
- Agricultural District Land within 1,000 feet
- Agriculture Land Use

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Marietta, Belmont

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:24,000

July 17, 2019

LOCATOR MAP

FIGURE 7-2C
AGRICULTURAL LAND USE MAP

AEP OHIO

Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH

0 0.25 0.5
Miles

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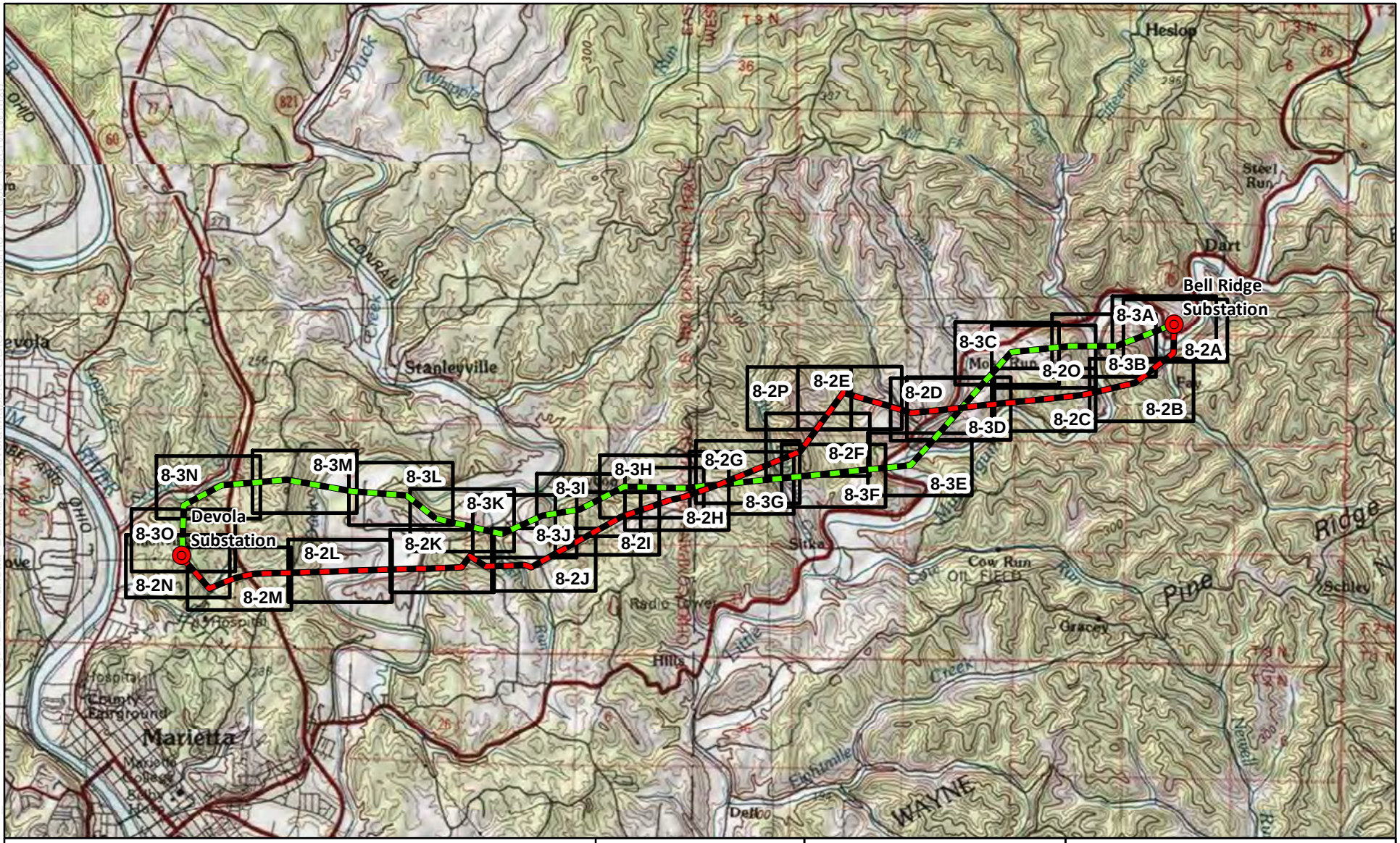


Legend

- Substation
- Preferred Route
- Alternate Route
- Figure Key

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Marietta, Belmont

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:80,000

July 17, 2019

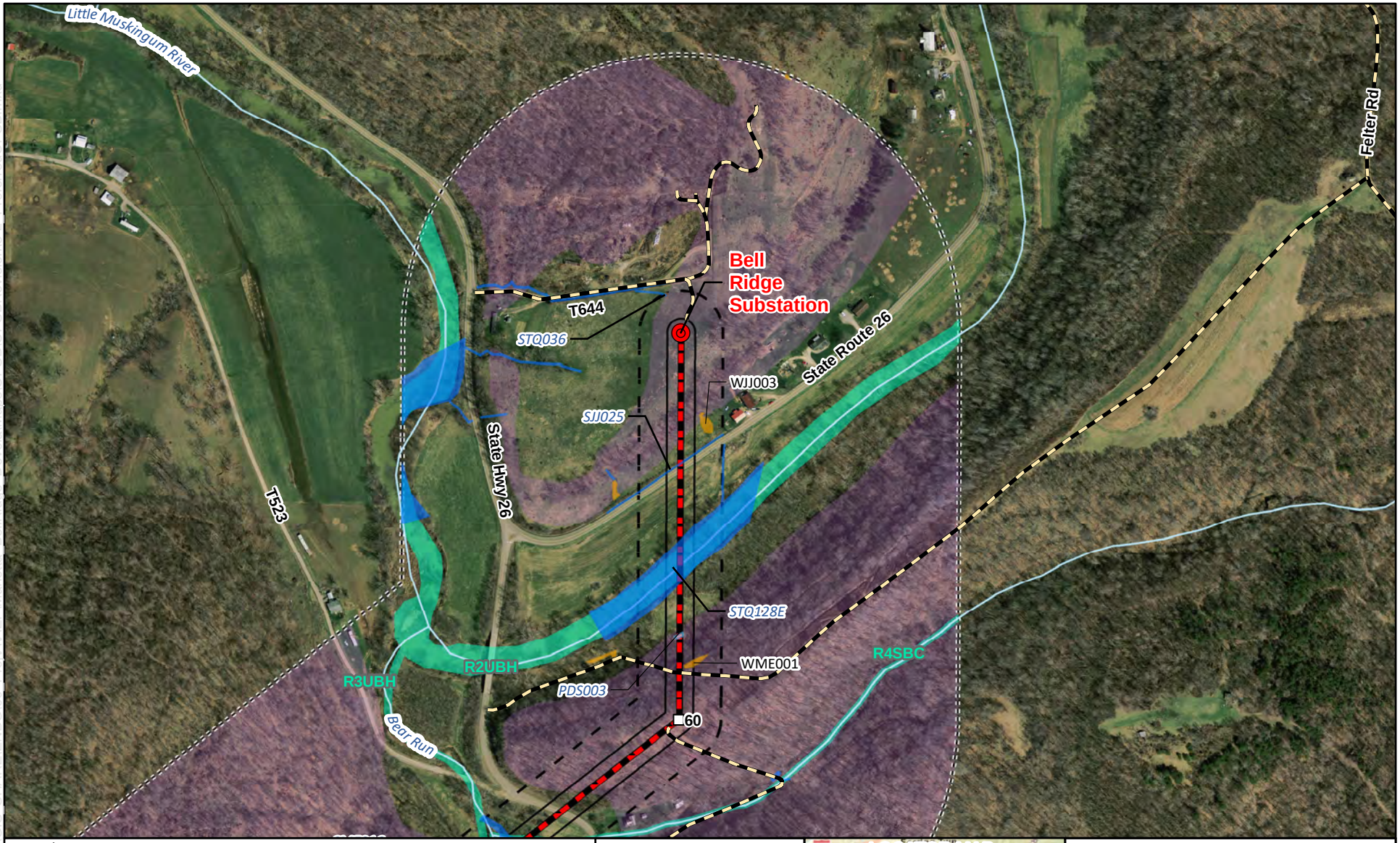
LOCATOR MAP

FIGURE 8-1
OVERVIEW MAP

AEP OHIO

Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH

0 0.5 1 1.5 2
Miles



Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

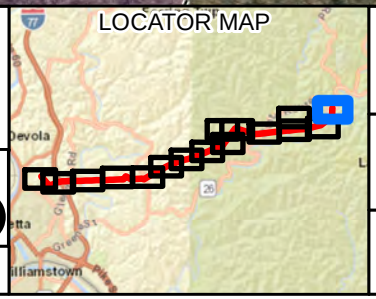


FIGURE 8-2A

Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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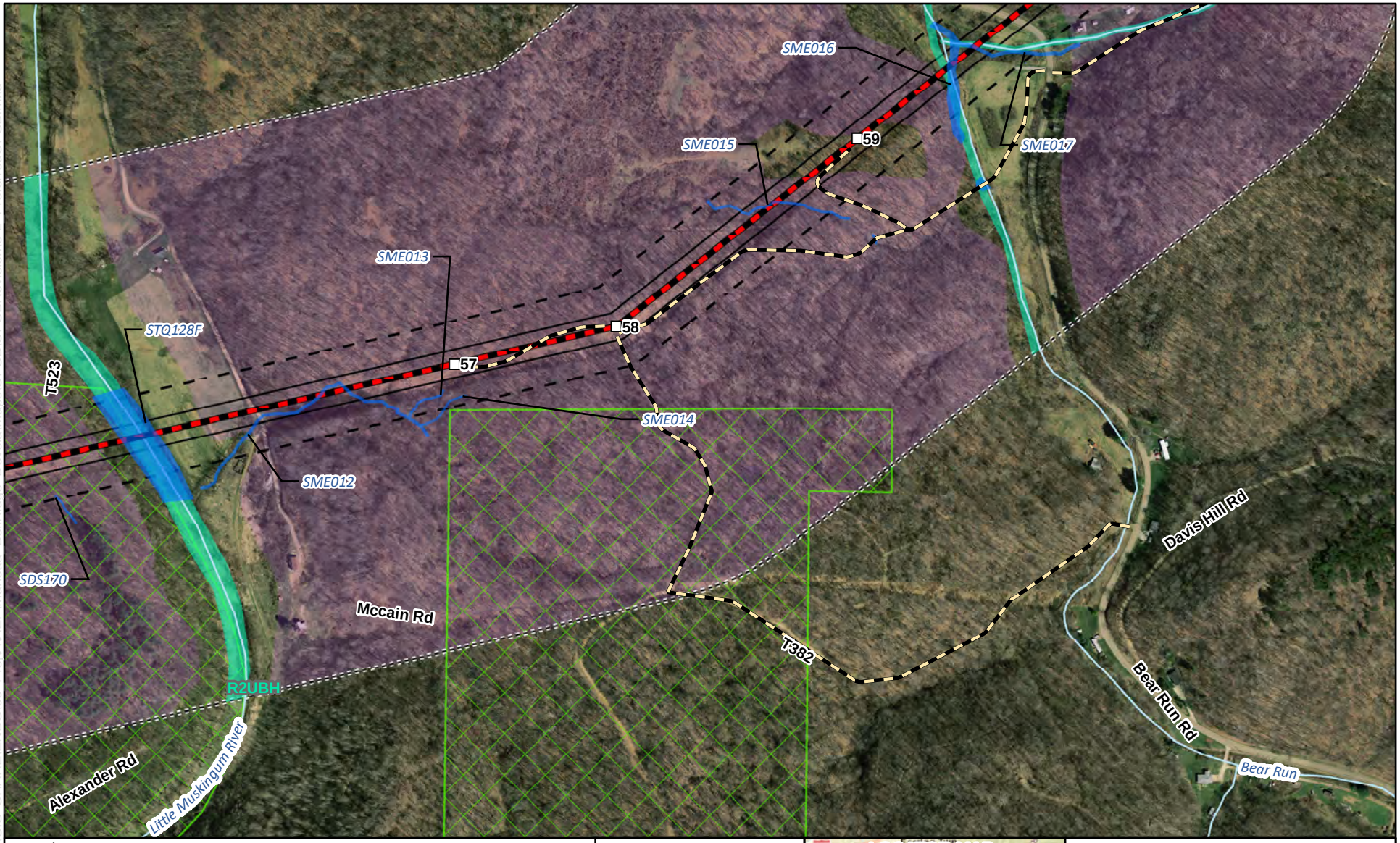

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

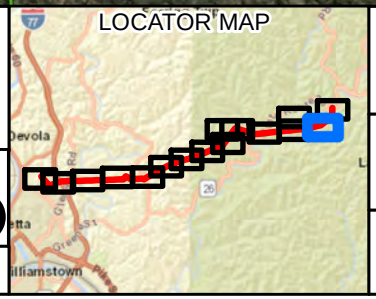

FIGURE 8-2B
Preferred Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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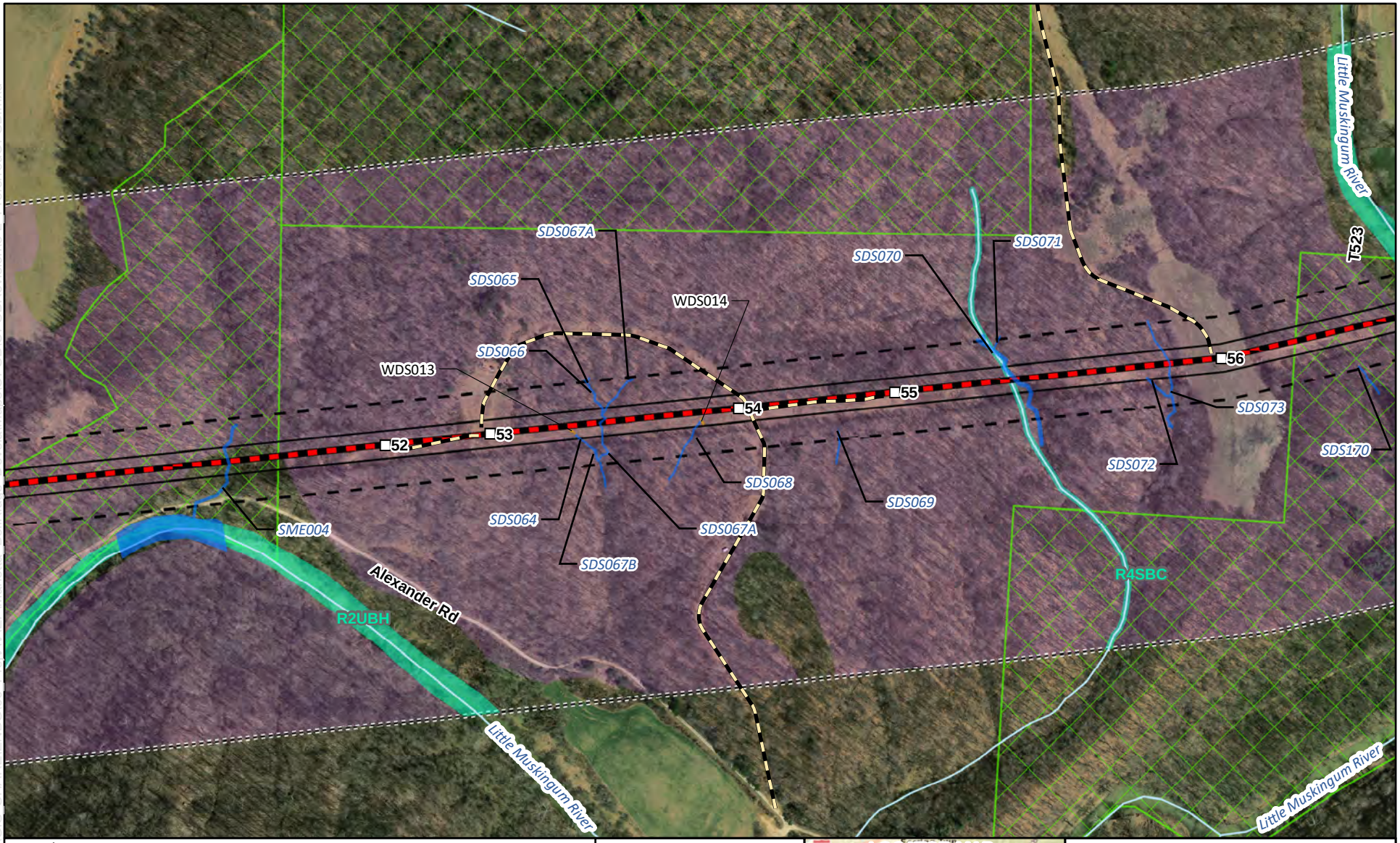


Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

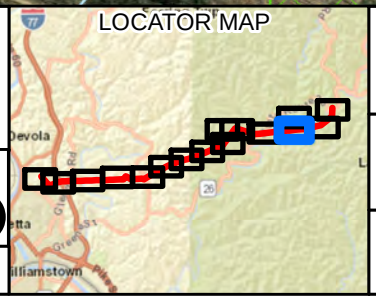
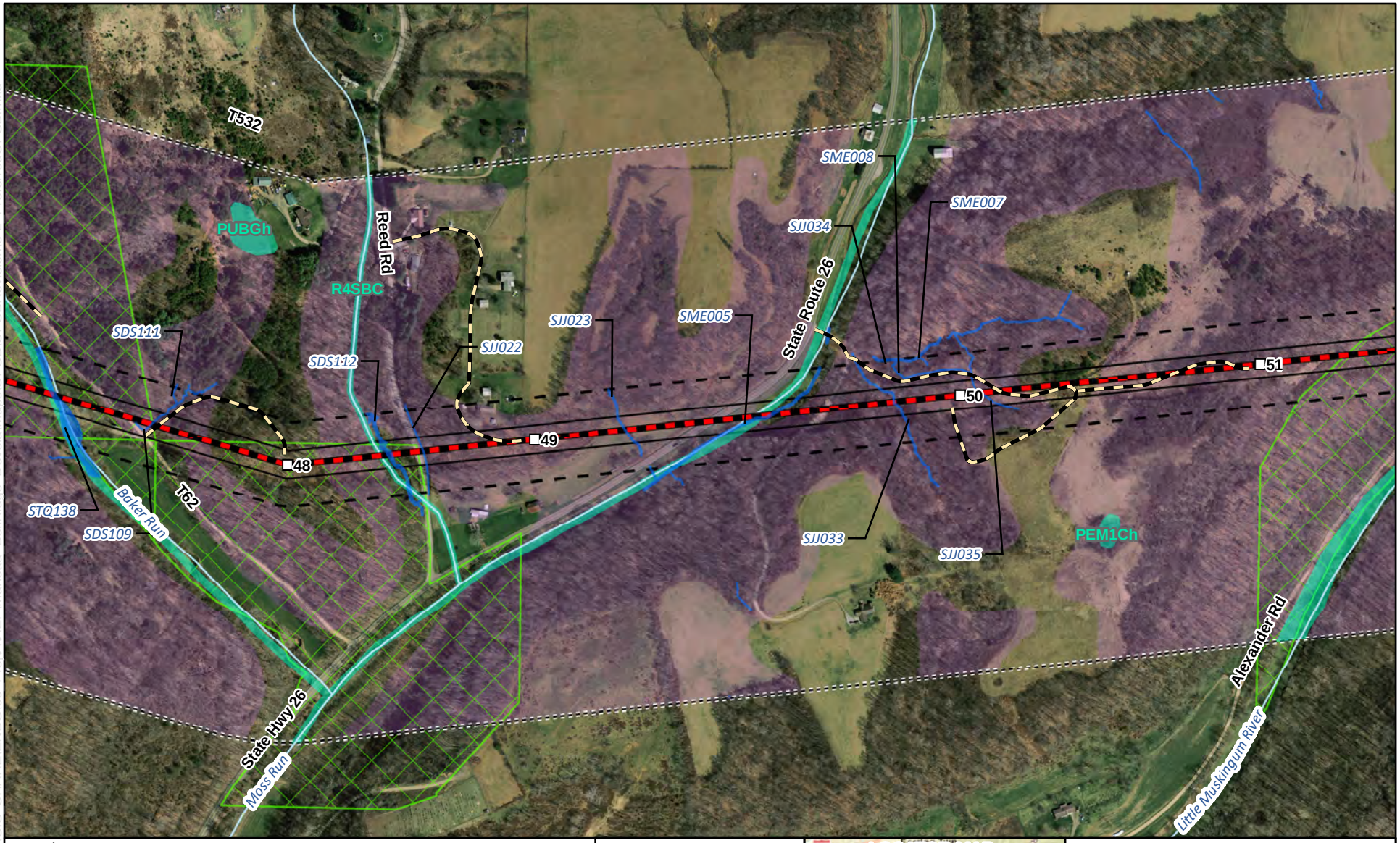


FIGURE 8-2C
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: W:\projectfiles\GIS_SHARE\NBC\09_Proj\AAEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-2_PreferredOPSB.mxd



Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

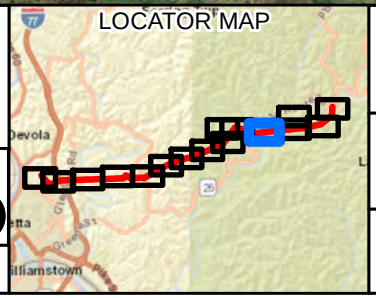


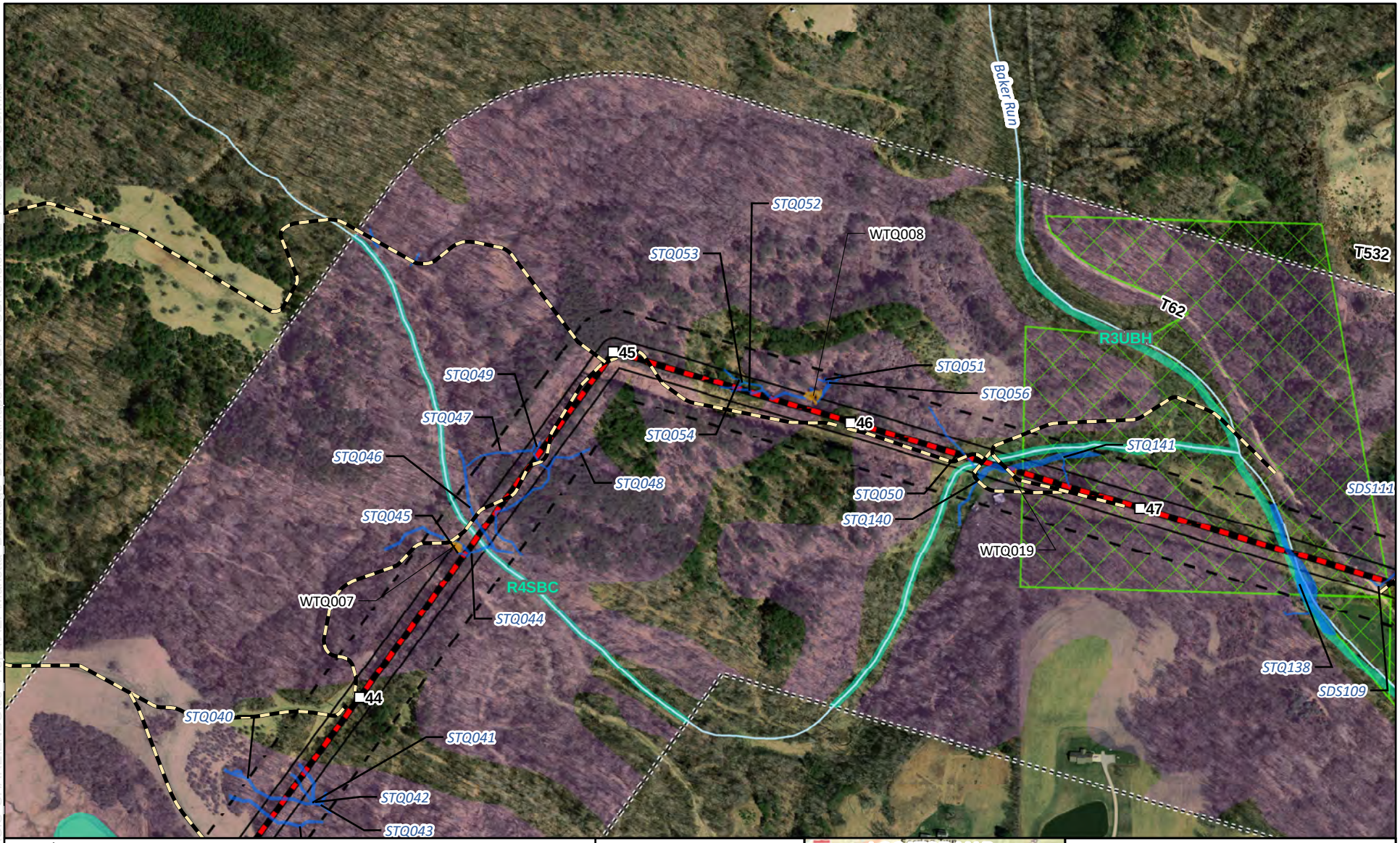
FIGURE 8-2D

Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: W:\projectdefiles\GIS_SHAREENBG\09_Proj\AAEP\Marietta_BellRidge_DevolaMaps\ORSBPreviews\8-2_PreferredORSB.mxd



Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

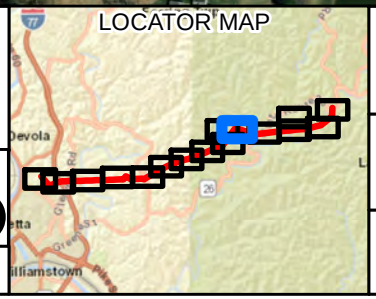


FIGURE 8-2E
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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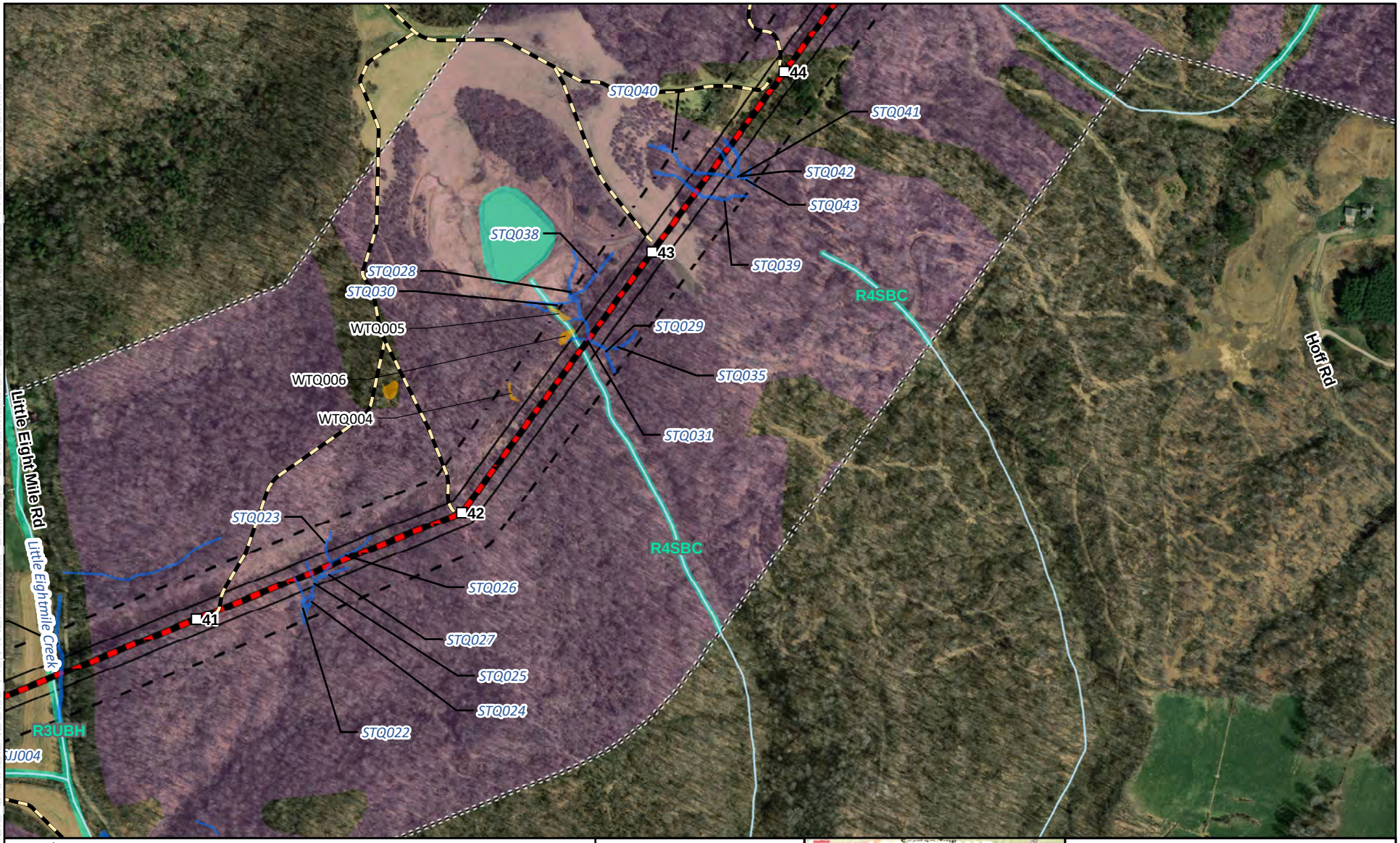

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

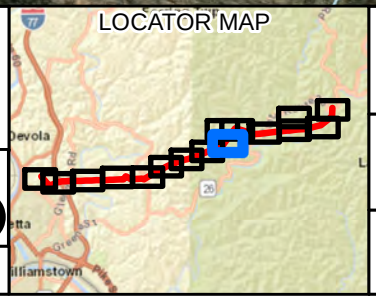

FIGURE 8-2F
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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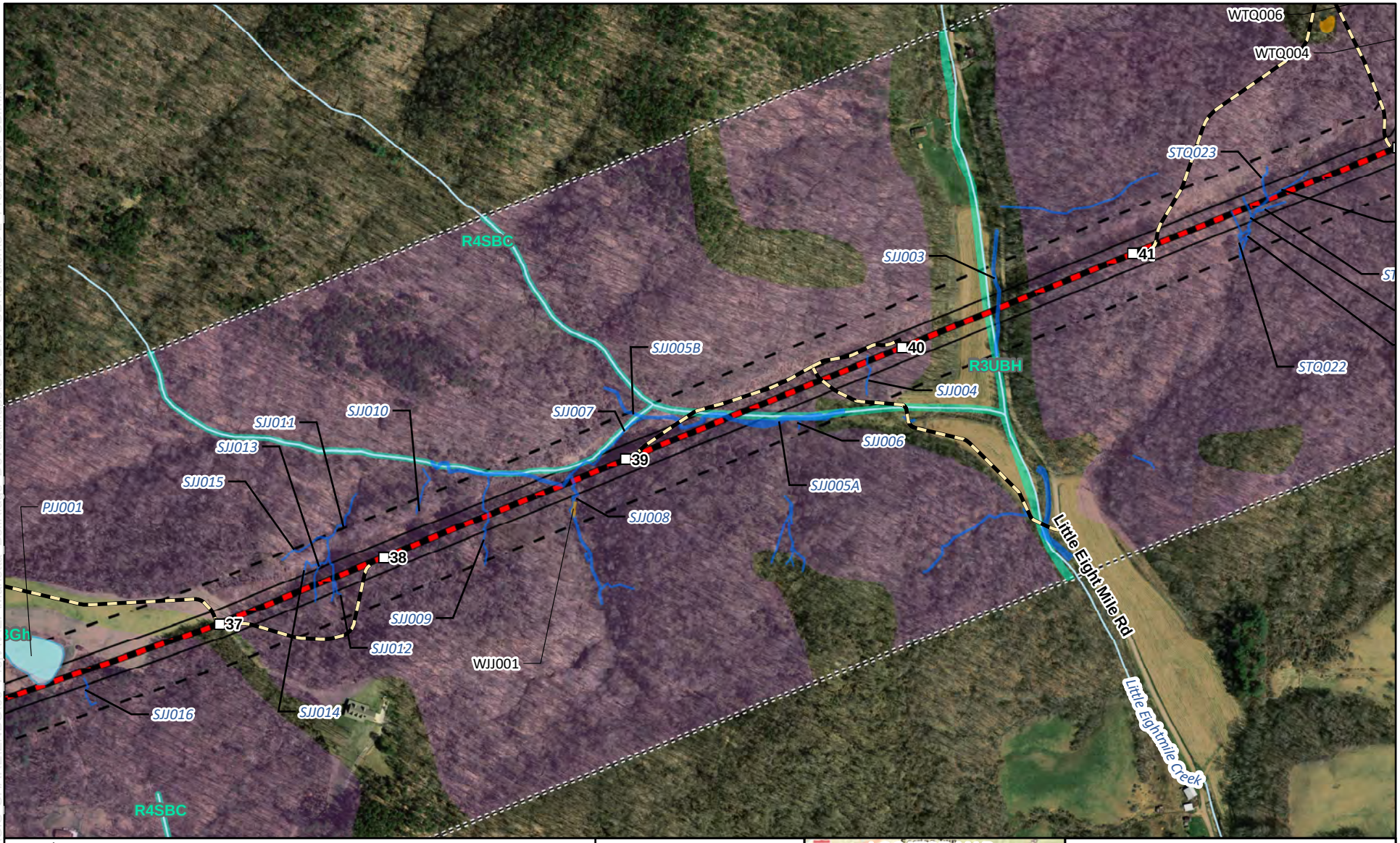


Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

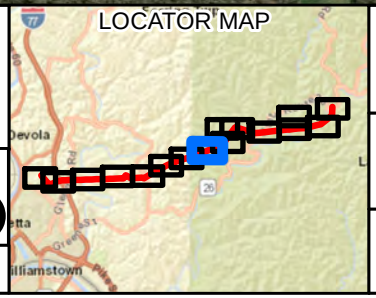


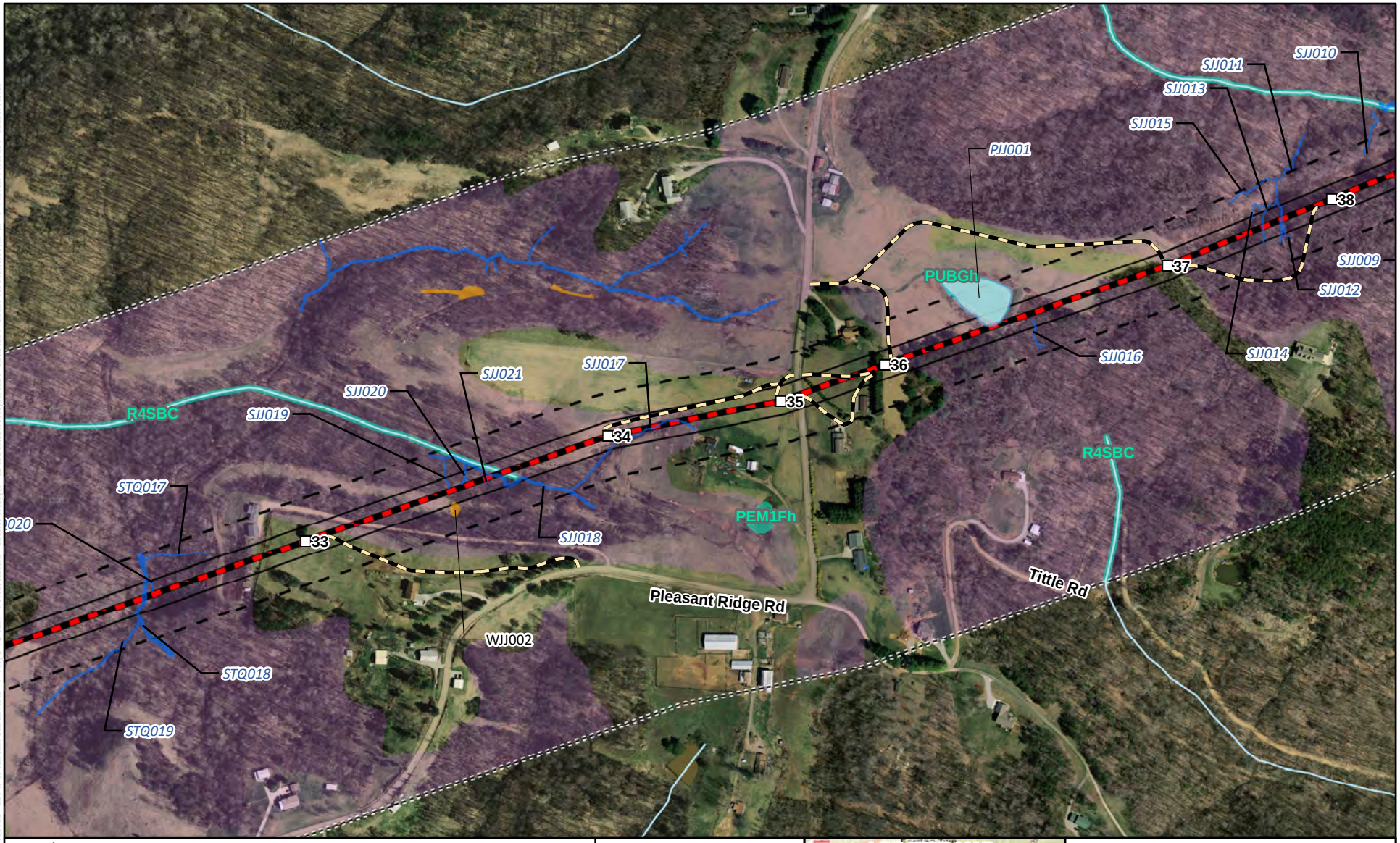
FIGURE 8-2G
Preferred Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV
Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: W:\projectfiles\GIS_SHARE\NBG\09_Proj\AAEP\Marietta_BellRidge_DevolaMaps\OPSB\OPSBRevision\8-2_PreferredOPSB.mxd



Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

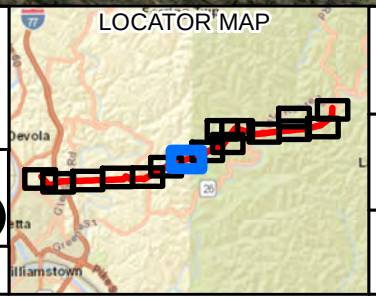


FIGURE 8-2H
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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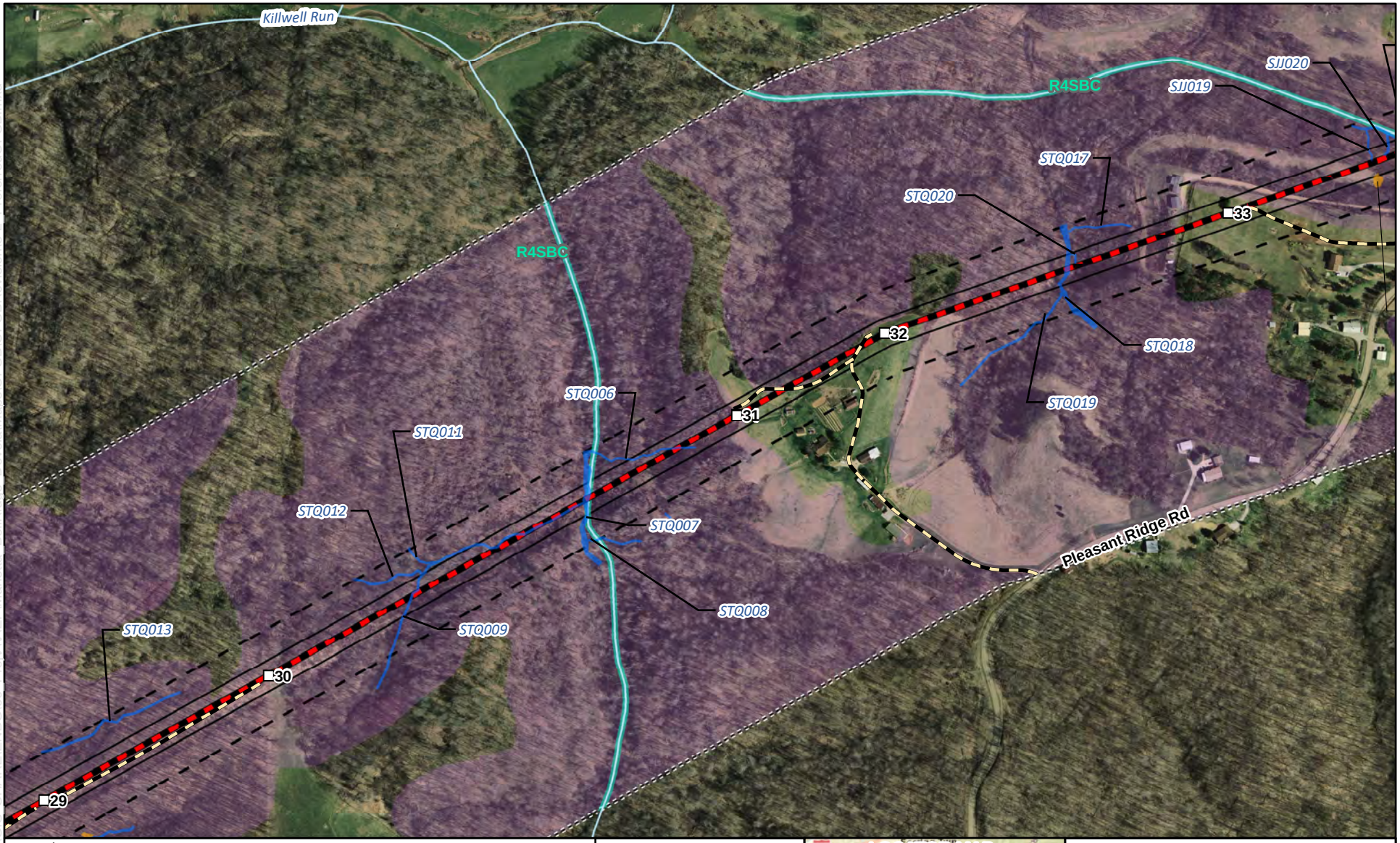

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

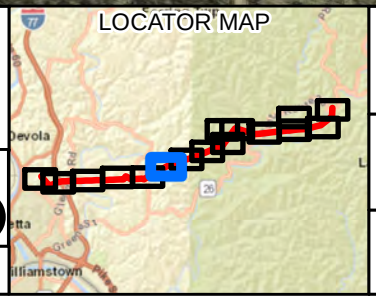

FIGURE 8-2I
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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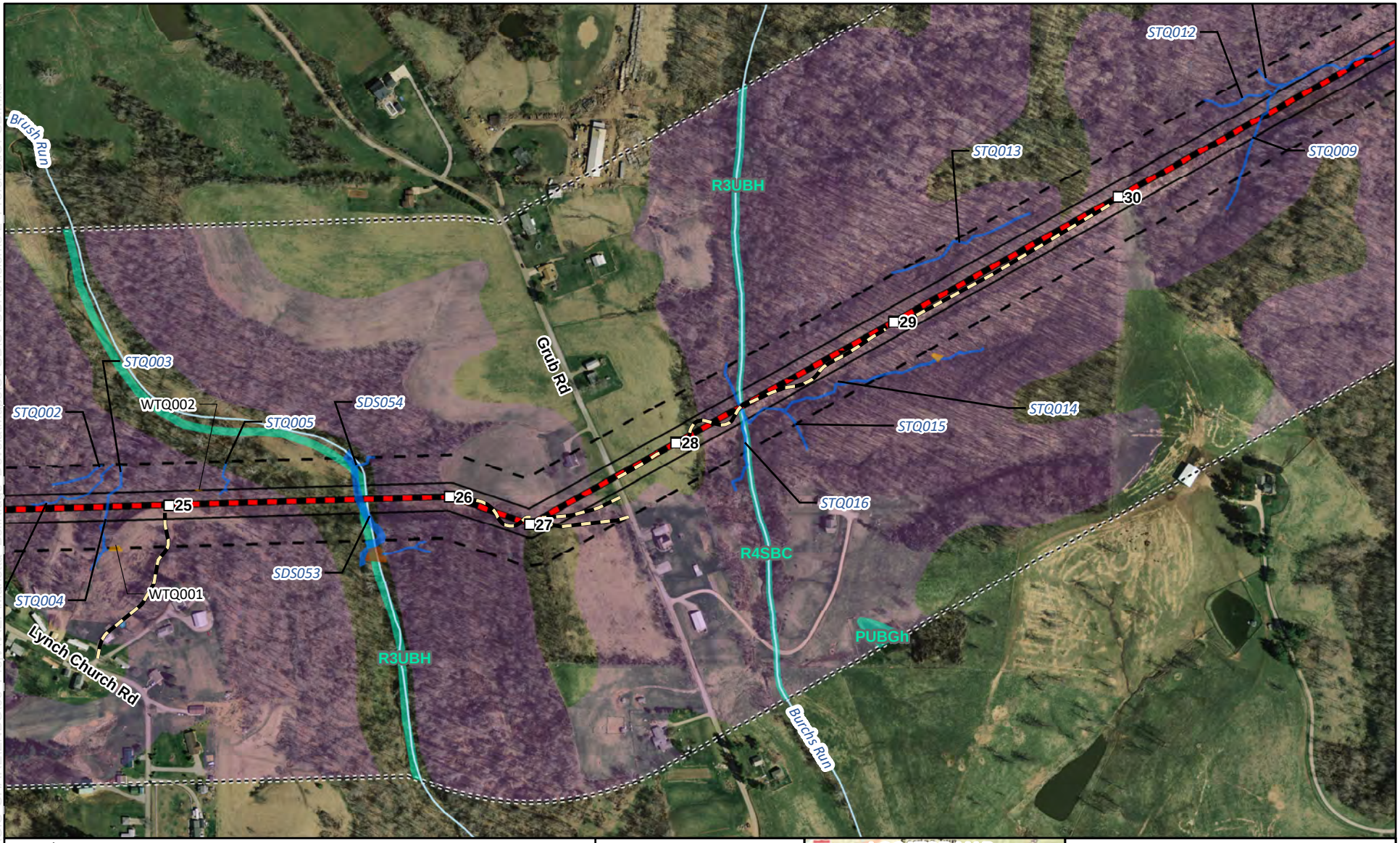

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

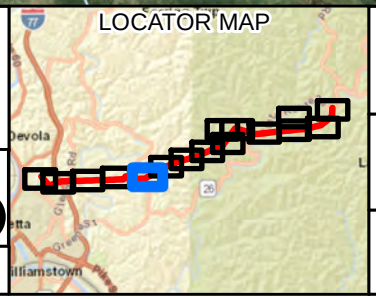

FIGURE 8-2J
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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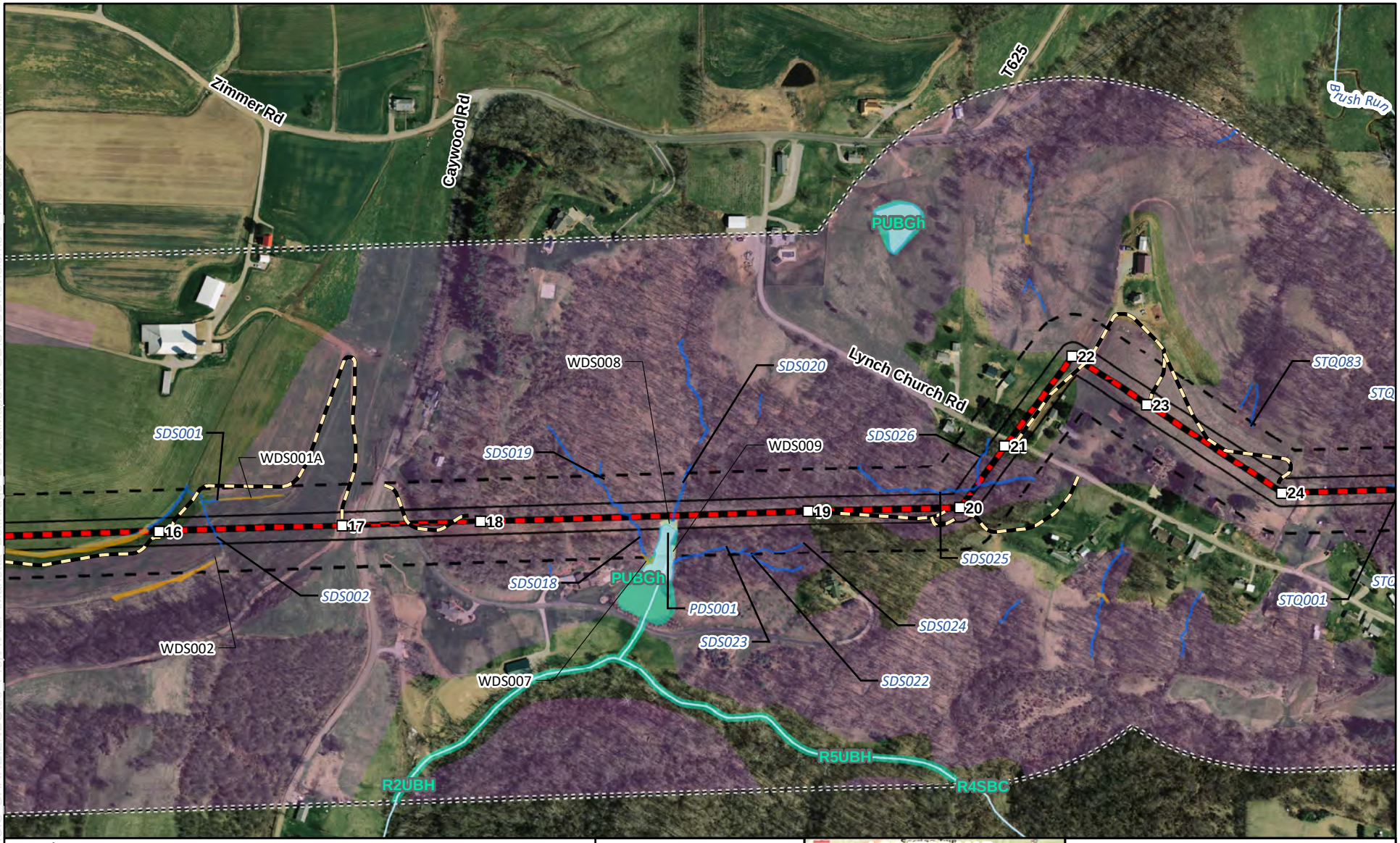

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

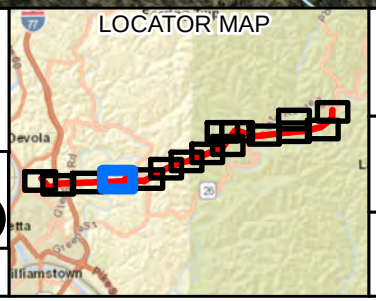

FIGURE 8-2K
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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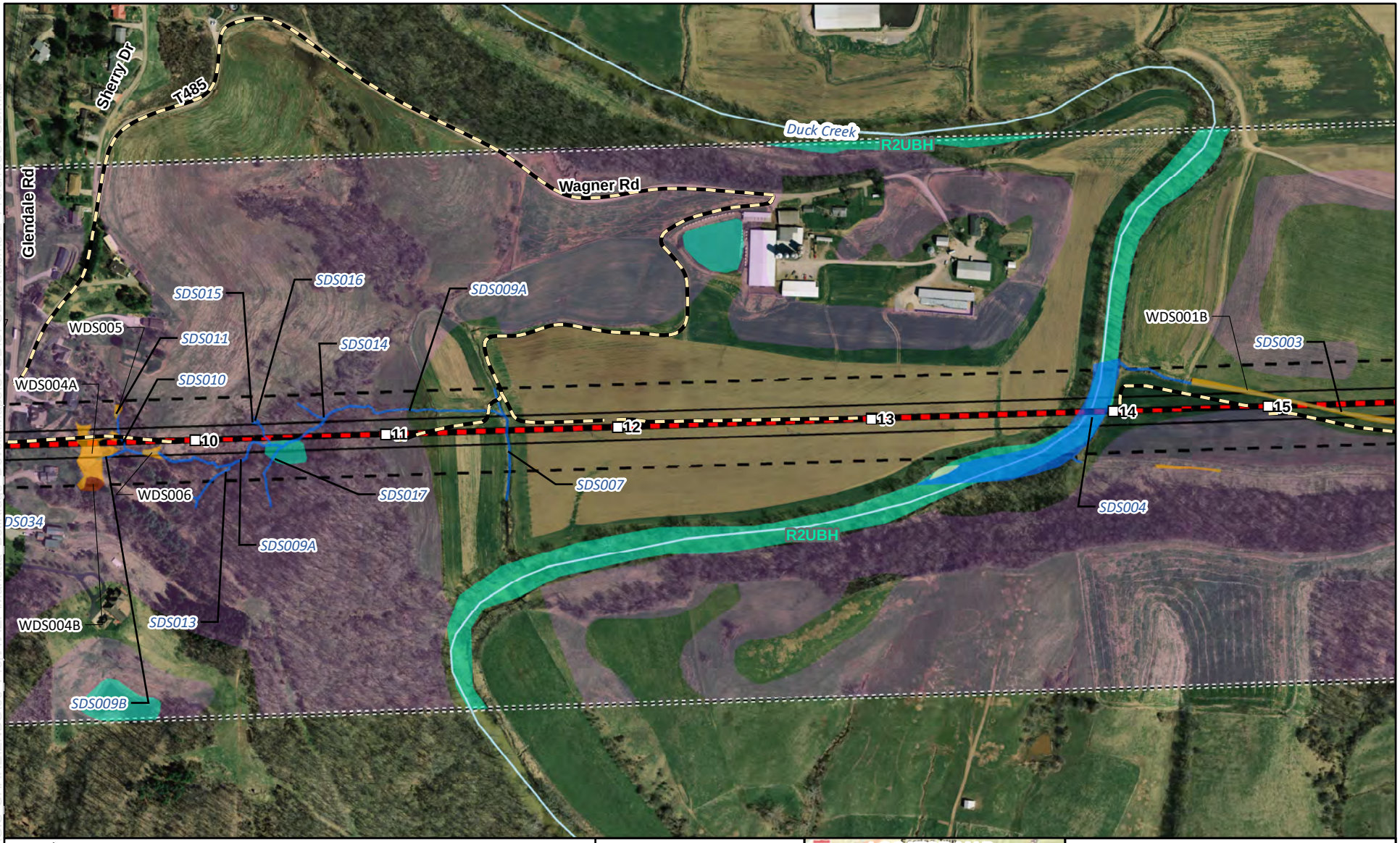

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

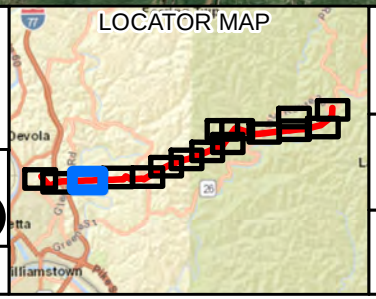

FIGURE 8-2L

Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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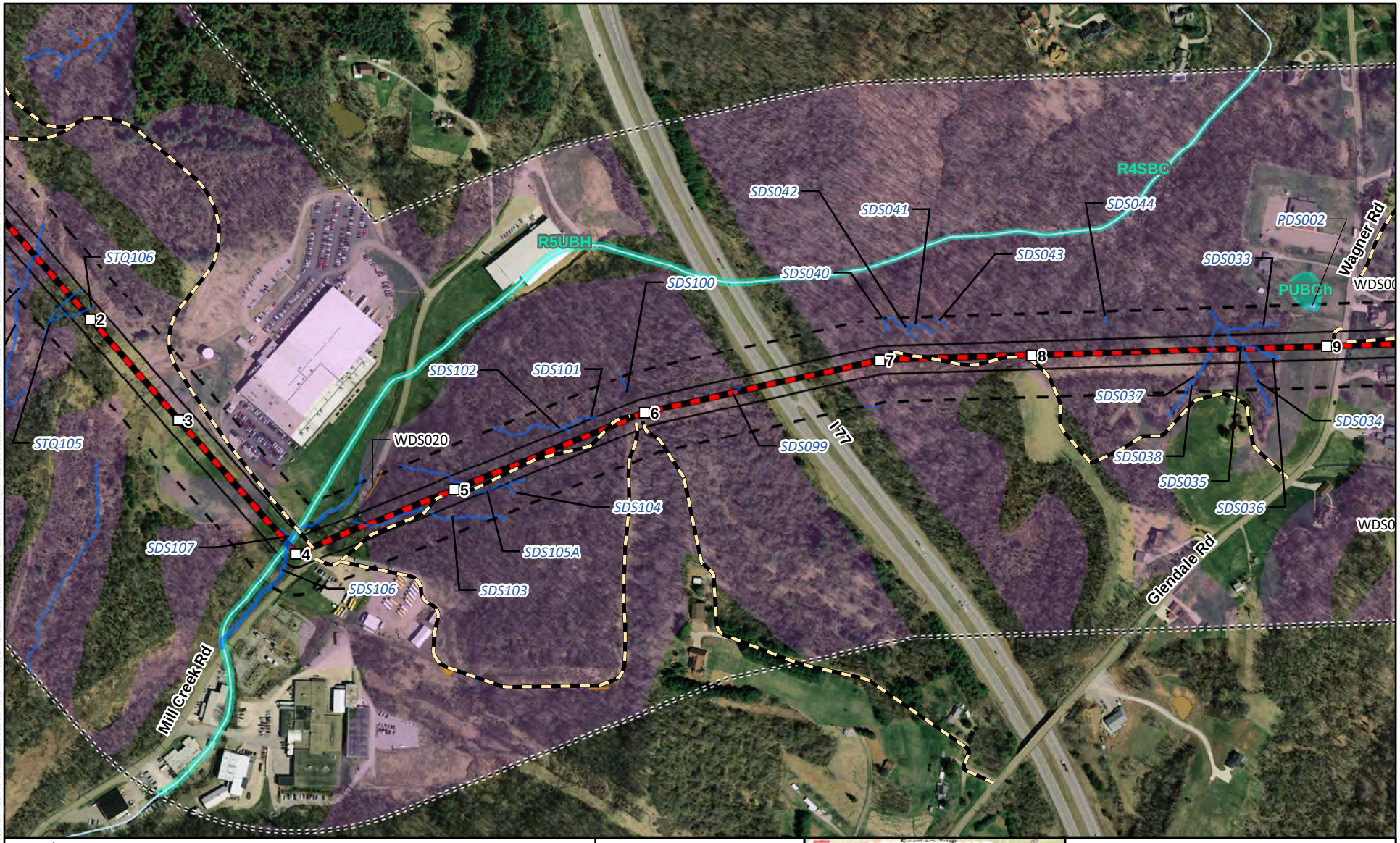

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

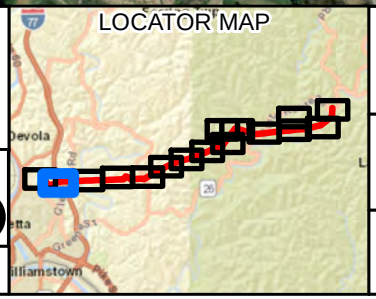

FIGURE 8-2M
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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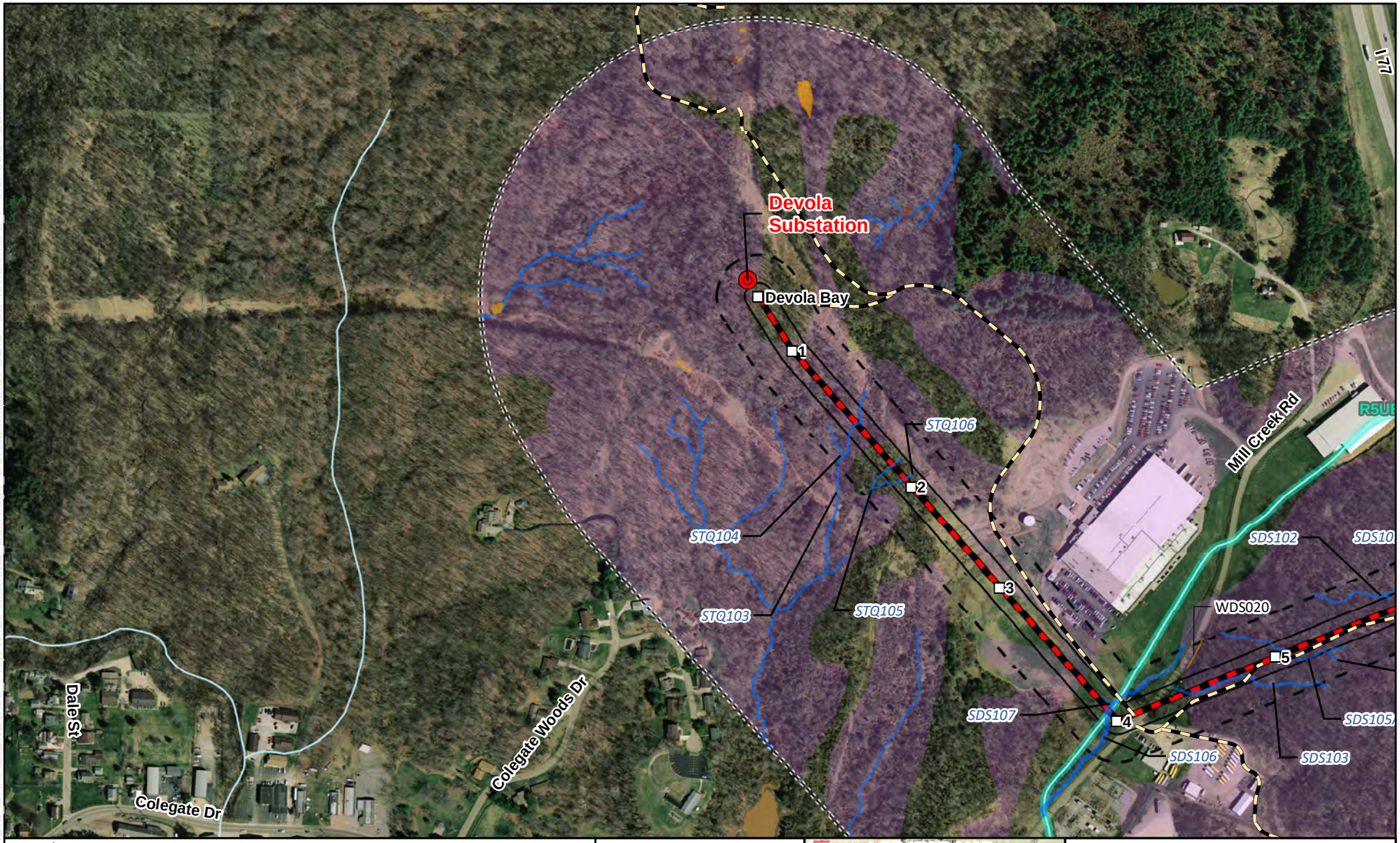

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

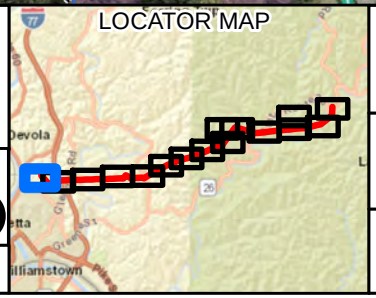

FIGURE 8-2N
Preferred Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: W:\projsidefile\GIS_SHARE\NBC\09_Proj\AAEP\Marietta_BellRidge_DevolaMaps\OPSB\OPSBRevision\8-2_PreferredOPSB.mxd

Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

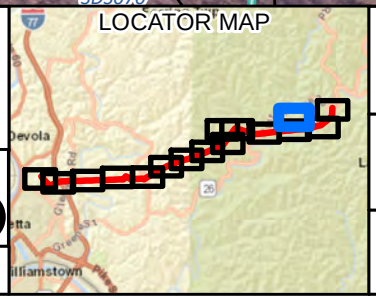

FIGURE 8-2O
Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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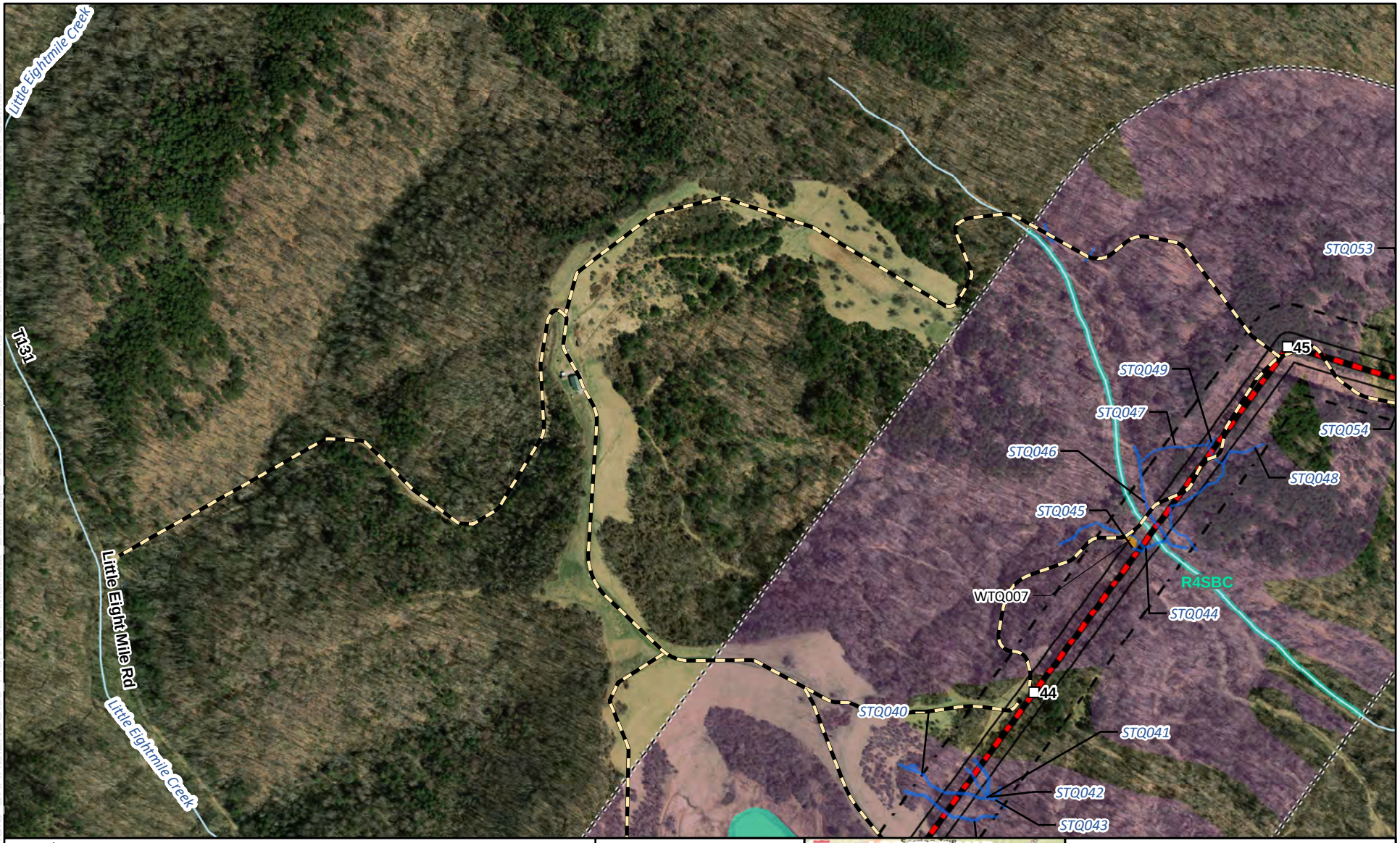


Legend

- Substation
- Preferred Route
- Preliminary Structure Location
- Preliminary Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

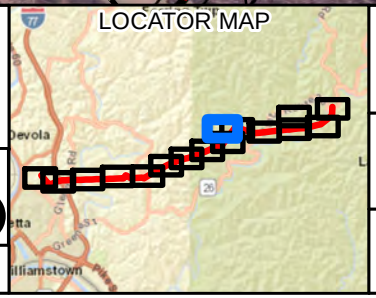


FIGURE 8-2P

Preferred Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: W:\projectfiles\GIS_SHAREENBC\00_Proj\AAEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-2_PreferredOPSB.mxd

Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

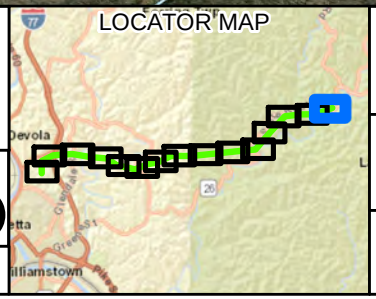


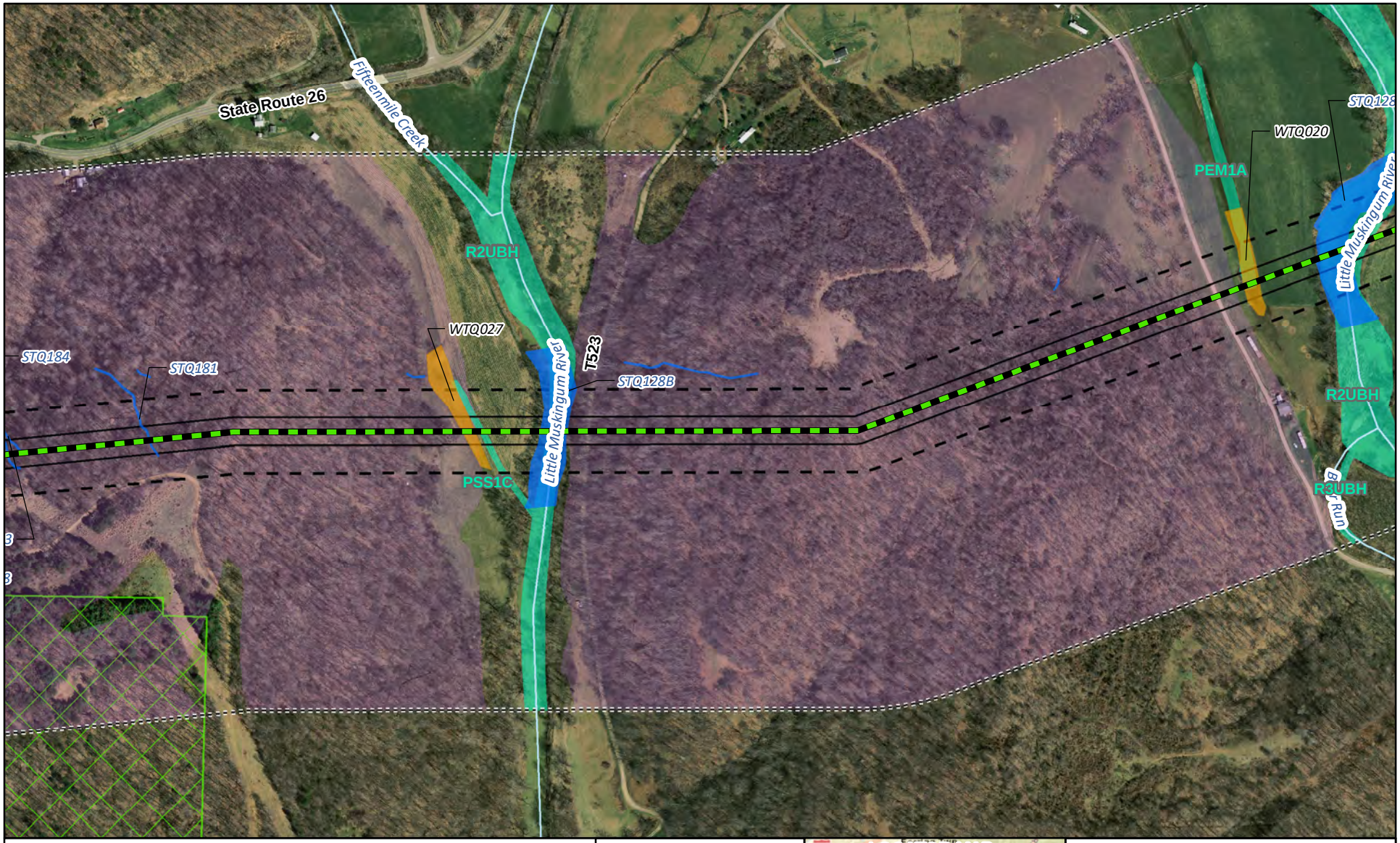
FIGURE 8-3A
Alternate Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\AA\AEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-3_AlternateOPSB



Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

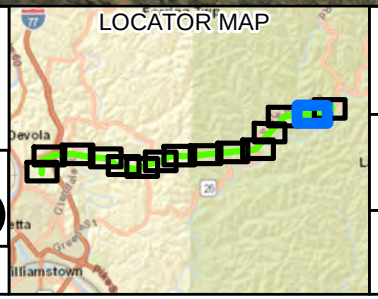


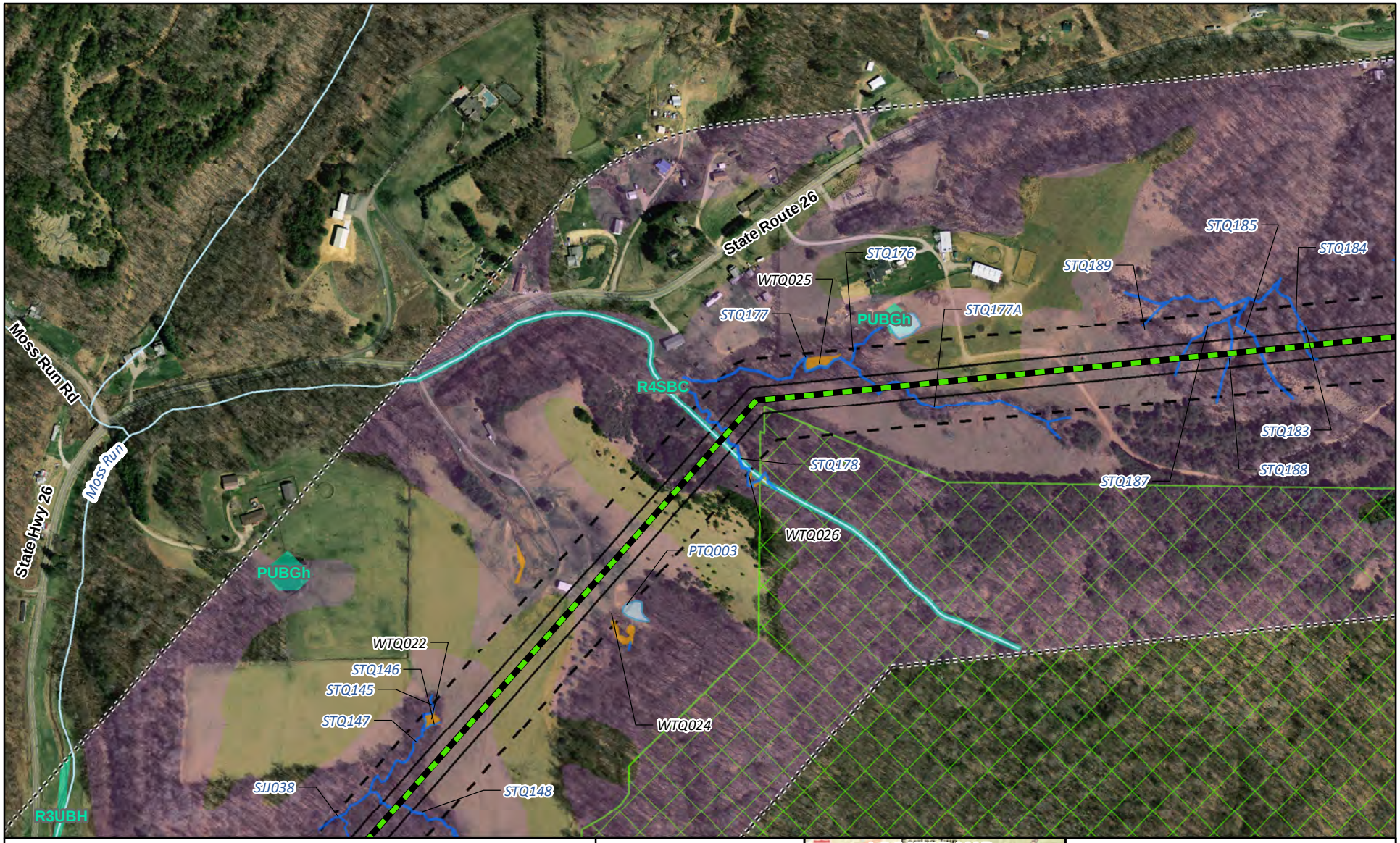
FIGURE 8-3B
Alternate Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\AEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-3_AlternateOPSB



Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

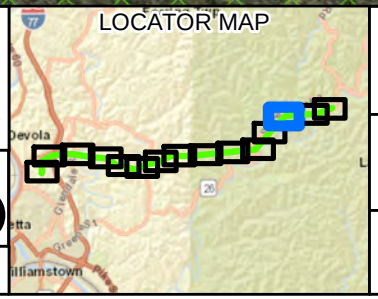


FIGURE 8-3C
Alternate Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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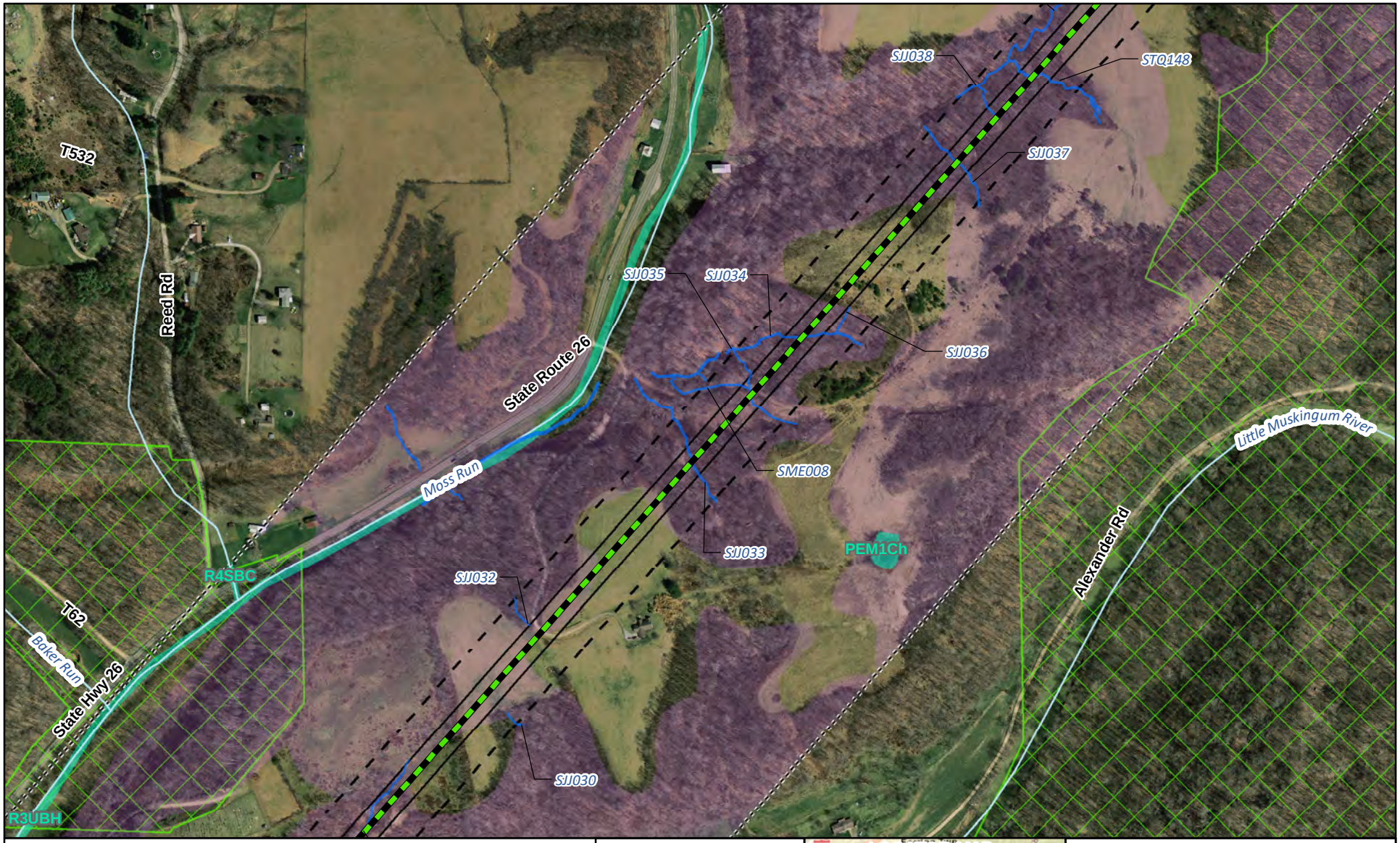

Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

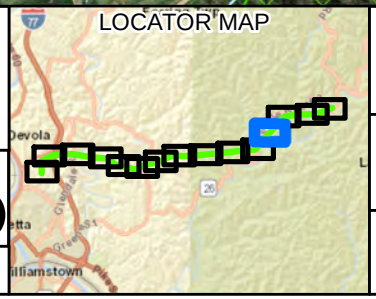

FIGURE 8-3D
Alternate Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\AA\AEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-3_AlternateOPSB

Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

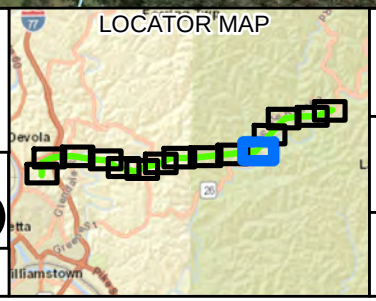

FIGURE 8-3E
Alternate Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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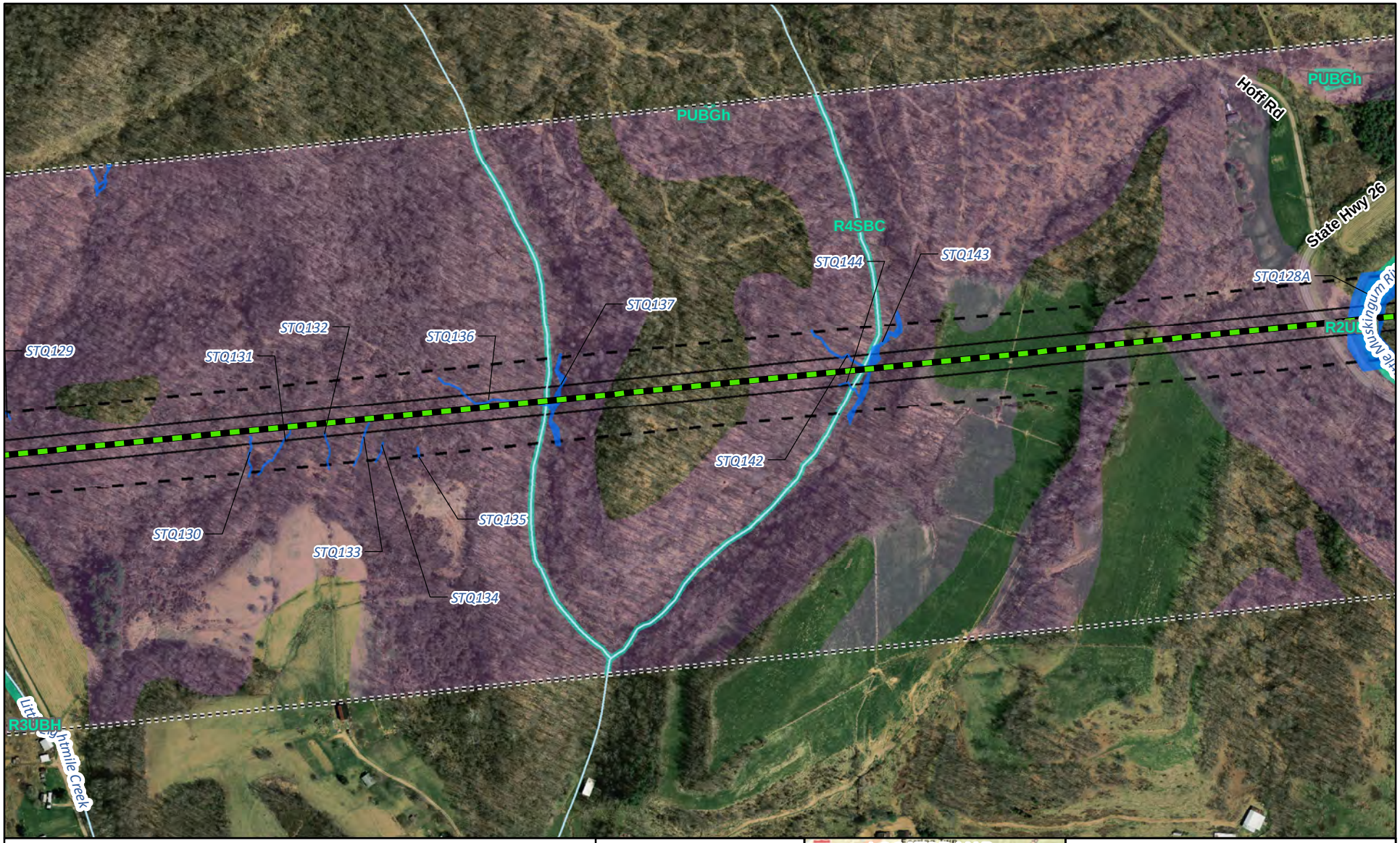

Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

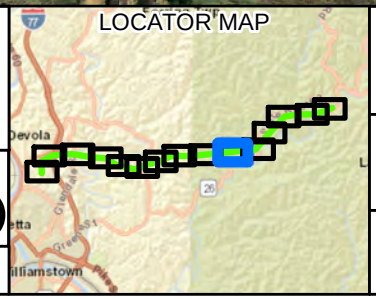

FIGURE 8-3F
Alternate Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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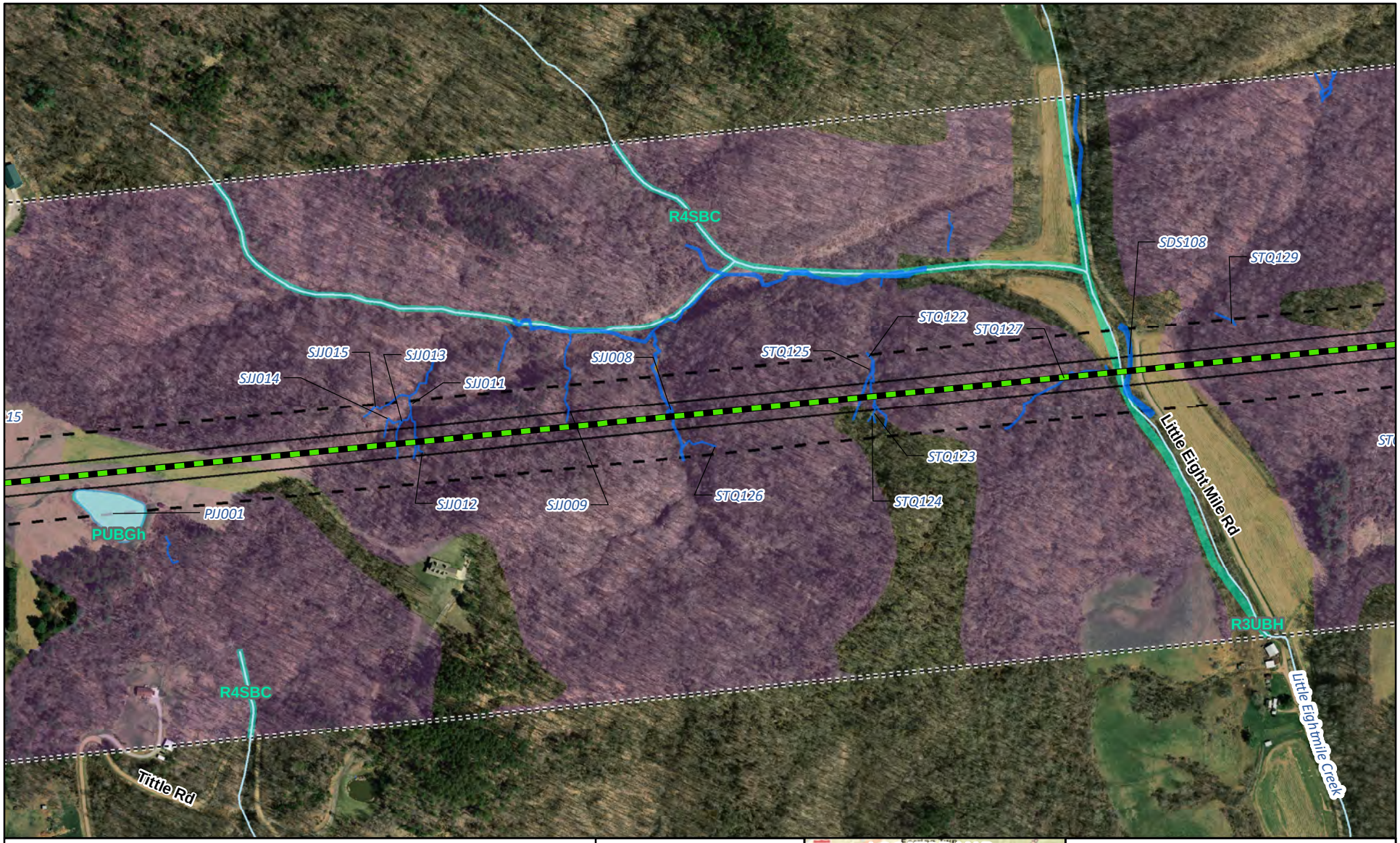

Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

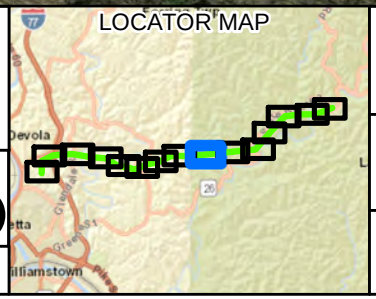

FIGURE 8-3G
Alternate Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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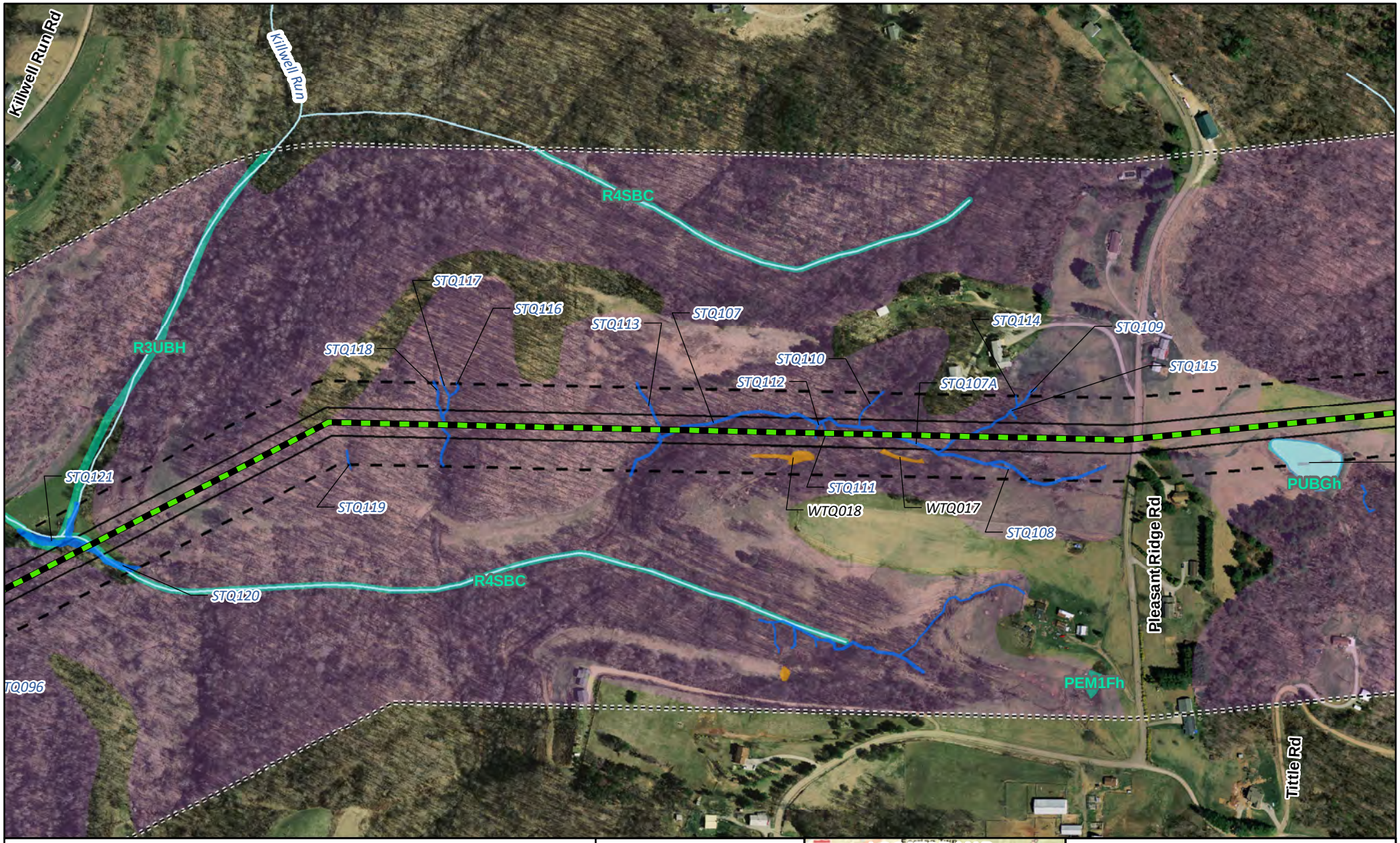

Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

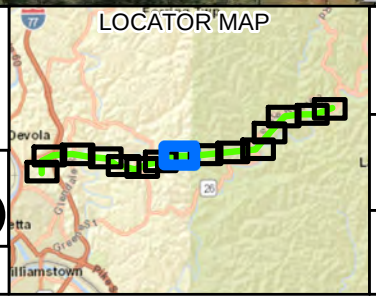

FIGURE 8-3H
Alternate Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\AA\AEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-3_AlternateOPSB

Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

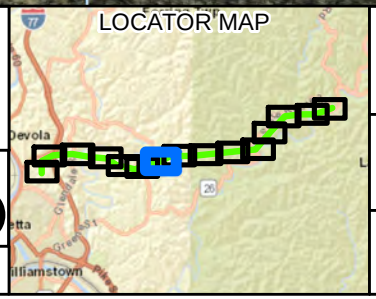

FIGURE 8-3I
Alternate Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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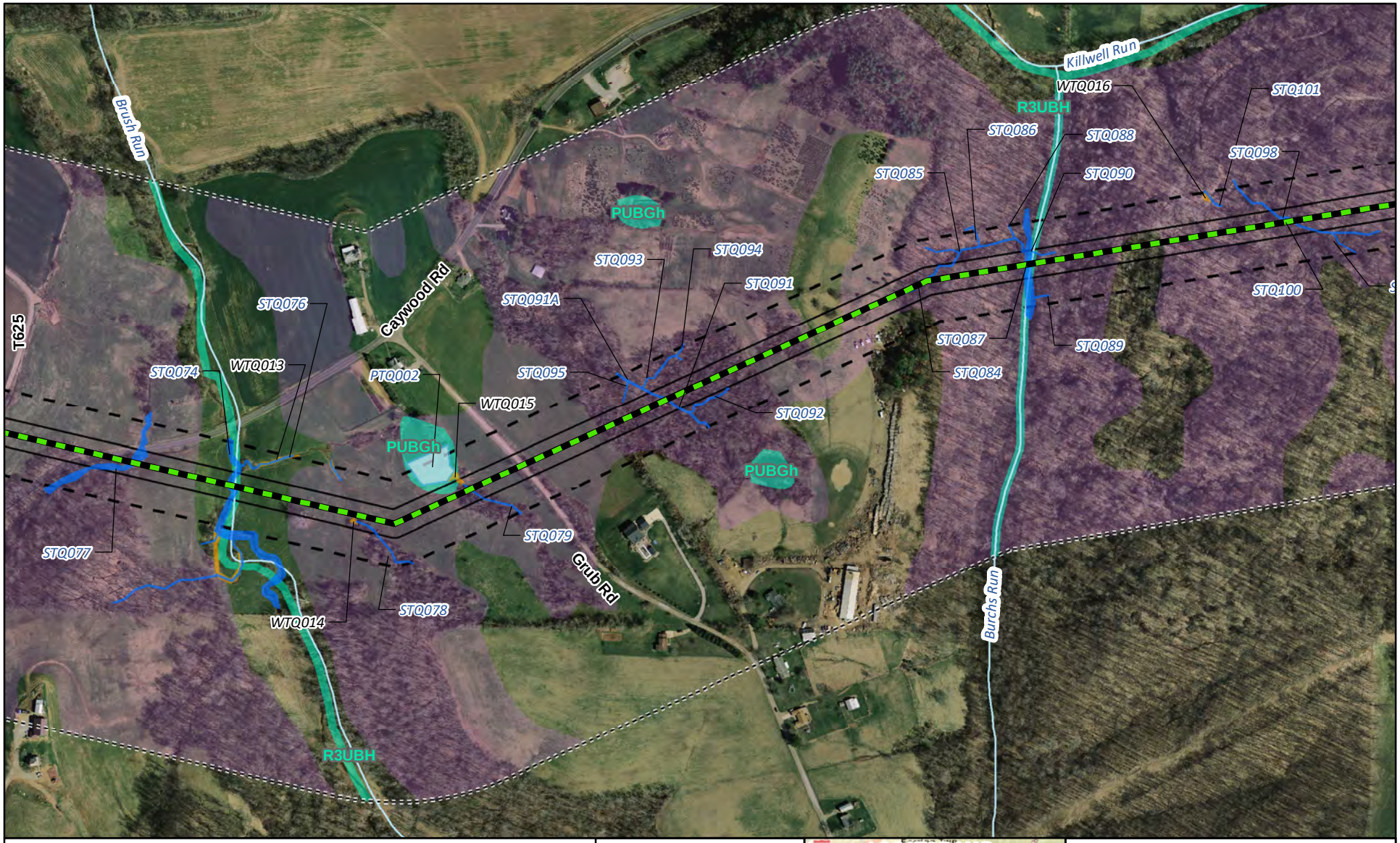


Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

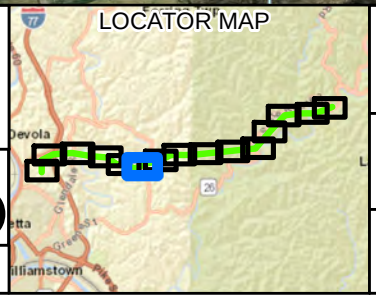


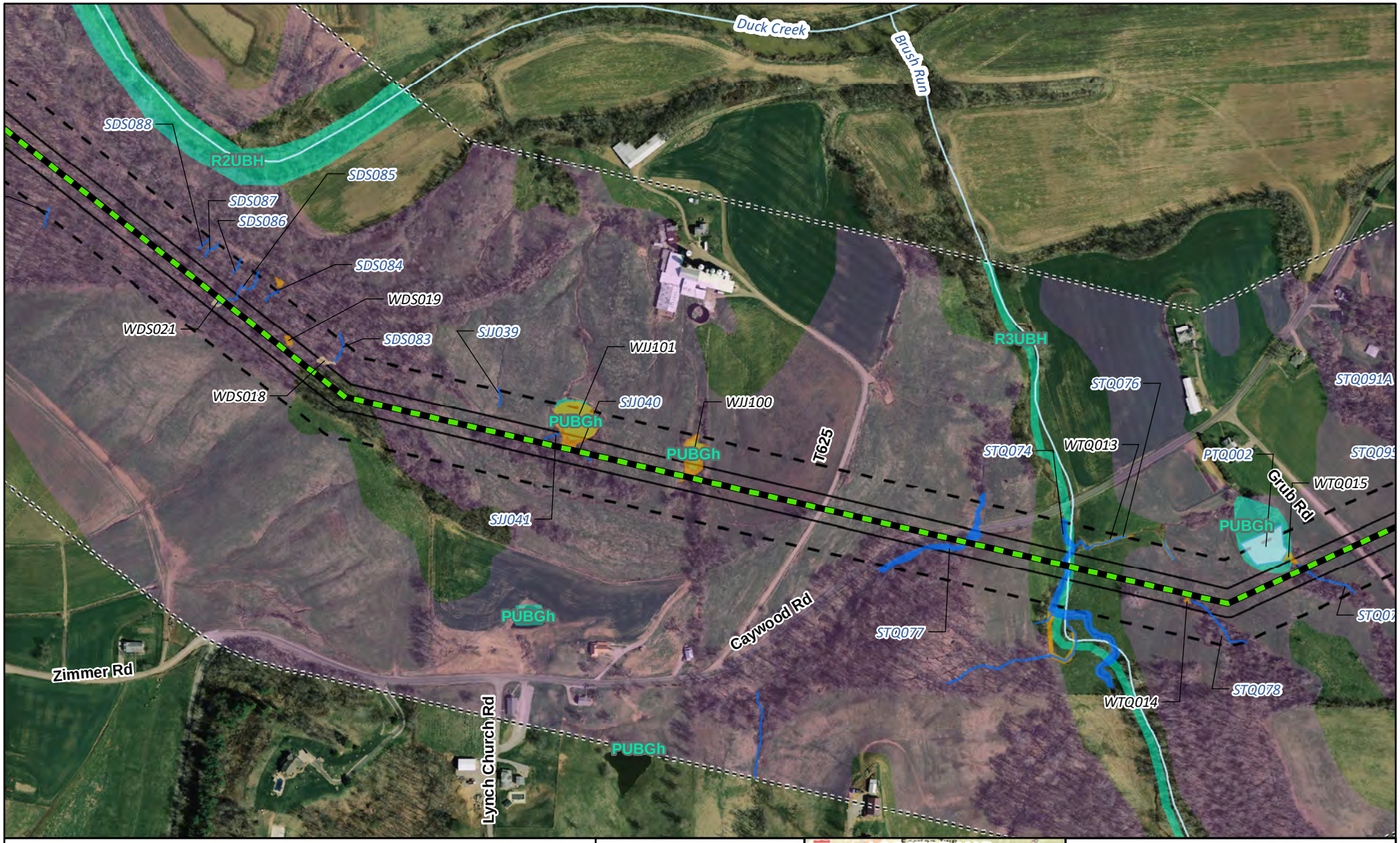
FIGURE 8-3J
Alternate Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\AI\AEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-3_AlternateOPSB



Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

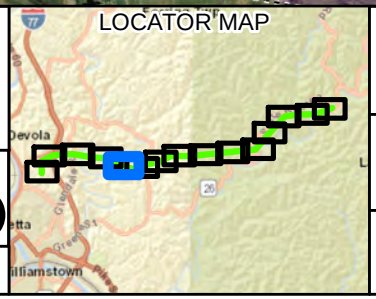


FIGURE 8-3K
Alternate Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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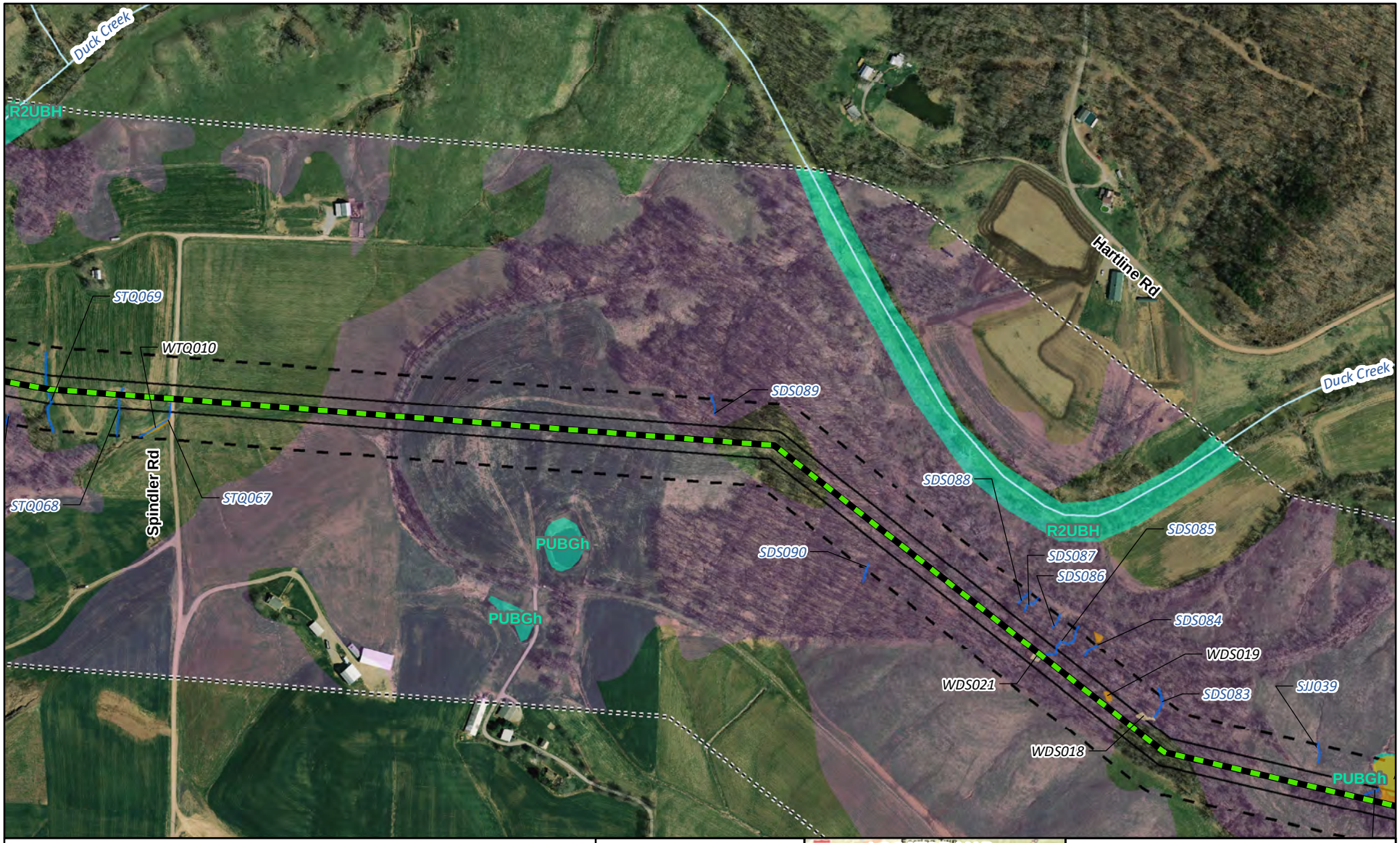


Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

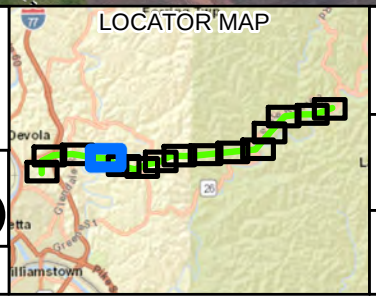
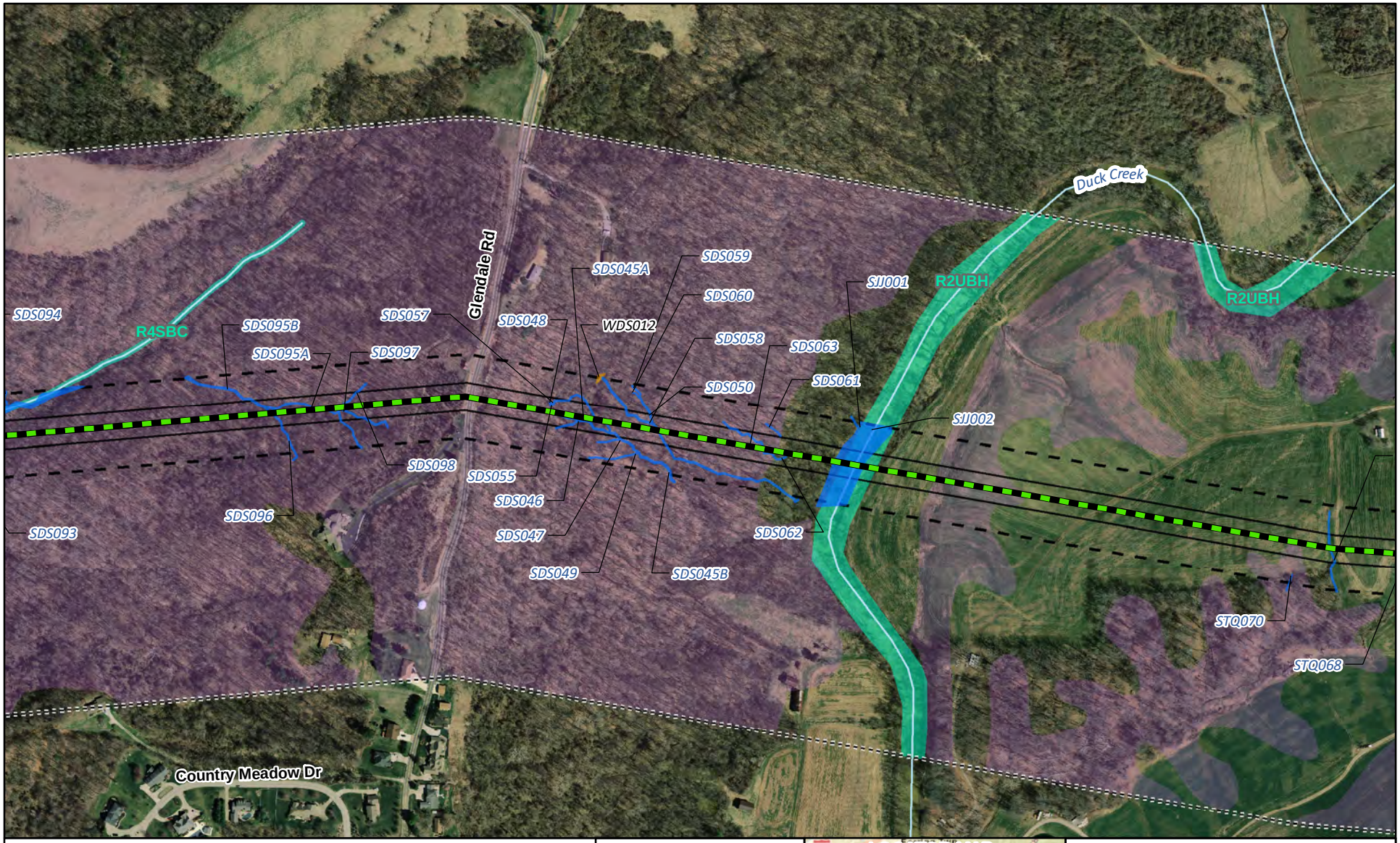


FIGURE 8-3L
Alternate Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\AEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-3_AlternateOPSB



Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

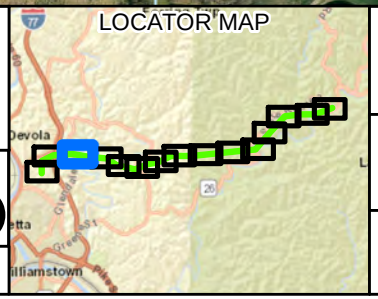


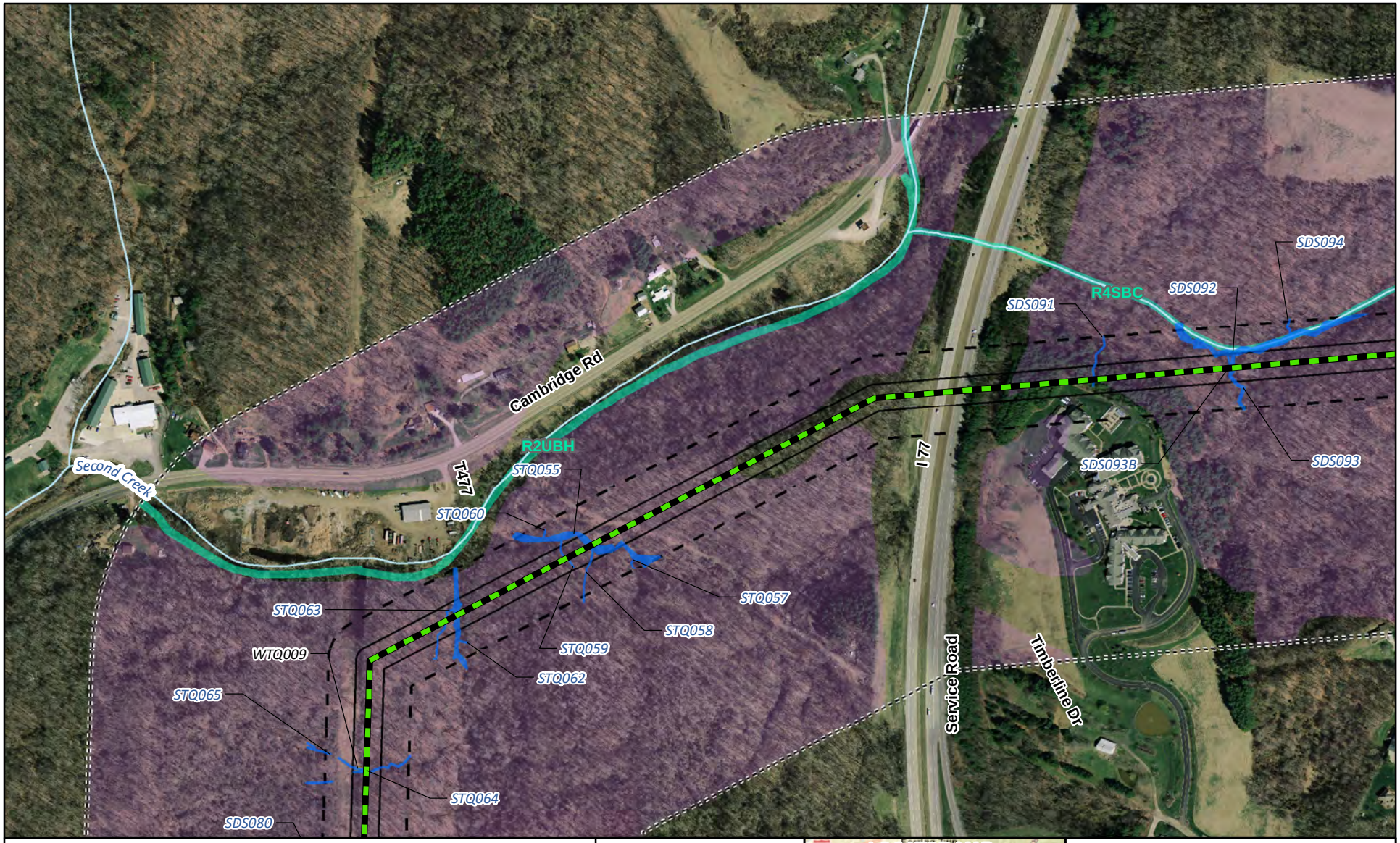
FIGURE 8-3M
Alternate Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\AA\AEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-3_AlternateOPSB



Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

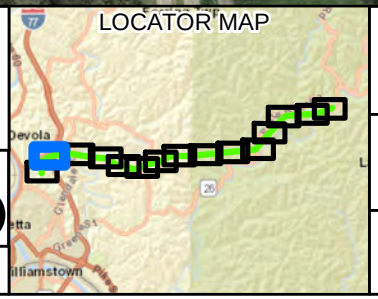
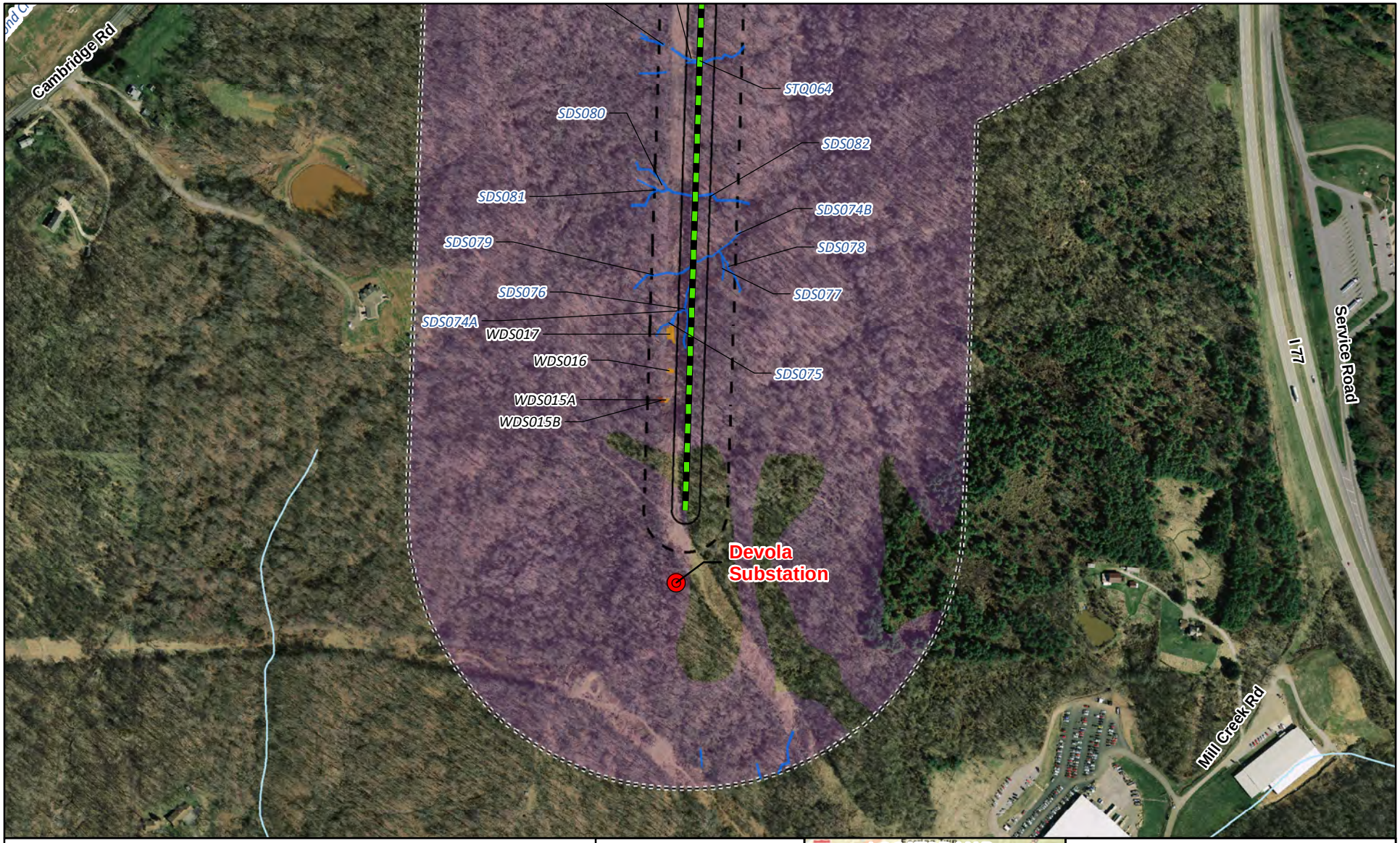


FIGURE 8-3N
Alternate Route Delineated Wetland and Waterbodies Map

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

Document Path: \\brooksidefiles\GIS_SHARE\ENBG\00_Proj\AEP\Marietta_BellRidge_Devola\Maps\OPSB\OPSBRevision\8-3_AlternateOPSB



Legend

- Substation
- Alternate Route
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Stream
- Delineated Pond

Delineated Wetland

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural Imagery Program, 2014
NHD Streams: USGS, National Hydrology Datasets
NWI Wetlands: USFWS, National Wetland Inventory
Slope: USDA, NRCS, Soil Units > 12 Percent

Coordinate System: State Plane
Ohio South FIPS 3402 Feet
Datum: NAD 1983
Scale 1:6,000

July 18, 2019

LOCATOR MAP

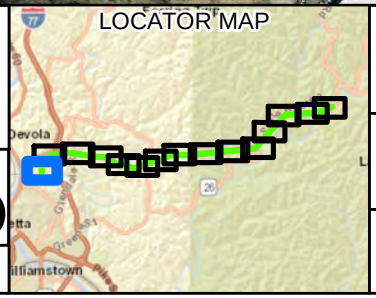


FIGURE 8-3O
Alternate Route Delineated Wetland and Waterbodies Map

AEP OHIO

Bell Ridge to Devola 138 kV Transmission Line Project
Washington County, OH

0 200 400 600 800
Feet

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in

Case No(s). 19-1473-EL-BTA

Summary: Amended Application Application for Amendment to the Bell Ridge- Devola 138 kV Transmission Line Project on behalf of AEP Ohio Transmission Company, Inc. electronically filed by Tanner Wolffram on behalf of AEP Ohio Transmission Company, Inc.