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August 7, 2020

Chairman Sam Randazzo
Ohio Power Siting Board
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Columbus, Ohio 43215-3979

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Re: Case No. 20-1279-EL-BTA
In the Matter of the Amendment Application of AEP Ohio Transmission Company, Inc. for a Certificate of Environmental Compatibility and Public Need for the Rouse-Bell Ridge 138 kV Transmission Line Project

Dear Chairman Randazzo:

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

Filing of this 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:
Rouse-Bell Ridge 138 kV Transmission Line Project

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

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

/s/ Tanner S. Wolfram
Christen M. Blend (0086881), Counsel of Record
Tanner S. Wolfram (0097789)

Counsel for AEP Ohio Transmission Company, Inc.

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



Application for Amendment to the

**ROUSE-BELL RIDGE 138 kV
TRANSMISSION LINE PROJECT**

**OPSB CASE NO.
20-1279-EL-BTA**

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

AEP Ohio Transmission Company, Inc.

August 2020

BEFORE THE OHIO POWER SITING BOARD

Application for Amendment to the Rouse-Bell Ridge 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
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
OAI	Ohio Archaeological Inventory
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	Rouse to Bell Ridge 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

SECOND AMENDMENT CHANGE SUMMARY

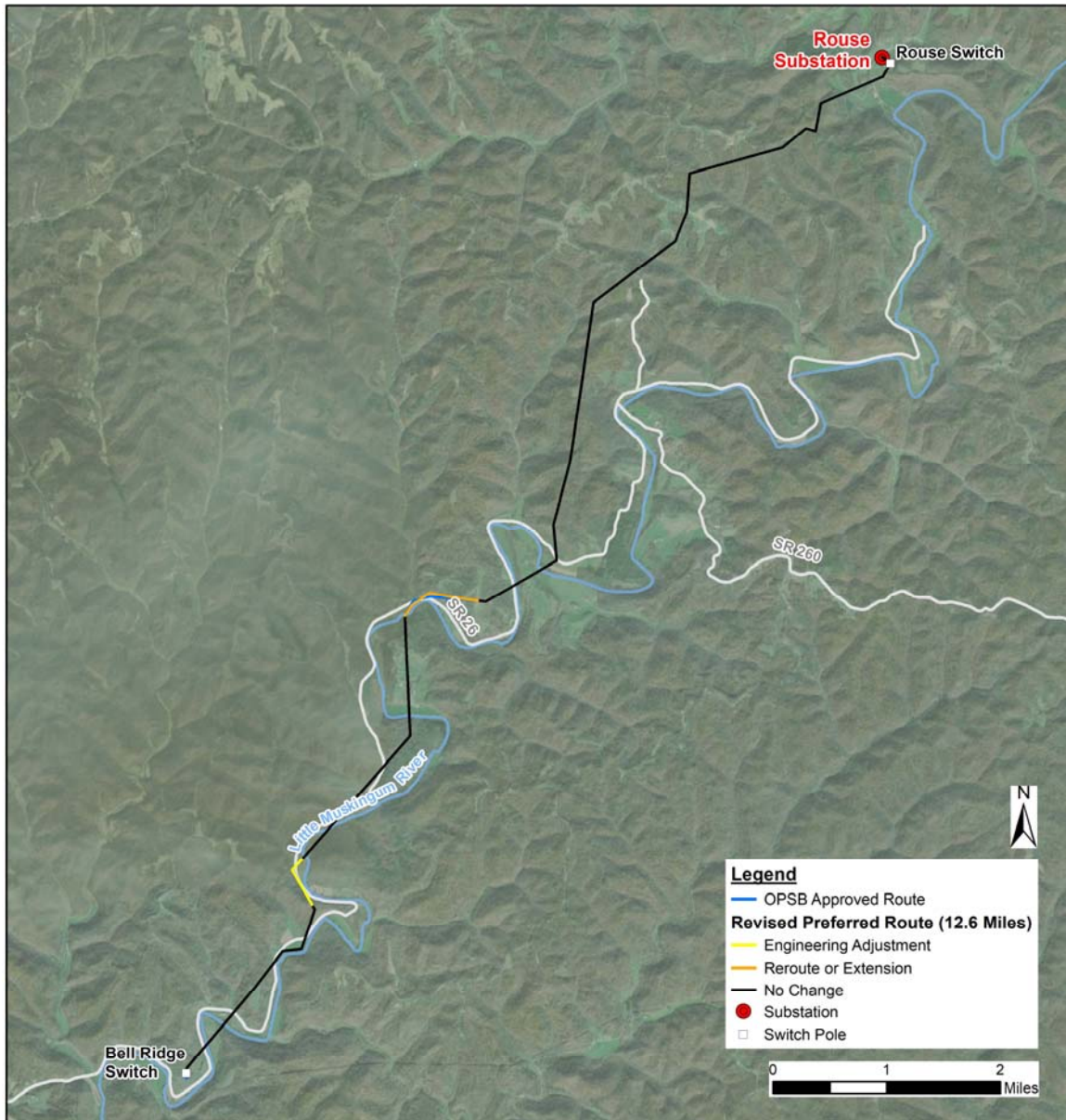
AEP Ohio Transmission Company, Inc. (“AEP Ohio Transco”) submitted a Certificate Application to the Ohio Power Siting Board (“OPSB”) on January 9, 2018, for the Rouse to Bell Ridge 138 kV Transmission Line Project (“Project”) in Case No 17-1908-EL-BTX. On September 20, 2018, the OPSB issued its Certificate of Environmental Compatibility and Public Need for the Preferred Route. On June 21, 2019, AEP Ohio Transco submitted an amendment to the Certificate Application in Case No. 19-1307-EL-BTA addressing several adjustments to the certificated route. Approval of the amended route (the “Amended Certificated Route”) was granted September 19, 2019.

The purpose of this second amendment is to document the changes to the Amended Certificated Route and to seek OPSB approval of the revised alignment.

As detailed engineering and right-of-way (“ROW”) acquisition of the transmission line progressed after submittal of the Certificate Application in January 2018 and the first amendment in June 2019, AEP Ohio Transco identified two additional changes to the Amended Certificated Route. These changes are categorized as engineering adjustments (that is, within the 100-foot right-of-way of the Amended Certificated Route) or alignment reroutes (deviations outside of the 100-foot ROW of the Amended Certificated Route). An overview of the two changes are provided in Exhibit 1 below. Table 1 identifies the structure shifts associated with engineering adjustments and alignment reroutes that AEP Ohio Transco is proposing as part of this Second Amendment Application.

Table 1	
Second Amendment Structure Shifts	
Structure	Distance from OPSB-Approved Centerline (feet)
14	11
34	224
35	174
36	96
37	24

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



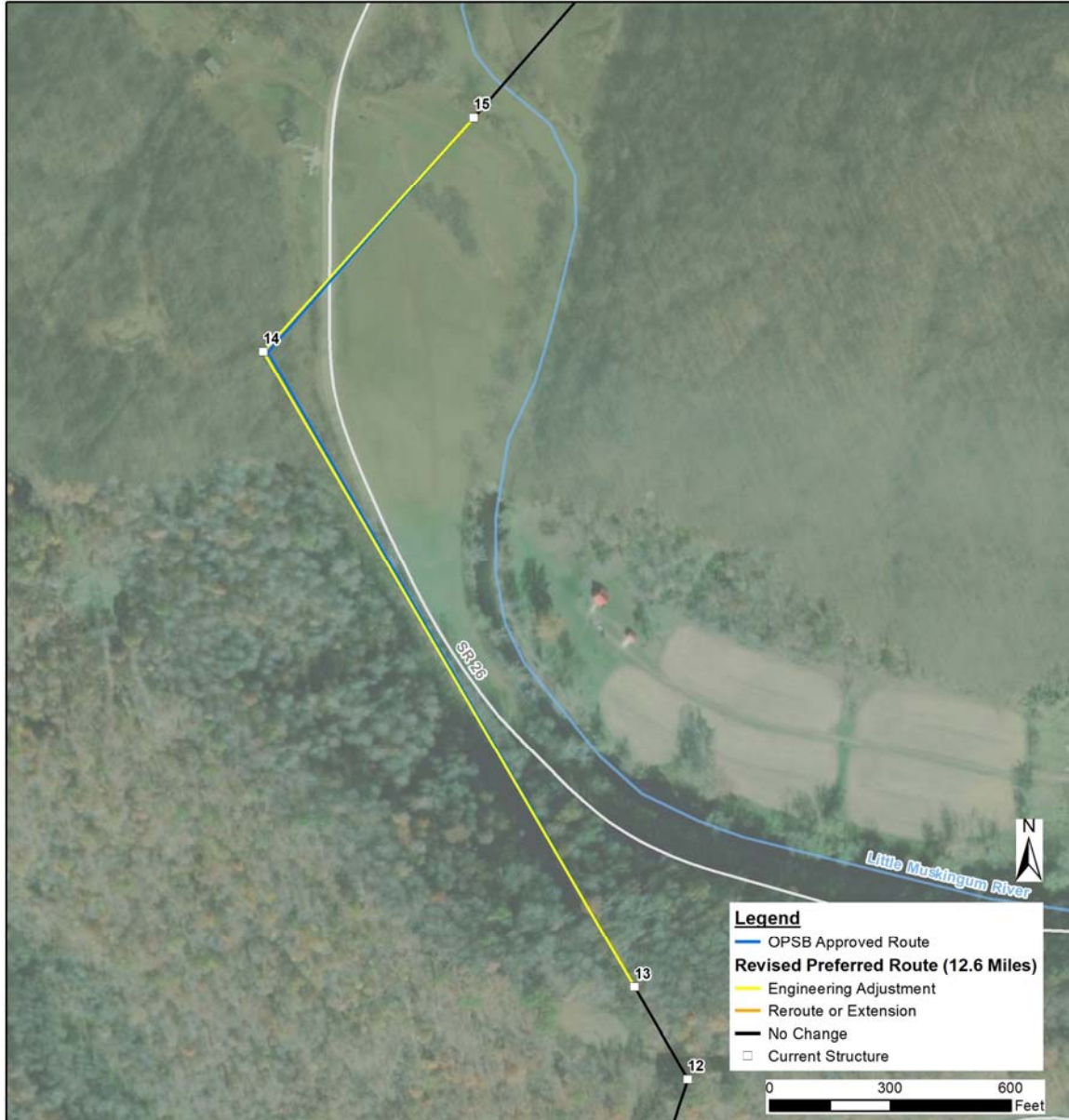
Engineering Adjustments

One engineering adjustment is proposed along the Preferred Route. This engineering adjustment is required due to the steep terrain that prevents the Company from installing Structure 14 along the approved centerline.

Engineering Adjustment 1 shifts Structure 14 off centerline by 11 feet, as shown in Exhibit 2. The work pad for Structure 14 is located on a side slope of a hill. The structure was proposed to be placed on the center of the work pad along the Preferred Route. Further construction evaluation determined that constructing Structure 14 in its original location did not allow for an

adequately sized work pad due to steep terrain constraints. Thus, this engineering adjustment proposes to shift Structure 14 by 11 feet to the west to provide adequate space for equipment and safe construction. The access road and work pad locations will remain as originally proposed. An additional 0.1 acre of tree clearing will be required for this adjustment, and there are no increases in wetland or stream impacts. Additionally, no new property owners are impacted.

Exhibit 2: Map Illustration of Engineering Adjustment 1 (Structure 14)



Alignment Reroutes

One alignment reroute is proposed along the Amended Certificated Route. This reroute is required due to steep terrain along this portion of the route that creates an unfeasible and unsafe construction situation. This reroute is described in greater detail below.

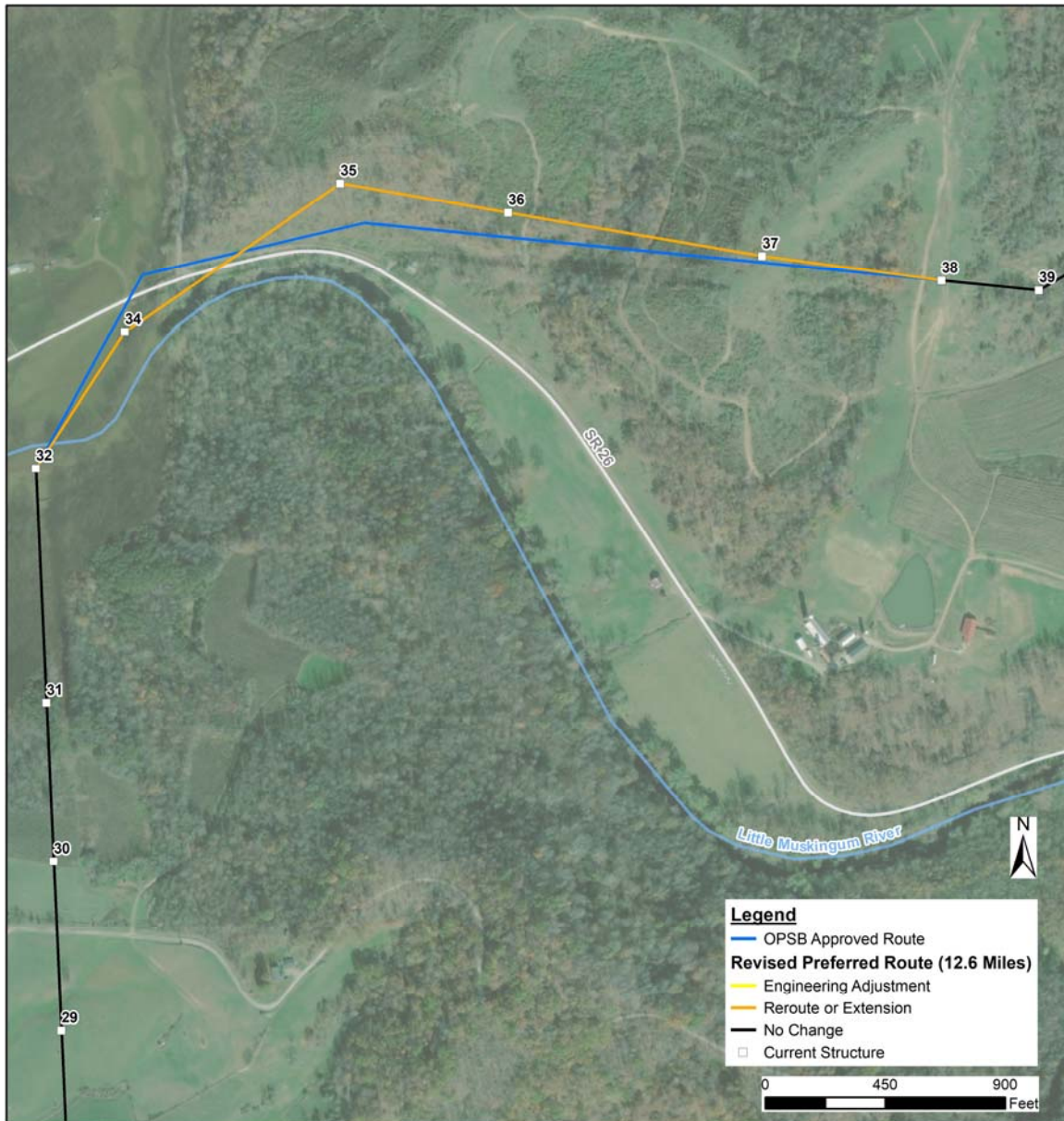
Reroute 1 is from Structure 32 to Structure 38. This reroute, as shown in Exhibit 3 below, is driven by the need to shift Structure 35 northwest 174 feet off the existing Amended Certificated Route. AEP's engineering and construction team determined that the approved location of Structure 35 would result in an access road being positioned on a steep slope, which presents safety concerns associated with operating heavy equipment and delivery vehicles on the hillside. By relocating Structure 35 to the proposed location, the access road can be reconfigured to avoid steep slopes and ensure safe construction practices.

The new location for Structure 35 requires the Company to shift Structure 34 to the south side of State Route 26 in order to meet conductor to ground (NESC) clearances between Structures 34 and 35. Structure 34 would be positioned in a field area, which avoids nearby underground natural gas pipelines located south of State Route 26. Moving Structure 34 closer to Structure 32, as proposed here, eliminates the need for suspension Structure 33. Additionally, the Company is proposing to shift Structures 36 and 37 north in order to accommodate the new angle caused by the shift of Structure 35.

An additional 0.7 acre of tree clearing will be necessary between Structures 32 and 38 as a result of this reroute. Although there would be an additional 0.2-acre of streams within the planned right-of-way, no impacts to the streams are anticipated as the construction activity will not involve any in-water work. Additionally, no new property owners are impacted.

There will be no distribution underbuild between structures 32 and 38.

Exhibit 4: Map Illustration of Reroute 1 (Structure 32 through Structure 38)



4906-5-02 PROJECT SUMMARY AND APPLICANT INFORMATION

(A) PROJECT SUMMARY

Text provided in the January 9, 2018 Application filing remains unchanged.

(1) General Purpose of the Facility

Text provided in the January 9, 2018 Application filing remains unchanged.

(2) General Location, Size, and Operating Characteristics

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(3) Suitability of Preferred and Alternate Routes

Text provided in the January 9, 2018 Application filing remains unchanged.

(i) Preferred Route

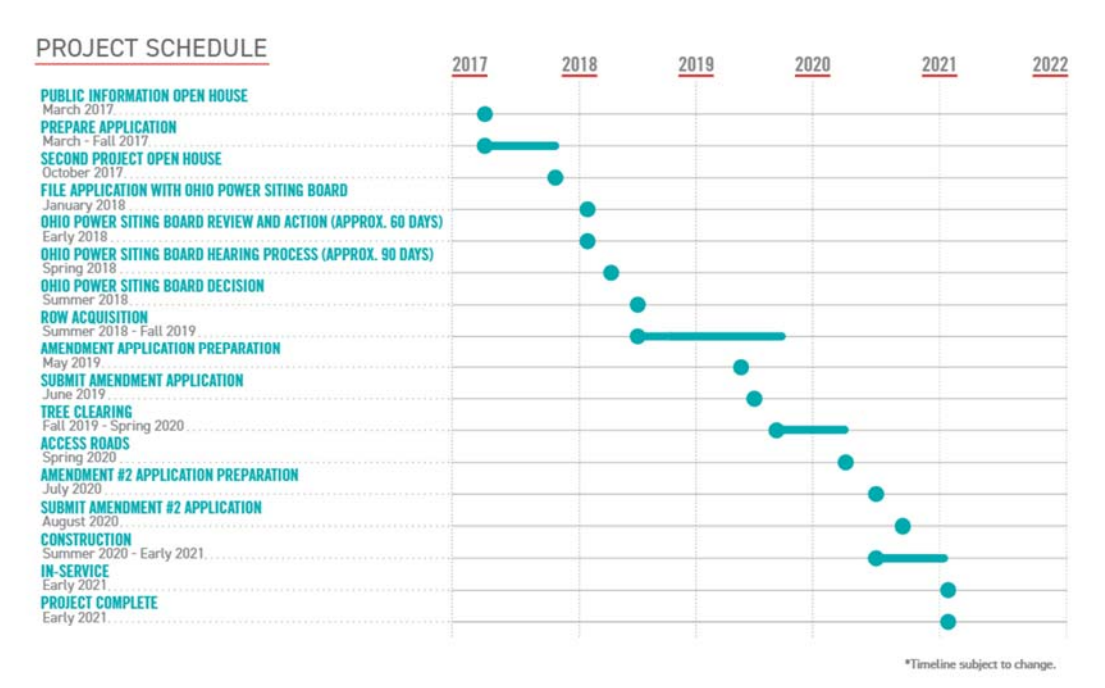
Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(ii) Alternate Route

Text provided in the January 9, 2018 Application filing remains unchanged.

(4) Schedule

The current Project schedule is illustrated in the diagram below.



(B) APPLICANT DESCRIPTION

Text provided in the January 9, 2018 Application filing remains unchanged.

4906-5-03 REVIEW OF NEED AND SCHEDULE

(A) NEED FOR PROPOSED FACILITY

Text provided in the January 9, 2018 Application filing remains unchanged.

(B) REGIONAL EXPANSION PLANS

Text provided in the January 9, 2018 Application filing remains unchanged.

(C) SYSTEM ECONOMY AND RELIABILITY

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

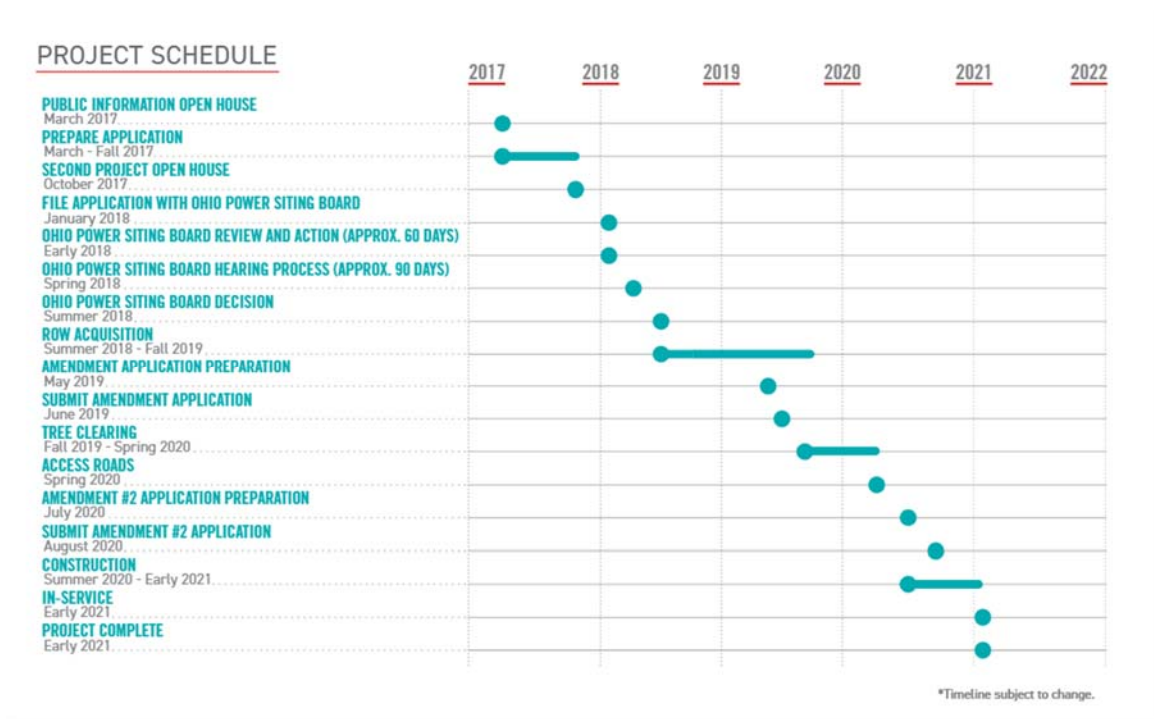
(E) FACILITY SELECTION RATIONALE

Text provided in the January 9, 2018 Application filing remains unchanged.

(F) PROJECT SCHEDULE

(1) Schedule Gantt Chart

A schedule of the proposed Project is presented below.



(2) Impact of Critical Delays

Text provided in the January 9, 2018 Application filing remains unchanged.

4906-5-04 ROUTE ALTERNATIVES ANALYSIS

Text provided in the January 9, 2018 Application filing remains unchanged.

4906-5-05 PROJECT DESCRIPTION

(A) PROJECT AREA DESCRIPTION

Text provided in the January 9, 2018 Application filing remains unchanged.

(1) Project Area Map

Text provided in the January 9, 2018 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)	153.1 <u>152.5</u>	155.5
Length (in miles)	12.6	12.8
Number of properties crossed (by ROW)	73 <u>72</u>	72

(B) ROUTE OR SITE ALTERNATIVE FACILITY LAYOUT AND INSTALLATION

(1) Site Clearing, Construction, and Reclamation

Text provided in the January 9, 2018 Application filing remains unchanged.

(a) Surveying and Soil Testing

Text provided in the January 9, 2018 Application filing remains unchanged.

(b) Grading and Excavation

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

(d) Stringing of Cable

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

(f) Post-Construction Reclamation.

Text provided in the January 9, 2018 Application filing remains unchanged.

(2) Facility Layout**(a) Transmission Line Route Map**

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(b) Proposed Layout Rationale

Text provided in the January 9, 2018 Application filing remains unchanged.

(c) Plans for Future Modifications

Text provided in the January 9, 2018 Application filing remains unchanged.

(C) DESCRIPTION OF PROPOSED TRANSMISSION LINES OR PIPELINES

Text provided in the January 9, 2018 Application filing remains unchanged.

4906-5-06 ECONOMIC IMPACT AND PUBLIC INTERACTION

(A) OWNERSHIP OF PROPOSED FACILITY

Text provided in the January 9, 2018 Application filing remains unchanged.

(B) CAPITAL AND INTANGIBLE COSTS ESTIMATE FOR ELECTRIC POWER TRANSMISSION FACILITY ALTERNATIVES

AEP Ohio Transco is instructed to submit estimates of applicable capital and intangible costs for a variety of components of the Project. Each of the enumerated components is included in Table 6-1. The table also includes estimates of applicable intangible and capital costs for both the Preferred and Alternate Routes of the Project. The items marked as not applicable (NA) are components that do not apply to this Project.

TABLE 6-1
Estimates of Applicable Intangible and Capital Costs for Both the Preferred and Alternate Sites

FERC Account Number	Description	Preferred Route	Alternate Route
350	(1) Land and Land Rights	\$1,724,909 <u>\$2,100,000</u>	\$1,738,500
352	(2) Structures and Improvements	NA	NA
353	(3) Substation Equipment	NA	NA
354	(4) Towers and Fixtures	NA	NA
355	(5) Poles and Fixtures	\$2,903,000 <u>\$16,300,000</u>	\$2,926,000
356	(6) Overhead Conductors and Devices	\$3,084,000 <u>\$2,100,000</u>	\$3,109,000
357	(7) Underground Conductors and Insulation	NA	NA
358	(8) Underground-to-Overhead Conversion Equipment	NA	NA
359	(9) ROW Clearing and Roads, Trails or Other Access	\$6,834,000 <u>\$4,300,000</u>	\$6,888,000
	(10) <u>Portion of project to be paid by Buckeye JOA</u>	<u>-\$8,145,000</u>	
	TOTAL	\$14,545,909 <u>\$16,655,000</u>	\$14,661,500

FERC = Federal Energy Regulatory Commission

(C) CAPITAL AND INTANGIBLE COSTS ESTIMATE FOR GAS TRANSMISSION FACILITY ALTERNATIVES

This Application is for an electric transmission line therefore this section is not applicable.

(D) PUBLIC INTERACTION AND ECONOMIC IMPACT

Text provided in the January 9, 2018 Application filing remains unchanged.

(1) Counties, Townships, Villages, and Cities within 1,000 feet

Text provided in the January 9, 2018 Application filing remains unchanged.

(2) Public Officials Contacted

Text provided in the January 9, 2018 Application filing remains unchanged.

(3) Planned Public Interaction

Text provided in the January 9, 2018 Application filing remains unchanged.

(4) Liability Insurance or Compensation

Text provided in the January 9, 2018 Application filing remains unchanged.

(5) Tax Revenues

The Preferred and Alternate Routes are located within Monroe County and Washington County. Local school districts, park districts, and fire departments will receive tax revenue from the Project. AEP Ohio Transco will pay property taxes on utility facilities in each jurisdiction. The approximate annual property taxes associated with the Preferred and Alternate Routes over the first year after the Project is completed is are ~~\$833,000~~ \$1,024,700 and ~~\$850,000~~, respectively.

Based on the ~~2015~~ 2019 tax rates, the following information includes preliminary estimates for these taxing authorities:

Preferred Route:

Washington County	\$128,000 <u>\$153,800</u>
Frontier Local School District	\$415,000 <u>\$507,200</u>
Washington County Joint Vocational School District	\$22,000 <u>\$27,200</u>
Lawrence Township	\$11,000 <u>\$13,000</u>
Independence Township	\$3,500 <u>\$3,700</u>
Ludlow Township	\$22,000 <u>\$27,800</u>
Monroe County	\$41,000 <u>\$55,000</u>
Switzerland of Ohio Local School District	\$183,000 <u>\$224,800</u>
Washington Township Exc. Graysville Corp	\$7,500 <u>\$9,500</u>
Washington Township	\$16,000 <u>\$20,700</u>
TOTAL	\$833,000 <u>\$1,042,700</u>

Alternate Route:

Washington County	\$115,000
Frontier Local School District	\$375,000
Washington County Joint Vocational School District	\$20,000
Lawrence Township	\$14,000
Independence Township	\$500
Ludlow Township	\$15,000

Monroe County	\$51,000
Switzerland of Ohio Local School District	\$230,000
Washington Township Exc. Graysville Corp	\$10,000
Washington Township	\$20,000
	TOTAL \$850,500

4906-5-07 HEALTH AND SAFETY, LAND USE, AND REGIONAL DEVELOPMENT**(A) HEALTH AND SAFETY****(1) Compliance with Safety Regulations**

Text provided in the January 9, 2018 Application filing remains unchanged.

(2) Electric and Magnetic Fields

Text provided in the January 9, 2018 Application filing remains unchanged.

(a) Calculated Electric and Magnetic Field Strength Levels

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(b) Current State of EMF Knowledge

Text provided in the January 9, 2018 Application filing remains unchanged.

(c) Line Design Considerations

Text provided in the January 9, 2018 Application filing remains unchanged.

(d) EMF Public Inquiries Policy

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

(4) Noise from Construction, Operations, and Maintenance

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 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 agricultural land use. Residential and commercial structures are mainly located along State Route 26 and State Route 260. Agricultural land use is mainly located within the Little Muskingum River valley.

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. 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*		Alternate Route*	
	Linear Feet	Percent	Linear Feet	Percent
Agriculture / Agricultural District Land	4,337 <u>4,389</u>	6.5% <u>7%</u>	3,277	4.8%
Commercial / Industrial	0	0.0%	0	0.0%
Institutional	0	0.0%	0	0.0%
Open Land / Pasture	52	0.1%	0	0.0%
Residential	11,042 <u>10,941</u>	16.6% <u>16%</u>	6,562	9.7%
Road Right-of-Way	990 <u>982</u>	1.5% <u>1%</u>	910	1.3%
Utility Right-of-Way [‡]	2,256 <u>1,852</u>	3.4% <u>3%</u>	7,734	11.4%
Wayne National Forest	3,934	5.9%	8,031	11.9%
Woodlot	42,056 <u>42,241</u>	63.1% <u>64%</u>	40,451	59.8%
Delineated Wetland	294 <u>306</u>	0.4%	45	0.1%
Delineated Stream	1,679 <u>1,676</u>	2.5% <u>3%</u>	665	1.0%
Delineated Pond	0	0.0%	0	0.0%
Open Water	0	0.0%	0	0.0%
Total	66,637 <u>66,375</u>	100%	67,675	100%

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

~~‡The original OPSB Preferred Route alignment was on the edge of existing distribution line ROW (i.e., the “utility right of way”). The length within utility ROW decreased as a result of shifting the line away from the existing distribution line, and thus other land use categories such woodlots, Wayne National Forest and agriculture increased.~~

**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	9.2 <u>9.4</u>	6.0%	7.95	5.1%
Commercial / Industrial	0.00	0.0%	0.14	0.1%
Institutional	0.00	0.0%	0.00	0.0%

Open Land / Pasture	0.1	0.1%	0.00	0.0%
Residential	27.0 <u>25.9</u>	17.6% <u>17%</u>	17.08	11.0%
Road Right-of-Way	3.1 <u>2.8</u>	2.0%	3.07	2.0%
Utility Right-of-Way [‡]	6.9 <u>6.5</u>	4.5% <u>4%</u>	10.68	6.8%
Wayne National Forest	9.1	6.0%	19.05	12.2%
Woodlot	93.1 <u>93.9</u>	60.8% <u>62%</u>	95.90	61.7%
Delineated Wetland	0.8	0.5%	0.05	0.1%
Delineated Stream	3.8 <u>4.1</u>	2.5% <u>3%</u>	1.58	1.0%
Delineated Pond	0.00	0.0%	0.00	0.0%
Open Water	0.00	0.0%	0.00	0.0%
Total	153.1 <u>152.5</u>	100%	155.50	100.00%

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

[‡]The original OPSB Preferred Route alignment was on the edge of existing distribution line ROW (i.e., the “utility right-of-way”). The length within utility ROW decreased as a result of shifting the line away from the existing distribution line, and thus other land use categories such as woodlots, Wayne National Forest, and agriculture increased.

**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)	12.6	12.8
Features within the Potential Disturbance Area of Route Alternatives*		
Historic Structures (OHI)	0	0
National Register of Historic Places [‡]	1	0
Previously Identified Archaeological Sites ^{‡1}	7 6	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)	3	8
National Register of Historic Places [‡]	2	0
Previously Identified Archaeological Sites ²	8	1
Residences	88	87
Commercial Buildings	1	2
Industrial Buildings	0	0
Schools and Hospitals	1	0
Churches and Civic Buildings	1	2
State/Federal Forests and Recreational Land ²	2 3	1
Airports	0	0

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

OHI = Ohio Historic Inventory

¹ Archaeological site 33-WN-505 is outside of the Preferred route ROW.

² The previous number reported counted Wayne National Forest and the Ohio Buckeye Trail. The Covered Bridge Hiking Trail was inadvertently missed in the original and amendment filing. The trail is located near structure 18 and is located approximately 975 feet from the Project.

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

	Route Alternatives	
	Preferred	Alternate

¹The Hune Farm property was not included in the count for National Register of Historic Places (NRHP) in the original OPSB application submitted January 9, 2018. The entire property is a NRHP Historic District and is crossed by the Preferred Route.

²For “Previously Identified Archaeological Sites” category, new sites identified during the project’s Phase I archaeological resource surveys are included in the site count. Refer to Section (E) Cultural and Archaeological Resources for more detailed information.

³The Ohio Buckeye Trail was not included in the original OPSB application submitted January 9, 2018. The Buckeye Trail is within 1,000 feet of both the Preferred and Alternate routes at the northern end of the Project. This information is not included in the table for the Alternate Route because the purpose of this amendment is to document the changes to the Preferred Route alignment since the OPSB’s approval of the Preferred Route.

(a) Residential

Preferred Route: The Preferred Route is located within 1,000 feet of 88 residences, none of which are within the planned potential disturbance area. As shown in Table 7-5, residential land makes up ~~17.6~~ 17 percent of the Preferred Route ROW (100 feet wide).

Alternate Route: The Alternate Route is located within 1,000 feet of 87 residences, none of which are within the planned potential disturbance area. As shown in Table 7-5, residential land makes up 11 percent of the Alternate Route ROW (100 feet wide).

(b) Commercial

Text provided in the January 9, 2018 Application filing remains unchanged.

(c) Industrial

Text provided in the January 9, 2018 Application filing remains unchanged.

(d) School and Hospitals

Text provided in the January 9, 2018 Application filing remains unchanged.

(e) Churches and Civic Buildings

Text provided in the January 9, 2018 Application filing remains unchanged.

(f) State/Federal Forests and Recreational Land

Wayne National Forest is located within the planned potential disturbance area and within 1,000 feet of the Preferred and Alternate Route. The Buckeye Trail is within 1,000 feet of both the Preferred and Alternate routes at the northern end of the Project. The Covered Bridge Hiking Trail is within 1,000 feet of the preferred route near the southern end of the Project. As shown in

Table 7-5, Wayne National Forest makes up 6.0 percent of the Preferred Route ROW (100 feet wide) and 12.2 percent of the Alternate Route ROW (100 feet wide).

(g) Agricultural

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(3) Impact on Identified Nearby Structures

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

There are 8 residences within 200 feet of the Preferred Route ROW; these residences range from 12 to 195 feet from the ROW. There are 12 residences within 200 feet of the Alternate Route ROW; these residences range from 46 to 163 feet from the ROW. There are ~~34~~ 32 and 15 other structures (e.g. garage or barn) within 200 feet of the Preferred Route and Alternate Route ROW, respectively. There are no commercial, industrial, or recreational structures within 200 feet of the proposed ROW for either route.

(b) Destroyed, Acquired, or Removed Buildings

Text provided in the January 9, 2018 Application filing remains unchanged.

(c) Mitigation Procedures

Text provided in the January 9, 2018 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 ~~9.2~~ 9.4 acres and 7.95 acres, respectively.

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 January 9, 2018 Application filing remains unchanged.

(2) Impacts to Agricultural Lands and Agricultural Districts

The Washington County Auditor and Monroe County Auditor was contacted to obtain information on current Agricultural District lands records. The centerline and ROW of the Preferred Route crosses one Agricultural District parcel. The parcel crossed is located southwest of the proposed Rouse Substation. No additional Agricultural District parcels are located within 1,000 feet of the Preferred Route. The centerline and ROW of the Alternate Route crosses one Agricultural District

parcel. The parcel crossed is located southwest of the proposed Rouse Substation. No additional Agricultural District parcels are located within 1,000 feet of the Alternate Route. The data was received from the Monroe County Auditor on ~~April 4, 2019~~ July 20, 2020, and the Monroe County Auditor ~~confirmed there have been no changes to the data since this date on May 30, 2019.~~ The data was received from the Washington County Auditor on ~~May 1, 2019~~ July 14, 2020. 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.

Since OPSB's approval of the Preferred Route, the Agricultural District parcel has been split into two parcels. A portion of the original parcel, approximately 2.2 acres, is now owned by Washington Electric Cooperative and will be used for the Rouse Station. The other portion of the parcel is privately owned and currently being used as a cattle pasture and hayfield. The property is active in the Agricultural District land program and will continue to be listed in the program after the transmission line is constructed.

(a) Acreage Impacted

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

(c) Mitigation Procedures

Text provided in the January 9, 2018 Application filing remains unchanged.

(D) LAND USE PLANS AND REGIONAL DEVELOPMENT

Text provided in the January 9, 2018 Application filing remains unchanged.

(1) Impacts to Regional Development

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

(E) CULTURAL AND ARCHAEOLOGICAL RESOURCES

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(1) Cultural Resources Map

Text provided in June 21, 2019 Application Amendment 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, Phase I archaeological reconnaissance surveys and architectural

history investigations were conducted for the OPSB approved Preferred Route and current Preferred Route.

For the background research, a one-mile buffer was used around both the Preferred and Alternate Routes to identify 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 OAI, the OHI, Determination of Eligibility files, the NRHP, historic cemeteries, historic bridges, national historic landmarks, and previous cultural resources surveys data. No known cultural resources were identified within the potential disturbance area of either the Preferred or Alternate Route from the desktop review.

Phase I cultural resources surveys were completed for the OPSB Preferred Route in September 2017 and August 2018, and current Preferred Route in August 2018 and February 2019. The Phase I cultural resources surveys resulted in the identification of seven archaeological sites, including five historic era sites and two sites with both historic and prehistoric components. Of these, ~~all seven~~ six sites are located within the potential disturbance area of the current Preferred Route. None of these sites are recommended eligible for NRHP.

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

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(4) Mitigation Procedures

Text provided in the January 9, 2018 Application filing remains unchanged.

(5) Aesthetic Impact

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

(A) ECOLOGICAL MAP

Text provided in the January 9, 2018 Application filing remains unchanged.

(B) FIELD SURVEY REPORT FOR VEGETATION AND SURFACE WATERS

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(i) Agricultural and Pasture Fields

Text provided in the January 9, 2018 Application filing remains unchanged.

(ii) Old Field and Scrub-Shrub

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

(iv) Wetlands

Text provided in the January 9, 2018 Application filing remains unchanged.

(v) Residential

Text provided in the January 9, 2018 Application filing remains unchanged.

(vi) Utility ROW

Text provided in the January 9, 2018 Application filing remains unchanged.

(b) Wetlands

Text provided in the January 9, 2018 Application filing remains unchanged.

(i) Summary of National Wetland Inventory Data

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(ii) Field-Delineated Wetlands

A total of ~~26~~ 24 wetlands (totaling 1.9 acres) were delineated within the Preferred Route Field Survey Area. . Note that the Field Survey Area is a 300-foot wide corridor centered over the route centerline. Within the Alternate Route Field Survey Area, eight wetlands (totaling 0.31 acre) were delineated.

A total of 0.8 acre of wetlands were delineated within the Preferred Route ROW and 0.07 acre within the Alternate Route ROW. These field-delineated wetlands for the Preferred and Alternate Routes are mapped on revised Figure 8-2A through 8-2R and Figure 8-3A through 8-3S, 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
Delimited 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	Acreage within Potential Disturbance Area/ROW ^{c, d, e}	Length Crossed by Centerline (feet)
Preferred Route Wetlands								
WBR008	Preferred	8-2A	PEM	23	1	0.1	0.0	0
WDS027	Preferred	8-2A	PEM	22.5	1	<0.1	0.0	0
WSM001	Preferred	8-2A	PEM	23.5	1	<0.1	<0.1	0
WBR013	Preferred	8-2E	PEM	50	2	0.1	0.1	26
WBR012	Preferred	8-2E	PFO	25	1	<0.1	<0.1	4
WMA001	Preferred	8-2F	PFO	41	Modified 2	<0.1	0.0	0
WMA004	Preferred	8-2G	PFO	41	Modified 2	<0.1	0.0	0
WMA007	Preferred	8-2H	PEM	21	1	<0.1	0.0	0
WMA005	Preferred	8-2H	PEM	21	1	<0.1	0.0	0
WME012	Preferred	8-2I	PEM	39.5	Modified 2	0.6	0.3	113
WBR002	Preferred	8-2J	PEM	26.5	1	0.1	0.1	0
WMA006	Preferred	8-2K	PEM	22	1	0.1	0.1	33 <u>49</u>
WME011	Preferred	8-2K	PEM	49	2	0.1	<0.1	11
WME009	Preferred	8-2L	PEM	16.5	1	0.1	<0.1	3
WME010	Preferred	8-2L	PEM	41	Modified 2	<0.1	<0.1	0
WME007	Preferred	8-2L	PEM	18	1	<0.1	<0.1	18
WME008	Preferred	8-2L	PEM	21	1	<0.1	<0.1	0
WME006	Preferred	8-2M	PEM	26.5	1	<0.1	0.0	0
WME005	Preferred	8-2M	PEM	33.5	1 or 2 Gray Zone	0.1	<0.1	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	Acreage within Potential Disturbance Area/ROW ^{c, d, e}	Length Crossed by Centerline (feet)
WME004	Preferred	8-2M	PEM	27.5	1	<0.1	<0.1	12
WME003	Preferred	8-2M	PEM	34	1 or 2 Gray Zone	<0.1	0.0	0
WBR003	Preferred	8-2N	PFO	55	2	0.3	0.1	0
WDS032	Preferred	8-2N	PEM	28	1	<0.1	0.0	0
WME013	Preferred	8-2R	PEM	27	1	<0.1	0.0	0
WBR001	Preferred	8-2R	PEM	31.5	1 or 2 Gray Zone	0.3	0.1	71
WME002	Preferred	8-2R	PEM	38	Modified 2	<0.1	<0.1	0
Total						1.9	0.8	294 307
Alternate Route Wetlands								
WBR009	Alternate	8-3A	PEM	17	1	0.09	0	0
WBR007	Alternate	8-3C	PEM	17	1	0.02	0.03	0
WTQ023	Alternate	8-3E	PEM	14	1	0.02	<0.01	0
WDS023	Alternate	8-3H	PEM	23	1	<0.01	<0.01	3
WDS024	Alternate	8-3H	PEM	23	1	0.06	<0.01	42
WBR006	Alternate	8-3N	PEM	20	1	0.07	0	0
WBR005	Alternate	8-3N	PEM	23	1	0.03	<0.01	0
WBR004	Alternate	8-3P	PEM	22	1	<0.01	0	0
Total						0.31	0.07	45

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	Acreage within Potential Disturbance Area/ROW ^{c, d, e}	Length Crossed by Centerline (feet)
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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 less than 0.01 were assumed to be 0.01 for calculations.
 - e All measurements listed as less than 0.1 were assumed to be 0 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-seven (27) stream segments (SMT028A, STQ160, STQ128, SME057, STQ128A, SBR008, STQ128D, STQ128E, SME042, STQ168, STQ128F, STQ128G, SME037, STQ128H, SBR003, STQ128I, STQ128J, SMT028B, STQ128L, SBR054, STQ174, STQ128B, STQ128C, SBR039, SBR068, SBR015, and STQ128K) were evaluated using the QHEI method. Of these streams, 17 were located in the Preferred Route and 10 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 all the crossings. 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 185 streams were evaluated using the HHEI method. Seventy-eight (78)~~ Seventy-seven (77) streams were identified along the Preferred Route Field Survey Area, and 107 were identified along the Alternate Route Field Survey Area using the HHEI method. The HHEI evaluations were completed at the proposed transmission line crossing points, if crossed by the proposed alignment. Multiple HHEI evaluations were completed at streams that exhibited significant change in either flow regime, substrate, size, and/or other characteristics that could potentially significantly change the outcome of the stream's score.

Streams identified during the ecological survey on the Preferred and Alternate Routes are shown on revised Figure 8-2A through 8-2R and Figure 8-3A through 8-3S, 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 17 miles downstream of the proposed Bell Ridge Substation, is a traditionally navigable waterway as defined by USACE.

Approximately ~~9,752~~ 9,853 linear feet of stream are located within the Preferred Route ROW, while approximately 11,058 linear feet are located within the Alternate Route ROW.

The Preferred Route centerline has 59 stream crossings. The length of delineated streams located within the Preferred Route Field Survey Area is approximately ~~27,731~~ 27,840 linear feet. The Alternate Route centerline has 63 stream crossings. The total length of streams located within the field survey area of the Alternate Route is approximately 31,827 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												
SBO011 UNT Clear Fork Little Muskingum River	Preferred	8-2A	Ephemeral	3	1	HHEI	32	-	Modified Class II	No	139 <u>148</u>	0
SDS154 UNT Clear Fork Little Muskingum River	Preferred	8-2A	Intermittent	2	6	HHEI	27	-	Modified Class I	Yes	357	124
SMT028A Clear Fork Little Muskingum River	Preferred	8-2A	Perennial	40	8	QHEI	49.5	WWH	Fair	Yes	419 <u>420</u>	120
SBO007 UNT Clear Fork Little Muskingum River	Preferred	8-2B	Ephemeral	2	3	HHEI	33	-	Modified Class II	Yes	629	341
SBO010 UNT Clear Fork Little Muskingum River	Preferred	8-2B	Ephemeral	1.5	0	HHEI	19	-	Modified Class I	Yes	174 <u>210</u>	72 <u>106</u>
SBO009 UNT Clear Fork Little Muskingum River	Preferred	8-2B	Ephemeral	2	0	HHEI	19	-	Modified Class I	No	116 <u>133</u>	116 <u>133</u>

TABLE 8-3

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

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation	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
SBO006 UNT Clear Fork Little Muskingum River	Preferred	8-2B	Ephemeral	4	7	HHEI	44	-	Modified Class II	No	243 257	0
SBO005 UNT Clear Fork Little Muskingum River	Preferred	8-2B	Ephemeral	2	1	HHEI	30	-	Modified Class II	Yes	261	111
SBO004 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	1.5	0	HHEI	24	-	Class I	No	85	0
SBO002 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	1.5	0	HHEI	18	-	Class I	No	12	0
SBO003 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	2.5	0	HHEI	15	-	Class I	No	84	0
SBO001 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	2.5	0	HHEI	21	-	Class I	Yes	195	70
SMT016 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	2	0	HHEI	20	-	Class I	Yes	210	110

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
SMT015 UNT Little Muskingum River	Preferred	8-2B	Ephemeral	3	0.4	HHEI	26	-	Class I	Yes	308	114
SMT014 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	2	0	HHEI	20	-	Class I	No	210	177
SMT013 UNT Little Muskingum River	Preferred	8-2C	Ephemeral	3	0.4	HHEI	29	-	Class I	Yes	321	109
SMT012 UNT Little Muskingum River	Preferred	8-2D	Intermittent	5	1	HHEI	39	-	Rheocrene Potential	Yes	301	101
SMT011 UNT Little Muskingum River	Preferred	8-2D	Ephemeral	3	0	HHEI	21	-	Class I	No	133 113	0
SMT010 UNT Little Muskingum River	Preferred	8-2D	Intermittent	12	1	HHEI	45	-	Class II	Yes	346	111
SMT009 UNT Little Muskingum River	Preferred	8-2D	Intermittent	8	8	HHEI	70	-	Class III	Yes	339	134

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
SMT008 UNT Little Muskingum River	Preferred	8-2D	Ephemeral	3	0	HHEI	15	-	Class I	No	7	0
SMT007 UNT Little Muskingum River	Preferred	8-2D	Ephemeral	3	0	HHEI	30	-	Class II	No	95	0
SMA001 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	4	1	HHEI	46	-	Rheocrene Potential	Yes	470 <u>466</u>	374 <u>369</u>
SBR086 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	1	0	HHEI	30	-	Class II	Yes	234	114
SMT004 UNT Little Muskingum River	Preferred	8-2E	Intermittent	7	2	HHEI	47	-	Rheocrene Potential	Yes	346	122
SDS176 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	1.5	1	HHEI	18	-	Class I	No	97	0
SMT003 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	5	0	HHEI	31	-	Class I	Yes	407 <u>413</u>	252

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
SMT002 UNT Little Muskingum River	Preferred	8-2E	Intermittent	12	8	HHEI	76	-	Class III	Yes	311	133
SMT001 UNT Little Muskingum River	Preferred	8-2E	Ephemeral	2	0	HHEI	31	-	Class II	No	150 <u>158</u>	0
STQ153 UNT Sackett Run	Preferred	8-2F	Ephemeral	3	0	HHEI	13	-	Class I	Yes	215	103
STQ154 UNT Sackett Run	Preferred	8-2F	Ephemeral	3	0	HHEI	14	-	Class I	Yes	209	97
STQ155 UNT Sackett Run	Preferred	8-2F	Ephemeral	3	0	HHEI	13	-	Class I	Yes	174	131
STQ156 UNT Sackett Run	Preferred	8-2F	Ephemeral	1.5	0	HHEI	13	-	Class I	No	112	0
STQ157 UNT Sackett Run	Preferred	8-2F	Ephemeral	3	0	HHEI	21	-	Class I	No	220	0
STQ158 UNT Sackett Run	Preferred	8-2F	Intermittent	7	0	HHEI	45	-	Class I	Yes	420	177
STQ159 UNT Sackett Run	Preferred	8-2F	Ephemeral	2	0	HHEI	30	-	Class II	No	39	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
STQ160 Sackett Run	Preferred	8-2F	Perennial	12	9.8	QHEI	49.75	WWH	Fair	Yes	356	121
STQ162 UNT Sackett Run	Preferred	8-2F	Ephemeral	3	0	HHEI	21	-	Class I	Yes	84	84
STQ161 UNT Sackett Run	Preferred	8-2F	Ephemeral	2	0	HHEI	14	-	Class I	No	54	0
SMA002 UNT Sackett Run	Preferred	8-2F	Ephemeral	1	1	HHEI	17	-	Class I	No	32	0
SMA003 UNT Sackett Run	Preferred	8-2G	Perennial	8	5	HHEI	64	-	Class III	Yes	421 <u>411</u>	128
SMA004 UNT Sackett Run	Preferred	8-2G	Ephemeral	2	3	HHEI	38	-	Rheocrene Potential	No	174 <u>172</u>	53 <u>52</u>
SMA005 UNT Sackett Run	Preferred	8-2G	Ephemeral	2	1	HHEI	28	-	Class I	No	171	0
SDS139A UNT Sackett Run	Preferred	8-2G	Ephemeral	2	0	HHEI	13	-	Class I	No	56	0
SDS140 UNT Sackett Run	Preferred	8-2G	Ephemeral	2	<0.4	HHEI	23	-	Class I	No	66	0
SDS141 UNT Sackett Run	Preferred	8-2G	Ephemeral	1	0	HHEI	17	-	Class I	No	48	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
STQ152 UNT Sackett Run	Preferred	8-2H	Intermittent	8	6	HHEI	71	-	Class III	Yes	314	105
STQ150 UNT Little Muskingum River	Preferred	8-2H	Ephemeral	4	0	HHEI	23	-	Class I	No	73	0
STQ128A Little Muskingum River	Preferred	8-2I	Perennial	70	48	QHEI	46.5	EWB	Fair	Yes	333	113
SME057 Tice Run	Preferred	8-2I	Perennial	22	28	QHEI	47.5	WWH	Fair	No	196	0
SME056 UNT Tice Run	Preferred	8-2I	Intermittent	3	0.8	HHEI	27	-	Modified Class I	Yes	367	241
SME059 UNT Tice Run	Preferred	8-2I	Ephemeral	1	0	HHEI	19	-	Modified Class I	Yes	44	44
SME060 UNT Little Muskingum River	Preferred	8-2I	Intermittent	3	2	HHEI	38	-	Modified Class II	No	320	0
STQ128A Little Muskingum River	Preferred	8-2I	Perennial	70	48	QHEI	46.5	EWB	Fair	Yes	317	108

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
SBR011 UNT Little Muskingum River	Preferred	8-2J	Intermittent	2.5	2	HHEI	41	-	Modified Class II	Yes	1,084	630
SBR012 UNT Little Muskingum River	Preferred	8-2J	Ephemeral	6	0	HHEI	29	-	Modified Class I	No	226	56
SBR010 UNT Little Muskingum River	Preferred	8-2J	Intermittent	6	2	HHEI	50	-	Modified Class II	Yes	336 <u>327</u>	111 <u>107</u>
SBR009 UNT Little Muskingum River	Preferred	8-2K	Intermittent	12	3	HHEI	63	-	Class III	Yes	383 <u>376</u>	156 <u>135</u>
SBR008 Wingett Run	Preferred	8-2K	Perennial	24	10	QHEI	62.5	-	Good	Yes	395 <u>273</u>	111 <u>124</u>
STQ128D Little Muskingum River	Preferred	8-2K	Perennial	80	48	QHEI	65.5	EWH	Good	Yes	846 <u>1027</u>	101
SME054 UNT Little Muskingum River	Preferred	8-2K	Intermittent	8	6	HHEI	71	-	Class III	Yes	502	179
SME055 UNT Little Muskingum River	Preferred	8-2K	Ephemeral	2	0	HHEI	24	-	Class I	Yes	278	135

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
SME053 UNT Little Muskingum River	Preferred	8-2L	Intermittent	8	3	HHEI	53	-	Modified Class II	Yes	349	129
SME052 UNT Little Muskingum River	Preferred	8-2L	Perennial	9	2	HHEI	58	-	Modified Class II	Yes	1,032	317 <u>316</u>
SME051 UNT Little Muskingum River	Preferred	8-2L	Intermittent	3	0.4	HHEI	25	-	Modified Class II	No	207	165
STQ128E Little Muskingum River	Preferred	8-2L	Perennial	90	>40	QHEI	47.5	EWH	Fair	Yes	301	100
SME049 UNT Little Muskingum River	Preferred	8-2L	Ephemeral	3	0.4	HHEI	38	-	Class II	No	57	0
SME048 UNT Little Muskingum River	Preferred	8-2L	Ephemeral	4	4	HHEI	67	-	Class II	Yes	333 <u>376</u>	169 <u>212</u>
SME046 UNT Little Muskingum River	Preferred	8-2L	Ephemeral	3	0.4	HHEI	25	-	Class I	Yes	629	145 <u>144</u>

TABLE 8-3

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

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation	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
SME050 UNT Little Muskingum River	Preferred	8-2L	Ephemeral	2.5	0	HHEI	11	-	Class I	No	978 <u>980</u>	112
SME044 UNT Little Muskingum River	Preferred	8-2M	Intermittent	3	0.4	HHEI	31	-	Class II	Yes	501 <u>509</u>	236
SME045 UNT Little Muskingum River	Preferred	8-2M	Ephemeral	2	0.4	HHEI	31	-	Modified Class II	No	111	0
SME042 UNT Little Muskingum River	Preferred	8-2M	Perennial	15	30	QHEI	62.75	-	Good	Yes	624	137
SME041 UNT Little Muskingum River	Preferred	8-2M	Ephemeral	3	1	HHEI	34	-	Modified Class II	Yes	214	108
STQ168 UNT Little Muskingum River	Preferred	8-2M	Perennial	8-10	48	QHEI	60.75	-	Good	Yes	338	129
STQ169 UNT Little Muskingum River	Preferred	8-2N	Intermittent	4	0.4	HHEI	36	-	Class II	Yes	593 <u>567</u>	445 <u>428</u>

TABLE 8-3

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

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation	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
STQ170 UNT Little Muskingum River	Preferred	8-2M	Ephemeral	3	0	HHEI	28	-	Modified Class I	Yes	70	70
SME040 UNT Little Muskingum River	Preferred	8-2N	Ephemeral	15	3	HHEI	70	-	Class III	Yes	353 <u>535</u>	131
SBR014 UNT Little Muskingum River	Preferred	8-2N	Ephemeral	3	0	HHEI	16	-	Class I	No	40 <u>93</u>	0 <u>53</u>
STQ128F Little Muskingum River	Preferred	8-2N	Perennial	120	42	QHEI	75	EWH	Excellent	Yes	933 <u>751</u>	<u>390</u>
SMA009 UNT Little Muskingum River	Preferred	8-2N	Intermittent	2	2	HHEI	26	-	Class I	No	53	0
STQ128G Little Muskingum River	Preferred	8-2N <u>8-2O</u>	Perennial	120	42	QHEI	75	EWH	Excellent	Yes	306	101
SME037 UNT Little Muskingum River	Preferred	8-2O	Perennial	30	42	QHEI	75	-	Excellent	No	66 <u>138</u>	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
SBR005 UNT Little Muskingum River	Preferred	8-2O	Ephemeral	3.5	0	HHEI	31	-	Modified Class II	Yes	321	119 <u>118</u>
SME036 UNT Little Muskingum River	Preferred	8-2P	Perennial	20	4	HHEI	68	-	Modified Class II	Yes	409	114
STQ128H Little Muskingum River	Preferred	8-2P	Perennial	70	60	QHEI	72.5	EWB	Good	No	456	0
SME035 Steel Run	Preferred	8-2P	Intermittent	9	3	HHEI	48	-	Modified Class II	Yes	319	102
SME032 UNT Hog Run	Preferred	8-2Q	Ephemeral	4.5	3	HHEI	53	-	Modified Class II	No Yes	279	154
SBR003 Hog Run	Preferred	8-2Q	Perennial	10	36	QHEI	59	WWH	Good	Yes	591	148
STQ128I Little Muskingum River	Preferred	8-2Q	Perennial	70	>40	QHEI	74	EWB	Good	Yes	300	100
STQ128J Little Muskingum River	Preferred	8-2R	Perennial	70	60	QHEI	61	EWB	Good	Yes	365	125

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
SME021 UNT Little Muskingum River	Preferred	8-2R	Ephemeral	6	0	HHEI	52	-	Modified Class II	No	216	96
SME020 UNT Little Muskingum River	Preferred	8-2R	Intermittent	5	3	HHEI	68	-	Class II	Yes	367	111
STQ036 UNT Little Muskingum River	Preferred	8-2R	Ephemeral	3	3	HHEI	27	-	Modified Class I	No	88	0
STQ037 SDS156A UNT Little Muskingum River	Preferred	8-2R	Intermittent Ephemeral	2 <u>5</u>	2 <u>4</u>	HHEI	34	-	Modified Class II	No	88 <u>12</u>	0
Total											27,731 27,840	9,752 9,853
Alternate Route												
SMT028B Clear Fork Little Muskingum River	Alternate	8-3A	Perennial	70	>36	QHEI	42.5	WWH	Poor	Yes	325	110
SBR060 UNT Clear Fork Little Muskingum River	Alternate	8-3A	Ephemeral	2	0	HHEI	18	-	Modified Class I	No	69	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
STQ128L Little Muskingum River	Alternate	8-3A	Perennial	70	>36	QHEI	55.5	EWH	Fair	No	228	0
SBR074 UNT Little Muskingum River	Alternate	8-3B	Ephemeral	2.5	1	HHEI	21	-	Modified Class I	No	202	97
SBR070 UNT Little Muskingum River	Alternate	8-3B	Intermittent	4	6	HHEI	51	-	Class III	Yes	472	140
STQ180 UNT Little Muskingum River	Alternate	8-3B	Intermittent	4	1.5	HHEI	38	-	Modified Class II	Yes	469	128
SBR071 UNT Little Muskingum River	Alternate	8-3B	Ephemeral	1.5	0.4	HHEI	15	-	Modified Class I	No	136	34
SBR072 UNT Little Muskingum River	Alternate	8-3B	Ephemeral	1.5	1	HHEI	15	-	Modified Class I	No	199	0
SBR073 UNT Little Muskingum River	Alternate	8-3C	Intermittent	4	1	HHEI	30	-	Modified Class II	No	61	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
SBR056 UNT Little Muskingum River	Alternate	8-3C	Intermittent	18	3	HHEI	50	-	Class III	Yes	702	243
SBR057 UNT Little Muskingum River	Alternate	8-3C	Intermittent	6	1.5	HHEI	40	-	Class II	Yes	364	121
SBR055 UNT Little Muskingum River	Alternate	8-3C	Intermittent	3.5	3	HHEI	39	-	Class II	Yes	205	102
SBR054 UNT Little Muskingum River	Alternate	8-3C	Perennial	14	12	QHEI	53	-	Fair	Yes	544	277
SBR053 UNT Little Muskingum River	Alternate	8-3D	Intermittent	6.5	1.5	HHEI	39	-	Rheocrene Potential	Yes	328	105
SBR051 UNT Little Muskingum River	Alternate	8-3D	Ephemeral	3	0	HHEI	25	-	Modified Class I	No	390	53
SBR052 UNT Little Muskingum River	Alternate	8-3D	Ephemeral	1.5	0	HHEI	18	-	Class I	No	56	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
SBR050 UNT Little Muskingum River	Alternate	8-3D	Ephemeral	4	0	HHEI	24	-	Modified Class I	Yes	439	412
SDS114 UNT Little Muskingum River	Alternate	8-3D	Ephemeral	1.5	0.4	HHEI	27	-	Modified Class I	Yes	221	105
SDS115 UNT Little Muskingum River	Alternate	8-3E	Ephemeral	2	<0.4	HHEI	22	-	Class I	No	579	425
SDS116 UNT Little Muskingum River	Alternate	8-3E	Intermittent	1.5	0	HHEI	17	-	Class I	No	71	0
SDS117 UNT Little Muskingum River	Alternate	8-3E	Intermittent	3	4	HHEI	37	-	Class II	Yes	351	127
SDS119 UNT Little Muskingum River	Alternate	8-3E	Ephemeral	1.5	5	HHEI	45	-	Modified Class II	Yes	447	163
SDS118 UNT Little Muskingum River	Alternate	8-3E	Perennial	1.5	0	HHEI	13	-	Modified Class I	No	115	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
STQ174 UNT Little Muskingum River	Alternate	8-3E	Perennial	12	11.8	QHEI	57.75	-	Fair	Yes	556	172
STQ173 UNT Little Muskingum River	Alternate	8-3E	Intermittent	5	0	HHEI	30	-	Modified Class II	Yes	517	214
STQ128B Little Muskingum River	Alternate	8-3E	Perennial	>50	>36	QHEI	65	EWB	Good	No	253	0
SBR065 UNT Little Muskingum River	Alternate	8-3E	Intermittent	30	3	HHEI	40	-	Modified Class II	Yes	372	113
SBR061 UNT Little Muskingum River	Alternate	8-3F	Ephemeral	4	0	HHEI	24	-	Class I	No	65	0
SBR062 UNT Little Muskingum River	Alternate	8-3F	Ephemeral	4	1	HHEI	30	-	Class II	Yes	371	185
STQ128C Little Muskingum River	Alternate	8-3F	Perennial	50	48	QHEI	57.25	EWB	Fair	Yes	322	107

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
SBR064 UNT Little Muskingum River	Alternate	8-3F	Intermittent	2	1	HHEI	29	-	Class I	No	363	52
SBR063 UNT Little Muskingum River	Alternate	8-3F	Ephemeral	1.5	1	HHEI	32	-	Modified Class II	No	72	0
SBR047 UNT Little Muskingum River	Alternate	8-3F	Ephemeral	6	0	HHEI	34	-	Modified Class II	No	175	0
SBR046 UNT Little Muskingum River	Alternate	8-3F	Ephemeral	7	0	HHEI	23	-	Class I	No	83	0
SBR048 UNT Little Muskingum River	Alternate	8-3G	Ephemeral	4	0	HHEI	24	-	Modified Class I	No	108	0
SBR045 UNT Little Muskingum River	Alternate	8-3G	Intermittent	12	3	HHEI	55	-	Class III	Yes	427	152
SBR044 UNT Little Muskingum River	Alternate	8-3G	Ephemeral	3	0	HHEI	24	-	Class I	Yes	248	105

TABLE 8-3

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

Stream ID Waterbody Name	Route	Figure	Flow Regime	Top of Bank Width (feet)	Maximum Pool Depth (inches)	Form	Score	OEPA Aquatic Life Use Designation	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
SBR043 UNT Little Muskingum River	Alternate	8-3G	Intermittent	6	5	HHEI	63	-	Modified Class II	Yes	495	113
SBR042 UNT Little Muskingum River	Alternate	8-3H	Intermittent	2.5	1	HHEI	23	-	Modified Class I	Yes	317	103
SBR049 UNT Little Muskingum River	Alternate	8-3H	Perennial	7	5	HHEI	59	-	Modified Class II	Yes	355	127
SDS138 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1	0	HHEI	14	-	Class I	Yes	212	175
SDS134 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1	<0.4	HHEI	32	-	Class II	No	181	130
SDS135 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1	0	HHEI	13	-	Class I	No	27	0
SDS133 UNT Little Muskingum River	Alternate	8-3H	Intermittent	2	3	HHEI	46	-	Class II	Yes	379	104

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
SDS137 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1.5	2.75	HHEI	27	-	Class I	No	90	20
SDS136 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1	0	HHEI	12	-	Class I	No	28	0
SDS132 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1.5	0	HHEI	23	-	Class I	Yes	227	161
SDS131 UNT Little Muskingum River	Alternate	8-3H	Intermittent	1.5	0.4	HHEI	24	-	Class I	No	130	44
SDS130 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1.5	2	HHEI	26	-	Class I	Yes	330	111
SDS128 UNT Little Muskingum River	Alternate	8-3H	Intermittent	2	0.8	HHEI	31	-	Class II	Yes	323	106
SDS129 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1	<0.4	HHEI	21	-	Class I	No	10	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
SDS127 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	2	<0.4	HHEI	27	-	Class I	Yes	298	110
SDS126 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1	0	HHEI	10	-	Class I	No	14	0
SDS125A UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1.5	0	HHEI	22	-	Class I	No	147	19
SDS125B UNT Little Muskingum River	Alternate	8-3H	Intermittent	1.5	1	HHEI	36	-	Class II	Yes	207	85
SDS123 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1	0	HHEI	12	-	Class I	No	57	0
SDS124 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1	0	HHEI	21	-	Class I	Yes	61	61
SDS122 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	2	0	HHEI	33	-	Class II	Yes	324	116

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
SDS120 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1.5	0	HHEI	32	-	Class II	No	127	5
SDS121 UNT Little Muskingum River	Alternate	8-3H	Ephemeral	1.5	0	HHEI	10	-	Class I	No	31	0
SBR040 UNT Tice Run	Alternate	8-3I	Ephemeral	3	1	HHEI	30	-	Class II	Yes	335	134
SBR039 Tice Run	Alternate	8-3I	Perennial	22	10	QHEI	64	WWH	Good	Yes	542	178
SBR041 UNT Tice Run	Alternate	8-3I	Ephemeral	1.5	0	HHEI	17	-	Modified Class I	No	75	0
SBR038 UNT Tice Run	Alternate	8-3I	Ephemeral	4.5	1	HHEI	30	-	Class II	Yes	358	116
SBR037 UNT Tice Run	Alternate	8-3I	Ephemeral	4.5	0	HHEI	24	-	Class I	No	75	0
SBR036 UNT Tice Run	Alternate	8-3I	Ephemeral	1.5	0	HHEI	22	-	Class I	No	152	0
SBR035 UNT Tice Run	Alternate	8-3I	Ephemeral	2	0	HHEI	22	-	Class I	Yes	323	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
SBR034 UNT Tice Run	Alternate	8-3J	Intermittent	3	3	HHEI	36	-	Modified Class II	Yes	455	108
SBR069 UNT Tice Run	Alternate	8-3J	Intermittent	3	3	HHEI	40	-	Modified Class II	Yes	355	114
SBR066 UNT Tice Run	Alternate	8-3J	Ephemeral	1.5	0.4	HHEI	24	-	Class I	No	300	43
SBR067 UNT Haught Run	Alternate	8-3J	Ephemeral	4	0.4	HHEI	30	-	Class II	Yes	718	199
SBR068 Haught Run	Alternate	8-3J	Intermittent	11	18	QHEI	54	WWH	Fair	Yes	351	101
SBR083 UNT Haught Run	Alternate	8-3K	Intermittent	20	2	HHEI	58	-	Class III	No	711	5
SBR082 UNT Haught Run	Alternate	8-3K	Ephemeral	2.5	0	HHEI	18	-	Class I	No	257	57
SBR081 UNT Haught Run	Alternate	8-3K	Ephemeral	10	0	HHEI	40	-	Class II	No	262	0
SBR080 UNT Haught Run	Alternate	8-3K	Intermittent	18	18	HHEI	64	-	Class III	Yes	307	102
SBR079 UNT Haught Run	Alternate	8-3K	Intermittent	8	2	HHEI	40	-	Rheocrene Potential	Yes	908	394

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
SBR078 UNT Haught Run	Alternate	8-3K	Ephemeral	2	0	HHEI	24	-	Class I	No	132	132
SBR077 UNT Haught Run	Alternate	8-3K	Ephemeral	2	0	HHEI	24	-	Class I	No	129	17
SBR076 UNT Haught Run	Alternate	8-3K	Ephemeral	3.5	0	HHEI	24	-	Class I	No	114	8
SBR075 UNT Haught Run	Alternate	8-3K	Ephemeral	4	1.6	HHEI	30	-	Modified Class II	No	160	47
SMT026 UNT Elk Run	Alternate	8-3L	Ephemeral	2	0	HHEI	21	-	Class I	Yes	470	470
SMT027 UNT Elk Run	Alternate	8-3L	Ephemeral	4	1	HHEI	31	-	Class II	No	148	1
SMT025 UNT Elk Run	Alternate	8-3L	Ephemeral	6	1	HHEI	51	-	Class II	Yes	385	127
SMT024 UNT Elk Run	Alternate	8-3L	Ephemeral	4	0	HHEI	21	-	Class I	Yes	362	192
SMT024A UNT Elk Run	Alternate	8-3L	Ephemeral	2	0	HHEI	21	-	Class I	No	28	0
SMT023 UNT Elk Run	Alternate	8-3M	Ephemeral	1.5	0	HHEI	21	-	Class I	No	144	86

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
SMT021 UNT Elk Run	Alternate	8-3M	Ephemeral	5	<1	HHEI	30	-	Class II	Yes	1311	703
SMT022 UNT Elk Run	Alternate	8-3M	Ephemeral	2	0	HHEI	21	-	Class I	No	149	0
SMT020 UNT Elk Run	Alternate	8-3M	Ephemeral	12	<1	HHEI	45	-	Class II	No	63	0
SMT019 Elk Run	Alternate	8-3M	Intermittent	14	8	HHEI	75	-	Class III	Yes	368	148
SMT017 UNT Elk Run	Alternate	8-3M	Intermittent	8	6	HHEI	70	-	Class III	Yes	558	240
SMT018 UNT Elk Run	Alternate	8-3M	Ephemeral	2	0	HHEI	23	-	Class I	No	66	0
SBR033 UNT Elk Run	Alternate	8-3M	Intermittent	8	3	HHEI	55	-	Class III	Yes	380	132
SBR032 UNT Elk Run	Alternate	8-3M	Ephemeral	1.5	0	HHEI	25	-	Class I	Yes	113	113
SBR030 UNT Elk Run	Alternate	8-3N	Intermittent	10	2	HHEI	55	-	Modified Class II	Yes	324	118
SBR031 UNT Elk Run	Alternate	8-3N	Ephemeral	1.5	0	HHEI	16	-	Modified Class I	Yes	49	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
SBR027 UNT Elk Run	Alternate	8-3O	Ephemeral	2	0	HHEI	24	-	Modified Class I	No	174	56
SBR028 UNT Elk Run	Alternate	8-3O	Ephemeral	2	0	HHEI	24	-	Modified Class I	No	49	0
SBR029 UNT Archer's Fork	Alternate	8-3P	Ephemeral	4	0	HHEI	25	-	Modified Class I	Yes	252	109
SBR025 UNT Archer's Fork	Alternate	8-3P	Intermittent	10	1	HHEI	45	-	Class II	Yes	319	102
SBR026 UNT Archer's Fork	Alternate	8-3P	Intermittent	7	0	HHEI	35	-	Modified Class II	Yes	349	117
SBR023 UNT Little Muskingum River	Alternate	8-3Q	Ephemeral	2.5	0	HHEI	25	-	Modified Class I	Yes	262	115
SBR022 UNT Little Muskingum River	Alternate	8-3Q	Ephemeral	2	0	HHEI	19	-	Class I	No	55	55
SBR024 UNT Little Muskingum River	Alternate	8-3Q	Ephemeral	3	0	HHEI	33	-	Class II	No	194	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
SBR021 UNT Little Muskingum River	Alternate	8-3Q	Ephemeral	2	0	HHEI	18	-	Class I	Yes	241	111
SBR019 UNT Little Muskingum River	Alternate	8-3Q	Ephemeral	2	0	HHEI	24	-	Modified Class I	Yes	594	131
SBR015 Archer's Fork	Alternate	8-3Q	Perennial	38	12	QHEI	61	WWH	Good	Yes	309	102
SBR016 UNT Archer's Fork	Alternate	8-3Q	Ephemeral	4	0	HHEI	31	-	Class II	No	381	0
SBR018 UNT Archer's Fork	Alternate	8-3Q	Ephemeral	1.5	0	HHEI	30	-	Class II	Yes	129	78
SBR017 UNT Archer's Fork	Alternate	8-3Q	Ephemeral	2	0	HHEI	37	-	Class II	No	41	27
SME023 UNT Little Muskingum River	Alternate	8-3R	Ephemeral	4	0	HHEI	30	-	Class II	No	198	7
SME027 UNT Little Muskingum River	Alternate	8-3R	Ephemeral	2.5	0	HHEI	30	-	Class II	Yes	178	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
SME024 UNT Little Muskingum River	Alternate	8-3R	Ephemeral	2	0	HHEI	20	-	Modified Class I	Yes	208	183
SME025 UNT Little Muskingum River	Alternate	8-3R	Ephemeral	1.5	0	HHEI	20	-	Modified Class I	Yes	311	103
STQ128K Little Muskingum River	Alternate	8-3S	Perennial	110	18	QHEI	63.5	EWB	Good	Yes	304	101
SBR002 UNT Little Muskingum River	Alternate	8-3S	Ephemeral	4.5	0	HHEI	18	-	Modified Class I	No	67	0
Total											31,827	11,058

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

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 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	4,337 <u>4,389</u>	0.8	9.2 <u>9.4</u>
Industrial/Commercial	0	0.00	0.00
Open Land / Pasture	52	<0.1	0.1
Road / Railroad ROW	990 <u>982</u>	0.2	3.1 <u>2.8</u>
Utility ROW	2,256 <u>1,852</u>	0.4	6.9 <u>6.5</u>
Water	1,970 <u>1,982</u>	0.4	4.6 <u>4.8</u>
Wayne National Forest	3,934	0.7	9.1
Woodlot	42,056 <u>42,241</u>	8.0	93.1 <u>93.9</u>
Alternate Route			
Agricultural	3,277	0.62	7.95
Industrial/Commercial	0	0.00	0.14
Open Land / Pasture	0	0.00	0.00
Road / Railroad ROW	910	0.17	3.07
Utility ROW	7,734	1.46	10.68

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
Water	0	0.00	0.00
Wayne National Forest	8,031	1.52	19.05
Woodlot	40,451	7.66	95.90

(b) Construction Impacts on Wetlands

Preferred Route: During wetland and waterbody delineations, 16 wetlands were identified along the Preferred Route within the proposed ROW, totaling 0.8 acre. The delineated wetlands are shown on revised Figure 8-2A through 8-2R. Detailed information about each feature can be found in Table 8-2 in Section 4906-05-08(B)(b)(ii). Nine of these wetlands are crossed by the Preferred Route centerline, totaling ~~291~~ 306 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: Eight Category 1 wetlands with ORAM scores ranging from 16.5 to 27.5 were identified within the ROW, totaling 0.2 acre. One PFO wetland will be impacted through the clearing of trees and shrubs during construction.
- Category 1 or 2 Gray Zone wetlands: Two Category 1 or 2 Gray Zone wetlands with ORAM scores of 31.5 and 33.5 were identified within the ROW, totaling 0.1 acre. No PFO or PSS wetlands will be impacted through the clearing of trees and shrubs during construction.
- Category Modified 2 wetlands: Three Category Modified 2 wetlands with ORAM scores ranging from 38 to 41.0 were identified within the ROW, totaling 0.3 acre. No PFO or PSS wetlands will be impacted through the clearing of trees and shrubs during construction.
- Category 2 wetlands: Three Category 2 wetlands with an ORAM scores ranging from 49 to 55 were identified within the proposed ROW, totaling 0.2 acre. One PFO wetland will be impacted through the clearing of trees and shrubs during construction.
- Category 3 wetlands: No Category 3 wetlands will be crossed; therefore, no construction impacts are anticipated.

Alternate Route: During wetland and waterbody delineations, five wetlands were identified along the Alternate Route ROW, totaling 0.07 acre. The delineated wetlands are shown on Figures 8-3A through 8-3S. Detailed information about each feature can be found in Table 8-2 in Section 4906-

05-08(B)(b)(ii). Two wetlands are crossed by the centerline of the proposed Alternate Route, totaling 45 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: Five Category 1 wetlands with ORAM scores ranging from 14 to 23 were identified within the proposed ROW, totaling 0.07 acre. No PFO or PSS wetlands will be impacted through the clearing of trees and shrubs during construction.
- Category 1 or 2 Gray Zone: No Category 1 or 2 Gray Zone wetlands will be crossed; therefore, no construction impacts are anticipated.
- Category Modified 2 wetlands: No Category Modified 2 wetlands will be crossed; therefore, no construction impacts are anticipated.
- Category 2 wetlands: No Category 2 wetlands will be crossed; therefore, no construction impacts are anticipated.
- 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 pole structures within wetlands to the extent practical. Selective clearing will be required to remove specific types of woody vegetation in wetlands that might impede construction or interfere with operation of the transmission line. Where wooded or forested wetlands occur within the ROW, the trees will be removed.

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

Disturbance of soils in wetland areas during construction will be minimized. 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 structure 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 59 streams. The Alternate Route centerline crosses 63 streams. Detailed information about each feature can be found in Table 8-3 in Section 4906-05-08(B)(c)(i).

Approximately ~~9,752~~ 9,853 linear feet of stream are located within the Preferred Route ROW, while approximately 11,058 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. 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 January 9, 2018 Application filing remains unchanged.

(5) Mitigation Procedures

Text provided in the January 9, 2018 Application filing remains unchanged.

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

Text provided in the January 9, 2018 Application filing remains unchanged.

(D) SITE GEOLOGY

(1) Site Geology

Text provided in June 21, 2019 Application Amendment filing remains unchanged.

(2) Slopes and Foundation Soil Suitability

Slopes exceeding 12 percent, obtained from the NRCS, are identified in revised Figure 8-2A through 8-2R and Figure 8-3A through 8-3S. Approximately ~~72~~ 73 percent of the area within 1,000 feet of the Preferred Route occurs where slopes exceed 12 percent. Slopes exceeding 12 percent occur within approximately 83 percent of the area within 1,000 feet of the Alternate Route. During construction, AEP Ohio Transco will implement a SWPPP and associated BMPs as necessary to control erosion and sedimentation in areas with slopes exceeding 12 percent. Once construction is complete, soils will be revegetated and stabilized. As a result, no erosional impacts resulting from slopes exceeding 12 percent are expected.

The bedrock geologies consisting primarily of shales and siltstones and overlaying soils consisting of primarily silt loams and silty clay loams, present along both routes. To obtain further site-specific details on the suitability of the soils for foundation construction, AEP Ohio Transco will conduct detailed engineering design and geotechnical soil borings. Engineering design and geotechnical test drilling will likely be completed soon after the Project is certificated by OPSB and engineering plans and boring logs will be provided to the staff shortly thereafter.

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

- Subsurface Soil Properties
- Static Water Level
- Rock Quality Description
- Percent Recovery
- Depth and Description of Bedrock Contact

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

(E) ENVIRONMENTAL AND AVIATION REGULATION COMPLIANCE

Text provided in the January 9, 2018 Application filing remains unchanged.

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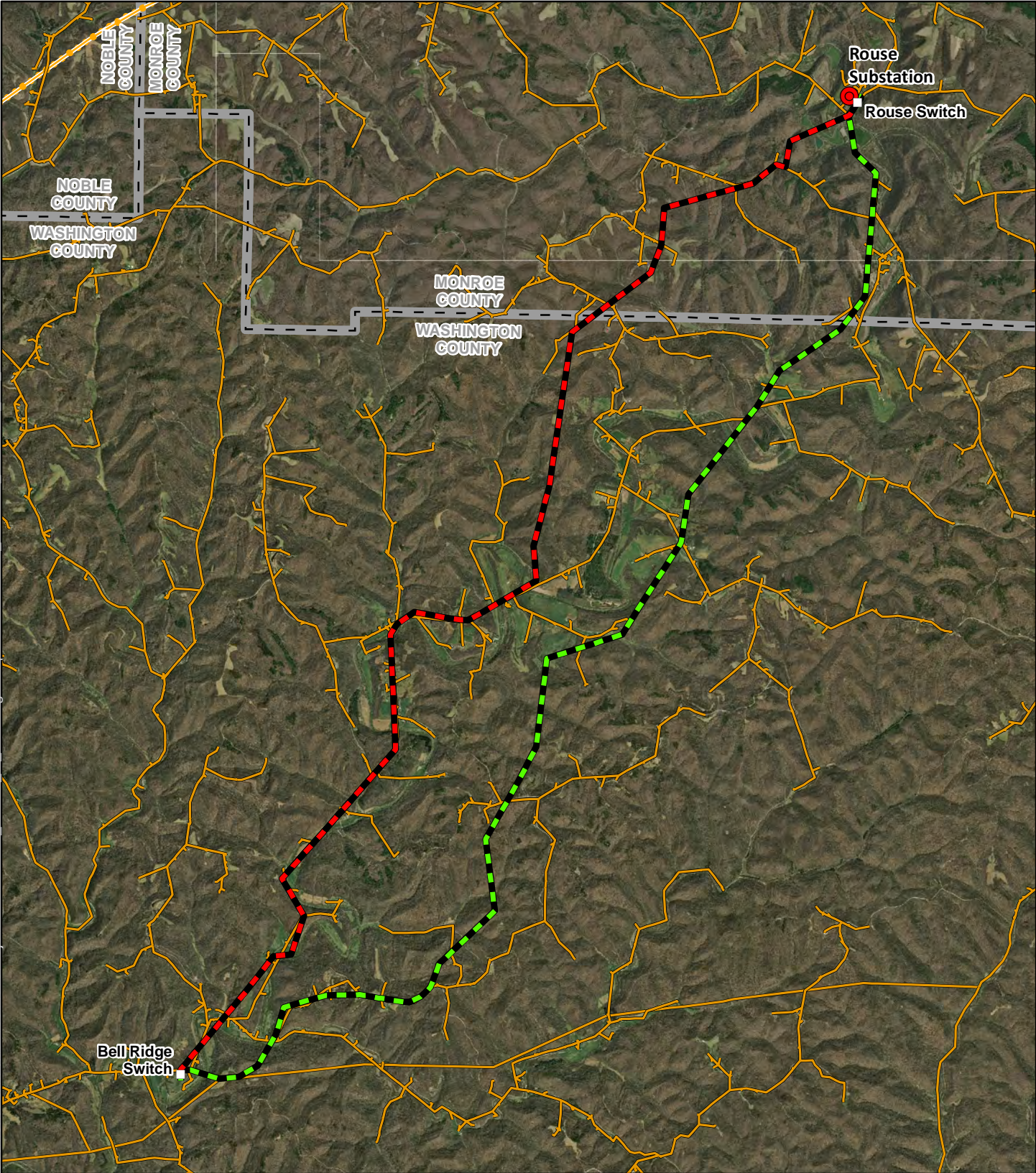
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Figures

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Legend

-  Substation
-  Switch Pole
-  Preferred Route
-  Alternate Route
-  Existing Electric Distribution Line
-  Existing Transmission Line
-  County Boundary

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014


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

August 06, 2020



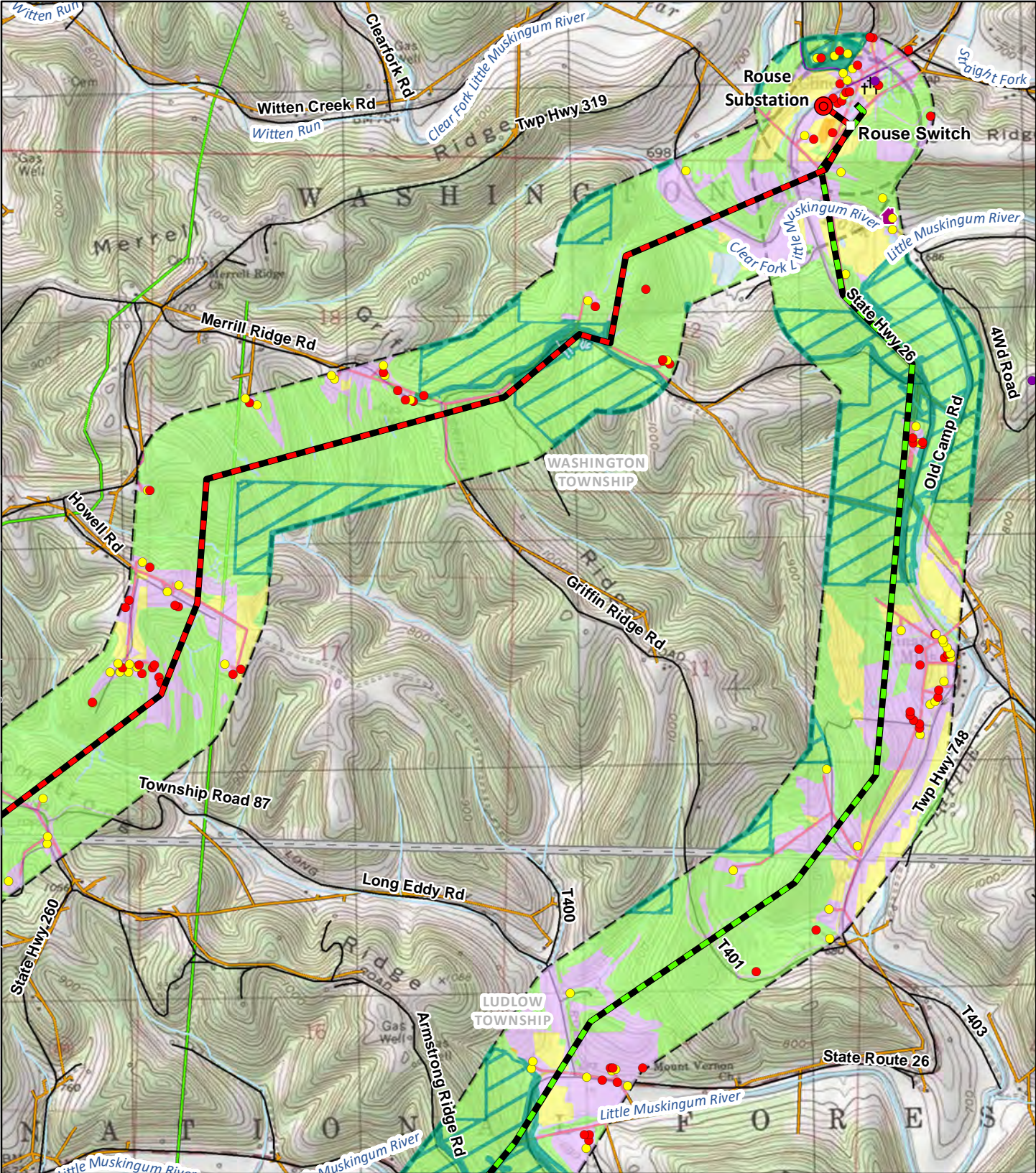
FIGURE 2-1
Project Overview and
Area Features

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH



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Miles

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Legend	
	Substations
	Switch Pole
	Preferred Route
	Alternate Route
	Cemetery
	OHI Structure
	Existing Electric Distribution Line
	Existing Transmission Line
	Existing Gas Pipeline
	Stream (NHD)
	Street
	Township
	School
	Church
	Commercial
	Other
	Residential
	Water Resources
	Wayne National Forest
	Woodlot
	Agriculture
	Institutional
	Open Land/Pasture
	Industrial and Commercial
	Road ROW
	Recreation
	Residential
	Utility ROW

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020

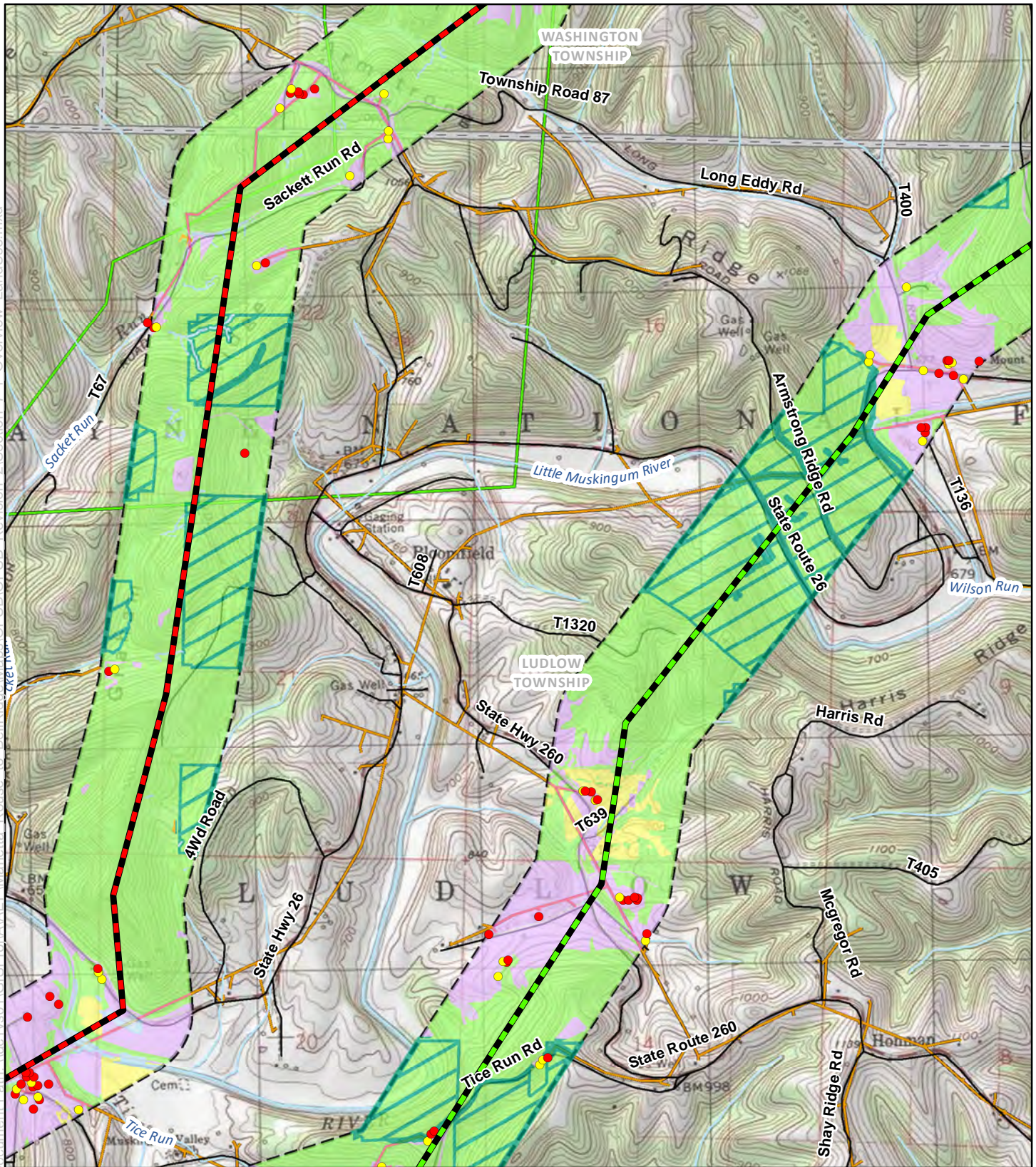


**FIGURE 7-1A
LAND USE MAP**

**Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH**

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Miles

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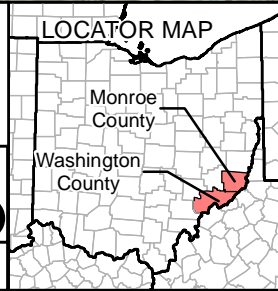


Legend	
	Substations
	Switch Pole
	Preferred Route
	Alternate Route
	Cemetery
	OHI Structure
	Existing Electric Distribution Line
	Existing Transmission Line
	Existing Gas Pipeline
	Stream (NHD)
	Street
	Township
	School
	Church
	Commercial
	Industrial
	Other
	Residential
	Woodlot
	Agriculture
	Institutional
	Open Land/Pasture
	Industrial and Commercial
	Road ROW
	Recreation
	Residential
	Utility ROW
	Wayne National Forest

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

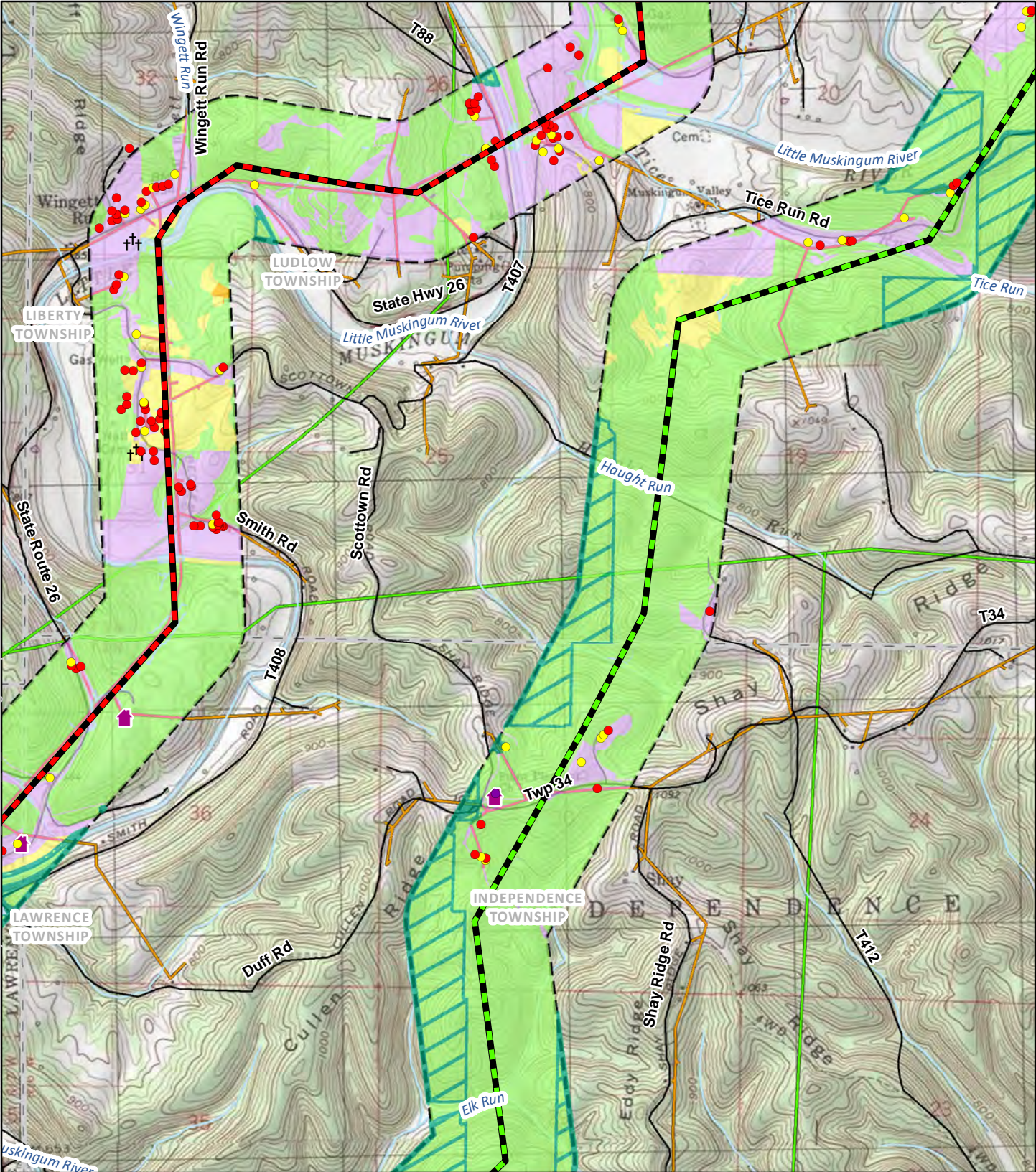
August 06, 2020



**FIGURE 7-1B
LAND USE MAP**

**Route to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH**

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Miles



Legend			
	Substations		School
	Switch Pole		Church
	Preferred Route		Commercial
	Alternate Route		Industrial
	Cemetery		Other
	OHI Structure		Residential
	Existing Electric Distribution Line		Water Resources
	Existing Transmission Line		Wayne National Forest
	Existing Gas Pipeline		Institutional
	Stream (NHD)		Open Land/Pasture
	Street		Industrial and Commercial
	Township		Road ROW
			Recreation
			Residential
			Utility ROW

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020



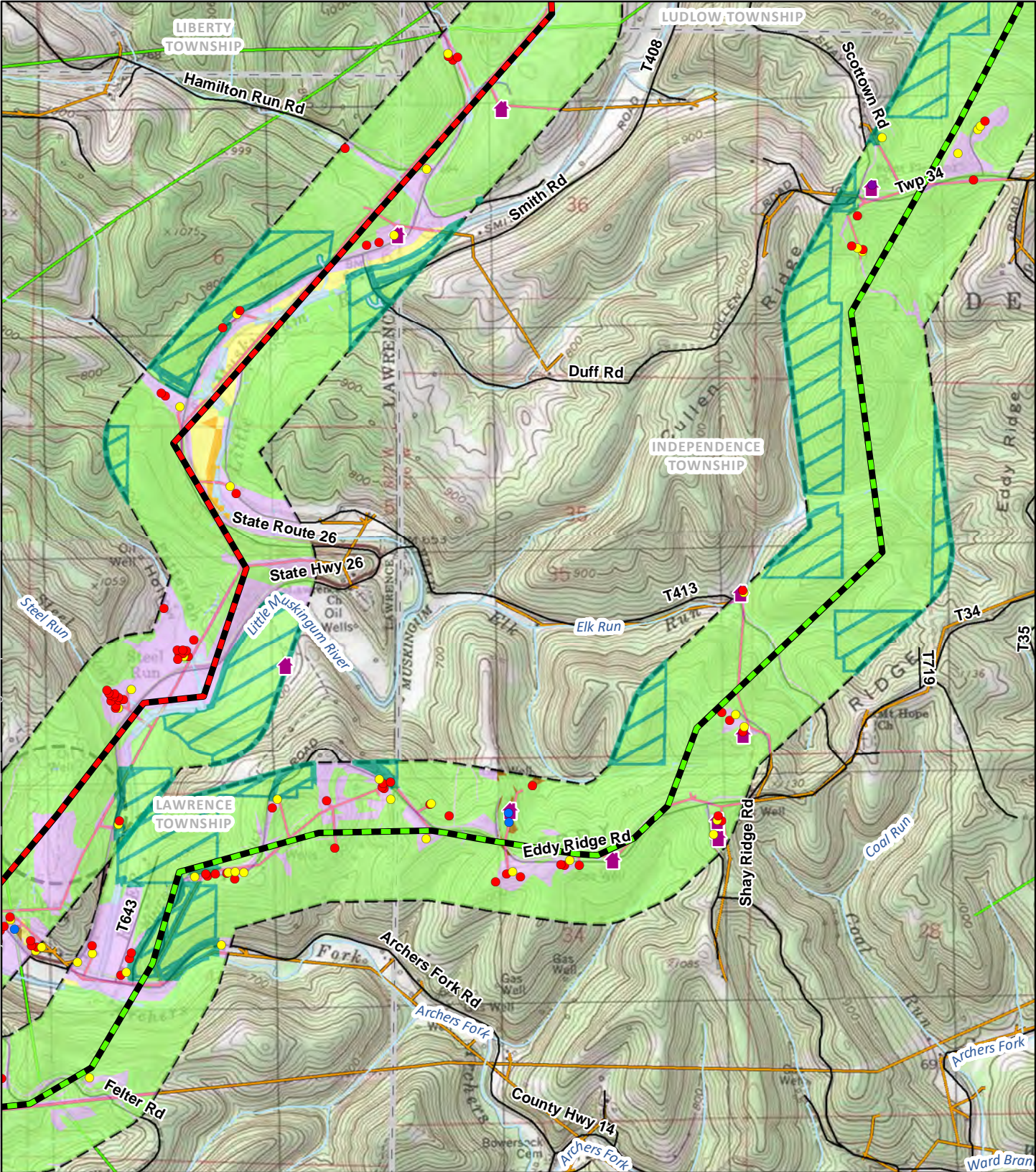
**FIGURE 7-1C
LAND USE MAP**

**Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH**

AEP TRANSMISSION
AEP ENERGY

0 0.25 0.5
Miles

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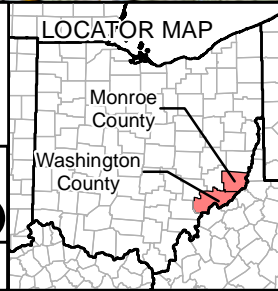


Legend		Structure		Land Use	
	Substations		School		Woodlot
	Switch Pole		Church		Agriculture
	Preferred Route		Commercial		Institutional
	Alternate Route		Industrial		Open Land/Pasture
	Cemetery		Other		Industrial and Commercial
	OHI Structure		Residential		Road ROW
	Existing Electric Distribution Line		Water Resources		Recreation
	Existing Transmission Line		Wayne National Forest		Residential
	Existing Gas Pipeline				Utility ROW
	Stream (NHD)				
	Street				
	Township				

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020

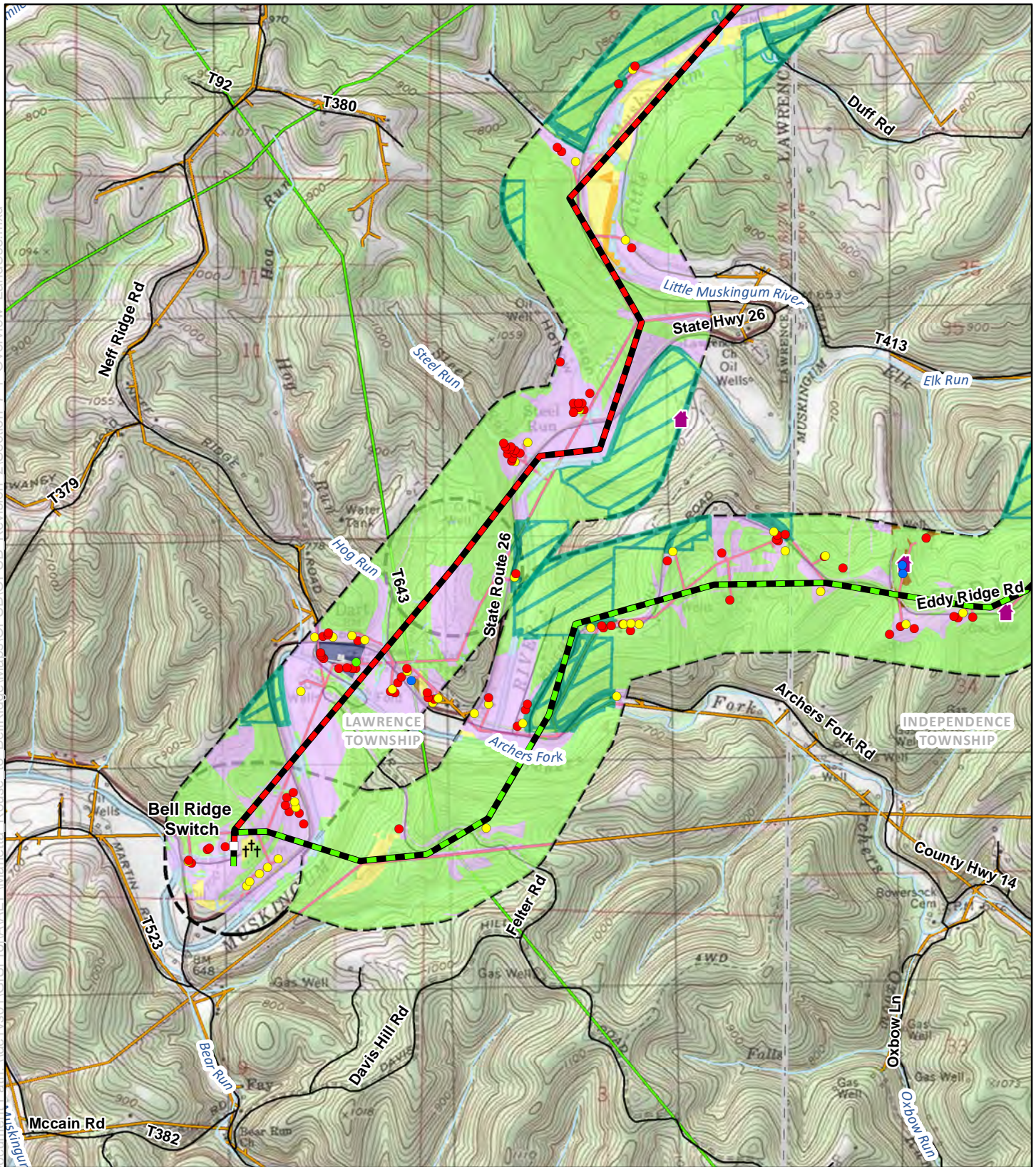


**FIGURE 7-1D
LAND USE MAP**

**Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH**

AEP TRANSMISSION
 A subsidiary of
 AMERICAN ENERGY

0 0.25 0.5
 Miles



Legend	
	Substations
	Switch Pole
	Preferred Route
	Alternate Route
	Cemetery
	OHI Structure
	Existing Electric Distribution Line
	Existing Transmission Line
	Existing Gas Pipeline
	Stream (NHD)
	Street
	Township
	School
	Church
	Commercial
	Industrial
	Other
	Residential
	Water Resources
	Wayne National Forest
	Woodlot
	Agriculture
	Institutional
	Open Land/Pasture
	Industrial and Commercial
	Road ROW
	Recreation
	Residential
	Utility ROW

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020



**FIGURE 7-1E
LAND USE MAP**

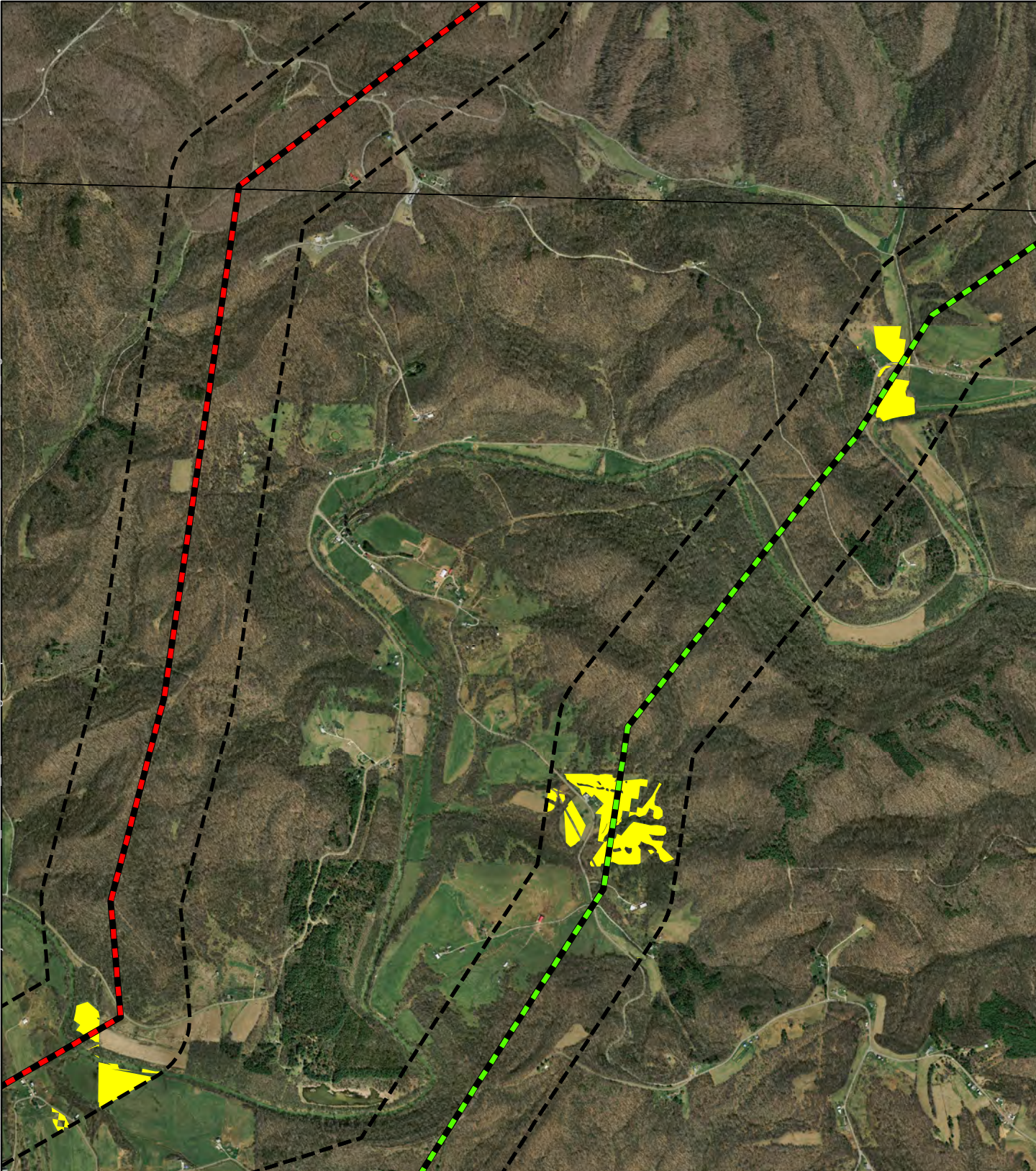
**Route to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH**

WINDWARD ENERGY








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Miles

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Legend

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


BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020



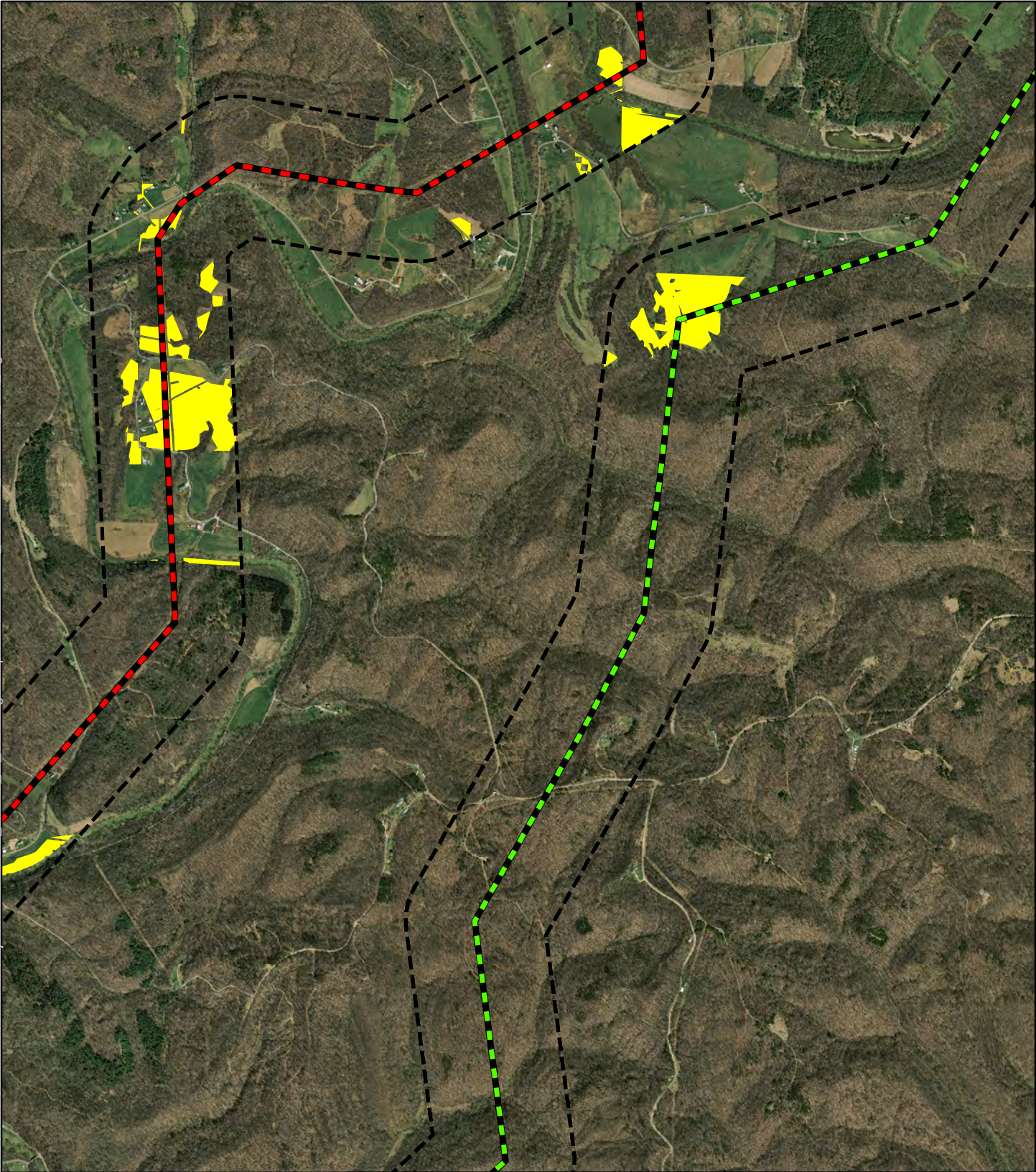
FIGURE 7-2B
AGRICULTURAL LAND USE MAP










Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

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Miles

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Legend

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


BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020

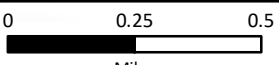


**FIGURE 7-2C
AGRICULTURAL LAND USE MAP**



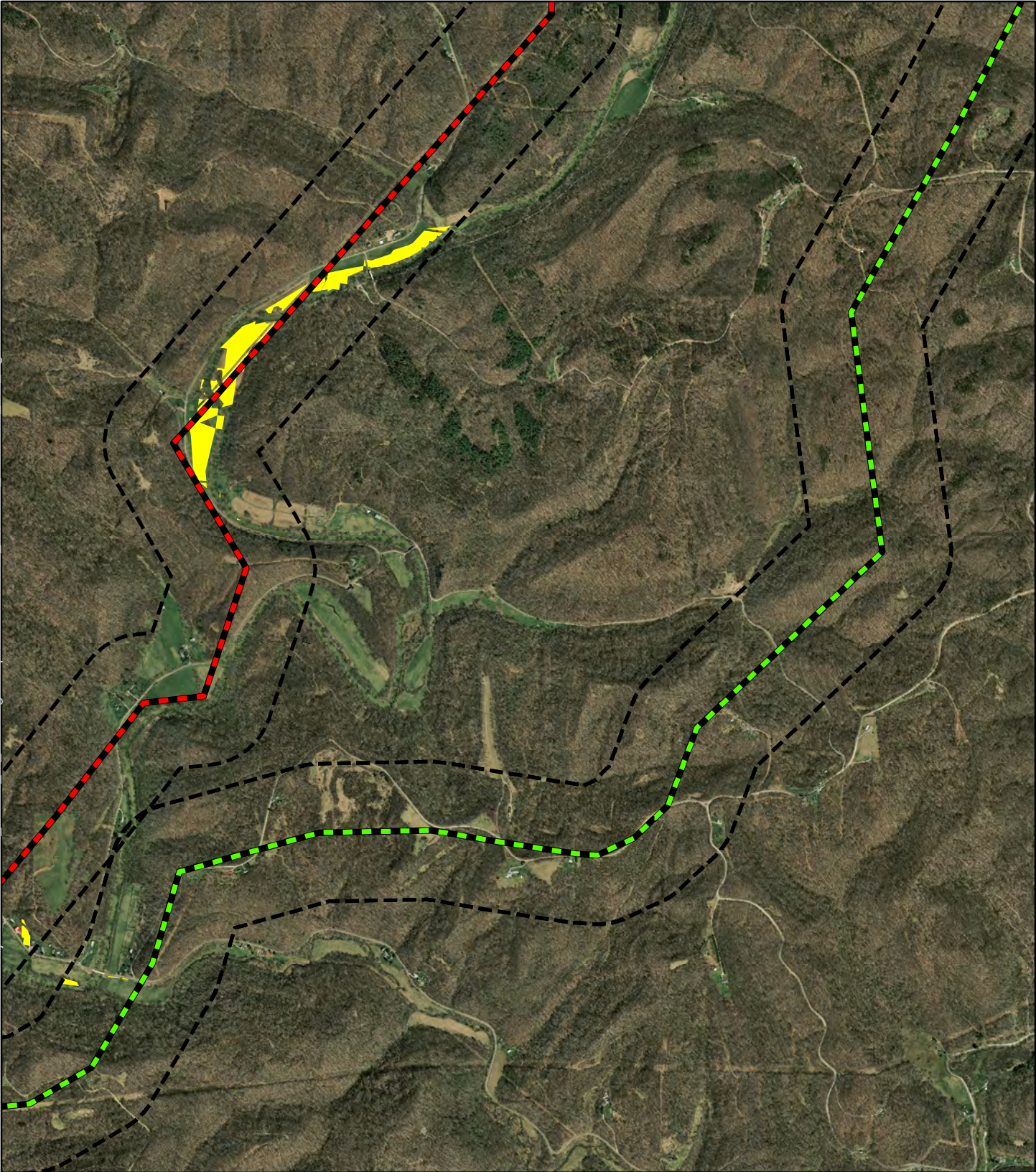
AGRICULTURAL DISTRICT

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH










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Miles

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Legend

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


BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020



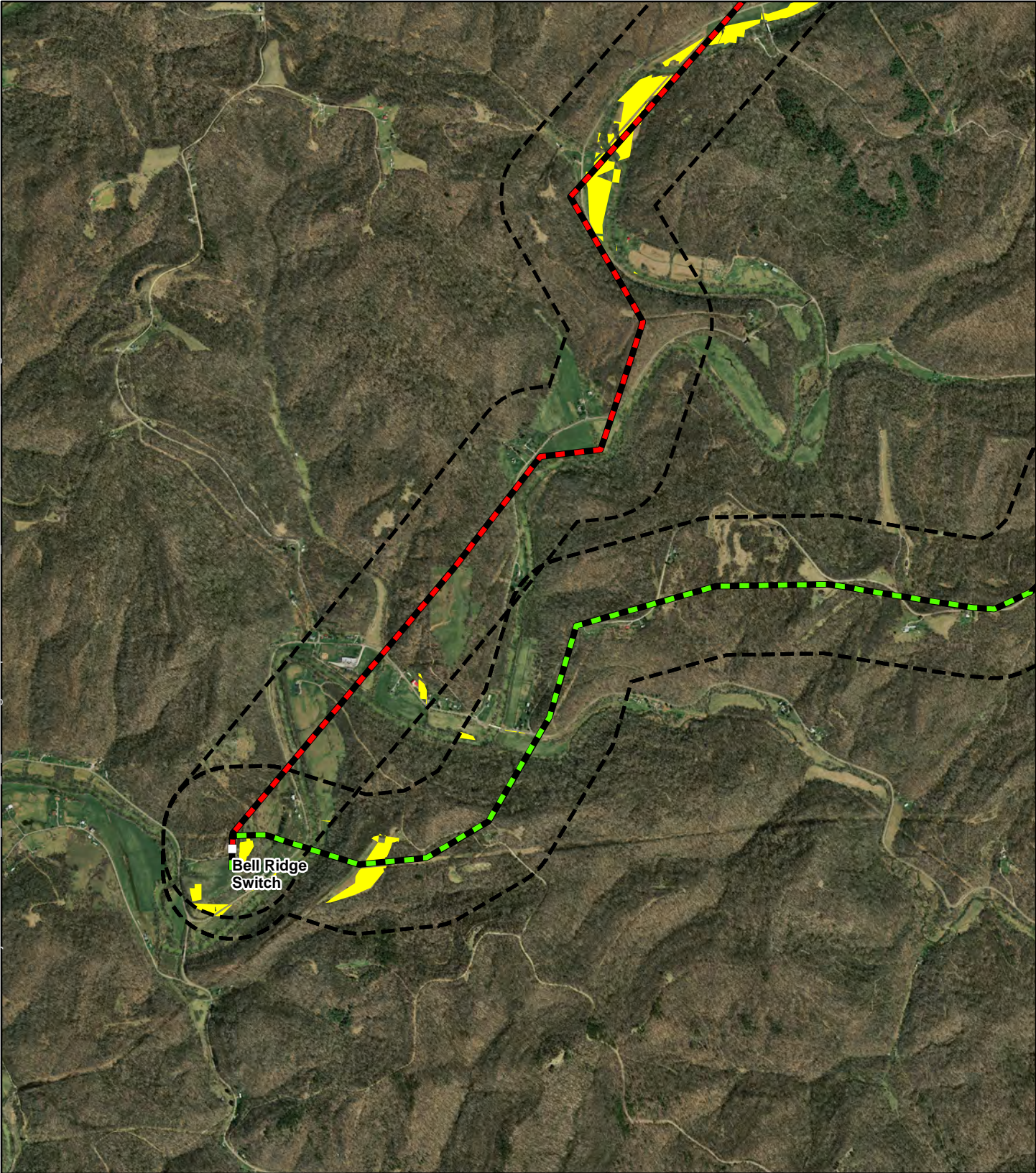
FIGURE 7-2D
AGRICULTURAL LAND USE MAP



Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

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Miles

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Legend

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

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020



**FIGURE 7-2E
AGRICULTURAL LAND USE MAP**

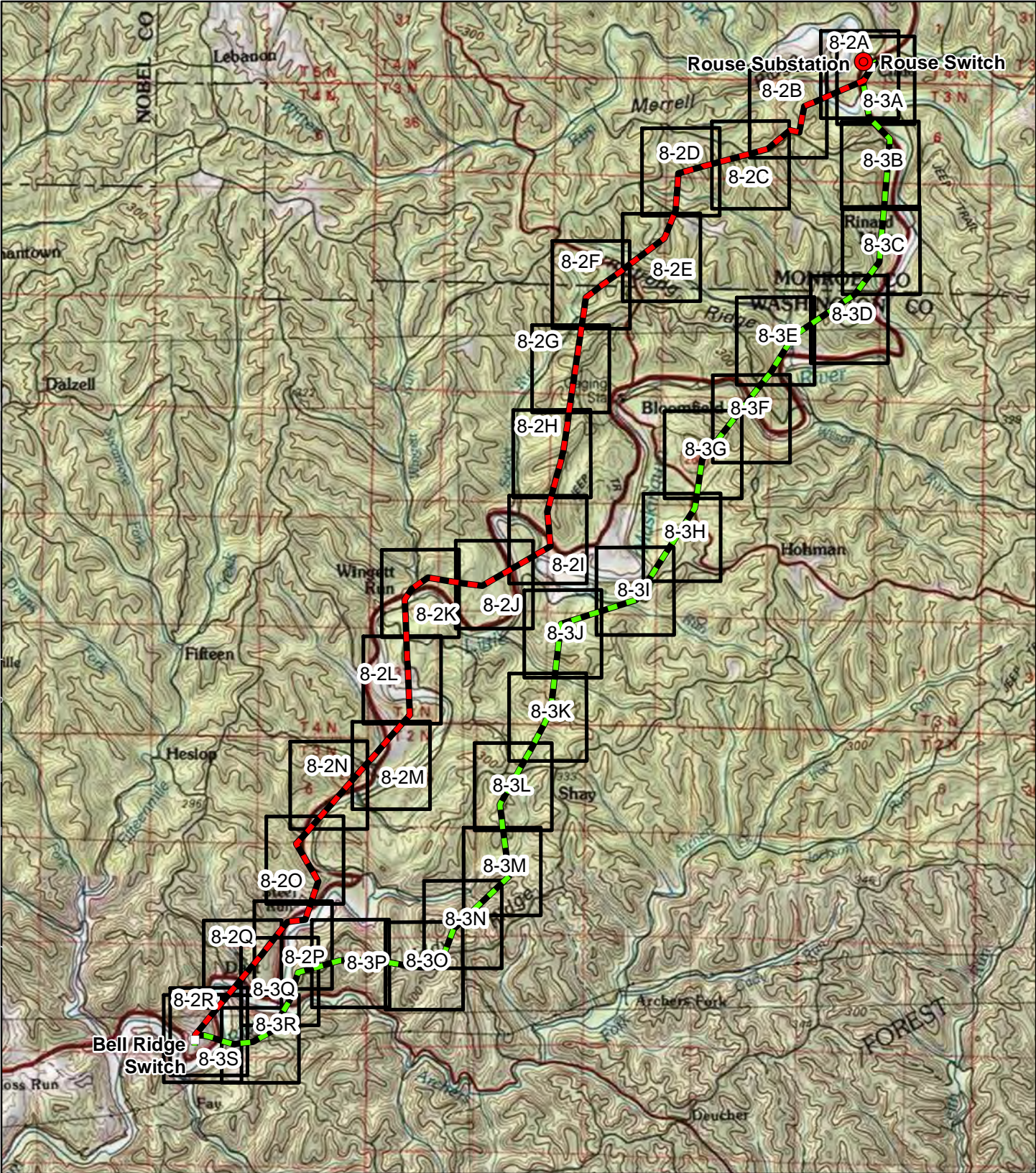
BOUNDARY ENERGY

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 0.25 0.5

Miles

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Legend

- Substation
- Switch Pole
- Preferred Route
- Alternate Route
- Figure Key

BASE MAP SOURCE:
USGS 7.5-minute
Topographic Quadrangles:
Belmont, Dalzell,
Raven Rock, Rinard Mills

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

August 06, 2020



**FIGURE 8-1
Overview Map**

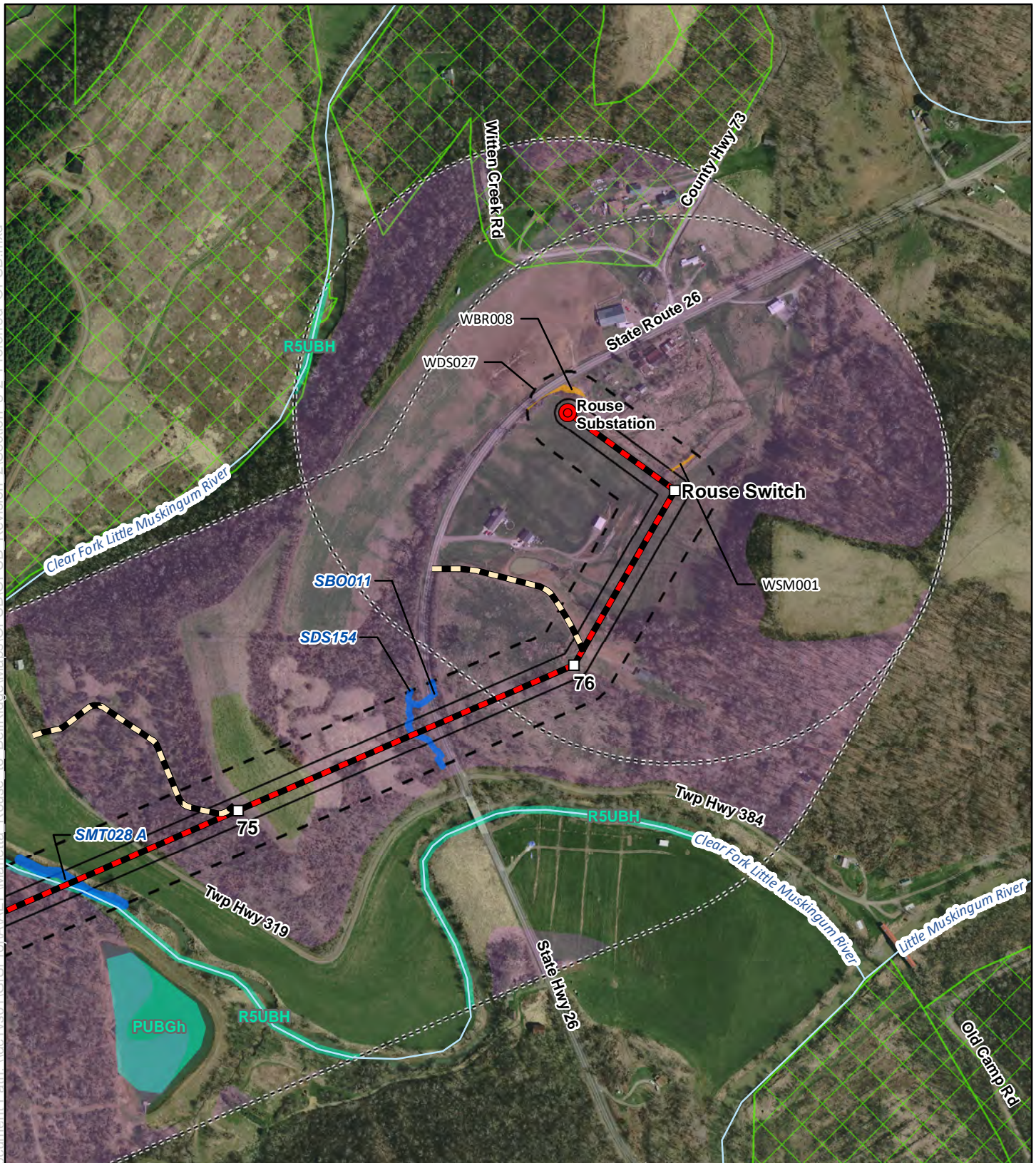
**Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH**

AEP TRANSMISSION

BOUNDARY ENERGY

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Miles

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Legend	
	Substations
	Structures
	Preferred Route
	Access Road
	Right-of-Way
	Survey Corridor
	1,000-Foot Buffer
	Stream (NHD)
	Wetland (NWI)
	Slope > 12%
	Wayne National Forest
	Delineated Pond
Delineated Wetland	
	Palustrine Emergent (PEM)
	Palustrine Forested (PFO)
	Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

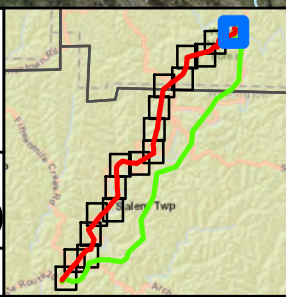
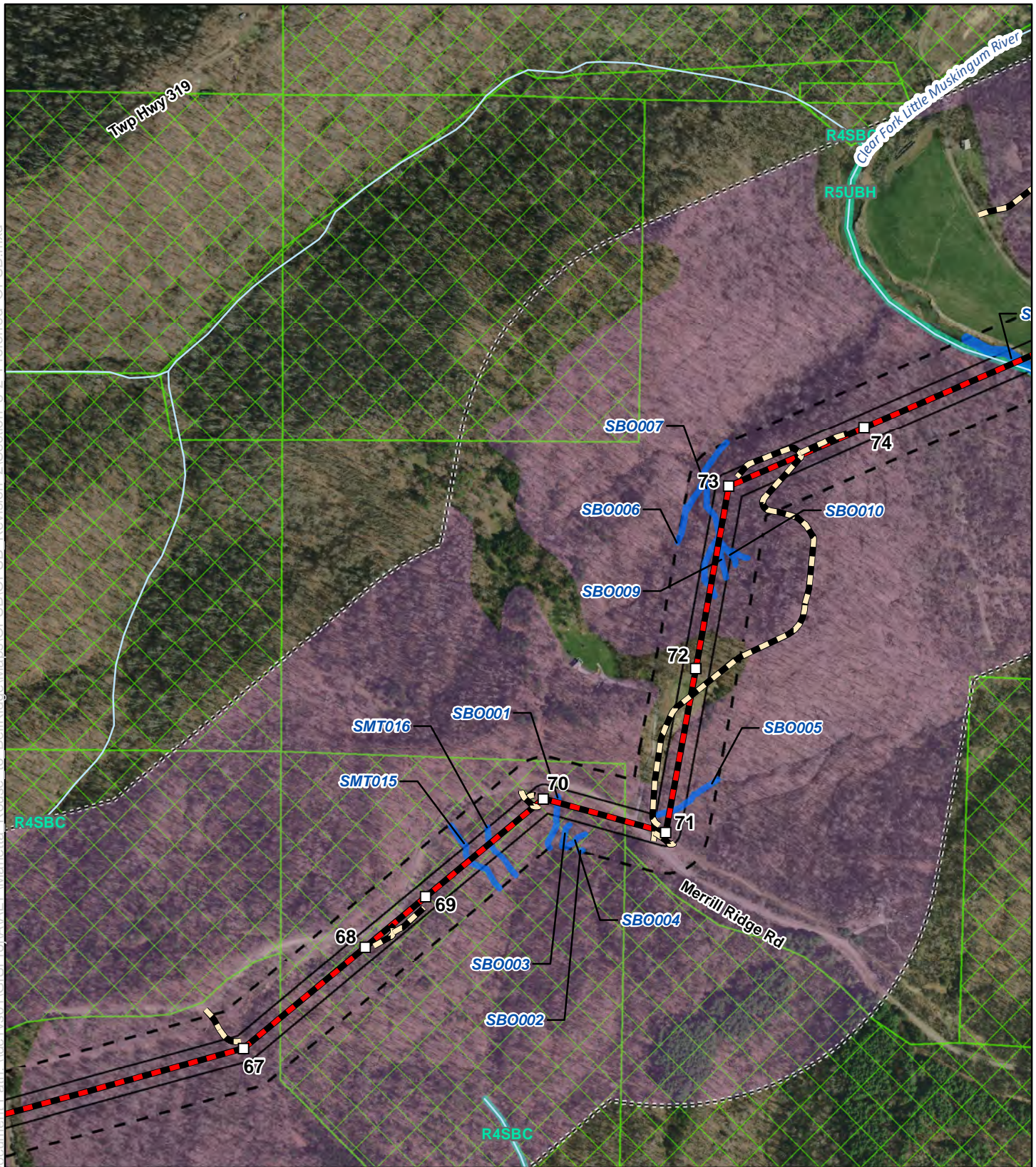


FIGURE 8-2A
**Preferred Route Delineated
Wetland and Waterbodies Map**

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

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Legend	
	Substations
	Structures
	Preferred Route
	Access Road
	Right-of-Way
	Survey Corridor
	1,000-Foot Buffer
	Stream (NHD)
	Wetland (NWI)
	Slope > 12%
	Wayne National Forest
	Delineated Pond
Delineated Wetland	
	Palustrine Emergent (PEM)
	Palustrine Forested (PFO)
	Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

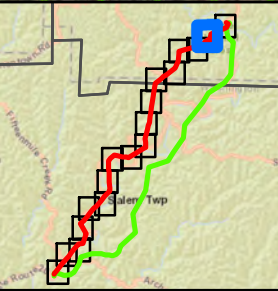
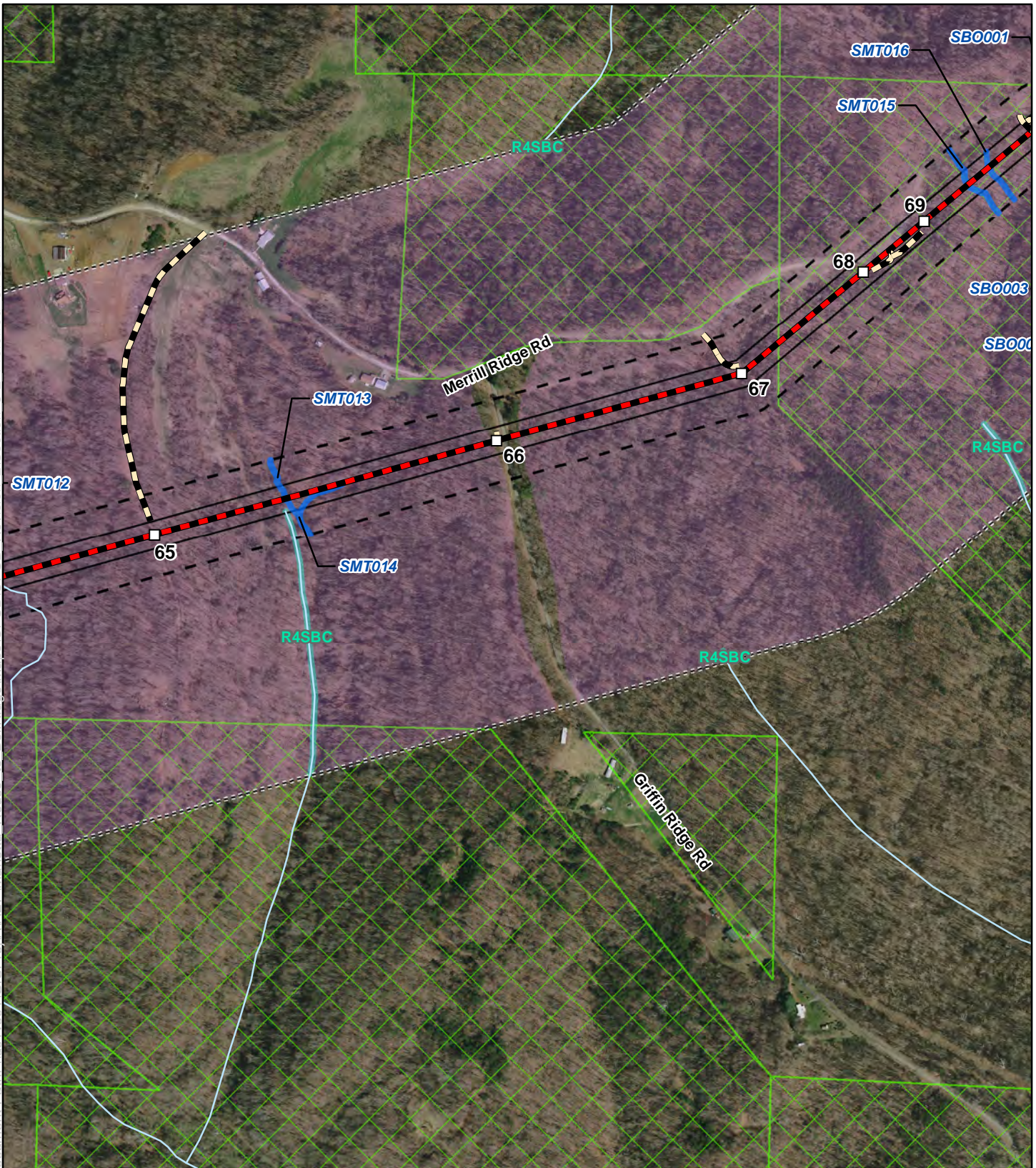


FIGURE 8-2B
Preferred Route Delineated
Wetland and Waterbodies Map

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

Document Path: \\dc1vs01\GIS\Proj\A\AEP\Marietta_Rouse_to_BellRidge\Maps\OPSB\OPSB_Revision_2\Section_8-2_Prefered_OPSS.mxd



Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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



August 06, 2020

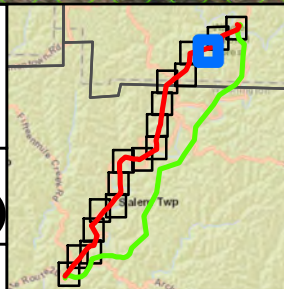
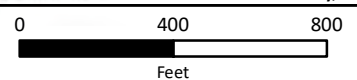


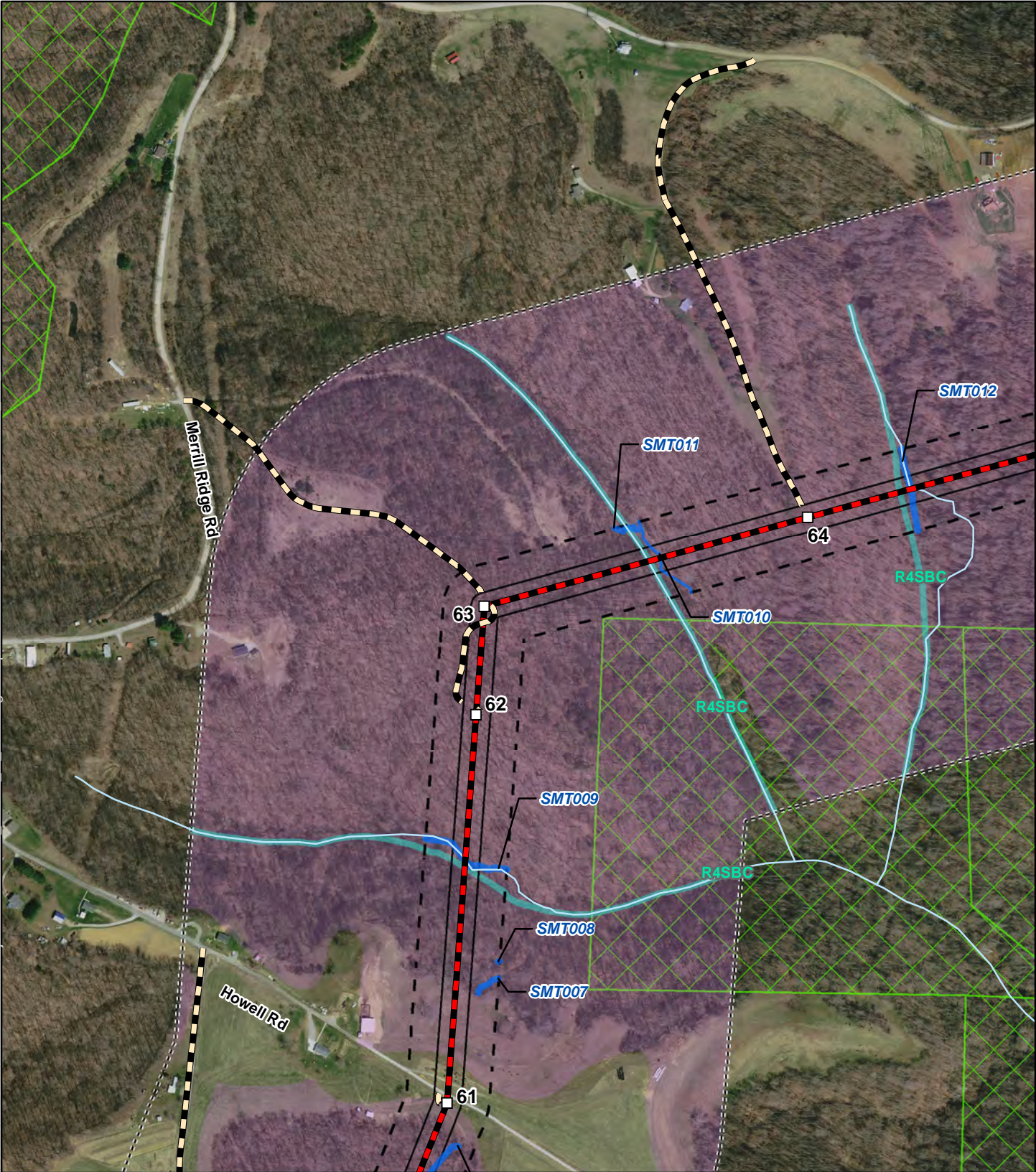
FIGURE 8-2C
Preferred Route Delineated
Wetland and Waterbodies Map



Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH



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Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

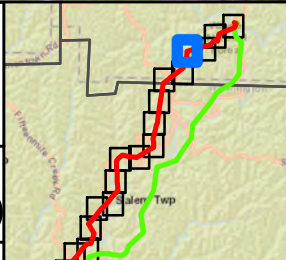




FIGURE 8-2D
Preferred Route Delineated
Wetland and Waterbodies Map



WOUNDCAST ENERGY

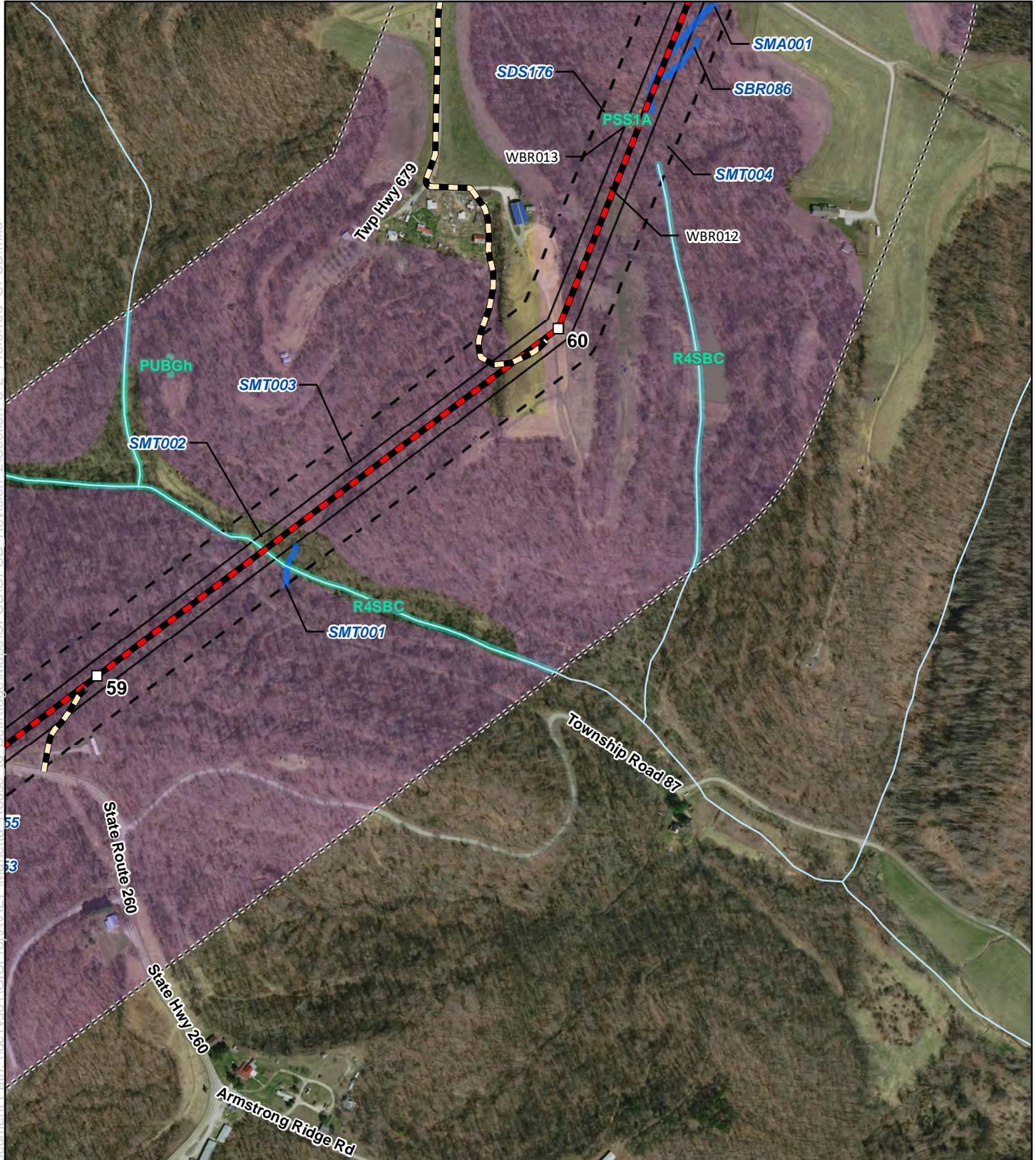
Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800



Feet

Document Path: \\dc1vs01\GIS\Proj\A\AEP\Marietta_Rouse_to_BellRidge\Maps\OPSB\OPSB_Revision_2\Section_8-2_Prefered_OPSSB.mxd



Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

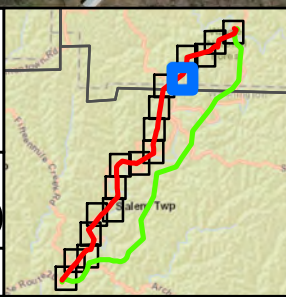
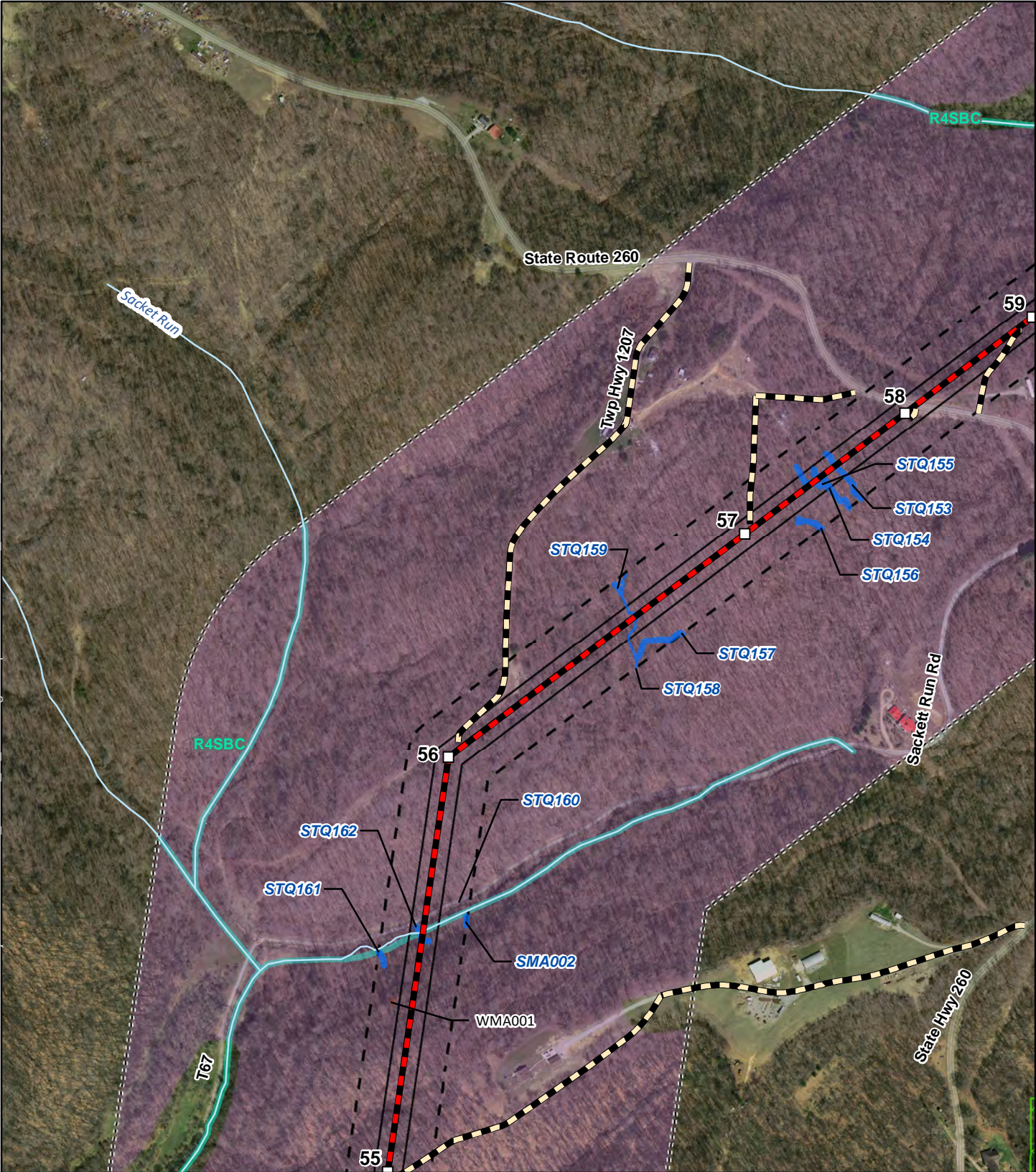


FIGURE 8-2E
Preferred Route Delineated
Wetland and Waterbodies Map

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

Document Path: \\dc1vs01\GIS\Proj\AEP\Map\BellRidge\Maps\OPSB\OPSB_Revision_2\Section_8-2_Preferred_OPSSB.mxd



Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

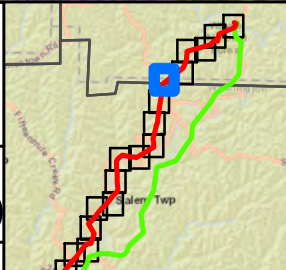


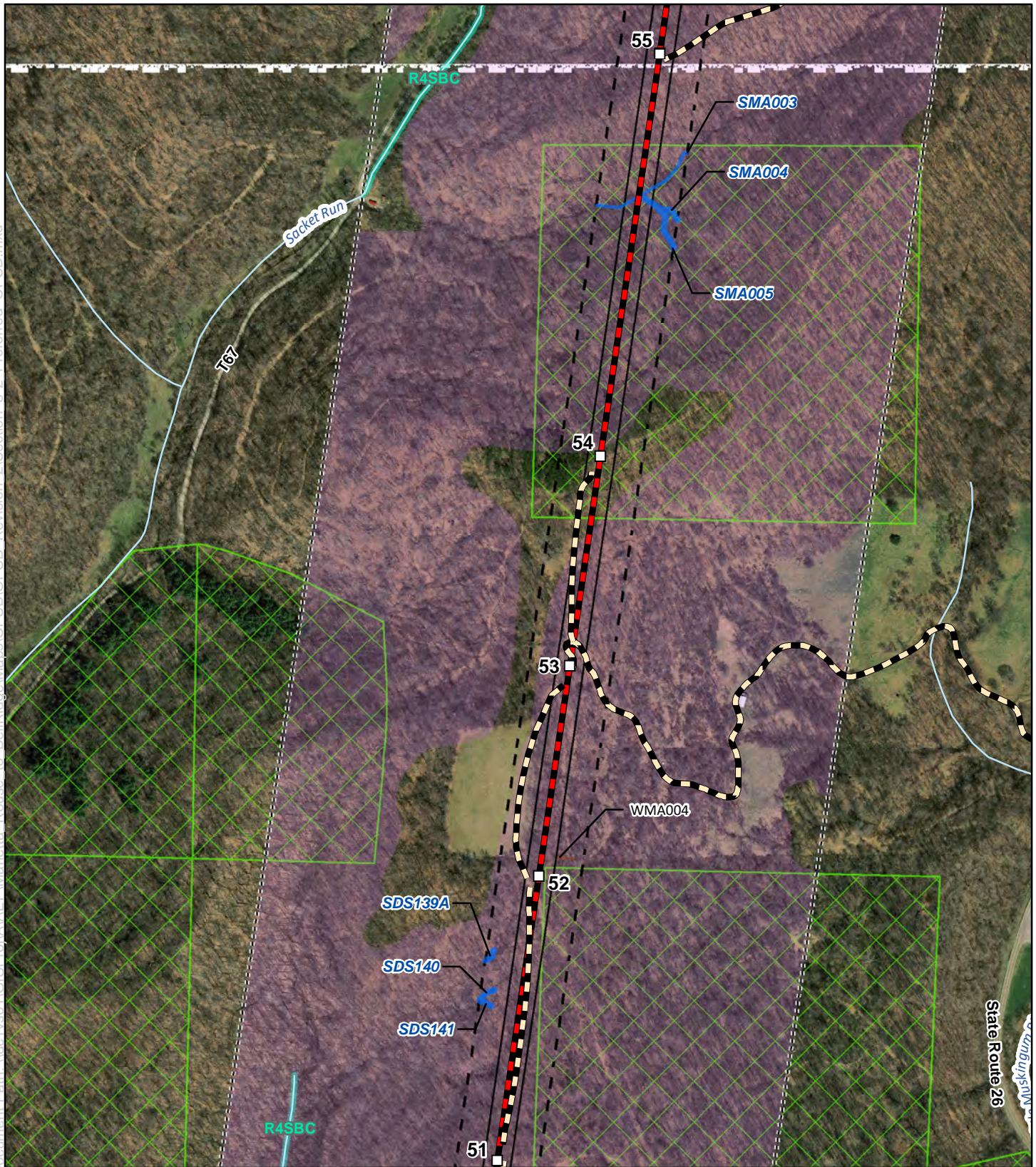
FIGURE 8-2F
Preferred Route Delineated
Wetland and Waterbodies Map

AEP TRANSMISSION
AEP ENERGY

Route to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

Document Path: \\dc1vs01\GIS\Proj\AEP\Map\BellRidge\Map\OPSB\OPSB_Revision_2\Section_8-2_Prefered_OPSPB.mxd



Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

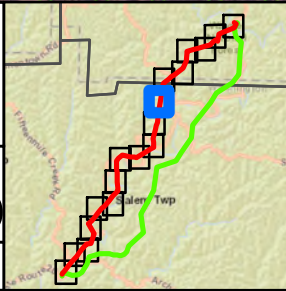


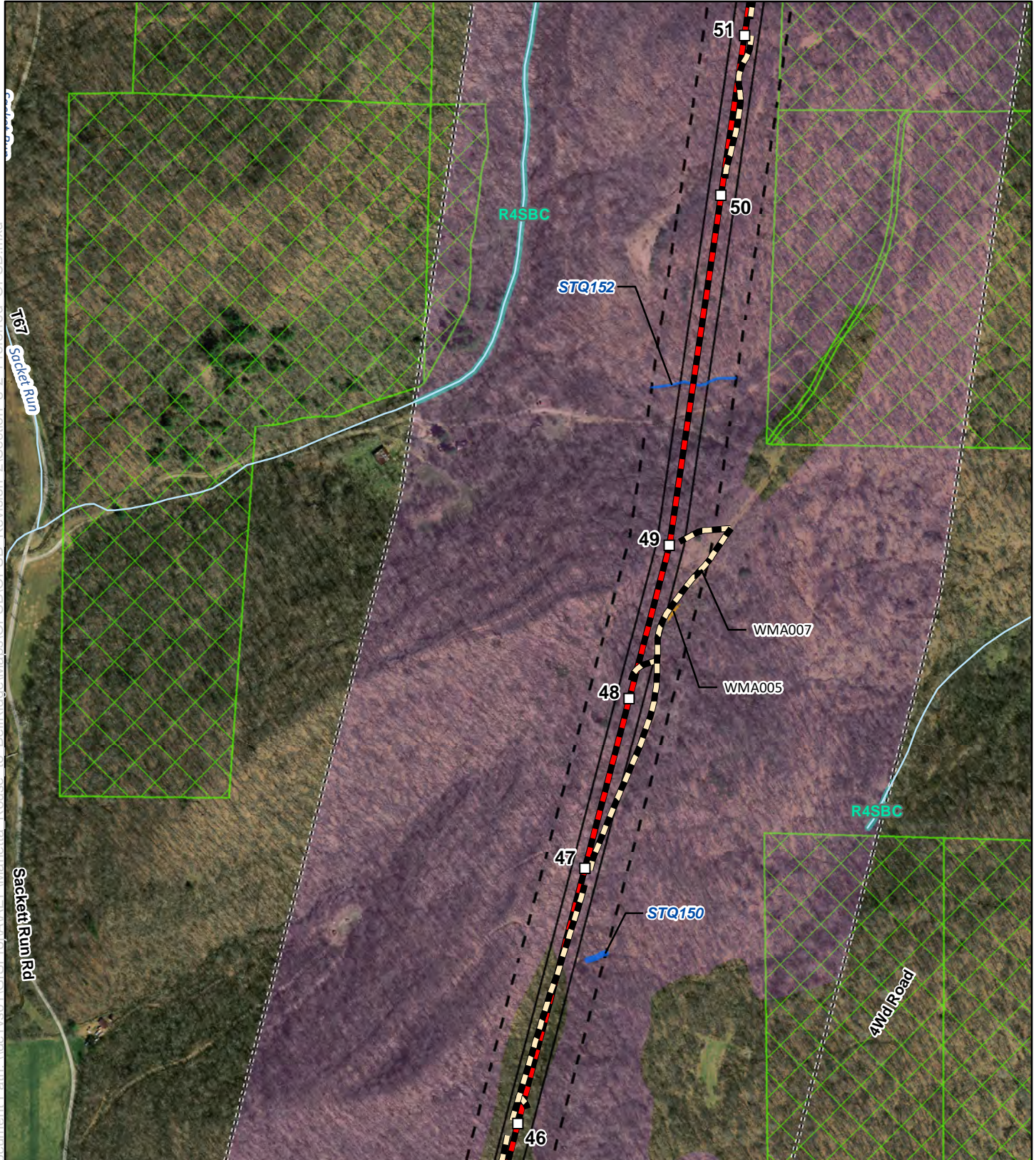
FIGURE 8-2G
**Preferred Route Delineated
Wetland and Waterbodies Map**

AEP TRANSMISSION

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

Document Path: \\dc1vs01\GIS\Proj\A\AE\PMarietta_Rouse_to_BellRidge\Maps\OPSB\OPSB_Revision_2\Section_8-2_Prefered_OPSPB.mxd



Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

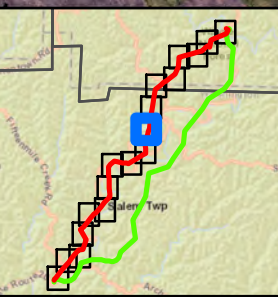
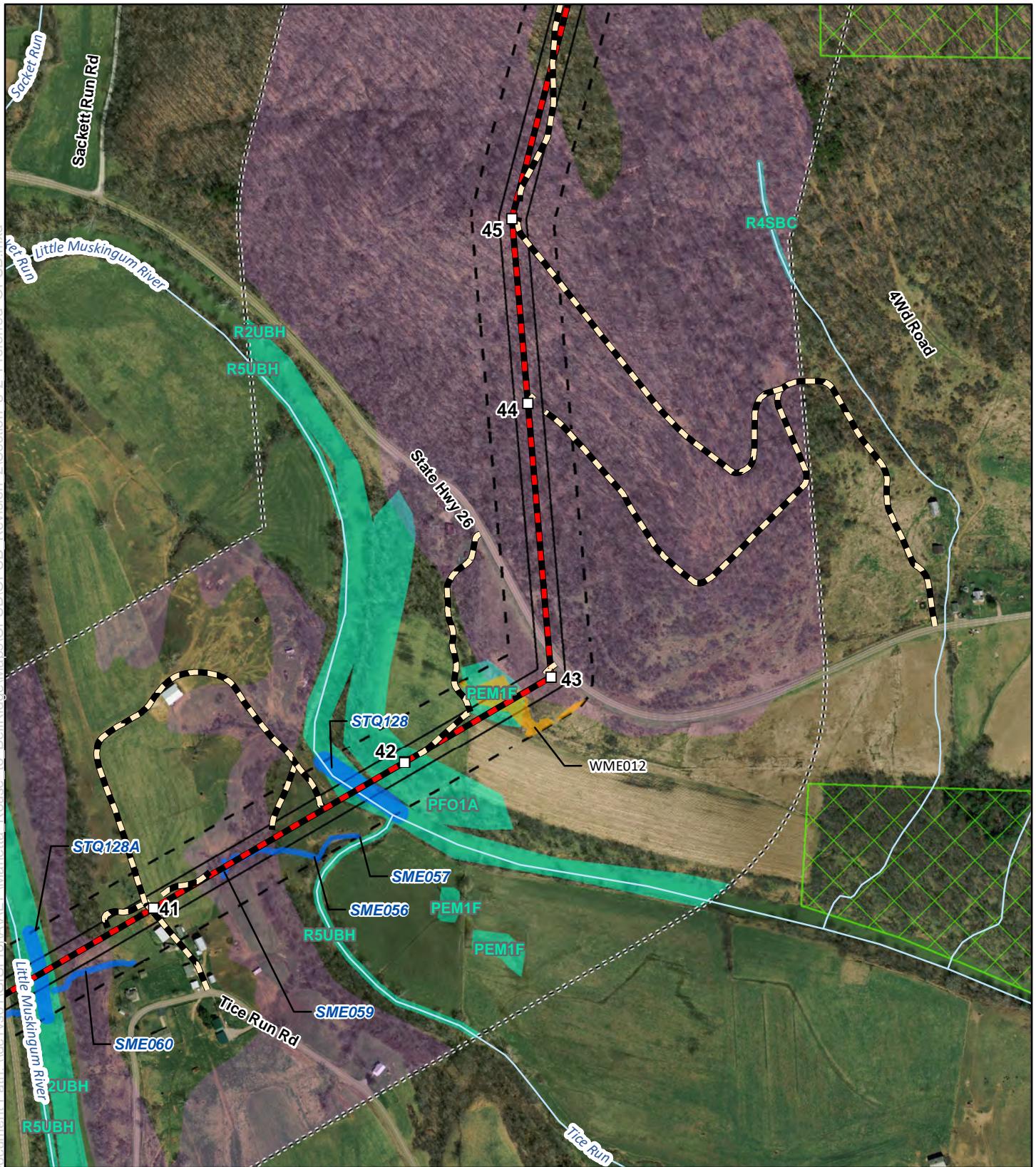


FIGURE 8-2H
Preferred Route Delineated
Wetland and Waterbodies Map

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

Document Path: \\dc1vs01\GIS\Proj\A\AE\PM\Marinetta_Rouse_to_BellRidge\Maps\OP\SB\OP\PSB_Revision_2\Section_8-2_Prefered_OP\SB.mxd



Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

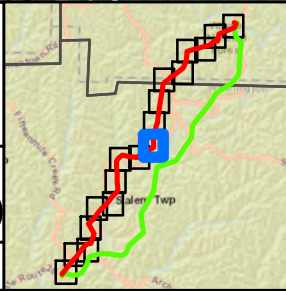


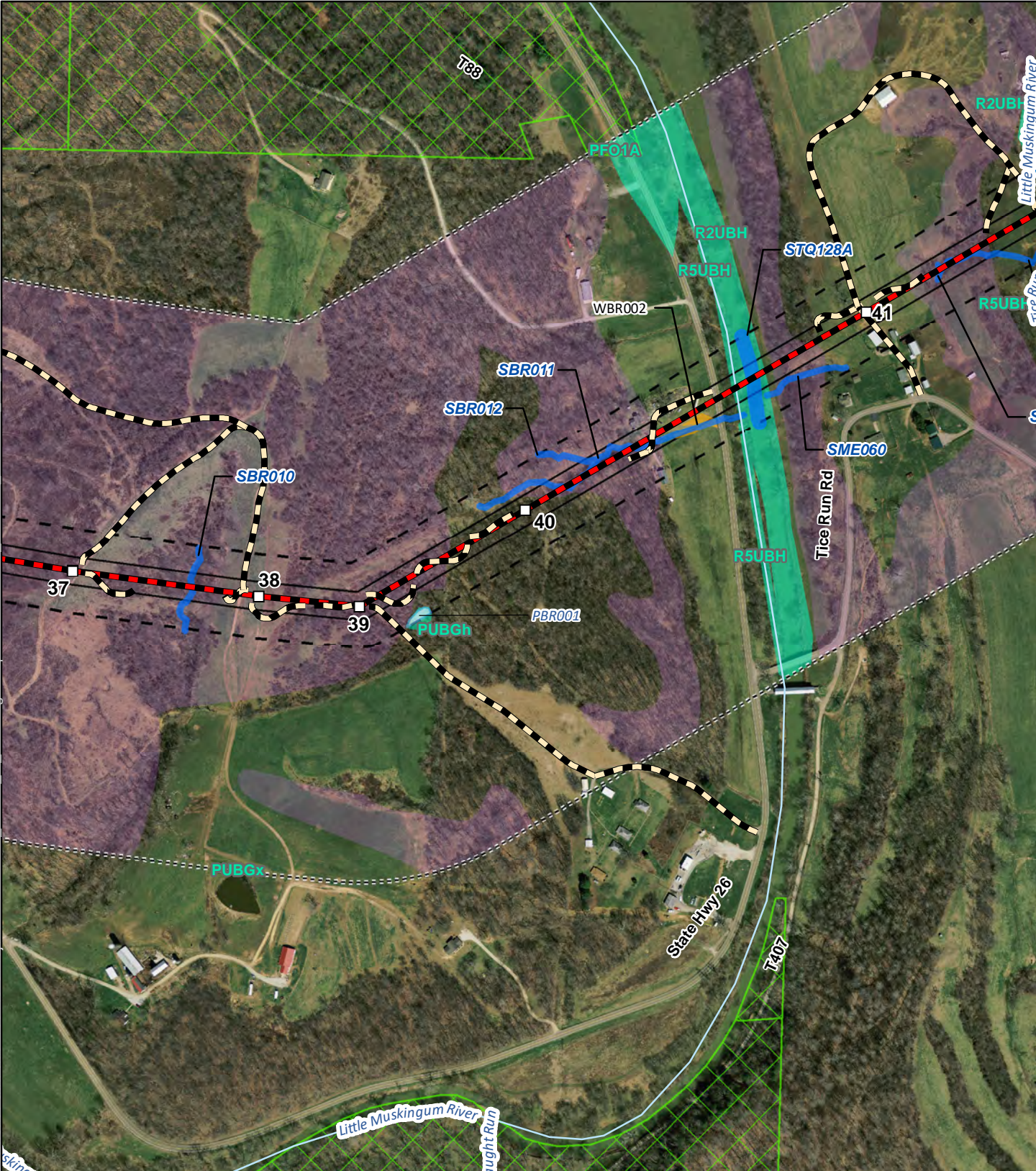
FIGURE 8-21
Preferred Route Delineated
Wetland and Waterbodies Map

AEP TRANSMISSION

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

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Legend	
	Substations
	Structures
	Preferred Route
	Access Road
	Right-of-Way
	Survey Corridor
	1,000-Foot Buffer
	Stream (NHD)
	Wetland (NWI)
	Slope > 12%
	Wayne National Forest
	Delineated Pond
Delineated Wetland	
	Palustrine Emergent (PEM)
	Palustrine Forested (PFO)
	Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

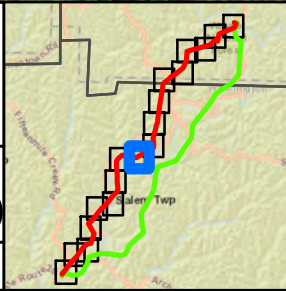
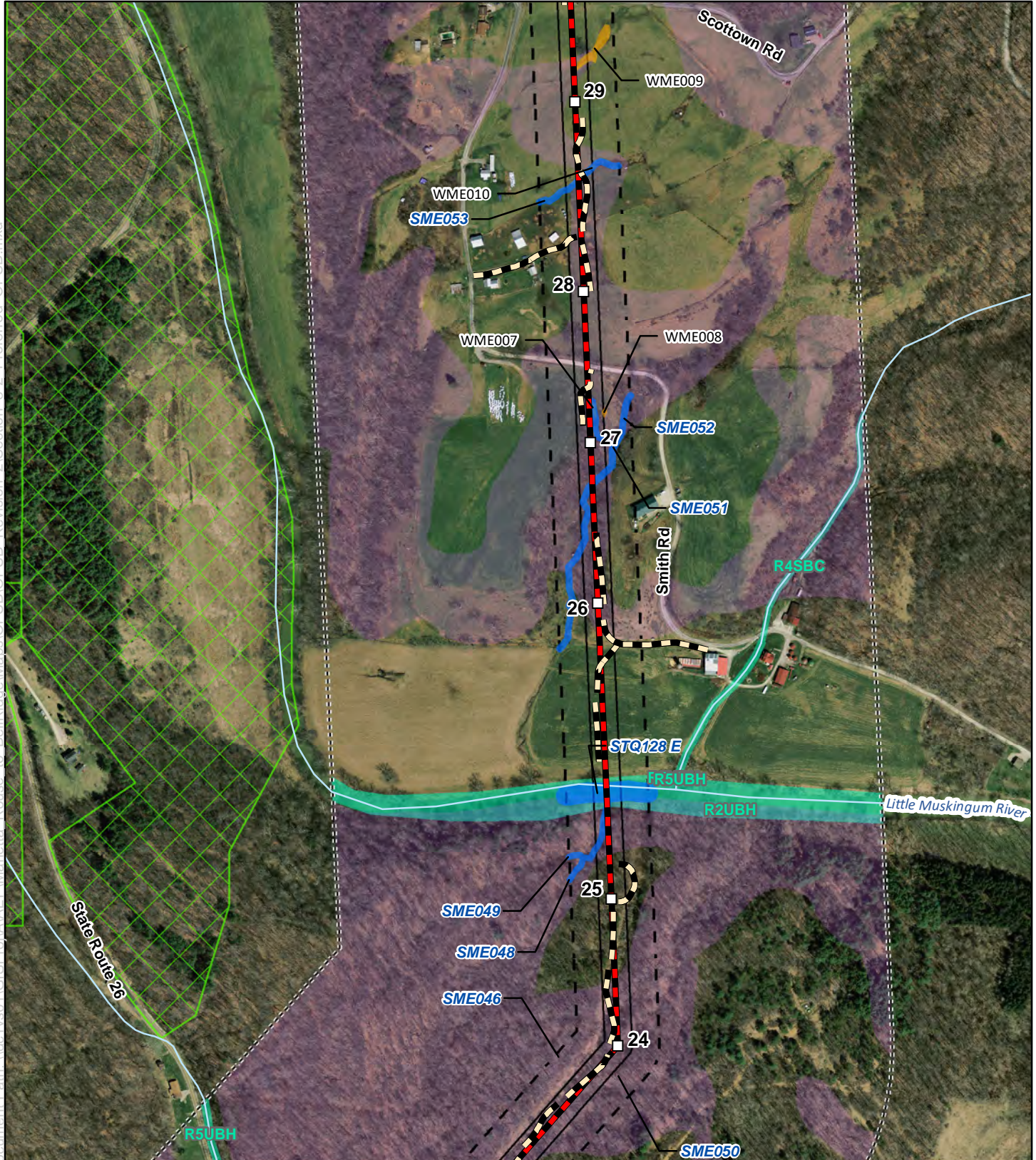


FIGURE 8-2J
**Preferred Route Delineated
Wetland and Waterbodies Map**

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

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Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

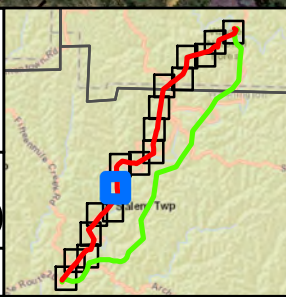
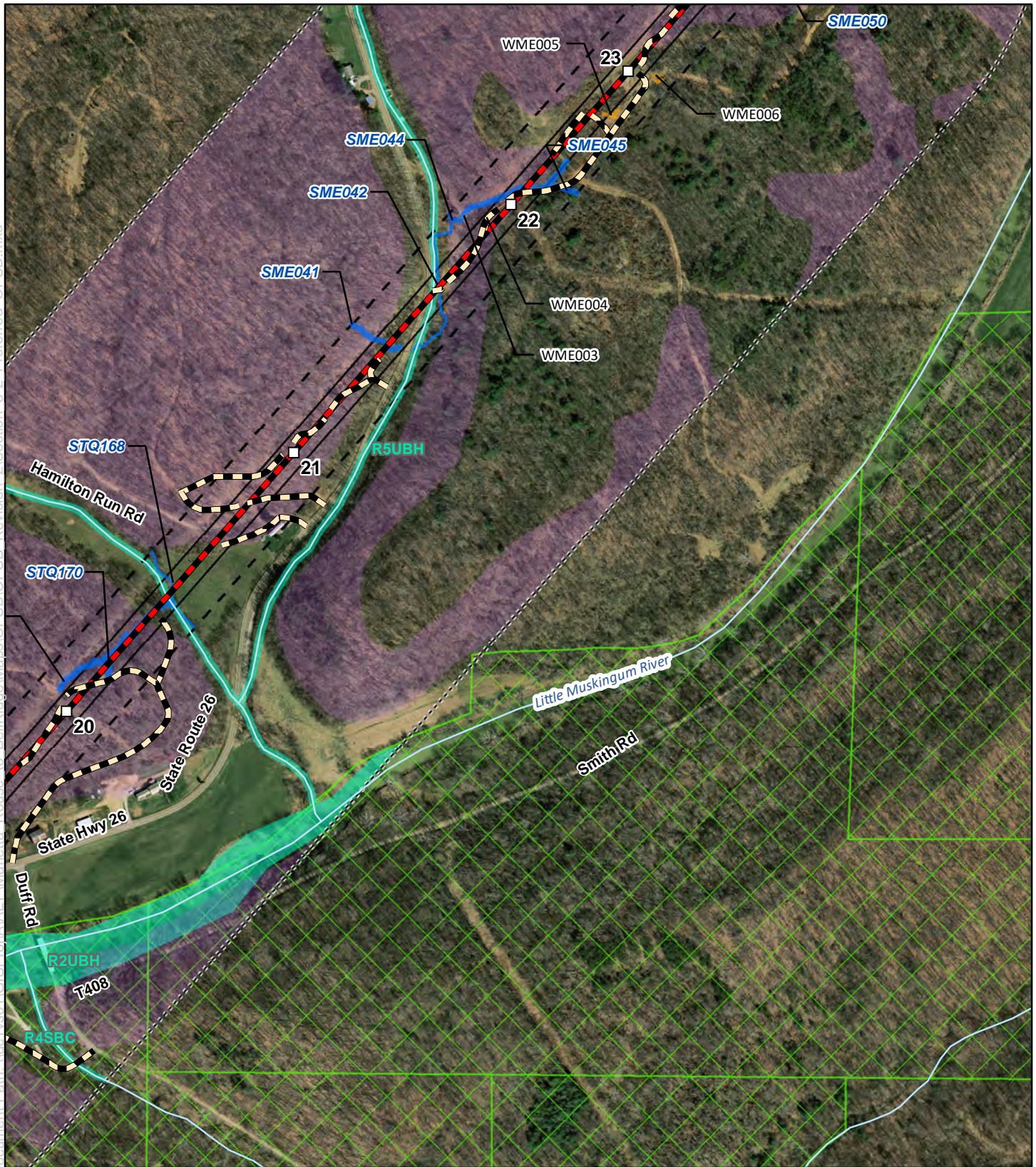


FIGURE 8-2L
**Preferred Route Delineated
Wetland and Waterbodies Map**

AEP TRANSMISSION
Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

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Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

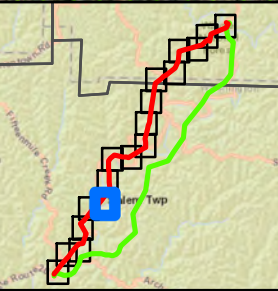


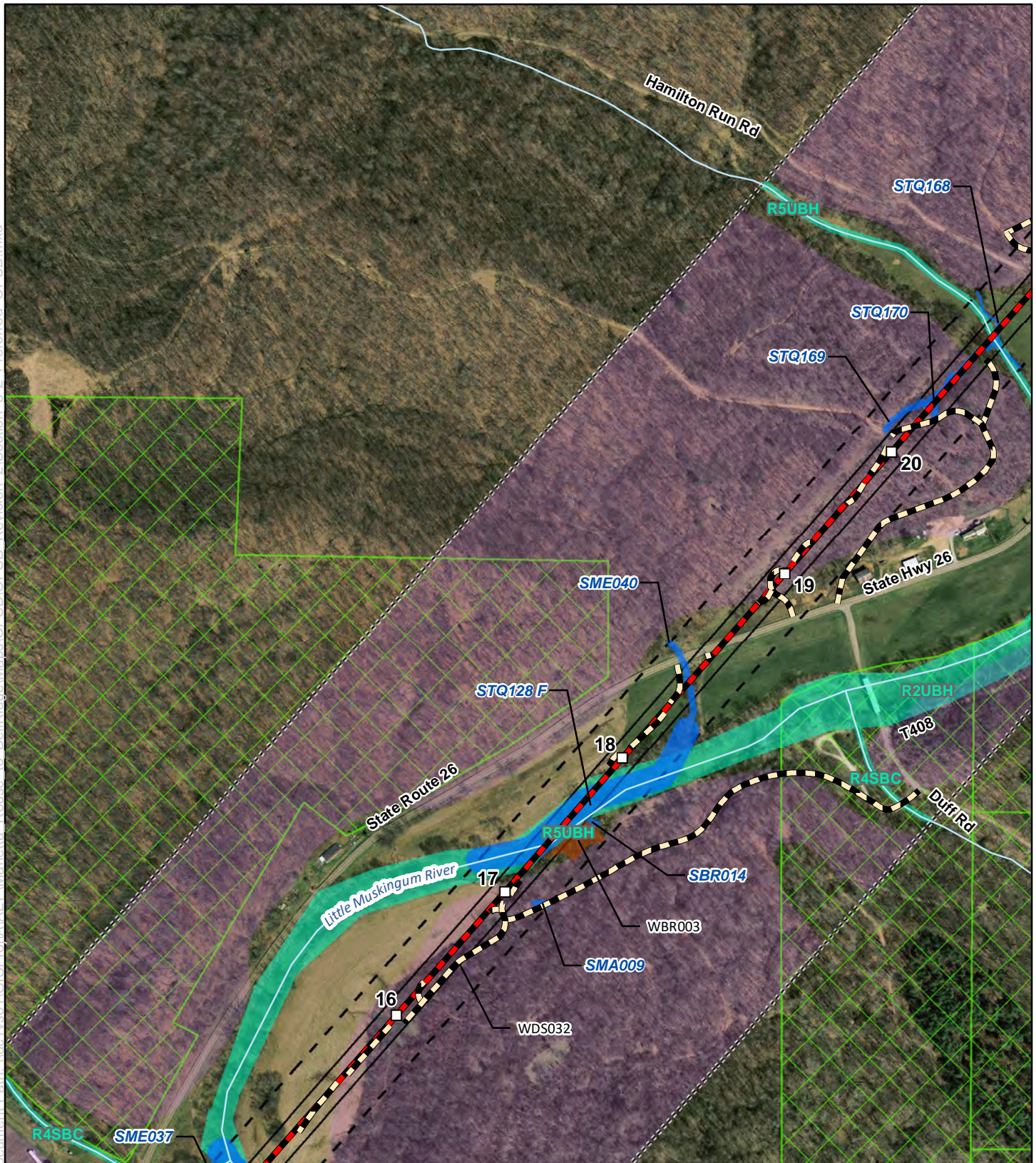
FIGURE 8-2M
**Preferred Route Delineated
Wetland and Waterbodies Map**

AEP TRANSMISSION

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

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Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

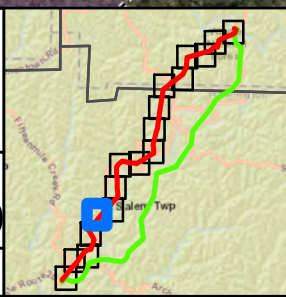
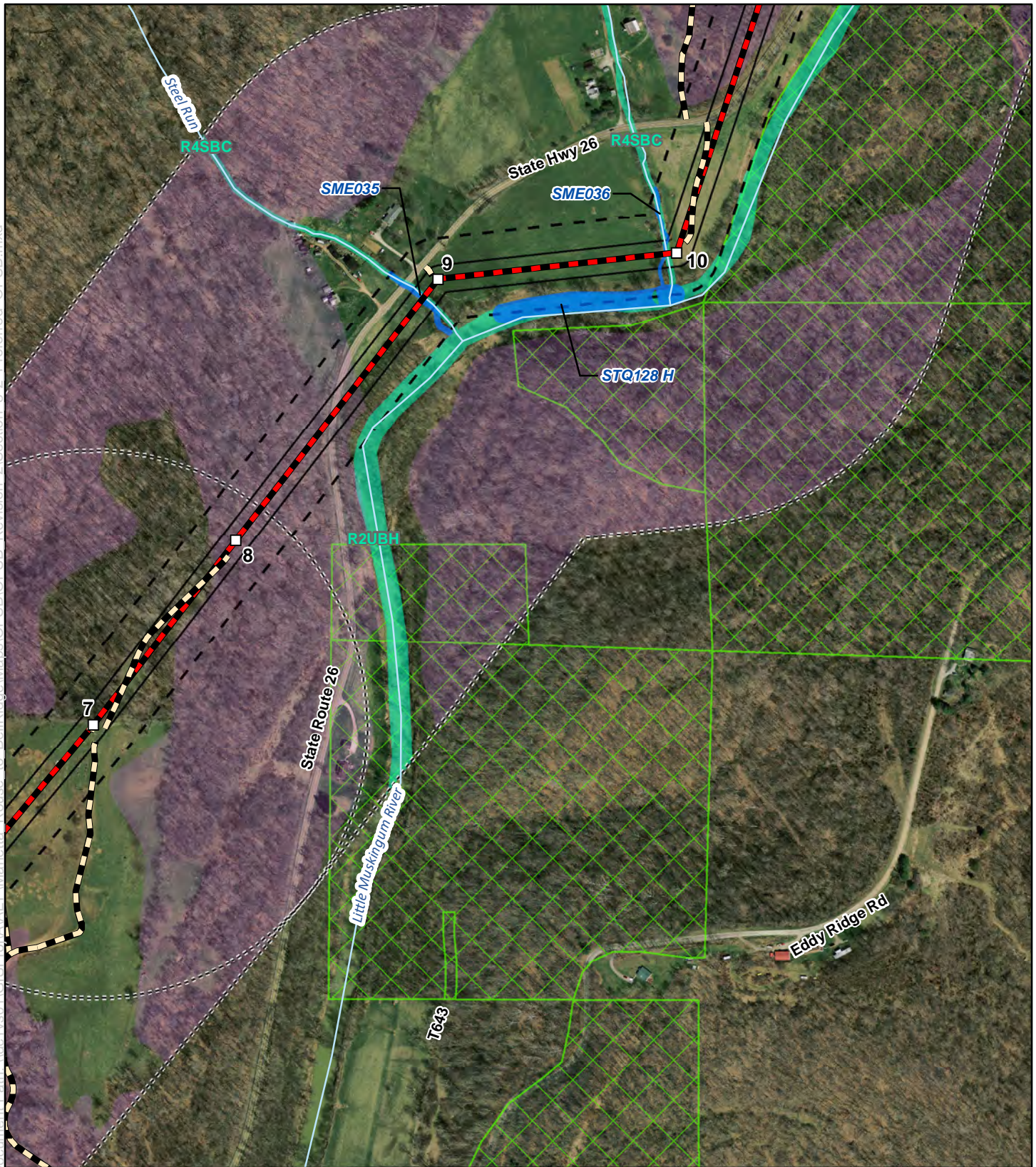


FIGURE 8-2N
**Preferred Route Delineated
Wetland and Waterbodies Map**

AEP TRANSMISSION
Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

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Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

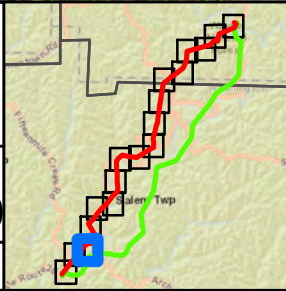
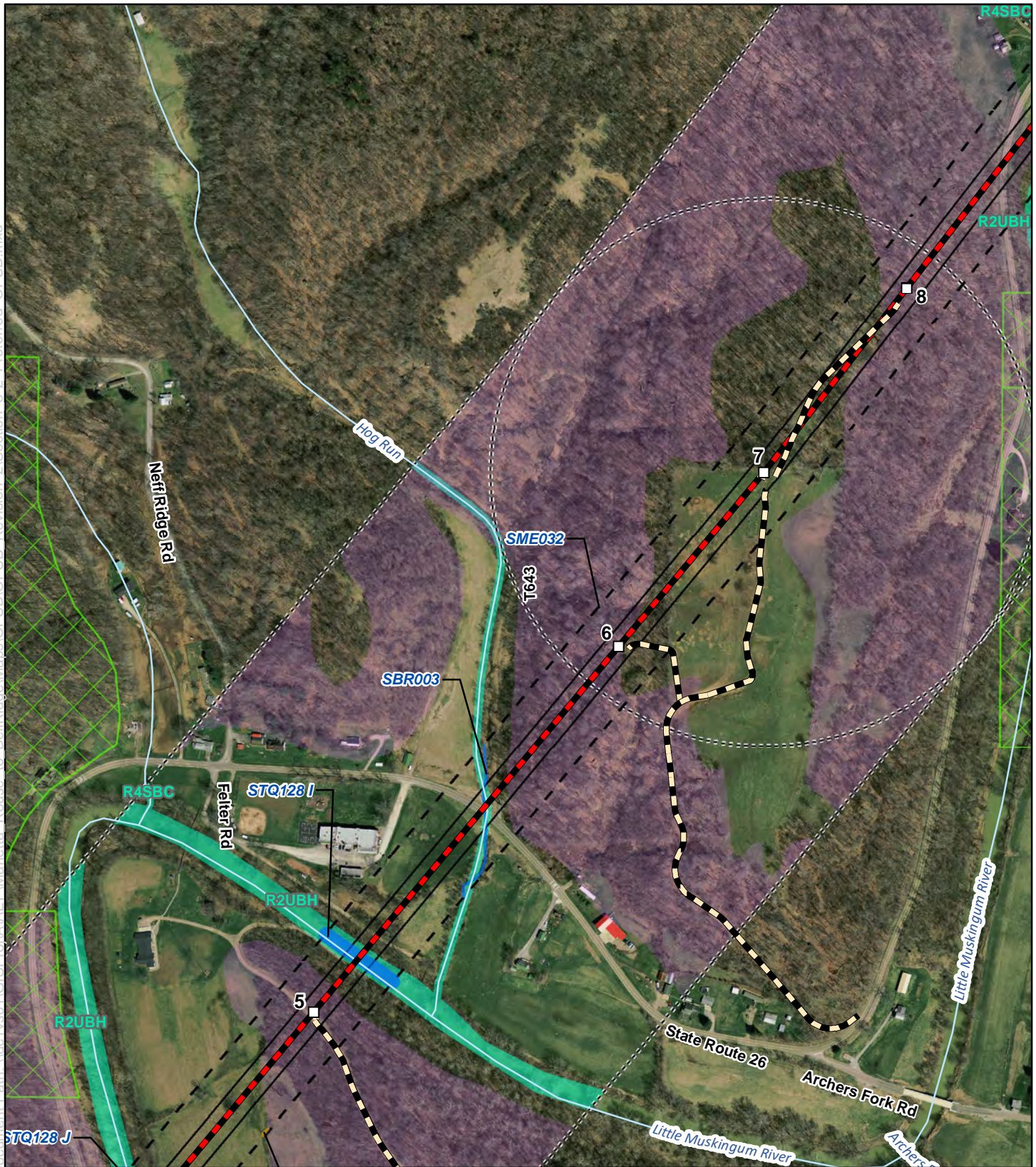


FIGURE 8-2P
Preferred Route Delineated
Wetland and Waterbodies Map

AEP TRANSMISSION
Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

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Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
 - Palustrine Emergent (PEM)
 - Palustrine Forested (PFO)
 - Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

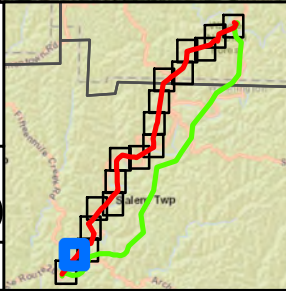
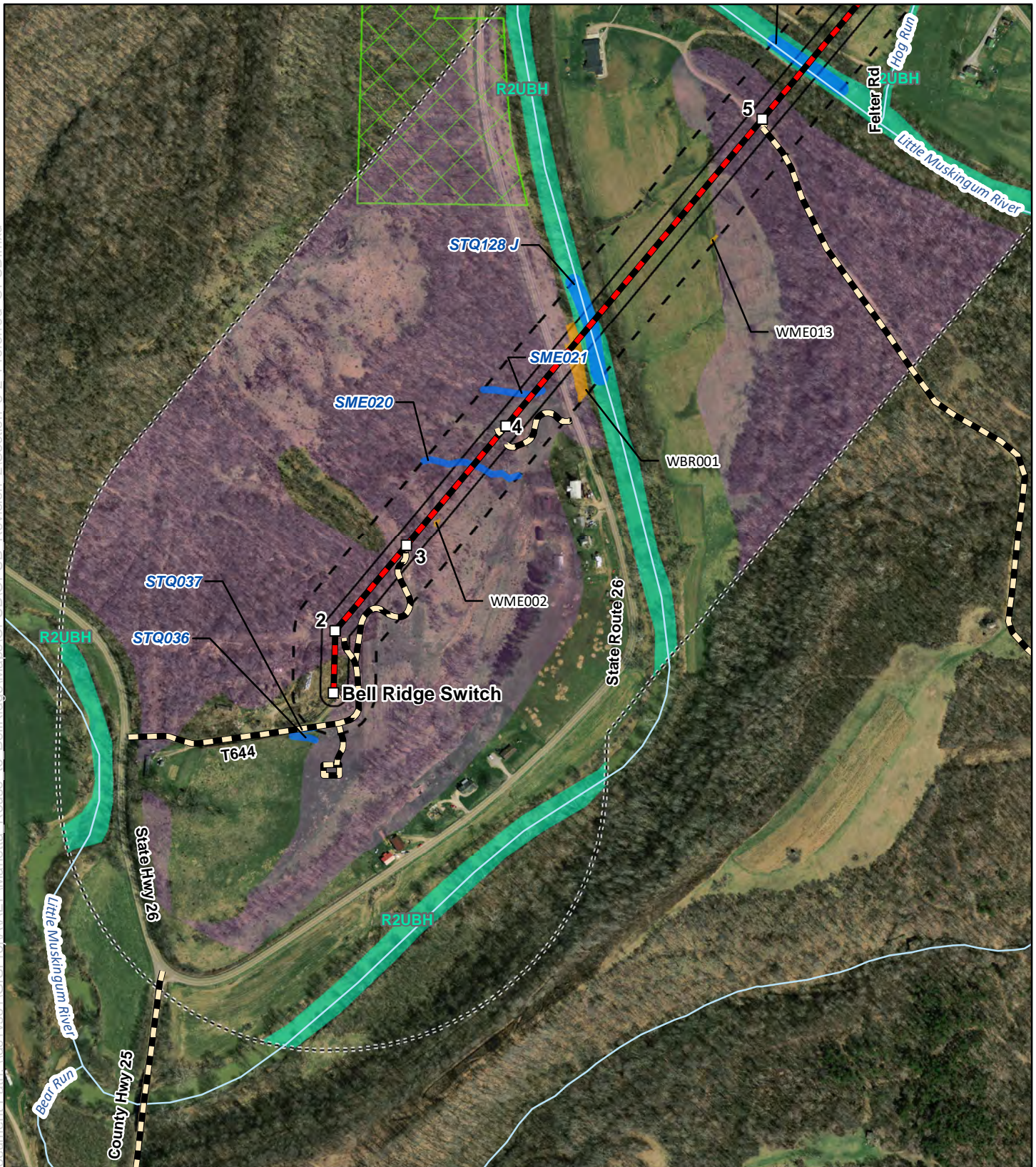


FIGURE 8-2Q
**Preferred Route Delineated
Wetland and Waterbodies Map**

Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet

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Legend

- Substations
- Structures
- Preferred Route
- Access Road
- Right-of-Way
- Survey Corridor
- 1,000-Foot Buffer
- Stream (NHD)
- Wetland (NWI)
- Slope > 12%
- Wayne National Forest
- Delineated Pond
- Delineated Wetland**
- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Scrub-Shrub (PSS)

BASE MAP SOURCE:
National Agricultural
Imagery Program, 2014

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

August 06, 2020

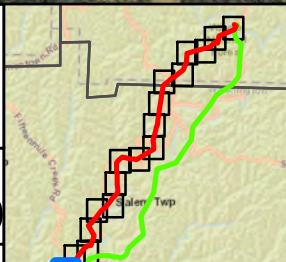


FIGURE 8-2R
Preferred Route Delineated
Wetland and Waterbodies Map

AEP TRANSMISSION
Rouse to Bell Ridge 138 kV
Transmission Line Project
Washington and Monroe
County, OH

0 400 800
Feet