Lake Erie Connector Project

Draft Environmental Assessment
Volume II-Appendices

U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
Washington DC

June 2016

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LAKE ERIE CONNECTOR PROJECT
ENVIRONMENTAL ASSESSMENT

Volume II Appendices

DOE/EA-2019

U.S. DEPARTMENT OF ENERGY
OFFICE OF ELECTRICITY DELIVERY
AND ENERGY RELIABILITY

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APPENDIX A ENVIRONMENTAL ASSESSMENT DISTRIBUTION LIST

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Name	Title	Agency/Organization	Address 1	City	State	Zip
Nancy Mullen	Northern Area Section Chief	US Army Corps of Engineers; Regulatory Branch	1000 Liberty Avenue	Pittsburgh	PA	15222-4186
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LTJG Amanda Garcia	Waterways Management Division Chief, Sector Buffalo	United States Coast Guard	1 Fuhrmann Blvd	Buffalo	NY	14203
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Scott Dudzic	Water Pollution Biologist	Pennsylvania Department of Environmental Protection, Waterways and Wetlands; Northwest Regional Office	230 Chestnut Street	Meadville	PA	16335
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Jason Ryndock	Ecological Information Specialist	PA Department of Conservation & Natural Resources; Bureau of Forestry, Natural Heritage Section	400 Market Street	Harrisburg	PA	17105
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Christopher A. Urban	Nongame & Endangered Species Coordinator Chief Natural Diversity Section	Pennsylvania Fish and Boat Commission	450 Robinson Lane	Bellefonte	PA	16823
Doug Fischer	Nongame Fisheries Biologist	Pennsylvania Fish and Boat Commission, Division of Environmental Services	450 Robinson Lane	Bellefonte	PA	16823

Name	Title	Agency/Organization	Address 1	City	State	Zip
	Natural Diversity Section					
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Michele Morningstar, P.E.	District Permit Manager	Pennsylvania Department of Transportation, Engineering District 1-0	255 Elm Street, P.O. Box 398	Oil City	PA	16301
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Barbara Frederick		Pennsylvania State Historic Preservation Office	Commonwealth Keystone Building 400 North Street 2nd Floor	Harrisburg	PA	17120
Kira Heinrich		Pennsylvania State Historic Preservation Office	Commonwealth Keystone Building, 400 North Street 2nd Floor	Harrisburg	PA	17120
Doug McLearan		Pennsylvania State Historic Preservation Office	Commonwealth Keystone Building, 400 North Street 2nd Floor	Harrisburg	PA	17120
Edwina Butler-Wolfe	Governor	Absentee-Shawnee Tribe of Oklahoma	2025 S. Gordon Cooper Drive	Shawnee	OK	74801
Kerry Holton	Tribal President	Delaware Nation	P.O. Box 825	Anadarko	OK	73005
Joseph Blancard		Absentee-Shawnee Tribe of Oklahoma	2025 S. Gordon Cooper Drive	Shawnee	OK	74801
Jason Ross		Delaware Nation	31064 State Highway 281	Anadarko	OK	73005
Carol Butler		Absentee-Shawnee Tribe of Oklahoma	2025 S. Gordon Cooper Drive	Shawnee	OK	74801
Clint Halftown	Chief	Cayuga Nation	P.O. Box 803	Seneca Falls	NY	13148
Timothy Two Guns		Cayuga Nation	P.O. Box 803	Seneca Falls	NY	13148
Chet Brooks	Chief	Delaware Tribe of Indians	170 N Barbara Avenue	Bartletsville	OK	74003
Dr. Brice Obermeyer		Delaware Tribe of Indians	1200 Commercial Street, Roosevelt Hall RM 212 Emporia State University	Emporia	KS	66801
Susan Bachor		Delaware Tribe Historic Preservation Representatives	P.O. Box 64	Pocono Lake	PA	18347

Name	Title	Agency/Organization	Address 1	City	State	Zip
Blair Fink		Delaware Tribe Historic Preservation Representatives	Temple University, 1115 West Polett Walk	Philadelphia	PA	19122
Glenna Wallace		Eastern Shawnee Tribe of Oklahoma	P.O. Box 350	Seneca	MO	64865
Robin Dushane	Cultural Preservation Officer	Eastern Shawnee Tribe of Oklahoma	P.O. Box 350	Seneca	MO	64865
Roxane Weldon	EPA Director	Eastern Shawnee Tribe of Oklahoma	P.O. Box 350	Seneca	MO	64865
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Jesse Bergevin	Historian	Oneida Indian Nation	1256 Union Street P.O. Box 662	Oneida	NY	13421-0662
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Corina Williams	THPO	Oneida Nation of Wisconsin	P.O. Box 365	Oneida	WI	54155-0365
Tony Gonyea	Faithkeeper	Onondaga Nation	RR#1 Box 245	Nedrow	NY	13120
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Scott Abrams	Action THPO	Seneca Nation of Indians	90 O:Hi'yoh Way	Salamanca	NY	14779
William L. Fisher	Chief	Seneca-Cayuga Tribe of Oklahoma	23701 S. 655 Road	Grove	OK	74344
Paul Barton	Historic Preservation Officer	Seneca-Cayuga Tribe of Oklahoma	23701 S. 655 Road	Grove	OK	74344
Beverly Cook	Chief	St. Regis Mohawk Tribe	412 State Route 37	Hogansburg	NY	13655
Arnold Printup	Historic Preservation Officer	St. Regis Mohawk Tribe	412 State Route 37	Hogansburg	NY	13655
Ken Jocks	Director Environmental Division	St. Regis Mohawk Tribe	RR#1 Box 8a	Hogansburg	NY	13655
Ron Sparkman	Chairman	Shawnee Tribe	29 South 69a Highway	Miami	OK	74354
Kim Jumper	Tribal Historic Preservation Office	Shawnee Tribe	29 South 69a Highway	Miami	OK	74354
Wally Miller	Tribal President	Stockbridge-Munsee Band of Mohican Nation of Wisconsin	Route 1, P.O. Box 70	Bowler	WI	54416
Sherry White	THPO	Stockbridge-Munsee Band of Mohican Nation of Wisconsin	W13447 Camp 14 Road	Bowler	WI	54416
Greg Bunker		Stockbridge-Munsee Band of Mohican Nation of Wisconsin	W13447 Camp 14 Road	Bowler	WI	54416

Name	Title	Agency/Organization	Address 1	City	State	Zip
Darwin Ill	Chief	Tonawanda Seneca Nation	7027 Meadville Road	Basom	NY	14013
Leo Henry	Chief	Tuscarora Nation	2006 Mt. Hope Road	Lewiston	NY	14092
Bryan Printup		Tuscarora Nation	5226 Walmore Road	Lewiston	NY	14092
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		Preservation Erie	10 East Fifth Street, Box 3	Erie	PA	16507
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Raymond Camp	Chairman	Springfield Township	13300 Ridge Road	West Springfield	PA	16443
Jeff Eaton	Supervisor	Springfield Township	13300 Ridge Road	West Springfield	PA	16443
Luke Weldon	Supervisor	Springfield Township	13300 Ridge Road	West Springfield	PA	16443
Meredith Borstorff	Secretary/Zoning Officer	Springfield Township	13300 Ridge Road	West Springfield	PA	16443
Sandra Anderson	Chairperson	Girard Township	10140 Ridge Road	Girard	PA	16417
Paul Pangratz	Supervisor	Girard Township	10140 Ridge Road	Girard	PA	16417
William Felege	Supervisor	Girard Township	10140 Ridge Road	Girard	PA	16417
Becky Hosack	Secretary/Zoning Administrator	Girard Township	10140 Ridge Road	Girard	PA	16417
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Dan Tercho	Supervisor	Conneaut Township	12500 U.S. Route 6N	Albion	PA	16401
Greg West	Supervisor	Conneaut Township	12500 U.S. Route 6N	Albion	PA	16401
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Kathy Wyrosdick	Director	Erie County Department of Planning	150 East Front Street, Suite 300	Erie	PA	16507
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Robert P. Casey, Jr.	Senator	U.S. Senate	17 South Park Row, Suite B-150	Erie	PA	16501
Pat Toomey	Senator	U.S. Senate	17 South Park Row, Suite B-120	Erie	PA	16501

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Mike Kelly	U.S. Representative	U.S. House of Representatives	208 E. Bayfront Parkway, Suite 102	Erie	PA	16507
Ryan Kennedy	Chief	Cranesville Volunteer Fire Department	9920 Beadville Street	Cranesville	PA	16410
Scott Hyde	Chief	Albion Volunteer Fire Department	19 Smock Avenue	Albion	PA	16401
Jerry Skrypzak	President	S.O.N.S. of Lake Erie Fishing Club	PO Box 3605	Erie	PA	16508
Tom Fuhrman	President	Lake Erie Conservancy	1501 Sasafrass Street	Erie	PA	16502
Katrina J. Vincent	President & CEO	Develop Erie	5240 Knowledge Parkway	Erie	PA	16510-4658
Mark Reider	Area Environmental Manager	Erie Sand and Gravel	3 Clear Springs Road	Annville	PA	17003
Kevin R Rodgers	Sr. Business Analyst, Agreements Support	FirstEnergy	800 Cabin Hill Drive, G-CH-C201	Greensburg	PA	15601
Hal Gibson	Public Projects Principal Eng.	CSX Transportation, Incorporated	6737 Southport Drive South, J180	Jacksonville	FL	32216
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Lynn Alexander		U.S. Department of Energy	Office of Electricity Delivery ad Energy Reliability, OE -20	Washington	DC	20585
Marthea Rountree	Office of Federal Activities	Environmental Protection Agency	Mail Code 2252-A 1200 Pennsylvania Avenue	Washington	DC	20460
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		Historical Society of Pennsylvania	1300 Locust Street	Philadelphia	PA	19107

Name	Title	Agency/Organization	Address 1	City	State	Zip
		Lake Erie Islands Historical Society	441 Catawba Avenue	Put In Bay	OH	43456
		Erie Maritime Museum	150 East Front Street	Erie	PA	16507
		Miller Boat Line	5174 E Water Street	port Clinton	OH	43452
		Historical Society of Erie County	356 West 6th Street	Erie	PA	16501
		Girard Historical Society	1011 N. State Street	Girard	OH	44420
		Harborcreek Historical Society	5451 Merwin Lane	Erie	PA	16510
		Springfield Township Historical Society	P.O. Box 564	Flourtown	PA	19031
		Conneaut Area Historical Society	501 Sandusky Street	Conneaut	OH	44030
		Conneaut Historical Railroad Society	363 Depot Street	Conneaut	OH	44030
		Albion Area Public Library	111 E Pearl Street	Albion	PA	16401
		Erie County Public Library	160 E Front Street	Erie	PA	16507
		Rice Avenue Community Public Library	705 Rice Avenue	Girard	PA	16417
		Springfield Township Library	70 Powell Road	Springfield	PA	19064

APPENDIX B DETAILED MAPS OF LAKE ERIE CONNECTOR TRANSMISSION SYSTEM

Source: ITC Lake Erie, 2016 - Joint Permit Application, Volume 3 Appendix A Underground Segment Alignment

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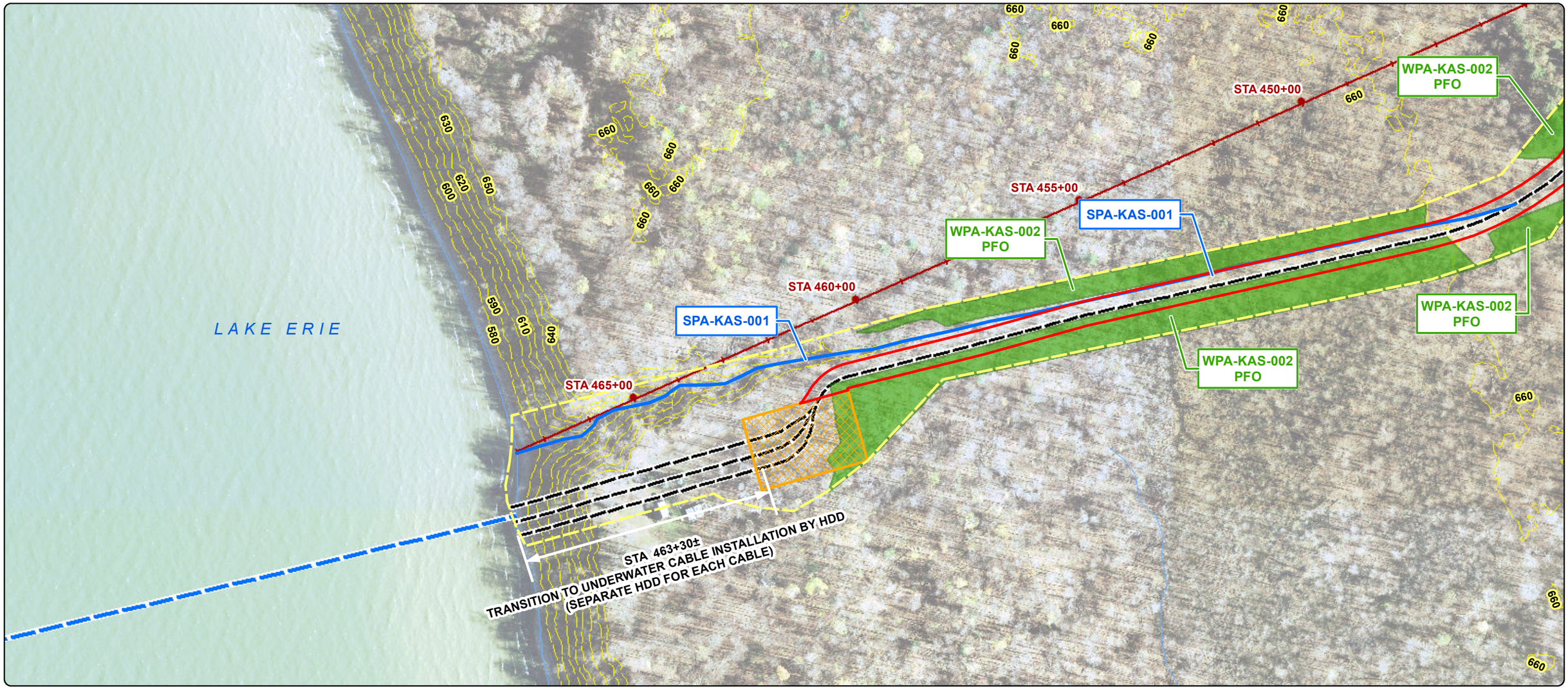

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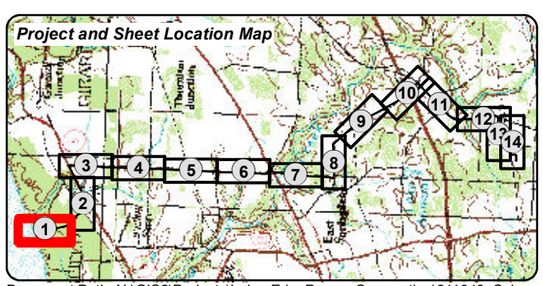

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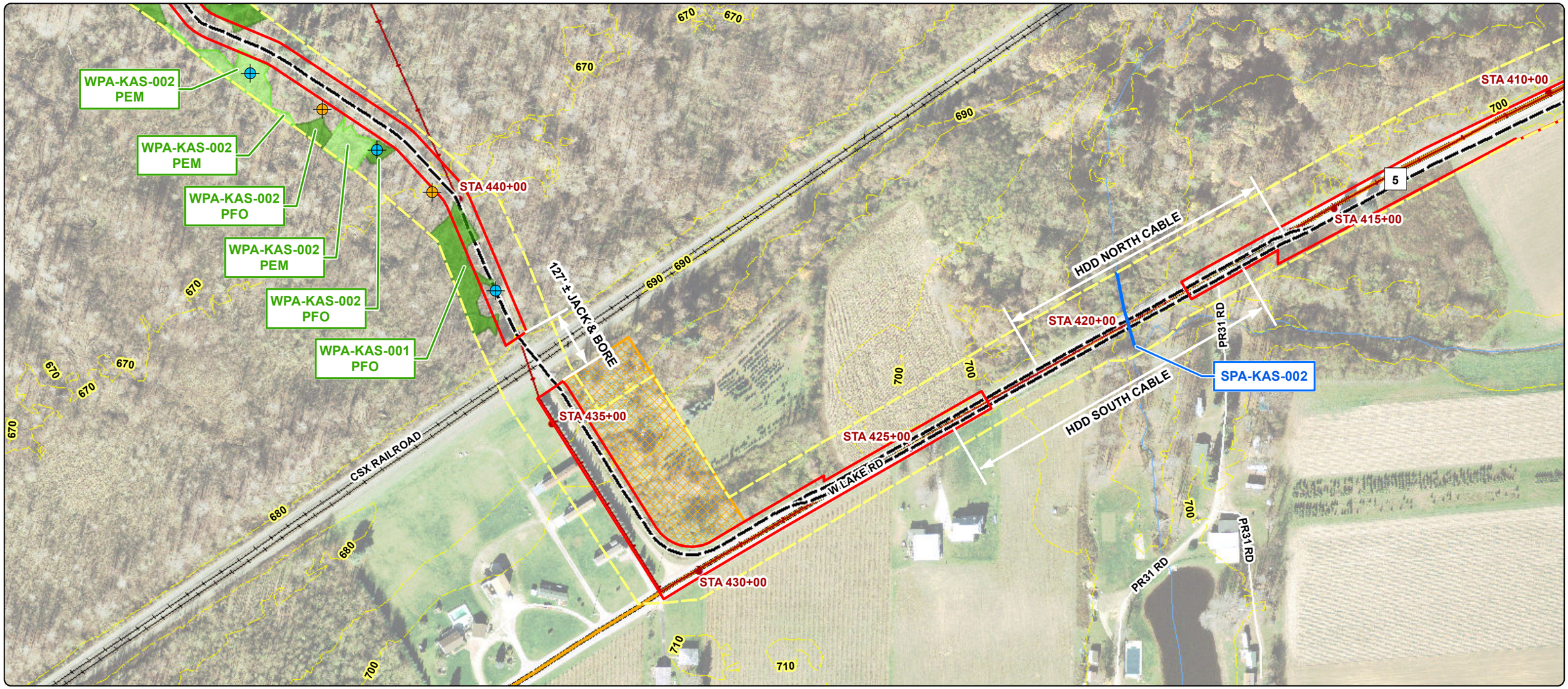

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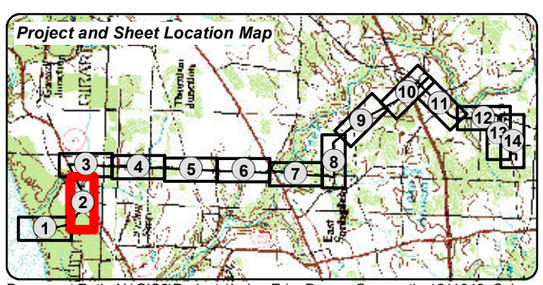

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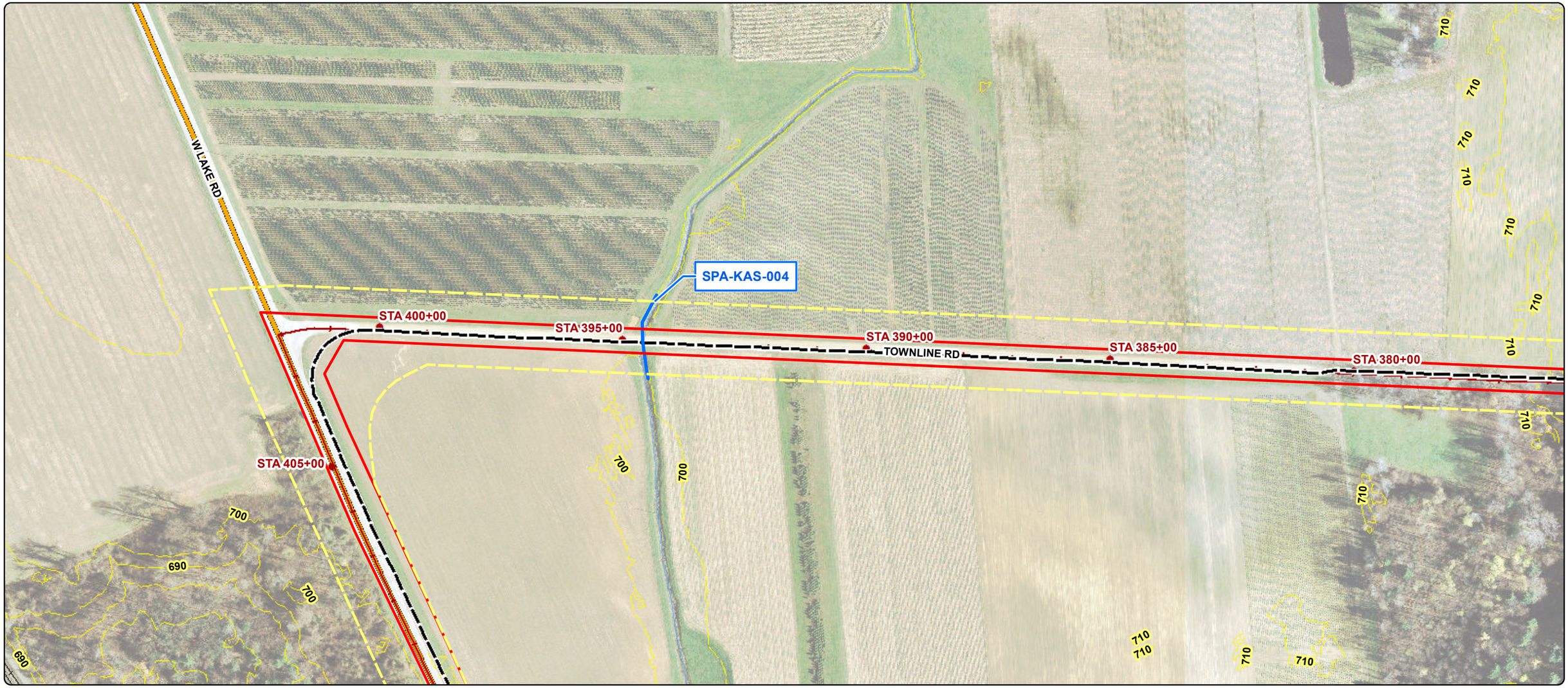

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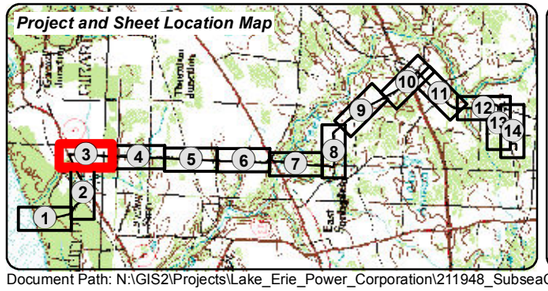

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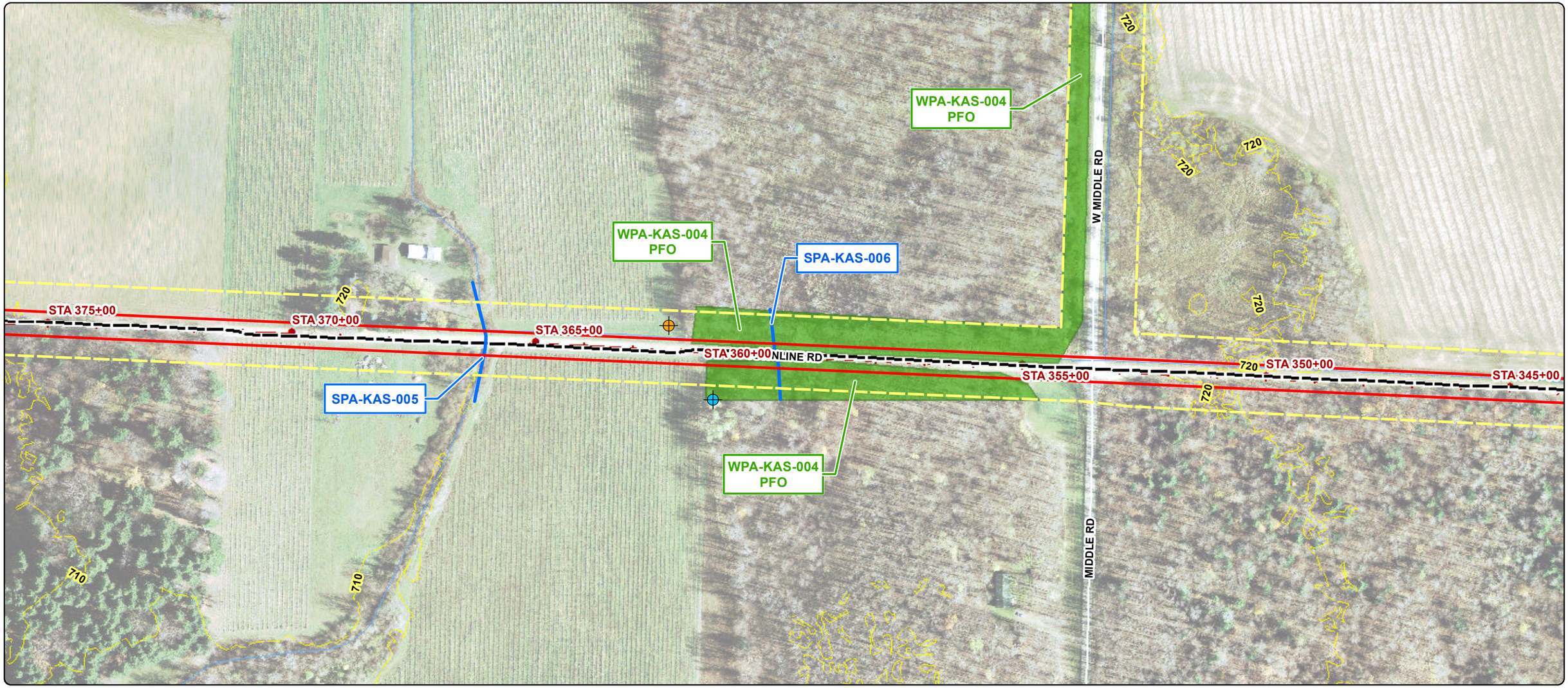

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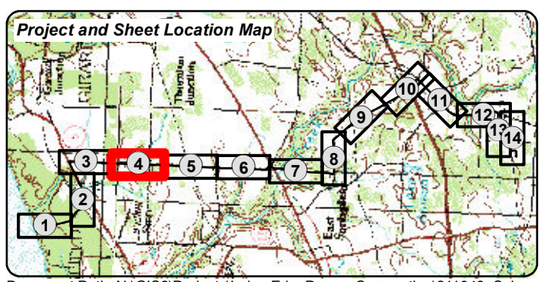

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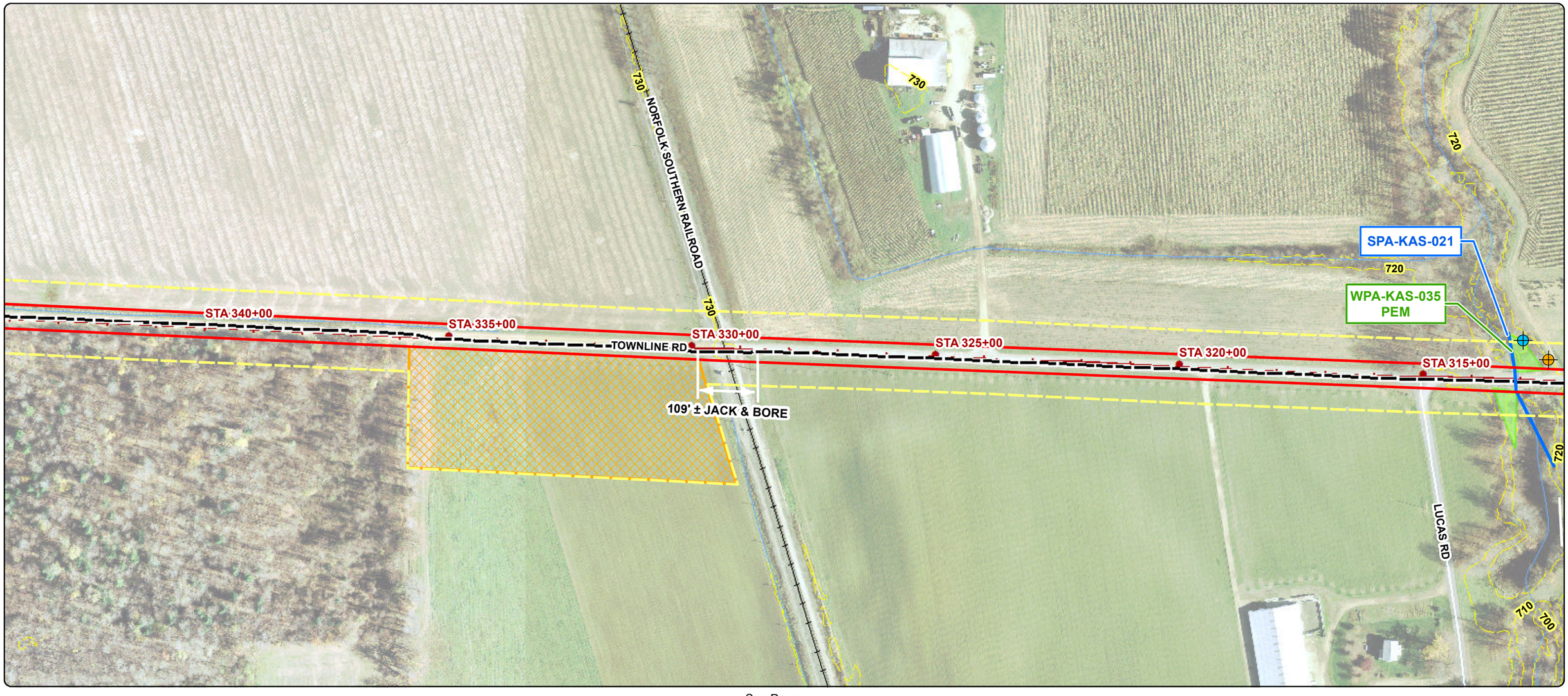

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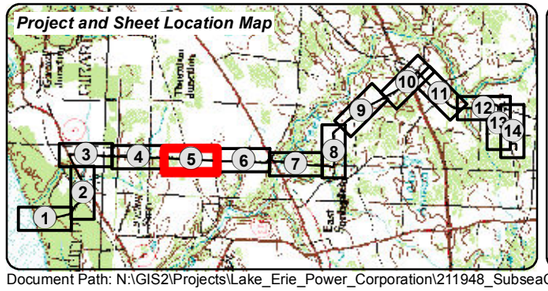

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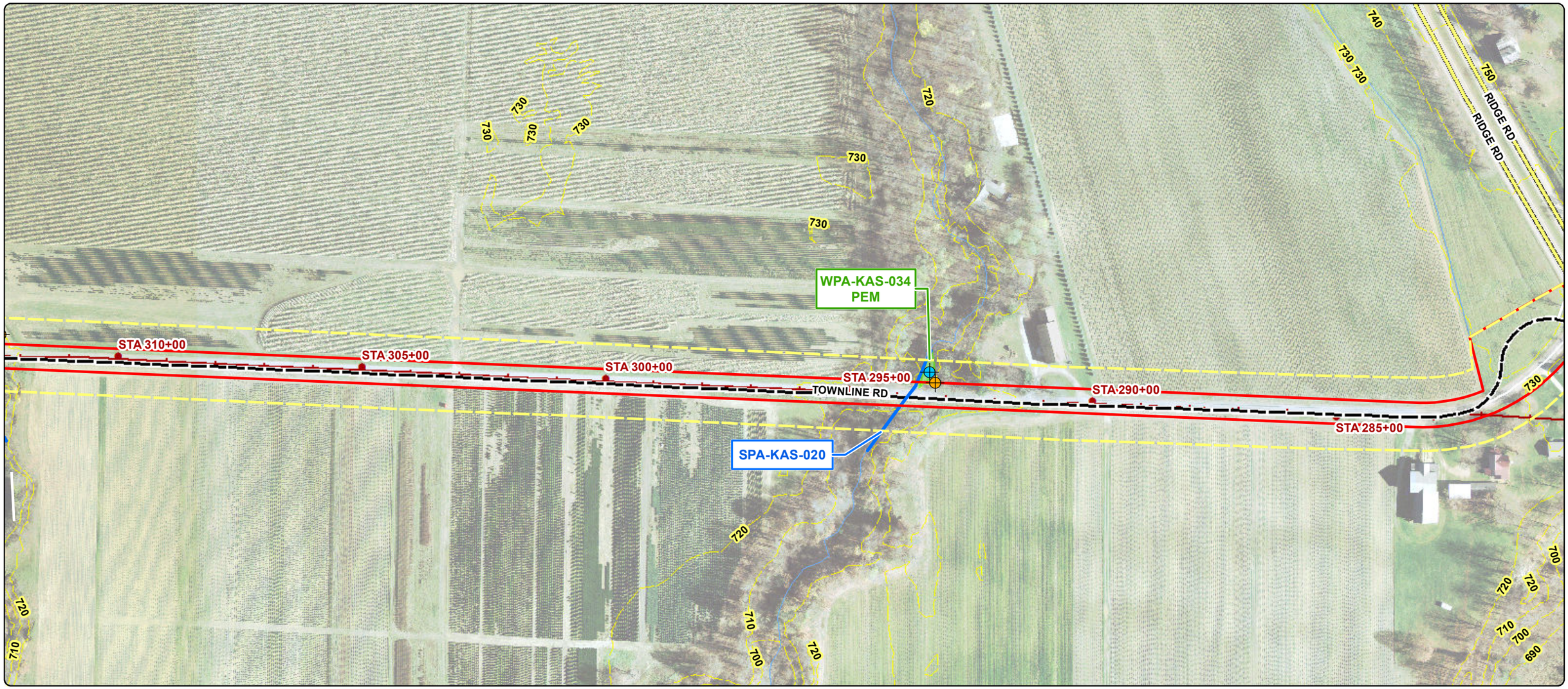

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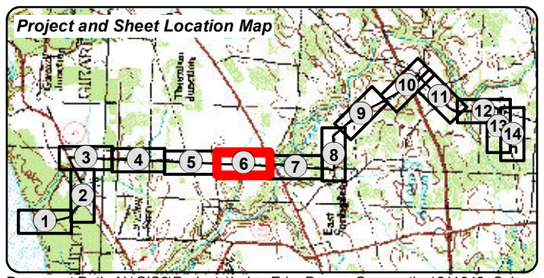

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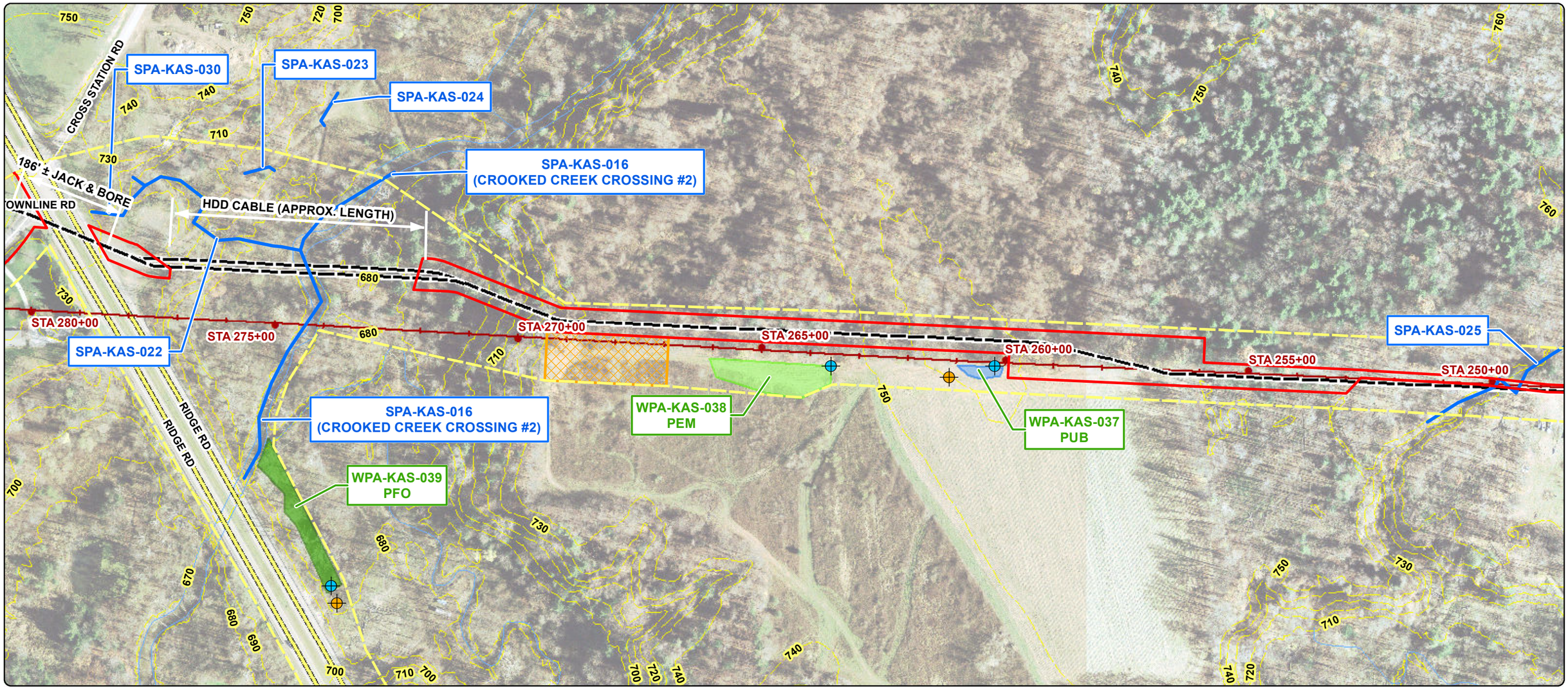

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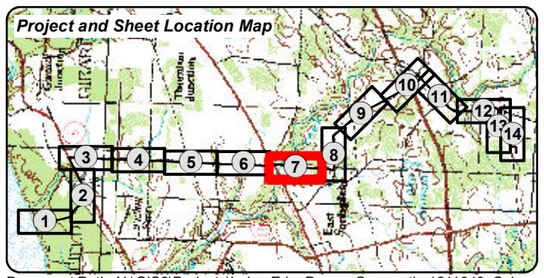

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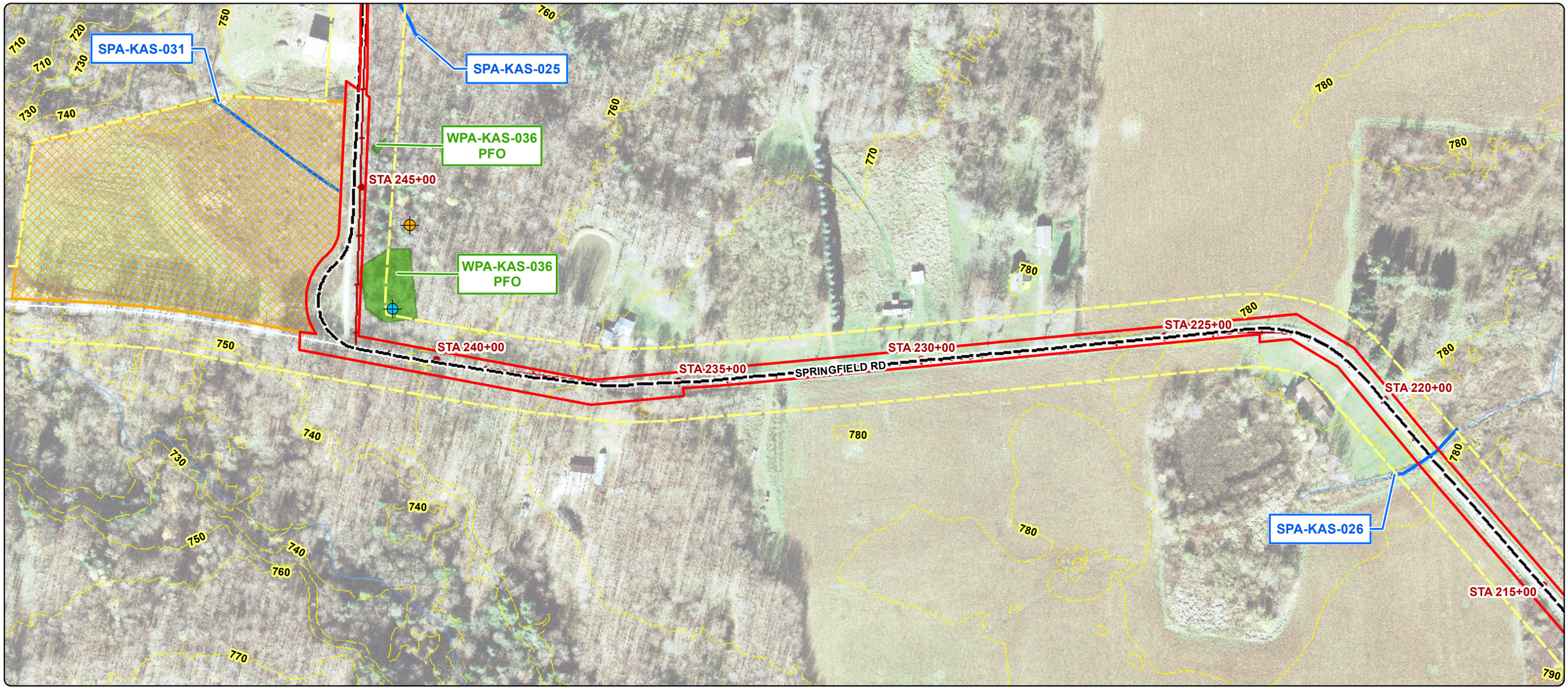

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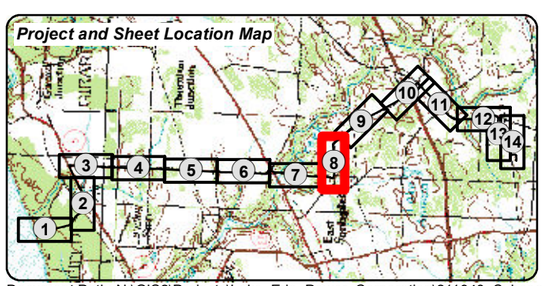

Proposed Underground Cable Route
Proposed AC Cable Route
Proposed Underwater Cable Route
Cable Route LOD
Construction Laydown LOD
Proposed Converter Station Site

Wetlands
PUB
PSS
PFO
PEM

Env. Field Survey Corridor

Wetland Shovel Test
Upland
Wetland

River | Stream
Pond

US Highway
US Route
State Route
Local Road
Railroad
PASDA River | Stream
Contour (10ft.)

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ALIGNMENT MAPS
ERIE COUNTY, PENNSYLVANIA

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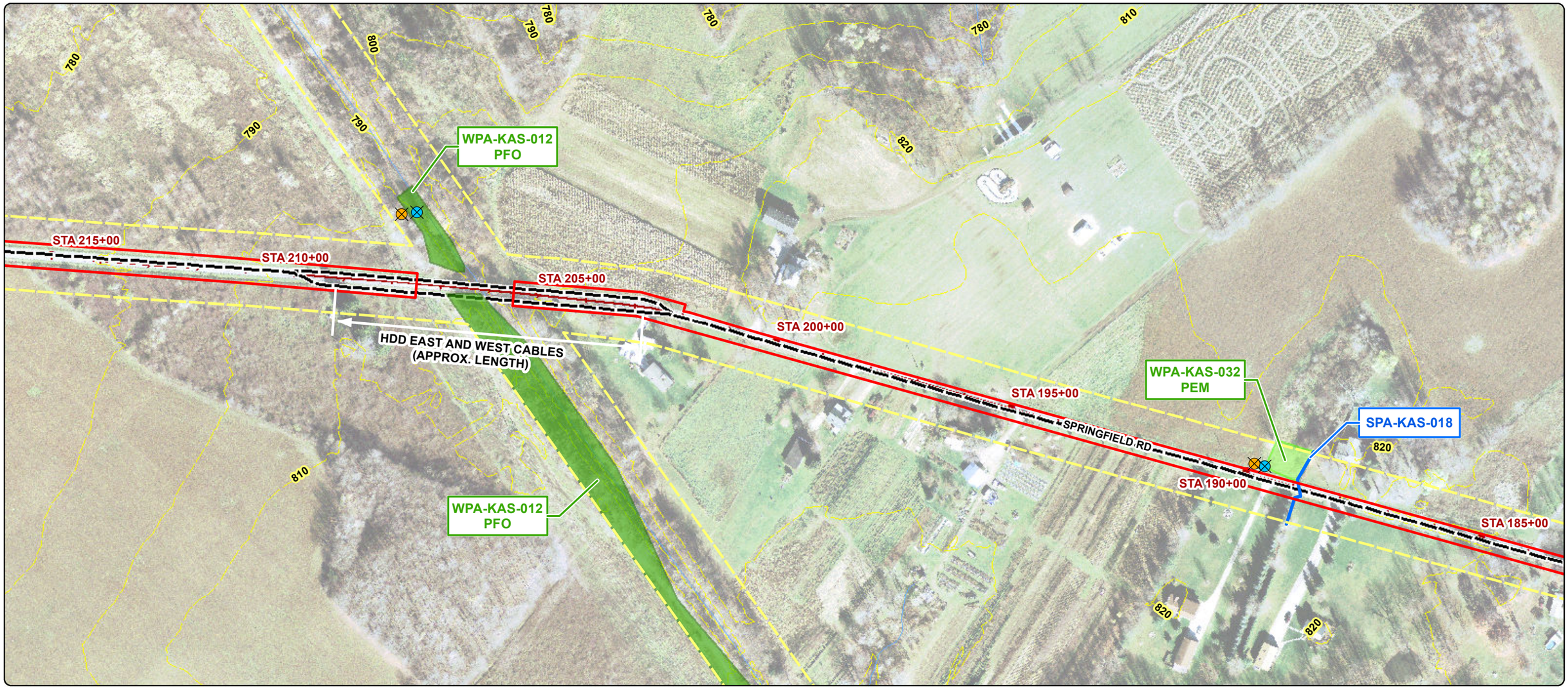

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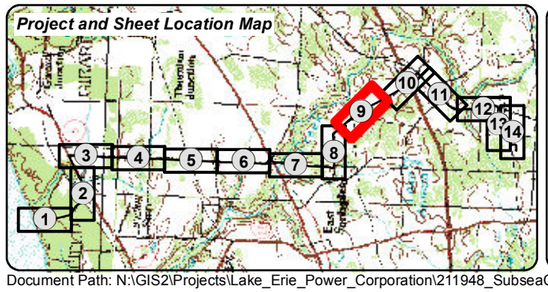

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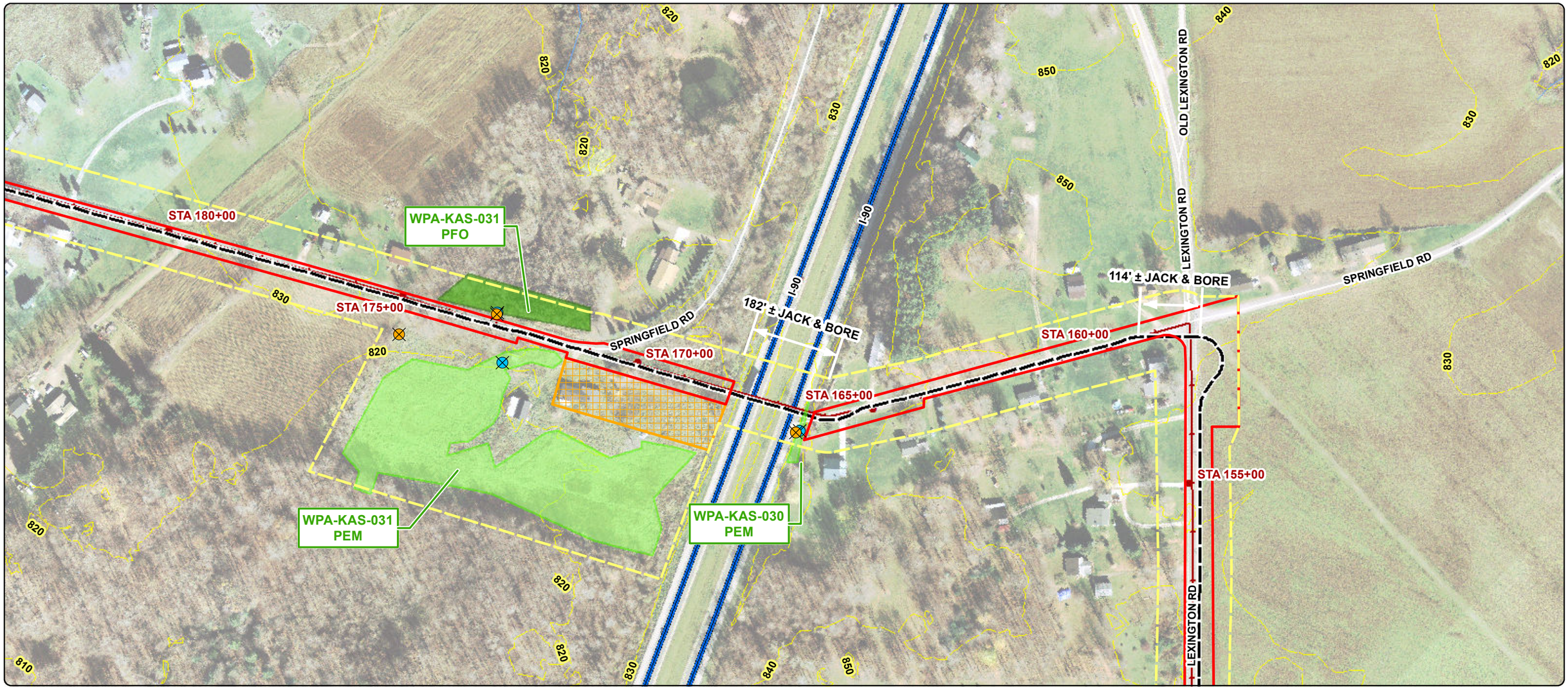

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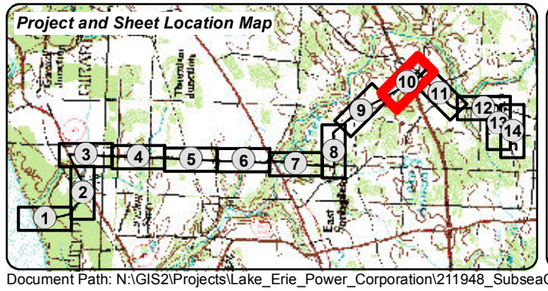
Project and Sheet Location Map



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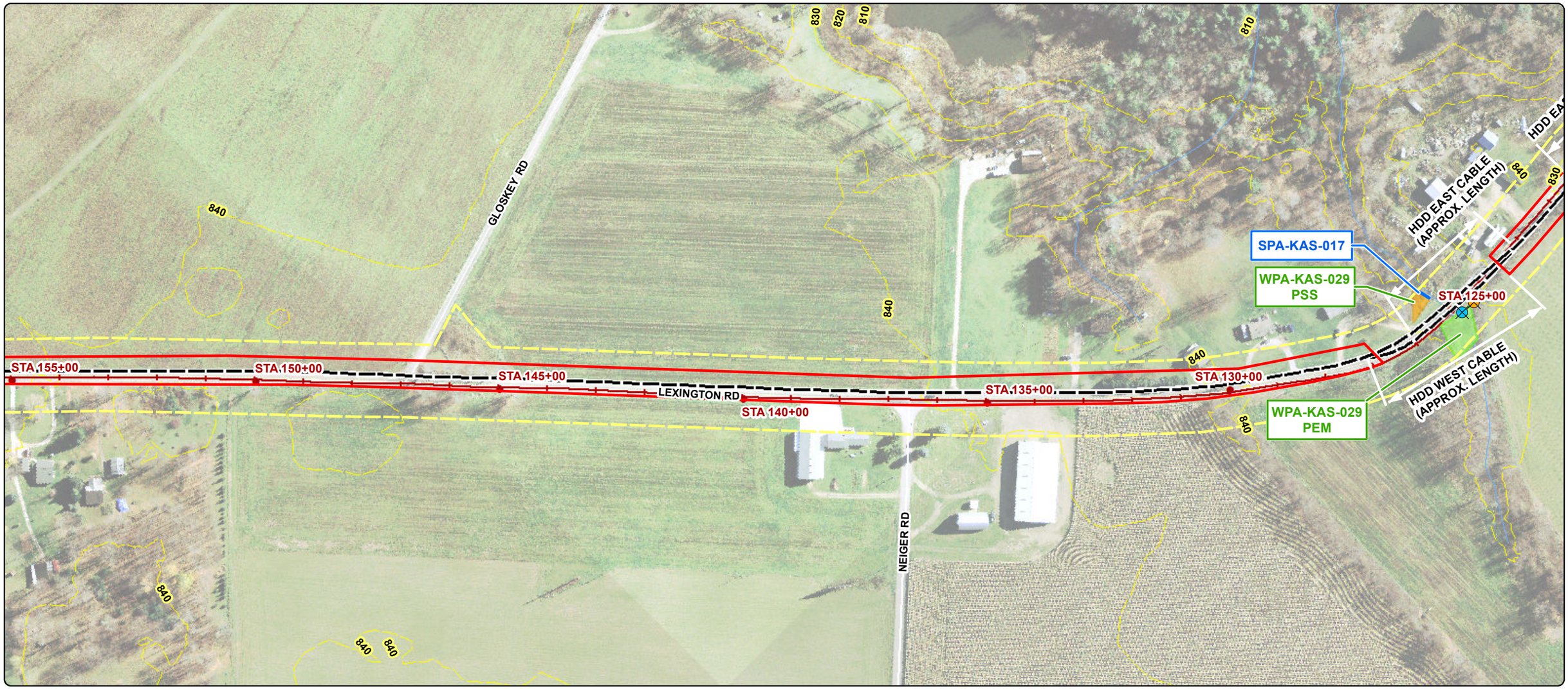

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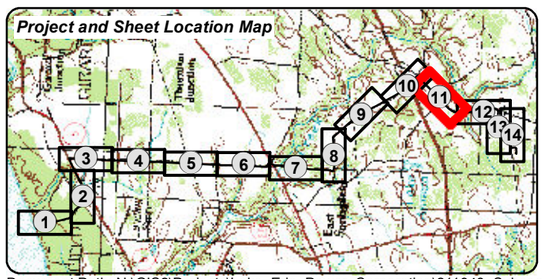

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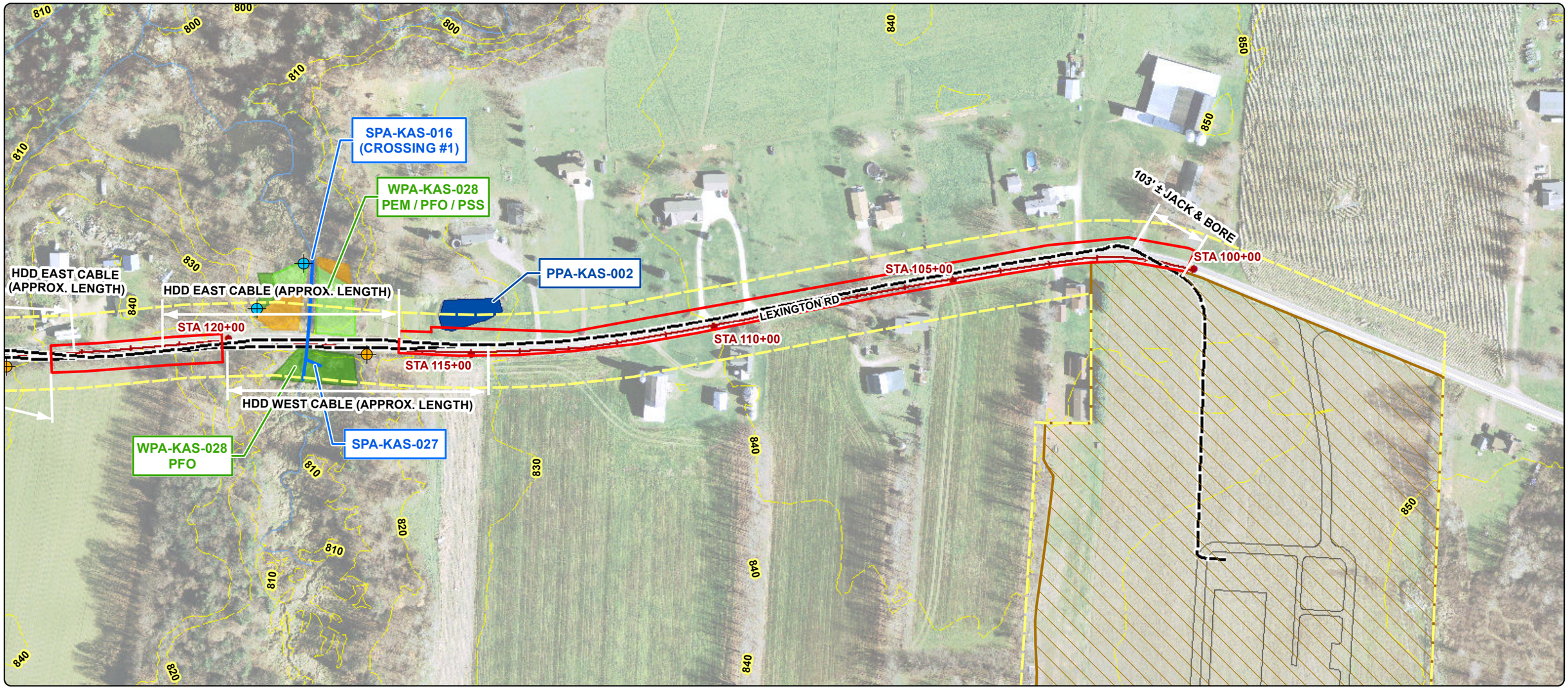

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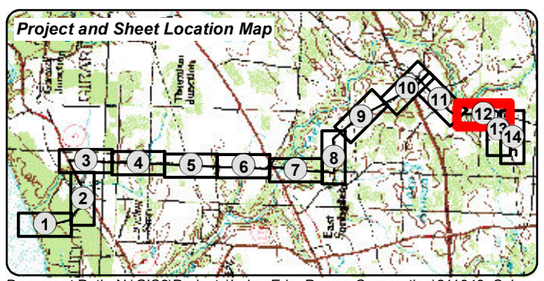

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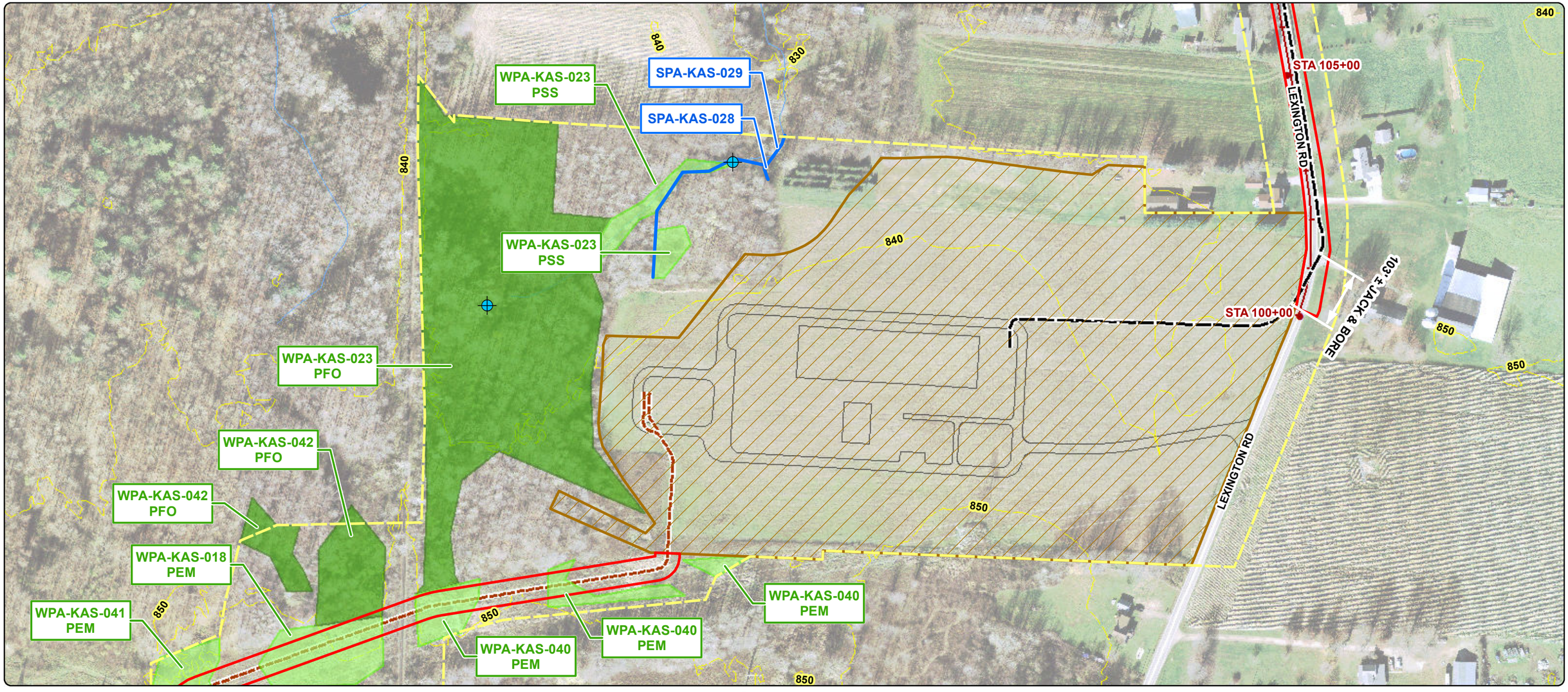

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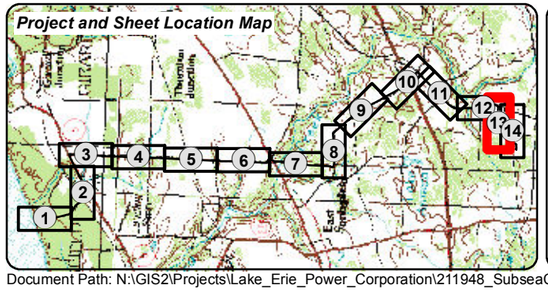

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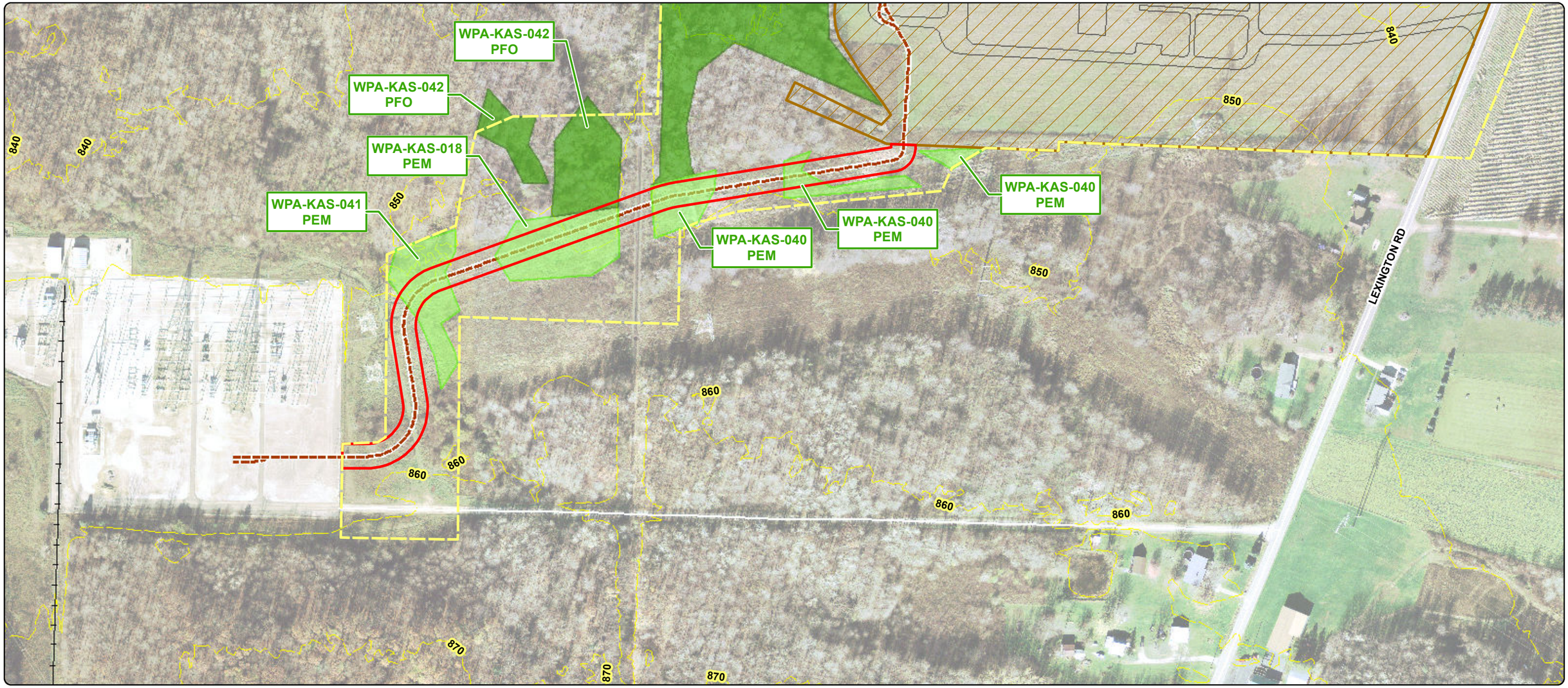

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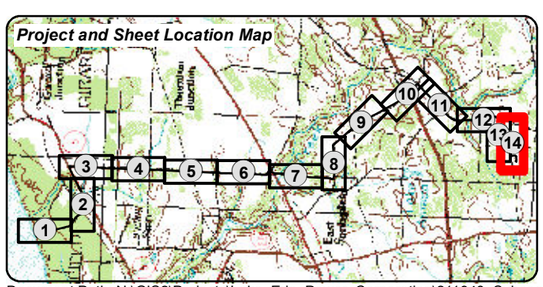

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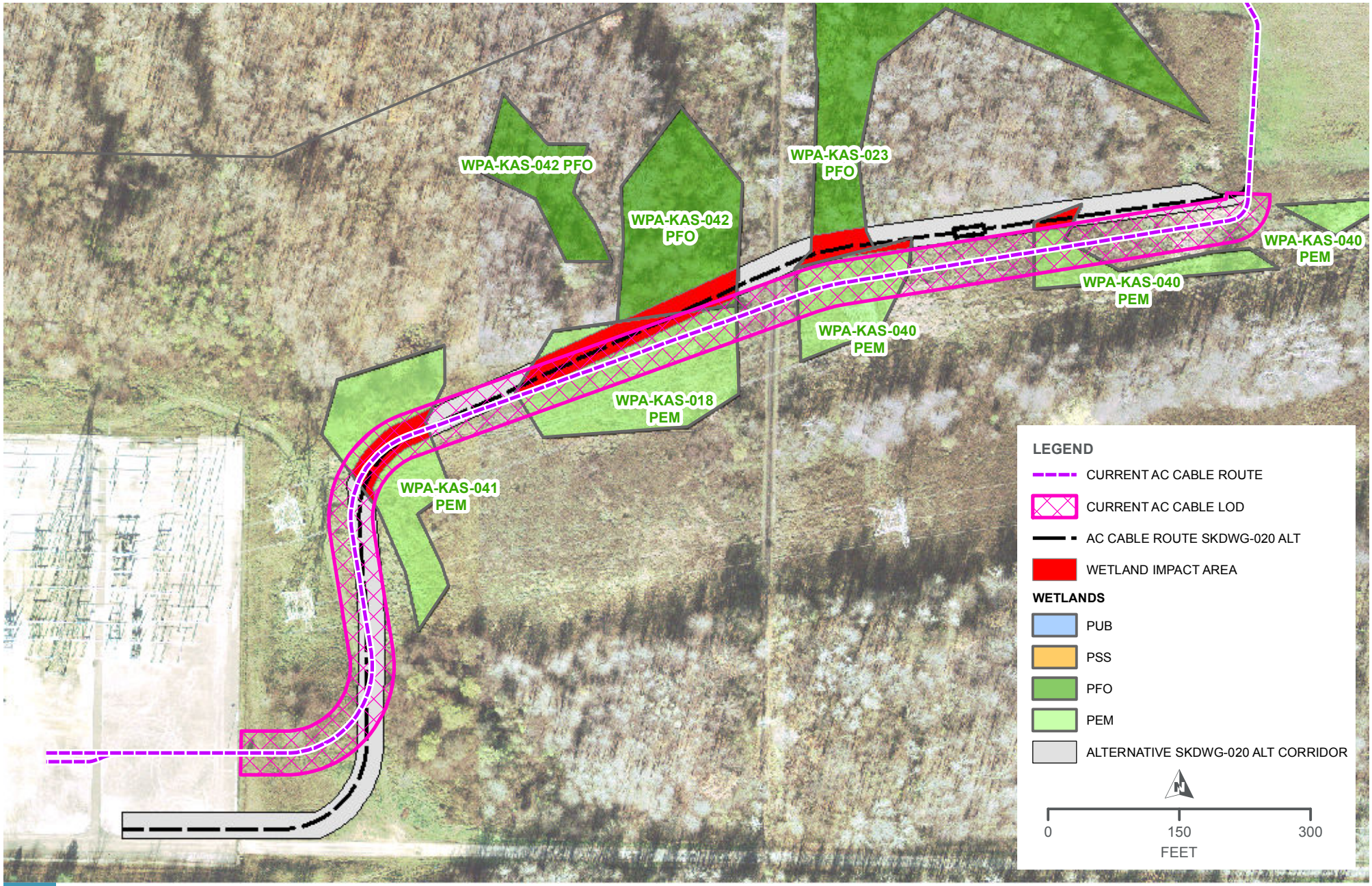

LAKE ERIE CONNECTOR, LLC

AC CABLE ROUTE ALTERNATIVES

ALTERNATIVE SKDWG-020 ALT

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APPENDIX C PROJECT ROUTE ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS

Source: ITC Lake Erie, 2016 - Joint Permit Application, Volume 1 Section S: Alternatives Analysis, 25 PA. Code §105.16 Analysis, and Compliance with §404(B)(1) Guidelines

For detailed maps showing routes considered by ITC Lake Erie but eliminated from further analysis, please see ITC Lake Erie's Joint Permit Application, Volume 3 Appendix B & C at http://www.lakeerieconnectorea.com.

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Lake Erie Connector Project Route Alternatives Considered but Eliminated from Further Analysis

ALTERNATIVES ANALYSIS

The purpose of the Project is to develop a controllable HVDC submarine and underground bidirectional merchant transmission facility that will interconnect the Independent Electricity System Operator (IESO) market in Ontario to the PJM market in the U.S. to facilitate the transfer of electricity, improve availability, and diversify electric energy supply portfolios for both markets. The Project provides a new pathway for power transfers between the IESO and PJM grids.

Considering the above-described purpose of the Project, a detailed alternatives analysis has been prepared and appears in Section 3 of the Environmental Assessment (EA) report (Attachment 3). Below is the Table of Contents for the Alternatives Analysis. The EA and Alternatives Analysis were developed to address both the 40 CFR Part 230 §404(b)(1) guidelines and 25 Pa. Code Chapter 105 requirements.

The Applicant evaluated several route, converter station, and landfall alternatives in relation to the Project's purpose, need, and geographic requirements, as well as the practicability and environmental consequences of each alternative. Figure 3.2.-1 of the EA presents the existing substations (POIs), converter station locations, and initial routes and landfall options that were evaluated. Figure 3.2-2 of the EA shows the alternative routes considered within the Lake Segment. Figure 3.2-3 of the EA is an overview of the underground alternatives. The screening and analysis of alternatives occurred sequentially in three phases:

1) Initial screening for alternatives;
2) Desktop analysis; and
3) Field investigations and environmental analysis.

The initial screening process involved the review and evaluation of various potential route alignments, taking into consideration the principal factors and constraints described in greater detail in Section 3 of the EA.

COMPARISON OF PROJECT BENEFITS AND IMPACTS (25 PA. CODE § 105.16 ANALYSIS)

PADEP regulations, 25 Pa. Code §105.16, require that under circumstances where PADEP determines a project will have an adverse impact on the environment or public health, a balancing consideration be provided that public benefits of the proposed project outweigh the harm to the environment and public natural resources. Section 105.16(b) defines "public benefits" to include, but not be limited to:

1) Correction and prevention of pollution.
2) Protection of public health and safety.
3) Reduction of flood damages.
4) Development of energy resources.
5) Creation or preservation of significant employment.
6) Provision of public utility services.
7) Other essential social and economic development which benefits a substantial portion of the public.

The Project, as proposed, does not pose significant adverse impact to either the environment or public natural resources. Impacts to both wetlands and streams have been avoided to the extent feasible. Where impacts cannot be avoided, temporary impacts may be minimized by use of HDD or other methods, and disturbed areas will generally be restored under a PADEP and USACE approved mitigation plan. A summary of the project benefits and balancing of impacts and benefits is provided below.

The Project provides substantial public benefits under several of the categories above, while enhancing power system reliability, providing improved access to markets and could be utilized to support energy and environmental policy goals. Project benefits are discussed above in the Project Purpose and Need. In summary, the Project will provide the following public benefits (25 Pa.Code §105.16):

1. Development of Energy Resources: The development of this Project provides the ability to tap into clean energy generation in Canada to help support electric demand in PJM and makeup for capacity lost as a result of coal and other fossil fuel plan retirements in the U.S. and to make an important contribution to the States carbon reduction under the Clean Power Plan.[11]
2. Provision of Public Utility Services: This Project will improve the reliability of the electric grid (PJM and IESO). By increasing transfer capability between Ontario and PJM and establishing a direct controlled intertie between the IESO and PJM wholesale electricity markets, the Project

[11] *See* the March 2, 2015 "PJM Economic Analysis of the USEPA Clean Power Plan" for a discussion of capacity at risk of retirement.

will augment power system availability in the Eastern Interconnection. The Project will provide a source of energy supply during all hours of operation. This new access to energy supplies could help system operators at PJM and IESO avoid emergency control actions (e.g., voltage adjustments, shedding load) that would otherwise be needed to maintain the stability of their respective power systems when the systems are stressed and/or under very tight supply.

3. Creation or Preservation of Employment: Construction jobs that would be generated would be primarily related to the construction industry. The Project will create a number of temporary and permanent jobs. For example, construction of the Erie Converter Station will result in 125 temporary construction jobs during peak construction activities, and an additional 185 non-construction related temporary jobs. Additional temporary jobs will be created for construction of the underground and underwater cables. Because the underground route is primarily located within the road ROW, additional workers outside of the construction industry, such as police details, may be required during construction of the Project and would likely be available from the existing local workforce. Full time permanent jobs created for operating the Erie Converter Station would be 10 full time jobs. Additionally, local contractors could be hired to provide periodic maintenance services and vegetation management along the transmission line ROW.
4. Social and Economic Development which Benefits the Public: As discussed in bullet 3, the Project will provide for full time and temporary jobs during construction and operation. In addition, the Project will provide economic benefits in Pennsylvania including tax revenues over the course of the Project's lifetime; specifically, contributing to a local increase in taxes and revenues as a result of real estate transfers, property taxes, and fees for property easements.
5. Protection of Public Health and Safety: This Project will help to maintain the scheduled flow of energy independent of conditions on the connecting power systems. By facilitating the exchange of energy between the power systems, the Project will provide operational and planning flexibility. From an operational perspective, having adequate reactive capability in appropriate locations on the grid is essential to mitigating potential for voltage concerns, including voltage collapse that can lead to a regional or system wide blackout thereby contributing to public health and safety.

Environmental and social impacts of the Project and how they have been minimized are discussed in the Environmental Assessment (Attachment 3) and briefly summarized below.

- Water Use and Land Use: Due to the relatively small footprint and short duration of project construction, effects on the recreational and fishing uses of and navigation in Lake Erie are expected to be localized, temporary, and negligible. During operation of the Project, the magnetic field from the cable will be negligible and not impact navigation or cause compass deflection in the main shipping channels. Compass deflection could occur in the segment of the route that is near the shore of the lake where it is unlikely that a compass would be needed for navigational purposes. During construction, the presence of construction vessels and equipment in and on the lake and at the shoreline HDD area will not significantly contribute to regional impacts on current water uses on the lake or preclude other water-based activities from taking place concurrently. The Applicant will coordinate with other water-based users to proactively communicate its construction schedule in order to avoid any potential conflicts or temporary cumulative impacts with other users.

  On land, there will be temporary impacts on existing land use associated with the installation of the Underground Segment cable within the existing road corridor. Construction vehicles and equipment will temporarily disrupt existing vehicle traffic flow and impact some adjacent

landowners. For the Underground Segment, the Applicant will avoid or minimize traffic disturbances by using traffic details, construction signs and barriers, and notifying the local community in advance of any known road closures and detours. In addition, effects to roads and rail crossings will be minimized by using Jack & Bore techniques, thus avoiding most crossings by open trenching. No impacts to recreation opportunities are anticipated from the construction or operation of the proposed Project.

- Geology and Soils: Sediment disturbance in the lake and soil disturbance on land will result from Project construction. Total disturbance of all in-water activities would result in a temporary only disturbance of approximately 12.7 acres, and a permanent disturbance of 2.0 acres, consisting primarily of the areas excavated for the three HDD sump pits, the cable trench in the bedrock, and the associated sidecast rock.

  The landside elements of the Project involve disturbance temporary and permanent impacts to wetlands and streams as described in Section 5.3.2 of the EA. The disturbance on land includes temporary work spaces such as laydown yards (13.4 acres), Erie Converter Station property (21.4 acres), and work spaces required for construction ROW (41.3 acres). On-land disturbance components include temporary (only) impacts to wetlands (0.8 acres), permanent impacts to wetlands (1.0 acres), temporary impacts to streams (0.2 acres), permanent impacts to stream (less than 0.01 acres), and temporary impacts to floodplains (4.3 acres).

- Water Resources and Quality: Effects on water resources and quality would be limited to construction and maintenance activities, and these effects are discussed in Section 5.1 of the EA. Wetland resources have been identified within the proposed underground cable route and Erie Converter Station property. Wetlands in the proposed project have been substantially influenced by adjacent roadways, fields, and other developed features. Temporary impacts to wetlands are expected to occur during the construction and maintenance activities associated with the proposed Project. The cable route is proposed to occur primarily in existing public roadway ROWs and existing driveways, thus minimizing effects to wetlands. The temporary and permanent limit of disturbance to wetlands is estimated to be 0.8 and 1.0 acres, respectively. Temporary impacts may occur as part of repair or vegetation maintenance activities, but impacts would be localized and the affected area would be restored. Most of the wetlands located within the regularly maintained corridor would be restored. Where encroachments cannot be avoided, temporary impacts may be minimized by use of HDD or other methods, and in any event, disturbed areas will generally be restored under a PADEP- and USACE approved mitigation plan.

  The majority of the proposed transmission cable route follows existing roadway ROWs in order to minimize impacts to surface waters and other resources. The impacted waterbodies are shown on the resource maps in Part I of the JPA. Ground disturbance would occur during cable installation from clearing and waterbody crossing methods. The use of HDD crossing methods will be implemented for waterbodies and wetlands located in the high-quality watershed. Open trenching, cofferdams, or flume and pump around systems will be utilized for other waterbody and wetland crossings. Erosion and Sedimentation Control Plans will be developed and BMPs will be used to avoid impacts. The USACE and PADEP will approve the crossing techniques through approval of permits pursuant to this Joint Permit Application. Waterbody and wetland crossings will be designed to minimize potential impacts.

- A number of vessels will be involved with the Project construction. A Spill Prevention Plan designed specifically to prevent spills during lake operations will be developed and implemented. Cable installation in Lake Erie will be conducted using a jet plow or by water jetting in the deepest portion of the lake. Burial of the cable may affect water quality by temporarily resuspending sediment and potentially causing localized migration of heavy metals in the basin or water column. The Applicant conducted water quality modeling to evaluate the potential mixing and dispersion of sediment and other constituents resuspended during the cable installation process for the proposed jet plow or water jetting installation method. Low concentrations of trace metals and organic chemicals are present in Lake Erie sediments; and the eastern basin of Lake Erie (where the Project is located) has the lowest level of contamination in sediments in the Lake Erie Basin. The results of the water quality modeling effort are contained in Appendix E of the EA (Attachment 3) and show that minimal water quality impacts are associated with the cable installation in Lake Erie, specifically those associated with total and dissolved phosphorous, total suspended solids and heavy metals. Any temporary impacts to the lake water quality would only occur locally within a four hour timeframe when cable installation is occurring.

  During the construction and installation process, use of HDD will occur at the Lake Erie landfall location. HDD operations have the potential to release drilling fluids to the surface through inadvertent returns. Because drilling fluids consist largely of a bentonite clay-water mixture, they are generally considered non-toxic. To prevent or minimize this potential effect, prior to HDD operations, a sump pit will be constructed in the bedrock at each exit point of shore to lake transition. The purpose of the exit point sump pit is to contain suspended sediments to the interior footprint of the sump pit during the exit point excavation, contain drilling fluids at the lower end of the excavation for recovery (as described in the next paragraph), and disposal at an approved upland facility.

  An Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan would be implemented that would allow for timely identification and cleanup of any drilling fluid leaks that might occur and minimize impacts on the environment.

- Aquatic Resources: Habitat containing large/rocky substrates off the shores of Pennsylvania offer spawning and nursery habitat for such species as lake whitefish, rainbow smelt, emerald shiner, spottail shiner, fathead minnow, channel catfish, stonecat, trout-perch, white bass, smallmouth bass, rainbow darter, johnny darter, yellow perch, walleye, and freshwater drum (Goodyear et al. 1982). As fish are mobile and in-water construction activities will take place in a small portion of Lake Erie, helping to minimize project effects to aquatic resources. Additionally, the proposed Project will use HDD methods near shore and would avoid disturbance of the nearshore area where spawning, feeding, and rearing are most common among a variety of species.

  Due to the frequent high-energy wave action and the presence of exposed bedrock along the nearshore area of Lake Erie, aquatic vegetation is scarce to non-existent (Rathke 1984), and, therefore, construction activities from the proposed Project are not expected to result in any impacts to aquatic vegetation. Lakebed disturbance from construction activities could result in a direct impact of the benthic or epifauna community; crushing or injuring benthic invertebrates, including mussels in the path of the jet plow, in areas of bedrock trenching, and in the footprint of the HDD exit sump pits. HDD, trench excavation, and jet plowing would disturb bottom sediments which could become resuspended, especially during jet plow or water

jetting operations. The amount of explosives and blasting technique required for bedrock trenching will be limited to the extent possible to avoid noise and vibration impacts on fish, and impacts will be minimized by utilizing a boring/stemmed charge method. Some displacement of fishes from the active construction footprint of the Project will occur, but will be limited in spatial extent at any given time. Overall, the impacted area is expected to fill in and recolonize from recruitment from nearby, unaffected areas of the lake. Recovery for benthic communities varies, ranging from several months to several years, depending on the type of community and type of disturbance (DOE 2013).

- Terrestrial Resources: The construction of the Project will disturb habitat along the Project ROW. Vegetation removal and the direct reduction of some wildlife habitat could result in the direct displacement of species, including birds, mammals, reptiles, and amphibians; however, the acreage of permanent forest disturbance associated with the Project is very small. Because the project is primarily constructed along existing roads, these effects will be minimized.

- Protected and Sensitive Species: Threatened and endangered species that may be within the Project area include Indiana bat, northern long-eared bat, and bald eagle. However, no significant impacts are expected during construction, operation, or maintenance of the Project. The Project is not expected to affect cisco, eastern sand darter, or lake sturgeon, the three species of concern identified by the PFBC, or bank swallows, a species of concern identified by the USFWS. Rare plant surveys along the proposed Underground Segment were performed in spring and summer 2015 to identify any occurrence of state-listed species. The survey indicated that no species listed by the PADCNR were identified, and on December 4, 2015the PADCNR provided PNDI clearance, along with recommendations to prevent the spread of invasive species that will be followed.

- Cultural Resources: The Applicant recognizes that the formal National Historic Preservation Act Section 106 process has not been initiated. However, in advance of the process, the Applicant has initiated studies to identify historic properties along the Project's alignment. The Applicant conducted a Phase IA Study of the proposed transmission cable route in 2014 and a Phase IB in 2015. During the Phase IB, additional archeological sites were found along the centerline and at potential staging areas. Engineering options will be evaluated, in consultation with PHMC, to avoid effects to these sites.

  The Phase 1A study also evaluated the in-lake elements of the Project. All previously confirmed shipwrecks have been avoided by at least 100 meters. Further, the Applicant performed a Marine Route Survey in 2015 to identify bottom conditions, shipwrecks, existing utilities, and other features along the proposed marine route. The marine route survey included a combination of equipment and approaches including side-scan sonar, single-beam bathymetry, and magnetometer surveys to facilitate identification of potential shipwrecks. The results of the marine route survey were reviewed by a marine archaeologist to identify anomalies or potential shipwrecks along the Project's marine route. No potential shipwrecks or other archaeological resources were identified along the Project's marine route.

- Aesthetic and Visual Resources: During construction of the proposed Project, there would be temporary impacts to the visual character of the viewshed. Because the transmission line will be installed in the lakebed and underground, there will be no permanent visual impacts expected from the operation of the proposed Project other than from the presence of the Erie

Converter Station. A visual simulation of what the Erie Converter Station would look like is provided in Section 5.8.

- Climate, Air Quality, and Noise: The Project will not significantly affect climate or air quality. An air quality permit application to the PADEP will be required for the emergency generator on site. Construction of the Project will result in elevated noise levels during construction of the Project. These effects will be temporary, lasting only during construction. The Applicant conducted a study of the sound propagation and impacts associated with the operation of the proposed Erie Converter Station. A model of noise produced by equipment at the Erie Converter Station during normal operations would not adversely affect the sensitive receptors located closest to the facility.

- Public Health and Safety, Hazardous Materials and Waste, and Socioeconomics: The Project will not affect public health and safety, hazardous materials and waste, or socioeconomics.

- Infrastructure: During construction of the Underground Segment of the Project, local infrastructure will temporarily be affected. These effects would primarily be temporary impacts to traffic. Disturbances during construction may include limitations on property access due to road detours and construction equipment/activities. No other local infrastructure would be adversely affected by the construction or operation of the Project.

- Land Use and Traffic: Construction of the underground route of the proposed Project would result in temporary impacts to existing land uses and traffic along the proposed Underground Segment. Disturbances to land use during construction may include limitations on property access due to road detours and construction equipment/activities. However, these disturbances would be limited to the duration of construction in that immediate area and are anticipated to be short (i.e., less than a week in each area). Because the transmission line along the underground route will primarily be buried within the road ROW, disturbances to local traffic may occur during construction. The Applicant will avoid or minimize traffic disturbances by using traffic details, construction signs, and barriers and notifying the local community in advance of any known road closures.

  No formal recreation sites are located within the underground route of the proposed Project, and, therefore, no impacts to recreation opportunities are anticipated from the construction or operation of the proposed Project. Likewise, there will be no impacts to public access or recreational opportunities at nearby Erie Bluffs State Park. Permanent land use impacts will occur in areas where the transmission line route requires easements, restricting future land development within the easement area. However, since the transmission line has been located substantially within road ROWs, the impact on future land development is expected to be minimal. There is no zoning in Conneaut Township, where the Erie Converter Station location is located. Construction and operation of the proposed Project is expected to be consistent with relevant land use comprehensive plans for the Erie County and Springfield, Girard, and Conneaut Townships.

- Environmental Justice: No Environmental Justice communities or populations are located within the proposed Project area and area of concern as defined by the PADEP Environmental Justice Public Participation Policy. Construction of the Underground Segment of the proposed Project would be relatively short in duration (i.e., less than 6 months); therefore, no lasting or

significant effects on the population in general, including minority or low-income communities, are anticipated from construction activities.

Comparison of Project Benefits to Environmental and Social Costs

The benefits of the Project as summarized above and in Section J include the development of energy resources, protection of public health and safety, creation and preservation of jobs as well as providing social and economic developments for the public and providing reliable utility services to the region. The Lake Erie Connector Project will deliver these benefits, while also avoiding, mitigating, or reducing potential impacts. Any resultant residual environmental or other impacts are minimal, and will be mitigated by measures being implemented as part of the Project and a conceptual mitigation plan is provided in Section T. For the foregoing reasons, based on all currently available information, while there are environmental and social costs associated with this Project – as there are with any major project – on balance, the combination of the Project's benefits with the Applicant's commitment to manage and mitigate those impacts results in net benefits that significantly outweigh the environmental impacts and social costs resulting from the Project's location, construction and operation.

COMPLIANCE WITH §404(B)(1) GUIDELINES

Due to the overall scale of the Project and Project-related operational considerations, it has been determined that no practicable alternative exists that would satisfy the Project's purpose and need while completely avoiding impacts to any unique or protected aquatic resource site. As the Project would result in impacts to waters of the U.S., including wetlands, the Project is subject to Section 404 of the Clean Water Act and requires a permit from the U.S. Army Corps of Engineers (USACE). In order to issue a permit, the USACE Pittsburgh District must determine that the Project complies with the U.S. Environmental Protection Agency's (USEPA) Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material in 40 CFR Part 230 (Guidelines), including a determination that the Project is the least environmentally damaging practicable alternative, that it would not result in significant degradation of waters of the U.S., and that provisions have been made for all appropriate and practicable mitigation.

The discussion below summarizes the Project's compliance with Clean Water Act §404(b)(1) guidelines codified at 40 C.F.R. Part 230. In addition, the Alternatives Analysis provided in the EA evaluates discharges of dredged or fill material based on four tests of compliance, contained in Subpart B of the Guidelines:

1) Is there a practicable alternative that would have less impact on the aquatic ecosystem and no other significant adverse environmental consequences? [Subpart B § 230.10 (a)]

Under the guidelines, an alternative is practicable if it is available and capable of being implemented after taking into consideration cost, existing technology, and logistics in light of the overall project purpose (40 C.F.R. §230.10(a)(2)). The Environmental Assessment (Attachment 3) discusses alternative routes, converter station properties and points of interconnection and demonstrates that none of the alternatives considered are practicable, and that the selected site and design represents selected alternatives that are the least environmentally damaging practicable alternatives (LEDPA) that meet the basic project purpose.

2) Would the proposed discharge of dredged or fill material violate any applicable state water quality standard, toxic effluent standard or prohibition under Section 307 of the Clean Water Act, or jeopardize the continued existence of species listed as endangered or threatened or adversely affect critical habitat under the Endangered Species Act of 1973? [Subpart B § 230.10 (b)]

As summarized in Sections 2 and 5 of the Environmental Assessment (Attachment 3), the Project will not cause or contribute to a violation of any state water quality standard. National Pollutant Discharge Elimination System (NPDES) stormwater permit coverage for construction and operation of the proposed facility will be obtained. As part of the NPDES permitting, an erosion and sedimentation control plan and stormwater management plan will be implemented that includes Best Management Practices (BMPs) to reduce pollutants and sediments in stormwater runoff and water quality requirements. All stormwater runoff generated on-site during construction and from the Project when in operation will be managed in accordance with the Erosion and Sedimentation Control Plans, Post-Construction Stormwater Management Plan, and Site Restoration Plan approved with the issuance by PaDEP of the NPDES Permit for Stormwater Discharges associated with Construction Activities.

The Project will not violate applicable state water quality standards, toxic effluent standard or prohibition under Section 307 of the Clean Water Act. The Applicant has assessed potential impacts to water quality for constructing the Underwater Segment using a water quality model. The model shows that that minimal water quality impacts would be associated with the cable installation in Lake Erie and they are limited to temporary impacts that would occur locally within a four-hour timeframe after jet plowing occurs. Additional information on water quality impacts can be found in Section 5.3.1 and Appendix E in the EA.

The Project would comply with requirements of the Endangered Species Act of 1973, as amended and a review of the Pennsylvania Natural Diversity Inventory (PNDI) database was conducted. A summary of agency coordination is provided below as well as included in Section 4.6 of the EA. Discussions with the Pennsylvania Fish and Boat Commission (PFBC), Pennsylvania Game Commission (PGC), Pennsylvania Department of Conservation and Natural Resources (PADCNR), and U.S. Fish and Wildlife Service (USFWS) regarding the potential impact of the proposed Project on federally and state protected species and their occupied habitats have been ongoing since May 2014. The Applicant has been consulting with these agencies to obtain information about protected species and develop measures to avoid or minimize impacts. No adverse effects to threatened or endangered species are expected during construction, operation, or maintenance of the Project.

In a letter dated September 16, 2014, the PFBC noted the following species of concern with regard to the Project: cisco, eastern sand darter, and lake sturgeon, all of which are state-listed endangered species. Via an email dated March 24, 2015, the PFBC requested additional information regarding the impact of HVDC electromagnetic fields on salmonid (steelhead) migration. The PFBC also asked if the HDVC technology interferes with hydro acoustic telemetry tags and receivers. The PFBC requested that this information be provided as a part of the application. The Applicant's consultant provided this information to PFBC on June 4, 2015 in the Project Environmental Report, which was submitted to the U.S. Department of Energy on May 29, 2015, as part of the Presidential Permit Application. This information is also included in the Project EA (Attachment 3).

During a conference call between the Applicant, its consultants, and PFBC representatives on August 28, 2015, PFBC staff stated that they were not concerned about Project construction effects on lake sturgeon and cisco, given PFBC's review of additional information received regarding Project construction activities. However, PFBC asked if in-lake project construction on the U.S. side in water depths less than 20 m could be conducted outside of June and July to protect potentially spawning eastern sand darter. The Applicant explained that it needed to conduct construction during those months because construction will take about six months during each of two years that such construction work needs to occur during good weather months on the Lake, and that given Lake weather patterns, June and July were critical parts of the period when suitable construction conditions were available. In response, PFBC indicated that if construction activities need to occur in waters less than 20 m deep in June and July, then the Applicant should develop and submit a Biological Assessment. The assessment

would investigate steps to avoid adverse effects, minimize damage, and then mitigate effects to potential eastern sand darter habitat and individuals. The assessment would use the best available science to estimate the potential area of impact and numbers of darters that that might be lethally taken. After review of such an assessment, PFBC would then issue a special take permit with respect to the eastern sand darter. HDR, on behalf of the Applicant, developed a biological assessment for eastern sand darter, which was submitted to PFBC on December 30, 2015. It is provided in Appendix J of the Environmental Assessment (Attachment 3 to the application package).

In a letter dated March 23, 2015, the PGC screened the Project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only. The PGC records indicate that no known occurrences of species or resources of concern under PGC jurisdiction occur in the vicinity of the Project.

PADCNR requested surveys for 22 rare, threatened, or endangered plant species that could potentially occur in the Project impact area. Plant surveys along the proposed Underground Segment by a qualified botanist were performed in spring and summer 2015 to identify any occurrence of state-listed species. The survey indicated that no species listed by the PADCNR were identified. The results of these surveys were provided to the PADCNR. The Pennsylvania Department of Environmental Protection (PADEP) and the USACE have also been sent the DCNR plant survey results. On December 4, 2015the PADCNR provided PNDI clearance, along with recommendations to prevent the spread of invasive species that will be followed.

The USFWS identified the Indiana bat, northern long-eared bat, bank swallows, and migratory birds as protected species that could potentially be impacted by the Project. On March 26, 2015, the Applicant and its consultant met with the USFWS to discuss the ways in which the Project development has incorporated construction details to minimize and avoid impacts to migratory birds. Through the use of HDD and work space location and design, the Applicant has satisfied the USFWS requirements to avoid impacts to the bluffs and consequently, nesting bank swallows. The USFWS does not believe a seasonal restriction on Project activities is necessary, and the USFWS does not believe the anticipated Project impacts are high enough to warrant the development of a habitat restoration plan for birds. Consultation with the USFWS, PFBC, PGC, and PADCNR is summarized in Section 5.6 of the EA. The Applicant is continuing to coordinate with these agencies regarding federally and state-protected species through the permitting process.

3) Would the proposed discharge of dredged or fill material cause or contribute to significant degradation of the waters of the U.S.? [Subpart B § 230.10 (c)]

The Project would not cause or contribute to significant degradation of the waters of the U.S. Based on the evaluation presented in the EA, the Project would not:

- Cause or contribute to a significant adverse effect on human health and welfare;
- Significantly affect aquatic life or other wildlife in the Project area;
- Significantly affect aquatic ecosystem features in the Project area; or
- Cause or contribute to a significant adverse effect on water-based recreation, existing aesthetic values, or economic values.

The Project has been sited to avoid to the maximum extent possible, and where unavoidable, to minimize and mitigate both temporary impacts to wetlands and streams. Sections 5.3.2.1 and 5.3.2.2 summarize potential impacts to wetlands and waterbodies. The avoidance incorporated with BMPs of the project prevents significant degradation that may be associated with development of the project.

Further, the compensatory mitigation proposed with this application, Section T, will provide wetland habitat.

Stormwater and process water associated with construction and operation of the facility will be controlled and managed to prevent any adverse impacts to waters of the U.S. NPDES permit coverage for discharges of both stormwater and process water associated with construction and operation of the proposed facility will be obtained. The NPDES permit application specifies BMPs to reduce pollutants in stormwater runoff and meet water quality requirements for Section 401 Water Quality Certification. The NPDES permits for both construction and operation will implement requirements protective of waters of the U.S.

4) Have appropriate and practicable steps been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem? [Subpart B § 230.10 (d)]

The Applicant has developed appropriate and practical measures to minimize potential adverse impacts related to the Project. Specifically, the Applicant minimized unavoidable impacts to aquatic resources through several best management practices (BMPs); for example, in order to minimize impacts, waterbody crossings along the ROW will typically be constructed using HDD. Sections 3 and 5.3 of the Environmental Assessment detail the Project's efforts made to minimize impacts to aquatic ecosystems through the consideration of alternative designs and layouts.

In addition, the route has been sited to take advantage of previously disturbed areas. The majority of the proposed transmission cable route follows existing roadway ROWs in order to minimize impacts to surface waters and other resources. Although the proposed Project would involve soil disturbances within or near a high quality watershed, the construction activities will be managed with enhanced BMPs as described in the Erosion and Sedimentation Control Plan (E&SC Plan) in Section M of the Joint Permit Application. The E&SC Plan follows PADEP Erosion and Sediment Pollution Control Program Manual (PADEP 2012), which specifies BMPs for addressing erosion and sedimentation control, and would be approved by PADEP.

The Applicant is taking a number of steps to minimize potential sediment disturbance and related effects of sedimentation associated with Project construction activities in Lake Erie. These measures include the following:

- Use of jet plowing or water jetting for deployment of the cable in soft sediment;
- Use of a dynamically positioned vessel to install the cables;
- Implementing measures to minimize sedimentation during blasting associated with bedrock trenching;
- Use of HDD in the nearshore area and the transition to land-based installation; and
- Other protective measures.

In areas of soft sediment, which extend along a majority of the route (from the U.S./Canada border in the middle of the lake to the area nearshore where the lake bed becomes bedrock), installation of the transmission cables will be conducted by the use of a jet plow or water jetting. Water jetting tools or ROVs are neutrally buoyant and often self-propelled, moving just above the lake bed and pre-laid cable. Unlike the jet-plow, there is no mechanical force used to pull the plow through the sediment and water jetting relies solely on the weight of the cable to sink through the fluidized sediment to the desired burial depth. The benefits of jet plowing and water jetting which help to minimize water quality impacts include:

- No pre-trench or separate excavation is required;
- Simultaneously trenches and buries the cable;

- Water pressure and volume can be controlled and adjusted; and
- Adjustable plow speed.

Use of a dynamically positioned vessel for cable deployment allows maintaining the cable deployment vessel's position with the use of thrusters instead of anchors. This reduces the amount of anchoring required for cable installation, thereby minimizing lake bed disturbance. It also allows for more efficient, quicker installation than if an anchored vessel were used[12].

In Lake Erie, limited blasting is required to bury the cable within an approximately one mile segment of the lake bed. The amount of explosives and blasting technique required for bedrock trenching will be limited to the extent possible to avoid noise and vibration impacts on fish. Some displacement of fishes from the active construction footprint of the Project will occur, but will be limited in spatial extent at any given time.

The use of HDD construction methods would avoid disturbance of the near shore area where spawning, feeding, and rearing is most common among a variety of species.

The Applicant will develop and implement the following plans to minimize and mitigate in-lake sedimentation during cable installation:

- Blasting Plan;
- Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan;
- Drilling Fluid Management Plan; and
- Preparedness Prevention Contingency Plan.

The evaluation presented herein demonstrates conclusively that the proposed Project complies with the 404(b)(1) Guidelines, and that the Project's purpose and need cannot be fulfilled without resulting in impacts to waters of the U.S. The Applicant is committed to implementing measures to effectively minimize the unavoidable impacts of the proposed Project. The Project would meet all state and federal standards with respect to water quality and endangered species and would not cause significant degradation to waters of the U.S.

[12] Anchors may be used during jointing and landing operations.

APPENDIX D CWA SECTION 404 AND SECTION 10 PERMIT APPLICATION

For specific information and to view ITC Lake Erie's Joint Permit Application, please see http://www.lakeerieconnectorea.com.

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APPENDIX E ENDANGERED SPECIES ACT SECTION 7 DOCUMENTATION

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Department of Energy
Washington, DC 20585

April 1, 2016

Laura Zimmerman
U.S. Fish and Wildlife Service
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, PA 16801

Dear Ms. Zimmerman,

This letter is to initiate informal consultation under section 7(a)(2) of the Endangered Species Act (ESA) for the proposed ITC Lake Erie Connector (LEC) Project.
ITC Lake Erie Connector, LLC (ITC Lake Erie) applied to the U.S. Department of Energy (DOE) for a Presidential permit to construct, operate, maintain, and connect an electric transmission line across the United States border with Canada. ITC Lake Erie filed its Presidential permit application on May 29, 2015.

In response to the Presidential permit application, DOE published the Notice of Intent (NOI) to prepare an Environmental Assessment in the Federal Register on July 17, 2015. In the NOI, DOE announced its intention to prepare an Environmental Assessment pursuant to the National Environmental Policy Act of 1969 (NEPA) to assess the potential environmental impacts of issuing a Presidential permit, the federal action, to ITC Lake Erie to construct, operate, maintain, and connect a new electric transmission line across the United States – Canada border in Northern Pennsylvania.

A detailed description of the proposed transmission line is located on the EA website at www.lakeerieconnectorea.com.

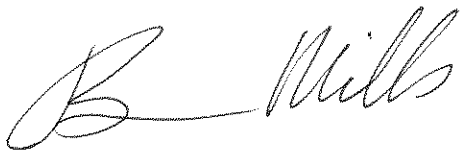
The following is a list of threatened and endangered species under the U.S. Fish and Wildlife Service jurisdiction, which are potentially located in the LEC project area:

- Indiana bat (*Myotis sodalis*)
- Northern long-eared bat (*Myotis septentrionalis*)
- Bald eagle (Hailiaeetus leucocephalus) – delisted but remains under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668C)
- Bank swallow (*Riparia riparia*)

We ask that you review and approve the above list of potentially affected species, or provide a list of additional species that might be affected and any concerns relative to impacts of the Proposed Action on federally listed species.

Please feel free to contact me directly at any time at Brian.Mills@hq.DOE.gov, by phone at (202) 586-8267, or by fax at (202) 586-8008. We look forward to working with your office on this project.

Sincerely,



Brian Mills
NEPA Document Manager
National Electricity Delivery Division (OE-20)
Office of Electricity Delivery and
Energy Reliability
U.S. Department of Energy

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801-4850

April 11, 2016

Peter Browne
HDR
970 Baxter Boulevard, Suite 301
Portland, ME 04103

RE: USFWS Project #2014-0986; CPA-2014-0005

Dear Mr. Browne:

Thank you for your letter of March 8, 2016, requesting updated information about federally protected species within the area being considered for the proposed ITC Lake Erie Connector, LLC, Lake Erie Connector project (Project) located in Erie County, Pennsylvania. We previously commented on this project in letters dated September 22, 2014, February 11 and April 6, 2015. Since that time, the Project limit of disturbance has been finalized and a Joint Permit Application for Pennsylvania Water Obstruction and Encroachment Permit and U.S. Army Corps of Engineers Rivers and Harbors Act 10 and Clean Water Act 404 Permit was submitted on January 29, 2016. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species, the Migratory Bird Treaty Act (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, as amended), and the Bald and Golden Eagle Protection Act (Eagle Act, 54 Stat. 250, as amended; 16 U.S.C. 668-668d), to ensure the protection of migratory bird species.

Threatened and Endangered Species

Northern long-eared bat

The proposed project is within the range of the threatened northern long-eared bat (*Myotis septentrionalis*). On February 16, 2016, the final rule that tailors protections for the northern long-eared bat under the Endangered Species Act became effective (81 FR 1900; available here: http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/FRnlebFinal4dRule14Jan2016.pdf). Because your project is not located within 0.25 mile of a known northern long-eared bat hibernaculum or within 150 feet from a known, occupied maternity roost tree, any incidental take that might result from tree removal is not prohibited and no further consultation regarding this

species is necessary. More information on the northern long-eared bat and the 4(d) rule can be found here: http://www.fws.gov/midwest/endangered/mammals/nleb/

Indiana bat

The proposed project is within the range of the endangered Indiana bat (*Myotis sodalis*). According to your April 6, 2016, e-mail, approximately 12.4 acres of forest will be cleared for the project. Because the project is not located near known Indiana bat summer or winter habitat and a minimal amount of forest will be cleared, the project is not likely to adversely affect this species.

Assessment of Risks to Migratory Birds and Eagles

In our April 6, 2016, letter, we determined that impacts from the project to bank swallows (*Riparia riparia*) are low enough that no seasonal restriction on project activities is necessary and development of a habitat restoration plan for birds is not warranted based on the following: 1) horizontal directional drilling will be employed to avoid impacts to the bluff, 2) the drill rig will be located approximately 328 feet away from the top of the bluff, and 3) off-shore activities will be approximately 750 feet from the shoreline. The project has been designed to avoid all impacts to the bluff and consequently, nesting bank swallows.

The Bald and Golden Eagle Protection Act (BGEPA) provides for very limited issuance of permits that authorize take of bald eagles (*Haliaeetus leucocephalus*) when such take is associated with otherwise lawful activities, cannot practicably be avoided, and is compatible with the goal of stable or increasing eagle breeding populations. Under BGEPA, "take" means to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. "Disturb" means to agitate or bother an eagle to a degree that causes, or is likely to cause, injury to an eagle or either a decrease in its productivity or nest abandonment due to interference with breeding, feeding, or sheltering. For more information regarding eagle biology and take, please visit: http://www.fws.gov/northeast/ecologicalservices/eagle.html

Please review our previous comments regarding bald eagles from our September 22, 2014, letter. Additional information, including the bald eagle project screening and online mapping tool, can be found on our website (see: http://www.fws.gov/northeast/pafo/bald_eagle.html). The Service is aware of a bald eagle nest within approximately 2,000 feet from the project. Please review the *National Bald Eagle Management Guidelines* (available here: http://www.fws.gov/northeast/ecologicalservices/eaglenationalguide.html) for recommendations for avoiding disturbance of eagles at foraging areas and communal roost sites. If you would like more information regarding eagle permits, please contact Scott Frickey, Migratory Bird Program, at Scott_Frickey@fws.gov or (413) 253- 8592.

This response relates only to federally protected species under our jurisdiction, based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing other potential Service concerns under the Fish and Wildlife Coordination Act or other authorities.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

Please contact Melinda Turner of my staff at 814-234-4090 if you have any questions or require further assistance.

Sincerely,

Lora L. Zimmerman
Field Office Supervisor

cc:
DOE – Mills

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APPENDIX F NATIONAL HISTORIC PRESERVATION ACT SECTION 106 DOCUMENTATION

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Department of Energy
Washington, DC 20585

April 11, 2016

Mr. Doug McLearen
Division Chief – Archaeology and Protection
Pennsylvania Historical and Museum Commission
400 North Street
Commonwealth Keystone Building, 2nd Floor
Harrisburg, PA 17120-0093

SUBJECT: Request to Initiate 106 Consultation under the National Historic Preservation Act for the proposed ITC Lake Erie Connecter Project (DOE/EA-412)

Dear Mr. McLearen:

The U.S. Department of Energy (DOE) is in the process of preparing its draft Environmental Assessment (EA) for the proposed ITC Lake Erie Connector (LEC) project in the state of Pennsylvania. DOE is preparing its draft EA pursuant to its obligations under the National Environmental Policy Act (NEPA) to evaluate environmental impacts of providing a Presidential Permit to ITC Lake Erie Connector, LLC (ITC Lake Erie) for the construction, operation, maintenance, and connection of the portion of the transmission line within the United States. The proposed DOE action is the potential grant of a Presidential Permit for the international border crossing requested by ITC Lake Erie as part of its proposal. DOE has determined to treat this action as an undertaking that has potential to cause adverse effects on historic properties per the Advisory Council on Historic Preservation's (ACHP's) National Historic Preservation Act (NHPA) implementing regulations at 36 CFR §800.3(a).

DOE is coordinating its compliance with Section 106 of the NHPA with its review under NEPA according to the process set out in 36 CFR §800.3(b). Per standing policy, DOE will explicitly solicit information from the public regarding cultural and historic resources through its Notice of Availability of its draft EA when published in the Federal Register. Agencies and the public will have 30 days to review and comment on the draft EA. DOE will also make cultural resources reports and information publicly available, as appropriate, on the LEC project EA website at http://lakeerieconnectorea.com.

DOE is providing you with a summary of the actions that DOE is taking to comply with Section 106 of the NHPA, including project background, efforts to identify historic properties potentially affected by the proposed LEC project to date, a preliminary list of potentially affected historic properties listed or eligible for listing on the National

Register of Historic Properties (NRHP), and a list of potential Section 106 consulting parties for the proposed LEC project. This letter also discusses DOE's initial proposal for the Area of Potential Effects (APE) to be used in DOE's proposed phased approach to identification and evaluation of historic resources under Section 106. Furthermore, DOE is sending this letter as its official request for initiation of Section 106 consultation under NHPA with the Pennsylvania State Historic Preservation Office (SHPO) located within the Pennsylvania Historical and Museum Commission (PHMC), and would appreciate your written reply within 30-days from the date of this letter or as soon as possible.

Background

On May 29, 2015, ITC Lake Erie applied to DOE for a Presidential Permit [a] for a new approximately 72.4-mile long, high voltage direct current (HVDC) bi-directional transmission line that would cross the international border between the United States and Canada, near Nanticoke, Ontario, and terminate at the proposed new Erie converter station in Springfield Township. The project would then connect to the existing Penelec Erie West Substation in Conneaut Township, Pennsylvania. For purposes of permits being issued in the U.S., the LEC project consists of an approximately 42.5-mile long transmission line with an operating voltage of +/- 320 kilovolts (kV) and an expected power transfer rating of 1000 megawatts (MW). The transmission line would be a bi-directional, High-Voltage Direct Current (HVDC) merchant line that consists of two cables, one positively charged and the other negatively charged.

The proposed LEC project would be constructed in both aquatic (underwater) and terrestrial (underground) environments. From the Canadian border, the proposed transmission line would be located underground in Nanticoke, Ontario and would enter Lake Erie via a horizontal directional drill (HDD). The cables would then be buried in the bed of Lake Erie to a target depth of 3-10 feet. The cables would emerge from Lake Erie in Springfield Township, Pennsylvania, and would be buried primarily along road rights-of-way for approximately 7.1 miles to the proposed Erie Converter Station. From the proposed converter station, the proposed LEC project would involve underground installation of a 345-kV high voltage alternating current (HVAC) transmission system (i.e., two underground HVAC lines) which would run approximately 2,082 feet to the existing Penelec Erie West Substation in Conneaut Township, Pennsylvania (Attachment A).

DOE is the lead federal agency in the preparation of the EA. The U.S. Army Corps of Engineers, Pittsburgh District, (USACE) will be a cooperating agency with DOE in preparing this EA. DOE is also the lead federal agency for purposes of compliance with Section 106, in accordance with 36 CFR § 800.2(a)(2), and will address the potential effects of the NEPA cooperating agency's proposed action on historic and archaeological resources.

[a] In accordance with Executive Order (EO) 10485, as amended by EO 12038, and the regulations at 10 Code of Federal Regulations (CFR) 205.320 et seq. (2000), "Application for Presidential Permit Authorizing the Construction, Connection, Operation, and Maintenance of Facilities for Transmission of Electric Energy at International Boundaries."

DOE documented a Notice of Intent (NOI) to prepare an EA in the Federal Register on July 17, 2015, with comments and motions to intervene on or before August 17, 2015. The NOI specifically indicated that cultural and historic resources are being analyzed as part of the federal environmental review. While the proposed action is the potential grant of a Presidential Permit by DOE for the international border crossing, the proposed construction, operation, maintenance, and connection of the portion of the transmission line within the United States is considered a connected action to DOE's proposed action under NEPA. DOE is therefore analyzing the potential environmental effects from the proposed action and the connected action in the EA. For the purposes of compliance with Section 106 of the NHPA, DOE is considering the potential for adverse effects to cultural and historic properties for the proposed border crossing and entire length of the proposed transmission line.

Consulting Parties

In accordance with 36 CFR §800.2, DOE has identified potential consulting parties, including PHMC, SHPO, ITC Lake Erie, local government representatives, applicable Tribal Historic Preservation Officer(s) and other Native American Tribes (Attachment B), state and local historical groups, and county and town historical societies with an interest for the purposes of Section 106 consultation under NHPA. A list of consulting parties identified by DOE is enclosed with this letter for your review and input (Attachment C). DOE requests that you and your staff provide DOE with any other potential Section 106 consulting parties for the LEC project that may not have yet been identified or that should be included in this list of potential consulting parties. Any assistance your office may provide is greatly appreciated.

As proposed, the LEC project does not directly involve tribal reservation lands or require a right-of-way grant or special use grant from tribes.

Identification Efforts to Date

The proposed undertaking has the potential to affect historic properties either listed in, or eligible for, inclusion on the NRHP. Three cultural resources surveys were performed by ITC Lake Erie's consultant, Hartgen Archeological Associates, Inc. as part of the LEC project Presidential permit application. The Phase 1A literature review considered a geographic area within which the project may directly or indirectly cause alterations in the character or use of historic properties, and includes all areas along the proposed transmission line construction corridor where ground-disturbing activities would be conducted. It also included those areas outside the proposed transmission corridor, including the Lake Erie HVDC Converter Station site, laydown areas, access roads, and other locations that may be affected by the project construction and operations.

The studies completed to date include the following.

- Hartgen Archeological Associates, Inc. 2015. PHASE IA Literature Review and Architecture Review and Archeological Sensitivity

Assessment for the Lake Erie Connector Project Townships of Conneaut, Girard, and Springfield, Erie County, Pennsylvania

- Hartgen Archeological Associates, Inc. 2016. Phase IB Archeological Field Reconnaissance - Lake Erie Connector Project, Townships of Conneaut, Girard, and Springfield Erie County, Pennsylvania
- Hartgen Archeological Associates, Inc. 2016. Marine Route Survey Archeological Analysis – U.S. Landfall to Offshore International Border for the Lake Erie Connector Project, United States/Canada Border to Landfall in Erie County, Pennsylvania

With regard to the Lake Erie portion of the proposed LEC project, Hartgen conducted an initial study of the NHRP listed or eligible properties and identified two shipwrecks, *Charles Foster* and the "17 Fathoms Wreck," within 1 mile of the proposed LEC project route (Table 1). Other unverified wrecks may be present in the vicinity of the proposed project.

Table 1. Known Cultural Resources for the Lake Erie**Error! Bookmark not defined.** Segment within One Mile of the Proposed LEC project.

Site Type	Site Name and/or State and/or Project Number	Description
Underwater site	*Charles Foster*	Shipwreck approximately 2,000 feet from proposed route; went down on December 8,1900
Underwater site	17 Fathoms Wreck	Shipwreck approximately 1,950 feet from proposed route; reported in 1963, depth of 17.5 fathoms (105 feet)

Regarding the overland portion of the LEC project, the Phase 1A study identified 22 known archaeological sites within a mile of the LEC project; five archaeological sites were also located during field investigations. The study area encompassed approximately 1 mile on either side of the centerline of the proposed transmission line and of the site proposed for the converter station.

None of the sites identified have been determined eligible for listing in the NRHP.

Hartgen also investigated historical resources along the overland portion of the LEC project. The Frederick E. Blair House on West Lake Road was determined eligible for listing on the NHRP; the precise location of the property is unknown and is located more than 0.5 mile west of the proposed LEC project route.

The LEC Presidential permit application, including associated maps, drawings, and initial cultural resources study, can also be viewed or downloaded in its entirety from the DOE Office of Electricity Delivery and Energy Reliability (OE) program Web site at:

http://energy.gov/oe/downloads/application-presidential-permit-oe-docket-no-pp-412-itc-lake-erie-connector-project

Cultural Resource Studies

At this time, DOE understands that ITC Lake Erie has provided the PHMC with the cultural resource reports for the proposed LEC project.

Scope of Future Identification Efforts under Section 106

In order to begin your consideration of DOE's scope of future identification and evaluation efforts, DOE typically defines an APE for this type of undertaking that includes the geographic area or areas within which the project may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.

The APE includes all areas along the transmission cable corridor where ground-disturbing activities will be conducted. The APE would also include areas outside the transmission cable corridor, including the converter station site, the HVAC cable alignment, transmission interconnection sites, laydown areas, access roads, and other locations that may be affected by project construction and operations. Additionally, the APE would take into account standing historic properties (i.e., buildings, structures, individual objects, and districts) that may be indirectly affected by the use of heavy equipment, particularly along the overland portion of the project's proposed route.

The width of the construction corridor varies based on installation techniques and environment. The excavation of the cable trench, installation of erosion and sediment control measures, installation of the cables, and stockpiling of excavated materials are expected to occur within 40 to 75 feet of the construction corridor.

DOE looks forward to future discussions with you and other consulting parties about the APE for the LEC project, and understands that no final APE determinations may be made at this time.

Finally, DOE wants to take this opportunity to inform you early on of its intent to develop a PA pursuant to 36 CFR § 800.14(b) to resolve the proposed project's potential effects on historic properties. The PA would be developed in consultation with SHPO, THPO, Consulting Parties, the public, and other interested parties, as appropriate.

The PA would require ITC Lake Erie to develop a Cultural Resources Management Plan (CRMP) for the proposed LEC project in consultation with your office and the Consulting Parties prior to initiation of construction activities.

In closing, DOE currently seeks your concurrence on initiating its Section 106 consultation process for the proposed LEC project. DOE also seeks any information or suggestions that your office may have with regard to potential consulting parties or tribes

that are included in the attached consulting parties list, or any additional information that should considered at this time.

Please provide your Section 106 initiation concurrence and any material information that you may have in writing so that it may be added to the administrative record to evidence DOE's compliance with Section 106 consultation responsibilities.

At this time, we also wish to clarify the name and contact information for DOE's representative for purposes of consultation pursuant to Section 106. In accordance with 36 CFR Part 800.2(a)(3), the DOE has authorized Kleinschmidt Group to prepare DOE's subject EA, which will include an analysis of the proposed LEC project's potential for adverse effects on cultural resources, including historic properties as defined by Section 106 of the NHPA and its implementing regulations at 36 CFR Part 800. Coordination of consultation activities under the Section 106 process will be completed by Ms. Kelly Schaeffer, Senior Regulatory Advisor at Kleinschmidt Group. Ms. Schaeffer can be contacted at (703) 753-9772 or by e-mail at Kelly.Schaeffer@KleinschmidtGroup.com.

DOE remains legally responsible for findings and determinations and for the DOE's government-to-government relationships with Indian tribes.

DOE very much looks forward to working with you and your staff in the near future and appreciates your assistance in this effort. If you have any questions or comments regarding the proposed LEC project, please contact me directly at any time at Brian.Mills@hq.doe.gov or (202) 586-8267.

Yours very truly,

Brian Mills
National Electricity Delivery Division (OE-20)
Office of Electricity Delivery and
Energy Reliability
U.S. Department of Energy

Enclosed: Attachment A – Project Location Map
Attachment B – Consulting Native American Tribes
Attachment C – Other Consulting Entities for the Lake Erie Connector Project

Cable exit location on private property
Springfield Township

W Lake Rd

Townline Rd

Springfield Rd

Springfield Rd

E Springfield Rd

Lexington Rd

Proposed Erie
Converter Station

Existing Erie
West Substation

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

LEC Underwater Cable Route

LEC Underground Cable Route

LEC AC Cable Route

N

0 1,000 2,000 3,000 4,000 5,000

Feet

Scale:	AS SHOWN
Project No:	4339001.01
Filename:	see margin
Drawn By:	RJK
Date Drawn:	04-05-2016

ITC Holdings
Third Party NEPA

ITC Lake Erie Connector
DOE Presidential Permit Application

Project Location Map
Underwater and Underground Cable Routes

Kleinschmidt
141 Main St., PO Box 650
Pittsfield, Maine 04967
Telephone: (207) 487-3328
Fax: (207) 487-3124
www.KleinschmidtGroup.com

Path: C:\Users\Robert Klosowski\Documents\Projects\Lake_Erie_Connector\Project_Location_03a.mxd

Source: HDR, Inc., Portland, ME. Presidential Permit Application Environmental Report, May 2015. NAD 1983 UTM Zone 17N, Meters.

TRIBAL CONTACTS (AS OF March 25, 2016)

(*check www.penndotcrm.org for most up-to-date tribal contact list)

Absentee-Shawnee Tribe of Oklahoma

Govt-Govt (cc. for Section 106 and projects):
Edwina Butler-Wolfe, Governor
Absentee-Shawnee Tribe of Oklahoma
2025 S. Gordon Cooper Drive
Shawnee, OK 74801
Phone: (405) 275-4030
Fax: (405) 878-4533

Section 106/environment/NEPA:
Joseph Blanchard
Same address
Phone: (405) 275-4030 ext. 303
Fax: (405) 878-4533
Email: joseph.blanchard@astribe.com

and

Carol Butler
Same Address
Phone: (405) 275-4030 ext 302
Fax: (405) 878-4533
Email: cabutler@astribe.com

Cc: Governor

Cayuga Nation

Govt-Govt:
Chief Clint Halftown
P.O. Box 803
Seneca Falls, NY 13148
Phone: (716) 998-1054
Fax: (315) 568-0752
Email: To be Determined

Section 106 and projects/Environment/NEPA:
Timothy Two Guns
Same address

Delaware Nation

Govt-Govt:
Kerry Holton, Tribal President
Delaware Nation
P. O. Box 825
Anadarko, OK 73005
Phone: (405) 247-2448
Fax: (405) 247-9393

Section 106 and projects:
Jason Ross
Delaware Nation
31064 State Highway 281
Anadarko, OK 73005
Phone: (405) 247-8903
Fax: (405) 247-8905
Email: jross@delawarenation.com

Environment/NEPA:
Darrin Ahshapanek, EPA Director
Same address

Delaware Tribe of Indians

Govt-Govt:
Chet Brooks, Chief
170 N Barbara Ave
Bartlesville, OK 74003
Phone: (918) 336-5272
Fax: (918) 336-5513
cbrooks@delawaretribe.org

Section 106 and projects:
Dr. Brice Obermeyer
1200 Commercial Street
Roosevelt Hall, RM 212
Emporia State University
Emporia, KS 66801
Phone: (620) 341-6699
Fax: N/A
Email: bobermeyer@delawaretribe.org

For previous Projects with ongoing consultation
For new Project Notifications Send to:
Susan Bachor
Delaware Tribe Historic Preservation Representatives
P.O. Box 64
Pocono Lake, PA 18347
Phone: 610-761-7452
Email: temple@delawaretribe.org

Blair Fink
Delaware Tribe Historic Preservation Representatives
Temple University
1115 West Polett Walk
Philadelphia, PA 19122
Phone: N/A
Email: temple@delawaretribe.org

Eastern Shawnee Tribe of Oklahoma
Govt-Govt:
Glenna Wallace, Chief
Eastern Shawnee Tribe of Oklahoma
P. O. Box 350
Seneca, MO 64865
Phone: (918) 666-2435
Fax: (918) 666-2186
Email: gjwallace@estoo.net

Section 106 and projects:
Robin Dushane Cultural Preservation Officer
Same address
rdushane@estoo.net

Environment/NEPA:
Roxane Weldon, EPA Director
Same address

Oneida Indian Nation
Govt-Govt:
Raymond Halbritter, Nation Representative
Oneida Indian Nation
5218 Patrick Road
Verona, NY 13478

Section 106 and projects:
Jesse Bergevin, Historian
Oneida Indian Nation
1256 Union Street
PO Box 662
Oneida, NY 13421-0662
Phone: (315) 829-8463
Fax: (315 829-8473
jbergevin@oneida-nation.org

Cc: Laura Misita, Land Administrator
Oneida Indian Nation
5218 Patrick Road
Verona, NY 13478
Phone: (315) 361-8188
Fax: (315) 361-8209
Email: lmisita@oneida-nation.org

Environment/NEPA and legal issues:
Stephen J. Selden, Esq.
General Council
5218 Patrick Road
Verona, NY 13478
Phone: (315) 361-8687
Fax: (315) 361-8621

Oneida Nation of Wisconsin
Govt to Govt:
Cristina Danforth, Chairwoman
Oneida Nation of Wisconsin
P. O. Box 365
Oneida, WI 54155-0365
Phone: (920) 490-2096
Fax: (920) 490-2099

Section 106 and projects,
Environment/NEPA:
Corina Williams, THPO
Oneida Nation of Wisconsin
Same address
Phone: (920) 496-5386
Fax: (920) 490-2099
E-mail: cwilliam@oneidanation.org

Onondaga Nation
Govt-Govt, Section 106 and projects, Environment/NEPA:
Tony Gonyea, Faithkeeper
Onondaga Nation
RR#1 Box 245
Onondaga Nation
via Nedrow, NY 13120
Phone: (315) 952-3109
Fax: (315) 469-1725
E-mail: onondationhispres@aol.com

Seneca Nation of Indians
Govt to Govt:
Maurice A John Sr., President
Seneca Nation of Indians
P.O. Box 231
Salamanca, NY 14779

Section 106 and projects, Environment/NEPA:
Scott Abrams, Acting THPO
Seneca Nation of Indians
Tribal Historic Preservation Office
90 O:hi'yoh Way
Salamanca, NY 14779
Phone: (716) 945-1790 ext 3580
Fax: (716) 945-0351
E-Mail: scott.abrams@sni.org

Seneca-Cayuga Tribe of Oklahoma
Govt-Govt
William L. Fisher, Chief
Seneca-Cayuga Tribe of Oklahoma
23701 S. 655 Road
Grove, OK 74344
Phone: (918) 542-6609 Ext. 14
Fax: (918) 542-3684

Section 106 and projects:
Paul Barton, Historic Preservation Officer
23701 S. 655 Road
Grove, OK 74344
Phone: (918) 787-7979
Fax: (918) 787-9440
Email: pbarton@sctribe.com

Environment/NEPA:
Paul Barton, Environmental Director
Same address

St. Regis Mohawk Tribe
Govt-Govt:
Chief Beverly Cook
St. Regis Mohawk Tribe
412 State Route 37
Hogansburg, NY 13655
Phone: (518) 358-2272
Fax: (518) 358-2272

Section 106 and projects:
Arnold Printup, Historic Preservation Officer
Same address
Phone: (518) 358-2272
Fax: (518) 358-4302
Email: arnold.printup@srmt-nsn.gov

Environment/NEPA:
Ken Jocks, Director
Environmental Division
RR #1, Box 8a
Hogansburg, NY 13655
Email: ken.jock@srmt-nsn.gov

Shawnee Tribe
Govt-Govt (cc. for Section 106 and projects):
Ron Sparkman, Chairman
Shawnee Tribe
29 South 69a Highway
Miami OK 74354
Phone: (918) 542-7774
Fax: (918) 542-2922
Email: ronded@gmail.com

Section 106 and projects, Environment/NEPA:
Kim Jumper, Tribal Historic Preservation Officer
Same address

Phone: (918) 542-2441
Fax: (918) 542-9915
Email:kim.jumper@shawnee-tribe.com

cc. Tribal Chairman

Stockbridge-Munsee Band of the Mohican Nation of Wisconsin
Govt-Govt:
Wally Miller, Tribal President
Stockbridge-Munsee Band of the
Mohican Nation, Wisconsin
Route 1
P.O. Box 70
Bowler, WI 54416
Phone: (715) 793-4111
Fax: (715) 793-1307
Email: wally.miller@mohican-nsn.gov

Section 106 and projects:
Sherry White, THPO
W13447 Camp 14 Road
Bowler, WI 54416
Phone: (715) 793-3970
Fax: (715) 793-4836
Email: sherry.white@mohican-nsn.gov

Environment/NEPA:
Greg Bunker
Same address
Phone: (715) 793-4363
Fax: (715) 793-4370

Tonawanda Seneca Nation
Govt-Govt, Section 106, and
Environmental:
Chief Darwin Hill
Tonawanda Seneca Nation
7027 Meadville Road
Basom, NY 14013
Phone: (716) 542-4244 or (716) 542-2341
Fax: (716) 542-4008
E-mail: tonseneca@aol.com

Tuscarora Nation
Govt-Govt, Section 106, and projects:*
Leo Henry, Chief
2006 Mt. Hope Road
Tuscarora Nation
Via Lewiston, NY 14092
Phone: (716) 601-4737
Fax: (880) xxx-xxxx 800-9787

cc. Section 106 and projects:*
Bryan Printup
5226 Walmore Road
Lewiston, NY 14092
Phone: (716) 264-6011
bprintup@helf.org

*As requested by Chief Henry, please address any correspondence to an individual to the:

Tuscarora Nation
Chiefs Council

Environment/NEPA:
Tuscarora Environmental Program
Neil Patterson, Jr., Director
2045 Upper Mountain Road
Tuscarora Nation
Sanborn, NY 14132
Phone: (716) 609-3810
Email: npatterson@hetf.org

Lake Erie Connector Project
Section 106 Historic Preservation Consultation List
March 28, 2016

1.0 Federally Recognized Tribes

See attached PDF

2.0 State Historical Groups

Historical Society of Pennsylvania
1300 Locust Street
Philadelphia, PA 19107

3.0 Lake Erie Historical Groups

Lake Erie Islands Historical Society
441 Catawba Ave
Put In Bay, OH 43456

Erie Maritime Museum
150 East Front Street
Erie, PA 16507

4.0 Lake Erie Ferry Service

Miller Boat Line
5174 E Water Street
Port Clinton, OH 43452

5.0 Lake Erie Segment - Counties and Towns in the Project Area

Historical Society of Erie County
356 West 6th Street
Erie, PA 165016

6.0 Overland Segment – Girard Township, Springfield Township, Conneaut Township, and Erie County, PA

Historical Society of Erie County
356 West 6th Street
Erie, PA 16501

Girard Historical Society
1011 N. State Street
Girard, OH 44420

Harborcreek Historical Society
5451 Merwin Lane
Erie, PA 16510

Springfield Township Historical Society
PO Box 564
Flourtown, PA 19031

Conneaut Area Historical Society
501 Sandusky St
Conneaut, OH 44030

Conneaut Historical Railroad Society
363 Depot Street
Conneaut, OH 44030

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Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

12 May 2016

Brian Mills
Office of Electricity Delivery and Energy Reliability
U.S. Department of Energy
Washington DC 20585

RE: ER 2014-0106-049-E, DOE: ITC Lake Erie Connecter Project, Request to Initiate Consultation, Girard, Springfield, and Conneaut Township, Erie County

Dear Mr. Mills,

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

We offer the following comments on the initiation package provided to our office:

We are in agreement with the list of potential consulting parties and tribes provided and request notification of the following additional potential consulting parties:

Preservation Erie
10 East Fifth Street
Box 3
Erie PA 16507

Regional Science Consortium and PASST
Attn: Jeanette Schnars
301 Peninsula Drive #1
Erie PA 16505

The Area of Potential Effect (APE) is defined in the regulations implementing the Section 106 review process as “The geographic areas or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties.” [36 CFR Part 800.16(d)]. Therefore, the APE should take into account those areas from which the project may have indirect (visual) effects as well as direct effects.

We agree with the proposed phased approach to the identification and evaluation of historic resources.

If you need further information regarding archaeological resources, please contact Kira Heinrich at kiheinrich@pa.gov or at (717) 705-0700. If you need further information concerning above ground resources, please contact Barbara Frederick at bafrederic@pa.gov or at (717) 772-0921.

Sincerely,

Douglas C. McLearen, Chief
Division of Archaeology & Protection

APPENDIX G CONTRACTOR DISCLOSURE STATEMENT

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Exhibit A

NEPA DISCLOSURE STATEMENT FOR PREPARATION OF THE ITC LAKE ERIE CONNECTOR PROJECT *ENVIRONMENTAL ASSESSMENT*

CEQ Regulations at 40 CFR 1506.5(c), which have been adopted by the DOE (10 CFR 1021), require contractors who will prepare an EA to execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for purposes of this disclosure is defined in the March 23, 1981 guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," 46 FR 8026-18038 at Question 17a and b.

"Financial or other interest in the outcome of the project" includes "any financial benefit such as a promise of future construction or design work in the project, as well as indirect benefits the contractor is aware of (e.g., if the project would aid proposals sponsored by the firm's other clients)." 46 FR 18026-18038 at 18031.

In accordance with these requirements, the offer or and any proposed subcontractors hereby certify as follows: (check either (a) or (b) to assure consideration of your proposal).

(a)___X___ Offer or and any proposed subcontractor have no financial or other interest in the outcome of this project

(b)_____ Offer or and any proposed subcontractor have the following financial or other interest in the outcome of the project and hereby agree to divest themselves of such interest prior to award of this contract.

Financial or Other Interests
1.
2.
3.

Certified by

Scott R. Ault, Senior Vice President

Printed Name and Title

Kleinschmidt Associates

Company

December 3, 2015

Date

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APPENDIX H PENNSYLVANIA COASTAL RESOURCES MANAGEMENT PROGRAM

Source: ITC Lake Erie 2016 Joint Permit Application, Volume 1, Section U

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
INTERSTATE WATERS OFFICE

Initial Review: _____
Updated On: _____
Approved: _____
Official Use Only

Coastal Zone Management Act
Federal Consistency Form

This document provides the Pennsylvania Coastal Resources Management Program (CRM) with a Federal Consistency Determination or Certification for activities regulated under the Coastal Zone Management Act of 1972, as amended, and NOAA's Federal Consistency Regulations, 15 C.F.R. Part 930. Federal agencies and other applicants for federal consistency are not required to use this form; it is provided to applicants to facilitate the submission of a Consistency Determination or Consistency Certification.

I. Project/Activity Title and Reference Number:

Title:	Lake Erie Connector Project
Ref. No.	

II. Applicant Contact Information:

Contact Name/Title: Andrew Jamieson, Counsel

Federal Agency AND Contractor Name (if applicable): _____

Mailing Address: ITC Lake Erie Connector, LLC; 27175 Energy Way

City/State: Novi, MI Zip Code: 48377 Telephone #: (248) 946-3000

E-mail: ajamieson@itctransco.com Mobile #: ( ) Fax #: (248) 946-3229

III. Federal Consistency Category:

☐ Federal Activity or Development Project (15 C.F.R. Part 930, Subpart C)

☒ Federal License or Permit Activity (15 C.F.R. Part 930, Subpart D)

☐ Outer Continental Shelf Activity (15 C.F.R. Part 930, Subpart E)

☐ Federal Financial Assistance to State or Local Governments (15 C.F.R. Part 930, Subpart F)

☐ Federal Activity with Interstate Coastal Effects
(*For this category, you should also select the applicable Subpart (C, D, E, or F) from above*)
(15 C.F.R. Part 930, Subpart I)

IV. Detailed Project Description (attach additional sheets if necessary)**:**

Please see attached report.

V. General Analysis of Coastal Effects (attach additional sheets if necessary)**:**

Please see attached report.

VI. Detailed Analysis of Consistency with CRM Enforceable Policies (attach additional sheets if necessary)**:**

Policy 1: Coastal Hazard Areas **NA** ☐

Please see attached report.

Policy 2: Dredging and Spoil Disposal **NA** ☐

Please see attached report.

Policy 3: Fisheries Management **NA** ☐

Please see attached report.

Policy 4: Wetlands **NA** ☐

Please see attached report.

Policy 5: Public Access for Recreation NA ☐

Please see attached report.

Policy 6: Historical Sites and Structures NA ☐

Please see attached report.

Policy 7: Port Activities NA ☐

Please see attached report.

Policy 8: Energy Facility Siting NA ☐

Please see attached report.

Policy 9: Intergovernmental Coordination NA ☐

Please see attached report.

Policy 10: Public Involvement NA ☐

Please see attached report.

Policy 11: Ocean (Great Lakes) Resources NA ☐

Please see attached report.

VI. Certification and Signature (Check one and sign below):

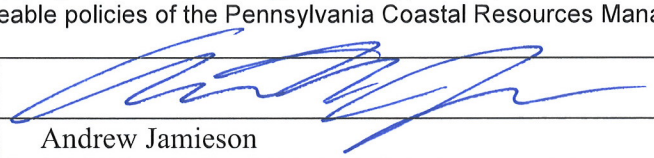
☐ **FEDERAL AGENCY CONSISTENCY DETERMINATION.** Based upon the information, data, and analysis included herein, the federal agency, or its contracted agent, listed in (I) above, finds that this proposed activity is consistent to the maximum extent practicable with the enforceable policies of the Pennsylvania Coastal Resources Management Program.

OR

☐ **FEDERAL AGENCY NEGATIVE DETERMINATION.** Based upon the information, data, and analysis included herein, the federal agency, or its contracted agent, listed in (I) above, finds that this proposed activity will not have any reasonably foreseeable effects on Pennsylvania's coastal uses or resources (Negative Determination) and is therefore consistent with the enforceable policies of the Pennsylvania Coastal Resources Management Program.

OR

☒ **NON-FEDERAL APPLICANT'S CONSISTENCY CERTIFICATION.** Based upon the information, data, and analysis included herein, the non-federal applicant for a federal license or permit or state or local government agency applying for federal funding, listed in (I) above, finds that this proposed activity is fully consistent with the enforceable policies of the Pennsylvania Coastal Resources Management Program.

Signature:			
Printed Name:	Andrew Jamieson	Date:	1/26/16

Pursuant to 15 C.F.R. Part 930, the Pennsylvania Coastal Resources Management Program must provide its concurrence with or objection to this consistency determination or consistency certification in accordance with the deadlines listed below. Concurrence will be presumed if the state's response is not received within the allowable timeframe.

Federal Consistency Review Deadlines:

Federal Activity or Development Project (15 C.F.R. Part 930, Subpart C)	60 days, 75 days with extension. Additional extensions at Federal agency discretion. State and federal agency may agree to alternative time frames. (15 C.F.R. § 930.41)
Federal License or Permit (15 C.F.R. Part 930, Subpart D)	6 months with mandatory 3-month notification. State and applicant may agree to stay the 6-month review period. (15 C.F.R. § 930.63)
Outer Continental Shelf Activity (15 C.F.R. Part 930, Subpart E)	6 months with mandatory 3-month notification. State and person may agree to stay the 6-month review period. (15 C.F.R. § 930.78)
Federal Financial Assistance to State or Local Governments (15 C.F.R. Part 930, Subpart F)	30 days from CRM-receipt of this determination. (15 C.F.R. § 930.98)

OFFICIAL USE ONLY:

Reviewed By:	Fed Con ID:	Date Received: __/__/____
Announced in *The Pennsylvania Bulletin*: __/__/____	Comments Received: ☐ NO ☐ YES *[attach comments]*	
☐ Concurrence	☐ Objection *[attach details]*	

LAKE ERIE CONNECTOR:
FEDERAL CZMA CONSISTENCY FORM (SECTIONS IV, V, VI)

ITC Lake Erie Connector LLC (the Applicant) is proposing to construct and operate the Lake Erie Connector Project (Lake Erie Connector or Project), an approximately 72.4-mile (116.5 km), 1,000-megawatt (MW), +/-320-kilovolt (kV), high-voltage direct current (HVDC), bi-directional electric transmission interconnection to transfer electricity between Canada and the United States (U.S.). This CZMA Consistency Form narrative describes how the U.S. portion of the proposed Project complies with and will be conducted in a manner consistent with the enforceable policies of the Pennsylvania Coastal Resources Management Program (CRMP). Specifically, this analysis applies to the potential impacts associated with the coastal vicinity defined in the CRMP where the project facilities cross Lake Erie within the U.S. to the lake shoreline area in Springfield Township, Pennsylvania. A determination of consistency with the federal Coastal Zone Management Act (CZMA), as administered through the Pennsylvania CRMP, is being requested as a part of the Joint Permit Application (JPA) Process.

The following sections of this report are organized to provide the information requested as part of Sections IV, V and VI of the PADEP Coastal Zone Management Act Federal Consistency Form.

IV. Detailed Project Description

For purposes of permits being issued in the U.S., the Project consists of an approximately 42.5-mile (68.4 km) HVDC transmission line that would be installed in the lakebed of Lake Erie from the U.S.- Canada border to the coast of Lake Erie (the Underwater Segment) and underground in Pennsylvania from the coastal landfall location to the new Erie Converter Station (the Underground Segment), as well as approximately 2,082 ft (635 m) of underground 345-kV, alternating current (AC) cable between the proposed Erie Converter Station and the nearby existing Penelec Erie West Substation. The Erie Converter Station will include equipment to change the AC of the existing aboveground transmission network to the direct current (DC) transmitted by the proposed Project, and vice versa. Approximately 35.4 miles (57.0 km) of the Project transmission line route is underwater within Lake Erie and 7.1 miles is underground (mostly within the existing rights of way of several roads) in Springfield, Girard and Conneaut Townships in Erie County.

Section 2.0 of the Lake Erie Connector Project Environmental Assessment (EA) (Attachment 3) contains a detailed description of the U.S. portion of the proposed Project, including the location of various Project elements, construction methods and Project operation. The EA also includes a detailed discussion of existing environmental resources and land uses and the anticipated impacts associated with the construction and operation of the Project.

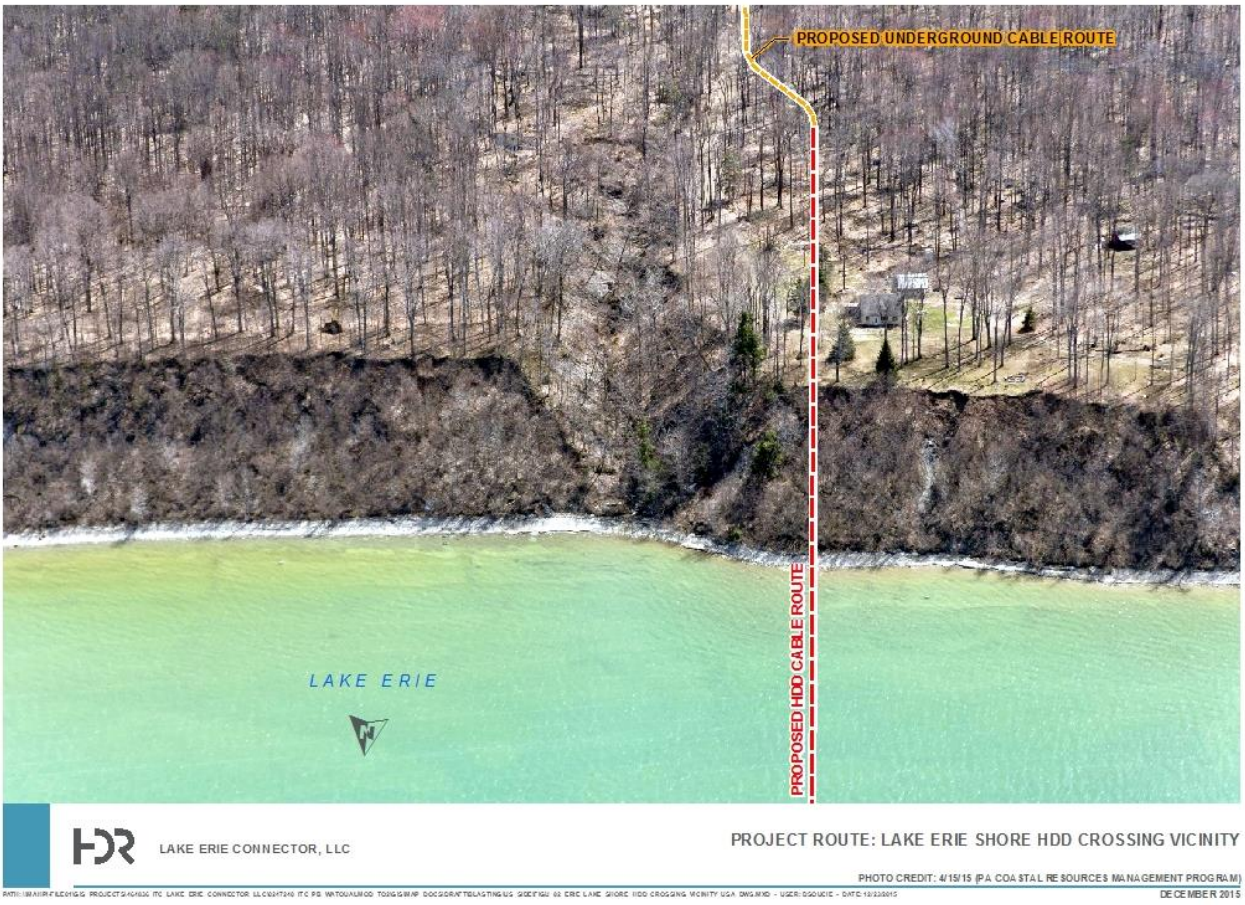
For the purposes of the coastal zone consistency review, please note that the majority of the proposed cables will be buried in the lakebed by a jet plow to protect the cables from damage due to shipping traffic, fishing activity, and ice scour. Typical burial depths in jettable material range from 3 to 10 ft (1 to 3 m). The proposed cables will be installed with a horizontal directional drill (HDD) method in the vicinity of the Lake Erie shoreline, thus avoiding any

direct impact on the near shore area or the coastal bluffs. This construction method was intentionally chosen to avoid any environmental impacts to the coastal zone and adjacent steep slopes.

Some underwater ripping or blasting of shallow bedrock material in Lake Erie would occur where needed to install the proposed cable within the lake bed from a point approximately1,340 feet from the shore where the cables exit the HDD borings in bedrock material to approximately one mile further north on the route where the bedrock transitions to softer sediments where jet plow installation becomes feasible. . A Project blasting plan providing details on the methods to be used for confined blasting, should that prove necessary, is included in Attachment 4 of the JPA.

Figure 1 shows the proposed project route on an oblique angle aerial photo of the Lake Erie shoreline taken on April 15, 2015 by the CRMP.

Figure 1 Project Route: Lake Erie Shore HDD Crossing Vicinity



V. General Analysis of Coastal Effects

The Pennsylvania CRMP protects and controls development along the shoreline area of Lake Erie between Pennsylvania's boundaries with Ohio to the south and New York to the north. The coastal zone includes the area from the international boundary with Canada to the CSX Railroad, which runs roughly parallel to the coast approximately 0.6 miles inland from the lake shore. The CRMP addresses major coastal resource management issues of state, federal, and local concern. The portions of the Project which lie within the coast zone include: the underwater transmission line and a portion of the land-portion underground transmission line. The Erie Converter Station and AC line to the Erie West Substation lie beyond the existing defined coastal zone. Pennsylvania has proposed expansion of the coastal zone to include the drainage area of all tributaries to Lake Erie. If that expansion were to be adopted, the U.S. portion of the Project would lie within that expanded coast zone area.

The CRMP is implemented through state regulatory authorities provided in the Pennsylvania Dam Safety and Encroachment Act, Floodplain Management Act, Bluff Recession and Setback Act, Clean Streams Act, and the Air Pollution Control Act.

The Project will be construed in accordance with 25 Pa. Code Chapter 85 Bluff Recession and Setback Regulations, the Springfield Township Zoning Ordinance, an Erosion and Sedimentation Control Plan approved pursuant to 25 Pa. Code Ch. 102, an approved Pennsylvania Water Obstruction and Encroachment Permit, a U.S. Army Corps of Engineers Section 10 and 404 Permit, and an approved Section 401 Water Quality Certification from the Pennsylvania Department of Environmental Protection (PADEP). As such, the Project will adhere to the policies set forth in the Pennsylvania CRMP for the Lake Erie coastal zone.

The Project has been designed to minimize and avoid impacts to existing environmental resources to the extent practicable, including within the coastal zone area, to meet regulatory requirements. Other sections of the Joint Permit Application provide additional detail on the various design and siting methods being implemented to reduce impacts within the lake segment, the coastal zone and throughout the on-land underground segment and converter station development site.

Summary of Environmental Impacts

The following summarizes the potential environmental impacts resulting from the Project construction and operation. For more detail, see Section 5.0 of the Lake Erie Connector Project ER (Attachment 3), which contains a detailed discussion of the anticipated environmental impacts associated with the construction and operation of the U.S. portion of the proposed project.

1. Water Use and Land Use

Due to the relatively small development footprint and short duration of project construction, effects on the recreational and fishing uses of and navigation in Lake Erie are expected to be localized, temporary, and negligible. During operation of the project, the magnetic field from the

Underwater Segment cable will be too low to impact navigation and will not cause compass deflection in the main shipping channels. Compass deflection could occur in the segment of the route that is near the shore of the lake where it is unlikely that a compass would be needed for navigational purposes.

For the Underground Segment, the Applicant will avoid or minimize traffic disturbances by using traffic details, construction signs and barriers, and notifying the local community in advance of any known road closures and detours. In addition, effects to roads and rail crossings will be minimized by using Jack & Bore techniques, thus avoiding most crossings by open trenching. No impacts to current public access locations and associated recreational opportunities are anticipated from the construction or operation of the proposed Project.

2. Geology and Soils

Temporary sediment disturbance in the lake and soil disturbance on land will result from Project construction. Total disturbance of all in-water activities would result in a temporary disturbance of approximately 50 acres and a negligible permanent disturbance (consisting primarily of the footprint of the cables themselves under the lakebed). The disturbance on land includes temporary work spaces such as laydown yards (13.4 acres), converter station property (21.4 acres), and work space required for facility construction (41.3 acres). On land disturbance areas include temporary impacts to wetlands (0.8 acres), permanent impacts to wetlands (1.0 acre), temporary impacts to streams (0.2 acres), permanent impacts to streams (less than 0.01 acres), and temporary impacts to floodplains (4.3 acres).

3. Water Resources and Quality

Effects on water resources and quality would be limited to construction and maintenance activities. Waterbody and wetland crossing locations and methods have been designed to minimize potential impacts. Wetland resources have been identified within the proposed underground cable route and converter station property. Wetlands in the proposed project vicinity have been substantially influenced by adjacent roadways, fields, and other developed features. Temporary impacts to wetlands are expected to occur during the construction and maintenance activities associated with the proposed Project. The cable route is proposed to occur primarily in existing public roadway ROWs and existing driveways, thus minimizing effects to wetlands. The combined temporary and permanent limit of disturbance to wetlands is estimated to be 1.8 acres. Temporary impacts may occur as part of repair or vegetation maintenance activities, but impacts would be localized and the affected area would be restored. Most of the wetlands located within the transmission line corridor would be restored upon completion of construction Unavoidable permanent wetland impacts total 1.0 acre, primarily conversion of forested wetland within the transmission line corridor to non-forested wetland, which would be compensated through implantation of an approved wetland mitigation plan (see Section T of the JPA). Where crossing wetlands or streams cannot be avoided, temporary impacts would be avoided and minimized in many cases by use of HDD or jack and bore crossing methods. Impacts would also be avoided through use of Best Management Practices (BMPs) during construction. Any disturbed areas would generally be restored in accordance with

the provisions of the Project Erosion and Sediment Control Plans and related Joint Permit conditions.

A number of vessels will be involved in Project construction. A Spill Prevention Control and Countermeasures (SPCC) Plan designed specifically to prevent spills during lake operations will be developed. Cable installation in Lake Erie will be primarily conducted using a jet plow or by water jetting in the deepest part of the lake. Burial of the cable may affect water quality by temporarily resuspending sediment and potentially causing localized migration of heavy metals in the basin or water column. To assess this potential impact, the Applicant's environmental consultant, HDR, has conducted modeling to evaluate the potential mixing and dispersion of sediment and other constituents resuspended during the cable installation process for the proposed jet plow or water jetting installation method (see Appendix E in Attachment 3 – Water Quality Modeling Report). Low concentrations of trace metals and organic chemicals are present in Lake Erie sediments; and the eastern basin of Lake Erie (where the Project is located) has the lowest level of contamination in sediments in the Lake Erie Basin. The results from the water quality modeling study have shown that minimal water quality impacts are associated with the cable installation in Lake Erie and they are limited to temporary impacts that would occur locally within a four hour timeframe. The model calculated total suspended solids (TSS) concentration increases due to the cable installation are <3 mg/L above observed background lake TSS levels at a distance of 100 meters from the point of installation and within five to eleven meters of the lake bottom. The model calculated TSS concentration increases reach a temporary peak concentration at the point of installation and then decrease rapidly. Likewise, the model calculated temporary total phosphorus (TP) and dissolved phosphorus (DP) concentration increases reach a peak concentration at the point of installation and then decrease rapidly. The time to reach <0.005 mg/L above background TP and DP concentrations is on the order of one to four hours.

The HDD method would be used to install the cables at the Lake Erie landfall location. Three borings would be directionally drilled from a location approximately 560 feet south of the bluff downward and then outward under the lake bed for a distance of approximately 2,000 feet. This HDD method avoids disturbance of the lake bluff, as well as a significant portion of the adjacent in-lake and land areas.

HDD operations have the potential to release drilling fluids to the surface through inadvertent returns. Because drilling fluids consist largely of a benign bentonite clay-water mixture, they are generally considered non-toxic. To prevent or minimize this potential effect, prior to HDD operations a sump pit will be constructed in the bedrock at each exit point within the bed of Lake Erie,. The purpose of the exit point sump pit is to contain suspended sediments to the interior footprint of the sump pit during the exit point excavation, and contain drilling fluids (which are heaver than water) at the lower end of the sump pit for recovery and disposal at an approved upland facility.

An Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan would also be implemented, which would allow for timely identification and cleanup of any drilling fluid leaks that might occur and minimize impacts on the environment.

4. Aquatic Resources

Habitat containing large/rocky substrates off the shores of Lake Erie offer spawning and nursery habitat for such species as lake whitefish, rainbow smelt, emerald shiner, spottail shiner, fathead minnow, channel catfish, stonecat, trout-perch, white bass, smallmouth bass, rainbow darter, johnny darter, yellow perch, walleye, and freshwater drum (Goodyear et al. 1982). As fish are mobile and in-water construction activities will take place in a limited and linear portion of Lake Erie, project effects to aquatic resources would be limited in both extent and duration. Additionally, the proposed Project will use HDD methods to avoid disturbance of the nearshore area where spawning, feeding, and rearing is most common among a variety of species.

Due to the frequent high-energy wave action and the presence of exposed bedrock along the nearshore area within approximately one mile of the Lake Erie shoreline, aquatic vegetation is scarce to non-existent (Rathke 1984), and, therefore, construction activities from the proposed Project are not expected to result in any impacts to aquatic vegetation. Lakebed disturbance from construction activities could result in a direct impact of the benthic or epifauna community; crushing or injuring benthic invertebrates, including mussels in the path of the jet plow, in areas of bedrock trenching, and in the footprint of the HDD exit sump pits. HDD, trench/sump pit excavation, and jet plowing would temporarily disturb the lake bed, causing bottom sediments to become resuspended.

In areas where bedrock is at or near the lake surface, trenches will need to be created for burial of the cables. The amount of explosives required for bedrock trenching will be limited to the extent possible to avoid pressure wave and vibration impacts on fish. A confined and stemmed blasting method will be used to minimize potential impacts. Most impacts from blasting would be either temporary or intermittent and it is expected that only a few individuals would be affected relative to the broadly dispersed stocks of any given species in Lake Erie. The Project may use additional measures to minimize the impacts of underwater blasting to fish in the approximately one-mile underwater segment where blasting of shallow bedrock would occur, such as use of blasting mats, deployment of bubble curtains or measures to mobilize and clear fish from the immediate blast area.

Overall, the area impacted by cable deployment activities is expected to fill in and recolonize from recruitment from nearby, unaffected areas of the lake.

5. Terrestrial Resources

The construction of the project will temporarily disturb existing habitat along the Project Underground Segment right of way. Vegetation removal and the direct reduction of some wildlife habitat could result in the direct displacement of species, including birds, mammals, reptiles, and amphibians; however, the acreage of permanent forest disturbance associated with the Project is very small. Because the Project is to be constructed primarily within and along existing roadways, these effects will be minimized.

6. Protected and Sensitive Species

Threatened and endangered species that may be within the Project area include Indiana bat, northern long-eared bat, and bald eagle. However, no significant impacts to these species are expected during construction, operation, or maintenance of the Project. The Project is not expected to affect cisco, eastern sand darter, or lake sturgeon, the three species of concern identified by the Pennsylvania Fish and Boat Commission (PFBC), or bank swallows, a species of concern identified by the USFWS. A survey for rare plants was conducted in 2015, and the results of that rare plant survey and description of anticipated impacts to protected and sensitive species appears in Section 5.6 of the EA (Attachment 3).

7. Cultural Resources

Formal National Historic Preservation Act Section 106 consultation has not been initiated. However, in advance of the consultation process, the Applicant has initiated studies to identify historic properties along the Project's alignment. The Applicant conducted a Phase IA study of the proposed transmission cable route in 2014 and a Phase 1B study in 2015. During the Phase IB, an archeological site was found along the centerline. However, this site is being avoided through use of HDD. Therefore, there are no anticipated impacts to cultural resources from the landside elements of the Project. The Phase 1A and 1B studies also evaluated the in-lake elements of the Project. All previously confirmed shipwrecks have been avoided by at least 100 meters. Further, the Applicant performed a marine route survey in 2015 to identify bottom conditions, shipwrecks, existing utilities, and other features along the proposed marine route. The marine route survey included a combination of investigative equipment and approaches including side-scan sonar, single-beam bathymetry, and magnetometer surveys to facilitate identification of potential shipwrecks. The results of the marine route survey are currently being reviewed by a marine archaeologist to identify anomalies or potential shipwrecks along the Project's marine route. If the marine route survey data confirms locations of additional shipwrecks of historical significance, appropriate route adjustments will be incorporated into the final design to the maximum extent practicable.

8. Aesthetic and Visual Resources

During construction of the proposed Project, there would be temporary impacts to the visual character of the viewshed. Because the transmission line will be installed in the lakebed and underground, there will be no permanent visual impacts expected from the operation of the proposed Project within the currently defined Pennsylvania coastal zone. The Erie Converter Station lies outside of the currently defined Pennsylvania coastal Zone. At the Erie Converter Station, plantings within a landscaped buffer will reduce long term visual impacts. A visual simulation of what the Erie Converter Station would look like is provided in Section 5.8 of the EA (Attachment 3).

9. Climate, Air Quality and Noise

The Project will not significantly affect climate or air quality. An air quality permit from the PADEP will be required for an emergency generator located at the proposed Erie Converter

Station. The air quality permit will address the limited air emissions resulting from the emergency use of the diesel generator.

Construction of the Project will result in certain noise during construction of the Project. These effects will be temporary, lasting only during construction. Epsilon Associates conducted a study of the sound propagation and impacts associated with the operation of the proposed Erie Converter Station. Anticipated noise levels created by equipment at the converter station during normal operations would not adversely affect the residential receptors located closest to the facility.

10. Infrastructure

During construction of the Underground Segment of the Project, some local infrastructure will temporarily be affected. Disturbances during construction may include temporary limitations on property access due to road detours and construction equipment/activities. Temporary and permanent impacts to existing underground or above ground infrastructure in the vicinity of the project ROW will be avoided.

11. Land Use and Traffic

Construction of the underground route of the proposed Project would result in temporary impacts to existing land uses and traffic along the proposed Underground Segment. Disturbances to land use during construction may include limitations on property access due to road detours and construction equipment/activities. However, these disturbances would be limited to the duration of construction in that immediate area and are anticipated to be short (i.e., less than a week in each area). Because the transmission line along the underground route will primarily be buried within the road ROW, disturbances to local traffic may occur during construction. The Applicant will avoid or minimize traffic disturbances by using traffic details, construction signs, and barriers and notifying the local community in advance of any known road closures.

No formal recreation sites are located within the lake segment or the underground route of the proposed Project, and, therefore, no impacts to existing recreational opportunities are anticipated from the construction or operation of the proposed Project. Permanent land use impacts will occur in areas where the transmission line route requires easements, restricting future land development within the easement area. However, since the transmission line has been located substantially within existing road ROWs, the impact on future land development is expected to be minimal and there will be no effect on access to any regional recreational use areas. There is no zoning in Conneaut Township, where the converter station is proposed. Construction and operation of the proposed Project is expected to be consistent with relevant land use zoning and comprehensive plans for the Erie County and Springfield, Girard, and Conneaut Townships.

VI. Detailed Analysis of Consistency with CZRM Enforceable Policies

Policy 1: Coastal Hazard Areas/Bluff Setback and Erosion Control

Pennsylvania's Lake Erie shoreline along the northern boundary of Erie County consists mainly of bluffs ranging in height from five to 90 feet. These bluffs are vulnerable to erosion and can result in bluff recession, which is the landward retreat of a bluff due to erosive forces. A variety of factors may affect bluffs including wave actions, groundwater seepage, surface water runoff, adjacent land use and human activity.

The CRMP includes coastal hazard area policies focused on bluff setback, erosion control and stormwater management. These policies were developed to minimize any impacts on coastal areas due to construction and land clearing activities associated with development too close to coastal bluff areas or from uncontrolled runoff or stormwater flows within the adjacent floodplain areas that could impact coastal resources. As such, municipalities in Pennsylvania bordering Lake Erie are required to adopt ordinances implementing the Pennsylvania Bluff Recession and Setback Act, which regulates land development activities along Bluff Recession Hazard Areas adjacent to Lake Erie. Such regulations are enforced through the process of obtaining zoning variances for construction activities on the bluffs.

The Project will be constructed in accordance with 25 Pa. Code Chapter 85 Bluff Recession and Setback regulations and corresponding provisions in the Springfield Township Zoning Ordinance. State and local approvals will be received in order to minimize and avoid impacts to the coastal hazard areas. The Project has been designed to cross under the bluffs via an HDD drilling technique. Use of this HDD method will avoid impacts to the bluff stability as well as provide an area to conduct construction that is set back an adequate distance from the bluffs. The HDD construction method would involve installing the transmission line in borings which will start at an insertion point located about 560 feet south of the lakefront bluff, and then proceed downward and then out under the nearshore bedrock area of Lake Erie. In the vicinity of the HDD crossing the bluffs rise approximately 85 feet above the shoreline. The cable would be installed approximately 30 feet below the lake bed in the shoreline area. The HDD installation method would thus avoid any impacts to the bluffs or the lake shore line and near shore area (see Section H for cross section view).

The erosion control and site stabilization and stormwater management measures that will be utilized on site will be presented to the Erie County Conservation District in an Erosion and Sedimentation Control Plan (E&SCP) and a Post-Construction Stormwater Management Plan (PCSM Plan). The construction activities will be based on an approved plan that is designed to avoid and minimize impacts to the environment. The work proposed in the E&SCP (see Section M of the Joint Application) and the Site Restoration Plan (see Section O of the Joint Application) will be designed to meet the requirements of local comprehensive stormwater management plans.

Temporary disturbance to stream floodplains would occur during cable installation from clearing, trenching, and HDD activities, including clearing of vegetation, ground disturbance, and related construction activity. To minimize impacts on floodplains during construction best

management practices (BMPs) as defined in the PADEP Erosion and Sediment Pollution Control Program Manual (PADEP 2012), including erosion and sedimentation controls and restoring pre-existing ground contours and grading, would be implemented and the impacted areas would be restored promptly after cable installation. There will be 13 surface water crossings associated with the Underground Segment of the Project's transmission line. An HDD crossing method would be employed at three perennial high quality streams and two intermittent high quality streams, thus avoiding both temporary and permanent disturbance within those streams and associated floodplains. Two of the streams being crossed by HDD method involve installation beneath more than one segment of the stream. Open cut crossing methods would be utilized at seven perennial stream crossings and one intermittent stream crossing. Such open cut trenching is only proposed in small perennial and intermittent streams where aquatic life is limited and the presence of migratory fish is unlikely. Most of these open cut trenching locations take place under an existing culvert crossing the stream where, to the extent possible, the culvert will remain in place during construction to convey the stream across the duct bank excavation. Temporary impacts at these locations will be of limited duration and all stream cross sections and water elevations will be restored to pre-construction conditions. The route also crosses within the floodway of three streams, but does not cross these streams.

As proposed, construction and operation of the Project will be consistent with the CRMP coastal hazard areas policies. The associated state and local permits will ensure that the permit conditions are consistent with CRMP policies, as administered by the permitting agencies.

Policy 2: Dredging and Spoil Disposal

The CRMP includes policies associated with dredging and spoil disposal to minimize impacts associated with improper dredging or spoils disposal activities that could adversely affect navigation, flood flow capacity, public lands and environmental quality. The CRMP also recognizes the importance of maintaining viable port facilities including the channel entrance of the Erie Harbor area.

Project construction will not involve dredging within Lake Erie. All trenching activities to install the cable in the lake bed will result in only temporary disturbance of local lake sediments and a majority of the sediments disturbed during jet plowing will resettle within the trench after cable installation is completed. Limited blasting may be required within an area approximately one mile from the Lake Erie shoreline area in order to install trenches in bedrock where jet blowing is not feasible. Such limited blasted will be completed using a drilling and limited stemmed charge method in accordance with a Project-specific blasting plan (Attachment 4) and will not materially alter the post-construction lake bed.

An analysis was conducted of existing and planned development activities, including dredging activities being conducted by other entities, in the vicinity of the Project. Aggregate dredging areas are located north of the proposed cable route over the Norfolk Moraine or Long Point – Erie Ridge. The permits for this aggregate area allow for dredging of coarse sand, gravel and glacial till. The proposed Project transmission cable route is sited to avoid these existing aggregate removal areas and will not affect their future utilization.

As proposed, construction and operation of the Project will be consistent with the CRMP dredging and spoil disposal policies and will not adversely affect existing or planned dredging or spoil disposal opportunities.

Policy 3: Fisheries Management

The CRMP includes policies associated with fisheries management, addressing activities potentially affecting fish and aquatic life and habitats, proactive fish stocking programs and public access to recreational fishing. These policies include a strong focus on ensuring coastal zone water quality and conservation or restoration of critical aquatic habitat areas.

To be consistent with these policies, the Project permitting process will incorporate the input of state and federal fisheries management agencies to ensure that any unavoidable potential impacts to fish and aquatic life will be limited in duration to the construction phase of the Project and minimized to the degree practicable. Since the Project facilities will be buried within the lake sediment and the HDD construction process will be utilized to avoid impacts to the shoreline and bluff vicinity, no long term adverse impacts to Lake Erie fish and aquatic resources and associated habitat or behavior are anticipated. There would be no impacts on Essential Fish Habitat because no Essential Fish Habitat has been designated within the Project route.

Construction related impacts may temporarily affect fish and aquatic species within the Project area. A detailed discussion of the regional fisheries and potential Project impacts on Lake Erie fisheries and aquatic habitat is provided in Sections 4.4 and 5.4 of the EA in Attachment 3 of this application.

In the deeper waters (greater than 10 m [32.8 ft]) of Lake Erie, where the bottom substrate is dominated by sand, silt, and clay, the jet plow or water jetting equipment would bury the cable and the trench will begin to backfill immediately with the disturbed sediment resulting in a temporary increase in localized turbidity. Typical burial depths in jettable material range from 3 to 10 ft (1 to 3 m). As discussed in more detail in Appendix E of Attachment 3 (EA), the results of the Applicant's water quality model (HDR 2015) show that minimal water quality impacts would be associated with the cable installation in Lake Erie and they are limited to temporary impacts that would occur locally within an approximately four hour timeframe after jet plowing or water jetting in a specific area occurs. The Project would not cause significant impacts to water temperature.

An increase in lake sedimentation could theoretically cause pelagic eggs to sink to the bottom and smother demersal eggs, reduce growth rates and increase mortality in larvae, and cause gill abrasion resulting in reduction of oxygen absorption in juveniles and adults (Berry et al. 2003). Diversity and production of fish species in the nearshore waters is higher than in offshore waters (Edsall and Charlton 1997). However, these theoretical potential impacts are unlike with respect to this Project for several reasons. First, the bottom composition along the Pennsylvania segment of the Lake Erie shoreline is dominated by bedrock and, therefore, the nearshore construction activities from the proposed Project will result in minimal increase in sedimentation. Second, the proposed Project will use a HDD construction method to install the Project cables between the lake shore area and the upland area south of the lake bluff area, thus avoiding disturbance within approximately 0.25 mi of the nearshore area where spawning, feeding and rearing is more

common among a variety of species[1]. It is also important to note that many of the fish species potentially in the Project area spawn in nearshore areas, primarily in spring, so the utilization of HDD methods in these near shore areas will limit impacts to spawning fish populations. Third, the Water Quality Modeling conducted for the Project indicates that temporary mobilization of lake bed sediments during construction will be localized and limited in duration and lateral extent. Any increase in turbidity following blasting is expected to settle quickly and not adversely impact aquatic species of their habitat .

HDD construction activities, the grapnel run, trenching, and low level blasting could temporarily disturb sediment and, in areas of soft sediment, temporarily increase turbidity in the water column resulting in a short term indirect impact to fish along the proposed Project route. In general, fish are highly mobile species and would be able to avoid any direct impacts from construction activities, as well as move into nearby, unaffected areas of the lake to seek refuge and to feed or spawn.

In the event that drilling fluids from the coastal area HDD operations are released into the water column, these fluids could temporarily become suspended in the lake or disperse. If released into the water column, drilling fluids could result in temporary impacts on the adjacent aquatic resources, primarily due to localized increases in turbidity. The benign bentonite based drilling fluids would not introduce new pollutants into the water column. Measures to prevent or minimize this potential effect include constructing sump pits at the HDD lake exit point to contain drilling fluids; removal of drilling fluids, and implementing an Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan, and are discussed in further detail Section 5.3.1 of the EA in Attachment 3.

Near the Project's U.S. landfall, bedrock is either exposed or very close to the surface near shore, preventing cable burial via jet plow or water jetting. Due to these geological constraints, a trench may need to be excavated by confined stemmed blasting in the bedrock (primarily shale) for approximately one mile (1.6 km) from the exit of the horizontal directional drilling (HDD) bore (approximately 2,000 ft [609.6 m] from the shoreline) to softer lake bed material where jet plow burial can be utilized. Stemmed charges will involve explosive materials placed into holes drilled into the substrate. Stemming is an approach that maximizes the propagation of shock forces into the substrate rather than into the water column, thereby increasing the efficiency of fracturing rock or consolidated materials while minimizing potential impacts to aquatic life and water quality. This method of blasting was selected to minimize potential impacts compared to detonations in open water, which would produce both higher amplitude and higher frequency shock waves than contained detonations. The preferred technique of stemming charges has been demonstrated to reduce pressures and lower aquatic organism mortality than the same explosive charge weight detonated in open water (Hempen et al. 2007, Nedwell and Thandavamorthy 1992).

[1] Habitat containing large/rocky substrates off the shores of Pennsylvania offer spawning and nursery habitat for such species as lake whitefish, rainbow smelt, emerald shiner, spottail shiner, fathead minnow, channel catfish, stonecat, trout-perch, white bass, smallmouth bass, rainbow darter, johnny darter, yellow perch, walleye and freshwater drum (Goodyear et al., 1982).

Because construction of the Project will involve blasting in areas where fish occupation will change on a daily and seasonal basis, it is impossible to predict with absolute certainty that no fishes will be adversely impacted by temporary impulse noise or ground-borne vibration. Most impacts from noise would be either temporary or intermittent and it is expected that only a few individuals would be affected relative to the populations, and these individuals would react by moving away from noise sources. The amount of explosives used will be limited to the extent possible to avoid noise and vibration impacts on fish. The confined and stemmed blasting method will be used to minimize potential impacts. Most impacts from blasting would be either temporary or intermittent and it is expected that only a few individuals would be affected relative to the broadly dispersed stocks of any given species in Lake Erie. The Project may use additional measures to minimize the impacts of underwater blasting to fish in the approximately one-mile underwater segment where blasting of shallow bedrock would occur, such as use of blasting mats, deployment of bubble curtains or measures to mobilize and clear fish from the immediate blast area. It is anticipated that potential impacts to the fish community from blasting during construction will be temporary and do not pose a substantive risk to fish populations within the Project area due to their very limited spatial extent.

While short term construction impacts associated with in-lake blasting would be limited in duration and geographic extent, long term impacts associated with bedrock blasting or excavation may include creation of increased spawning habitat where sidecast rock is dispersed in nearby areas currently predominated by silt and sediment. There would be direct impacts to benthic habitats at the blast zone. However, following cable installation, those areas are expected to recolonize from recruitment from nearby, unaffected areas of the lake.

Once installed and operational, the Project's HVDC cables will be shielded, which will virtually eliminate the static electric fields, leaving only static magnetic fields for consideration of potential impacts for this Project (Intrinsic 2014). Regarding the potential interaction of the change in the magnetic field with fish, a review was conducted of the maximum post-construction static magnetic-field exposures and the research on the behavioral, migratory, physiological, and early life-stage responses of freshwater fish to static magnetic fields. This analysis included species of concern in Lake Erie—cisco, eastern sand darter, lake sturgeon, and steelhead trout—and did not suggest that the Project would sufficiently change the ambient static magnetic field in the very small portion of Lake Erie habitat in the vicinity of the proposed cable, nor threaten the health or performance of these species. Regarding potential effects on migration, the change in the magnetic field is not a physical barrier and fish are known to use multiple sensory cues to guide behavior. In summary, the change in the static magnetic field associated with the operation of the proposed Project is too small to pose a threat to freshwater species of concern in Lake Erie (Exponent 2015*a*).

Due to the frequent high-energy wave action and the presence of exposed bedrock along the nearshore area of Lake Erie, aquatic vegetation is scarce to non-existent (Rathke 1984) and therefore, construction activities from the proposed Project are not expected to result in any impacts to aquatic vegetation. Lakebed disturbance from construction activities could result in a direct impact of the benthic or epifauna community, crushing or injuring benthic invertebrates, including mussels in the path of the jet plow, in areas of bedrock trenching, and in the footprint

of the HDD exit sump pits. Due to the design and operation of the jet plow or water jetting equipment, the disturbed sediment will begin to backfill the trench almost immediately.

Recolonization and epifauna community composition would depend upon the stability of the disturbed areas, the tolerance of benthic organisms to physical changes, and the availability of recruits. Overall, the disturbed sediment is expected to settle quickly out of the water column and epifauna community recruitment from nearby, unaffected areas of the lake.

Heat can be generated as electricity moves through the cables, which could disperse into surrounding sediments and potentially result in the localized warming of lake water. Thermal impact modeling using conservative assumptions shows that changes in water temperature would be negligible and quickly dissipate (Exponent 2015*b*). No significant impacts on invertebrate species would occur from operation of the transmission system in the lake.

Freshwater aquatic and fish species in surface waters crossed by the underground segment of the Project would potentially be impacted during construction. Waterbody crossing techniques include HDD and open trenching methods and are detailed in Sections 4.4.2 and 5.4.2 of the Project EA (Attachment 3). Open trenching is only proposed in small perennial and intermittent streams where aquatic life is limited and the presence of migratory fish is unlikely. Most of these open cut trenching locations take place under an existing culvert crossing the stream where, to the extent possible, the culvert will remain in place during construction to convey the stream across the duct bank excavation. BMPs will be utilized during construction to maintain stream flows and limit the temporary effects of turbidity.

Fish stocking programs in Lake Erie would not be impacted by the construction or operation of the Project and long term use of the Project vicinity by any stocked fish species would be unaffected by the Project, except during the temporary construction phase of the Project. The Project will have no impact on recreational fishing access or opportunity, except for the localized temporary impacts associated with the construction phase, as described in the discussion of Policy 5 – Public Access for Recreation, below.

As proposed, construction and operation of the Project will be consistent with the CRMP fisheries management policies. The associated federal, state and local permits will ensure that the permit conditions are consistent with CRMP policies associated with aquatic and fisheries resource protection. As discussed above, the potential impacts will only be temporary and construction related. No significant permanent impacts to aquatic and fish species and related habitat are anticipated during Project operation.

Policy 4: Wetlands

The CRMP includes policies associated with coastal area wetlands to minimize impacts associated with draining, filling or dredging of wetlands and other activities that might affect water quality or water flow and could adversely affect important wetland functions and values. This includes potential cumulative impacts associated with increased runoff from development activities.

During the process of siting the Project route, wetland delineation surveys were conducted within and along the proposed underground cable route and within a survey corridor of 75 feet to either side of the route or adjacent road centerline. Delineation surveys were also conducted at additional temporary or permanent impact areas, including construction staging areas, the proposed Erie Converter Station and the proposed AC transmission line route between the converter station and the existing Penelec Erie West Substation.

Existing wetlands in the proposed Project have been substantially influenced by adjacent roadways, fields, and other developed features. Limited temporary impacts to wetlands are expected to occur during the construction and maintenance activities associated with the proposed Project. Since the cable route is proposed to occur mostly in existing public roadway ROWs and existing driveways, no significant changes in hydrology would likely occur and no wetlands would be permanently altered, except for changes to vegetation type.

The selected location and layout of the Erie Converter Station is close to the existing Penelec Erie West Substation to minimize impacts to wetlands. There are wetlands in the wooded area on the western third of the converter station property. However, the woods and wetlands are not proposed to be disturbed, with the possible exception of minimal disturbance associated with the installation of an underground AC cable to the Erie West Substation. The post-construction stormwater management plan for the Erie Converter Station will include features such that no increase in peak flow or peak volume will be associated with the permanent structure, therefore no substantial changes to hydrology will result. Temporary construction laydown and staging areas are identified and shown in Attachment 3.

A summary of temporary and permanent impacts by type of wetland is provided in Table 1.

Table 1 Proposed impacts to wetlands

NWI Type	Temporary Construction Impacts (acres)	Permanent Construction Impacts (acres)
Palustrine Emergent Wetlands	0.8	0.02*
Palustrine Scrub Shrub Wetlands	0.0	0.0
Palustrine Forested Wetlands	0.0	0.99
Total Impacts	0.8	1.01*

* Based on guidance provided by PADEP, the impacts to regulated wetlands listed in this table include the area of HDD crossings underneath the wetlands. However, such HDD crossings involve no disturbance of the wetlands; and the functions and values of the wetlands crossed under by HDD method are not affected.

Temporary impacts may occur as part of repair or vegetation maintenance activities but impacts would be localized and the affected area would be restored. In areas where the cable is co-located with roads, the municipality's regular road berm maintenance would protect the cable. Most of the wetlands located within the regularly maintained corridor are non-forested and would be restored to the same vegetation type, value and quality as pre-construction conditions.

To compensate for the permanent conversion of 1.0 acre of forested wetland to non-forested wetland, wetland mitigation has been proposed and a conceptual plan to create new forested wetlands is included in the Joint Permit Application in Section T. The impacted forested wetlands occur within the coastal zone management area between the Lake Erie shoreline and

the CSX Railroad. The proposed mitigation site is located outside of the designated coastal zone but within the same affected watershed.

As proposed, construction and operation of the Project will be consistent with the CRMP wetlands policies. The associated federal, state and local permits will ensure that the permit conditions are consistent with CRMP policies associated with wetland protection, including compensation of permanent wetland impacts. The relatively small permanent impact to existing wetlands is limited to a conversion of wetland type and will not result in a decrease in the amount of existing wetland area. As such, it will not contribute to any cumulative impact on wetland function within the coastal zone area. The proposed creation of new forested wetland associated with the proposed wetland compensation plan will increase the cumulative amount and value of wetlands within the local region.

Policy 5: Public Access for Recreation

The CRMP includes policies associated with improving public access for recreation, particularly swimming, fishing, boat launching and passive sightseeing and picnicking. In the Lake Erie coastal zone, the primary impediments to public access are private ownership of lakefront properties and physical constraints to lake access inherent with the presence of coastal bluffs. The CRMP also gives high priority to acquiring and/or developing significant parts of the coastal zone region as possible Geographic Areas of Particular Concern (GAPC).

The Project will not impact existing public access to Lake Erie for recreational activities because the Project's landfall location is on a private property, and the installation of the transmission line will be underground (in an HDD boring) as it passes under the bluff and nearshore areas where recreational activities might be sought. Shoreline access is currently limited at the landfall location. Temporary impact on public access to the lake area in the vicinity of the HDD cable installation will occur during the construction effort, but will not decrease the recreational use opportunity and access to Lake Erie or to any other regional shoreline areas that are currently accessible by the public. Any temporary disturbance of access associated with Project work will be restored in accordance with landowner requirements following construction.

Considerable local public access to the Lake Erie shoreline and lake is provided at the Erie Bluffs State Park, just northeast of the Project route. That access will not be impacted during the construction or operation of the Project.

Part of the proposed Project route is within an existing GAPC zone, as identified in the CRMP, which extends south from the Lake Erie shoreline to the CSX Railroad. The CRMP defines GAPC zones as having innate natural value or significant recreational, cultural or historical value, which could provide high potential for offering active and/or passive forms of recreation. The HDD construction of the Project will avoid any temporary or permanent impacts to the shoreline, the coastal bluff area and the adjacent upland area within this GAPC zone and will not adversely affect recreational access or potential future recreational use within the coastal zone.

As proposed, construction and operation of the Project will be consistent with the CRMP policies associated with public access for recreation. No permanent impacts to public recreational use or

access will occur as a result of the project operation within Lake Erie or the underground segment within the coastal zone area.

Policy 6: Historical Sites and Structures

The CRMP includes policies associated with historic sites and structures in the coastal zone, with an emphasis on historic preservation, including associated economic, cultural, aesthetic and educational benefits.

The Applicant recognizes that the formal Section 106 process has not been initiated. However, in advance of the process, the Applicant has initiated studies to identify historic properties along the Project's alignment. As discussed above, the Applicant conducted a Phase IA Study of the proposed transmission cable route in 2014 and 2015 and a Phase 1B study in 2015.

In 2014 and 2015, the Applicant conducted Phase 1A cultural resources studies to identify known and reported archaeological and historic resources within the vicinity of the proposed Project route. This included a review of the Pennsylvania Historical and Museum Commission's (PHMC) Pennsylvania Archaeological Site Survey (PASS) files and Cultural Resources GIS (CRGIS) database to identify known resources in both the terrestrial and lake segments of the Project. The Applicant also conducted a Phase 1B survey in 2015, which involved digging shovel test pits along the proposed underground segment of the project route. As described in the Phase IB Report, a total of four archaeological sites were identified along the underground cable route and staging areas. The Applicant anticipates consultation with the PHMC-BHP, federally recognized Indian tribes, and other stakeholders through the Section 106 process to determine the appropriate measures to avoid adverse effects on these identified resources. A Phase 1B report has been completed and was submitted to the PHMC in January 2016. The Applicant also performed a marine route survey to identify bottom conditions, shipwrecks, existing utilities, and other features along the proposed marine route. The marine route survey included a combination of equipment and approaches including side-scan sonar, single-beam bathymetry, and magnetometer surveys to facilitate identification of potential shipwrecks. The results of the marine route survey will be reviewed by a marine archaeologist to identify anomalies or potential shipwrecks along the Project's marine route.

The PHMC does not maintain a formal database of shipwrecks in the Commonwealth, and information on shipwrecks in Lake Erie is not available from the CRGIS (K. Heinrich, PHMC-BHP, personal communication, October 2013). Based on discussions with the PHMC-BHP, the most comprehensive information regarding shipwrecks in the Pennsylvania portion of Lake Erie is generally available from books and databases for recreational divers.

Two reported shipwrecks were identified within a one-mile radius of the Project's proposed route. The wreck of the *Charles Foster* is located approximately 2,000 feet from the centerline of the proposed transmission cable route and five miles northwest of Presque Isle State Park. The *Charles Foster* was a 229-foot-long wooden schooner barge built in 1877. It was carrying iron ore and being towed by the steamer *Iron Duke* when it went down on December 8, 1900 during a storm. The *Charles Foster* may have been struck by a rogue wave and the entire crew was lost. It presently lies on a silt bottom, and the iron ore cargo has caused the vessel sides to splay outward (Wachter and Wachter 2007).

Another known wreck is located approximately 1,950 feet from the centerline of the proposed transmission cable route near the U.S./Canadian border. In 1963, a fishing trawler reported the wreck of a sailing vessel lying on a silt bottom at a depth of approximately 105 feet or 17.5 fathoms. Wachter and Wachter (2007) refer to the site as the "17 Fathoms Wreck" due to its approximate depth below the surface of Lake Erie. Little is known about the 17 Fathoms Wreck. Wachter and Wachter (2007) report that there is evidence that a fire occurred onboard the vessel; however, the name, origin, or other details of the vessel remain unknown.

There are no known or reported precontact period archaeological sites located offshore along the marine portion of the route. Nearshore surficial geology ranges from bedrock at the location of the Pennsylvania landfall to sand, silt, and clay further offshore. The bedrock extends approximately one mile offshore and is either exposed or overlain by thin deposits of silt/sand/gravel. The presence of nearshore bedrock suggests a low archaeological sensitivity for the Pennsylvania landfall.

As noted above, the Applicant anticipates consultation with the PHMC, federally recognized Indian tribes, and other stakeholders through the Section 106 process. A draft Unanticipated Discovery Plan is included as Attachment 6 of the Joint Application and will be supplemented with the results of any studies conducted in relation to the NHPA Section 106 consultation process.

As proposed, construction and operation of the Project will be consistent with the CRMP historic sites and structures policies, as implemented through the Section 106 consultation process and state and federal environmental permitting that requires this consultation and associated study effort. All information provided through the Project development and construction effort will be added to the regional historic resources data base.

Policy 7: Port Activities

The CRMP includes policies associated with port activities in the coastal zone of Lake Erie, including the active encouragement of siting port and water dependent economic activities along the lake, particularly to support a strong economic base within urbanized coast areas.

The Port of Erie is located on the southern shore of Lake Erie, approximately 16 miles (26 km) east of the proposed Project landing point, in the City of Erie. The port at Conneaut, Ohio is located on the lake shore approximately 8 miles (13 km) west of the Project landing point. Any temporary impacts associated with the installation of the cable will not effect operations at existing port facilities. Since the cable will be laid beneath the surface of the lake bed and no shoreline facilities will be built there will be no permanent impacts on existing shipping channels or other regional port related activities.

The operation of the project will enhance the electrical infrastructure and reliability within the Lake Erie coastal zone region, potentially supporting future port development along Lake Erie.
As proposed, construction and operation of the Project will be consistent with the CRMP port activities policies and could potentially enable future port development along Lake Erie.

Policy 8: Energy Facility Siting

The CRMP includes policies associated with energy facility siting with a goal of minimizing impacts to coastal area ecosystems and encouraging the siting of new energy facilities adjacent to existing ones. The policies also support facilitating the production of natural gas supplies within Lake Erie while minimizing adverse air and water quality impacts associated with resource exploration and extraction. The Project construction and operation will not adversely impact the Lake Erie coastal ecosystem and the use of an HDD construction method will avoid any impacts to the near shore and coastal bluff segment of the project route. Use of a jet plow construction method within the lake bed will temporarily disturb lake sediments in Lake Erie and blasting within an approximately one mile segment of the lake route will temporarily cause impacts for a short duration, but will not negatively affect the long-term ecological integrity of the aquatic resources or habitat areas within the Lake Erie coastal zone.

The Project's only above-ground facility is the converter station, which is being located adjacent to the existing Erie West Substation, which is consistent with the CRMP's policy of siting new energy facilities adjacent to existing facilities.

The operation of the Project will enhance the long term transmission of electricity between Canada and the U.S. and greatly benefit the mix of energy resources within the region. Currently, there is some ability to transmit electricity between Canada and the U.S., with the existing points of interconnection occurring in New York, Michigan and Minnesota. Presently, there is no capability to directly exchange electric energy across Lake Erie into the PJM grid. The Applicant is not aware of any similar planned developments involving the installation of transmission capacity that would connect the grid in Ontario with the PJM grid in the U.S. The offshore Icebreaker wind power project proposed north of Cleveland would provide a new regional power source, but would likely link to the existing utility grid in the Cleveland metropolitan area. Once the Project is operational, it may influence the development of other future energy delivery facilities or increase the potential for other development in the regional service territory that must rely on reliable power availability to be viable.

As proposed, construction and operation of the Project will be consistent with the CRMP energy facility siting policies. It will provide greater access to energy sources for both the U.S. and Canada and enhance regional electrical energy transmission system reliability. Any impacts on the Lake Erie coastal ecosystem will be temporary and localized in nature and will not affect aquatic ecological resources within the Lake Erie coastal zone region.

Policy 9: Intergovernmental Coordination

The CRMP includes policies associated with intergovernmental coordination to ensure that Pennsylvania government agencies, administrative boards and commissions with enforceable mandates linked to the CRMP act cooperatively and in a consistent fashion to conserve significant resources while also encouraging appropriate economic development within the coastal zone. This includes an emphasis on incorporating the requirements of the federal Clean Water Act and Clean Air Act and periodically assessing permitting mechanisms to efficiently incorporate these federal mandates within the state agency permitting process associated with development in coastal zones.

While designing and siting the proposed Project, the Applicant has initiated consultation with the many government agencies that are involved in permit approvals at the local, state and federal level. The U.S. Department of Energy, U.S. Army Corps of Engineers, Pennsylvania Department of Environmental Protection, Pennsylvania Utilities Commission, PJM, Pennsylvania Historic and Museum Commission, Pennsylvania Department of Transportation, Girard Township, Conneaut Township, Springfield Township, Erie County Planning Commission, Erie County Conservation District, United States Fish and Wildlife Service, Pennsylvania Fish and Boat Commission, Pennsylvania Department of Conservation and Natural Resources, and Pennsylvania Game Commission, along with many other individuals and organizations present at local Project open houses have been introduced into the permitting process. As permit applications are filed there will be many opportunities for agency and stakeholder input, and coordination between agency staff responsible for granting permit approvals.

As proposed, construction and operation of the Project will be consistent with the CRMP intergovernmental coordination policies. Specifically, the Project siting and permitting process that is currently in place ensures close coordination between local, state and federal agencies and the Applicant has proactively sought input from regulatory and consulting agencies to identify significant potential natural resource and land use impacts and adjust the Project site or construction approach to avoid or minimize adverse impacts.

Policy 10: Public Involvement

The CRMP includes policies associated with public involvement as it relates to providing citizens, special interest groups and all other segments of the public with ample opportunities for participation in decision-making activities associated with the coastal resources management program. As part of this effort, the CRMP established a Coastal Zone Advisory Committee to provide an organized forum for public involvement, including advising the Pennsylvania Environmental Quality Board on regulations affecting coastal resources.

As discussed previously, when designing and siting the proposed Project, the Applicant has initiated consultation with the many government agencies that are involved in permit approvals at the local, state and federal level. This effort has already included public access to the Presidential Permit Application filed with the U.S DOE in May 2015.

Public outreach efforts undertaken by ITC Lake Erie have included local presentations with the affected townships and Erie County Executive regarding the Project objectives and elements, a public launch/media event, and a public open house held on March 12, 2015. Notice of the open house was mailed to 120 residents located within 1,000 feet of the proposed transmission line right-of-way as well as to local government officials. The open house was held at Girard High School in Girard Township, PA, where ITC Lake Erie described the proposed Project and various technical experts answered questions. A description of the regulatory requirements associated with the project development and related opportunities for future public input were also provided. ITC Lake Erie also provided updated information on the Project and the

associated development schedule and answered questions from the public during the regularly scheduled meeting of the Girard Township Supervisors on May 12, 2015.

In addition, ITC Lake Erie has created a publicly available ITC Lake Erie Connector website (http://www.itclakeerieconnector.com) that includes baseline information on the proposed Project, links to media articles, frequently asked questions and upcoming Project events. The website also allows the public to submit questions about the Project and register for e-mailed updates, including announcements of future public meetings or how to access Project permit applications. The website summarizes public outreach activities already undertaken and those planned for the future.

ITC Lake Erie has also maintained an ongoing dialogue regarding the Project with affected landowners. It has already made a number of refinements to the Project in response to landowner concerns.

As proposed, the Project will be consistent with the CRMP public involvement policies through the public access to Project permitting documents and the associated opportunity for public input in writing or at public meetings at various points in the permitting process.

Policy 11: Ocean (Great Lakes) Resources

The CRMP includes policies associated with ocean resources (including those in Lake Erie), with an emphasis on conserving Lake Erie coastal zone resources relating to fisheries, native and endangered shellfish, aquatic, riparian and wetland ecosystems, sand and pebble beaches, offshore sand, and submerged shipwrecks. Particular focus is placed on the CRMP actively assisting in preventing aquatic nuisance species from being introduced into coast zones and to facilitate their eradication.

Vessels in Lake Erie required to conduct work for the Project will follow the US Coast Guard guidelines regarding the potential introduction of aquatic nuisance species during construction or maintenance activities.

The Applicant has been working closely with the PA Fish and Boat Commission to determine potential construction and operational impacts to fish and other aquatic species in the Lake Erie coastal zone. Section 5.4 of the Project EA (Attachment 3) provides additional detail regarding fish and aquatic species impact avoidance and minimization measures proposed by the Applicant, including selection of the Project route and selection of construction methods and schedules.

Construction within the lake to install the transmission cable will be conducted in a relatively short time period at each trench location and temporarily suspended lake bottom sediments will generally settle back within the Project route (see Water Qualify Model report in Appendix E of Attachment 3 for more detail).

Use of the HDD construction process at the Lake Erie shoreline will avoid impacting the immediate coastal area, thus avoiding any impacts to sand and pebble beaches and minimizing

disturbance of nearshore sand. Localized underwater blasting and bedrock removal within the approximately one-mile route segment approaching the shoreline will be conducted with a drilling and limited stemmed charges methods in accordance with the Project blasting plan, described in more detail in Attachment 4 of the joint permit application.

Location of the on-land Underground Segment within existing road corridors and the use of HDD or Jack & Bore construction methods at several stream crossings also minimize the potential impact on these streams that eventually drain into Lake Erie. The Erie County Conservation District will review and approve the Project E&SCP and Site Restoration Plans prior to Project construction.

As proposed, construction and operation of the Project will be consistent with the CRMP ocean resources policies, primarily through impact avoidance measures, the relatively narrow construction impact corridor within Lake Erie, the use of a HDD construction method to avoid shoreline and bluff impacts, and the burial of the transmission line in the bed of Lake Erie.

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NOTICES

Federal Consistency under the Coastal Zone Management Act

[46 Pa.B. 1954]
[Saturday, April 16, 2016]

This notice is published under section 306(d)(14) of the Federal Coastal Zone Management Act of 1972 (16 U.S.C.A. § 1455(d)(14)), regarding public participation during consistency determinations. The Department of Environmental Protection (Department), Coastal Resources Management Program has received notice that ITC Lake Erie Connector, LLC is proposing the Lake Erie Connector international electric transmission cable project.

The project includes the construction of a 72.4-mile, 1,000-megawatt, ± 320-kilovolt (kV), high-voltage direct current, bidirectional electric transmission interconnection to transfer electricity between Canada and the United States. Approximately 35.4 miles of the transmission line will be installed in the lakebed of Lake Erie from the United States-Canada border to the shoreline of Lake Erie (underwater segment) and 7.1 miles will be installed underground in Springfield, Girard and Conneaut Townships, Erie County, from the shoreline to the new Erie Converter Station (underground segment). Approximately 2,082 feet of 345 kV, alternating current cable will be installed underground between the Erie Converter Station and the existing Penelec Erie West Substation. The underwater segment will be buried approximately 3 to 10 feet beneath the lakebed by jet plow, where applicable, and by limited confined blasting of bedrock, where necessary. From approximately 1,340 feet from shore, beneath the shoreline and bluffs, to a point approximately 394 feet from the bluff crest, the cable will be installed using a horizontal directional drilling method to avoid disruption within the nearshore area or on the Lake Erie bluffs. The applicant is seeking United States Army Corps of Engineers, Pittsburgh District authorization for this project.

This project is subject to Department review for Federal consistency because it is a Federal license and permit activity and will have reasonably foreseeable effects on this Commonwealth's coastal resources or uses.

In accordance with National Oceanic and Atmospheric Administration (NOAA) regulations in 15 CFR Part 930, Subpart D (relating to consistency for activities requiring a Federal license or permit), ITC Lake Erie Connector, LLC has certified that the proposed activity will be conducted in a manner consistent with the applicable enforceable policies of the Commonwealth's NOAA-approved Coastal Resources Management Program. Interested parties may request a copy of the Federal Consistency Certification from the Department contact listed as follows.

Questions regarding this review should be directed to Matthew Walderon, Federal Consistency Coordinator, (717) 772-2196 or RA-Fed_Consistency@pa.gov.

The Department will consider all comments received on or before Saturday, April 30, 2016, before issuing a final Federal consistency concurrence or objection. Comments submitted by facsimile will not be accepted. Comments, including comments submitted by e-mail, must include the originator's name and address. Commentators are encouraged to submit comments using the Department's online eComment system at www.ahs.dep.pa.gov/eComment. Written comments should be submitted by e-mail to ecomment@pa.gov or by mail to the Department of Environmental Protection, Interstate Waters Office, 400 Market Street, P. O. Box 8465, Harrisburg, PA 17101-8465.

JOHN QUIGLEY,
Secretary

[Pa.B. Doc. No. 16-650. Filed for public inspection April 15, 2016, 9:00 a.m.]
