

U.S. Army Corps  
of Engineers  
Buffalo District  
CELRB-TD-R

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# Public Notice

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Applicant: FirstEnergy  
Nuclear Operating  
Company

Published: December 23, 2014  
Expires: January 21, 2015

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Application No: 2014-00108  
Section: OH

All written comments should reference the above Application No. and be addressed to:  
**US Army Corps of Engineers, Buffalo District**  
**Regulatory Branch (Attn:) Peter Krakowiak**  
**1776 Niagara Street**  
**Buffalo, NY 14207**

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**THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.**

**Application for Permit under Authority of**  
**Section 10 of the Rivers and Harbors Act of 1899 and**  
**Section 404 of the Clean Water Act (33 U.S.C. 1344).**

APPLICANT: FirstEnergy Nuclear Operating Company

WATERWAY & LOCATION: Numerous wetlands and streams located on a 125-acre property located east of the existing Perry Nuclear Plant at 10 Center Road, Village of North Perry, Lake County, Ohio

LATITUDE & LONGITUDE: Latitude North: 41.800981  
Longitude West: -81.135455

EXISTING CONDITIONS: The project site consists of primarily high quality wetland and forested vegetative communities with several streams flowing through the area. The area along the existing nuclear plant consists of an incised, straightened stream with an emergent buffer. Description of delineation of waters of the US, if applicable: Nine wetlands and five streams were identified within the project area (see PJD dated September 12, 2014. Note: PJD encompasses a larger area and depicts more aquatic resources). The shoreline of Lake Erie at the project location is a very steep bluff and is currently eroding.

**PROPOSED WORK:** The proposed project includes the discharge of fill into federally jurisdictional wetlands and streams in association with a stream relocation project. As a result of Nuclear Regulatory Commission (NRC) requirements, the applicant was required to re-evaluate flood and seismic hazards at their facility. The re-evaluation resulted in the need to relocate and expand the capacity of an existing stream that currently flows along the east boundary of the facility. The proposed relocation (referred to as Modified Option 1.8) will result in permanent impacts to 4,944 acres of federal wetlands (1,488 acres of PEM and 3,456 acres of PFO) and 3,242 linear feet of stream (206 linear feet of ephemeral and 3,036 linear feet of intermittent). The permanent wetland impacts include estimated indirect impacts (calculated by adding a 20-65 foot area along impacted wetland areas) that may occur as a result of dewatering adjacent wetland areas. The relocated stream will outlet at Lake Erie, well above the Ordinary High Water Mark. The shoreline in this area is proposed to be graded back with a gentler slope and stabilized.

#### PROJECT PURPOSE

Basic: Flood Risk Abatement

Overall: Containment of floodwaters during a Probable Maximum Flood event pursuant to federal requirements

Water Dependency Determination (*describe only if project affecting Special Aquatic Site*): The proposed project is not a water dependent activity.

**AVOIDANCE AND MINIMIZATION INFORMATION:** Several alternatives were evaluated to help avoid and minimize wetland and stream impacts, including various stream relocation alignments, changes to the existing facility, use of pipe/culverts bored to Lake Erie, use of upstream water detention methods, and taking no action. The no action alternative would not fulfill the project purpose. Changes to the existing facility would negatively impact operation and security, and is contrary to the plant's design and license. Boring a pipe or pipes to Lake Erie is not a viable option due to the potential for blockage by debris during storm events. Use of upstream detention basins was evaluated and determined to not be viable. The basins would need to be placed far upstream to avoid high quality wetlands which would result in a relatively large watershed still contributing to the existing stream. The diversion of water to the Major Stream located to the west was evaluated and determined not to be viable due to elevation differences, impacts to existing wetlands, and potential back-up issues.

Four viable options were considered. These included diverting water to an east stream, modifying the existing stream in-place, and re-routing the stream to the north/east (2 configurations – Option 1.8 and Modified Option 1.8). The diversion of the existing stream to connect with the east stream would result in a larger amount of high quality wetland impacts, bisect wetland areas, and possibly impact the lower reaches of the east stream due to higher flows. The modification of the existing stream would result in a larger amount of wetland impacts. The re-route of the existing stream to the north/east using the preferred route (Option 1.8) would result in greater wetland impacts and slightly less stream impacts. Modified Option 1.8 is the proposed option.

PROPOSED MITIGATION: The applicant proposes to mitigation for 3,242 linear feet of stream impacts and 4.944 acres of wetland impacts through a combination of on-site preservation, in-lieu fee credits, and mitigation bank credits. The existing stream will be re-routed resulting in 2,780 linear feet of stream, which is proposed as partial stream mitigation. Approximately 2,131 linear feet of stream, 20 acres of upland buffer, and 0.744 acre of wetland will be preserved on-site through a deed restriction. Additionally, the applicant proposes to purchase 5 credits from The Nature Conservancy In-Lieu Fee Program and 7.4 credits from the Pine Brook Wetland Mitigation Bank, a preservation-only mitigation bank.

Location and details of the above described work are shown on the attached maps and drawings.

Comments or questions pertaining to the work described in this notice should be reference the Application Number and be directed to the attention of Peter Krakowiak, who can be contacted at the above address, by calling (716) 879-4363, or by e-mail at: Peter.j.krakowiak@usace.army.mil A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

The applicant has certified that the proposed activity complies with Ohio's approved Coastal Zone Management Program and will be conducted in a manner consistent with that program. Any comments on the consistency of the proposed activity with Ohio's Coastal Zone Management Program should be forwarded to:

Mr. John Kessler  
Ohio Department of Natural Resources  
Office of Real Estate  
2045 Morse Rd.  
Columbus, OH 43229-6605  
phone: 614-265-6621  
email: john.kessler@dnr.state.oh.us

The following authorization is required for this project:

Water Quality Certification (or waiver thereof) from the Ohio Environmental Protection Agency

Based on preliminary findings, there do not appear to be any properties listed in, or eligible for listing in, the National Register of Historic Places within the permit area as shown on Sheet 1 of 5. Therefore, the Corps has determined that the proposed project will have no affect on historic properties. This notice constitutes initiation of consultation with the Ohio Historic Preservation Office (SHPO) per Section 106 of the National Historic Preservation Act. All currently available historic resource information pertaining to this proposed project if any has been provided to the SHPO. Additional information concerning historic properties should be submitted to the Corps before the end of the comment period of this notice. The Corps will forward that information to the SHPO for their review.

Pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the Corps of Engineers is consulting, under separate cover, with the USFWS to evaluate any potential impacts to: Indiana bat (*Myotis sodalis*), Northern Long-eared Bat (*Myotis septentrionalis*), Kirtland's Warbler (*Setophaga kirtlandii*), Piping Plover (*Charadrius melodus*), Snuffbox (*Epioblasma triquetra*), Rufa Red Knot (*Calidris canutus rufa*), and Bald Eagle (*Haliaeetus leucocephalus*), and to ensure that the proposed activity is not likely to jeopardize their continued existence or result in the destruction or adverse modification of critical habitat.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record which is available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing might be held.

The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SIGNED

Diane C. Kozlowski  
Chief, Regulatory Branch

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.

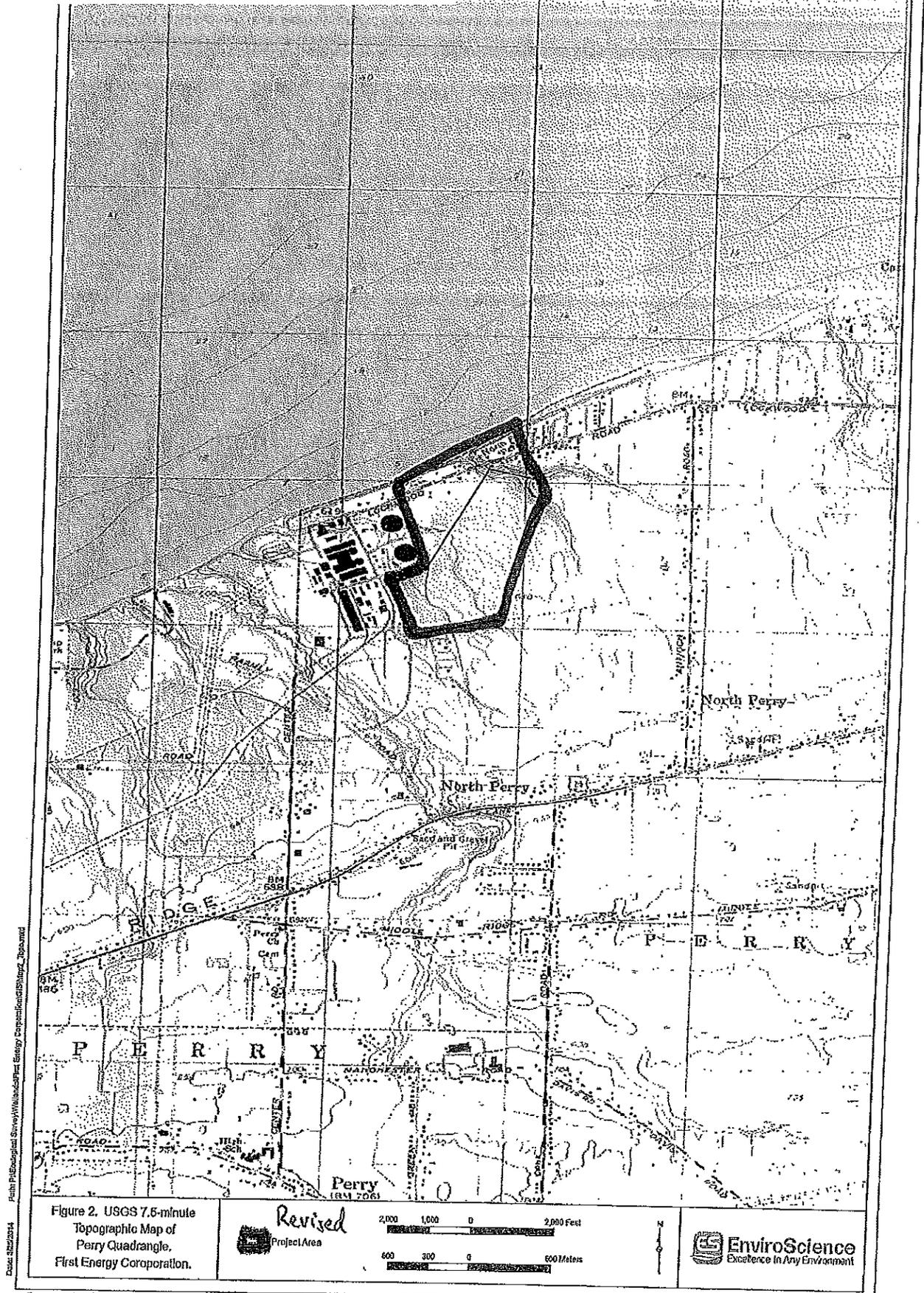
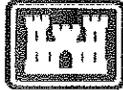
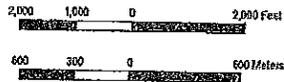


Figure 2. USGS 7.5-minute  
 Topographic Map of  
 Perry Quadrangle,  
 First Energy Corporation.

*Revised*  
 Project Area



Date: 02/20/14  
 Path: P:\Geological Survey\W\W\land\First Energy Corporation\GIS\Mapz\_Topomd

Base map courtesy of National Geographic Society (2013).

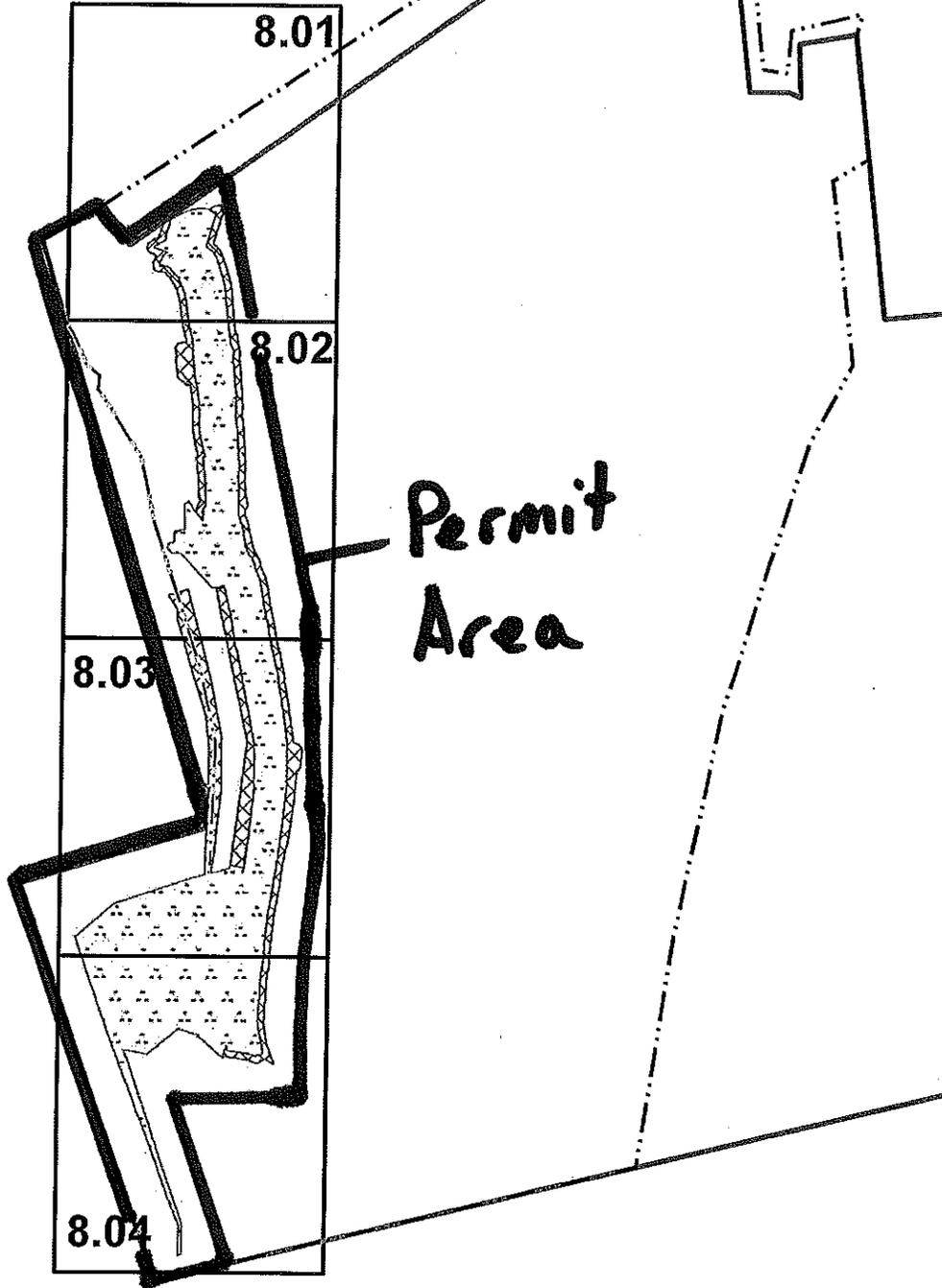
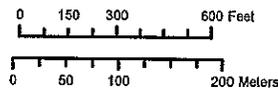


Figure 8. Impacts Map  
 Overview for Option  
 1.8 Modification.  
 FENOC.

- Minor Stream Indirect Impact Area
- Indirect Impact Area
- Direct Impact Area / Stream Bed
- Study Area
- Project Area





W1  
0.183 ac.

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W15  
0.157 ac.

W14  
0.140 ac.

W13  
0.322 ac.

W10  
0.018 ac.

W5  
2.451 ac.

S-12  
206 l.f.

S-4  
3226 l.f.

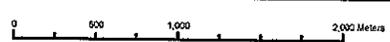
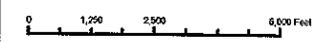
W4a  
15,876 ac.

Impacts	Length (ft)	Average	Area (ac)
Streams (Submerged)	206	1.422	0.293
Streams (Exposed)	300	1.211	0.363
Total	524	1.317	0.656

PFO Mosaic	
Wetland PFO 35% mosaic	Wetland PFO 60% mosaic
Wetland PFO 35% mosaic	Wetland PFO 65% mosaic
Wetland PFO 40% mosaic	Wetland PFO 65% mosaic
Wetland PFO 40% mosaic	Wetland PFO 70% mosaic
Wetland PFO 45% mosaic	Wetland PFO 70% mosaic
Wetland PFO 45% mosaic	Wetland PFO 75% mosaic
Wetland PFO 50% mosaic	Wetland PFO 75% mosaic
Wetland PFO 50% mosaic	Wetland PFO 80% mosaic
Wetland PFO 55% mosaic	Wetland PFO 80% mosaic
Wetland PFO 55% mosaic	Wetland PFO 85% mosaic

Figure 8.02. Impacts Map for Option 1.8 Modification, FENOC.

- Culvert
- Existing Vehicle Barrier
- Indirect Stream Impacts
- Stream (Intermittent)
- Wetland (PEMBS)
- Wetland (PFS)
- Wetland (PFO)
- Wetland (Offsite)
- Proposed Vehicle Barrier
- Direct Stream Impacts
- Stream (Perennial)
- Indirect Wetland Impacts
- Wetland (PEI)
- Project Area
- Direct Impact Area / Stream Bed
- Indirect Impact Area



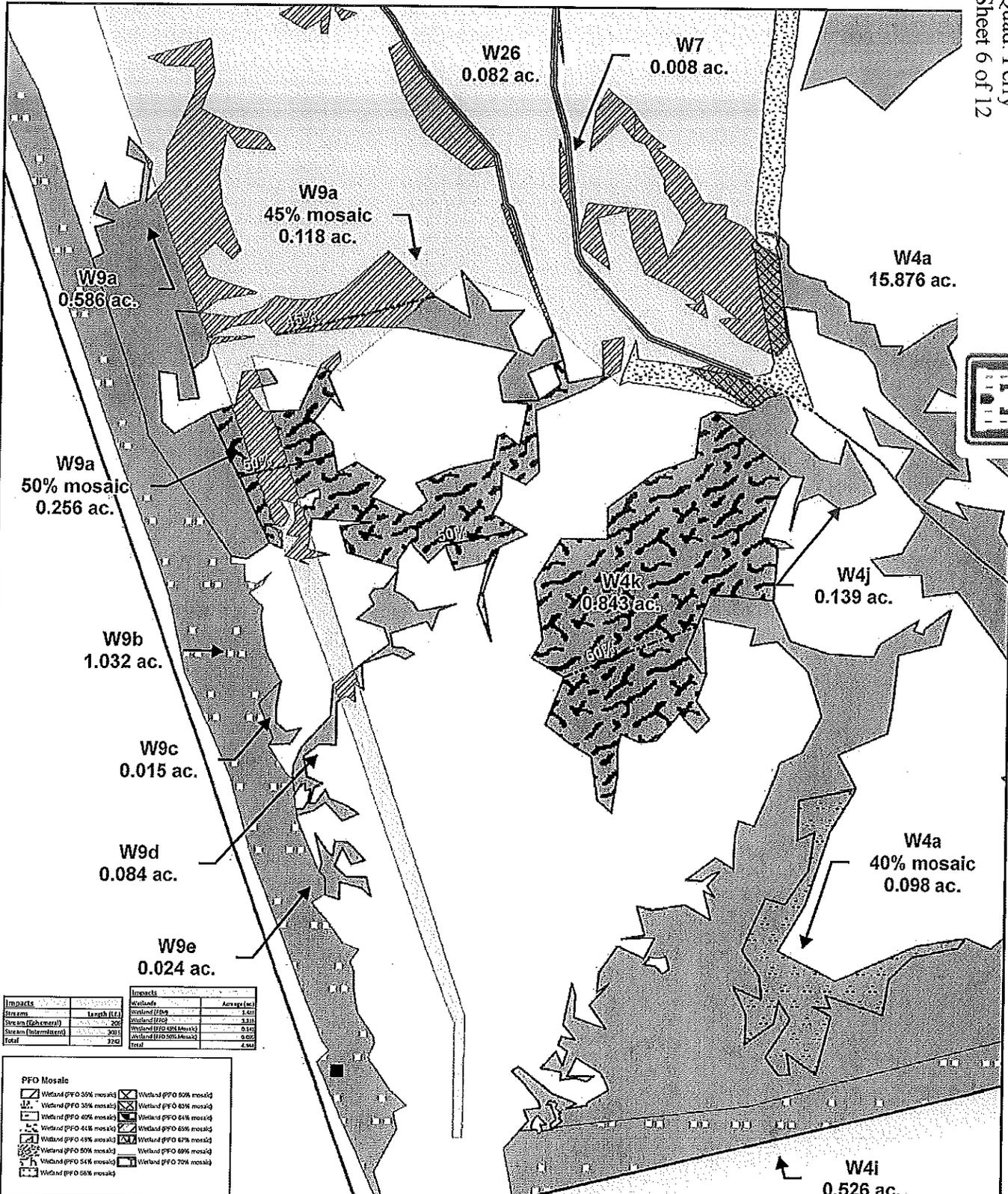
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Date: 12/11/2014 Path: P:\Ecological Survey\Wetlands\FirstEnergy Corporation\Perry Nuclear Power Plant\GIS\Final\Map\Option1.8\_MOD1\_FINAL\_REVISED\107141\_Map\_ImpactsOption1.8\_MOD1\_FINAL\_REVISED.mxd

Basemap courtesy of Esri.





Impacts	Length (L)	Area (A)
Stream (Ephemeral)	300	4.41
Stream (Intermittent)	300	0.10
Total	320	4.51

PFO Mosaic	
Wetland (PFO 35% mosaic)	Wetland (PFO 60% mosaic)
Wetland (PFO 38% mosaic)	Wetland (PFO 63% mosaic)
Wetland (PFO 40% mosaic)	Wetland (PFO 64% mosaic)
Wetland (PFO 41% mosaic)	Wetland (PFO 65% mosaic)
Wetland (PFO 43% mosaic)	Wetland (PFO 67% mosaic)
Wetland (PFO 45% mosaic)	Wetland (PFO 68% mosaic)
Wetland (PFO 51% mosaic)	Wetland (PFO 70% mosaic)
Wetland (PFO 56% mosaic)	Wetland (PFO 76% mosaic)

Figure 8.04. Impacts Map for Option 1.8 Modification. FENOC.

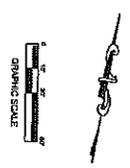
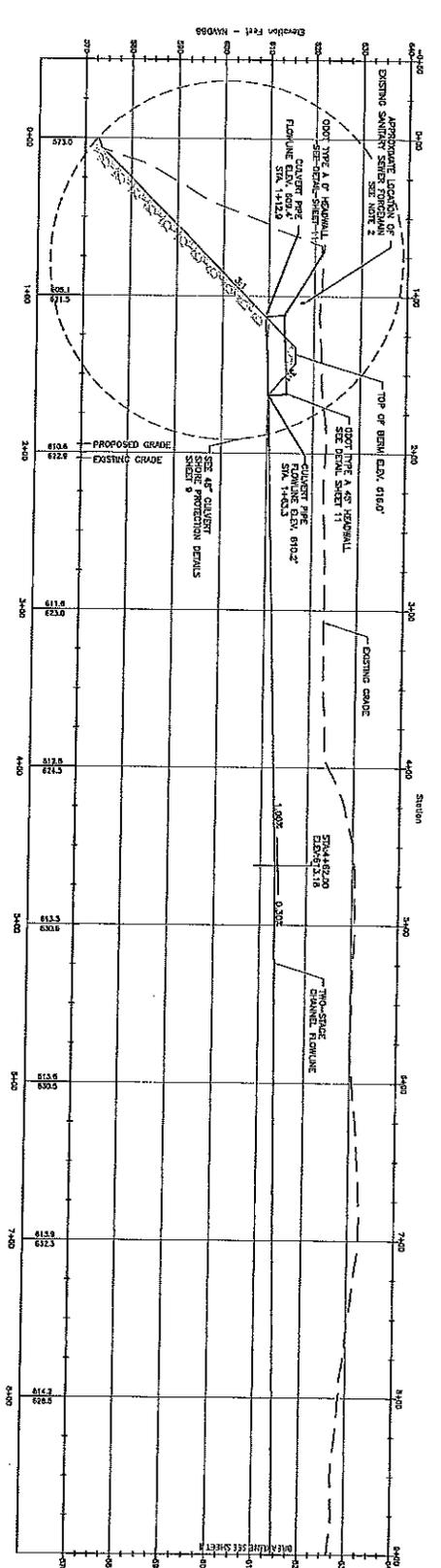
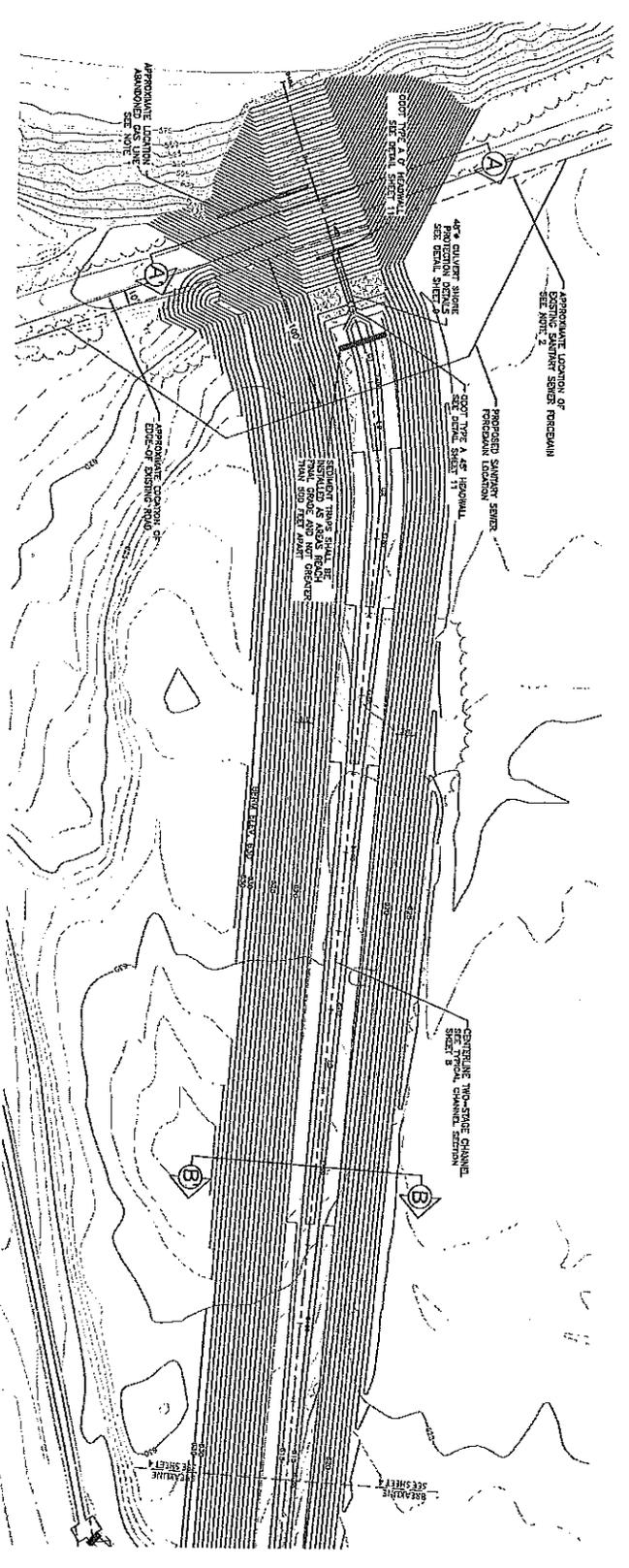


8.04

- Culvert
- Existing Vehicle Barrier
- Indirect Stream Impacts
- Stream (Intermittent)
- Direct Wetland Impacts
- Wetland (PEMSS)
- Study Area
- Proposed Vehicle Barrier
- Direct Stream Impacts
- Stream (Perennial)
- Indirect Wetland Impacts
- Wetland (PSS)
- Project Area
- Transect
- Stream (Ephemeral)
- Wetland (PEM)
- Wetland (PFO)
- Direct Impact Area / Stream Bed
- Wetland (Offsite)
- Indirect Impact Area



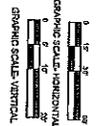
14 13 12 11 10 9 8 7 6 5 4 3 2 1



**LEGEND**

- Existing Structure
- Existing Channel
- Proposed Structure
- Proposed Channel
- Proposed Dam
- Proposed Two-Stage Channel
- Proposed Existing Dam
- Proposed Existing Channel
- Proposed Existing Dam
- Proposed Existing Channel

- NOTES**
1. APPROVED DIMENSIONS TO BE SHOWN WITHIN THE EXISTING CHANNELS.
  2. APPROVED DIMENSIONS TO BE SHOWN WITHIN THE PROPOSED CHANNELS.
  3. APPROVED DIMENSIONS TO BE SHOWN WITHIN THE PROPOSED DAM.
  4. APPROVED DIMENSIONS TO BE SHOWN WITHIN THE PROPOSED DAM.



FirstEnergy Nuclear Operating Company  
 D/A Processing No. 2014-00108  
 Lake County, Ohio

Quad: Perry  
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FOR PERMITTING ONLY

NEW DRAWING

**REVISIONS**

NO.	DATE	BY	DESCRIPTION
1	07/14/13	WJ	ISSUED FOR PERMITTING
2	07/14/13	WJ	ISSUED FOR PERMITTING
3	07/14/13	WJ	ISSUED FOR PERMITTING
4	07/14/13	WJ	ISSUED FOR PERMITTING
5	07/14/13	WJ	ISSUED FOR PERMITTING
6	07/14/13	WJ	ISSUED FOR PERMITTING
7	07/14/13	WJ	ISSUED FOR PERMITTING
8	07/14/13	WJ	ISSUED FOR PERMITTING
9	07/14/13	WJ	ISSUED FOR PERMITTING
10	07/14/13	WJ	ISSUED FOR PERMITTING

DUN 13-0802-001-003



**Table 1. Wetland Impacts for Modified Option 1.8**

Wetland		Cowardin Classification	ORAM Score	ORAM Category	Size within Project Area (acres)	Wetland Impact (acres)*	Amount of Discharge# (cubic yards)	
W-1		PEM/PSS	34	2	0.291	0	0	
		PEM			0.183	0	0	
		PSS			0.070	0	0	
<b>W-1 Total</b>					<b>0.544</b>	<b>0</b>	<b>0</b>	
<b>W-2 Total</b>		PFO mosaic	73.5	3	<b>2.021</b>	<b>0</b>	<b>0</b>	
<b>W-3 Total</b>		PEM	50.5	2	<b>0.054</b>	<b>0</b>	<b>0</b>	
W-4	a	PFO/PFO mosaic	73.5	3	19.517	2.923	14,147.3	
	b	PFO mosaic			7.828	0	0	
	c	PFO/PFO mosaic			2.191	0	0	
	d	PFO/PFO mosaic			3.606	0	0	
	e	PFO mosaic			0.169	0	0	
	f	PFO mosaic			1.653	0	0	
	g	PFO			0.145	0	0	
	h	-			-	0	0	
	i	PEM			0.526	0	0	
	j	PFO			0.139	0.029	140.4	
	k	PFO mosaic			0.421	0	0	
<b>W-4 Total</b>					<b>36.195</b>	<b>2.952</b>	<b>14,287.7</b>	
<b>W-5 Total</b>		PEM	29	1	<b>2.451</b>	<b>1.095</b>	<b>5,299.8</b>	
<b>W-6 Total</b>		PEM	29	1	<b>0.007</b>	<b>0.007</b>	<b>33.9</b>	
<b>W-7 Total</b>		PEM	29	1	<b>0.008</b>	<b>0.008</b>	<b>38.7</b>	
<b>W-8 Total</b>		PFO	36	Mod 2	<b>0.053</b>	<b>0.053</b>	<b>256.5</b>	
W-9	a	PFO	36	Mod 2	0.586	0.445	2,153.8	
	a	PFO mosaic			0.374			
	b	PEM			1.032	0		0
	c	PFO			0.015	0		0
	d	PFO			0.084	0.007		33.9
	e	PFO			0.024	0		0
<b>W-9 Total</b>					<b>2.115</b>	<b>0.452</b>	<b>2,187.7</b>	

Wetland	Cowardin Classification	ORAM Score	ORAM Category	Size within Project Area (acres)	Wetland Impact (acres)*	Amount of Discharge# (cubic yards)
W-10 Total	PEM	29	1	0.018	0	0
W-11 Total	PEM	29	1	0.047	0	0
W-12 Total	PEM	29	1	0.017	0	0
W-13 Total	PEM	27	1	0.322	0	0
W-14 Total	PEM	27	1	0.140	0.140	677.6
W-15 Total	PEM	27	1	0.157	0.157	759.9
W-16 Total	PEM	27	1	1.123	0	0
W-17 Total	PEM	27	1	0.043	0	0
W-18 Total	PEM	27	1	0.023	0	0
W-19 Total	PEM	50.5	2	0.264	0	0
W-20 Total	PEM	50.5	2	0.031	0	0
W-21 Total	PEM	50.5	2	0.031	0	0
W-22 Total	PEM	50.5	2	0.257	0	0
W-23 Total	PFO	50.5	2	0.013	0	0
W-24 Total	PEM	50.5	2	0.049	0	0
W-25 Total	PEM	50.5	2	0.045	0	0
W-26 Total	PEM	38	2	0.082	0.082	396.9
<b>Total PEM Wetlands</b>				<b>6.910</b>	<b>1.488</b>	<b>7,202.0</b>
<b>Total PEM/PSS Wetlands</b>				<b>0.291</b>	<b>0</b>	<b>0</b>
<b>Total PSS Wetlands</b>				<b>0.070</b>	<b>0</b>	<b>0</b>
<b>Total PFO/PFO mosaic Wetlands</b>				<b>38.839</b>	<b>3.456</b>	<b>16,731.9</b>
<b>Total Wetland</b>				<b>46.110</b>	<b>4.944^</b>	<b>23,933.9</b>

\*accounts for both direct and indirect impacts

^due to rounding error, total Wetland Impact sums to 4.946 acres but is actually 4.944 acres

# total cubic yards greater when added than multiplied due to rounding



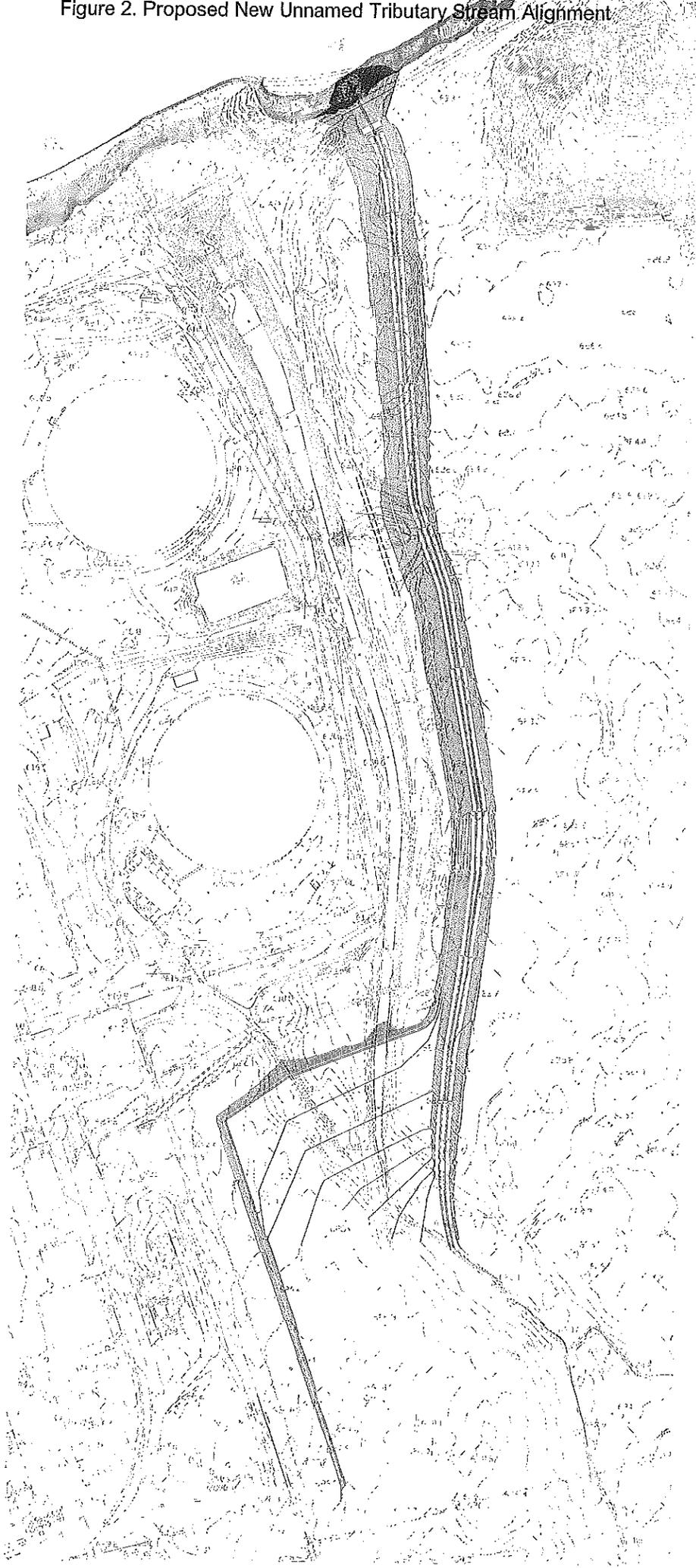


Table 2. Stream Impacts for Modified Option 1.8

Stream	Type	Bankfull Width (feet)	Water Depth at Time of Survey (inch)	Length Within Project Area (linear feet)	Area Within Project Area (acres)	Stream Impacts- Length of Proposed Impacts (linear feet)	Stream Impacts- Width of Proposed Impacts (feet)	Stream Impacts- Area of Proposed Impacts* (acres)	Amount of Discharge (cubic yards)
S-1	perennial	7	6	2,131	0.342	0	0	0	0
S-2	ephemeral	0.4	0.5	55	0.001	0	0	0	0
S-3	intermittent	4.5	3	466	0.048	466	4.5	0.048	233.0
S-4	intermittent	4.3	5	3,226	0.318	2,571	4.3	0.254	1,428.3
S-5	intermittent	3.5	3.5	1,022	0.035	0	0	0	0
S-6	perennial	4	4	58	0.005	0	0	0	0
S-7	ephemeral	1	0	54	0.001	0	0	0	0
S-8	ephemeral	0.5	0	30	0.001	0	0	0	0
S-9	ephemeral	1	1	116	0.003	0	0	0	0
S-10	ephemeral	1.5	0	16	0.001	0	0	0	0
S-11	ephemeral	0.5	1	177	0.002	0	0	0	0
S-12	ephemeral	1.5	4	206	0.007	206	1.5	0.007	34.3
<b>Total Ephemeral Stream</b>				653	0.016	206	-	0.007	34.3
<b>Total Intermittent Stream</b>				4,714	0.401	3,036	-	0.302	1,661.3
<b>Total Perennial</b>				2,189	0.347	0	-	0	0
<b>Total Stream</b>				7,556	0.764	3,242	-	0.309	1,695.6

\*accounts for both direct and indirect impacts  
^ due to rounding error, total intermittent stream impacts is 2,090 linear feet instead of 2,091 linear feet

Figure 2. Proposed New Unnamed Tributary Stream Alignment



FirstEnergy Nuclear Operating Company  
D/A Processing No. 2014-00108  
Lake County, Ohio  
Quad: Perry  
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Figure 3. Typical Cross Section

### Proposed Typical Cross section

