# LETTER OF NOTIFICATION

# FOR THE

# Miami Fort to Tanners Creek Rebuild Project

# OPSB Case No. 21-0018-EL-BLN

**Submitted to:**

**The Ohio Power Siting Board**

**Pursuant to O.A.C. 4906-06**

**Submitted by:**

**Duke Energy Ohio, Inc.**

**January 2021**

## *TABLE OF CONTENTS*



## ATTACHMENTS

# LETTER OF NOTIFICATION

This Letter of Notification has been prepared by Duke Energy Ohio, Inc., (hereafter Duke Energy Ohio) in accordance with Ohio Administrative Code (O.A.C.) Section **4906-6-05** for review of the Accelerated Certificate Application for the Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project. The following sections correspond to the administrative code sections for the requirements of a Letter of Notification.

## 4906-06-05: ACCELERATED APPLICATION REQUIREMENTS

### 4906-6-05(B): General Information

#### 4906-6-05(B)(1): Name, Reference Number, Brief Description, and Letter of Notification Requirement

**The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Letter of Notification application.**

Name of Project:

Duke Energy Ohio Miami Fort to Tanners Creek Rebuild (Project)

Reference Numbers:

| | |
|---|---|
| OPSB Filing Number: | The Project has been assigned Ohio Power Siting Board (OPSB) Case Number 21-0018-EL-BLN. |
| PJM Number: | b2831.2 |
| 2020 LTFR: | The Project was included in the 2020 Long-Term Forecast Report (LTFR), FE-T9, page 48. |
| Circuit Reference: | Circuit 4504 for the Transmission line scope. |

Brief Description of the Project:

The overall Project comprises reconductoring of a portion of the 345-kV transmission line within the Ohio and Indiana segment of the Project, removing 6 existing lattice structures, 4 of which will be replaced by galvanized steel H-frame structures and the remaining 2 will be replaced by galvanized steel 3 pole structures within the Kentucky portion of the Project area. Specifically, within the Ohio segment of the Project, existing structures will be reconductored and approximately 0.31 miles of 345-kV transmission line (Circuit 4504) will be restrung from the Miami Fort Substation to Structure 6BN-X34-15 located in Boone County, Kentucky. This work comprises the installation of approximately 4 miles of reconductoring transmission line, of which

only 0.31 miles are located in the State of Ohio, Hamilton County. The remainder of the construction is located outside the State of Ohio.

Letter of Notification Requirement:

This Project qualifies as a Letter of Notification filing because it meets the requirements outlined in O.A.C. 4906-6-05, Appendix A, item (1)(a). Item (1)(a) *Application Requirement Matrix for Electric Power Transmission Lines:*

1. *New construction, extension, or relocation of single or multiple circuit electric power transmission line(s) or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:*

   *(b) Line(s) greater than 0.2 miles in length but not greater than two miles in length.*

## 4906-6-05(B)(2): Statement of Need

**If the proposed project is an electric power transmission line or natural gas transmission line, a statement explaining the need for the proposed facility.**

The purpose and need for the Project is to alleviate identified transmission constraints and provide greater energy capacity and enhanced service reliability to the growing service area. Specifically the Miami Fort to Tanners Creek Rebuild Project will remedy a NERC violation found during the 2016 PJM s Regional Transmission Expansion Plan (RTEP) process and provide greater energy capacity and enhanced service reliability to the growing service area. This area includes, but is not limited to Hamilton County, Ohio, Boone County, Kentucky, and Dearborn County, Indiana. The existing 4-mile Miami Fort to Tanners Creek line provides 345-kV electric transmission service to residential and commercial/industrial facilities and serves as a pathway in the transmission grid between the Miami Fort Power Station and the Tanners Creek Power Station. Due to the increased customer load growth in the service area, circuits will not be able to reliably operate at the base case contingency condition, which may result in customer load being disrupted. Moreover, to ensure the integrity of the transmission line, 6 lattice structures will be removed and replaced within the Kentucky segment of the Project. Four of the structures will be replaced by galvanized steel H-frame structures and the remaining 2 will be replaced by galvanized steel 3 pole structures within the Kentucky portion of the Project area.

The rebuilt transmission line will continue to provide the service area with 345-kV transmission service, but will be rebuilt with upgraded conductor capacity to enable the line to alleviate the constraint found during the PJM RTEP study which will prevent the overload of the circuit and allow for future load growth and generation resource development in the region.

## 4906-6-05(B)(3): Project Location

**The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the Project area.**

The location of the Project is depicted in Attachment A: Figures 1 and 2. Figure 1 displays the Project's general vicinity depicted on a United States Geological Survey (USGS) quadrangle topographic map. Figure 2 depicts the planned transmission line location, associated GIS layers, and additional details depicted on an aerial imagery map.

The location of the Project in relationship to existing Duke Energy Miami Fort Substation is shown on Figure 1 and 2.

## 4906-6-05(B)(4): Alternatives Considered

**The applicant shall describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.**

The proposed Project will occur entirely within existing Duke Energy Ohio property and easements. No long-term impacts to adjacent properties are anticipated as a result of the Project. Other alternative routes were not considered because the Project was able to take advantage of existing easements and avoid further impacts to ecological resources.

## 4906-6-05(B)(5): Public Information Program

**The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.**

The Miami Fort to Tanners Creek Rebuild Project is located entirely on Duke Energy Ohio property (see Figure 2). Any impacted property owner(s) will be notified prior to construction activities by Duke Energy Ohio. Further information on the ongoing status of this Project and other Duke Energy Projects can be found at the following website:

https://www.duke-energy.com/our-company/about-us/electric-transmission-projects.

## 4906-6-05(B)(6): Construction Schedule

**The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.**

Construction is scheduled to begin in March 2021 pending approval of this Letter of Notification. The Project is anticipated to be completed and the line in service by June 2021.

## 4906-6-05(B)(7): Area Map

**The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.**

Figures 1 and 2, in Attachment A – Figures, depict the general location of the Project. Figure 1 shows the general Project vicinity on a United States Geological Survey (USGS) quadrangle topographic map. Attachment A, Figure 2, depicts the planned transmission line location on an aerial image, with associated GIS layers, and additional features in the Project vicinity.

## 4906-6-05(B)(8): Property Agreements

**The applicant shall provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.**

The proposed Project is located entirely within existing Duke Energy Ohio property and easements.

## 4906-6-05(B)(9): Technical Features

The Miami Fort to Tanners Creek Rebuild Project involves the reconductoring of a portion of the 345-kV transmission line located within the Ohio portion of this Project. This work comprises the installation of approximately 4 miles of new conductor of which 0.31 miles are located within Miami Township, Hamilton County, Ohio.

## 4906-6-05(B)(9)(a): Operating Characteristics

**The applicant shall describe the following information regarding the technical features of the project:**

**Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.**

| | |
|---|---|
| Voltage: | 345-kV |
| Structure Type: | No structures will be replaced in Ohio; all structure replacement is occurring in the Kentucky segment of the Project. |
| Conductors: | 0.31 miles of Bundled 954 ACSS/TW "Cardinal" (6 conductors; 2 conductors per phase) |
| Static Wire: | 0.31 miles of 1 OPGW CC54/472 |
| Insulators: | 345-kV Glass Insulators |
| Height: | Conductor height 59 feet (max operating) to 67 feet (cold uplift); no structure replacement in Ohio so there's no structure height changes. |
| ROW Land Requirements: | No new easements are required for this Project. |

## 4906-6-05(B)(9)(b): Electric and Magnetic Fields

Information concerning the electric and magnetic fields are not required as the Ohio Project segment is not located within 100 feet of an occupied residence or institution.

## 4906-6-05(B)(9)(c): Project Cost

**The estimated capital cost of the project.**

The estimated capital cost of the Project is $3M for the Ohio segment of this Project. This estimate includes installation of the new conductor to rebuild the Circuit 4504 (345-kV) transmission line.

## 4906-6-05(B)(10): Social and Ecological Impacts

**The applicant shall describe the social and ecological impacts of the project:**

### 4906-6-05(B)(10)(a): Land Use Characteristics

**Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.**

The Ohio segment of the Project is located in Miami Township, Hamilton County, Ohio. Miami Township is located approximately 25 miles northeast of the City of Cincinnati. Hamilton Township, which covers 35 square miles, has a population of 15,757 people based on 2010 census data. The land use immediately surrounding the Project is predominantly open water (the Ohio River), undeveloped land, and commercial/industrial (existing Miami Fort Generation Facility).

### 4906-6-05(B)(10)(b): Agricultural Land Information

**Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.**

The Ohio segment of the Project is located on developed property consisting of an existing substation owned by Duke Energy Ohio servicing the Miami Fort Generation Station. No agricultural lands will be impacted by the proposed Project.

### 4906-6-05(B)(10)(c): Archaeological or Cultural Resources

**Provide a description of the applicant's investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.**

The Ohio Historic Preservation Office's (OHPO) online mapping system revealed that 29 archaeological sites, one of which is National Register of Historic Places (NRHP) listed, 1 NRHP-listed prehistoric district, 2 historic structures, and 1 cemetery are located within 1.6 km (1 mi) of the Project area. One of these resources, a late prehistoric/Mississippian prehistoric habitation (site 33-HA-0096) is located within the study area; however, the site has been entirely destroyed by the construction of a retention pond.

Online data provided by OHPO indicates that five cultural resources investigations have occurred within 1.6 km (1.0 mi) of the Project area. None of these investigations are located within or adjacent to the study area. However, due to the large number of recorded archaeological sites in the region that do not appear associated with these previous surveys, it is likely that additional surveys have occurred within 1.6 km (1 mi) of the Project area. These investigations were either not filed at OHPO or were the result of another form of site recording such as landowner collection interviews, early university surveys, or amateur survey.

The Ohio portion of the Project area is located in disturbed and graded areas related to the construction of retention ponds at the Miami Fort Generation Station. Due to the high level of soil disturbance in this area, it is unlikely that extensive intact cultural deposits are present; therefore, no additional archaeological work is recommended for the portion of the Project area located in Ohio.

**4906-6-05(B)(10)(d): Local, State, and Federal Agency Correspondence**

**Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.**

A Section 10 Permit of the Rivers and Harbors Act for the two aerial crossings over the Ohio River was authorized on September 2, 2020, under the provisions of 33 CFR nationwide (NWP) No. 12. Coordination with the Military Aviation and Installation Assurance Siting Clearinghouse coordinated with the Department of Defense (DoD) was received on September 29, 2020 (Attachment B).

As the Project area located within Hamilton County, Ohio is expected to disturb less than one acre, a National Pollutant Discharge Elimination System (NPDES) for a General Permit for Storm Water discharges from the Ohio Environmental Protection Agency (Ohio EPA) will not be required.

As the Project area located within Hamilton County, Ohio is expected to disturb less than one acre, an Earth Moving Permit from the Hamilton County Soil and Water Conservation District will not be required.

The Project will not require a "no rise" certification and/or elevation certificate from ODNR for development within the floodplain. Likewise, the Project will not require a Special Flood Hazard Area Development Permit from the Hamilton County Floodplain Administrator for development within the floodplain. The Project area located within Hamilton County, Ohio will not involve constructing any new structures within the floodplain of the Ohio River.

The Project does not transect a USACE regulated levee therefore a Section 408 Permit from the USACE will not be required.

No other local, state or federal permit or other authorizations are required for the Project area segment located within Hamilton County, Ohio.

**4906-6-05(B)(10)(e): Endangered, Threatened, and Rare Species**

**Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.**

Several sources of information were consulted to further define the potential habitat of listed species that occur within the county of the Project. Attachment B – Agency Coordination Letters, contains a list of the Rare Threatened Endangered (RTE) species known to occur within Hamilton County and their potential to occur within the Project area based on their habitat requirements and observations during the field survey.

Coordination with the U.S. Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources Division of Wildlife (ODNR-DOW) was initiated on September 11, 2020. The correspondence from USFWS received on September 22, 2020 indicated "Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the federally listed endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*), we do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species" (Attachment B). A response from ODNR-DOW was received on November 5, 2020. ODNR-DOW indicated the Project falls with the range of Indiana bat (*Myotis sodalis,* state and federally endangered), northern long-eared bat (*Myotis septentrionalis,* state endangered and federally threatened), the little brown bat (*Myotis lucifugus*, state endangered), and the tricolored bat (*Perimyotis subflavus*, state endangered), fanshell (*Cyprogenia stegaria*, state and federally endangered), pink mucket (*Lampsilis orbiculata*, state and federally endangered), rayed bean (*Villosa fabalis*, state and federally endangered), sheepnose (*Plethobasus cyphyus*, state and federally endangered) snuffbox (*Epioblasma triquetra*, state and federally endangered), butterfly (*Ellipsaria lineolata*, state endangered), ebonyshell (*Fusconaia ebena*, state endangered), elephant-ear (*Elliptio crassidens*, state endangered), long-solid (*Fusconaia maculata*, state endangered), monkeyface (*Quadrula metanevra*, state endangered), Ohio pigtoe (*Pleurobema cordatum*, state endangered), wartyback (*Quadrula nodulata*, state endangered), washboard *(Megalonaias nervosa*, state endangered), black sandshell (*Ligumia recta*, state threatened), fawnsfoot (*Truncilla donaciformis*, state threatened), threehorn wartyback (*Obliquaria reflexa*, state threatened), bigeye shiner *(Notropis boops*, state endangered), lake sturgeon (*Acipenser fulvescens*, state endangered), northern madtom (*Noturus stigmosus*, state endangered), popeye shiner (*Notropis ariommus*, state endangered), shoal chub (*Macrhybopsis hyostoma*, state endangered), shortnose gar (*Lepisosteus platostomus*, state endangered), shovelnose sturgeon (*Scaphirhynchus platorynchus*, state endangered), blue sucker (*Cycleptus elongatus*, state threatened), channel darter (*Percina copelandi*, state threatened), mountain madtom (*Noturus eleutherus*, state threatened), paddlefish (*Polyodon spathula*, state threatened), river darter (*Percina shumardi*, state threatened), cave salamander (Eurycea lucifuga, state endangered), Kirtland's snake (*Clonophis kirtlandi*, state threatened), American bittern (*Botaurus lentiginosus*,

state endangered), black-crowned night-heron (*Nycticorax*, state-threatened ), lark sparrow (*Chondestes grammacus*, state endangered), least bittern (*Ixobrychus exilis*, state threatened), loggerhead shrike (*Lanius ludovicianus*, state endangered), and trumpeter swan (*Cygnus buccinator*, state threatened). However, ODNR states that "due to the location, the type of habitat present at the Project site and within the vicinity of the Project area, and the type of work proposed, this Project is not likely to impact" any of the identified species listed with ranges within the Project area. A copy of the USFWS and ODNR-DOW response letters are included in Attachment B – Agency Coordination Letters.

**4906-6-05(B)(10)(f): Areas of Ecological Concern**

**Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.**

Duke Energy Ohio had Cardno conduct an investigation for areas of ecological concern within the Project area. As a part of Cardno's investigation, a request was submitted to the ODNR Environmental Review Services and USFWS on September 11, 2020, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forest, national wildlife refuges, or other protected areas within 1 mile of the Project, using the ODNR Natural Heritage Database. The correspondence from USFWS received on September 22, 2020 indicating "Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat." A response from ODNR-DOW was received on November 5, 2020, indicating that the Project is located within a 1-mile radius of the following resources; Smooth buttonweed (*Spermacoce glabra*, state potentially threatened), Running buffalo clover (*Trifolium stoloniferum*, state endangered, federal endangered), Oak maple forest plant community, Long-solid (*Fusconaia subrotunda*, state endangered), Fawnsfoot (*Truncilla donaciformis*, state threatened), Shortnose gar (*Lepisosteus platostomus*, state endangered), Shoal chub (*Macrhybopsis hyostoma*, state endangered), Channel darter (*Percina copelandi*, state threatened), River darter (*Percina shumardi*, state threatened), Great Miami River Wildlife Area – ODNR Division of Wildlife, and Shawnee Lookout – Great Parks of Hamilton County. No new structures or earth disturbance is anticipated within the Ohio portion of the Project, therefore, no adverse impacts to areas of ecological concern including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries are anticipated by the Project. A copy of the USFWS and ODNR-DOW response letters are included in Attachment B – Agency Coordination Letters.

Cardno conducted a wetland delineation and stream assessment of the Project area. Cardno's investigation included approximately 10.15 acres of Duke Energy Ohio property. During the investigation, Cardno identified 1 perennial river (Ohio River) and no other surface waters within

the Ohio segment of the Project area. No earth disturbance within the Ohio portion of the Project is anticipated. No impacts to regulated waters or RTE habitats are expected by the Project. See Attachment C, Regulated Waters Delineation Report.

Cardno also identified 100-year floodplains using the FEMA National Flood Hazard Layer within the Project area. One 100-year floodplain to the Ohio River was identified within the Project area. No new structures will be constructed within Ohio portion of the Project area. Refer to Attachment A – Figures, Figure 2.

## 4906-6-05(B)(10)(g): Unusual Conditions

**Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.**

To the best of Duke Energy Ohio's knowledge, no unusual conditions exist that would result in environmental, social, health, or safety impacts. Construction and operation of the proposed Project will meet all applicable safety standards established by the Occupational Safety and Health Administration and will be in accordance with the requirements specified in the latest revision of the National Electric Safety Code as adopted by the Public Utilities Commission of Ohio.

## 4906-6-07: Service and Public Distribution of Accelerated Certification Applications

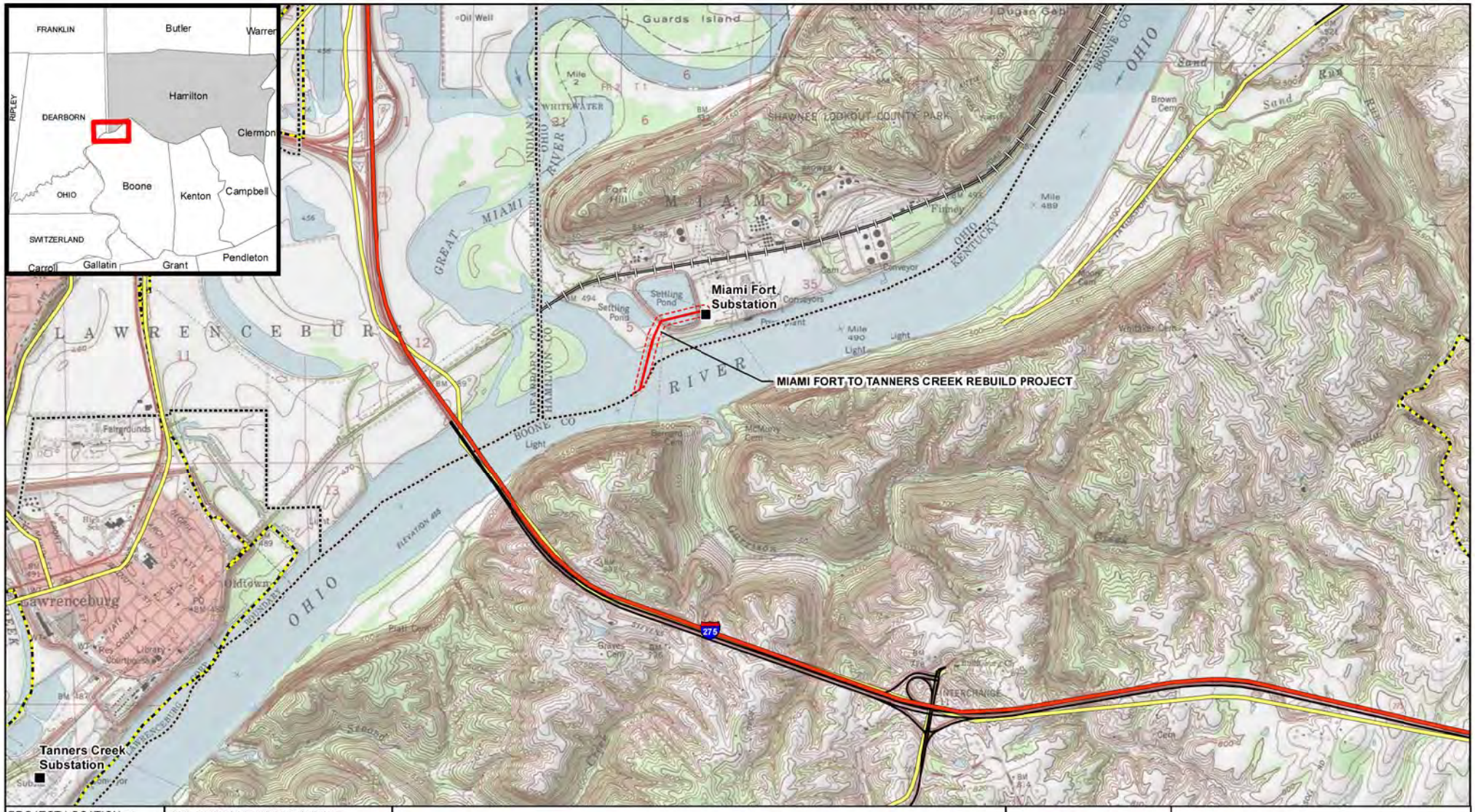
Copies of this Letter of Notification will be sent to the appropriate Miami Township and Hamilton County public officials as well as to the Miami Township Branch Library, prior to construction activities. Information on how to request an electronic or paper copy of the Letter of Notification as well as additional information on the ongoing status of this Project can be found at the following website: www.Duke-energy.com/Miami-Fort

## 4906-6-08 (A) Public Notice for Letter of Notification Applications

**Provide public notice in newspapers of general circulation in the project area and shall supply the Board with proof of such publication no later than thirty days from the date of publication.**

A newspaper notice will be provided in the Cincinnati Enquirer within 7 days of filing this application, consisting of no less than a fourth of a standard page. Similarly, proof of publication within 30 days of the date of publication will be provided. Within 7 days of filing this Letter of Notification, notice will be sent to each property owner affected by the Project, with a description of the Project, a map showing the location and layout of the Project, the location of where accessible copies of this Letter of Notification are available, and a statement including the assigned docket number that this Letter of Notification is now pending before the Board. This letter will also describe how to participate and comment in the Board's proceedings.

Attachment A – Figures




PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- ExistingFacility
- Interstate
- County Boundary
- State Highway
- US Highway
- Railroad
- Project Centerline
- Study Area
- Municipal Boundary

DUKE ENERGY.

Cardno

0 500 1,000 2,000 Feet

FIGURE 1
PROJECT VICINITY MAP
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
OPSB CASE NO. 21-0018-EL-BLN

DUKE ENERGY OHIO

DRAWN BY: COD DATE: 1/21/2021
CHECKED: KGH APPROVED: CAJ

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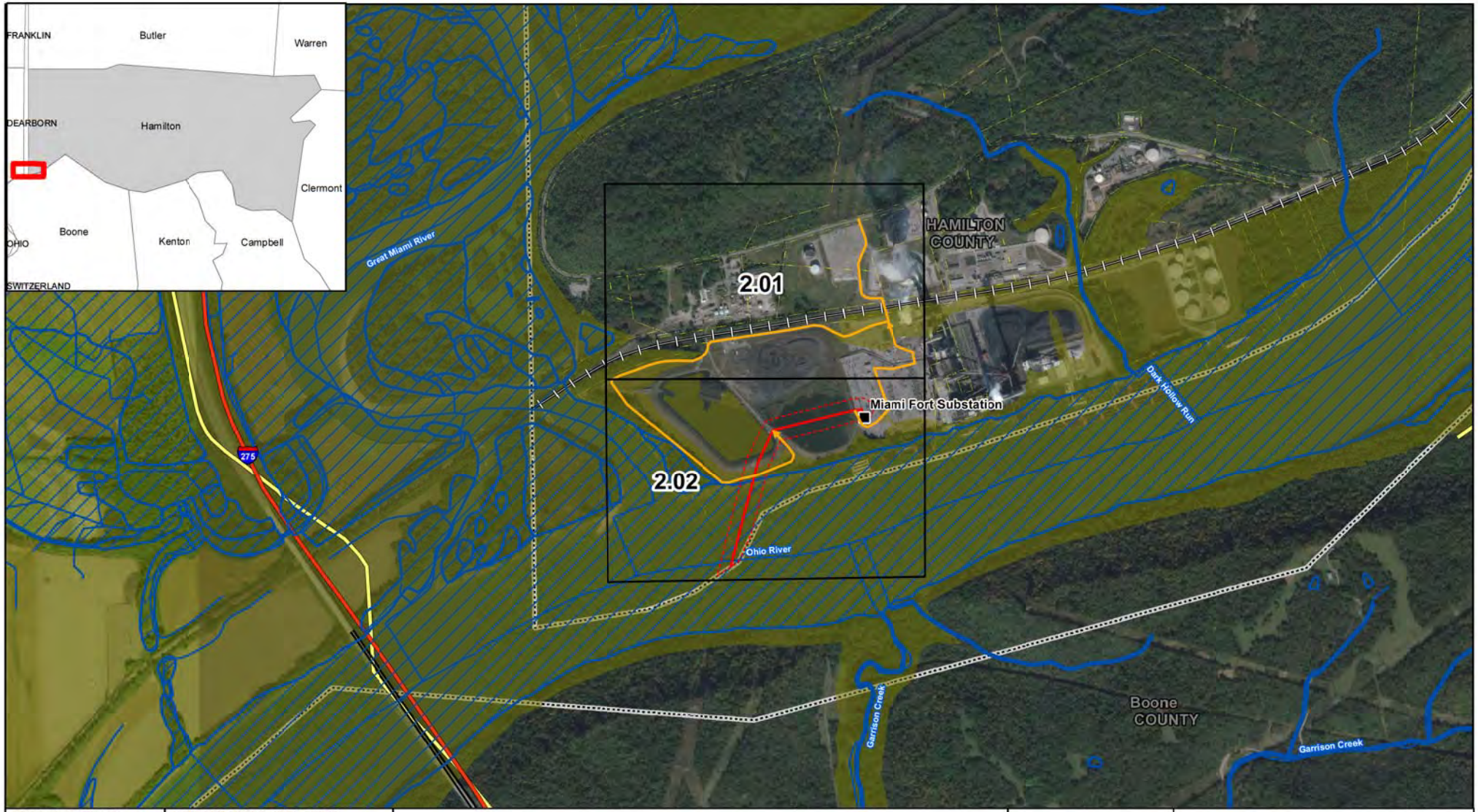


PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- 100-Yr Floodplain
- Potential Access
- Existing Facility
- Project Centerline
- Study Area
- NHD Flowline
- Interstate
- US Highway
- Railroad
- Parcels
- County Boundary
- Municipal Boundary
- NWI Wetlands
- Sheet Index

DUKE ENERGY.

Cardno

0 500 1,000 Feet

FIGURE 2.
ENVIRONMENTAL ACCESS PLAN KEY MAP
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
OPSB CASE NO. 21-0018-EL-BLN

DUKE ENERGY OHIO

DRAWN BY: COD DATE: 1/21/2021
CHECKED: KGH APPROVED: CAJ

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PROJECT LOCATION

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- Delineated Pond
- Existing Structure
- ExistingFacility
- Project Centerline
- Study Area
- NHD Flowline
- Potential Access
- Municipal Boundary
- NWI Wetlands
- County Boundary
- Parcels

DUKE ENERGY.

Cardno

0 65 130 260 Feet

FIGURE 2.01
ENVIRONMENTAL ACCESS PLAN
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
OPSB CASE NO. 21-0018-EL-BLN

DUKE ENERGY OHIO

DRAWN BY: COD DATE: 1/21/2021
CHECKED: KGH APPROVED: CAJ

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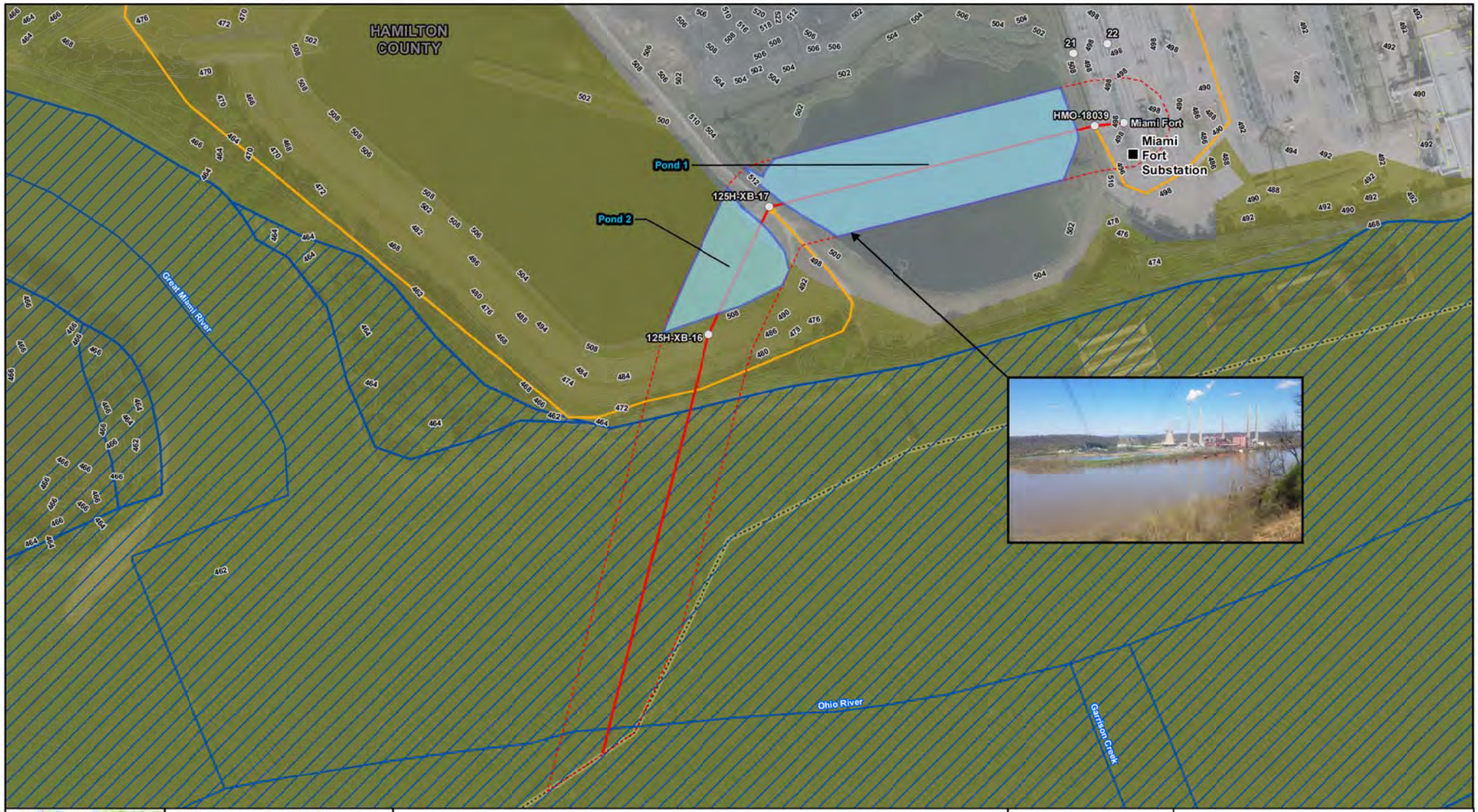


PROJECT LOCATION

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- Delineated Pond
- Existing Structure
- ExistingFacility
- Project Centerline
- Study Area
- NHD Flowline
- Potential Access
- Municipal Boundary
- NWI Wetlands
- County Boundary
- Parcels

DUKE ENERGY.
Cardno

0 65 130 260 Feet

FIGURE 2.02
ENVIRONMENTAL ACCESS PLAN
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
OPSB CASE NO. 21-0018-EL-BLN

DUKE ENERGY OHIO

DRAWN BY: COD DATE: 1/21/2021
CHECKED: KGH APPROVED: CAJ

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Attachment B – Agency Coordination Letters

**DEPARTMENT OF THE ARMY**
**U.S. ARMY CORPS OF ENGINEERS, LOUISVILLE DISTRICT**
**600 DR. MARTIN LUTHER KING JR PL**
**LOUISVILLE, KY 40202**

September 2, 2020

Regulatory Division
North Branch
ID No. LRL-2020-671-cat

Mr. Dane Vandewater
Duke Energy
315 Main Street
Cincinnati, Ohio 45202

Dear Mr. Vandewater:

This is in response to a request for authorization submitted on your behalf by Cardno (agent) to replace a 345 kV transmission line over the Ohio River at River Mile 491 in Hamilton County, Ohio/Boone County, Kentucky (Lat. 39.10777, Long. -84.81226) and River Mile 493.5 in Boone County, Kentucky/Dearborn County, Indiana (Lat. 39.08440, Long. -84.85147). The information supplied by your agent was reviewed to determine whether a Department of the Army (DA) permit will be required under the provisions of Section 10 of the Rivers and Harbors Act.

Concerning the multiple aerial transmission line crossings of the Ohio River, pursuant to Section 10 of the Rivers and Harbors Act of 1899, we have determined that this work is authorized under the provisions of 33 CFR 330 Nationwide Permit (NWP) No. 12, Utility Line Activities, as published in the Federal Register January 6, 2017. Under the provisions of this authorization you must comply with the enclosed Terms and General Conditions for Nationwide Permit No. 12, and the following Special Conditions:

1. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

This verification is valid until March 18, 2022. The enclosed Compliance Certification must be submitted to the District Engineer within 30 days of completion of the authorized activity. Note that we also perform periodic inspections to ensure compliance with our permit conditions and applicable Federal laws. A copy of this letter will be forwarded to your agent.

If you have any questions, please contact us by writing to the District Regulatory Office at the above address, ATTN: CELRL-RDN, or contact me directly at 502-315-6690 or Cody.a.Thayer@usace.army.mil. Any correspondence on this matter should refer to our ID Number LRL-2020-671-cat.

Sincerely,

Cody Thayer
Project Manager, North Branch
Regulatory Division

Enclosures

AGENT

Ms. Cori Jansing
Cardno
11121 Canal Road
Cincinnati, Ohio 45241

**Compliance Certification:**

**Permit Number: LRL-2020-671-cat**

**Name of Permittee: Duke Energy: Mr. Dane Vandewater**

**Date of Issuance: September 2, 2020**

Upon completion of the activity authorized by this permit and any mitigation required by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
CELRL-RDN
P.O. Box 59
Louisville, Kentucky 40201

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee Date

# Terms for Nationwide Permit No. 12
## Utility Line Activities

Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and internet, radio, and television communication. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to or along a stream

bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where the utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: For utility line activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d).

Note 3: Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the United States (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

Note 4: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 5: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 6: This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 7: For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Note 8: For NWP 12 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

US Army Corps of Engineers®
Louisville District

# 2017 Nationwide Permit General Conditions

The following General Conditions must be followed in order for any authorization by NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the US Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/

17. Tribal Rights. No activity may impair tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on the listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification (PCN) to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the PCN must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete PCN. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from Corps.

(d) As a result of formal or informal consultation with the USFWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will review the ESA section 10(a)(1)(B) permit, and if he or she determines that it covers the proposed NWP activity, including any incidental take of listed species that might occur as a result of conducting the proposed NWP activity, the district engineer does not need to conduct a separate section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete PCN whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause an effect on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, and adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.

(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the US are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g. conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on the both sides of a stream or if the waterbody is a lake or coastal waters. Then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g. riparian areas and/or wetlands compensation) based on what is best for the aquatic environmental on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation if the use of mitigation bank or in-lieu fee program credits is not appropriate and practicable.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality

Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or USEPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature: "When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires Section 408 permission is not authorized by the NWP until the appropriate Corps office issues the section 408 permission to altar, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification (PCN). (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other water for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an

illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that may be affected by the proposed activity. For any NWP activity that requires pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. Federal permittees must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of PCN Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require preconstruction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line or ordinary high water mark.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, sites pecific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of PCN notifications to expedite agency coordination.

Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

SUSTAINMENT

September 29, 2020

Cody Thayer
Louisville District
U.S. Army Corps of Engineers
600 Dr. Martin Luther King Jr Pl
Louisville, KY 40202

Dear Mr. Thayer,

As requested, the Military Aviation and Installation Assurance Siting Clearinghouse coordinated within the Department of Defense (DoD) an informal review of the Miami Fort to Tanners Creek Transmission Line Rebuild Project (Project No. LRL-2020-671). The results of our review indicated that the transmission line project, located in Hamilton County, Ohio; Boone County, Kentucky; and Dearborn County, Indiana, as proposed, will have minimal impact on military operations conducted in the area.

Thank you for working with us to preserve our military's operational, training, and testing capabilities. We have assigned the tracking code 2020-09-RB-ACE-01 to this project. If you have any questions, please contact me at steven.j.sample4.civ@mail.mil or at 703-571-0076.

Sincerely,

Steven J. Sample
Deputy Director
Military Aviation and Installation
Assurance Siting Clearinghouse

## Cori Jansing

**From:** Ohio, FW3 <ohio@fws.gov>
**Sent:** Tuesday, September 22, 2020 11:36 AM
**To:** Cori Jansing
**Cc:** nathan.reardon@dnr.state.oh.us; Parsons, Kate; Dane.Vandewater@duke-energy.com
**Subject:** Duke Energy, Miami Fort to Tanners Creek Transmission Rebuild, Miami Twp., Hamilton Co

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994

TAILS# 03E15000-2020-TA-2490

Dear Ms. Jansing,

The U.S Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

*Seasonal Tree Clearing for Federally Listed Bat Species*: Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see http://www.fws.gov/midwest/endangered/mammals/nleb/index.html), incidental take of Indiana bats is still

prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.
If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Patrice M. Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW

**Office of Real Estate**
*John Kessler, Chief*
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
*Phone: (614) 265-6649*
*Fax: (614) 267-4764*

November 5, 2020

Cori Jansing
Cardno
11121 Canal Road
Cincinnati, Ohio 45241

**Re:** 20-898; Duke Energy Miami Fort Rebuild to Tanners Creek Rebuild Project

**Project:** The proposed project involves the installation of approximately 0.26-mile of existing 345 kV transmission line initiating at the existing Miami Fort Substation and crossing over onto the existing Duke structure 6BN-X34-15.

**Location:** The proposed project is located in Miami Township, Hamilton County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

**Natural Heritage Database: The** Natural Heritage Database has the following records at or within a one-mile radius of the project area:

Smooth buttonweed (*Spermacoce glabra*), P
Running buffalo clover (*Trifolium stoloniferum*), E, FE
Oak maple forest plant community
Long-solid (*Fusconaia subrotunda*), E
Fawnsfoot (*Truncilla donaciformis*), T
Shortnose gar (*Lepisosteus platostomus*), E
Shoal chub (*Macrhybopsis hyostoma*), E
Channel darter (*Percina copelandi*), T
River darter (*Percina shumardi*), T
Great Miami River Wildlife Area – ODNR Division of Wildlife
Shawnee Lookout – Great Parks of Hamilton Co.

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; A = species recently added to state inventory, status not yet determined; X = presumed extirpated in Ohio; FE = federal endangered, FT = federal threatened, FSC = federal species of concern, FC = federal candidate species.

**Fish and Wildlife:** The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH $\geq$ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "*OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING*". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31, however, limited summer tree cutting may be acceptable after consultation with DOW (contact Sarah Stankavich, sarah.stankavich@dnr.state.oh.us).

The DOW also recommends that a desktop habitat assessment, followed by a field assessment if needed, is conducted to determine if there are potential hibernaculum(a) present within the project area. Information about how to conduct habitat assessments can be found in the current USFWS "*Range-wide Indiana Bat Survey Guidelines*." If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the project area, please send this information to Sarah Stankavich, sarah.stankavich@dnr.state.oh.us for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species:

Federally Endangered
fanshell (*Cyprogenia stegaria*)
pink mucket (*Lampsilis orbiculata*)
rayed bean (*Villosa fabalis*)

sheepnose (*Plethobasus cyphyus*)
snuffbox (*Epioblasma triquetra*)

State Endangered
butterfly (*Ellipsaria lineolata*)
ebonyshell (*Fusconaia ebena*)
elephant-ear (*Elliptio crassidens crassidens*)
long-solid (*Fusconaia maculata maculata*)
monkeyface (*Quadrula metanevra*)
Ohio pigtoe (*Pleurobema cordatum*)
wartyback (*Quadrula nodulata*)
washboard (*Megalonaias nervosa*)

State Threatened
black sandshell (*Ligumia recta*)
fawnsfoot (*Truncilla donaciformis*)
threehorn wartyback (*Obliquaria reflexa*)

Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact these species.

The project is within the range of the following listed fish species:

State Endangered
bigeye shiner (*Notropis boops*)
lake sturgeon (*Acipenser fulvescens*)
northern madtom (*Noturus stigmosus*)
popeye shiner (*Notropis ariommus*)
shoal chub (*Macrhybopsis hyostoma*)
shortnose gar (*Lepisosteus platostomus*)
shovelnose sturgeon (*Scaphirhynchus platorynchus*)

State Threatened
blue sucker (*Cycleptus elongatus*)
channel darter (*Percina copelandi*)
mountain madtom (*Noturus eleutherus*)
paddlefish (*Polyodon spathula*)
river darter (*Percina shumardi*)

The DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet meadows and other wetlands. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the cave salamander (*Eurycea lucifuga*), a state endangered species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the black-crowned night-heron *(Nycticorax nycticorax*), a state-threatened bird. Night-herons are so named because they are nocturnal, conducting most of their foraging in the evening hours or at night, and roost in trees near wetlands and waterbodies during the day. Night herons are migratory and are typically found in Ohio from April 1 through December 1 but can be found in more urbanized areas with reliable food sources year-round. Black-crowned night-herons primarily forage in wetlands and other shallow aquatic habitats, and roost in trees nearby. These night-herons nest in small trees, saplings, shrubs, or sometimes on the ground, near bodies of water and wetlands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the loggerhead shrike (*Lanius ludovicianus*), a state endangered bird. The loggerhead shrike nests in hedgerows, thickets and fencerows. They hunt over hayfields, pastures, and other grasslands. If thickets or other types of dense shrubbery habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 to August 1. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the trumpeter swan (*Cygnus buccinator*), a state threatened bird. Trumpeter swans prefer large marshes and lakes ranging in size from 40 to 150 acres. They like shallow wetlands one to three feet deep with a diverse mix of plenty of emergent and submergent vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to June 15. If this habitat will not be impacted, this project is not likely to have an impact on this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

**Water Resources:** The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator (Acting)

Attachment C – Regulated Waters Delineation Report

# Regulated Waters Delineation Report

## Fort Miami to Tanners Creek Rebuild Project - Ohio Segment

North Bend, Hamilton County, Ohio

May 19, 2020

Cardno®

# Document Information

| | |
|---|---|
| **Prepared for** | Duke Energy Ohio |
| **Client Contact** | Dane Vandewater |
| **Project Name** | Miami Fort to Tanners Creek Rebuild Project - Ohio Segment |
| **Project Number** | Cardno #J156721M22 |
| **Project Manager** | Cori Jansing (Cardno) |
| **Date** | May 19, 2020 |

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# Table of Contents

# Appendices



# Tables



# Figures



# Acronyms

| | |
|---|---|
| APA | Administrative Procedure Act |
| BF | Bank Full |
| CFR | Code of Federal Regulations |
| CWA | Clean Water Act |
| DBH | Diameter at Breast Height |
| DP | Data Point |
| EPA | U.S. Environmental Protection Agency |
| ETR | Endangered, Threatened, and Rare |
| FAC | Facultative Plant |
| FACU | Facultative Upland Plant |
| FACW | Facultative Wetland Plant |
| FEMA | Federal Emergency Management Agency |
| FIRM | Flood Insurance Rate Map |
| GIS | Geographical Information SystemAcronyms, continued |
| MS4 | Municipal Separate Storm Water Sewer Systems |
| NHD | National Hydrography Dataset |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS | U.S. Department of Agriculture Natural Resources Conservation Service |

| | |
|---|---|
| NWP | Nationwide Permit |
| NWPL | National Wetland Plant List |
| OBL | Obligate Wetland Plant |
| OEPA | Ohio Environmental Protection Agency |
| ODNR | Ohio Department of Natural Resources |
| OHWM | Ordinary High Water Mark |
| PEM | Palustrine Emergent Wetland |
| PFO | Palustrine Forested Wetland |
| PLSS | Public Land Survey Section |
| PSS | Palustrine Shrub Scrub Wetland |
| RGP | Regional General Permit |
| SNE | Significant Nexus |
| SWANCC | Solid Waste Agency of Northern Cook County |
| TNW | Traditional Navigable Water |
| TOB | Top of Bank |
| UPL | Upland Plant |
| USDA | U.S. Department of Agriculture |
| USGS | U.S. Geological Survey |
| USACE | U.S. Army Corps of Engineers |
| USFWS | U.S. Fish and Wildlife Service |
| WOTUS | Waters of the United States |
| WQC | Water Quality Certification |

# 1 Introduction

Cardno was contracted to perform a water resource inventory, including wetlands and streams, which are located within the Duke Energy Ohio Miami Fort Rebuild Project Study Area and potential access points (total 15.16 acres) in North Bend, Hamilton County, Ohio. The fieldwork for this task was performed on April 2, 2020.

The total size of the Study Area was approximately 0.49 miles long (7.9 acres) with no anticipated actual Project earth disturbance. The Miami Fort Rebuild Project initiates at the Duke Energy Ohio's Miami Fort Substation (39.112854, -84.807417) and terminates at Structure 125H-X8-16 (39.110409, -84.811216) located north of the Ohio River, east of the Great Miami River, south of Brower Road, and directly west of the Duke Energy Miami Fort Power Station. The Study Area consisted of two habitat types: floodplain forest and maintained right-or-way (ROW) vegetation assemblages. The Study Area is located within the Ohio River below Mill Creek to above Great Miami River watershed (14-digit HUC 05090203-020-020), the Great Miami River below Whitewater River to Ohio River watershed (14-digit HUC 05080002-090-080), and the Ohio River (14-digit HUC 05090203-070-060).

This report identifies the jurisdictional status of aquatic features identified within the Study Area based on Cardno's best professional understanding and interpretation of the *Corps of Engineers' Wetland Delineation Manual* (Environmental Laboratory, 1987) and U.S. Army Corps of Engineers' (USACE) guidance documents and regulations. Jurisdictional determinations for other "waters of the U.S." were made based on definitions and guidance found in 33 CFR 328.3, USACE Regulatory Guidance Letters, and the wetland delineation manual. The USACE administers Section 404 of the Clean Water Act (CWA), which regulates the discharge of fill or dredged material into all "waters of the U.S.," and is the regulatory authority that must make the final determination as to the jurisdictional status of the Study Area.

# 2 Regulatory Definitions

## 2.1 Waters of the United States

"Waters of the U.S." are within the jurisdiction of the USACE under the CWA. "Waters of the U.S." is a broad term, which includes waters that are used or could be used for interstate commerce. This includes wetlands, ponds, lakes, territorial seas, rivers, tributary streams including any definable intermittent waterways, and some ditches below the ordinary high water mark (OHWM). Also included are manmade water bodies such as quarries and ponds, which are no longer actively being mined or constructed and are connected to other "waters". Wetlands, mudflats, vegetated shallows, riffle and pool complexes, coral reefs, sanctuaries, and refuges are all considered special aquatic sites, which involve more rigorous regulatory permitting requirements. A specific, detailed definition of "waters of the U.S." can be found in the Federal Register (33 CFR 328.3).

On January 9, 2001, the U.S. Supreme Court issued a decision, Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers (No. 99-1178). The decision reduced the regulation of isolated wetlands under Section 404 of the CWA, which assigned the USACE authority to issue permits for the discharge of dredge or fill material into "waters of the U.S.". Prior to the SWANCC decision, the USACE had adopted a regulatory definition of "waters of the U.S."

that afforded federal protection for almost all of the nation's wetlands. The Supreme Court decision interpreted that the USACE's jurisdiction was restricted to navigable waters, their tributaries, and wetlands that are adjacent to these navigable waterways and tributaries. The decision leaves the majority of "isolated" wetlands unregulated by the CWA. Therefore, most wetlands that are not adjacent to, or contiguous with, any other "waters of the U.S." via a surface drain such as a swale, ditch, or stream are considered isolated and thus no longer jurisdictional by the USACE.

On June 19, 2006, the U.S. Supreme Court issued decisions in regards to John A. Rapanos v. United States (No. 04-1034) and June Carabell v. United States (04-1384), et al. The plurality decision created two 'tests' for determining CWA jurisdiction: the permanent flow of water test (set out by Justice Scalia) and the "significant nexus" test (set out by Justice Kennedy). On June 5, 2007 the USACE and U.S. Environmental Protection Agency (EPA) issued joint guidance on how to interpret and apply the Court's ruling. According to this guidance, the USACE will assert jurisdiction over traditionally navigable waters, adjacent wetlands, and non-navigable tributaries of traditionally navigable waters that have "relatively permanent" flow, and wetlands that border these waters, regardless of whether or not they are separated by roads, berms, and similar barriers. In addition, the USACE will use a case-by-case "significant nexus" analysis to determine whether waters and their adjacent wetlands are jurisdictional. A "significant nexus" can be found where waters, including adjacent wetlands, alter the physical, biological, or chemical integrity of the traditionally navigable water based on consideration of several factors.

In January 2015 an EPA sponsored publication, *Connectivity of Streams & Wetlands to Downstream Waters: A Review & Synthesis of the Scientific Evidence* (EPA, 2015), emphasized how streams, nontidal wetlands, and open waters in and outside of riparian areas and floodplains effect downstream waters such as rivers, lakes, estuaries, and oceans.

On May 27, 2015 the EPA released a statement that a new Clean Water Rule typically referred to as, "The Waters of the United States (WOTUS) Rule" was finalized and that it would "not create any new permitting requirements and maintains all previous exemptions and exclusions" (epa.gov). The rule would only protect waters that have historically been covered by the Clean Water Act. The intent was to clearly define:

- Jurisdictional limits of tributaries of navigable waterways;
- Set boundaries on covering nearby waters;
- Identify specific national water treasures by name (prairie potholes, etc.);
- Clearly define when a ditch is jurisdictional, and when it is not;
- Maintain status that waters within Municipal Separate Storm Water Sewer Systems (MS4) are not jurisdictional; and
- Reduce the use of case-specific analysis of waters.

Also on May 27, 2015 a publication, *Technical Support Document for the Clean Water Rule: Definition of Waters of the United States* (EPA, 2105), was released discussing in detail why the significant nexus (SNE) between one water and another is important. It specifically ties distances to the various types of waters mentioned within the Code of Federal Regulations [33 CFR 328.3(a)(1) through (a)(8)]. For example, the document states "Waters located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas and waters located more than 1,500 feet and less than 4,000 feet from the lateral limit of an (a)(1) or (a)(3) water may still be determined to have a significant nexus on a case-specific basis under paragraph (a)(8) of the rule and, thus, be a "water of the United States" (EPA 2015).

On June 29, 2015 the new Clean Water Rule was entered into the Federal Register (40 CFR Parts 110, 112, 116, et al. Clean Water Rule: Definition of "waters of the United States"; Final Rule). This report will refer to this rule as "June 29, 2015 WOTUS Rule". This rule includes exact distances mentioned in the May 27, 2015 Technical Support Document as it relates to adjacent waters, including the following:

- Waters within 100 ft. of jurisdictional waters;
- Waters within the 100-year floodplain to a maximum of 1,500 feet from the ordinary high water mark (OHWM);
- Waters within the 100-year floodplain with a SNE to the Traditional Navigable Water (TNW); and
- Waters with a SNE within 4,000 ft. of jurisdictional waters.

On October 9, 2015 the U.S. Court of Appeals for the Sixth Circuit (Court) issued a nationwide stay against the enforcement of the June 29, 2015 WOTUS Rule. The Court stated, "…we conclude that…Justice Kennedy's opinion in *Rapanos* represents the best instruction on the permissible parameters of "waters of the United States" as used in the Clean Water Act, it is far from clear that the new Rule's distance limitations are harmonious with the instruction.

Moreover, the Court stated that the rulemaking process by which the distance limitations were adopted is facially suspect. Petitioners contend the proposed rule that was published, on which interested persons were invited to comment, did not include any proposed distance limitations in its use of terms like "adjacent waters" and "significant nexus." Consequently, petitioners contend, the Final Rule cannot be considered a "logical outgrowth" of the rule proposed, as required to satisfy the notice-and-comment requirements of the APA, 5 U.S.C. Section 553. As a further consequence of this defect, petitioners contend, the record compiled by respondents is devoid of specific scientific support for the distance limitations that were included in the Final Rule. They contend the Rule is therefore not the product of reasoned decision-making and is vulnerable to attack as impermissibly "arbitrary or capricious" under the APA, 5 U.S.C. Section 706(2)."

On February 28, 2017, President Donald Trump signed Executive Order #13778 titled "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States' Rule". Section 1(a) states that the EPA "shall review the final rule entitled 'Clean Water Rule: Definition of 'Waters of the United States,'' 80 Fed. Reg. 37054; and '….shall…publish… proposed rules rescinding or revising, those issuances, as appropriate' [Section 2(b)]."

On April 21, 2020, the EPA and USACE published the Navigable Waters Protection Rule to define "waters of the United States" (WOTUS) in the Federal Register. This rule became effective on June 22, 2020. The rule limits the federal regulatory authority to wetlands adjacent to or directly abutting a jurisdictional stream, and to only streams considered perennial or intermittent. No federal guidance is yet published on this rule, and prior guidance will be used until the rule becomes effective.

Until further notice, the April 21, 2020 WOTUS Rule is in effect in Ohio. Furthermore, this report includes a professional opinion as it relates to the April 21, 2020 WOTUS Rule.

## 2.2 Waters of the State

"Waters of the State" are within the jurisdiction of the Ohio Environmental Protection Agency (OEPA). They are generally defined as surface and underground water bodies, which extend through or exist wholly in the State of Ohio, which includes, but is not limited to, streams and both isolated and non-isolated wetlands. Private ponds, or any pond, reservoir, or facility built for

reduction of pollutants prior to discharge are not included in this definition. In addition to "waters of the U.S.", OEPA also regulates and issues permits for isolated wetland impacts.

OEPA relies on the USACE decision regarding wetland determinations and delineations including whether or not a wetland is isolated or non-isolated.

## 2.3 Wetlands

Wetlands are a category of "waters of the U.S." for which a specific identification methodology has been developed. As described in detail in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987), wetland boundaries are delineated using three criteria: hydrophytic vegetation, hydric soils, and wetland hydrology. In addition to the criteria defined in the 1987 Manual, the procedures described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region Version 2.0* (Environmental Laboratory, 2012) were used to evaluate the Study Area for the presence of wetlands.

### 2.3.1 Hydrophytic Vegetation

On June 1, 2012, the National Wetland Plant List (NWPL), formerly called the National List of Plant Species that Occur in Wetlands (Reed 1988), went into effect after being released by the U.S. Army Corps of Engineers (USACE) as part of an interagency effort with the U.S. Fish and Wildlife Service (USFWS), the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) (Lichvar and Kartesz, 2009). The NWPL, along with the information implied by its wetland plant species status ratings, provides general botanical information about wetland plants and is used extensively in wetland delineation, restoration, and mitigation efforts. The NWPL consists of a comprehensive list of wetland plant species that occur within the United States along with their respective wetland indicator statuses by region. An indicator status reflects the likelihood that a particular plant species occurs in a wetland or upland (Lichvar et al. 2012). Definitions of the five indicator categories are presented below.

**OBL** (Obligate Wetland Plants): almost always occur in wetlands. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface. These plants are of four types: submerged, floating, floating-leaved, and emergent.

**FACW** (Facultative Wetland Plants): usually occur in wetlands, but may occur in non-wetlands. These plants predominately occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.

**FAC** (Facultative Plants): occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation, and they have a wide tolerance of soil moisture conditions.

**FACU** (Facultative Upland Plants): usually occur in non-wetlands, but may occur in wetlands. These plants predominately occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.

**UPL** (Upland Plants): almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

According to the USACE's Eastern Mountains and Piedmont Regional Supplement, plants that are rated as FAC, FACW, or OBL are classified as wetland plant species. The percentage of dominant wetland species in each of the four vegetation strata (tree, shrub/sapling, herbaceous, and woody vine) in the sample area determines the hydrophytic (wetland) status of the plant community. Dominant species are chosen independently from each stratum of the community. In general, dominants are the most abundant species that individually or collectively account for more than 50 percent of the total coverage of vegetation in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total.

For the purposes of determining dominant plant species, the four vegetation strata are defined. Trees consist of woody species 3 inches or greater in diameter at breast height (DBH). Shrubs and saplings are woody species that are over 1 meter in height and less than 3 inches DBH. Herbaceous species consist of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants less than 1 meter tall. Woody vines consist of vine species greater than 1 meter in height, such as wild grapes.

### 2.3.2 Hydric Soils

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. In general, hydric soils are flooded, ponded, or saturated for a week or more during the growing season when soil temperatures are above 32 degrees Fahrenheit. The anaerobic conditions created by repeated or prolonged saturation or flooding result in permanent changes in soil color and chemistry, which are used to differentiate hydric from non-hydric soils.

In this report, soil colors are described using the Munsell notation system. This method of describing soil color consists of separate notations for hue, value, and chroma that are combined in that order to form the color designation. The hue notation of a color indicates its relation to red, yellow, green, blue, and purple; the value notation indicates its lightness, and the chroma notation indicates its strength or departure from a neutral of the same lightness.

The symbol for hue consists of a number from 1 to 10, followed by the letter abbreviation of the color. Within each letter range, the hue becomes more yellow and less red as the numbers increase. The notation for value consists of numbers from 0 for absolute black, to 10 for absolute white. The notation for chroma consists of numbers beginning with /0 for neutral grays and increasing at equal intervals. A soil described as 10YR 3/1 soil is more gray than a soil designated 10YR 3/6.

### 2.3.3 Wetland Hydrology

Wetland hydrology is defined as the presence of water for a significant period of time at or near the surface (within the root zone) during the growing season. Wetland hydrology is present only seasonally in many cases, and is often inferred by indirect evidence. Hydrology is controlled by such factors as seasonal and long-term rainfall patterns, local geology and topography, soil type, local water table conditions, and drainage. Primary indicators of hydrology are inundation, soil saturation in the upper 12 inches of the soil, watermarks, sediment deposits, and drainage

patterns. Secondary indicators such as oxidized root channels in the upper 12 inches of the soil, water-stained leaves, local soil survey data, and the FAC-neutral vegetation test are sometimes used to identify hydrology. A primary indicator or two or more secondary indicators are required to establish a positive indication of hydrology.

#### 2.3.4 Wetland Definition Summary

In general, an area must meet all three criteria to be classified as a wetland. In certain problem areas such as seasonal wetlands, which are not wet at all times, or in recently disturbed (atypical) situations, areas may be considered a wetland if only two criteria are met. In special situations, an area that meets the wetland definition may not be within the USACE's jurisdiction due to a specific regulatory exemption.

### 2.4 Streams, Rivers, Watercourses & Jurisdictional Ditches

With non-tidal waters, in the absence of adjacent wetlands, the extent of the USACE's jurisdiction is defined by the OHWM. USACE regulations define the term "ordinary high water mark" for purposes of the CWA lateral jurisdiction at 33 CFR 328.3(e), which states:

> The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Streams, rivers, watercourse, and ditches within the Study Area were evaluated using the above definition and documented. Waterways that did exhibit an OHWM were recorded and evaluated using the Ohio Environmental Protection Agency's Primary Headwater Habitat Evaluation (HHEI) or Qualitative Habitat Evaluation Index (QHEI) methodology. If applicable, the results of the HHEI and/or QHEI are presented in Section 3.2.

### 2.5 Endangered Species Act

Endangered, Threatened, and rare (ETR) species are protected at both the state and federal level (ORC 1531.25 and 50 CFR 17.11 through 17.12, respectively). The Ohio Revised Code defines "Take" as to harass, hunt, capture, or kill; or attempt to harass, hunt, capture, or kill.

The USFWS, under authority of the Endangered Species Act of 1973 (16 U.S. Code 1531), as amended, has the responsibility for federally listed species. The Ohio Department of Natural Resources (ODNR) has the responsibility for state listed species.

# 3 Background Information

### 3.1 Existing Maps

Several sources of information were consulted to identify potential wetlands and wetland soil units on the site. These include the USFWS's *National Wetland Inventory* (NWI), the USGS's *National Hydrography Dataset* (NHD), and the Natural Resources Conservation Service's (NRCS) *Soil Survey* for this county. These maps identify potential wetlands and wetland soil units on the site. The NHD maps are used to portray surface water. The NWI maps were prepared from high altitude photography and in most cases were not field checked. Because of this, wetlands are

sometimes erroneously identified, missed, or misidentified. Additionally, the criteria used in identifying these wetlands were different from those currently used by the USACE. The county soil maps, on the other hand, were developed from actual field investigations. However, they address only one of the three required wetland criteria and may reflect historical conditions rather than current site conditions. The resolution of the soil maps limits their accuracy as well. The mapping units are often generalized based on topography and many mapping units contain inclusions of other soil types for up to 15 percent of the area of the unit. The USACE does not accept the use of either of these maps to make wetland determinations.

### 3.1.1 National Wetland Inventory

The NWI map of the area (Figure 4) identified one riverine, lower perennial, unconsolidated bottom, permanently flooded wetland (R2UBH) feature within the Study Area.

### 3.1.2 National Hydrography Dataset

The NHD map of the area (Figure 4) identified one (1) stream (Ohio River) within the Study Area.

### 3.1.3 Soil Survey

The NRCS Soil Survey identified four (4) soil types located within the Study Area (Figure 3). The following table identifies the soil unit symbol, soil unit name, and whether or not the soil type contains components that meet the hydric soil criteria.

**Table 3 – 2 Soil Map Units within the Miami Fort to Tanners Creek Rebuild Project Study Area**

| Symbol | Description | Hydric |
|---|---|---|
| CNWXFF | Chargin-Nelse-Wheeling complex, 2 to 75 percent slopes, frequently flooded | No |
| Da | Dumps, ash | No |
| UrUXC | Urban land-Udorthents complex, 0 to 12 percent slopes | No |
| W | Water | No |

# 4 Methodology and Description

## 4.1 Regulated Waters Investigation

The delineation of regulated waters within the Study Area was based on the methodology described in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region Version 2.0* (Environmental Laboratory, 2012) as required by current USACE policy.

Prior to the fieldwork, the background information was reviewed to establish the probability and potential location of wetlands on the site. Next, a general reconnaissance of the Study Area was conducted to determine site conditions. The site was then walked with the specific intent of determining wetland boundaries. Data stations were established at locations within and near the wetland areas to document soil characteristics, evidence of hydrology and dominant vegetation. Note that no attempt was made to examine a full soil profile to confirm any soil series designations. However, when possible, soils were examined to a depth of at least 16 inches to assess soil characteristics and site hydrology. Complete descriptions of typical soil series can be found in the soil survey for these counties.

#### 4.1.1 Site Photographs.

Photographs of the site are located in Appendix A. These photographs are the visual documentation of site conditions at the time of inspection. The photographs are intended to provide representative visual samples of any wetlands or other special features found on the site.

#### 4.1.2 Delineation Data Sheets.

Where stations represent a wetland boundary point they are presented as paired data points (dp), one each documenting the wetland and upland sides of the wetland boundary. These forms are the written documentation of how representative sample stations met or did not meet each of the wetland criteria. For plant species included on the National Wetlands Plant List, nomenclature will follow their lead. For all other plants not listed in the NWPL, nomenclature will follow the USDA's Plants Database.

## 4.2 Technical Descriptions

The Project included the review of a 250-ft wide survey corridor approximately 0.49 mile long (the "Study Area"), located in North Bend, Hamilton County, Ohio (see Figure 1). The Study Area consists of approximately 15.16 acres, with no anticipated Project earth disturbance. The Miami Fort to Tanners Creek Rebuild Project initiates at the Duke Energy Ohio's Miami Fort Substation (39.112854, -84.807417) and terminates at Structure 125H-X8-16 (39.110409, -84.811216) located north of the Ohio River, east of the Great Miami River, south of Brower Road, and directly west of the Duke Energy Miami Fort Power Station. The Study Area consisted of two habitat types: floodplain forest and maintained right-or-way (ROW) vegetation assemblages. The Study Area is located within the Ohio River below Mill Creek to above Great Miami River watershed (14-digit HUC 05090203-020-020), Great Miami River below Whitewater River to Ohio River watershed (14-digit HUC 05080002-090-080), and the Ohio River (14-digit HUC 05090203-070-060).

### Pond and Stream Descriptions

### Pond 1

Pond 1 is an existing fly ash pond to facilitate activities at the Miami Fort substation. The pond is surrounded by maintained mowed turf grass. It is our best professional judgement based on desktop review and topography that this pond discharges off site into the Ohio River, a Traditional Navigable Water. Due to this connection, Pond 1 should be considered a jurisdictional water of the United States.

### Pond 2

Pond 2 is an existing fly ash pond to facilitate activities at the Miami Fort substation. The pond is surrounded by maintained mowed turf grass. It is our best professional judgement based on desktop review and topography that this pond discharges off site into the Ohio River, a Traditional Navigable Water. Due to this connection, Pond 2 should be considered a jurisdictional water of the United States.

### Ohio River

The Ohio River is a perennial stream located south of Duke Energy Structure 125H-X8-16 and north of Duke Energy Structure 6BN-X34-15. Based on the 2015 bioassessment performed by the Midwest Biodiversity Institute (MBI), the Ohio River (Stream 1) is a designated Warmwater Habitat (WWH). The Ohio River was at flow conditions at the time of the stream survey. The dominant substrates were boulder, cobble, and gravel. Ordinary High Water Mark (OHWM) width was 1,709 feet and depth is approximately 24 feet. The Ohio River is a Traditional Navigable Water (TNW) and therefore, should be considered a jurisdictional water of the United States.

The Ohio River had a QHEI score of 44.3, an IBI score of 46, and an ICI score of 30 based on MBI's bioassessment (MBI, 2015).

### 4.3 Endangered, Threatened and Rare Species

The potential for listed species known to occur within Hamilton County were evaluated based on the habitat observed within the Study Area. In addition, high quality natural communities and significant natural habitat areas were documented if encountered. A walking survey of the Study Area was performed in which all observed Endangered, Threatened and Rare (ETR) species or specific known special habitats were noted. Coordination with the U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources (ODNR) Division of Wildlife occurred as it related to the Natural Heritage Database search results for the Study Area (Appendix C).

Tables summarizing the results of ETR species as they relate to the habitat observed within the Study Area are included with this report.

**Bat Roost Habitat**

The Indiana bat (*Myotis sodalis*, federally endangered) and northern long-eared bat (*Myotis septentrionalis*, federally threatened) are protected under the Endangered Species Act, which is overseen by the USFWS. Typical guidance from USFWS regarding potential bat roost trees is avoidance of cutting trees from April through October. The Study Area was assessed for potential bat roosting habitat with respect to any indicated clearing activities. Potential bat roost trees include dead or dying trees (including live shagbark hickories) with at least 10-percent exfoliating bark, a diameter at breast height (DBH) of at least 3 inches, and solar exposure for maternity roost trees (the tree is on a wooded edge or in a canopy gap). If applicable, correspondence from USFWS regarding Indiana bat and northern long-eared bat is included within Appendix C.

**Running Buffalo Clover Habitat**

Running buffalo clover (*Trifolium stoloniferum*, federally endangered) is protected under the Endangered Species Act, which is overseen by the USFWS. Typical guidance from USFWS regarding potential running buffalo clover habitat is avoidance or relocation. Potential running buffalo clover habitat includes partially shaded woodlots, mowed areas (lawns, parks, cemeteries), and along streams and trails. Periodic disturbance and a somewhat open habitat is needed for running buffalo clover to flourish but cannot tolerate full-sun, full-shade, or severe disturbance.

Based on our field inspection and our best professional judgment, no running buffalo clover habitat was observed within the Miami Fort to Tanners Creek Rebuild Project Study Area. The floodplain forest frequently floods and the maintained ROW contained full-sun.

# 5 Jurisdictional Analysis

### 5.1 U.S. Army Corps of Engineers

The USACE has authority over the discharge of fill or dredged material into "waters of the U.S.". This includes authority over any filling, mechanical land clearing, or construction activities that occur within the boundaries of any "waters of the U.S.". A permit must be obtained from the

USACE before any of these activities occur. Permits can be divided into two general categories: Individual Permits and Nationwide Permits.

Individual Permits are required for projects that do not fall into one of the specific Nationwide Permits or are deemed to have significant environmental impacts. These permits are much more difficult to obtain and receive a much higher level of regulatory agency and public scrutiny and may require several months to more than a year for processing.

Nationwide Permits have been developed for projects that meet specific criteria and are deemed to have minimal impact on the aquatic environment. There are currently 52 Nationwide Permits for qualifying activities with 31 Nationwide Permit General Conditions that must be satisfied in order to receive NWP consideration from the USACE.

### 5.2 Ohio Environmental Protection Agency

The OEPA is responsible for issuing Clean Water Act (CWA) Section 401 permits known as Water Quality Certifications (WQC) for all impacts to "waters of the State of Ohio." This includes authority over any dredging, filling, mechanical land clearing, impoundments or construction activities that occur within the boundaries of any "waters of the State," including those isolated waters not otherwise regulated by the USACE.

The OEPA issues Section 401 WQC in conjunction with the USACE' Section 404 permits. A Section 401 Water Quality Certification must be received before the USACE can issue any Section 404 Department of the Army Permit. The OEPA must issue Individual Section 401 WQC for all Individual Section 404 Permits.

Water quality certification may be granted, without notification to the OEPA, if the project falls under the NWP limitations described above. In order to qualify for this granted certification, all prior-authorized and *de minimis* Ohio State Certification General Limitations and Conditions a published by the OEPA must be satisfied.

The OEPA also requires notification for all impacts to isolated wetlands, which includes a permit application and mitigation plan pursuant to Section 6111 of Ohio Revised Code (ORC).

# 6 Summary and Conclusion

## 6.1 Summary

Cardno inspected the Miami Fort to Tanners Creek Rebuild Project Study Area on April 2, 2020

#### 6.1.1 Wetlands and Waterways

One stream (Ohio River), and two ponds were identified within the Miami Fort to Tanners Creek Rebuild Project Study Area.

**Table 6-1 Features Identified within the Miami Fort to Tanners Creek Rebuild Project Study Area**

| Feature Name | USGS/ NWI Identified | Feature Class | Regulatory Status[1] | Riffles / Pools | Dimensions (ft) | | Substrate | QHEI Score | Linear Footage (LF) | Acreage (AC) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Width | Depth | | | | |
| Pond 1 | No | Perennial | Jurisdictional | N/A | N/A | N/A | N/A | N/A | N/A | 1.5 |
| Pond 2 | No | Perennial | Jurisdictional | N/A | N/A | N/A | N/A | N/A | N/A | 4.6 |
| Ohio River | Yes | Perennial | Jurisdictional | Yes | 1,709 | 24 | Bo-Co-Gr | 44.3 | 250 | 9.8 |
| Totals | | | Streams | | Jurisdictional | | --- | | 250 LF | 9.8 |
| | | | Ponds | | Jurisdictional | | --- | | --- | 6.1 |

[1] Regulatory Status is based on our "professional judgment" and experience; however, the USACE makes the final determination.

### 6.1.2 Endangered, Threatened, and Rare Species

Several sources of information were consulted to further define the potential habitat of listed species that occur within the county of the Study Area. The table presented in Appendix C contains the list of ETR species known to occur within Hamilton County and their potential to occur within the Study Area based on their habitat requirements and field observations.

#### *6.1.2.1 Indiana Bat and Northern Long-eared Bat Roost Habitat*

The entire Study Area was surveyed to identify potential Indiana bat and northern long-eared bat roost trees. Based on our field inspection and our best professional judgment, there are no potential roost or maternity roost trees suitable for harboring Indiana bats and northern long-eared bats within the Study Area.

Generally, the USFWS standard recommendation is that all tree clearing activities for this habitat shall occur between October 1 and March 31, during the hibernation period of listed species. If tree clearing cannot be completed within this seasonal window, additional surveys may be required in order to perform the work during the roosting season.

The USACE in consultation with the USFWS is the regulatory authority that makes the final determination as to the status of the Indiana bat and northern long-eared bat habitat in the Study Area. If requested, a letter based on the results and discussion can be generated and submitted to the USFWS for concurrence based on the level of documentation preferred.

## 6.2 Conclusion

A permit must be obtained from the USACE and the OEPA prior to any filling, dredging, or mechanical land clearing that occurs within the boundaries of any "waters of the U.S." or "waters of the State".

While this report represents our best professional judgment based on our knowledge and experience, it is important to note that the Huntington District of the U.S. Army Corps of Engineers has final discretionary authority over all jurisdictional determinations of 'waters of the U.S.' including wetlands under Section 404 of the CWA in this region. It is therefore, recommended that a copy of this report be furnished to the Huntington District of the U.S. Army Corps of Engineers to confirm the results of our findings.

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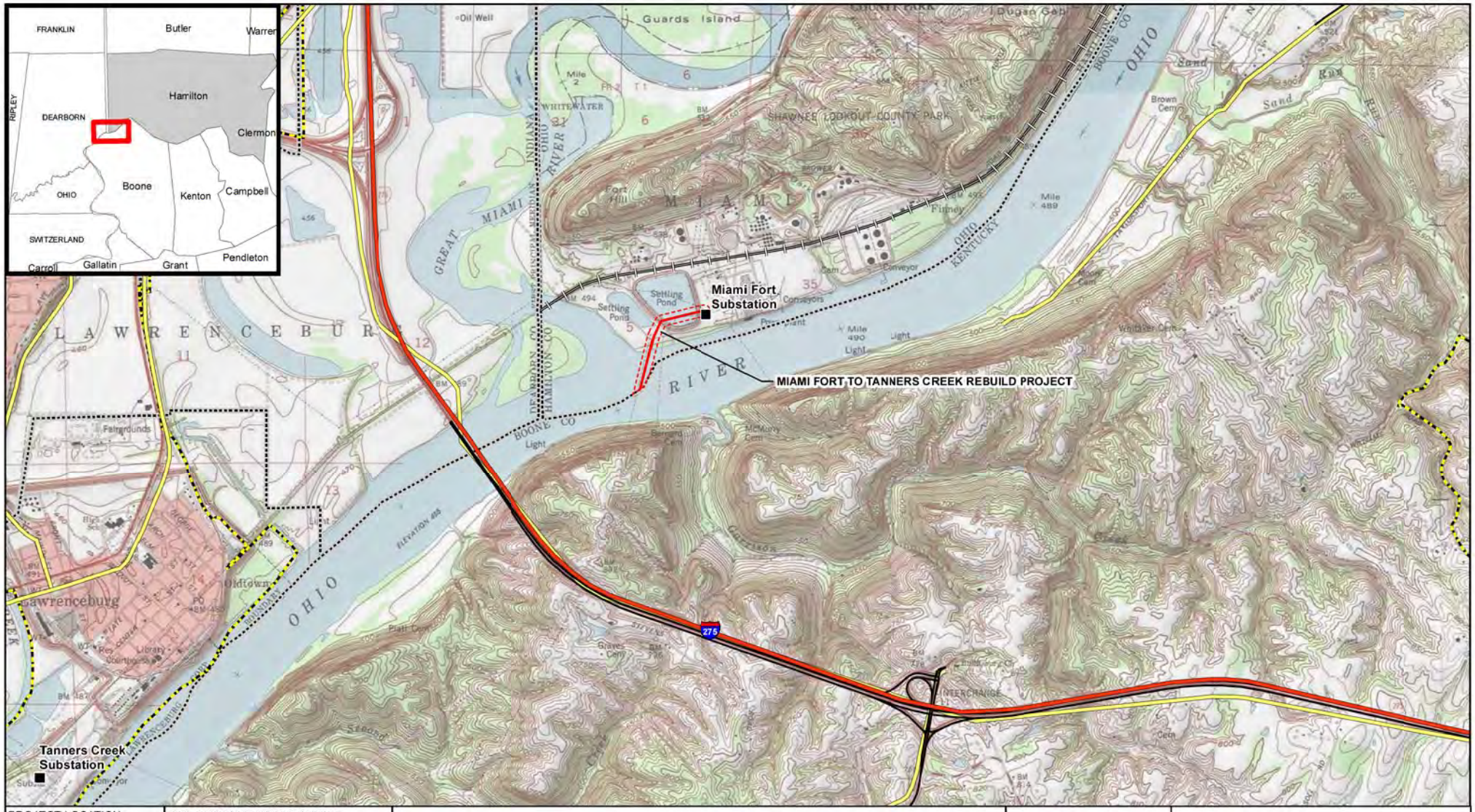
# DUKE ENERGY OHIO
# MIAMI FORT TO TANNERS CREEK
# REBUILD PROJECT – OHIO SEGMENT
# WETLAND DELINEATION REPORT

## FIGURES




PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, OHIO, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- ExistingFacility
- Interstate
- County Boundary
- State Highway
- US Highway
- Railroad
- Project Centerline
- Study Area
- Municipal Boundary

DUKE ENERGY

Cardno

0 500 1,000 2,000 Feet

FIGURE 1
PROJECT VICINITY MAP
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
REGULATED WATERS DELINEATION REPORT

DUKE ENERGY OHIO

DRAWN BY: COD DATE: 6/18/2020
CHECKED: KGH APPROVED: CAJ

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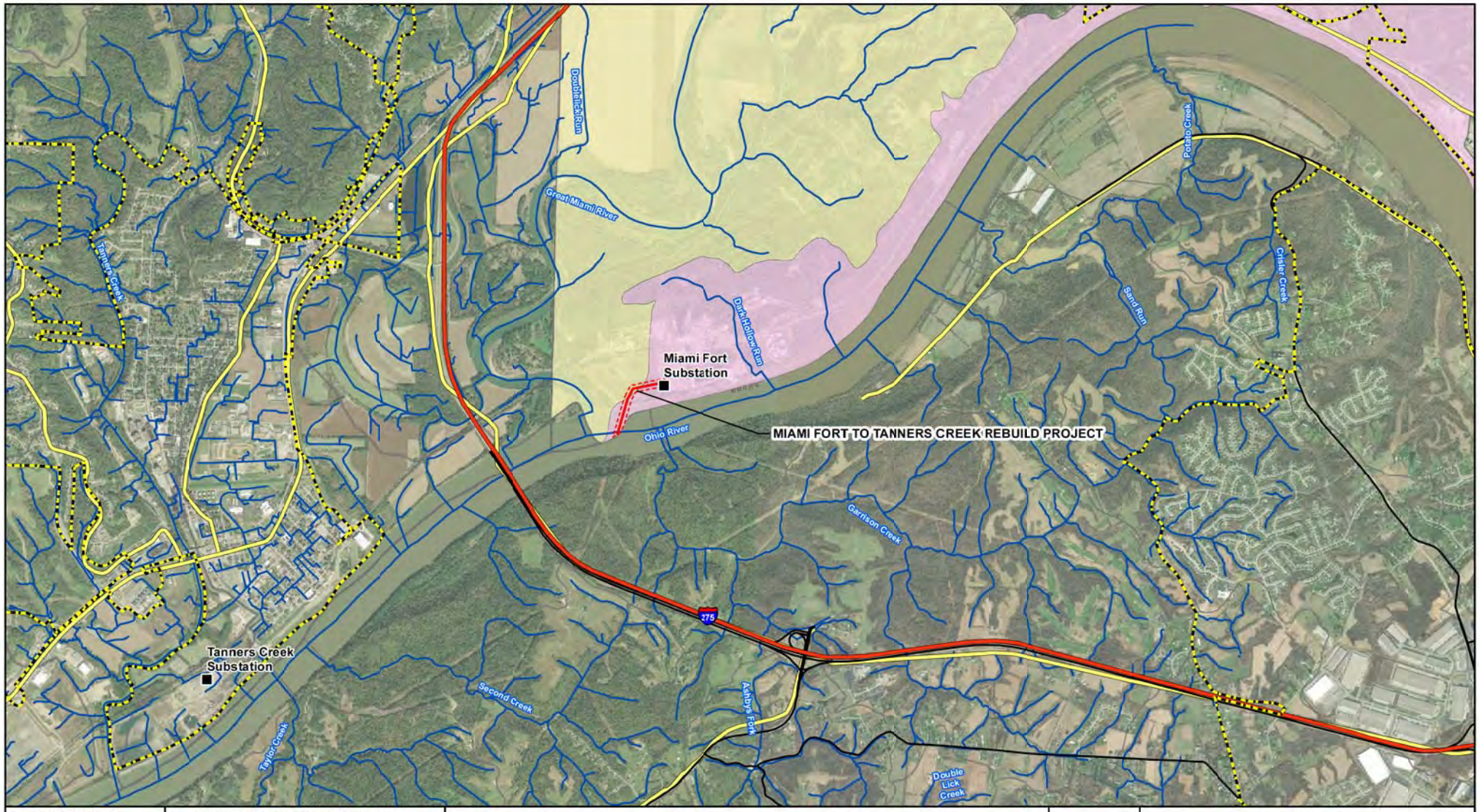


PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, OHIO, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

N

0 1,800 3,600 7,200 Feet

- ExistingFacility
- Project Centerline
- Study Area
- Municipal Boundary
- Interstate
- State Highway
- US Highway
- Railroad
- NHD Flowline
- Adjacent Watershed
- Ohio River below Mill Cr. to above Great Miami R. [except Muddy Cr.]
- Great Miami River below Whitewater R. to Ohio River

DUKE ENERGY.

Cardno

FIGURE: 2
PROJECT AREA WATERSHEDS WITH NHD OVERLAY
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
REGULATED WATERS DELINEATION REPORT

DUKE ENERGY OHIO

DRAWN BY: COD DATE: 6/18/2020
CHECKED: CAJ APPROVED: CAJ

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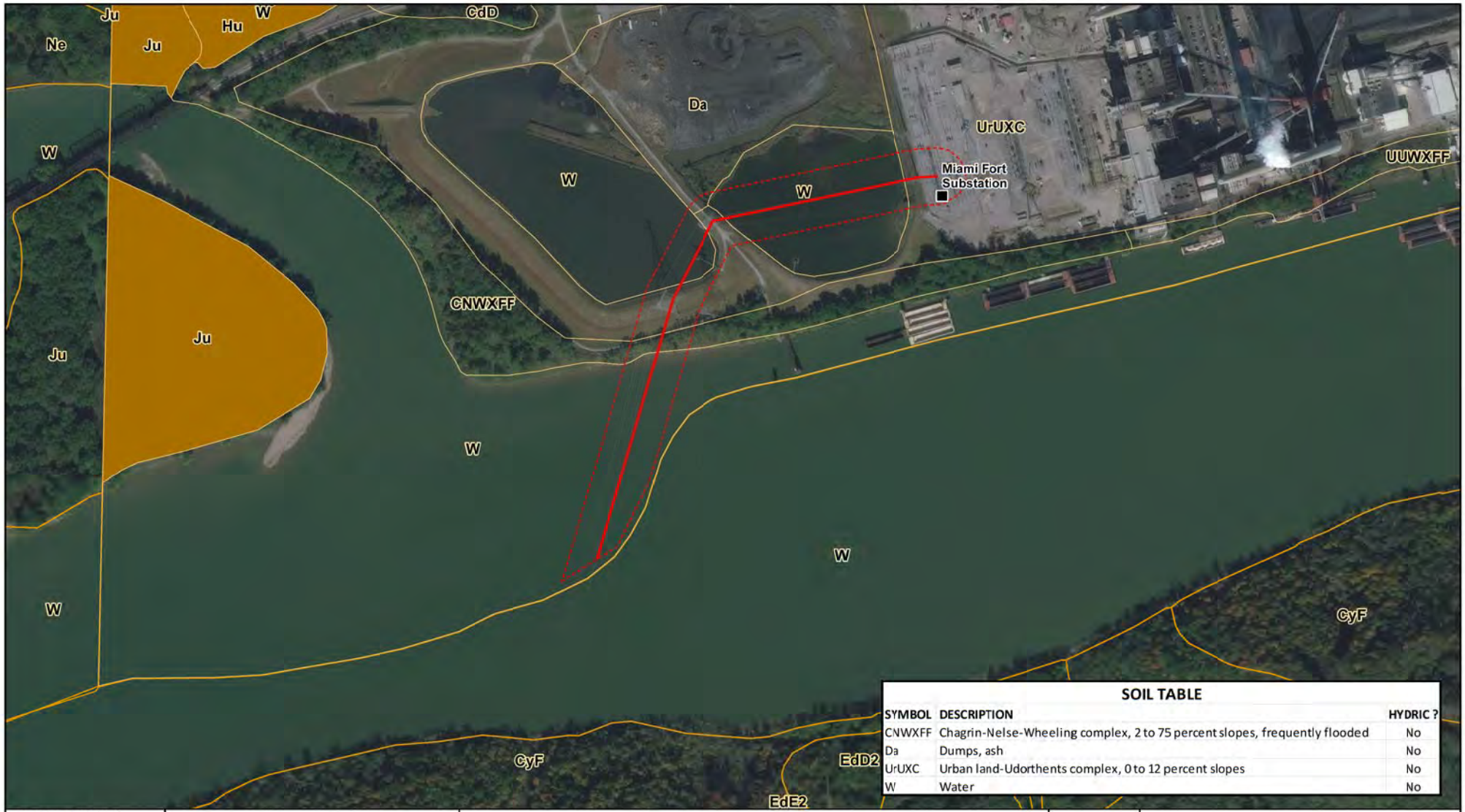


## SOIL TABLE

| SYMBOL | DESCRIPTION | HYDRIC ? |
|---|---|---|
| CNWXFF | Chagrin-Nelse-Wheeling complex, 2 to 75 percent slopes, frequently flooded | No |
| Da | Dumps, ash | No |
| UrUXC | Urban land-Udorthents complex, 0 to 12 percent slopes | No |
| W | Water | No |

PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, OHIO OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

N

0 250 500 1,000 Feet

ExistingFacility
Project Centerline
Study Area
Interstate
State Highway
US Highway
Railroad
Municipal Boundary
Soil Unit
Soil Unit - Hydric

DUKE ENERGY.

Cardno

FIGURE:3
SOIL CLASSIFICATIONS
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
REGULATED WATERS DELINEATION REPORT

DUKE ENERGY OHIO

DRAWN BY: COD DATE: 6/18/2020
CHECKED: CAJ APPROVED: CAJ

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PROJECT LOCATION

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- Delineated Pond
- Existing Structure
- ExistingFacility
- Project Centerline
- Study Area
- NHD Flowline
- Potential Access
- Municipal Boundary
- NWI Wetlands
- County Boundary
- Parcels

DUKE ENERGY.

Cardno

0 65 130 260 Feet

FIGURE: 4.01
IDENTIFIED FEATURES MAP
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
REGULATED WATERS DELINEATION REPORT

DUKE ENERGY OHIO

DRAWN BY: COD DATE: 1/21/2021
CHECKED: KGH APPROVED: CAJ

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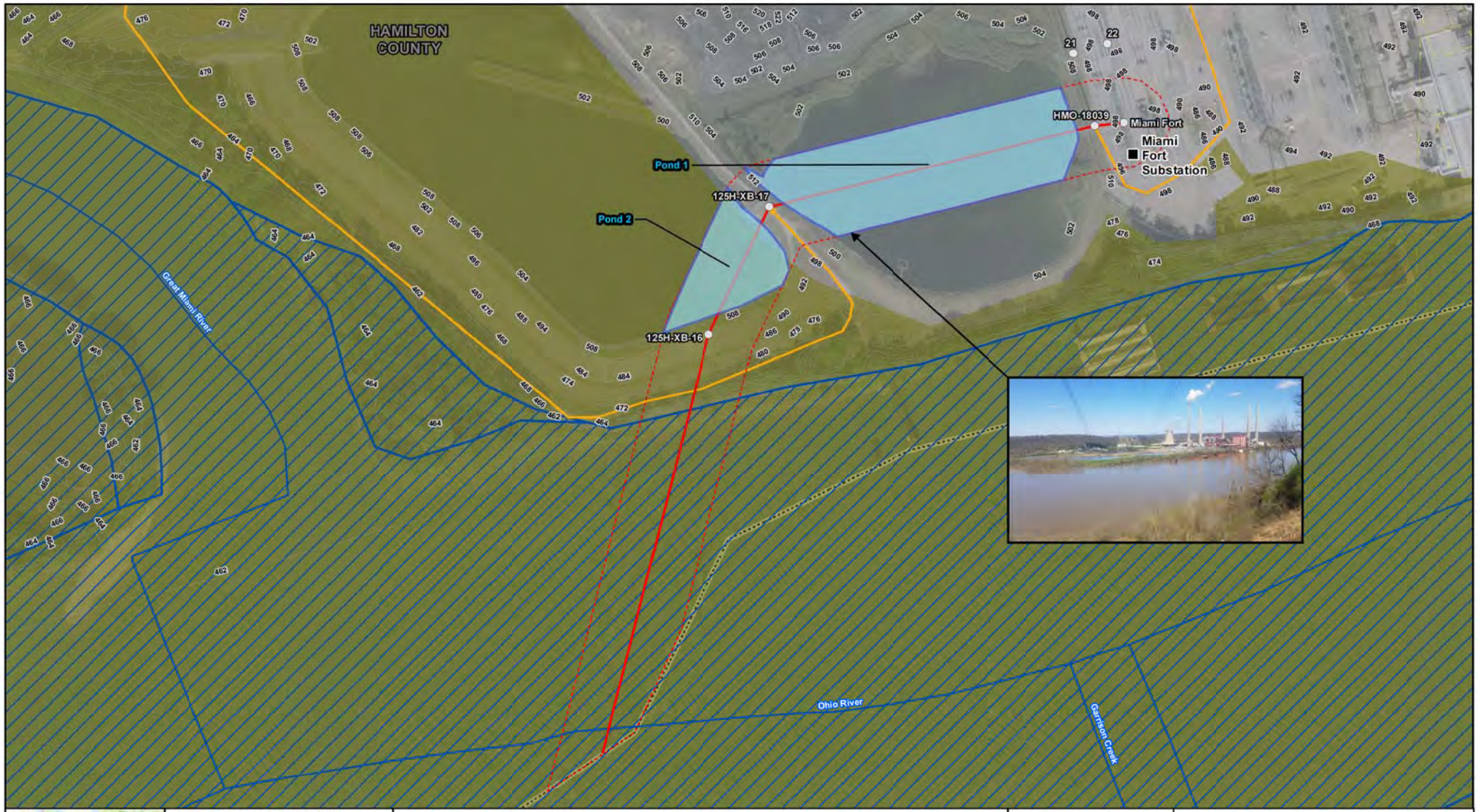


PROJECT LOCATION

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- Delineated Pond
- Existing Structure
- ExistingFacility
- Project Centerline
- Study Area
- NHD Flowline
- Potential Access
- Municipal Boundary
- NWI Wetlands
- County Boundary
- Parcels

DUKE ENERGY.
Cardno

0 65 130 260 Feet

FIGURE: 4.02
IDENTIFIED FEATURES MAP
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
REGULATED WATERS DELINEATION REPORT

DUKE ENERGY OHIO

DRAWN BY: COD
CHECKED: KGH
DATE: 1/21/2021
APPROVED: CAJ

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DUKE ENERGY OHIO
MIAMI FORT TO TANNERS CREEK
REBUILD PROJECT – OHIO SEGMENT
WETLAND DELINEATION REPORT

# APPENDIX

# A

## SITE PHOTOGRAPHS

Photo 1. Pond 1, View Looking Southwest, 04/02/2020.

Photo 2. Ohio River, View Looking Southeast, 04/02/2020.

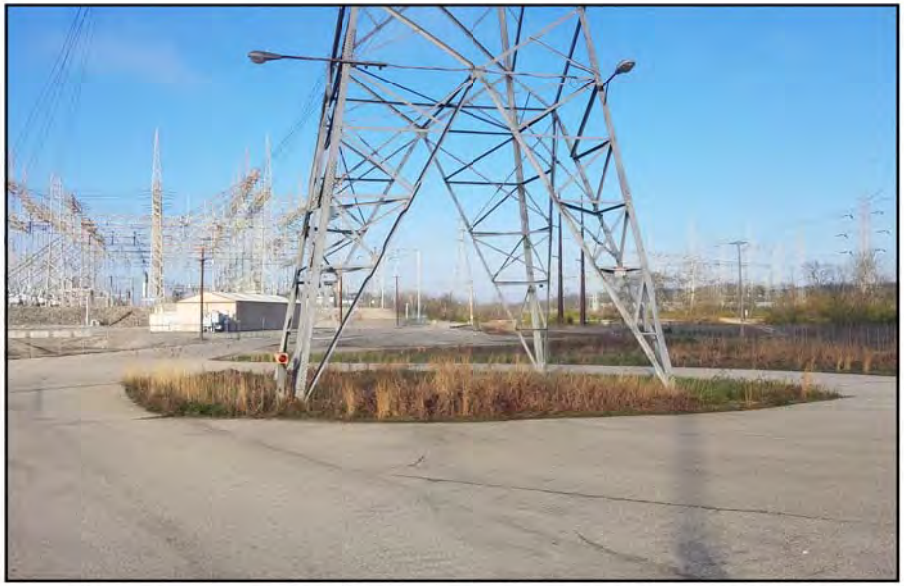

Photo 3. Tanner Creek Substation, View Looking Southwest, 04/02/2020.

Photo 4. Duke Energy Structure 6BN-X31-2, View Looking Southwest, 04/02/2020.

DUKE ENERGY OHIO
MIAMI FORT TO TANNERS CREEK
REBUILD PROJECT – OHIO SEGMENT
WETLAND DELINEATION REPORT

APPENDIX

# B

STATE & FEDERALLY LISTED ETR
SPECIES WITHIN HAMILTON COUNTY, OH

## Table 2: Rare, Threatened and Endangered (RTE) Species Within Hamilton County

| SPECIES | COMMON NAME | STATE STATUS[1] | FEDERAL STATUS[2] | HABITAT[3] | BREEDING PERIOD[3] | PROBABILITY OF OCCURENCE[4] |
|---|---|---|---|---|---|---|
| **Hamilton County** | | | | | | |
| **MAMMAL** | | | | | | |
| *Eptesicus fuscus* | Big Brown Bat | SSC | --- | Wooded and Semi wooded areas, mainly along streams. | August-October | Low |
| *Lasionycteris noctivagans* | Silver-haired Bat | SSC | --- | Wooded and Semi wooded areas, mainly along streams. | August-October | Low |
| *Lasiurus borealis* | Red Bat | SSC | --- | Wooded area and wooded edges and hedgerows. | August-September | Low |
| *Lasiurus cinereus* | Hoary Bat | SSC | --- | Wooded, Semi wooded areas, and wooded edges. | August -October | Low |
| *Microtus ochrogaster* | Prairie Vole | SSC | --- | Dry, vegetated areas; pastures, fields, meadows and prairies | May-October | None |
| *Microtus pinetorum* | Woodland Vole | SSC | --- | Wooded areas with thick organic material on forest floor. | April-August | None |
| *Myotis lucifugus* | Little Brown Bat | SSC | --- | Under rocks, wood piles and sometimes caves. | August-December | None |
| *Myotis sodalis* | Indiana Myotis | E | E | Wooded and Semi wooded areas, mainly along streams. Maternity colonies are around hollow trees. | August-October | Low |
| *Myotis septentrionalis* | Northern long-eared Bat | SSC | T | Wooded and Semi wooded areas; live trees and in snags. | July-August | Low |
| *Perimyotis subflavus* | Tri-colored Bat | SSC | --- | Edge habitats near areas of mixed agricultural use. | August-October | Low |
| *Peromyscus maniculatus* | Deer Mouse | SCC | --- | Grasslands, brushlands, and agricultural fields. | Year round; mostly during warmer months | None |
| *Reithrodontomys humulis* | Eastern Harvest Mouse | T | --- | Open grassy areas such as abandoned fields, marshes or wet meadows. | April and August | None |
| *Synaptomys cooperi* | Southern Bog Lemming | SSC | --- | Low, moist areas, glasslands, mixed deciduous forests, freshwater wetlands, marshes and meadows. | Year-round | Low |
| *Taxidea taxus* | Badger | SSC | --- | Open grasslands, agricultural areas and other treeless spaces. | July-August | None |
| **BIRD** | | | | | | |
| *Dendroica cerulean* | Cerulean Warbler | SSC | --- | Deciduous hardwood forests, uplands, wet bottomlands, moist slopes. | May-June | Moderate |
| *Regulus satrapa* | Golden-crowned Kinglet | SI | --- | Deciduous and mixed forests, wooded bogs, parks, bottomland hardwoods, swamps and riversides. | June-July(Migratory) | Low |
| **FISH** | | | | | | |
| *Ammocrypta pellucida* | Eastern Sand Darter | SSC | --- | Rocky pools and runs of creeks and small to medium rivers, often near vegetation or other cover. | Late April-May | Low |
| *Cycleptus elongatus* | Blue Sucker | T | --- | Large river systems, in a heavy current. | April-June | Low |
| *Esox masquinongy* | Muskellung | SSC | --- | Lakes and large rivers; Prefer shallow water with a rocky bottom and heavy cover. | April | Low |

**Table 1: Rare, Threatened and Endangered (RTE) Species Within Hamilton County**

| | | | | | | |
|---|---|---|---|---|---|---|
| *Ictalurus furcatus* | Blue Catfish | SSC | --- | Large river systems. | May-August | Low |
| *Lepisosteus platostomus* | Shortnose Gar | E | --- | Calm waters of large rivers and their backwaters. | February-June | Low |
| *Macrhybopsis hyostoma* | Shoal Chub | E | --- | Small streams with various substrates. | April-June | None |
| *Moxostoma carinatum* | River Redhorse | SSC | --- | Medium to large rocky rivers with moderate to strong currents. Usually found in long, deep run habitats. | Early June | Low |
| *Notropis boops* | Bigeye Shiner | T | --- | Small to medium sized streams with pools over substrates of gravel, rock, or sand. | April-August | None |
| *Noturus eleutherus* | Mountain Madtom | T | --- | Fast flowing clear riffles that are shallow. | June-July | None |
| *Noturus stigmosus* | Northern Madtom | E | --- | Large rivers in swift currents. | June-July | Low |
| *Percina copelandi* | Channel Darter | T | --- | Gravelly shallows of lakes, and in small and medium-sized rivers in riffles over sand, gravel or rock bottoms. | April-May | None |
| *Percina shumardi* | River Darter | T | --- | Major rivers and mouths of tributaries with swift currents over sandy, gravelly or rocky substrates. | Year-round, depending on water temperatures. | Low |
| *Polyodon spathula* | Paddlefish | T | --- | Large, slow moving rivers with access to sand or gravel bars. | March-June | Low |
| **INVERTEBRATE** | | | | | | |
| *Alasmidonta marginata* | Elktoe | SSC | --- | Shallow to medium sized creeks or rives. | June-July | None |
| *Catocala maestosa* | --- | SI | --- | Riparian wooded areas. | July-October | Low |
| *Cyclonaias tuberculate* | Purple Wartyback | SSC | --- | Large to medium sized rivers with a gravel or mixed sand substrates. | May-August | Low |
| *Cyprogenia stegaria* | Fanshell | E | E | Rivers and streams with abundant gravel and sand substrates. | April-August | Low |
| *Ellipsaria lineolata* | Butterfly Mussel | E | --- | Large rivers with swift currents in sand or gravel substrates. | July-August | Low |
| *Elliptio crassidens crassidens* | Elephant-ear | E | --- | Rivers and streams with muddy sand, sand, and rocky substrates in moderate currents. | April-May | Low |
| *Epioblasma obliquata obliquata* | Purple Cat's Paw | E | E | Large rivers with gravel or mixed sand substrates. | April-May | Low |
| *Epioblasma torulosa rangiana* | Northern Riffleshell | E | E | Large to small streams. | Breeding season occurs once a year, dependent upon water temperature | None |
| *Epioblasma triquetra* | Snuffbox | E | E | Riffles areas of fast moving rivers and streams. | July-August | Low |
| *Fusconaia ebena* | Ebonyshell | E | --- | Rivers and streams with coarse sand and gravel substrates. | June-September | Low |
| *Fusconaia maculate maculate* | Long-solid | E | --- | Small to large rivers in gravel with strong currents. | May-July | Low |

**Table 1: Rare, Threatened and Endangered (RTE) Species Within Hamilton County**

| | | | | | | |
|---|---|---|---|---|---|---|
| *Gomphus externus* | Plains Clubtail | E | --- | Found near large, slow, muddy streams and rivers. | May-Late July | Low |
| *Lampsilis abrupta* | Pink Mucket | E | E | Small to medium rivers with swift currents. | June-July | None |
| *Lampsilis fasciola* | Wavy-rayed Lampmussel | SSC | --- | Medium streams with gravel or sand bottoms. | June-July | None |
| *Lampsilis ovata* | Sharp-ridged Pocketbook | E | --- | Ponds, lakes and streams with slow moving water and plenty of cover. | June-July | None |
| *Lampsilis teres* | Yellow Sandshell | E | --- | Large rivers with slow moving currents. | June-July | Low |
| *Lasmigona compressa* | Creek Heelsplitter | SSC | --- | Medium to large rives in pools over compact sand and gravel, or mud patches near shore. | June-July | Low |
| *Ligumia recta* | Black Sandshell | T | --- | Rivers, lakes and large streams in riffles over muddy to gravel substrates. | July-August | Low |
| *Lycaena helloides* | Purplish Copper | E | --- | Wet meadows, marshes and streamsides. | July-August | Low |
| *Megalonaias nervosa* | Washboard | E | --- | Slow moving rivers and streams with muddy to rocky substrates. | August-October | Low |
| *Nannothermis bella* | Elfin Skimmer | E | --- | Bogs and fens. | March-September | None |
| *Obliquaria reflexa* | Threehorn Wartyback | T | --- | Large rivers with sand or gravel substrates. | July-August | Low |
| *Orconectes sloanii* | Sloan's Crayfish | T | --- | Freshwater lakes and streams, under rocks and logs. | August-October | Low |
| *Plethobasus cyphyus* | Sheepnose | E | E | Large rivers in shallow areas with moderate to swift currents that flow over coarse sand and gravel substrates. | July-August | Low |
| *Pleurobema clava* | Clubshell | E | E | Medium to large rivers with gravel or sandy substrates. | July-August | Low |
| *Pleurobema cordatum* | Ohio Pigtoe | E | --- | Large rivers in riffle areas with clear, swift moving water. | April-May | Low |
| *Pleurobema rubrum* | Pyramid Pigtoe | E | --- | Medium to large rivers in sand or gravel. | May-July | Low |
| *Pleurobema sintoxia* | Round Pigtoe | SSC | --- | Small to large rivers with moderate to swift flowing water with gravel, cobble or boulder substrates. | June-July | Low |
| *Ptychobranchus fasciolaris* | Kidneyshell | SSC | --- | Small to medium sized rivers in riffle areas with clear, swift moving water. | April-August | None |
| *Quadrula cylindrical cylindrical* | Rabbitsfoot | E | T | Large, clean, fast-flowing waters. | April-August | None |
| *Quadrula metanevra* | Monkeyface | E | --- | Large, clean, fast-flowing waters in silt-free rubble, gravel and sand bottoms. | March-July | None |
| *Quadrula nodulata* | Wartyback | E | --- | Large, clean, fast-flowing waters in silt-free rubble, gravel and sand bottoms. | May | None |
| *Speyeria idalia* | Regal Fritillary | E | --- | Tall-grass prairie and other open location including meadows, marshes and pastures. | June-July | None |
| *Truncilla donaciformis* | Fawnsfoot | T | --- | Rivers and lakes in slower moving water. Usually in sand or gravel substrates. | April-May | Low |
| *Truncilla truncate* | Deertoe | SSC | --- | Lakes and medium to large rivers. Usually in mud, sand or gravel substrates. | August-July | Low |

## Table 1: Rare, Threatened and Endangered (RTE) Species Within Hamilton County

| | | | | | | |
|---|---|---|---|---|---|---|
| *Uniomerus tetralasmus* | Pondhorn | T | --- | Freshwater rivers, ponds and lakes. | Unknown | Low |
| *Villosa fabalis* | Rayed Bean | E | E | Small headwater creeks, sometimes found in large rivers. Prefers gravel or sand substrates. | Unknown; Egg-bearing females have been found in May. | Low |
| **REPTILE** | | | | | | |
| *Clonophis kirtlandii* | Kirtland's Snake | T | --- | Prairie fens, wet meadows, wet prairies and associated open and wooded wetlands | February-March, May, August-September | Low |
| *Opheodrys aestivus aestivus* | Northern Rough Greensnake | SSC | --- | Moist meadows and woodlands, often near water. | April-May | Low |
| **AMPHIBIAN** | | | | | | |
| *Acris crepitans crepitans* | Eastern Cricket Frog | SSC | --- | The shores of sparsely vegetated permanent ponds and streams. | April-June | Low |
| *Cryptobranchus alleganiensis alleganiensis* | Eastern Hellbender | E | --- | Medium to large, rocky streams that are not excessively silty and have an abundance of crayfish. | September | Low |
| *Eurycea lucifuga* | Cave Salamander | E | --- | In and around caves, seeps, springs, and small forested limestone creeks associated with groundwater. Rock crevices or under rocks, logs, or other debris. | December-February | Low |
| **PLANT** | | | | | | |
| *Trifolium stoloniferum* | Running Buffalo Clover | --- | E | Disturbed bottomland meadows. Disturbed sites that have shade part of the day. | n/a | Low |

1. STATE STATUS - X = extirpated, E = endangered, T = threatened, R = rare, SSC = special concern, WL = watch list, SG = significant, SI = Special Interest ** = no status but rarity warrants concern
Ohio Department of Natural Resources, Division of Wildlife Website - http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/publications/information/pub356.pdf (March 2016).

2. FEDERAL STATUS - E = endangered, T = threatened, R = rare, LELT = different listing for specific ranges or species, PE = proposed endangered , PT = proposed threatened, e/sa – appearance similar to a listed endanger species, **= not listed
United States Fish and Wildlife Service, County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species - http://www.fws.gov/midwest/endangered/lists/ohio-cty.html (January 2017).

3. Habitats and Breeding Periods described by:
   a. NatureServe: An online encyclopedia of life [web application].2000. Version 1.1 Arlington, Virginia, USA: Association for Biodiversity information. Available: http://www.natureserve.org/ (Accessed January 6, 2017).
   b. United States Fish and Wildlife Service Rayed Bean Fact Sheet - http://www.fws.gov/midwest/endangered/clams/rayedbean/RayedBeanFactSheet.html ( January 6, 2017).
   c. United States Fish and Wildlife Service Indiana Bat Fact Sheet - http://www.fws.gov/midwest/endangered/mammals/inba/index.html (January 6, 2017).
   d. United States Fish and Wildlife Service Northern Long-eared Bat Fact Sheet - http://www.fws.gov/midwest/endangered/mammals/nleb/index.html (January 6, 2017).
   e. United States Fish and Wildlife Service Eastern Massasauga Fact Sheet - http://www.fws.gov/midwest/endangered/mammals/inba/index.html (January 6, 2017).
   f. United States Fish and Wildlife Service Running buffalo clover Fact Sheet - http://www.fws.gov/midwest/endangered/mammals/nleb/index.html (January 6, 2017).

4. Likelihood of occurrence: None, Low, Moderate, or High based on best available data and selective field observations.

Attachment D – Cultural Resources Literature Review

# Cultural Resources Literature Review

## Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project – Ohio Segment

Hamilton County, Ohio

Cardno

# Document Information

| | |
|---|---|
| Prepared for | Duke Energy Ohio |
| Project Name | Cultural Resources Literature Review Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project - Ohio Segment, Hamilton County, Ohio |
| Duke Project No. | J156721M22 |
| Cardno Project No. | TOH2190 |
| Client Contact | Dane Vandewater (Duke Energy Ohio) |
| Project Manager | Cori Jansing (Cardno) |
| Date | September 14, 2020 |

Prepared and Submitted By Kaye Grob and Veronica Parsell

Principal Investigator Veronica Parsell

Veronica Parsell

Prepared for:

DUKE ENERGY®

Duke Energy Ohio
1000 E Main St, Plainfield, IN 46168

Prepared by:

Cardno

Cardno
11121 Canal Road, Cincinnati, Ohio, 45241

# Table of Contents

# Appendices



# Tables



# Figures

# Executive Summary

Cardno, Inc. (Cardno) conducted a cultural resources literature review for the 50.34 hectare (ha) (124.4 acre [ac]) Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project in Boone County, Kentucky, Hamilton County, Ohio, and Dearborn County, Indiana. The enclosed reporting constitutes the results of the records review within the Hamilton County, Ohio portion of the Project. Research focused on documenting known prehistoric and historic resources within a 1.6 km (1.0 mi) radius (the Study Area), to evaluate the likelihood for encountering unidentified cultural resources within Project boundaries. The literature review centered on the above defined Study Area, but also examined the region on a larger scale when appropriate.

The Project would remove and replace the 345 kV transmission power line on existing overhead structures. The Project crosses the Ohio River at two locations. The total size of the Project Area within Ohio was approximately 0.49 miles long (7.9 acres) with no anticipated actual Project earth disturbance. The Miami Fort Rebuild Project initiates at the Duke Energy Ohio's Miami Fort Substation (39.112854, -84.807417) and terminates at Structure 125H-X8-16 (39.110409, -84.811216) located north of the Ohio River, east of the Great Miami River, south of Brower Road, and directly west of the Duke Energy Miami Fort Power Station. (the "Project Area") (Figure 1).

The Project aims to maintain and improve the quality of the electric service and reliability to the service area as well as ensure the integrity of the transmission line by replacing approximately four (4) miles of 345 kV power line, removing six (6) existing lattice structures, and replacing the structures with updated galvanized steel monopoles and H-frame structures. The existing 345 kV electric transmission line, supported by Duke's existing overhead structures will be removed and replaced crossing over the Ohio River at the same location and at a greater height than the original alignment allowing for the additional aerial clearance for vessels utilizing the Ohio River.

The results of the literature indicate that in Ohio, 29 archaeological sites, one of which is NRHP listed, one NRHP listed prehistoric district, two historic structures, and one cemetery are located within the 1.6 km (1 mi) Study Area. One of the resources (site 33-HA-0096) is located within the Project Area; however, the site has been entirely destroyed by the construction of a retention pond.

The Ohio portion of the Project Area has been subjected to intensive disturbance associated with the construction of retention ponds at the Miami Fort Power Plant. Due to the high level of soil disturbance in these locations, it is unlikely that extensive intact cultural deposits are present and Cardno recommends no further archaeological work within the Ohio portion of the Project.

It is unlikely that the proposed Project will have visual impacts to aboveground historic resources, as the Project involves the replacement of an existing transmission line corridor. As a result, Cardno does not recommend an aboveground Historic Properties Inventory.

# 1 Introduction

In response to a request from Duke Energy Ohio, Cardno conducted a cultural resources literature review for the Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project in Boone County, Kentucky, Hamilton County, Ohio, and Dearborn County, Indiana (the Project Area). This reporting constitutes the results of the Ohio portion of the literature review. The total size of the Project Area within Ohio is approximately 0.49 miles long (7.9 acres) with no anticipated actual Project earth disturbance. The Miami Fort Rebuild Project initiates at the Duke Energy Ohio's Miami Fort Substation (39.112854, -84.807417) and terminates at Structure 125H-X8-16 (39.110409, -84.811216) located north of the Ohio River, east of the Great Miami River, south of Brower Road, and directly west of the Duke Energy Miami Fort Power Station.

Background research conducted in March and April 2020 focused on a 1.6 km (1.0 mi) Study Area around the proposed Project footprint in Ohio. Cardno gathered information about previously conducted cultural resource investigations and documented cultural resources as well as the environmental and cultural context of the region to assess the potential for additional undocumented cultural resources in and around the Project Area.

Key personnel committed to the Project include Ms. Veronica Parsell and Ms. Kaye Grob, who served as report co-authors. Mr. Stephen LaFon created the report graphics.

This report presents the research design and results of the background research in Section 2.0. Section 3.0 discusses the conclusions and recommendations. The references cited in this report appear in Section 4.0. Appendix A includes historic maps and aerials and Appendix B includes Project overview photos.


PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- Existing Facility
- Project Centerline
- Study Area
- County Boundary
- Municipal Boundary

DUKE ENERGY.

Cardno

0 500 1,000 2,000 Feet

FIGURE 1
PROJECT VICINITY MAP
CULTURAL RESOURCES LITERATURE REVIEW
DUKE ENERGY OHIO
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
HAMILTON COUNTY, OHIO

DRAWN BY: COD DATE: 9/14/2020
CHECKED: KLG APPROVED: KLG

R:\Projects\15\156\156721M_DukeEnergy_9193\M22_SCW76_MiamiFt_to_TannersCreek_345kV&TowerReplacement\GIS\MXD\M22_Cultural_Lit_Review_20200911\F1_VicinityMap.mxd

# 2 Background Research

The objective of the current study is to identify and evaluate previously documented cultural resources present within the proposed Project Area, as well as assess the potential for the Project Area to contain additional cultural resources.

As a result of the transmission line replacement locations in Ohio being located within heavily disturbed and graded locations, background research is provided in table format. The Ohio Project location has no probability of intact cultural resources. Records were reviewed using a 1.6 km (1.0 mi) Study Area.

## 2.1 Literature Review: Hamilton County, Ohio

Research was conducted using data from online files provided by the Ohio Historic Preservation Office/Ohio History Connection (OHPO/OHC) in March 2020 (OHC 2020). Cardno focused on previously recorded resources within 1.6 km (1 mi) of the Project Area. For the literature review the following resources were consulted:

- National Historic Landmark list;
- National Register of Historic Places (NRHP) list;
- Ohio Archaeological Inventory Forms (OAI);
- Ohio Historic Inventory Forms (OHI);
- Cultural Resource Management reports;
- Ohio Genealogical Society (OGS) Cemetery Survey files;
- Historic Aerial Imagery.

Reviewed records indicate that multiple prehistoric and historic resources are located within the 1.6 km (1 mi) Study Area and that the Project Area has not been previously investigated for cultural resources (Figures 2 and 3).

### 2.1.1 Previously Identified Cultural Resources: Ohio

Reviewed records indicate that 29 archaeological sites, one of which is NRHP listed, one NRHP listed prehistoric district, two historic structures, and one cemetery are located within the 1.6 km (1 mi) Study Area (Table 1; Figure 2). One of the resources (site 33-HA-0096) is located within the Project Area; however, the site has been entirely destroyed by the construction of a retention pond.

**Table 1. Previously Recorded Cultural Resources in the 1.6 km (1.0 mi) Study Area**

| Resource Number | Resource Type/ Name | Cultural Affiliation | Location/ Notes |
|---|---|---|---|
| 33-HA-0004/ NPS Ref. No. SG100002843 | Prehistoric Hilltop Enclosure/ Fort Miami (Shawnee Lookout) | Woodland | Confidential |
| NPS Ref. No. 74001516 | Shawnee Lookout Archaeological District | Archaic, Woodland, and Hopewell | Confidential: Group of approximately 46 archaeological sites. Project Area is NOT located within the designated boundaries of this district. |
| 33-HA-0031 | Prehistoric Mound Group/ Twin Mound I and II | Woodland | Confidential |

| Resource Number | Resource Type/ Name | Cultural Affiliation | Location/ Notes |
|---|---|---|---|
| 33-HA-0033 | Prehistoric Earthen Mound/ Columbia Park Mound III (Miami Stone Fort) | Woodland | Confidential |
| 33-HA-0034 | Prehistoric Mound/ Columbia Park Mound IV | Woodland | Confidential |
| 33-HA-0042 | Prehistoric Mound/ Columbia Park Mound 12 | Woodland | Confidential |
| 33-HA-0043 | Prehistoric Habitation/ Twin Mound Village | Middle Woodland | Confidential |
| 33-HA-0044 | Prehistoric Village/ Columbia Park Village II | Unidentified Prehistoric | Confidential |
| 33-HA-0045/ NRHP DOE | Prehistoric Habitation/ DuPont Site | Archaic | Confidential: Determined Eligible for the NRHP |
| 33-HA-0046 | Prehistoric Village/ Columbia Park Village Site 4 | Unidentified Prehistoric | Confidential |
| 33-HA-0047 | Prehistoric Village/ Columbia Park Village Site 5 | Middle Woodland | Confidential |
| 33-HA-0050 | Prehistoric Village/ Columbia Park Village Site 8 | Unidentified Prehistoric | Confidential |
| 33-HA-0053 | Prehistoric Burials/ Columbia Park Burials I | Unidentified Prehistoric | Confidential |
| 33-HA-0054 | Prehistoric Burials/ Columbia Park Burials II | Unidentified Prehistoric | Confidential |
| 33-HA-0055 | Prehistoric Burials/ Columbia Park Burials III | Unidentified Prehistoric | Confidential |
| 33-HA-0096 | C G & E's Middle Woodland Site | Late Prehistoric/ Mississippian | In Project Area; however, entirely destroyed. |
| 33-HA-0109 | Prehistoric Village/ Finney Village | Unidentified Prehistoric | Confidential: Potentially Eligible for NRHP |
| 33-HA-0147 | Prehistoric/ Lynch Site | Paleoindian, Archaic, Woodland, and Late Prehistoric | Confidential |
| 33-HA-0149 | Stone Mound/ Miami Fort Stone Mound | Middle Woodland | Confidential |
| 33-HA-0150 | Prehistoric Village Site | Archaic and Woodland | Confidential |
| 33-HA-0193 | Prehistoric Mound/ Oil Tank Mound | Woodland | Confidential |
| 33-HA-0200 | Historic campsite (reported) | Historic | Confidential |
| 33-HA-0222 | Prehistoric/ CG & E Site | Archaic, Middle Woodland, and Late Prehistoric | Confidential |
| 33-HA-0225 | Prehistoric Mound/ Dark Hollow Mound | Woodland | Confidential |
| 33-HA-0350 | Prehistoric Habitation and Burial Site/ Bitminus Plant Site | Unidentified Prehistoric | Confidential |

| Resource Number | Resource Type/ Name | Cultural Affiliation | Location/ Notes |
|---|---|---|---|
| 33-HA-0352 | Prehistoric/ Lynch Camp II | Unidentified Prehistoric | Confidential |
| 33-HA-0414 | Prehistoric/ B&O Great Miami River Bridge Site | Woodland | Confidential: Potentially Eligible for NRHP |
| 33-HA-0415 | Prehistoric/ E. I. Dupont-Brower Road Site | Woodland | Confidential: Potentially Eligible for NRHP |
| 33-HA-0420 | Prehistoric/ Narrow Ridge Site | Early and Middle Woodland | Confidential |
| 33-HA-0838 | Prehistoric Habitation/ Fire Island Site | Archaic, Woodland, and Late Prehistoric | Confidential |
| HAM0374753 | Dwelling/ CW Short House | Historic, 1875 | Brower Rd |
| HAM0550653 | Energy Facility/ Columbia Electric Generating Station | Historic, 1925 | Brower Rd |
| OGS ID 4706 | Bateman-Columbia Park Cemetery | Historic | 0.3 mile south of Brower Road. 800 feet west of CG&E Plant. 550 feet from Ohio River. 400 feet south of railroad. West side of Dark Hollow Creek. Land now owned by Cincinnati Gas and Electric Company |

### 2.1.2 Previous Cultural Resources Investigations: Ohio

Records available using online data provided by OHPO/OHC indicate that five cultural resources investigations have occurred within the 1.6 km (1.0 mi) Study Area (Table 2). None of the investigations are located within or adjacent to the current Project Area. Due to the large number of recorded archaeological sites in the region that do not appear associated with these previous surveys, it is likely that additional surveys have occurred within the Study Area; however, they were either not filed at OHPO/OHC or were a result of another form of site recording such as landowner collection interviews, early university surveys, or amateur survey.

**Table 2. Previous Cultural Resource Investigations in the 1.6 km (1.0 mi) Study Area**

| Report Year | Report Author | Report Title | Sites Identified |
|---|---|---|---|
| 1979a | White, Claude F. | An Archaeological Impact Assessment of the Pillsbury Company Bulk Commodities Loading and Unloading Facility on the Right Bank of the Ohio River at Mile 489.5, Miami Township, Hamilton County, Ohio | 33-HA-0109 boundary expanded, Mound identified (no trinomial provided in reporting) |
| 1979b | White, Claude F. | Supplementary Report: The Pillsbury Company Bulk Commodities Loading and Unloading Facility at Mile 489.5 (Dept. of Army Permit Appl. 79-OH-109) | Continued excavations at 33-HA-0109, recommended as potentially eligible for NRHP |
| 1980 | White, Claude F. | An Archaeological Impact Assessment of the Construction of a Water Supply Line to Chevron USA, Miami Township, Hamilton County, Ohio | 33-HA-0414 and 33-HA-0415 |
| 2012 | Tankersley, Ken, Litsa Mortensen, Phoebe Pritchett, and Jessica Hughes-Skallos | Phase I Cultural Resource Report for the Hamilton County Parks - Columbia Terrace Drive Drilled Pier Wall Project, Miami Township, Hamilton County, Ohio | None |
| 2017 | Wellspring, Adam L., Suzanne M. Ostyn, Christopher G. Leary, and Amy Favret | Phase I Cultural Resources Survey for the Veolia Fort Hill Outfall 001 Project, Miami Township, Hamilton County, Ohio | None |


PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- Archaeology Site
- Existing Facility
- Project Centerline
- 1-Mile Buffer
- Ohio Historic Structures
- Study Area
- NR Boundaries
- NR Listings
- OGS Cemeteries
- County Boundary

DUKE ENERGY.

Cardno

0 500 1,000 2,000 Feet

FIGURE 2
PREVIOUSLY IDENTIFIED CULTURAL RESOURCES
CULTURAL RESOURCES LITERATURE REVIEW
DUKE ENERGY OHIO
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
HAMILTON COUNTY, OHIO

DRAWN BY: COD DATE: 9/14/2020
CHECKED: KLG APPROVED: KLG

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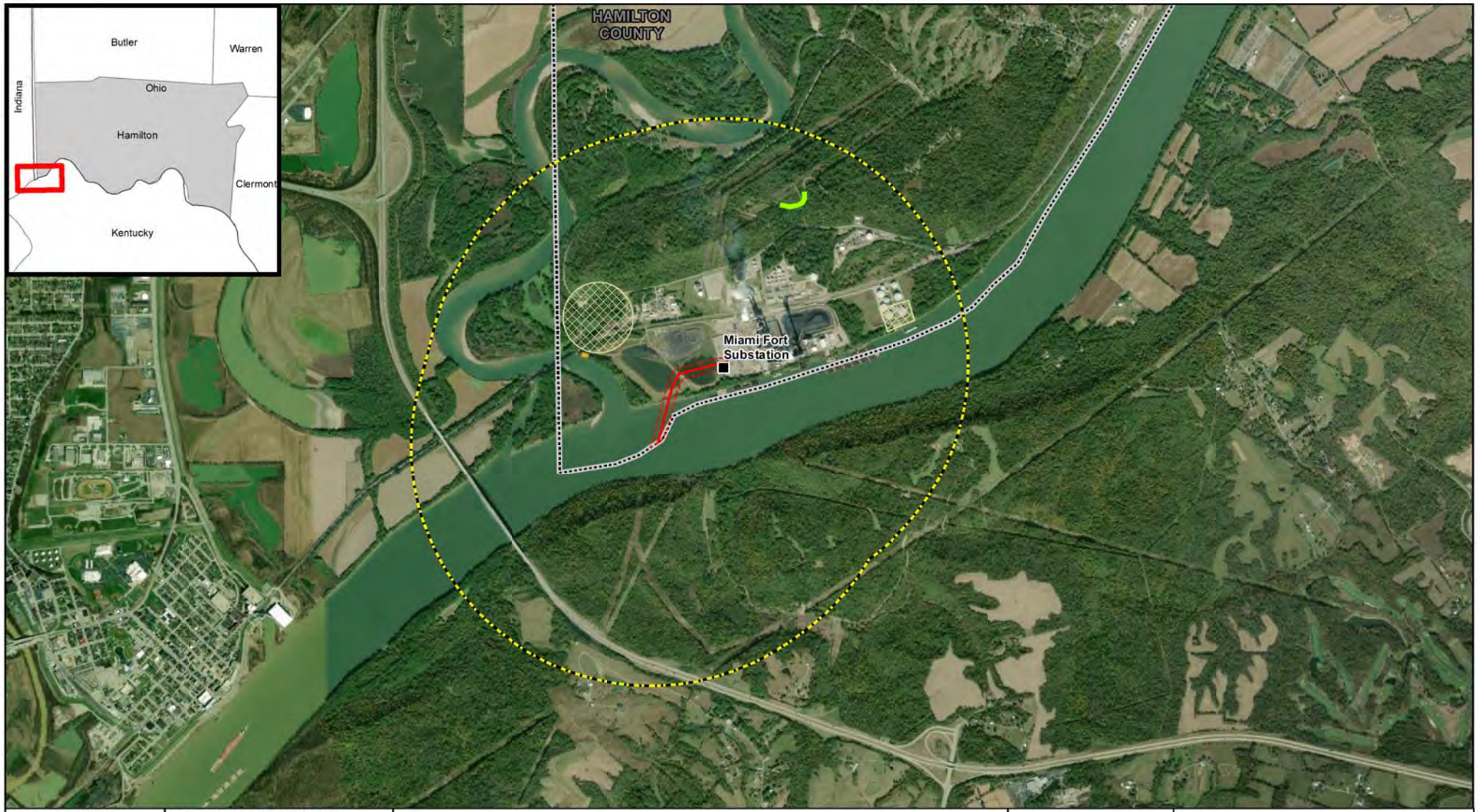


PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

- ExistingFacility
- Project Centerline
- Tankersley, Ken 2012
- Wellspring, Adam L. et al 2017
- White, Claude F. 1979/1980
- Study Area
- 1-Mile Buffer

DUKE ENERGY.

Cardno

0 500 1,000 2,000 Feet

FIGURE 3
PREVIOUSLY CULTURAL RESOURCES INVESTIGATIONS
CULTURAL RESOURCES LITERATURE REVIEW
DUKE ENERGY OHIO
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
DEARBORN COUNTY, INDIANA

DRAWN BY: COD DATE: 9/14/2020
CHECKED: KLG APPROVED: KLG

R:\Projects\15\156\156721M_DukeEnergy_9193\M22_SOW76_MiamiFt_to_TannersCreek_345kV&TowerReplacement\GIS\MXD\M22_Cultural_Lit_Review_20200911\F3_PrevInvestigations.mxd

### 2.1.3 Historic Maps and Aerial Imagery

Historic maps reviewed from 1869 and 1915 did not indicate any structures or features in proximity to the Project Area (Appendix A; Titus 1869 and USGS 1915).

In addition to the historic atlas maps, one early archaeological map was also consulted (Mills 1914). Similar to other historic archaeological maps of its time, this map depicts archaeological resources at a county-wide scale which provides an overview of sites across the county, but limits the locational accuracy of these features. The Archaeological Atlas of Ohio, Mills (1914) depicts a mound complex north of the Project Area in Section 5, which likely represents the NRHP listed Shawnee Lookout Archaeological District.

Historic aerial imagery was consulted from 1952, 1976, and 1979 to ascertain the historic use of the Project Area (Appendix A; USGS 1952, 1976, and 1979). In 1952, the Ohio portion of the Project Area is located within agricultural fields adjacent to the Ohio River. In 1976 and 1979, the Project Area within Ohio appears to have been heavily disturbed by the construction of a power plant. The majority of the Project Area is located within or adjacent to a retention pond.

### 2.1.4 Hamilton County, Ohio Prehistoric Context

Archaeological sites are well-documented in Hamilton County, Ohio. The county is located in a region with a temperate climate, well-drained soils, topography, and riverine corridors, making it an ideal location for settlement and subsistence throughout history. Nearly 870 archaeological sites have been documented in Hamilton County to date, including many with a historic component (OHC 2020). The prehistoric occupation of Ohio is generally divided into three broad periods: Paleoindian, Archaic, and Woodland. Hamilton County contains sites dating to each of these time periods; however, many of the recorded prehistoric sites in the county do not contain diagnostic artifacts and therefore cannot be attributed to specific cultural occupations (OHC 2020). This section will outline each of these broad time periods, including smaller divisions within each.

#### *2.1.4.1 Paleoindian Period (ca. 13,000 – 10,000 B.P.)*

The Paleoindian period encompasses the cultural remains of the earliest recorded occupants of the region, after about 13,000 years before present day (B.P.), shortly following the retreat of the last glaciers to cover the land. Paleoindians were nomadic groups comprised of small kin-based bands that primarily practiced a foraging subsistence strategy. Current research suggests that these Paleoindian bands moved within a circumscribed geographic range to intercept large herd animals during their migratory cycles (Gramly 1988; Stothers 1996). Over time, the focus likely shifted from large-scale hunting expeditions to a more regular procurement of game, accompanied by a decrease in the overall size of territory exploited by these groups

Paleoindian sites are most easily recognized in the archaeological record by the presence of lanceolate spear points. These points may be fluted (a large flake removed from each side of the base) or unfluted. Early Paleoindian projectile points are often made of high quality materials, usually from a widely dispersed area, which suggest a high level of mobility. Later Paleoindian points are more often made from local chert types, which may reflect a reduction in this mobility.

Documented archaeological sites dating to this time period are relatively rare in this part of state. The Ohio Archaeological Inventory lists approximately 10 sites dating to the Paleoindian period in Hamilton County (OHC 2020).

#### *2.1.4.2 The Archaic Period (10,000 – 2,500 B.P)*

The Archaic period is identified by archaeologists as the period when settlements organized around local environmental resources replaced the broad seasonal migration patterns of the Paleoindian period. Approximately 26 sites in Hamilton County can be broadly attributed to the Archaic Period, often through the presence of characteristic projectile points (OHC 2020).

#### 2.1.4.2.1 Early Archaic (10,000 – 8,000 B.P.)

The Early Archaic time period is often identified in the archaeological record by the transition from large, lanceolate bifaces of Paleoindian assemblages to smaller, notched and bifurcated bifaces. Groundstone tools and other lithic tools such as gravers, scrapers, and notched knives are also observed in the Early Archaic. Local cherts continue to appear in the archaeological record as a common resource. Early Archaic subsistence strategies continued the focus on large migrating Pleistocene herd animals, but Early Archaic groups also began to exploit more local environmental resources including smaller game animals. Early Archaic artifacts tend to display more diversity in style and function, which also may reflect diversity in resource exploitation. Currently, 34 documented sites in Hamilton County have an Early Archaic component (OHC 2020).

#### 2.1.4.2.2 Middle Archaic Period (8,000 – 5,000 B.P.)

Archaeologists observe little change between the Early and Middle Archaic periods. The Middle Archaic period is reflected by changes in projectile point and blade types, but these variations are more prominent in southern portions of the U.S., and are not evident in southern Ohio (Vickery and Litfin 1992). The Middle Archaic may be described simply as a transitional period between the Early and Late Archaic periods. Only 2 sites in Hamilton County have a documented Middle Archaic component (OHC 2020).

#### 2.1.4.2.3 Late Archaic Period (5,000 – 2,500 B.P.)

The Late Archaic Period sees an increased focus on regional mobility patterns as well as an increase in resource diversity. Late Archaic groups incorporated plants into a larger part of their subsistence strategy. Late Archaic sites often represent repeated occupation over a long period of time, which suggests a regular, more localized pattern of movement across the landscape. Projectile points and other lithic tools also show an increase in variation. Small side-notched and corner-notched points and side and end scrapers appear frequently in Late Archaic assemblages. Groundstone tools are also increasingly evident. Pottery begins to appear in the transition between the Late Archaic and Early Woodland periods. There are approximately 43 documented sites with a Late Archaic component in Hamilton County (OHC 2020).

### *2.1.4.3 The Woodland Period (2,500 – 500 B.P)*

Wide exchange of materials, the innovation of ceramic technology, the emergence of domesticated crops and animals, and an increasing shift toward permanent settlements generally identify the transition to the Woodland time period. Populations in the Woodland period tended to be broad spectrum hunter-gatherers, living in semi-sedentary occupations made up of small groups, likely based on kinship. These occupations were typically located around riverine environments and organized around communal burials. Innovations such as a more intensive reliance on pottery, horticulture, as well as the bow and arrow also occur during the Woodland time period. Hamilton County contains over 170 sites with artifacts dating to the Woodland period (OHC 2020).

#### 2.1.4.3.1 Early Woodland Period (2,500 – 1,900 B.P.)

The Early Woodland period marks the transition from the more nomadic Archaic subsistence strategy to a more localized, semi-sedentary subsistence strategy. The Adena culture is representative of the Early Woodland period in southern Ohio. Cultural material associated with the Adena are stemmed projectile points with weak shoulders, ceramic vessels with flat bottoms and lug handles, drills, scrapers, and a variety of ornamental and ceremonial materials (Tuck 1978). The earliest earthworks and burial mounds in southern Ohio are attributed to the Adena. These earthworks were often constructed over another structure, indicated by the presence of post-hole features. Burials are often associated with a variety of exotic materials, such as cut mica, copper, beads, gorgets, and shell. It is important to note, however, that "Adena", like "Hopewell" in the Middle Woodland, refers more to a pattern of mortuary practices and exchange of goods, rather than to a discrete group of peoples. Currently, 31 sites in Hamilton County date to the Early Woodland Period (OHC 2020).

#### 2.1.4.3.2 The Middle Woodland Period (1,900 – 1,400 B.P)

Archaeologists generally describe the Middle Woodland period in Ohio as the period associated with the development of the Hopewell culture. The subsistence strategy was organized around a seasonal pattern of resource procurement and an increasing reliance on horticulture. The Middle Woodland period saw a continued increase in population and social organization, reflected in the numerous earthworks constructed in this period. These earthworks, often constructed in geometric figures, may have represented ceremonial centers suggesting that populations may have been organized at some larger scale. The prehistoric trade of exotic materials also reached a high during the Middle Woodland as populations within the "Hopewell Interaction Sphere" traded materials from as far away as the Upper Peninsula of Michigan (copper), the Gulf Coast (shell and shark teeth), and the Carolinas (mica). It is likely that the Hopewell Interaction Sphere represents a broad but loosely organized pattern of exchange rather than a well-defined system of trade (Pacheco 1996). While pottery tends to be more utilitarian in nature, vessels with an engraved duck motif appear in funerary contexts. In general, Middle Woodland vessels have thinner walls than earlier ceramics. There are approximately 53 sites in Hamilton County with a Middle Woodland component (OHC 2020).

#### 2.1.4.3.3 The Late Woodland/Late Prehistoric Period (1,400 – 1,000 B.P.)

A significant reduction in the extensive, extra-regional trade of exotic goods and materials marks the Late Woodland period. The construction of large ceremonial earthworks also ends in the Late Woodland, as there is a shift in mortuary practices to interring burials into existing, older mounds or small stone mounds. Isolated, individual burials are also observed. This period is also characterized by an increasingly sedentary residential pattern of large nucleated villages supported by a growing reliance on maize and other cultigens as a substantial part of the Late Woodland diet. Palisades or ditches were sometimes constructed around these villages. This need for defensive structures suggests an increasing instability at times. Resource diversity also continued to increase, although reliance on aquatic resources was less pronounced in southern Ohio than in other areas of the Midwest. The deeply dissected drainages of southern Ohio do not produce the oxbow pond or lake features as seen in the Mississippi, Missouri or Illinois River valleys (Seeman and Dancey 2000). Late Woodland artifacts include small triangular points, scrapers, mortars and pestles, celts, and hoes. A distinct technological innovation of the period was the use of earthen ovens for steaming or baking food (Seeman and Dancey 2000). Pottery in the early portion of the Late Woodland exhibits thick angular shoulders (Newtown shoulder) and contrasts with Middle Woodland containers (Seeman and Dancey 2000). The bow and arrow became prevalent, though likely in the later portion of the Late Woodland. Hamilton County contains approximately 32 documented sites with artifacts dating to the Late Woodland Period (OHC 2020).

### *2.1.4.4 Fort Ancient (1,000 B.P. – contact)*

In southwest Ohio, archaeologists have described a settlement system marked by sedentary villages located along floodplains, with smaller resource-specific occupations in the uplands and lowlands (Pollack and Henderson 2000). The Fort Ancient period has been described as an in situ development from Late Woodland groups in the Ohio valley, extending into southeastern Indiana, northern Kentucky, southern Ohio, and eastern West Virginia (Drooker 1997). The Mississippian influence is evident in designs and forms, but made from locally available materials such as spatula shaped celts, triangular projectile points, and the falcon motif. Fort Ancient villages are typically located along the Ohio River and its major tributaries. In the late pre-contact period, the majority of settlements were located within 12.4 mi (20 km) of the Ohio River (Drooker 1997). Many of these villages are organized around a central plaza and some were surrounded by palisades. Structures varied in size from as small as 107 square feet (10 square meters) to as large as 1930 square feet (180 square meters) (Drooker 1997). Semi-subterranean pit houses provided cooler temperatures in the summer and warmer temperatures in the winter. Storage pits also became more extensive, with some measuring 3.4 ft (1 m) in diameter and 6.5 ft (2 m) in depth, capable of storing over 45 bushels of shelled corn (Cowan 1987).

Use of burial mounds declined after approximately 700 B.P., as people began interring their deceased in the villages around plazas as well as in and around houses. Funerary items include pots and pipes, but more exotic materials such as marine shell also are seen. The presence of marine shell and other engraved Mississippian goods along with the location of Fort Ancient groups along the Ohio River suggest some level of regional interaction. The late pre-contact period, however, is characterized by more concentrated settlement locations and more intraregional similarities in goods such as ceramics.

By the later part of the Fort Ancient period (post 1400 A.D.), most settlements were located within 20 km of the Ohio River and appear to represent a collection of formerly dispersed groups (Drooker and Cowan 2001). This period also includes increased intra and extra-regional interaction among eastern and western populations (Drooker and Cowan 2001). The mid-sixteenth century marks the beginning of the Protohistoric period, when European goods begin to arrive in the region, but prior to substantial European establishment.

One of the most prominent sites in the area dating to the Fort Ancient period is the Madisonville site located near Cincinnati. Currently, there are approximately 48 sites that date to this time period in Hamilton County (OHC 2020).

### 2.1.5 Hamilton County, Ohio Historic Context

Hamilton County, Ohio, established on January 2, 1790, was the second county formed in the Northwest Territory. The county was named in honor of Alexander Hamilton, the first Secretary of the Treasury of the U.S. The Symmes Purchase of 1787, also known as the Miami Purchase, included what is now Hamilton and Butler Counties. By January 1789, the Town of Losantiville, which would become Cincinnati, was platted and divided into plots and the area began to grow slowly (Ohio History Central 2015). In 1789 Fort Washington was constructed to protect the settlers in the Symmes Purchase and northern Kentucky (Ohio History Central 2015). In 1790, the governor of the Northwest Territory established Hamilton County, and made Losantiville, the county seat (Ohio History Central 2015).

After the battle of Fallen Timbers in 1794, which lead to the signing of the Treaty of Greenville and the ceding of much of present day Ohio, Hamilton County really began to grow, reaching nearly 15,000 people by 1820 (Ohio History Central 2015). During the nineteenth century, Hamilton County continued to prosper (Ohio History Central 2015). The Ohio River provided numerous opportunities for business and travel up and down the river valley (Ohio History Central 2015). The addition of the Miami and Erie Canal made transportation of cattle and crops much easier and less expensive. By the late nineteenth century, Cincinnati was the largest city in Ohio, with almost 300,000 people (Ohio History Central 2015). More than 15 railroads connected Cincinnati to other parts of Ohio and the U.S. By 1890, Hamilton County had become an important industrial, political, literary, and educational center in Ohio and the U.S. (Ohio History Central 2015). For most of the twentieth century, Hamilton County experienced continued growth.

### 2.1.6 Hamilton County Environmental Context and Soils

The Project Area is located within the Central Lowland Till Plains Physiographic Region, in the Illinoian Till Plain region (Brockman 1998). The proposed Project Area is located in the Ohio River Watershed. The Project Area crosses the Ohio River and the Great Miami River is located slightly west of the Project Area in Ohio. The Project Area within Ohio is located in an area where large retention ponds have been constructed. The pole replacement locations are all within the artificial berms of these ponds. These locations have been heavily disturbed by the construction of these features and have no likelihood for intact soils.

The Project Area is located within the Urban land-Huntington-Elkinsville soil association, which consists of "urban land and deep, nearly level to strongly sloping, well drained medium textured soils on flood plains and terraces" (USDA/SCS 1982). Soils within the Project Area are depicted in Figure 4 and listed in Table 3.

**Table 3. Soil Units within the Project Area**

| No | Soil Characteristics | Drainage Class | Hydric |
|---|---|---|---|
| CNWXFF | Chagrin-Nelse-Wheeling Complex, 2 to 75% slopes, frequently flooded | Well Drained | No |
| UrUXC | Urban Land Udorthents Complex, 0-12% slopes | N/A | No |


**SOIL TABLE**

| SYMBOL | DESCRIPTION | HYDRIC |
|---|---|---|
| CNWXFF | Chagrin-Nelse-Wheeling complex, 2 to 75 percent slopes, frequently flooded | No |
| Da | Dumps, ash | No |
| UrUXC | Urban land-Udorthents complex, 0 to 12 percent slopes | No |
| W | Water | No |

PROJECT LOCATION

HAMILTON COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE:LAWRENCEBURG, IN/KY/OH, OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

ExistingFacility
Project Centerline
Study Area
Soil Unit
Soil Unit - Hydric
County Boundary
Municipal Boundary

DUKE ENERGY.
Cardno

0 500 1,000 Feet

FIGURE 4
PROJECT AREA SOILS
CULTURAL RESOURCES LITERATURE REVIEW
DUKE ENERGY OHIO
MIAMI FORT TO TANNERS CREEK REBUILD PROJECT
HAMILTON COUNTY, OHIO

DRAWN BY: COD DATE: 9/14/2020
CHECKED: KLG APPROVED: KLG

R:\Projects\15\156\156721M_DukeEnergy_9193\M22_SOW76_MiamiFt_to_TannersCreek_345kV&TowerReplacement\GIS\MXD\M22_Cultural_Lit_Review_20200911\F4_Soils.mxd

# 3 Summary and Recommendations

## 3.1 Project Overview

In response to a request from Duke Energy Ohio, Cardno conducted a cultural resources records review for the Miami Fort to Tanners Creek Rebuild Project in Boone County, Kentucky, Hamilton County, Ohio, and Dearborn County, Indiana. This reporting constitutes the results of the Ohio portion of the cultural resources literature review. The Project plans to remove and replace approximately 4 miles 345 kV transmission power line and six (6) existing overhead structures. The total size of the Project Area within Ohio is approximately 0.49 miles long (7.9 acres) with no anticipated actual Project earth disturbance. The Miami Fort Rebuild Project initiates at the Duke Energy Ohio's Miami Fort Substation (39.112854, -84.807417) and terminates at Structure 125H-X8-16 (39.110409, -84.811216) located north of the Ohio River, east of the Great Miami River, south of Brower Road, and directly west of the Duke Energy Miami Fort Power Station.

Background research conducted in March and April 2020 focused on a 1.6 km (1.0 mi) Study Area around the proposed project footprint in Ohio. Cardno gathered information about previously conducted cultural resource investigations and documented cultural resources as well as the environmental and cultural context of the region to assess the potential for additional undocumented cultural resources in and around the Project Area.

## 3.2 Applicable Regulations and Guidelines

Section 106 of the National Historic Preservation Act (NHPA) requires that federal agencies assess the effect(s) of their projects on cultural resources eligible for listing in the NRHP. Section 106 of the NHPA applies to any federal agency undertaking that has the potential to affect cultural resources eligible for listing in the NRHP, should they be present. This federal agency action may include permitting, funding, or other approval of project activities.

Section 106 of the NHPA requires that the federal agency assess effects of their undertakings in areas where the effects are likely to occur, known as the Area of Potential Effects (APE). The APE takes into account both direct and indirect effects. Direct effects are limited to the areas of likely ground disturbance in the planned area of improvements and in associated easements. Direct effects in these areas may affect archaeological or architectural resources if present. Indirect effects include areas where visual, noise, or other effects caused by the project occur outside the footprint of the Project Area. Indirect effects may affect architectural resources, certain types of archaeological resources, or other cultural resources if present. At this time, it is anticipated that the project will require United States Army Corps of Engineers (USACOE) permitting, indicating the project constitutes a Federal Undertaking.

The Project will require permitting under Section 10 of the Rivers and Harbors Act (RHA) for the proposed restringing of 345 kV aerial electric transmission line over the Ohio River. Duke Energy Structures 6BN-X34-15 and 6BN-X31-3 located in Kentucky will be accessed by helicopter to complete the restringing.

Ohio Administrative Code 4906-06 outlines the requirements regarding filing an accelerated certificate application with the Ohio Power Siting Board. This regulation requires the applicant "provide a description of the applicant's investigation concerning the presence or absence of significant archeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation".

Pursuant to Ohio Revised Code §149.53, if archaeological artifacts or human remains are identified during project activities in any location, work within the area must stop and the OHPO must be notified within two (2) business days.

## 3.3 Summary of Results and Recommendations

The records review indicates that 29 archaeological sites, one of which is NRHP listed, one NRHP listed prehistoric district, two historic structures, and one cemetery are located within the 1.6 km (1 mi) study area within Ohio. One of the resources (site 33-HA-0096) is located within the Project Area; however, the site has been entirely destroyed by the construction of a retention pond.

The Ohio portion of the Project Area are located in disturbed and graded areas related to the construction of retention ponds at the Miami Fort Power Plant and gravel drives. Due to the high level of soil disturbance in these locations, it is unlikely that extensive intact cultural deposits are present and Cardno recommends no further archaeological work within the Ohio portion of the Miami Fort to Tanners Creek Rebuild Project.

It is unlikely that the proposed Project will have visual impacts to aboveground historic resources as the Project involves the replacement of an existing transmission line corridor. As a result, Cardno recommends no aboveground Historic Properties Inventory should be required for the Project to proceed.

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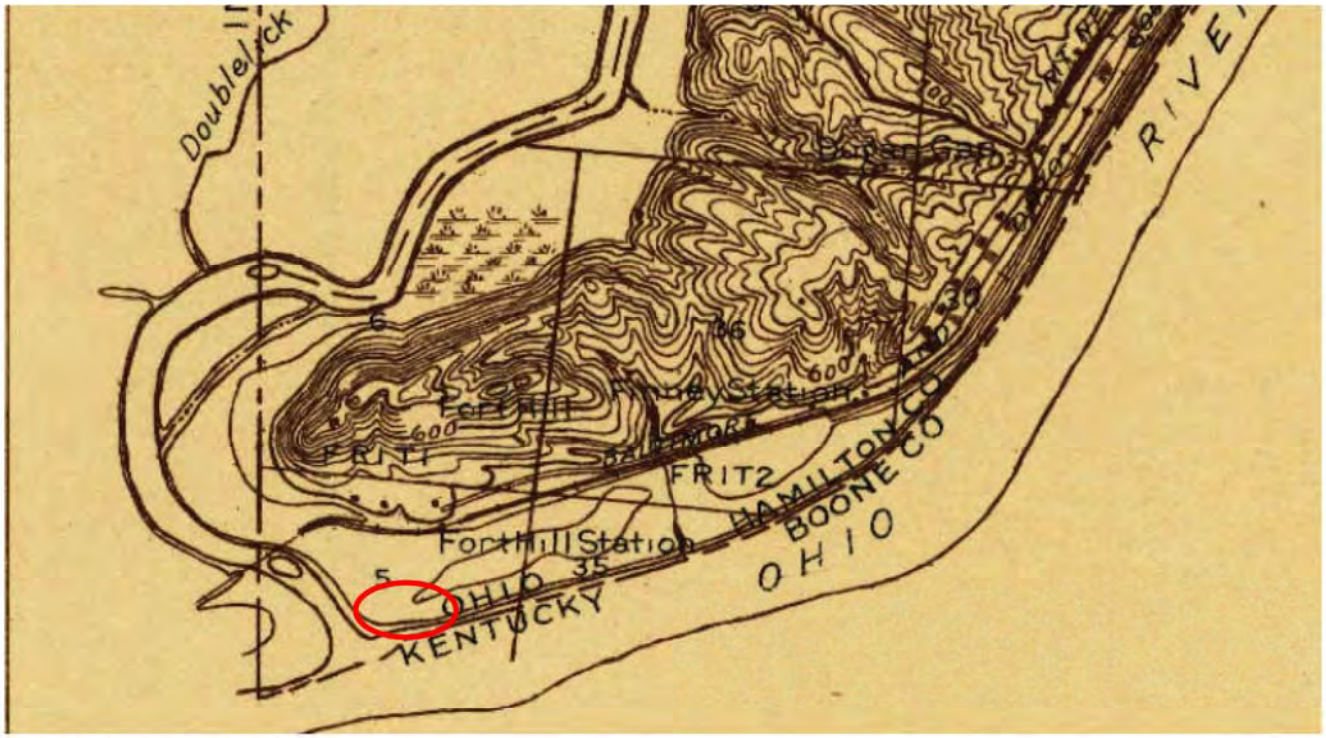
Cultural Resources Literature Review
Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project - Ohio Segment
Hamilton County, Ohio

# APPENDIX A

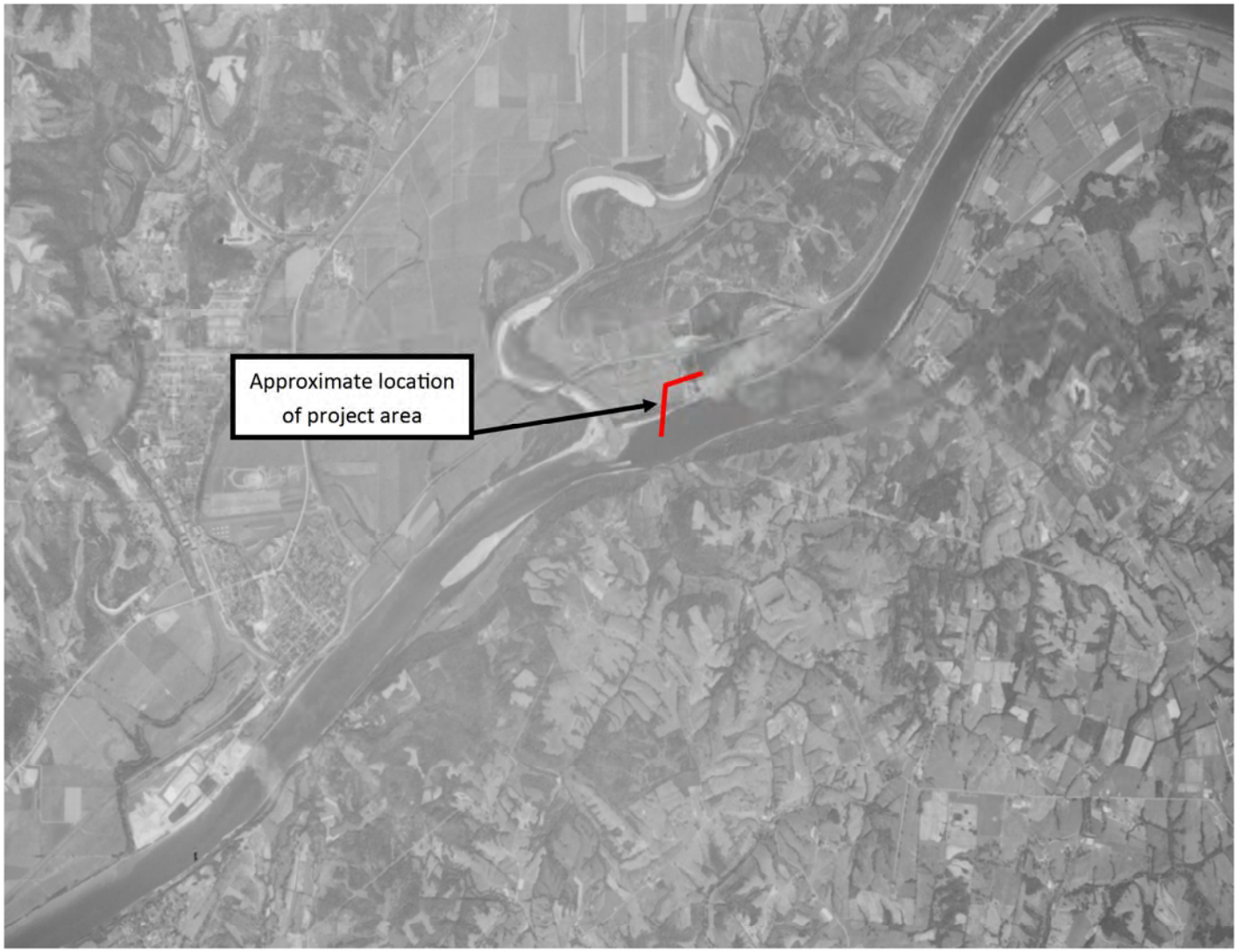
## HISTORIC MAPS

Approximate Project Area


Titus 1869 Map




USGS Lawrenceburg 1915 Map






Project Number: J156721M22

**Appendix A: 1952 Aerial**

Cultural Resources Literature Review Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project - Ohio Segment
Duke Energy Ohio
Hamilton County, Ohio

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Project Number: J156721M22

**Appendix A: 1976 Aerial**

Cultural Resources Literature Review Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project - Ohio Segment
Duke Energy Ohio
Hamilton County, Ohio

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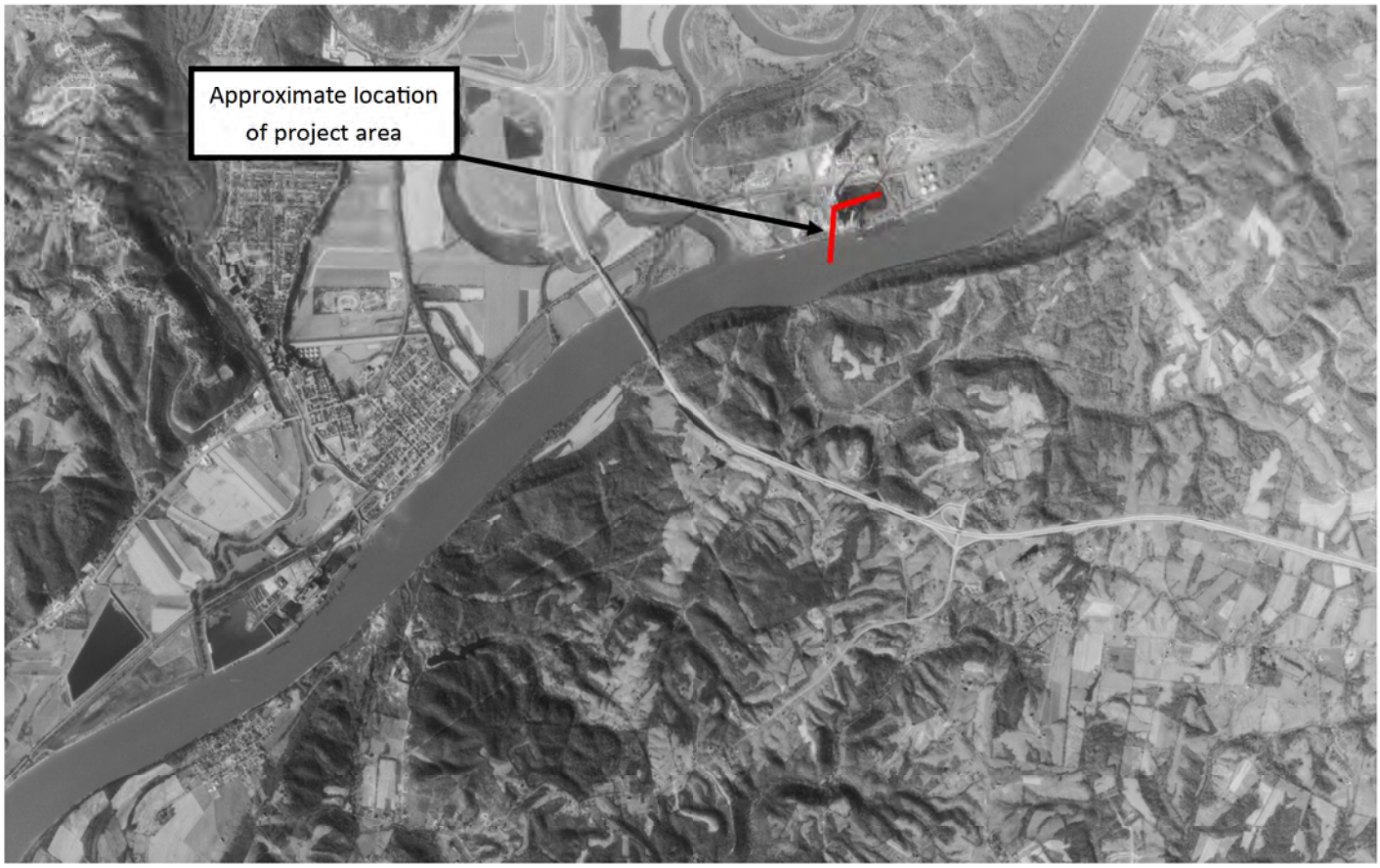




Project Number: J156721M22

**Appendix A: 1979 Aerial**

Cultural Resources Literature Review Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project - Ohio Segment
Duke Energy Ohio
Hamilton County, Ohio

Cardno

Cultural Resources Literature Review
Duke Energy Ohio Miami Fort to Tanners Creek Rebuild Project - Ohio Segment
Hamilton County, Ohio

# APPENDIX B

## PHOTOPAGES

Photo 1. Pond, View Looking Southwest, 04/02/2020.

Photo 2. Ohio River, View Looking Southeast, 04/02/2020.

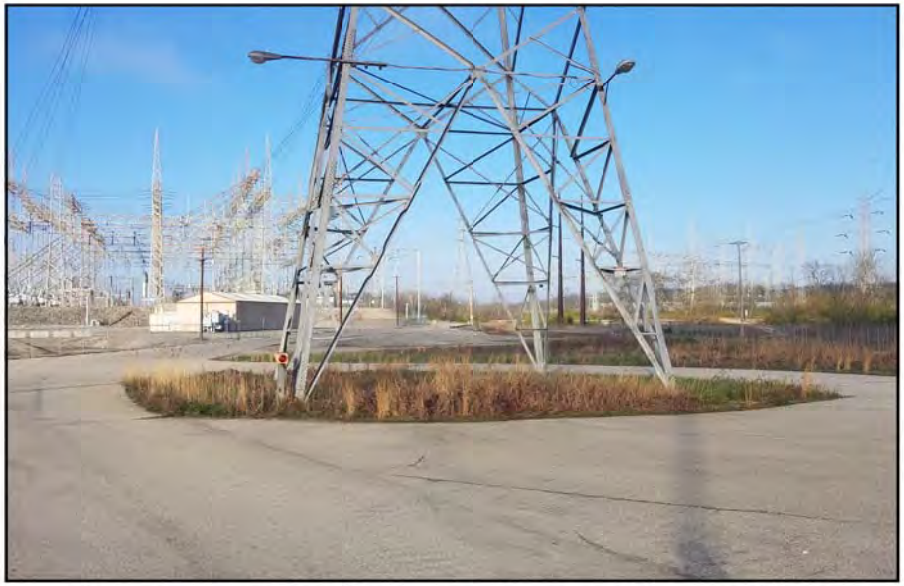

Photo 3. Tanner Creek Substation, View Looking Southwest, 04/02/2020.

Photo 4. Duke Energy Structure 6BN-X31-2, View Looking Southwest, 04/02/2020.

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**Case No(s). 21-0018-EL-BLN**

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