# CONSTRUCTION NOTICE FOR THE

# 138kV/345kV Mill Creek Remediation Relocation

## PUCO Case No. 18-1593-EL-BNR

**Submitted to:**

**The Ohio Power Siting Board**

**Pursuant to OAC 4906-06**

**Submitted by:**

**Duke Energy Ohio, Inc.**

**April 2019**

# Construction Notice

This Construction Notice has been prepared by Duke Energy Ohio, Inc. (hereafter "Duke Energy Ohio") in accordance with Ohio Administrative Code (OAC) Section **4906-6-05** for the review of Accelerated Certificate Applications for the 138kV/345kV Mill Creek Remediation Relocation Project (Project). The following section corresponds to the administrative code sections for the requirements of a Construction Notice.

## 4906-06-05 APPLICATION REQUIREMENTS

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

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

Name of Project: 138kV/345kV Mill Creek Remediation Relocation Project

2018 LTFR Reference: The Project was not included in the 2018 LTFR. This Project will be included in the 2019 LTFR. This Project does not meet the requirements that would require PJM filing.

Brief Description of the Project:

Duke Energy Ohio proposes to relocate and rebuild approximately 0.05 mile (287 feet) of 138 kilovolt (kV) transmission line and a total of approximately 0.13 mile (665 feet) of 345-kV transmission lines connecting from the Terminal Substation south to poles of Byer Steel, located in City of Cincinnati, Hamilton County, Ohio. The structures are being replaced to facilitate stabilization of the bank of Mill Creek.

Construction Notice Requirement:

This Project qualifies as a Construction Notice filing because it meets the requirements outlined in O.A.C. 4906-1-01, Appendix A, items (1)(a) and (2)(a). Item (1)(a) allows for the filing of a Construction Notice for "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: Line(s) not greater than 0.2 miles in length." Item (2)(a) allows the filing of a Construction Notice for *"Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to*

*an existing transmission line, or replacing structures with a different type of structure, for the distance of: (a) Two miles or less."*

## 4906-6-05 (B)(2): Need for the Project

The need for the Project is to maintain and improve the quality of the electric service and reliability to the service area as well as the removing poles from the remediation area of the banks of the Mill Creek. Due to the on-going restoration and remediation of soils on the banks of the Mill Creek, the existing structures have been identified as appropriate to replace and relocate to facilitate the restoration and environmental remediation effort.

The rebuilt transmission line will continue to provide the service area with 138kV and 345kV transmission service, but will be replaced outside of the restoration and remediation project footprint. Additionally, the rebuilt transmission line will continue to provide the service area with 138kV and 345kV transmission service.

## 4906-6-05 (B)(3): Location of the Project Relative to Existing or Proposed Lines

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

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

Alternative routes would cause more impacts to the environmental and the public. Therefore, the current alignment is the only reasonable alternative available and no alternatives were considered.

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

Property owners within 100 feet of the work will be notified by mail prior to the initiation of any construction. Further information on the ongoing status of this Project and other Duke Energy Ohio 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

Work on the Project is scheduled to start during a planned outage in November 2019. Work is scheduled to be completed by end of December 2020, during a second outage.

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

Figures 1 and 2 depict the general location of the Project. Attachment A, Figure 1 depicts the general Project vicinity depicted on a USGS quadrangle topographic map. Attachment A, Figure 2 depicts the planned transmission line location, ecological resources in the Project vicinity, and additional details on an aerial imagery map.

## 4906-6-05 (B)(8): Property Owner List

The proposed Project is located within existing ROW easements. An amendment was made to an existing easement with the property owner, Gotham, Inc., on parcel 242-0004-0001 in January 2019.

## 4906-6-05 (B)(9): TECHNICAL FEATURES OF THE PROJECT

The Project involves the relocation and replacement of three existing transmission lines. Approximately 0.05 mile (287 feet) of 138-kV transmission line will be installed and will replace two (2) existing steel structures with two (2) new steel structures approximately 95 feet in height.

The double circuit 345-kV transmission line will replace a total of approximately 0.13 mile (665 feet) between the two 345kV lines that are on one (1) 345kV lattice tower structure. This lattice tower will be replaced with two (2) galvanized steel structures approximately 195 feet in height within existing Duke Energy Ohio right-of-way. As a part of the structure installation, concrete foundations will be installed to support the structures.

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

| | |
|---|---|
| Voltage: | 138kV: 689<br>345kV: 4514, and 4516 |
| Structure Type: | Remove lattice tower 320 (345kV) and two 138kV steel poles<br>Replace with four (4) self-supporting steel poles |
| Conductors: | 138kV: 1024 ACSR<br>345kV: 954 ACSR |
| Static Wire: | 138kV: 7#8 Alumoweld<br>345kV: 7#8 Alumoweld |

Insulators: 138kV: Polymer post insulators and glass suspension/strain insulators

345kV: Glass suspension/strain insulators

Right-of-Way/Land Requirements: Duke Energy Ohio has the easements on which the transmission lines will be constructed.

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

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

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

The estimated cost for the Project is approximately $2,900,000.

## 4906-6-05 (B)(10): SOCIAL AND ECOLOGICAL IMPACTS

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

The Project is located in the City of Cincinnati, Hamilton County, Ohio. The City of Cincinnati, which covers about 78 square miles, contained a population of 301,301 people based on 2017 census data. The land use immediately surrounding the Project area is predominantly industrial property.

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

Agricultural land vegetation assemblage does not exist within the Project area.

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

The Ohio Historic Preservation Office's (OHPO) online mapping system was consulted to identify previously recorded cultural resources within 1.6 kilometers (km) (1 mile) of the Project Area (one-mile buffer). The OHPO records check indicates that one (1) archaeological site, 130 historic structures, and four (4) cemeteries have been previously recorded in the one-mile buffer. One National Register of Historic Places (NRHP) listed district is also located within the one-mile buffer (Village Historic District; NPS Ref. No. 86001626). In addition, two (2) NRHP Determination of Eligibility (DOE) structures are located within the one-mile buffer (HAM0625732 and HAM0144632). The previously identified archaeological site, historic structures, NRHP historic district, NRHP-DOE

structures, and cemeteries are not located in or adjacent to the Project Area. Table 1-1 of Attachment B (Cultural Resources Literature Review) lists cultural resources located within the one-mile buffer.

Significant portions of the Project Area have been previously investigated for cultural resources through a Phase I reconnaissance along Mill Creek and five (5) additional cultural resources investigations have been conducted in the one-mile buffer. Prior disturbance has occurred in large portions of the Project Area, resulting from the construction of the associated substation, steel facility surrounding the Project Area, and adjacent railroad tracks. The Project Area corresponds to an existing, maintained overhead utility corridor. Due to the previously disturbed soils and limited amount of ground disturbance related to the removal of existing transmission structures and installation of new transmission pole structures, no archaeological reconnaissance is recommended.

It does not appear that a Federal Nexus, requiring further coordination with the OHPO, will occur for the Project, as there are likely no impacts to wetlands or streams that would require Federal permitting.

Given that the Project involves only removal and replacement of existing and previously installed structures on previously disturbed areas, it does not appear that impacts to significant cultural resources will occur as a result of the Project. The minimal impacts associated with tower replacement do not warrant additional cultural resource surveys based on the proposed scope of work.

## 4906-6-05 (B)(10)(d): Local, State, and Federal Requirements

As the Project is expected to disturb less than one acre, a National Pollutant Discharge Elimination System (NPDES) Construction Site General Permit from the Ohio Environmental Protection Agency (Ohio EPA) for the Project is not required.

Duke Energy Ohio will be applying for clearance from Federal Aviation Administration (FAA) and the Ohio Department of Transportation for no-hazard determinations to navigable airspace.

Duke Energy Ohio is aware the site may contain hazardous material based on historic information. Duke Energy Ohio will comply with all State and Federal Regulations governing the handling and disposal of such materials during the installation of the new structures.

## 4906-6-05 (B)(10)(e): Endangered, Threatened, and Rare Species 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 A, Table 1, contains

a list of the Rare, Threatened and 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 October 14, 2018. Correspondence from the USFWS regarding RTE located within a ½ mile of the Project Area was received October 17, 2018 (Attachment C). Correspondence from the ODNR-DOW regarding RTE located within a ½ mile of the Project Area was received December 5, 2018 (Attachment C). The correspondence from USFWS indicated that there are no verified records of federally listed endangered, threatened, or candidate species, or their habitats, existing within the Project site or vicinity.

The entire Project Area was field surveyed by Cardno, Inc. (Cardno) as part of contracted services to assess ecological impacts. This included habitat assessments to identify RTE species and their habitat, specifically Indiana bat and northern long-eared bat roost trees. Based on Cardno's field inspection, the Project Area consisted of actively maintained right-of-way, urban/industrial turf, and riparian habitat types. Maple landscape cultivar trees were located near a structure, but will not be impacted by construction activities. No trees with characteristic habitat indicators of primary maternity roost trees were identified within the Project Area.

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

As a part of the investigation, Duke Energy Ohio hired Cardno to conduct an investigation for areas of ecological concern. As a part of Cardno's investigation, a request was submitted to the ODNR Environmental Review Services and U.S. Fish and Wildlife Service on October 14, 2018, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers state wildlife area, nature preserves, parks or forest, national wildlife refuges, or other protected areas within one (1) mile of the Project area using the ODNR Natural Heritage Database. A copy of the ODNR and USFWS response letters are included in Attachment C.

As a part of the field investigation and ecological assessment, Cardno conducted a wetland delineation and stream assessment of the Project Area. Cardno's investigation included approximately nine (9) acres around the proposed centerline, access roads, and additional workspace areas. During the investigation, Cardno identified one (1) potentially regulated water within the Project Area: the perennial, Mill Creek (Stream 1). See Attachment D, Regulated Waters Delineation Report.

The proposed construction access plan avoids disturbance to all streams and wetlands. No impacts to regulated waters or RTE habitat are anticipated by the Project.

As a part of the investigation, Cardno identified 100-year floodplains using the FEMA National Flood Hazard Layer within the Project Area. Attachment A, Figure 2 depicts the

location of the 100-year floodplains in relation to the Project Area. No changes in flood elevations are anticipated in the identified floodplain.

## 4906-6-05 (B)(10)(g): Other Information

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: Document of Letter of Notification Transmittal and Availability for Public Review

Copies of the Construction Notice have been sent to the appropriate public officials for the City of Cincinnati and Hamilton County as well as to the Public Library of Cincinnati and Hamilton County.

# Attachment A

# Figures and Tables

## Table 1: 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 | Moderate |
| *Lasionycteris noctivagans* | Silver-haired Bat | SSC | --- | Wooded and Semi wooded areas, mainly along streams. | August-October | Moderate |
| *Lasiurus borealis* | Red Bat | SSC | --- | Wooded area and wooded edges and hedgerows. | August-September | Moderate |
| *Lasiurus cinereus* | Hoary Bat | SSC | --- | Wooded, Semi wooded areas, and wooded edges. | August -October | Moderate |
| *Microtus ochrogaster* | Prairie Vole | SSC | --- | Dry, vegetated areas; pastures, fields, meadows and prairies | May-October | Low |
| *Microtus pinetorum* | Woodland Vole | SSC | --- | Wooded areas with thick organic material on forest floor. | April-August | Moderate |
| *Myotis lucifugus* | Little Brown Bat | SSC | --- | Under rocks, wood piles and sometimes caves. | August-December | Moderate |
| *Myotis sodalis* | Indiana Myotis | E | E | Wooded and Semi wooded areas, mainly along streams. Maternity colonies are around hollow trees. | August-October | Moderate |
| *Myotis septentrionalis* | Northern long-eared Bat | SSC | T | Wooded and Semi wooded areas; live trees and in snags. | July-August | Moderate |
| *Perimyotis subflavus* | Tri-colored Bat | SSC | --- | Edge habitats near areas of mixed agricultural use. | August-October | Moderate |
| *Peromyscus maniculatus* | Deer Mouse | SCC | --- | Grasslands, brushlands, and agricultural fields. | Year round; mostly during warmer months | Low |
| *Reithrodontomys humulis* | Eastern Harvest Mouse | T | --- | Open grassy areas such as abandoned fields, marshes or wet meadows. | April and August | Low |
| *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 | Low |
| **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 | Low |
| *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 | Low |
| *Noturus eleutherus* | Mountain Madtom | T | --- | Fast flowing clear riffles that are shallow. | June-July | Low |
| *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 | Low |
| *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 | Low |
| *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 | Low |
| *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 | Low |
| *Lampsilis fasciola* | Wavy-rayed Lampmussel | SSC | --- | Medium streams with gravel or sand bottoms. | June-July | Low |
| *Lampsilis ovata* | Sharp-ridged Pocketbook | E | --- | Ponds, lakes and streams with slow moving water and plenty of cover. | June-July | Low |
| *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 | Low |
| *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 | Low |
| *Quadrula cylindrical cylindrical* | Rabbitsfoot | E | T | Large, clean, fast-flowing waters. | April-August | Low |
| *Quadrula metanevra* | Monkeyface | E | --- | Large, clean, fast-flowing waters in silt-free rubble, gravel and sand bottoms. | March-July | Low |
| *Quadrula nodulata* | Wartyback | E | --- | Large, clean, fast-flowing waters in silt-free rubble, gravel and sand bottoms. | May | Low |
| *Speyeria idalia* | Regal Fritillary | E | --- | Tall-grass prairie and other open location including meadows, marshes and pastures. | June-July | Low |
| *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

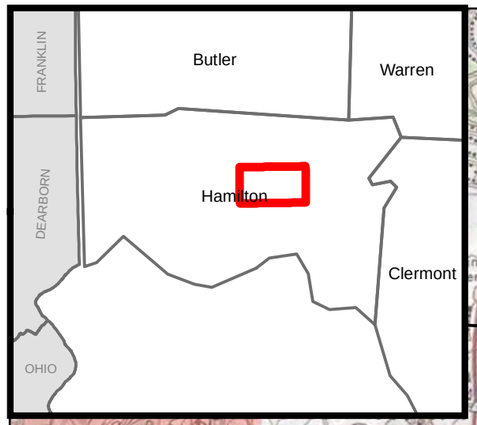
| | | | | | | |
|---|---|---|---|---|---|---|
| *Uniomerus tetralasmus* | Pondhorn | T | --- | Freshwater rivers, ponds and lakes. | Unknown | Low |
| *Villosa fabalis* | Rayed Bean | E | E | Small headwater creeks, sometimes found in large rivers. Prefers gravel or sand substrates. | Unknown; Egg-bearing 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.




**Project Location**

PROJECT LOCATION

HAMILTON COUNTY, OHIO

REFERENCE:
PROJECT LOCATION
Duke Energy
USGS 7.5' TOPOGRAPHIC QUADRANGLES
ESRI's Online USA Topo, accessed 2/22/2019
INTERSTATE AND HIGHWAY
ESRI's USA Major Roads, accessed 2/22/2019

Project Location
Interstate
State Highway
US Highway

DUKE ENERGY
Cardno

0 500 1,000 2,000 Feet

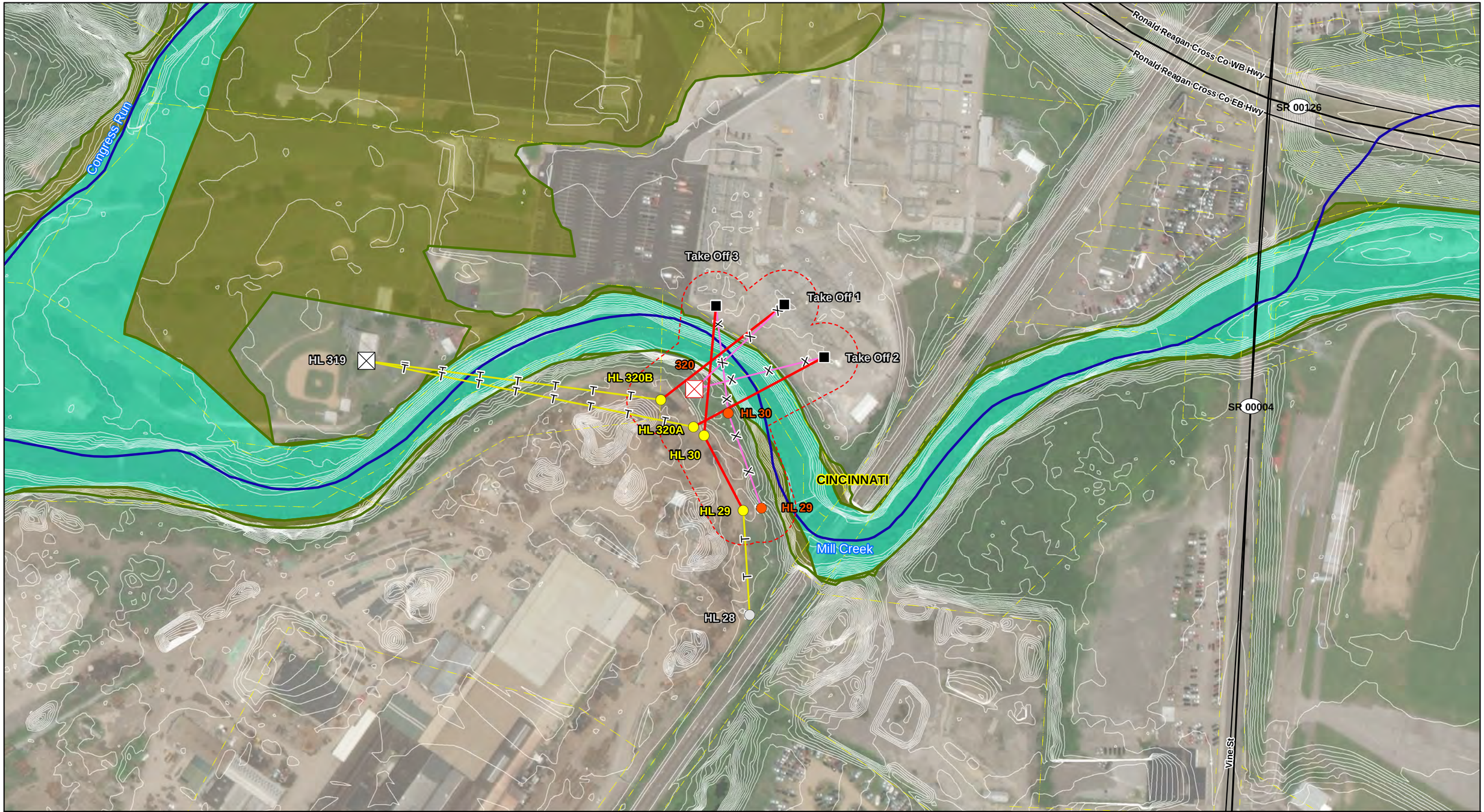
FIGURE 1
Project Location

OPSB BNR FILING

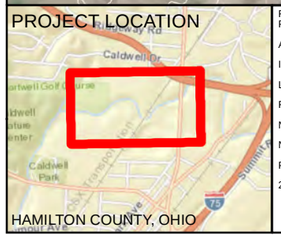
138kV/345kV Mill Creek Remediation Relocation

DRAWN BY: BDPM DATE: 2/22/2019
CHECKED: CAJ APPROVED: CAJ

R:\Projects\15\156\156720M_DukeEnergy9193\M71_SOW32_Byer Steel_138kV345kV\GIS\MXD\OPSB\M71_OPSB_ByerSteel_1_Location.mxd




PROJECT LOCATION




HAMILTON COUNTY, OHIO

REFERENCE:
PROJECT DETAILS
Duke Energy
AERIAL PHOTOGRAPH
ESRI's World Imagery, Accessed: 2/22/2019
INTERSTATE AND HIGHWAY
ESRI's USA Major Roads, accessed 2/22/2019
LOCAL ROAD
Hamilton County CAGIS
FLOODPLAIN AND FLOODWAY
FEMA FIRM, 2016
NWI WETLAND
USFWS National Wetland Inventory, 2017
NHD FLOWLINE
USGS National Hydrography Dataset
PARCEL BOUNDARY
Hamilton County CAGIS
2-FOOT CONTOUR
Hamilton County CAGIS

- Municipal Boundary
- Interstate
- State Highway
- US Highway
- streetcl
- Parcel Boundary
- 2-Foot Contour
- Existing Facility
- Existing Steel Pole
- Steel Pole - Remove
- New Steel Pole
- Lattice Tower - Remove
- Existing Lattice Tower
- Conductor Install
- Conductor Removal
- Conductor Transfer
- 150 Ft Corridor
- NHD Flowline
- Ohio NWI Wetlands
- 100-Year Floodplain
- Floodway

DUKE ENERGY®

Cardno

0 50 100 200 Feet

FIGURE 2
Project Details

OPSB BNR FILING

138kV/345kV Mill Creek Remediation Relocation

DRAWN BY: BDPM DATE: 2/22/2019
CHECKED: CAJ APPROVED: CAJ

R:\Projects\15\156\156720M_DukeEnergy9193\M71_SOW32_Byer Steel_138kV345kV\GIS\MXD\OPSB\M71_OPSB_ByerSteel_2_Details.mxd

**Construction Notice**
**138kV/345kV Mill Creek Remediation Relocation Project**
**Hamilton County, Ohio**

# Attachment B

# Cultural Resources Literature Review

The 138kV/345kV Mill Creek Remediation Relocation Project Cultural Resources Literature Review is confidential document and cannot be publically released.

# Attachment C

# Agency Coordination Letters

**From:** Finfera, Jennifer
**To:** Danielle Thompson
**Subject:** uke Energy Byer Steel Line Improvement Project, Hamilton County, Ohio
**Date:** Wednesday, October 17, 2018 11:48:21 AM

---

TAILS# 03E15000-2019-TA-0123

Re: Duke Energy Byer Steel Line Improvement Project, Hamilton County, Ohio

Dear Ms. Thompson,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

FEDERALLY LISTED SPECIES COMMENTS: All projects in the State of Ohio lie within the range of the federally endangered **Indiana bat** (*Myotis sodalis*) and the federally threatened **northern long-eared bat** (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed 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 travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags =3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) 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 and abandoned mines.

You have indicated that if tree clearing is required, the trees will be cleared between October 1 and March 31. Seasonal clearing will avoid adverse effects to Indiana bats and northern long-eared bats.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the Endangered Species Act (ESA), between the Service and the federal action agency, is completed. We recommend

that 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.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, 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, consultation with the Service should be initiated to assess any potential impacts.

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.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

If you have questions, or if I can be of further assistance in this matter, please contact me.

Sincerely,

Jenny Finfera

--
Jenny Finfera
Wildlife Biologist
Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230

Phone: 614-416-8993 ext.13
Fax: 614-416-8994

Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR JAMES ZEHRINGER, DIRECTOR

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

December 5, 2018

Danielle Thompson
Cardno
11121 Canal road
Cincinnati, Ohio 45241

**Re:** 18-1116; Duke Energy TOH2145 - 138kV 345 KV Byer Steel, Rare Threatened and Endangered Species Consultation

**Project:** The proposed project involves the removal and replacement of approximately 0.4 miles of existing transmission line.

**Location:** The proposed project is located in Cincinnati, 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:

Mixed mesophytic forest plant community
Oak maple forest plant community
Caldwell Park – City of Cincinnati Parks
Mill Creek Conservancy – Mill Creek Conservancy

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. Additional comments on some of the features may be found in pertinent sections below.

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.

**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 project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between May 15 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the sheepnose (*Plethobasus cyphyus*), a state endangered and federally endangered mussel, the fanshell (*Cyprogenia stegaria*), a state endangered and federally endangered mussel, the pink mucket (*Lampsilis orbiculata*), a state endangered and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel, the snuffbox (*Epioblasma triquetra*), a state endangered and federally endangered mussel, the ebonyshell (*Fusconaia ebena*), a state endangered mussel, the long-solid (*Fusconaia maculata maculata*), a state endangered mussel, the butterfly (*Ellipsaria lineolata*), a state endangered mussel, the washboard (*Megalonaias nervosa*), a state endangered mussel, the elephant-ear (*Elliptio crassidens crassidens*), a state endangered mussel, the Ohio pigtoe (*Pleurobema cordatum*), a state endangered mussel, the monkeyface (*Quadrula metanevra*), a state endangered mussel, the wartyback (*Quadrula nodulata*), a state endangered mussel, the black sandshell (*Ligumia recta*), a state threatened mussel, the fawnsfoot (*Truncilla donaciformis*), a state threatened mussel, and the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the shortnose gar (*Lepisosteus platostomus*), a state endangered fish, the shoal chub (*Macrhybopsis hyostoma*), a state endangered fish, the shovelnose sturgeon (*Scaphirhynchus platorynchus*), a state endangered fish, the lake sturgeon (*Acipenser fulvescens*), a state endangered fish, the northern madtom (*Noturus stigmosus*), a state endangered fish, the bigeye shiner (*Notropis boops*) a state threatened fish, the mountain madtom (*Noturus eleutherus*), a state threatened fish, the river darter (*Percina shumardi*) a state threatened fish, the channel darter (*Percina copelandi*), a state threatened fish, the blue sucker (*Cycleptus elongatus*), a state threatened fish, and the paddlefish (*Polyodon spathula*) a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these 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 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 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 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 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. Due to the location, the type of habitat present at the project site, and the type of work proposed, 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. Due to the location, the type of habitat present at the project site, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Sloan's crayfish (*Orconectes sloanii*), a state threatened species. Due to the location, and that there is no in-water work proposed, this project is not likely to impact 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 John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler
ODNR Office of Real Estate
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693
John.Kessler@dnr.state.oh.us

**Construction Notice**
**138kV/345kV Mill Creek Remediation Relocation Project**
**Hamilton County, Ohio**

# Attachment D

# Regulated Waters Delineation Report

# Regulated Waters Delineation Report

## 138kV/345kV Mill Creek Remediation Relocation Project

Hamilton County, Ohio

October 15, 2018

Cardno
Shaping the Future

# Document Information

| | |
|---|---|
| **Prepared for** | Duke Energy Ohio |
| **Client Contact** | Dustin Geisler (Duke Energy Ohio) |
| **Project Name** | 138kV/345kV Mill Creek Remediation Relocation Project |
| **Project Number** | Cardno #J156720M71 |
| | Duke #TOH2145 |
| **Project Manager** | Cori Jansing (Cardno) |
| **Date** | October 15, 2018 |

Prepared for:


Duke Energy Ohio
139 E. 4th Street, Cincinnati, Ohio 45202

Prepared by:


Cardno
11121 Canal Road, Cincinnati, Ohio 45241

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# 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 at the Duke Energy Ohio 138kV/345kV Mill Creek Remediation Relocation Study Area and potential access points (total 6.8 acres) in the City of Cincinnati, Springfield Township, Hamilton County, Ohio. The fieldwork for this task was performed on October 12, 2018. Table 1-1 summarizes the location of the Study Area based on the Public Land Survey Section (PLSS) data (note the PLSS system is present in the northern portion of the Study Area, but the southern portion of the Study Area falls outside the area the PLSS was conducted in Ohio).

**Table 1-1 PLSS within 138kV/345kV Mill Creek Remediation Relocation Project Area**

| Township | Range | Section |
|---|---|---|
| 3E | 1N | 7 |

The total size of the Study Area was approximately 6.8 acres and the total size of the Study Area was approximately 9.0 acres. The Study Area consisted of three habitats; urban/industrial turf, riparian, and maintained right-of-way.

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)."

Until further notice, the June 29, 2015 WOTUS Rule is not in effect. Furthermore, this report does not attempt to include a professional opinion as it relates to the June 29, 2015 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: Midwest Region* (Environmental Laboratory, 2010) 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 Midwest 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 2) identified one (1) wetland feature including one R2UBH within the Study Area.

### 3.1.2 Soil Survey

The NRCS Soil Survey identified three (3) soil series 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 138kV/345kV Mill Creek Remediation Relocation Project Area**

| Symbol | Description | Hydric |
|---|---|---|
| St | Stonelick fine sandy loam, frequently flooded | Y |
| UHSXAF | Urban land-Haplic Udarents-Stonelick complex, 0 to 2 percent slopes, frequently flooded | N |
| UrUXC | Urban land-Udorthents complex, 0 to 12 percent slopes | N |

# 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: Midwest Region* (Environmental Laboratory, 2010) 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 150-ft wide survey corridor approximately 0.4 miles long (the "Study Area"), located in the City of Cincinnati, Hamilton County, Ohio (see Figure 1). The Study Area consists of approximately 6.8 acres, with an actual project earth disturbance potential of approximately 0.01 acre (based on a 20-foot wide vehicular path for 0.01 mile of proposed off-road construction access routes). The 138kV/345kV Mill Creek Remediation Relocation Project initiates at Duke Energy Ohio Structure 319 (39.2042, -84.4817) located north of Mill Creek (Stream 1), south of Caldwell Drive, and west of Vine Street and terminates at Duke Energy Ohio Structure HL 28 (39.2026, -84.4788) located south of Mill Creek, north of West North Bend Road, and west of Vine Street. The Study Area consisted of three habitats: urban/industrial turf, riparian, and maintained right-of-way.

### 4.2.1 Wetland and Stream Descriptions

**Stream 1 (Mill Creek to the Ohio River) (473 linear feet within the study area)**

Stream 1 (Mill Creek) was a perennial stream that flowed west through the Study Area. Based on a 2017 bioassessment performed by the Midwest Biodiversity Institute (MBI), Stream 1 is considered to be recovering from past modifications. This stream is a designated Warmwater Habitat (WWH). This stream 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 45 feet and depth was 3.5 feet. Bank Full width was 75 feet and depth was 12 feet. The maximum pool depth observed was approximately 3 feet. Stream 1 is a relatively permanent water (RPW) and flows into the Ohio River, a Traditional Navigable Water (TNW). Due to this connection, this stream should be considered a jurisdictional water of the United States. Stream 1 had a QHEI score of 79, an IBI score of 31, and an ICI score of 40 based on MBI's bioassessment (MBI, 2017).

## 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 B).

Tables summarizing the results of ETR species as they relate to the habitat observed within the Study Area are included with this report. Correspondence with the ODNR DOW and the USFWS regarding RTE located within a ½-mile of the Study Area were sent October 14, 2018. Results of the USFWS coordination were received on October 17, 2018 and from ODNR-DOW on September 18, 2018. The copies of the correspondence letters are located in Appendix B.

**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 B.

Suitable bat roost habitat was not observed within wooded the portions of the 138kV/345kV Mill Creek Remediation Relocation Project Study Area.

# 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 as 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 138kV/345kV Mill Creek Remediation Relocation Study Area on October 12, 2018.

### 6.1.1 Wetlands and Waterways

One (1) stream was identified within the 138kV/345kV Mill Creek Remediation Relocation Project Area.

**Table 6-1 Features Identified within the 138kV/345kV Mill Creek Remediation Relocation Study Area**

| Feature Name | USGS/ NWI Identified | Feature Class | Regulatory Status[1] | Riffles / Pools | Dimensions (ft) | | Substrate | QHEI/ HHEI Score | Linear Footage (LF) | Acreage (AC) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Width | Depth | | | | |
| Stream 1 | Yes | Perennial | Jurisdictional | No | 45 | 1.5 | C-G-Si | 79 | 473 | 0.49 |
| **Totals** | | | **Streams** | | **Jurisdictional** | | **Perennial** | | **473 LF** | **0.49** |

[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. Correspondence received from USFWS and ODNR-DOW contain lists of the ETR species known to occur within Hamilton County and their potential to occur within the Study Area based on their habitat requirements and observations during the field survey (Appendix B).

### 6.1.3 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.

In the event tree clearing activity becomes a work priority within the Study Area, it is recommended that a field inspection be performed within the clearing limits to ensure that potential bat habitat has not developed.

The USFWS is the regulatory authority that makes the final determination as to the status of the Indiana Bat and Northern Long-eared Bat in the Study Area. A letter based on the field observations was submitted to the USFWS for concurrence on October 14, 2018 and results of

the USFWS was received on October 17, 2018. A copy of the agency response letters are located in Appendix B.

## 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.

# 7 References

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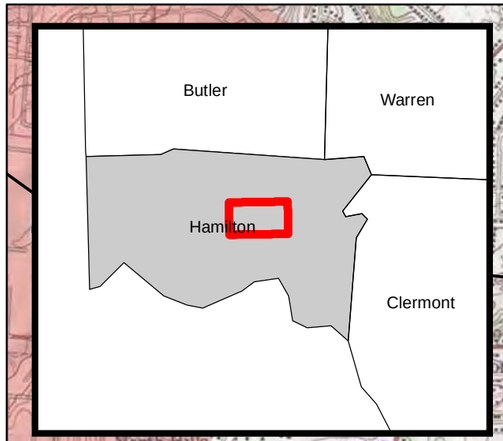
DUKE ENERGY OHIO
138kV/345kV MILL CREEK
REMEDIATION RELOCATION PROJECT

# FIGURES




Mill Creek Remediation Relocation Site

PROJECT LOCATION

HAMILTON COUNTY, OHIO

REFERENCE:
USGS 7.5' TOPOGRAPHIC QUADRANGLES: CINCINNATI EAST AND CINCINNATI WEST, OHIO. OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 10/2018

Interstate
State Highway
US Highway
Route Centerline
Railroad
NWI Wetland

DUKE ENERGY.
Cardno

0 500 1,000 2,000 Feet

FIGURE 1
REGULATED WATERS DELINEATION REPORT
138kV/345kV MILL CREEK
REMEDIATION RELOCATION

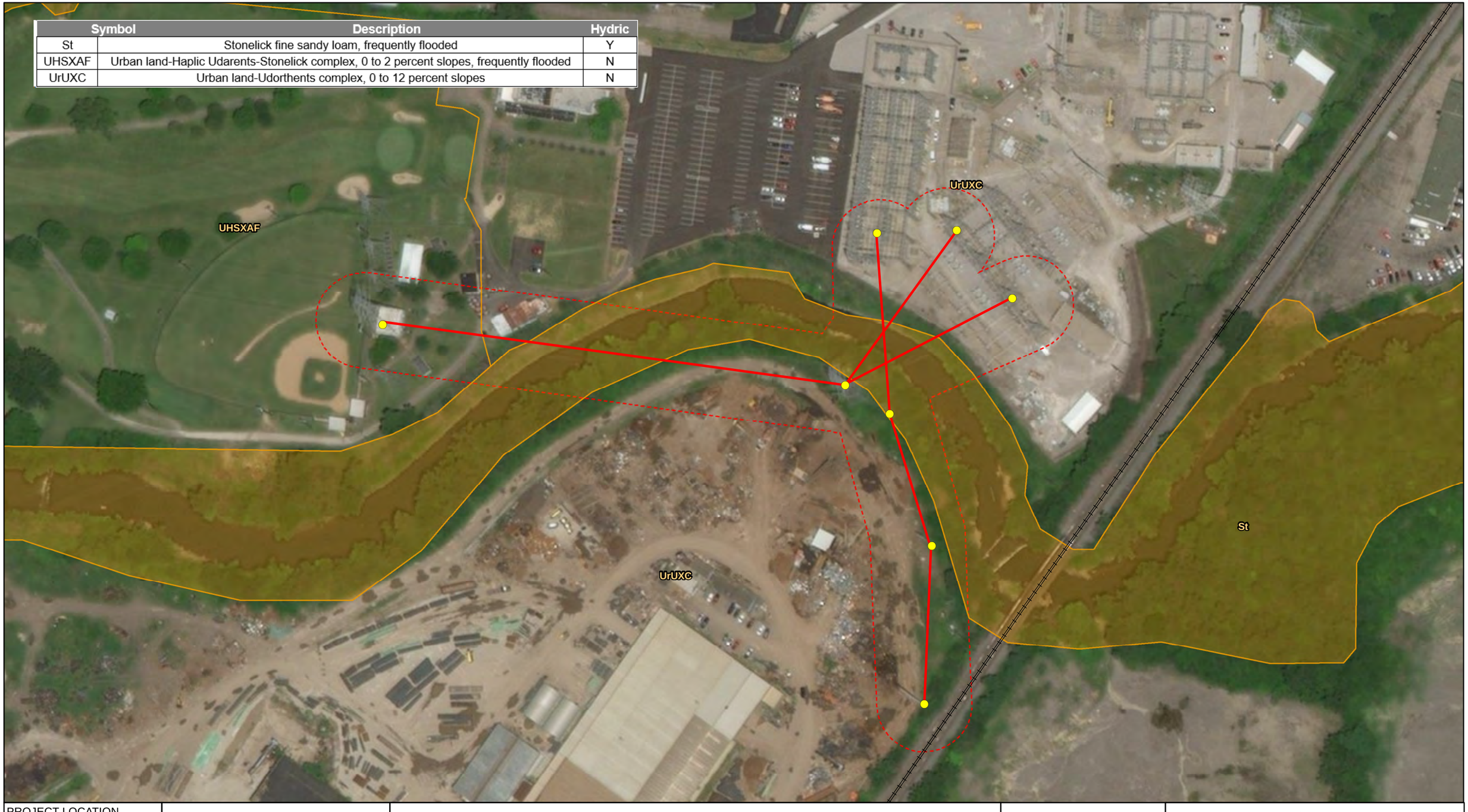
DUKE ENERGY OHIO

PROJECT VICINITY MAP

DRAWN BY: DKT DATE: 4/1/2019
CHECKED: CAJ APPROVED: MWW

\\cardno.corp\Global\US\Shared\CJFNProjects\Projects\15\156\156720M_DukeEnergy9193\M71_SOW32_Byer Steel_138kV345kV\GIS\MXD\Delineation\F1_WDR_Project Vicinity Map.mxd

| Symbol | Description | Hydric |
|---|---|---|
| St | Stonelick fine sandy loam, frequently flooded | Y |
| UHSXAF | Urban land-Haplic Udarents-Stonelick complex, 0 to 2 percent slopes, frequently flooded | N |
| UrUXC | Urban land-Udorthents complex, 0 to 12 percent slopes | N |




PROJECT LOCATION

HAMILTON COUNTY, OHIO

REFERENCE:
ESRI WORLD IMAGERY, OBTAINED THROUGH ESRI WORLD IMAGRY MICROSOFT CORPORATION, ACCESSED 10/2018

- Existing Structure
- Route Centerline
- Survey Area
- Interstate
- Railroad
- State Highway
- Soil Unit - Hydric
- US Highway
- Soil Unit

DUKE ENERGY.

Cardno

FIGURE 2
REGULATED WATERS DELINEATION REPORT
138kV/345kV MILL CREEK
REMEDIATION RELOCATION

DUKE ENERGY OHIO

SOIL SURVEY MAP

DRAWN BY: DKT DATE: 4/1/2019
CHECKED: DKT APPROVED: MWW

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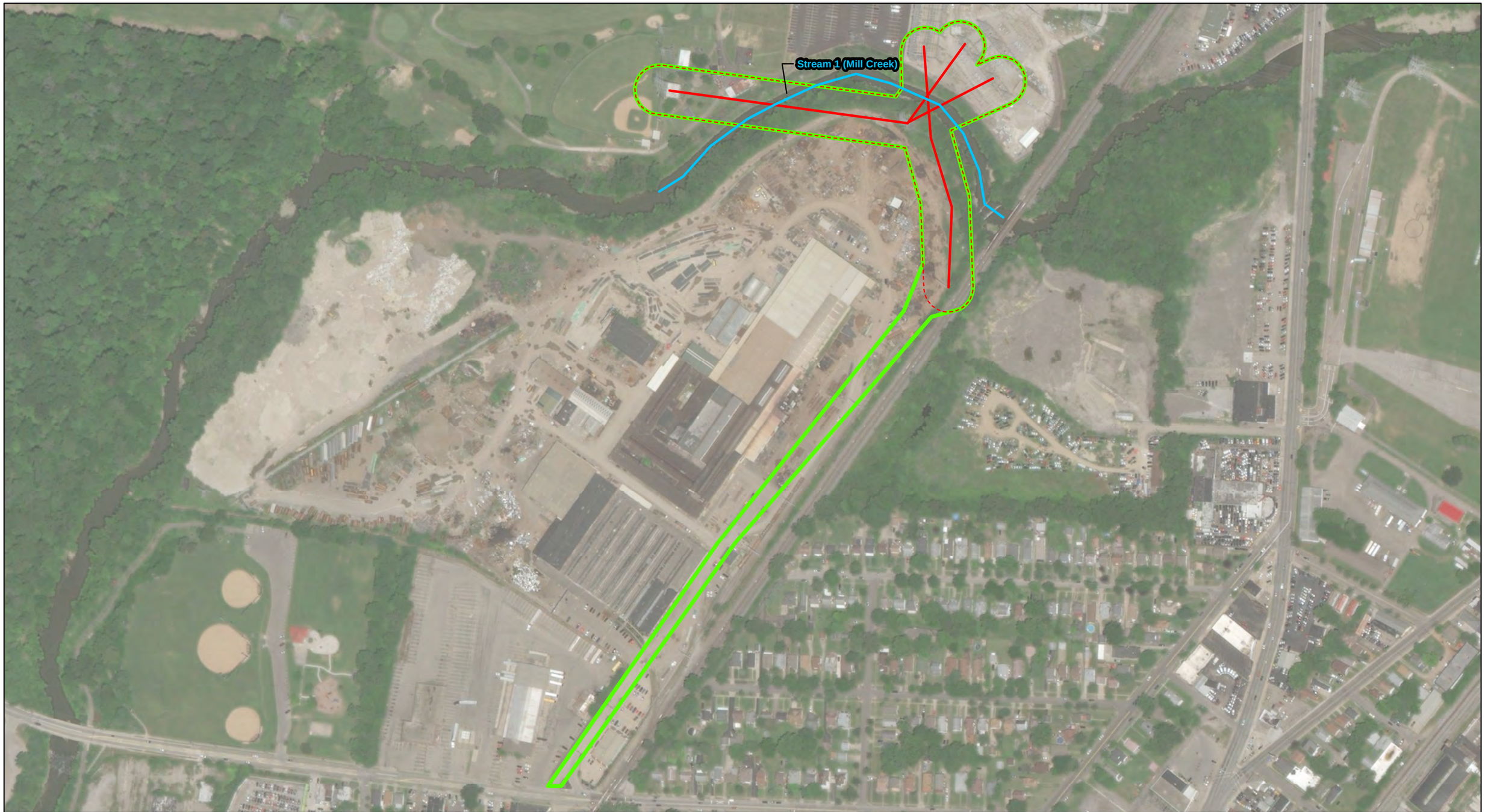


PROJECT LOCATION

HAMILTON COUNTY, OHIO

REFERENCE:
ESRI WORLD IMAGERY, OBTAINED THROUGH ESRI WORLD IMAGRY MICROSOFT CORPORATION, ACCESSED 10/2018

Stream

Route Centerline

Survey Area

Study Area

0 75 150 300 450 600 Feet

DUKE ENERGY

Cardno

FIGURE 3
REGULATED WATERS DELINEATION REPORT
138kV/345kV MILL CREEK
REMEDIATION RELOCATION

DUKE ENERGY OHIO

REGULATED WATERS DELINEATION

DRAWN BY: DKT DATE: 2/22/2019
CHECKED: CAJ APPROVED: MWW

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DUKE ENERGY OHIO
138kV/345kV MILL CREEK
REMEDIATION RELOCATION PROJECT

# APPENDIX

# A

## SITE PHOTOGRAPHS

Photo 1. Stream 1, Mill Creek, facing Upstream.

Photo 2. Stream 1, Mill Creek, facing Downstream.

Photo 3. Stream 1, Mill Creek, Stream Bed.

Photo 4. ROW Corridor, facing Northwest.

Project Number:
J156720M71

**Site Photographs**

**Duke Energy Ohio - 138kV/345kV Mill Creek**
**Remediation Relocation**
**City of Cincinnati, Hamilton County, Ohio**
**Regulated Waters Delineation**

Cardno
Shaping the Future

Photo 5. ROW Corridor, industrial vegetation, facing northwest.

Photo 6. ROW Corridor, proximity to Byer Steel operation, facing west.

Photo 7. Shed underneath Duke Structure 319.

Photo 8. Access point to Duke Structure 319.

DUKE ENERGY OHIO
138kV/345kV MILL CREEK
REMEDIATION RELOCATION PROJECT

APPENDIX

# B

## ENDANGERED, THREATENED, AND RARE SPECIES CORRESPONDENCE

**From:** Finfera, Jennifer
**To:** Danielle Thompson
**Subject:** uke Energy Byer Steel Line Improvement Project, Hamilton County, Ohio
**Date:** Wednesday, October 17, 2018 11:48:21 AM

---

TAILS# 03E15000-2019-TA-0123

Re: Duke Energy Byer Steel Line Improvement Project, Hamilton County, Ohio

Dear Ms. Thompson,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

FEDERALLY LISTED SPECIES COMMENTS: All projects in the State of Ohio lie within the range of the federally endangered **Indiana bat** (*Myotis sodalis*) and the federally threatened **northern long-eared bat** (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed 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 travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags =3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) 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 and abandoned mines.

You have indicated that if tree clearing is required, the trees will be cleared between October 1 and March 31. Seasonal clearing will avoid adverse effects to Indiana bats and northern long-eared bats.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the Endangered Species Act (ESA), between the Service and the federal action agency, is completed. We recommend

that 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.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, 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, consultation with the Service should be initiated to assess any potential impacts.

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.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

If you have questions, or if I can be of further assistance in this matter, please contact me.

Sincerely,

Jenny Finfera

--
Jenny Finfera
Wildlife Biologist
Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230

Phone: 614-416-8993 ext.13
Fax: 614-416-8994

Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR JAMES ZEHRINGER, DIRECTOR

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

December 5, 2018

Danielle Thompson
Cardno
11121 Canal road
Cincinnati, Ohio 45241

**Re:** 18-1116; Duke Energy TOH2145 - 138kV 345 KV Byer Steel, Rare Threatened and Endangered Species Consultation

**Project:** The proposed project involves the removal and replacement of approximately 0.4 miles of existing transmission line.

**Location:** The proposed project is located in Cincinnati, 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:

Mixed mesophytic forest plant community
Oak maple forest plant community
Caldwell Park – City of Cincinnati Parks
Mill Creek Conservancy – Mill Creek Conservancy

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. Additional comments on some of the features may be found in pertinent sections below.

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.

**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 project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between May 15 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the sheepnose (*Plethobasus cyphyus*), a state endangered and federally endangered mussel, the fanshell (*Cyprogenia stegaria*), a state endangered and federally endangered mussel, the pink mucket (*Lampsilis orbiculata*), a state endangered and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel, the snuffbox (*Epioblasma triquetra*), a state endangered and federally endangered mussel, the ebonyshell (*Fusconaia ebena*), a state endangered mussel, the long-solid (*Fusconaia maculata maculata*), a state endangered mussel, the butterfly (*Ellipsaria lineolata*), a state endangered mussel, the washboard (*Megalonaias nervosa*), a state endangered mussel, the elephant-ear (*Elliptio crassidens crassidens*), a state endangered mussel, the Ohio pigtoe (*Pleurobema cordatum*), a state endangered mussel, the monkeyface (*Quadrula metanevra*), a state endangered mussel, the wartyback (*Quadrula nodulata*), a state endangered mussel, the black sandshell (*Ligumia recta*), a state threatened mussel, the fawnsfoot (*Truncilla donaciformis*), a state threatened mussel, and the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the shortnose gar (*Lepisosteus platostomus*), a state endangered fish, the shoal chub (*Macrhybopsis hyostoma*), a state endangered fish, the shovelnose sturgeon (*Scaphirhynchus platorynchus*), a state endangered fish, the lake sturgeon (*Acipenser fulvescens*), a state endangered fish, the northern madtom (*Noturus stigmosus*), a state endangered fish, the bigeye shiner (*Notropis boops*) a state threatened fish, the mountain madtom (*Noturus eleutherus*), a state threatened fish, the river darter (*Percina shumardi*) a state threatened fish, the channel darter (*Percina copelandi*), a state threatened fish, the blue sucker (*Cycleptus elongatus*), a state threatened fish, and the paddlefish (*Polyodon spathula*) a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these 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 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 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 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 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. Due to the location, the type of habitat present at the project site, and the type of work proposed, 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. Due to the location, the type of habitat present at the project site, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Sloan's crayfish (*Orconectes sloanii*), a state threatened species. Due to the location, and that there is no in-water work proposed, this project is not likely to impact 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 John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

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DUKE ENERGY OHIO
138kV/345kV MILL CREEK
REMEDIATION RELOCATION PROJECT

# APPENDIX

# A

## SITE PHOTOGRAPHS

DUKE ENERGY OHIO
138kV/345kV MILL CREEK
REMEDIATION RELOCATION PROJECT

APPENDIX

# B

## ENDANGERED, THREATENED, AND RARE SPECIES CORRESPONDENCE