CONSTRUCTION NOTICE FOR THE

Duke Energy Ohio, Inc. Zimmer Substation Separation Project

PUCO Case No. 19-1469-EL-BNR

Submitted to:

The Ohio Power Siting Board
Pursuant to OAC 4906-06

Submitted by:

Duke Energy Ohio, Inc.

August 2019



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ATTACHMENTS

Attachment A – Figures

Attachment B – State Listed Species for Clermont County

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 Duke Energy Ohio Zimmer Substation Separation Project (Project). The following section corresponds to the administrative code sections for the requirements of a Construction Notice.

4906-6-05(B) GENERAL INFORMATION

4906-6-05 B(1) Project Description

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

Name of Project:

Duke Energy Ohio Zimmer Substation Separation Project

Reference Numbers:

PUCO Filing Number: The Project has been assigned Public Utilities Commission

of Ohio (PUCO) Case Number 19-1469-EL-BNR.

PJM Number: This Project is a PJM Supplemental Project and was

assigned project number s0907.

2019 LTFR: The requirement to file on this Project was not known at the

time of Duke Energy Ohio's filing of the 2019 Long-Term Forecast Report (LTFR). As such, it was not included and

no reference can be provided.

Circuit Reference: This is not assigned as a transmission circuit within Duke

Energy Ohio and is a substation asset. No circuit number or

name is available.

Brief Description of the Project:

Duke Energy Ohio proposes to install a new steel monopole on a concrete foundation within the William H. Zimmer Generating Station to establish a new substation bus tie using new conductor to the existing generation station equipment and Duke Energy Ohio's Zimmer Substation. The new 345-kilovolt (kV) tie is needed to reconnect the generation station to the substation to provide increased security and operational separation for Duke Energy Ohio, required due to the sale of the generation station assets to a third party. The Project is located in Washington Township near the village of Moscow, within Clermont County, Ohio, at the existing William H. Zimmer Generating Station site.

Construction Notice Requirement:

This Project qualifies as a Construction Notice filing because it meets the requirements of OAC 4906-1-01, Appendix A, item (1)(a), *Application Requirement Matrix for Electric Power Transmission Lines*:

 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:

(a) Line(s) not greater than 0.2 miles in length.

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

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

The new tie and monopole structure are needed to reconnect the generation station to the substation to provide increased security and operational separation for Duke Energy Ohio, required due to the sale of the generation station assets to a third party. Moving this connection from the current configuration is required to increase Duke Energy Ohio's security of assets.

4906-6-05 B(3) Project Location

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

The location of the Project in relation to existing transmission lines and substations is shown on Figures 1 to 5 in Attachment A – Figures.

4906-6-05 B(4) Alternatives Considered

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

The location was selected by Duke Energy Ohio based on its being the shortest route for the line and in order to maintain access to existing assets without having to affect the substation of a third-party. The alignment will place the structure at the proper angle to the take-off structure within the existing substation. All route options had minimal impacts on ecological resources, as it is within a previously disturbed area consisting of an asphalt parking area and the manicured lawn within the generating station.

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

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

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. Duke Energy Ohio is working with the generating station on timeframe and will provide written notice prior to installing structure and conductor.

4906-6-05 B(6) Construction Schedule

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

Installation of the steel monopole and the conductor is planned during an outage in September 2019, pending approval of this Construction Notice. The foundation has already been installed, prior to the Company's awareness that this Application was required. The Project is anticipated to be completed and in service by December 2019.

4906-6-05 B(7) Area Map

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

Figures 1 and 2 in Attachment A – Figures provide an United States Geological Survey (USGS) quadrangle topographic map and aerial map of the existing and proposed facilities at 1:24,000.

4906-6-05 B(8) Property Agreements

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

This Project is located within the existing generation station site owned now by Dynegy Zimmer LLC. Duke Energy Ohio has existing agreements in place with Dynegy to install this Project and continue operating from this substation on Parcel ID 443303A005.

4906-6-05 B(9) Technical Features

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

Duke Energy Ohio proposes to install a steel monopole to establish a new 345-kV substation bus tie using new conductor to the existing generation station equipment and Duke Energy Ohio's Zimmer Substation. The steel monopole will be 145 feet in height on a concrete foundation. The length on the new conductor will be approximately 500 linear feet.

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

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

Voltage: 345 kV

Structure Type: Steel monopole with concrete foundation

Conductors: 7#8 alumoweld static, 2156 ACSR 84X19 Bundled conductor (2

conductors per phase)

Insulators: 345-kV glass dead end insulators, and 345-kV glass suspension

insulators

ROW: Easement

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

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

4906-6-05 B(9)(b)(i) Calculated Electric and Magnetic Field Levels

Calculated electric and magnetic field strength levels at one meter above ground under the lowest conductors and at the edge of the right-of-way.

No occupied residences or institutions are located within 100 feet of the proposed Project; therefore, no Electric and Magnetic Field (EMF) calculations are required by this code provision.

4906-6-05 B(9)(b)(ii) Design Alternatives for EMF

A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

No occupied residences or institutions are located within 100 feet of the proposed Project; therefore, no design alternatives were considered for the Project.

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

The estimated capital cost of the project.

The estimated capital cost of the Project is \$500,000.

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

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

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

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

The Project is located within Washington Township near the township border with Monroe Township within Clermont County. Washington Township does not currently have a land use plan, but the Project is located within a developed area of the generation station. The village of Moscow is to the south of the existing station. On the other side of State Route 52 it is mostly forested lands.

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

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

There is an area directly south of generation station property that has been historically farmed. There will be no impact to this area as part of the Project.

4906-6-05 B(10)(c) Archaeological and Cultural Resources

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

A review of the Ohio History Connection online GIS database was conducted on July 18, 2019, for the area within 1,000 feet of the Project. No cultural or historic resources were identified within 1,000 feet of the Project. Refer to Figure 3 within Attachment A – Figures for this review.

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

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

No other local, state or federal permit or other authorizations are required for the Project.

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

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

The United States Fish and Wildlife Service (USFWS) Federally Endangered, Threatened, Candidate Species, and Species of Concern in Ohio by County April 2018 (https://www.fws.gov/midwest/ohio/EndangeredSpecies/pdf/SpeciesListByCountyApril2018.pdf) was reviewed to determine the federally listed species within Clermont County.

The USFWS lists Indiana bat (E), northern long-eared bat (T), running buffalo clover (E), fanshell (E), pink mucket pearly mussel (E), rayed bean (E), sheepnose (E), snuffbox (E), and bald eagle (SC), were on this list of species for Clermont County.¹

The Project is within range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*). No tree clearing activities are required for the construction of this Project. As such, the Project is not likely to impact either of these species.

Running buffalo clover (*Trifolium stoloniferum*) habitat is not conducive to full-sun, significantly disturbed areas, or manicured lawns, all are present on the Project site for the structure location. Due to the absence of potential habitat and the minor activities of the Project, impacts to running buffalo clover are unlikely.

There are no streams present within the Project site and no instream work related to this Project. Therefore, there will be no impacts to fanshell (*Cyprogenia stegaria*), pink mucket pearly mussel (*Lampsilis abrupta*), rayed bean (*Villosa fabalis*), sheepnose (*Plethobasus cyphyus*), and snuffbox (*Epioblasma triquetra*). The one stream shown on the attached Figure 4 is a GIS layer (National Hydrography Dataset; NHD), however this stream is not present within the entire generation station or the substation. The NHD GIS layer is deemed not to be an accurate depiction of the current conditions within the Project site.

No bald eagle (*Haliaeetus leucocephalus*) nests have been identified near the Project. Impacts to this species are unlikely.

Ohio Department of Natural Resource (ODNR) state-listed species lists are included in Attachment B – State Listed Species for Clermont County. Due to the nature and location of the work for the Project, no impacts to these species are anticipated.

¹ (E) Endangered, (T) Threatened, and (SC) Species of Concern

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

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

Figure 4 is a map showing National Wetlands Inventory (NWI) wetlands, National Hydrography Dataset (NHD), and Federal Emergency Management Agency (FEMA) floodplains and floodways information. The Project site is located outside of the floodway and within Zone AE designated by FEMA; this designation indicates a 1-percent annual chance flood is also referred to as the base flood or 100-year flood. The Natural Resources Conservation Service (NRCS) Web Soil Survey does not identify any hydric properties with the soils within the Project site (see Figure 5 in Attachment A – Figures). The Project site is located within an existing generation station that has been previously disturbed. The proposed activities are adjacent to and within asphalt parking areas and manicured lawns; therefore, there is no anticipated impact to wetlands, streams, wildlife areas, or other areas of ecological concern as a result of this Project.

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

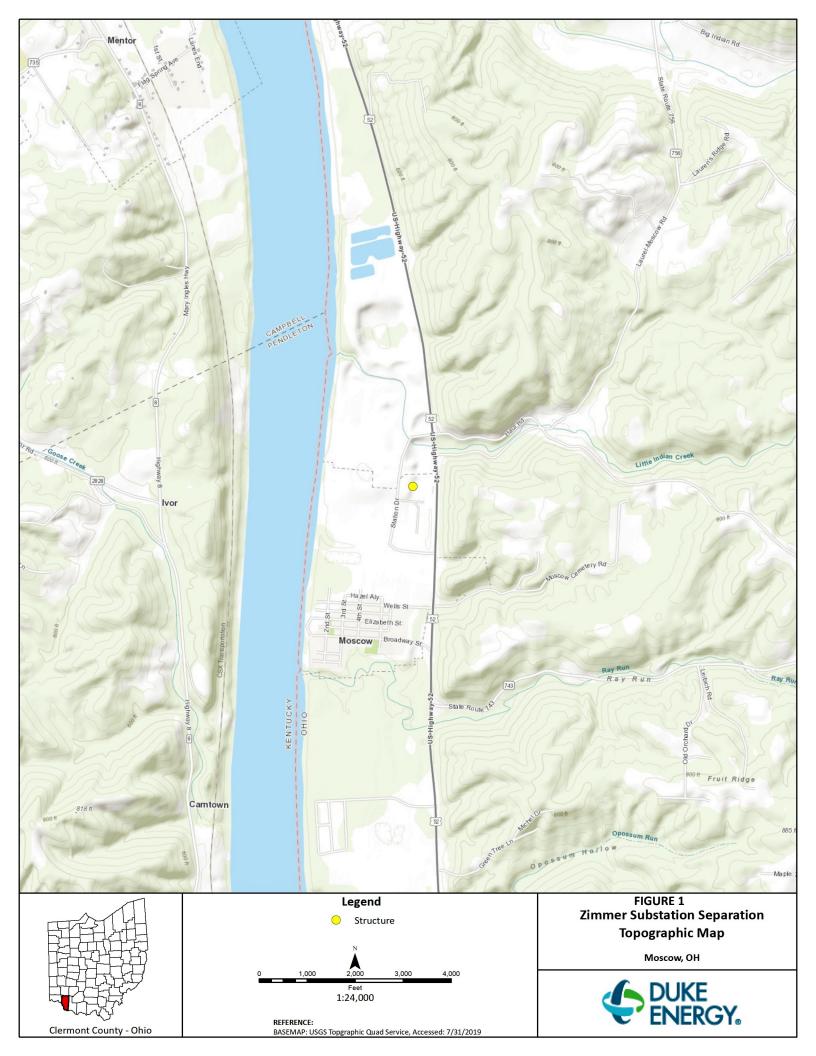
Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

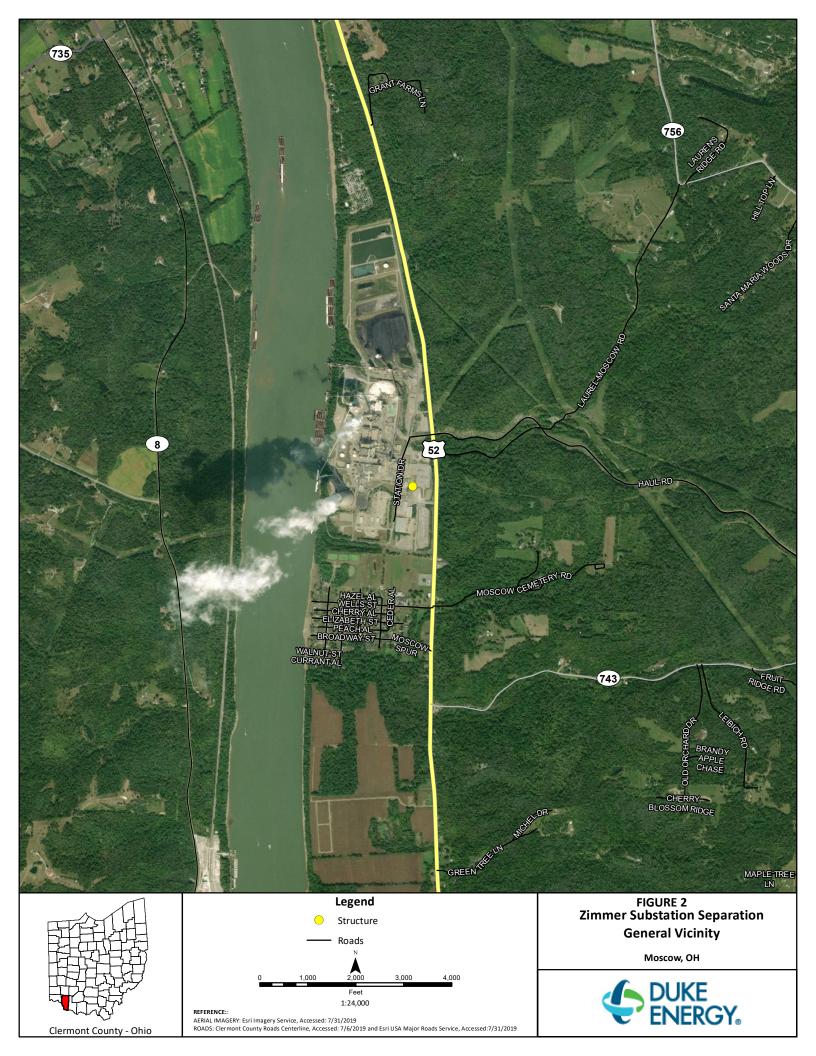
To the best of Duke Energy Ohio's knowledge, no unusual conditions exist that would result in environmental, social, health, or safety impacts. Construction and operation of the proposed Project will meet all applicable safety standards established by the Occupational Safety and Health Administration,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

4906-6-07: DOCUMENT OF CONSTRUCTION NOTICE TRANSMITTAL AND AVAILABILITY FOR PUBLIC REVIEW

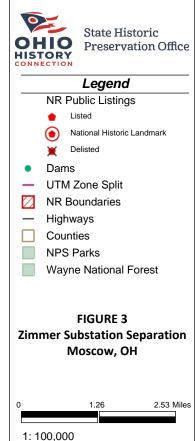
Copies of the Construction Notice have been sent to the appropriate public officials for Clermont County and Washington Township, as well as to the Clermont County Public Library.

Attachment A – Figures









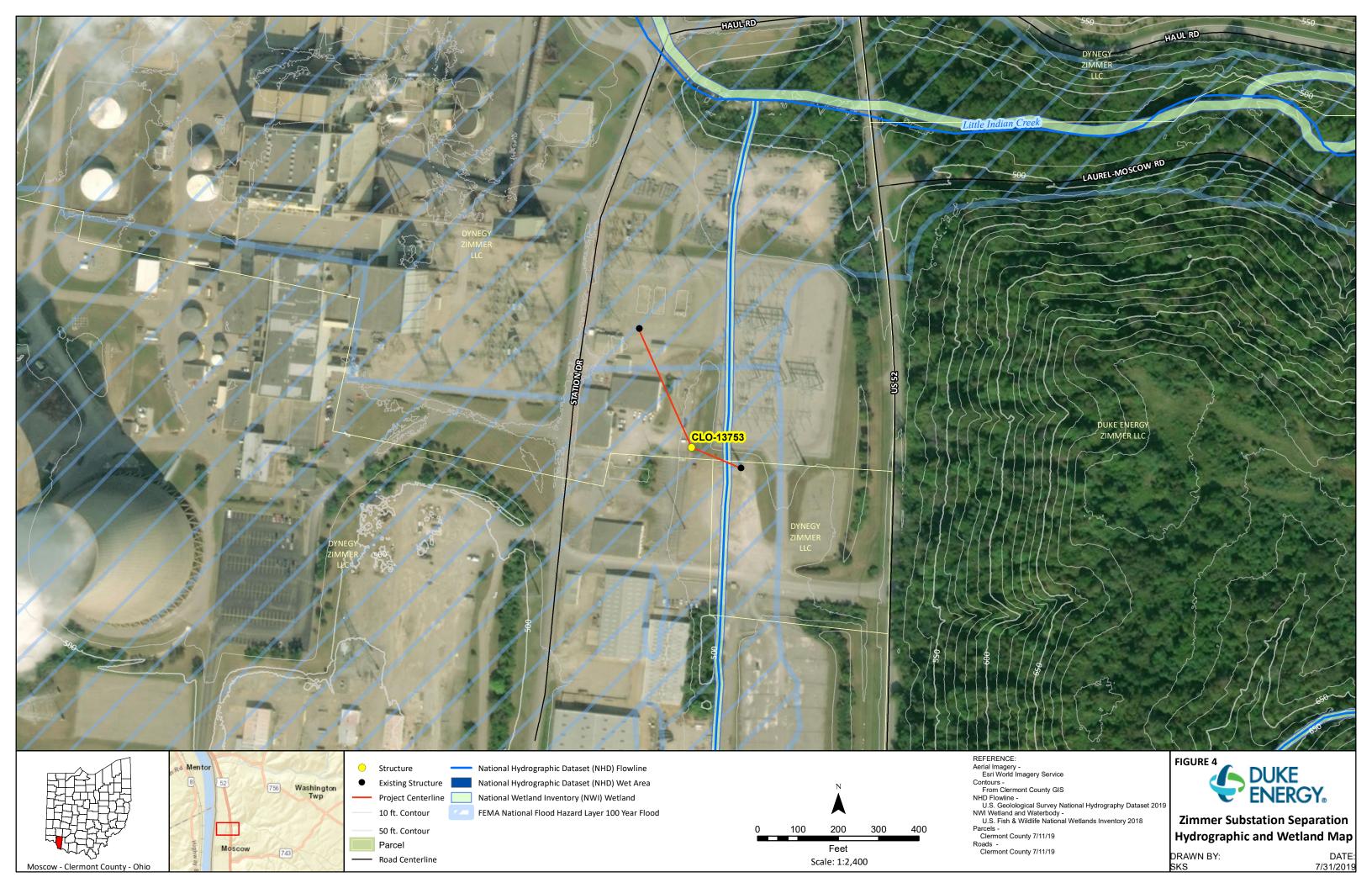
Copyright/Disclaimer

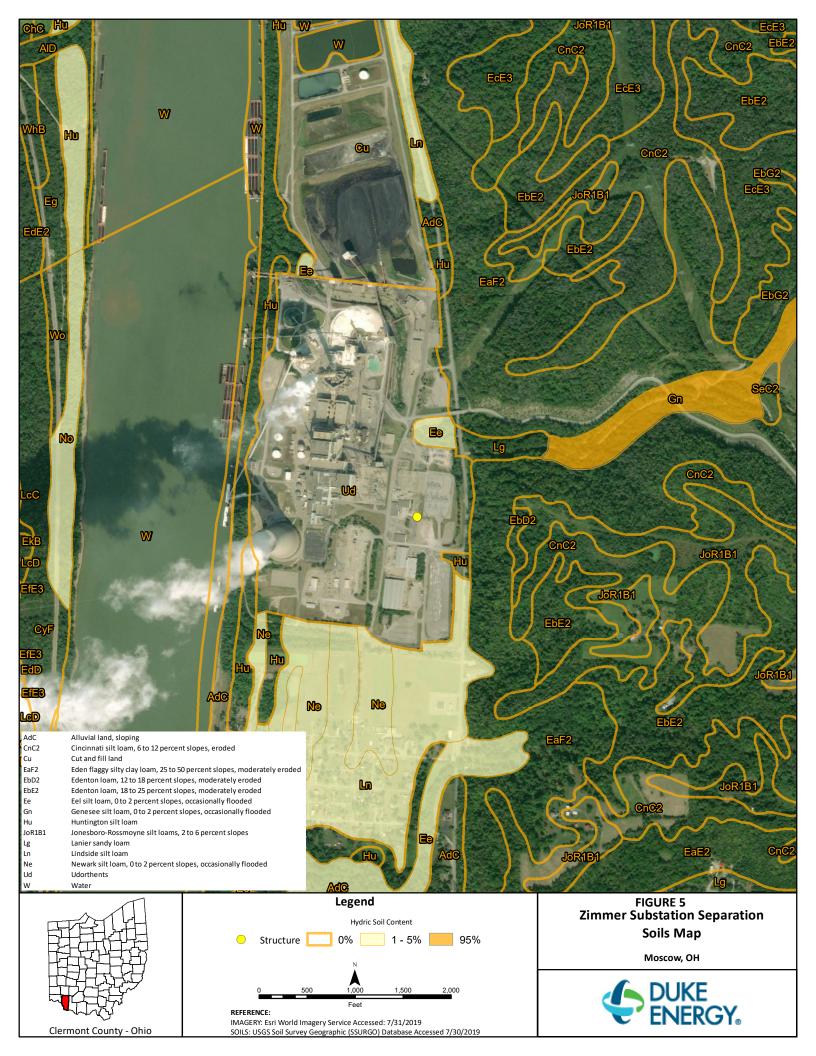
This map is a user generated static output from an Internet mapping site and is for generalThis map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary _Sphere











1: 100,000

Copyright/Disclaimer

1.26

2.53 Miles

This map is a user generated static output from an Internet mapping site and is for generalThis map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary _Sphere





CLERMONT COUNTY

State Status	Federal Status	County	Category	Species	CommonName	Sensitive Species	Most Recent Record	FWS
Endangered		Clermont	Fish	Lepisosteus platostomus	Shortnose Gar	No	2010	
Endangered		Clermont	Fish	Noturus stigmosus	Northern Madtom	No	1998	
Endangered		Clermont	Invert fw bivalve	Ellipsaria lineolata	Butterfly	No	1984	
Endangered	Endangered	Clermont	Invert fw bivalve	Cyprogenia stegaria	Fanshell	No		*
Endangered	·	Clermont	Invert fw bivalve	Elliptio crassidens crassidens	Elephant-ear	No	1986	
Endangered	Endangered	Clermont	Invert fw bivalve	Epioblasma triquetra	Snuffbox	No	1991	
Endangered		Clermont	Invert fw bivalve	Fusconaia ebena	Ebonyshell	No	1985	
Endangered		Clermont	Invert fw bivalve	Fusconaia maculata maculata	Long-solid	No	1909	
Endangered	Endangered	Clermont	Invert fw bivalve	Lampsilis abrupta	Pink Mucket	No		*
Endangered		Clermont	Invert fw bivalve	Lampsilis teres	Yellow Sandshell	No	1909	
Endangered		Clermont	Invert fw bivalve	Megalonaias nervosa	Washboard	No	1994	
Endangered	Endangered	Clermont	Invert fw bivalve	Plethobasus cyphyus	Sheepnose	No	1984	*
Endangered	•	Clermont	Invert fw bivalve	Pleurobema cordatum	Ohio Pigtoe	No	1985	
Endangered		Clermont	Invert fw bivalve	Quadrula metanevra	Monkeyface	No	1985	
Endangered		Clermont	Invert fw bivalve	Quadrula nodulata	Wartyback	No	2007	
Endangered	Endangered	Clermont	Invert fw bivalve	Villosa fabalis	Rayed Bean	No	1990	
Endangered	3	Clermont	Invert fw bivalve	Villosa lienosa	Little Spectaclecase	No	1995	
Endangered	Endangered	Clermont	Mammal	Myotis sodalis	Indiana Myotis	Yes	2013	
Threatened		Clermont	Fish	Notropis boops	Bigeye Shiner	No	2004	
Threatened		Clermont	Fish	Noturus eleutherus	Mountain Madtom	No	2008	
Threatened		Clermont	Fish	Percina copelandi	Channel Darter	No	2009	
Threatened		Clermont	Fish	Percina shumardi	River Darter	No	2013	
Threatened		Clermont	Invert fw bivalve	Ligumia recta	Black Sandshell	No	1984	
Threatened		Clermont	Invert fw bivalve	Obliquaria reflexa	Threehorn Wartyback	No	2007	
Threatened		Clermont	Invert fw bivalve	Truncilla donaciformis	Fawnsfoot	No	2007	
Threatened		Clermont	Mammal	Reithrodontomys humulis	Eastern Harvest Mouse	No	1956	
Tilleaterieu		Cleffiont	iviaminai	Retiffodontomys numuis	Lasterri Harvest Wouse	140	1930	
Species of Concern		Clermont	Amphibian - Frog / Toad	Acris crepitans crepitans	Eastern Cricket Frog	No	1998	
Species of Concern		Clermont	Fish	Esox masquinongy	Muskellunge	No	2010	
Species of Concern		Clermont	Fish	Moxostoma carinatum	River Redhorse	No	2010	
Species of Concern		Clermont	Fish	Moxostoma carinatum	River Redhorse	No	2013	
Species of Concern		Clermont	Invert fw bivalve	Alasmidonta marginata	Elktoe	No	2007	
Species of Concern		Clermont	Invert fw bivalve	Cyclonaias tuberculata	Purple Wartyback	No	1984	
Species of Concern		Clermont	Invert fw bivalve	Lampsilis fasciola	Wavy-rayed Lampmussel	No	1990	
Species of Concern		Clermont	Invert fw bivalve	Pleurobema sintoxia	Round Pigtoe	No	1985	
Species of Concern		Clermont	Invert fw bivalve	Simpsonaias ambigua	Salamander Mussel	No	1973	
Species of Concern		Clermont	Invert fw bivalve	Truncilla truncata	Deertoe	No	2007	
Species of Concern		Clermont	Mammal	Eptesicus fuscus	Big Brown Bat	No	2013	
Species of Concern		Clermont	Mammal	Lasionycteris noctivagans	Silver-haired Bat	No	1939	
Species of Concern		Clermont	Mammal	Lasiurus borealis	Red Bat	No	2013	
Species of Concern		clermont	Mammal	Lasiurus cinereus	Hoary Bat	No	2013	
Species of Concern		Clermont	Mammal	Microtus ochrogaster	Prairie Vole	No	1974	
Species of Concern		Clermont	Mammal	Microtus pinetorum	Woodland Vole	No	1977	
Species of Concern		clermont	Mammal	Myotis lucifugus	Little Brown Bat	No	2013	
Species of Concern	Threatened	Clermont	Mammal	Myotis septentrionalis	Northern Long-eared Bat	No	2013	
Species of Concern		Clermont	Mammal	Perimyotis subflavus	Tri-colored Bat	No	2013	
Species of Concern		Clermont	Mammal	Peromyscus maniculatus	Deer Mouse	No	1964	
Species of Concern		Clermont	Mammal	Synaptomys cooperi	Southern Bog Lemming	No	1971	
Species of Concern		Clermont	Reptile - Turtle	Terrapene carolina carolina	Eastern Box Turtle	No	2012	
Special Interest		Clermont	Mammal	Nycticeius humeralis	Evening Bat	No	2013	
Extirpated		Clermont	Invert fw bivalve	Actinonaias ligamentina ligamentina	Mucket	No	1909	
Extinct		Clermont	Invert fw bivalve	Epioblasma flexuosa	Leafshell	No	1900	

Clermont County

	0.0			
DIVISION OF WILDLIFE			State	Federal
Scientific Name	Common Name	Last Observed	Status	Status
Agrostis elliottiana	Elliott's Bent Grass	2012-05-19	Е	
Aronia arbutifolia	Red Chokeberry	2003-11-15	Е	
Baptisia australis	Blue False Indigo	2007-07-27	Е	
Bartonia paniculata	Screw-stem	2011-10-05	Т	
Botrychium biternatum	Sparse-lobed Grape Fern	1980-08-26	Е	
Celtis laevigata	Sugarberry	2007-07-23	Е	
Corallorhiza wisteriana	Spring Coral-root	2004-04-29	Р	
Krigia dandelion	Potato-dandelion	2009-05-23	Т	
Luzula bulbosa	Southern Woodrush	1990-06-16	Р	
Paspalum repens	Riverbank Paspalum	2005-10-05	Т	
Phacelia bipinnatifida	Fern-leaved Scorpion-weed	2007-04-02	Р	
Potamogeton natans	Floating Pondweed	1991-07-31	Р	
Ranunculus pusillus	Low Spearwort	2010-05-14	Т	
Ribes missouriense	Missouri Gooseberry	2002-04-25	Т	
Rubus trivialis	Southern Dewberry	2006-06-11	Ε	
Salix caroliniana	Carolina Willow	2004-08-21	Р	
Sida hermaphrodita	Virginia-mallow	2009-09-03	Р	
Silene nivea	Snowy Campion	2006-06-18	Ε	
Solidago speciosa	Showy Goldenrod	2012-10	Р	
Spermacoce glabra	Smooth Buttonweed	2005-10-05	Р	
Trifolium stoloniferum	Running Buffalo Clover	2000-05-29	Ε	FE
Trillium recurvatum	Prairie Wake-robin	2009-05-23	Р	
Viburnum rufidulum	Southern Black-haw	1989-10-04	Р	



Clermont County

Scientific Name Common Name Last Observed Status Status

State

Federal

DIVISION OF WILDLIFE

Ohio Division of Wildlife
Ohio Natural Heritage Database
Date Accessed: March 6, 2015

Status based on 2014-15 Rare Plant List.

Status:

X = Extirpated

E = Endangered

T = Threatened

P = Potentially Threatened

List Created: July 2016