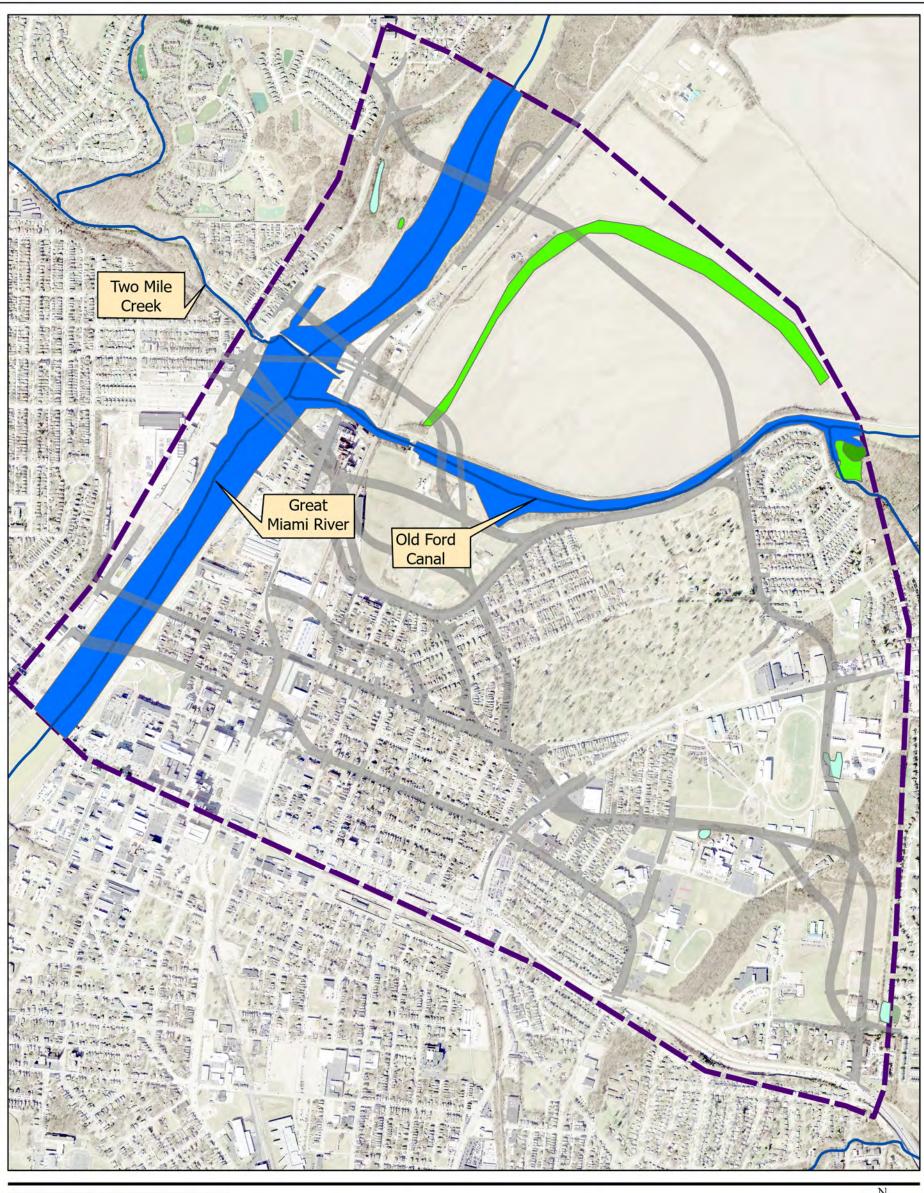
# **Attachment C**

# Environmental Mapping

- Ecological Resource Mapping
- Threatened and Endangered Species Information
- Land and Water Conservation Funded (LWCF) Properties

**Environmental Mapping** 





#### Legend **Streams** Streams Study Area Wetlands Freshwater Emergent Wetland Freshwater Forested/Shrub Wetland

Freshwater Pond

Riverine

#### Proposed Alignments

Proposed Alignments

Study Area

Study Area





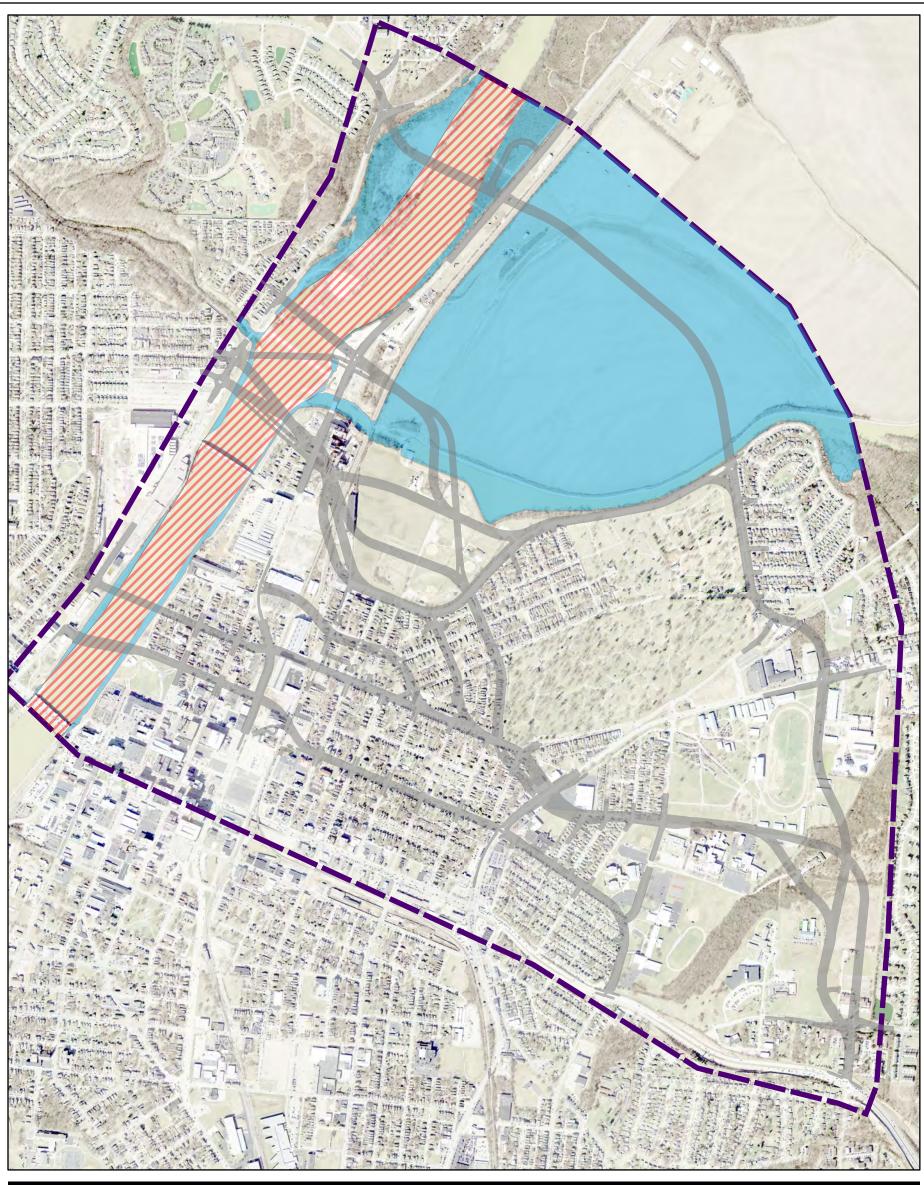


Prepared by RG on 2022-10-27 173620130 North Hamilton Crossing (NHX) PID 115755 Feasibility Study

Figure No.

C-1

Streams and Wetlands Map





Legend

FEMA Floodplain

FLOODPLAIN FLOODWAY

Proposed Alignments

Proposed Alignments

Study Area

Study Area



1,000 Feet size of 11x17)



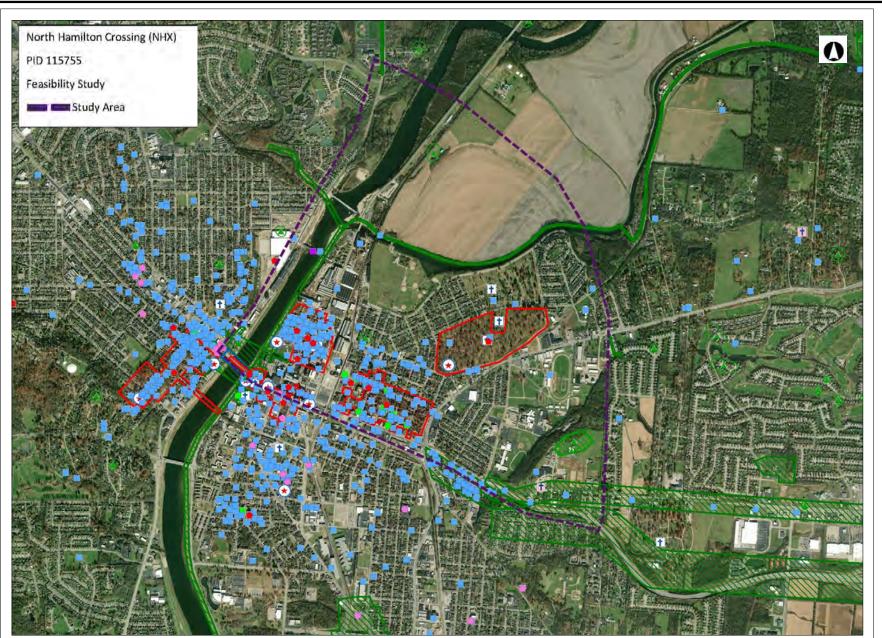
Project Location
City of Hamilton
Butler County, Ohio

Cilent/Project
North Hamilton Crossing (NHX)
PID 115755
Feasibility Study

Figure No.

Title

**FEMA National Flood Hazard Layer Map** 





#### Legend

NR Listings

Listed

National Historic Landmark

Delisted

Determinations of Eligibility

o DOE

✓ Demolished

Archaeological Sites

Historic Structures

Historic Bridges

Historic Tax Credit Projects

 Local Designations OGS Cemeteries

† Confident

Not Confident

Historic Markers

Dams

UTM Zone Split

NR Boundaries
Local Districts

OAI Site Boundaries

Previously Surveyed Areas

Phase 1

Phase 2

Mistoric Previously Surveyed

Highways

Counties

0.6 Miles

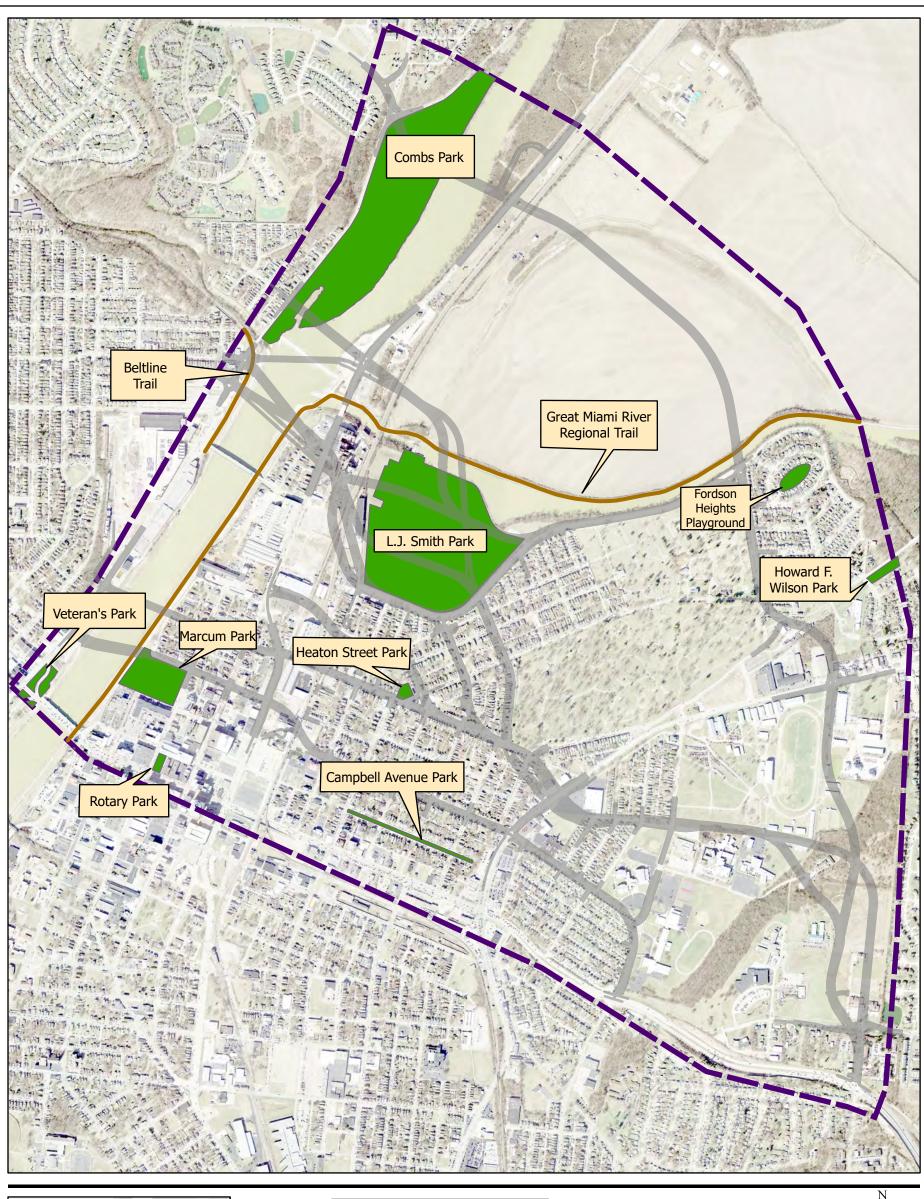
1: 25,000 Attachment C-3

Copyright/Disclaimer

This map is a user generated static output from an Internet mapping site and is for general This map is a user generated static output from an Internet mapping site and is for generated 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.

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sp here







# Legend

<u>Trails</u>

Trails

<u>Parks</u>

Parks

**Proposed Alignments** 

Proposed Alignments

Study Area

Study Area







Project Location
City of Hamilton
Butler County, Ohio

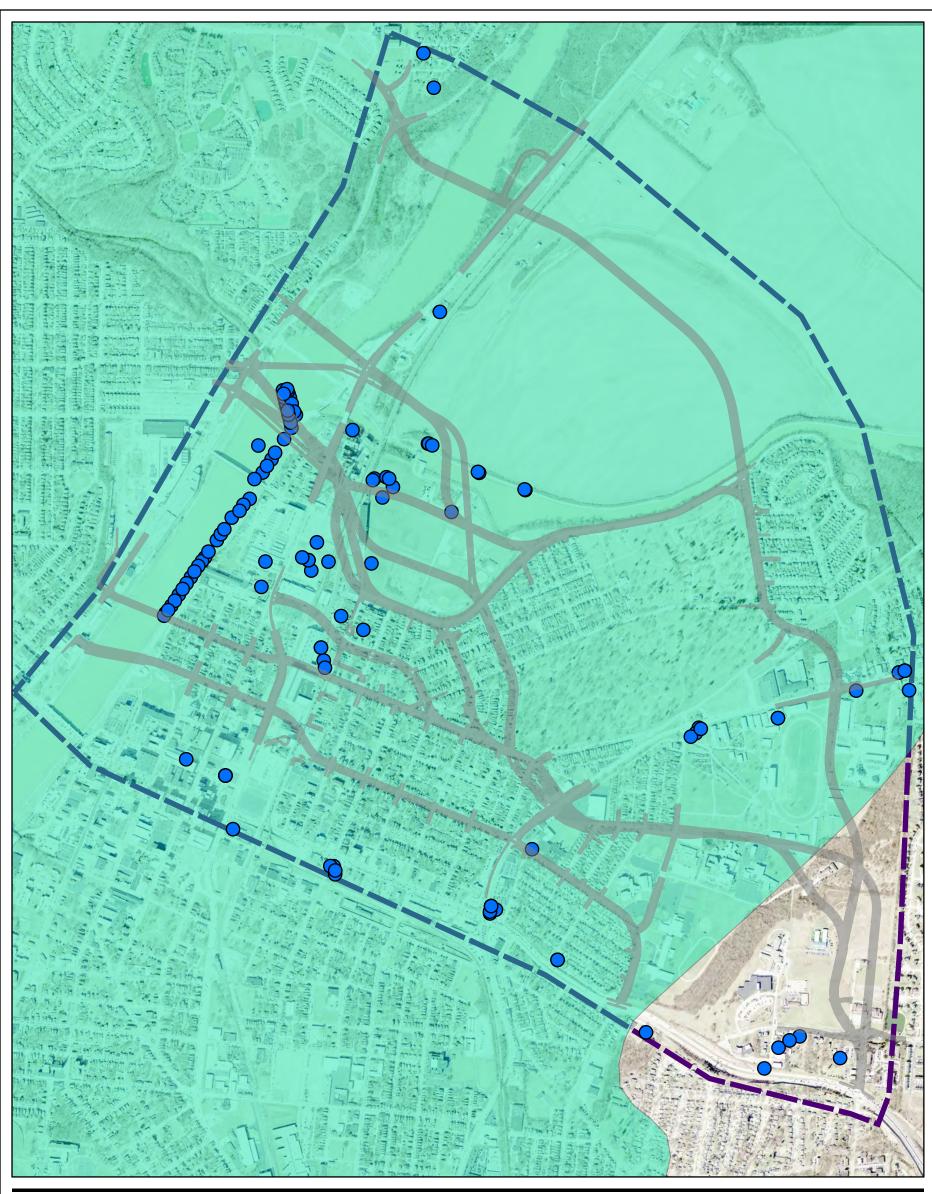
Prepared by RG on 2022-10-27

North Hamilton Crossing (NHX) PID 115755 Feasibility Study

173620130

Figure No. C-4

**Known and Potential Section 4(f) Properties Map** 





## Legend

**ODNR Water Wells** 

ODNR Water Wells

Sole Source Aquifers

Sole Source Aquifers

**Proposed Alignments** 

Proposed Alignments

Study Area Study Area

500 1,000 (At original document size of 11x17) 1:13,000



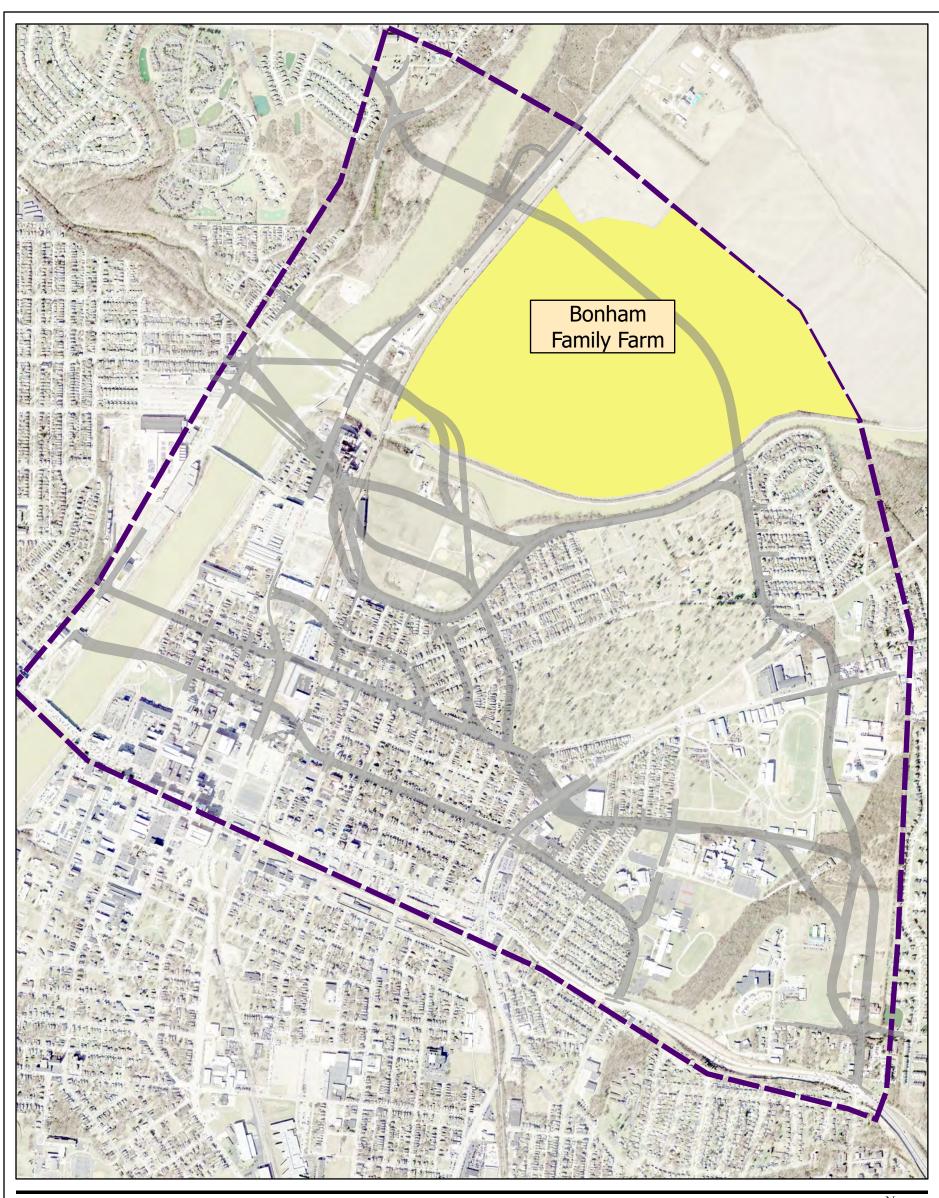


Prepared by RG on 2022-10-27 173620130 North Hamilton Crossing (NHX) PID 115755 Feasibility Study

Figure No.

C-5

**Sole Source Aquifer and Water Wells Map** 





#### Legend

<u>Farmland</u>

Farmland

Proposed Alignments

Proposed Alignments

Study Area

Study Area



(At original document size of 11x17) 1:13,000

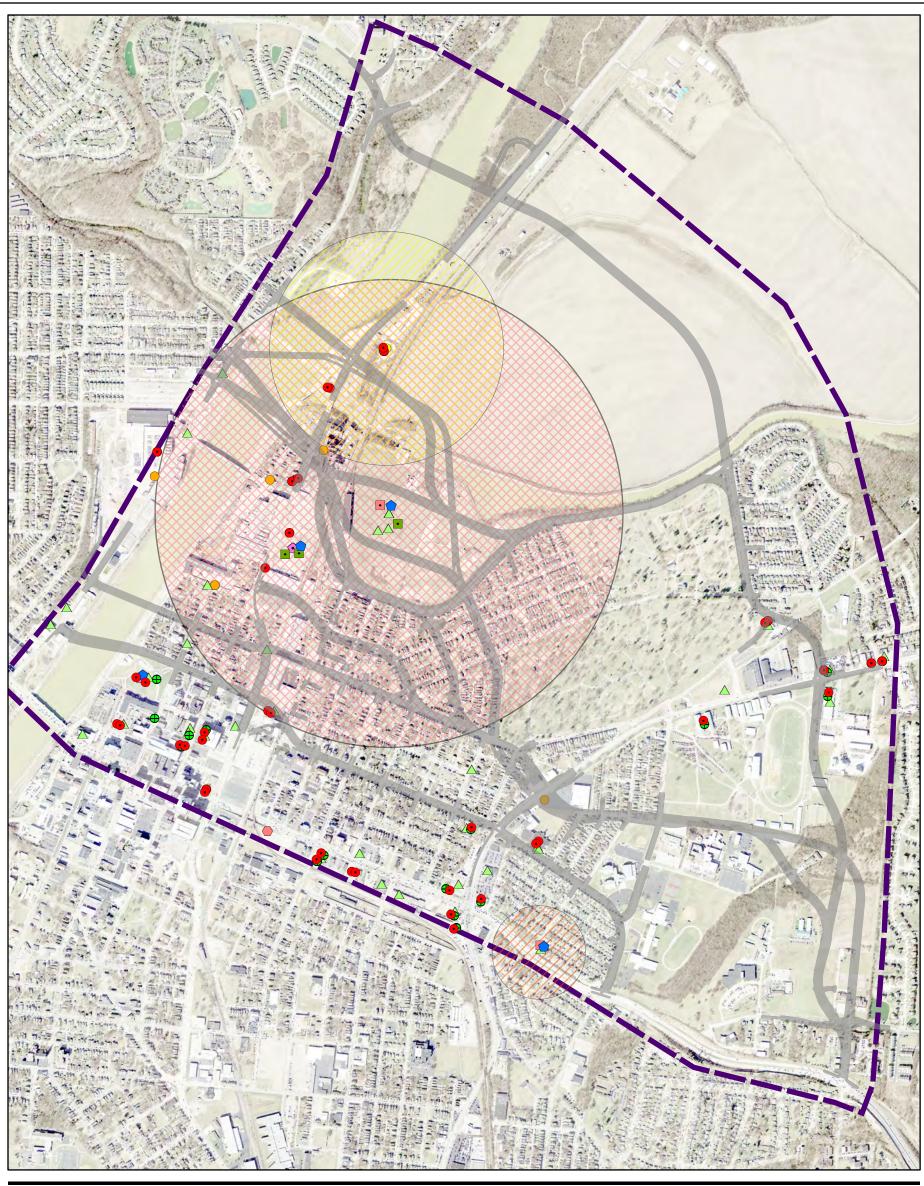


Prepared by RG on 2022-10-28 173620130 North Hamilton Crossing (NHX) PID 115755 Feasibility Study

Figure No.

C-6

Farmlands Map





**BUSTR - LUST** BUSTR - LUST

BUSTR - UST ⊕ BUSTR - UST

Coal Gas Generator Coal Gas Generator DERR Site

DERR Site

Non-NPL Site Non-NPL Site

NPL Site

 NPL Site **RCRA** 

△ RCRA

Site with Institutional Controls Site with Institutional Controls

Legend

Solid Waste Transfer Facility Solid Waste Transfer Facility

<u>Spills</u> Spills

VAP2

VAP2

Solid Waste Tranfer Facility 1/4 mile buffer Solid Waste Tranfer Facility 1/4 mile buffer

NPL Site 1/2 mile buffer NPL Site 1/2 mile buffer

Non-NPL Site 1/10 mile buffer

Non-NPL Site 1/10 mile buffer

Proposed Alignments Proposed Alignments

Study Area Study Area

500 1,000 (At original document size of 11x17) 1:13,000





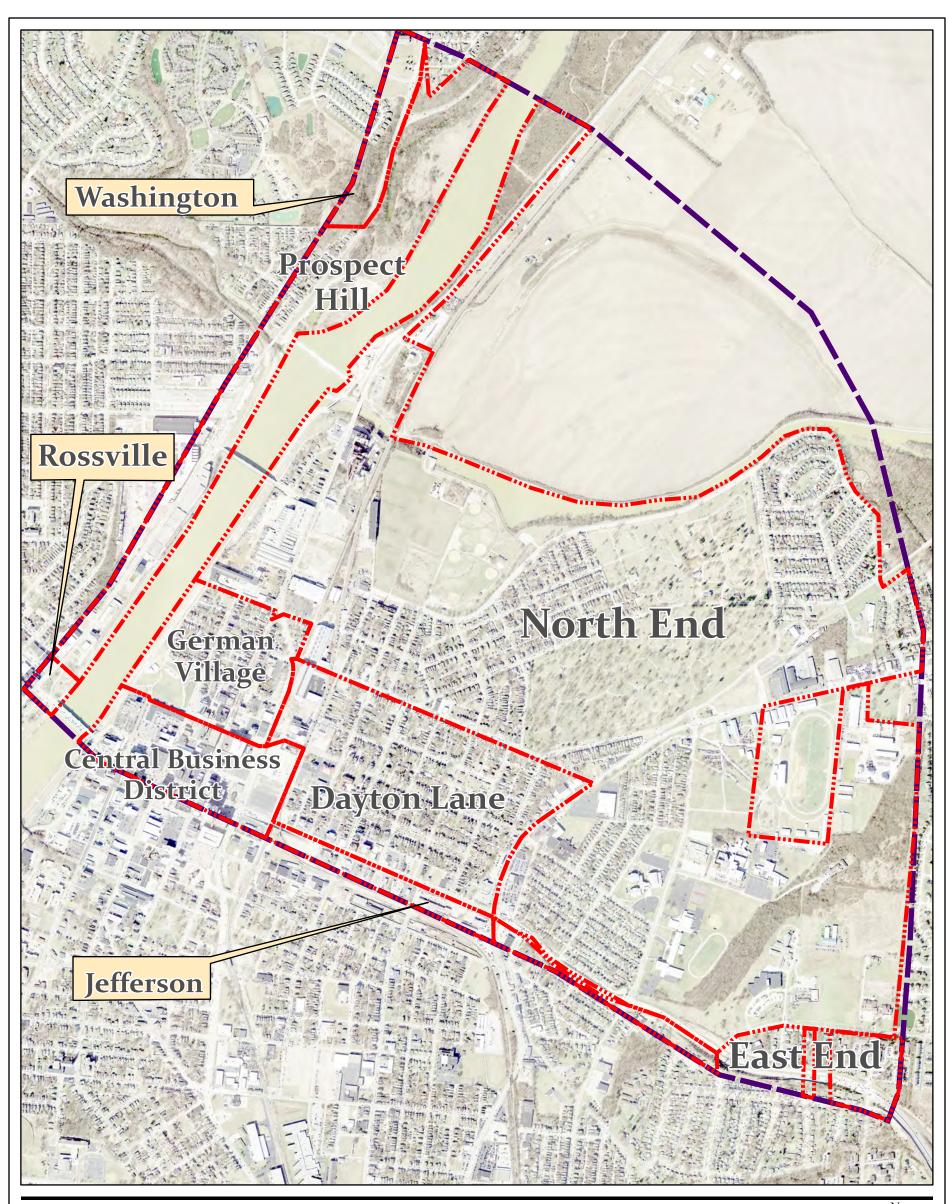
Project Location
City of Hamilton
Butler County, Ohio Prepared by RG on 2023-07-10 173620130

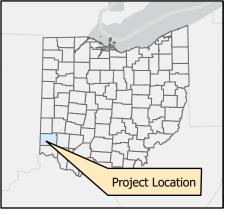
North Hamilton Crossing (NHX) PID 115755

Feasibility Study Figure No.

C-7

**ORPS Analysis Map** 



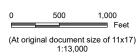


# Legend

Neighborhood Boundaries

Neighborhood Boundaries Study Area

☐ Study Area





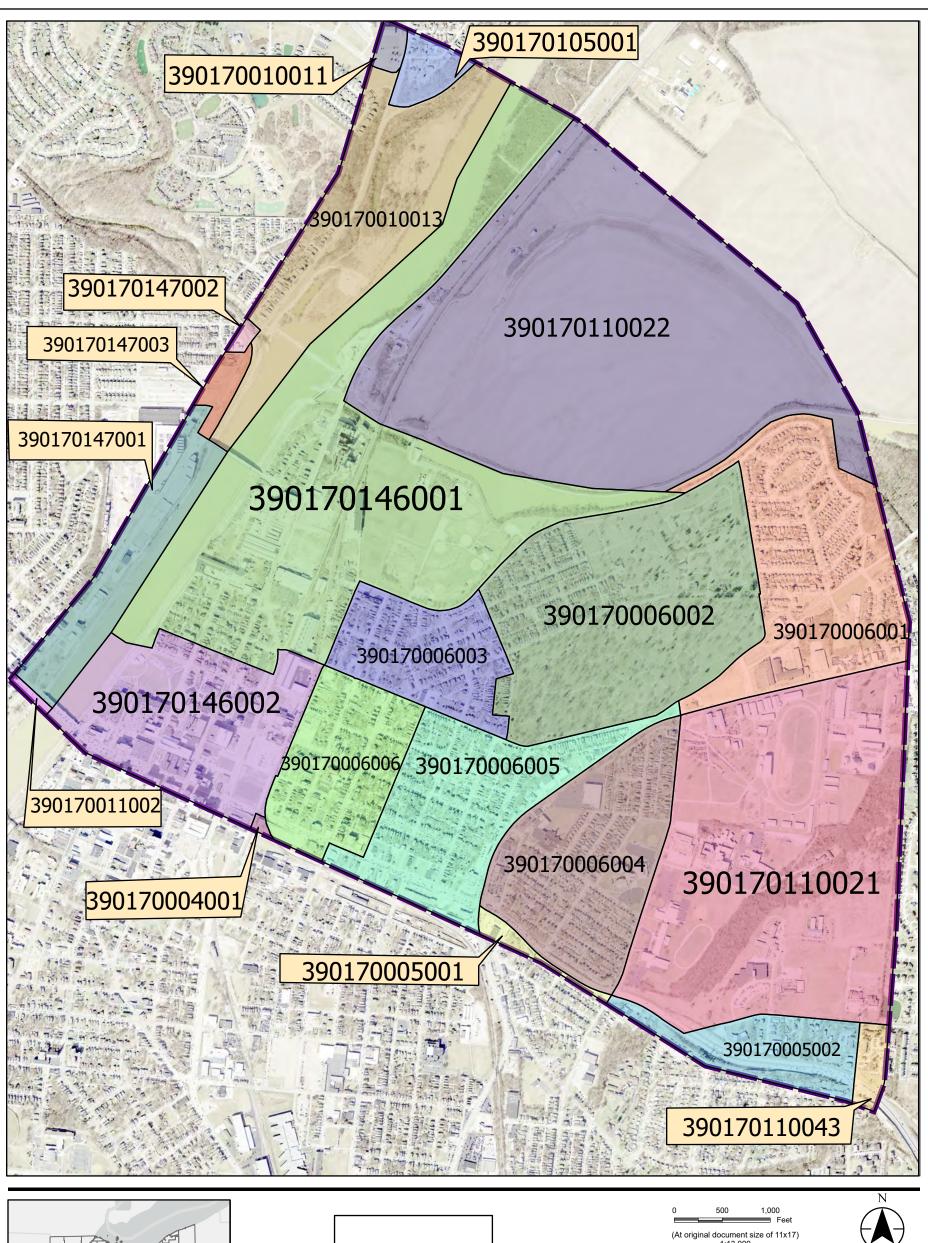


Prepared by RG on 2023-07-12 173620130 North Hamilton Crossing (NHX) PID 115755 Feasibility Study

Figure No.

C-8

**Neighborhood Map** 





Legend Study Area Study Area 1:13,000



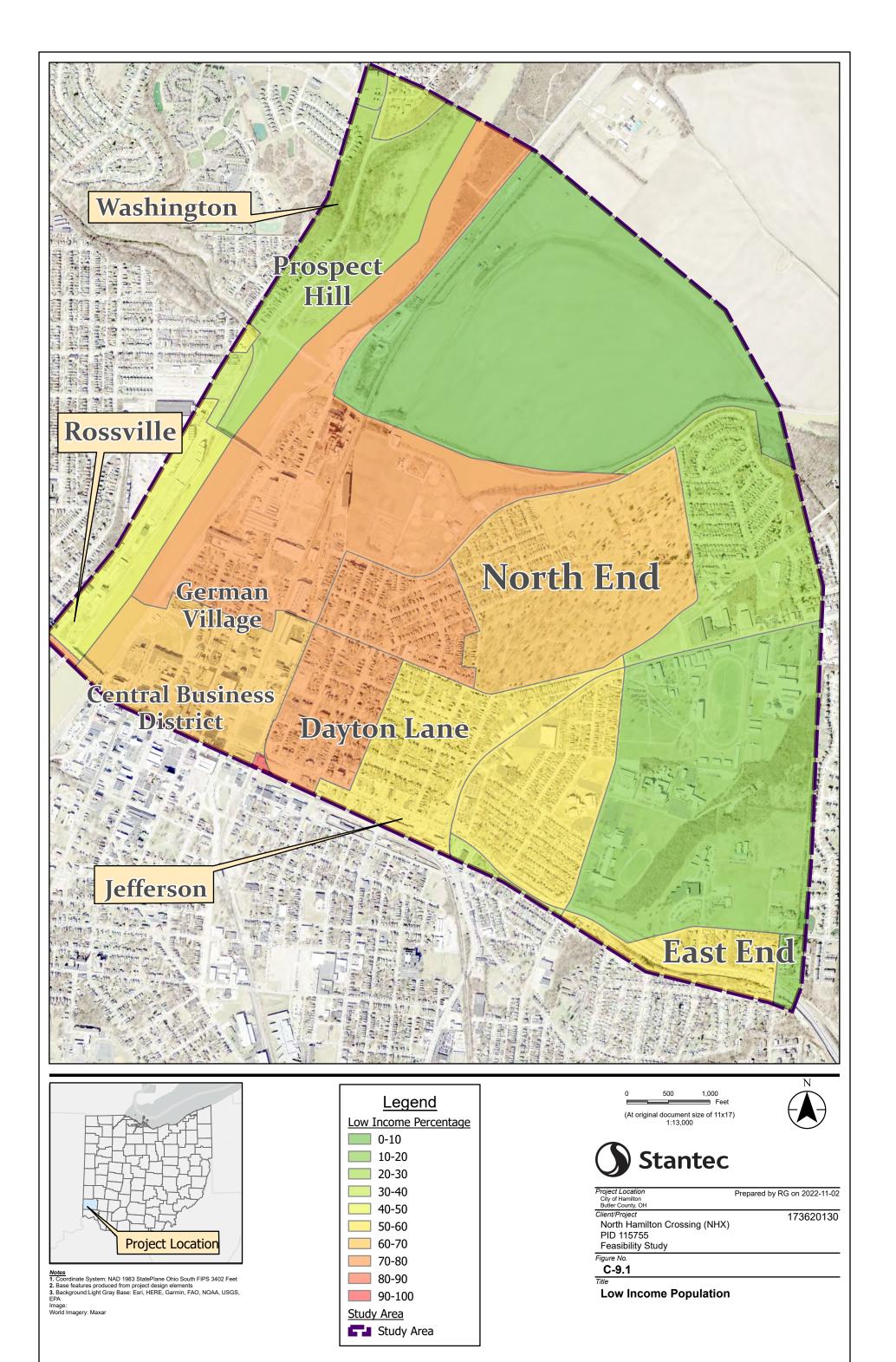


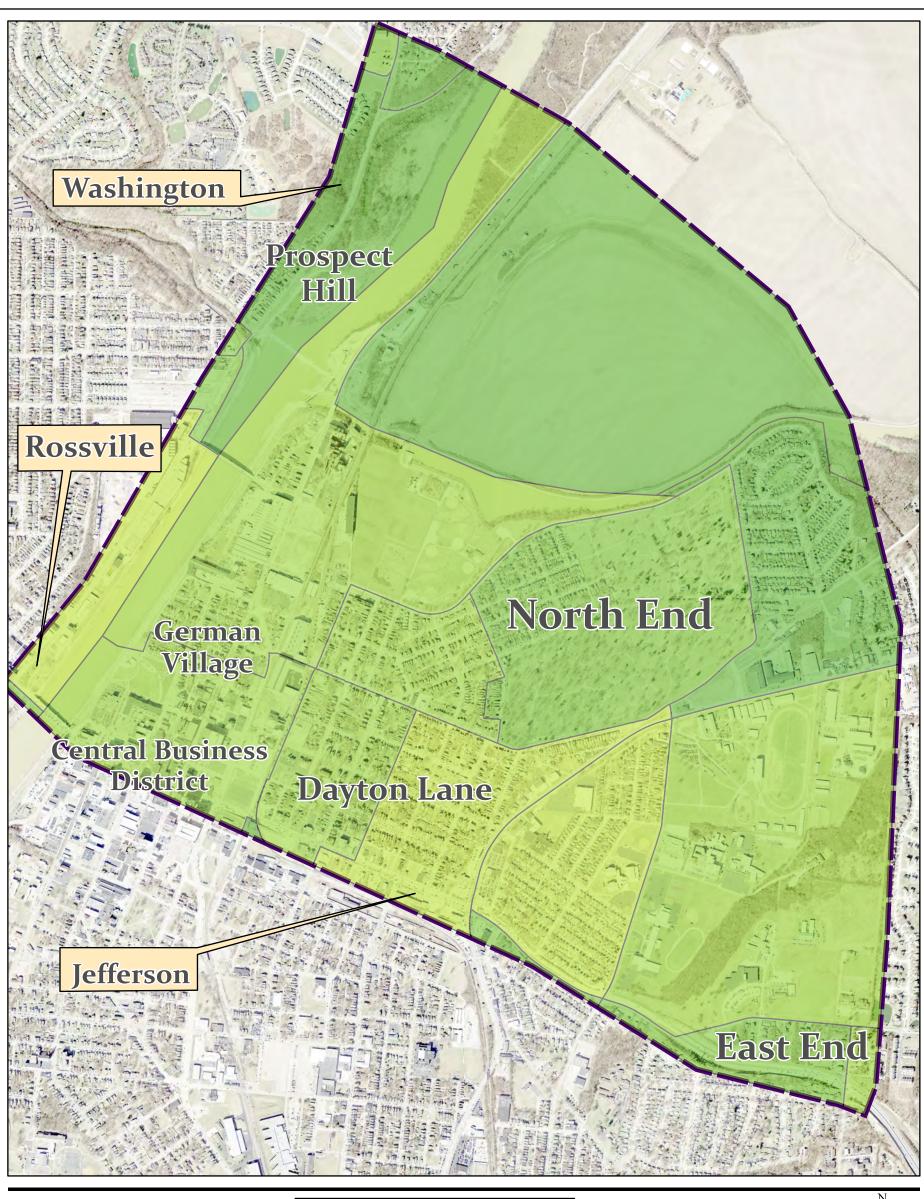
Prepared by RG on 2022-10-27 173620130 North Hamilton Crossing (NHX) PID 115755 Feasibility Study

Figure No.

C-9

**Census Block Group Map** 







Legend People of Color Population Percentage 0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100 Study Area Study Area

1,000 500 (At original document size of 11x17) 1:13,000

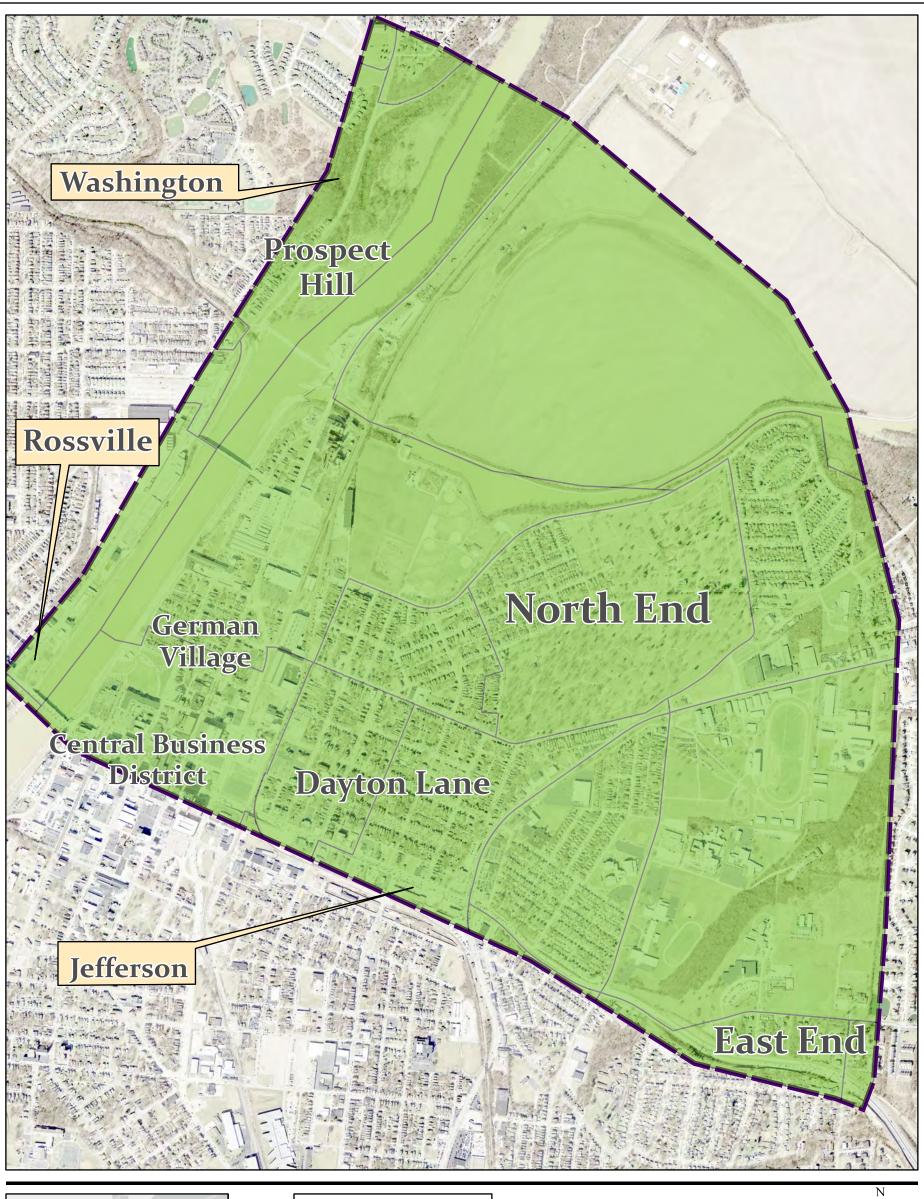




Prepared by RG on 2023-07-11 173620130 North Hamilton Crossing (NHX) PID 115755 Feasibility Study Figure No.

C-9.2

**People of Color Population** 





0 500 1,000 Feet (At original document size of 11x17) 1:13,000





Project Location City of Hamilton
Butler County, OH

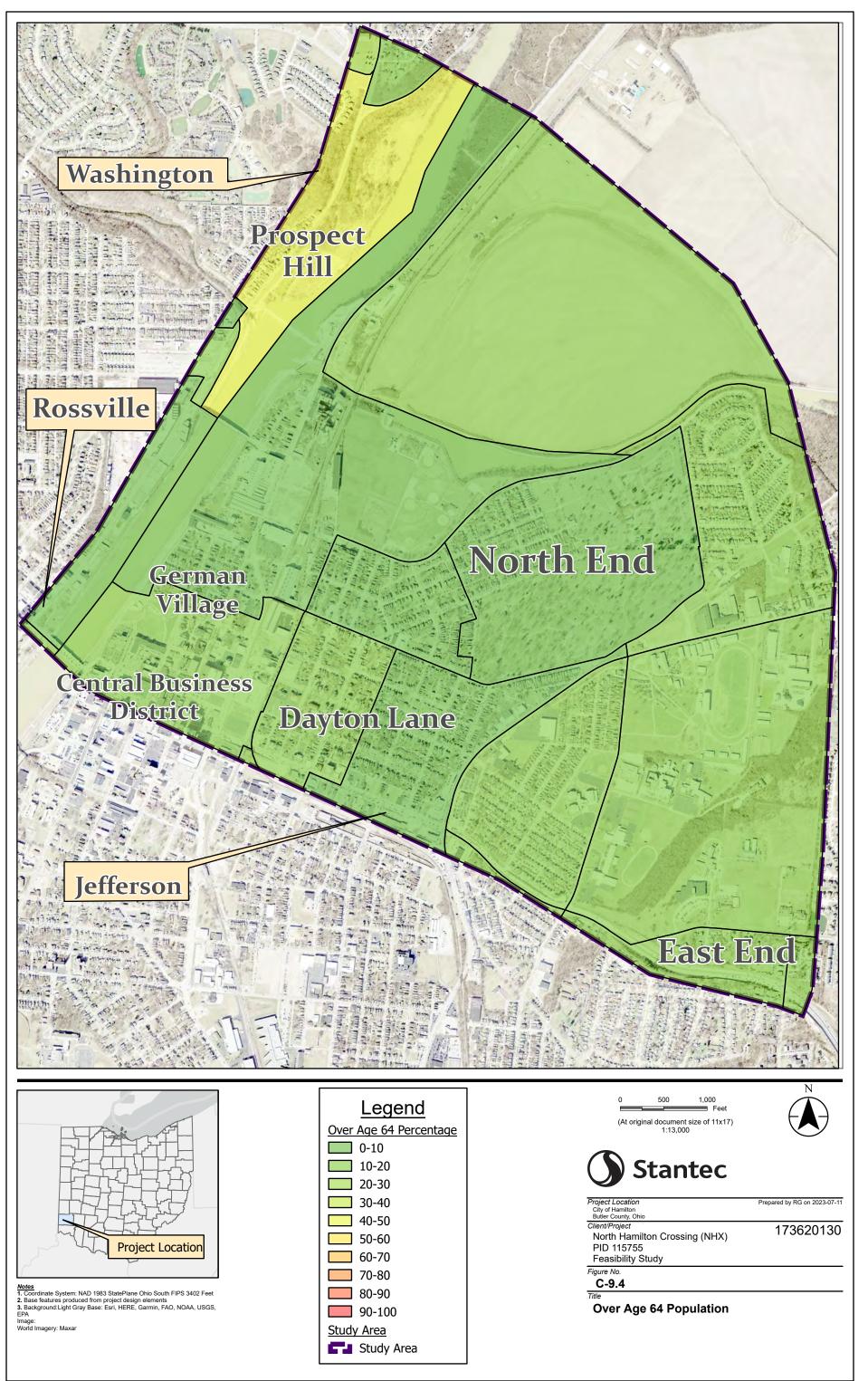
Client/Project North Hamilton Crossing (NHX)
PID 115755
Feasibility Study

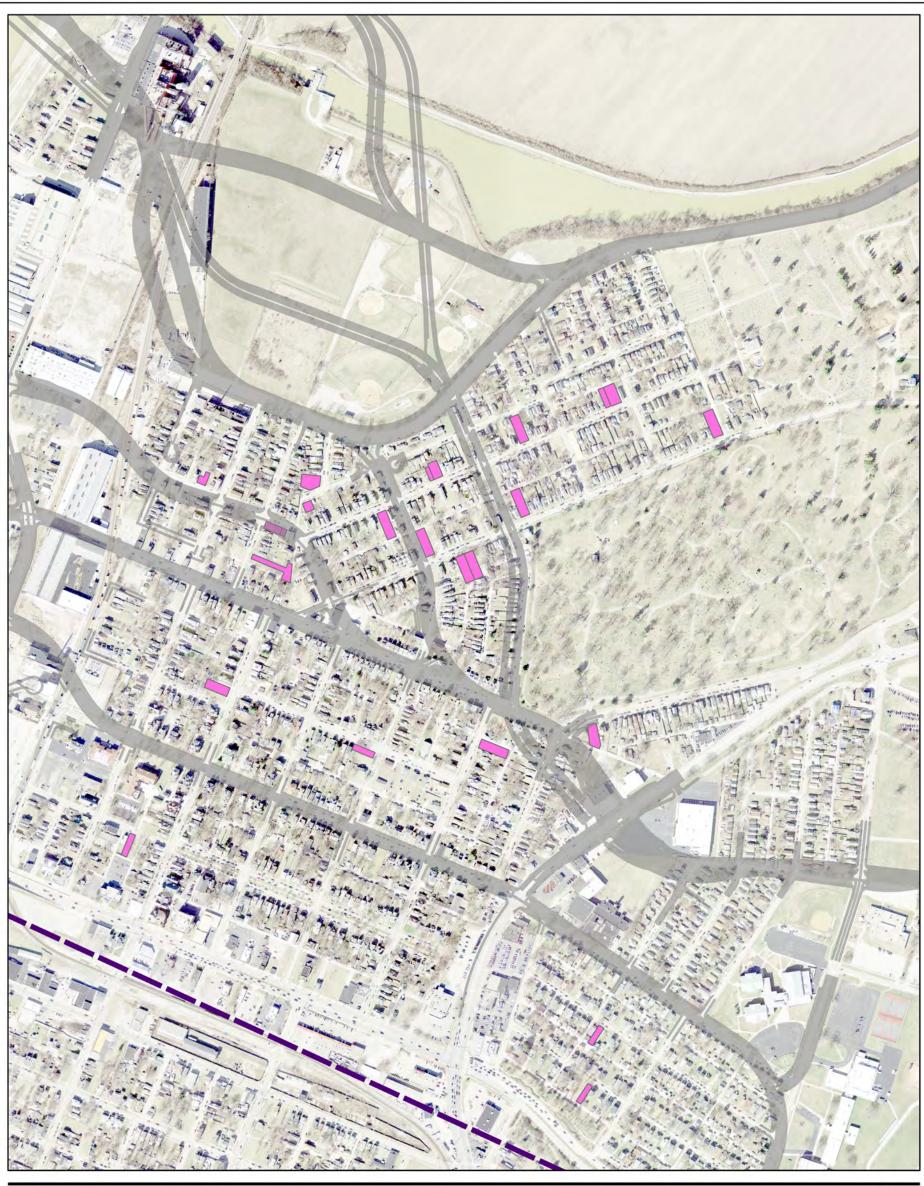
Figure No.

C-9.3

itle

Limited English Speaking Population









# Legend

City Owned Properties City Owned Properties **Proposed Alignments** 

Proposed Alignments

Study Area

Study Area

1,000 500 (At original document size of 11x17) 1:6,150





Prepared by RG on 2022-03-27 173620130 North Hamilton Crossing (NHX)

PID 115755 Feasibility Study Figure No.

C-10

**City Owned Properties Map** 

Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Base features produced from project design elements
3. Background:Light Gray Base: Esri, HERE, Garmin, FAO, NOAA, USGS, EPA
World Topographic Map. City of Hamilton, OH, Esri, HERE, Garmin,
SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Image:
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Imagery: Maxar

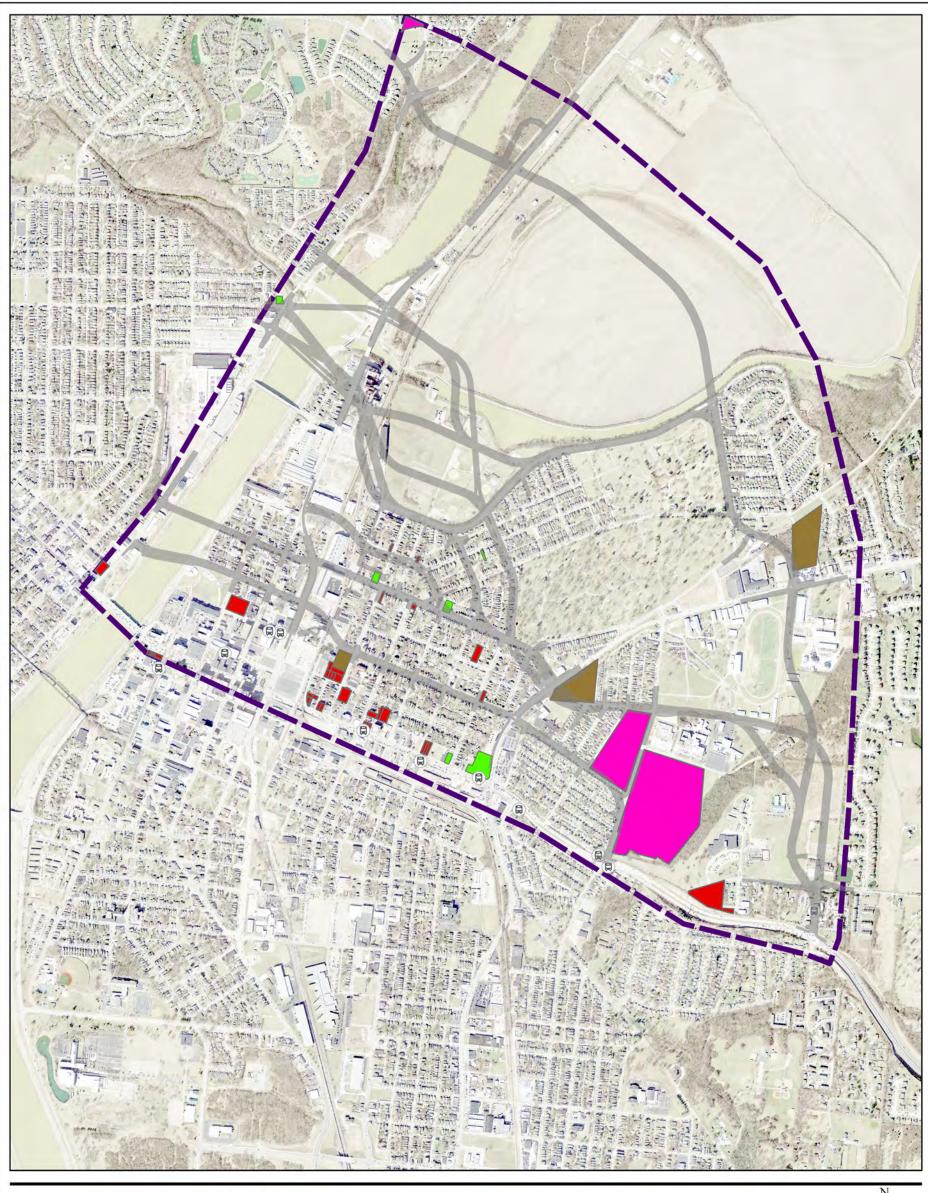




Image: World Imagery: Maxer

#### Legend

**Bus Stops** 

Bus Stops <u>Schools</u>

Schools

**Educational Resources** 

Educational Resources

Marketplaces

Marketplaces

Religious Institutions

Religious Institutions **Proposed Alignments** 

Proposed Alignments

Study Area

Study Area

500 1,000 (At original document size of 11x17) 1:15,000





Prepared by RG on 2022-03-03

173620130

North Hamilton Crossing (NHX) PID 115755 Feasibility Study

Figure No.

C-11

**Community Features Map** 

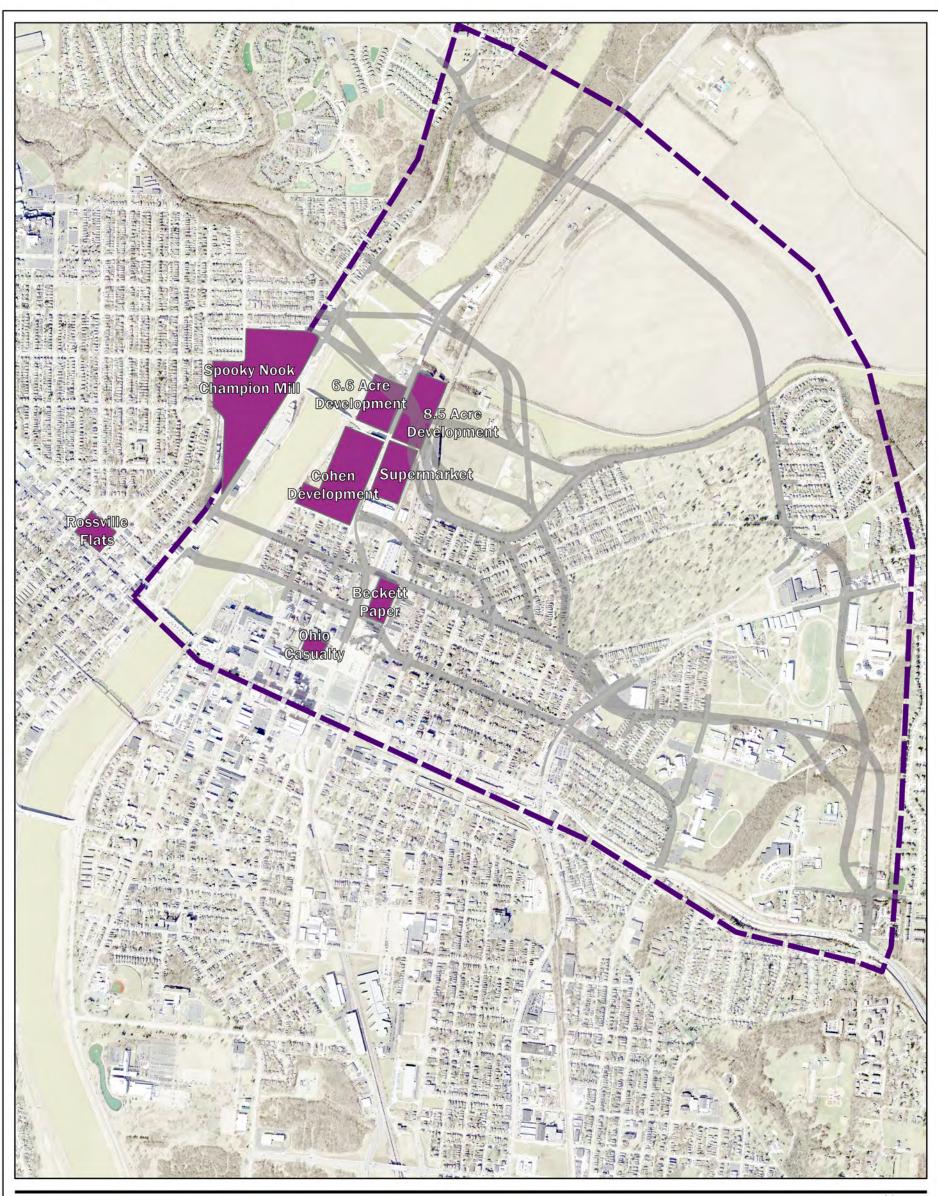




Image: World Imagery: Maxer

#### Legend

#### Recent and Proposed Developments

Recent and Proposed Developments

#### **Proposed Alignments**

**Proposed Alignments** 

#### Study Area

Study Area







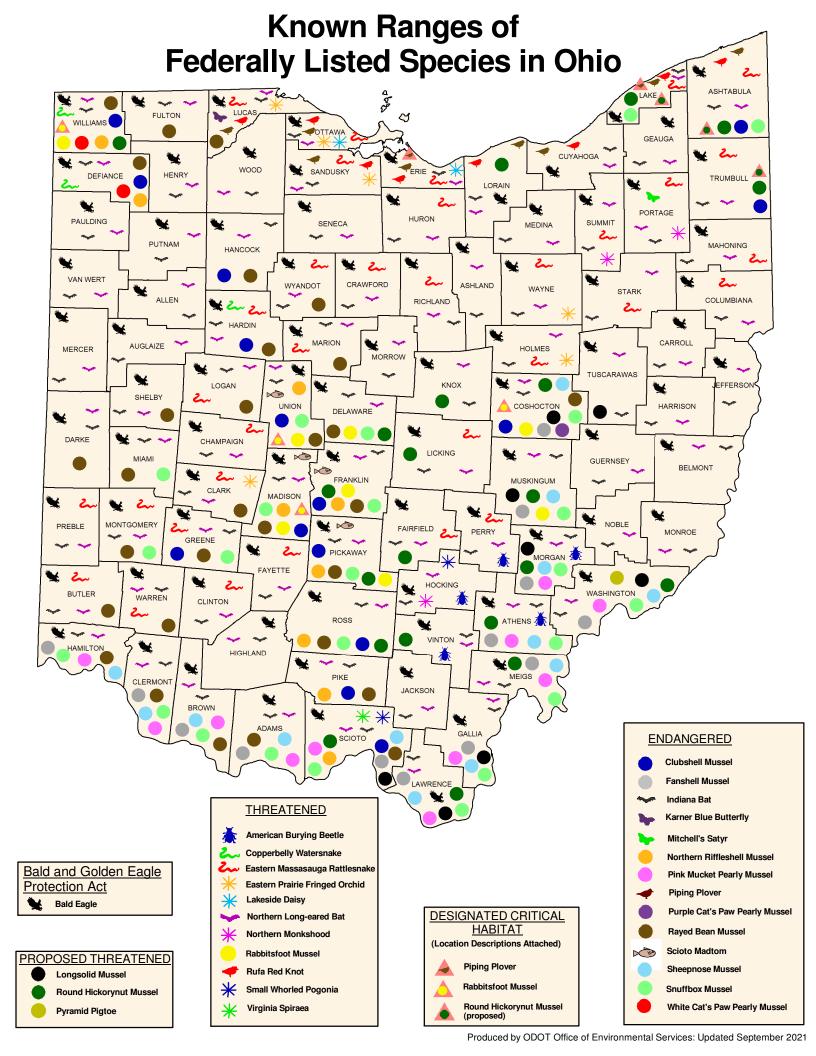
Prepared by RG on 2022-03-03 173620130 North Hamilton Crossing (NHX) PID 115755 Feasibility Study

Figure No.

C-12

Recent and Proposed Developments Map

# Threatened and Endangered Species Information





# **United States Department of the Interior**

#### FISH AND WILDLIFE SERVICE

Ecological Services 4625 Morse Road, Suite 104 Columbus, Ohio 43230 (614) 416-8993 / FAX (614) 416-8994

September 2021

#### Federally Endangered and Threatened Species in Ohio

SPECIES	Counties of Current, Recent, and Possible Distribution	
Indiana Bat (E) Myotis sodalis	All counties in Ohio	
Northern Long-Eared Bat (T) Myotis septentrionalis	All counties in Ohio	
Piping Plover (E) Charadrius melodus	Ashtabula, Cuyahoga, Erie (CH), Lake (CH), Lorain, Lucas, Ottawa, Sandusky	
Rufa Red Knot (T) (Calidris canutus rufa)	Ashtabula, Cuyahoga, Erie, Lake, Lorain, Lucas, Ottawa, Sandusky	
Scioto Madtom (E) Noturus trautmani	Franklin, Madison, Pickaway, Union	
Clubshell (E) Pleurobema clava	Ashtabula, Coshocton, Defiance, Franklin, Greene, Hancock, Hardin, Madison, Pickaway, Pike, Ross, Scioto, Trumbull, Union, Williams	
Fanshell (E) Cyprogenia stegaria	Adams, Athens, Brown, Clermont, Coshocton, Gallia, Hamilton, Lawrence, Meigs, Morgan, Muskingum, Scioto, Washington	
Northern Riffleshell (E) Epioblasma torulosa rangiana	Defiance, Franklin, Madison, Pickaway, Pike, Ross, Scioto, Union, Williams	
Pink Mucket Pearly Mussel (E) Lampsilis abrupta	Adams, Athens, Brown, Clermont, Gallia, Hamilton, Lawrence, Meigs, Morgan, Scioto, Washington	
Purple Cat's Paw Pearlymussel (E) Epioblasma o. obliquata	Coshocton	
Rayed Bean (E) Villosa fabalis	Adams, Brown, Butler, Clark, Clermont, Coshocton, Darke, Defiance, Delaware, Franklin, Fulton, Greene, Hamilton, Hancock, Hardin, Logan, Lucas, Madison, Marion, Miami, Montgomery, Pickaway, Pike, Ross, Scioto, Shelby, Union, Warren, Williams, Wyandot	
Sheepnose (E) Plethobasus cyphyus	Adams, Athens, Brown, Clermont, Coshocton, Gallia, Hamilton, Lawrence, Meigs, Morgan, Muskingum, Scioto, Washington	

Snuffbox (E) Epioblasma triquetra	Adams, Ashtabula, Athens, Brown, Clermont, Coshocton, Delaware, Franklin, Gallia, Greene, Hamilton, Lake, Lawrence, Madison, Meigs, Miami, Montgomery, Morgan, Muskingum, Pickaway, Ross, Scioto, Union, Washington	
White Cat's Paw Pearly Mussel (E) Epioblasma obliquata perobliqua	Defiance, Williams	
Rabbitsfoot (T) Quadrula c. cylindrica	Coshocton (CH), Franklin, Delaware, Madison (CH), Muskingum, Pickaway, Union (CH), Williams (CH)	
Longsolid (PT) Fusconaia subrotunda	Coshocton, Gallia, Lawrence, Morgan, Muskingum, Scioto, Tuscarawas, Washington	
Round Hickorynut (PT) Obovaria subrotunda	Athens, Ashtabula (PCH), Coshocton, Delaware, Fairfield, Franklin, Knox, Lake (PCH), Lawrence, Licking, Lorain, Meigs, Morgan, Muskingum, Pickaway, Ross, Scioto, Trumbull (PCH), Washington, Williams, Vinton	
Pyramid Pigtoe (PT) Pleurobema rubrum	Washington	
American Burying Beetle (T) Nicrophorus americanus	Athens, Hocking, Morgan, Perry, Vinton	
Karner Blue Butterfly (E) Lycaeides melissa samuelis	Lucas	
Mitchell's Satyr (E) Neonympha m. mitchellii	Portage	
Eastern Prairie Fringed Orchid (T) Platanthera leucophaea	Clark, Holmes, Lucas, Ottawa, Sandusky, Wayne	
Lakeside Daisy (T) Hymenoxys herbacea	Erie, Ottawa	
Northern Monkshood (T) Aconitum noveboracense	Hocking, Portage, Summit	
Small Whorled Pogonia (T) Isotria medeoloides	Hocking, Scioto	
Virginia Spiraea (T) Spiraea virginiana	Scioto	
Copperbelly Water Snake (T) Nerodia erythrogaster neglecta	Defiance, Hardin, Williams	
Eastern Massasauga (T) Sistrurus catenatus	Ashtabula, Butler, Champaign, Clark, Clinton, Columbiana, Crawford, Erie, Fairfield, Fayette, Greene, Hardin, Holmes, Huron, Lake, Licking, Logan, Lucas, Mahoning, Marion, Montgomery, Ottawa, Perry, Portage, Preble, Richland, Sandusky, Stark, Summit, Trumbull, Warren, Wayne,	

Wyandot

**IMPORTANT NOTES:** This list reflects data available as of September 2021 and will change as new data become available. For this reason, searches for listed species should not be limited to the counties noted above. Any decisions in that regard should be made only after calling the USFWS (614/416-8993) for guidance.

The Bald Eagle is no longer federally listed but remains protected by the Bald and Golden Eagle Protection Act. The USFWS recommends that all project areas be checked for the presence of eagle nests. For technical assistance on bald eagles, please visit the USFWS's Bald Eagle website: <a href="https://www.fws.gov/midwest/eagle/index.html">https://www.fws.gov/midwest/eagle/index.html</a>

E = Endangered

T = Threatened

PT = Proposed Threatened

CH = Critical Habitat

PCH = Proposed Critical Habitat



### **United States Department of the Interior**

#### FISH AND WILDLIFE SERVICE

Ecological Services 4625 Morse Road, Suite 104 Columbus, Ohio 43230 (614) 416-8993 / FAX (614) 416-8994

#### September 2021

#### County List of Federally Endangered and Threatened Species in Ohio

COUNTY	SPECIES	
ADAMS	Indiana bat (E), northern long-eared bat (T), fanshell (E), rayed bean (E), pink mucket pearly mussel (E), sheepnose (E), snuffbox (E)	
ALLEN	Indiana bat (E), northern long-eared bat (T)	
ASHLAND	Indiana bat (E), northern long-eared bat (T)	
ASHTABULA	Indiana bat (E), northern long-eared bat (T), piping plover (E), clubshell (E), snuffbox (E), rufa red knot (T), eastern massasauga (T), round hickorynut (PT/PCH)	
ATHENS	Indiana bat (E), northern long-eared bat (T), American burying beetle (T), fanshell (E), sheepnose (E), pink mucket pearly mussel (E), snuffbox (E), round hickorynut (PT)	
AUGLAIZE	Indiana bat (E), northern long-eared bat (T)	
BELMONT	Indiana bat (E), northern long-eared bat (T)	
BROWN	Indiana bat (E), northern long-eared bat (T), fanshell (E), pink mucket pearly mussel (E), rayed bean (E), sheepnose (E), snuffbox (E)	
BUTLER	Indiana bat (E), northern long-eared bat (T), rayed bean (E), eastern massasauga (T)	
CARROLL	Indiana bat (E), northern long-eared bat (T)	
CHAMPAIGN	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
CLARK	Indiana bat (E), northern long-eared bat (T), rayed bean (E), eastern prairie fringed orchid (T), eastern massasauga (T)	
CLERMONT	Indiana bat (E), northern long-eared bat (T), fanshell (E), pink mucket pearly mussel (E), rayed bean (E), sheepnose (E), snuffbox (E)	
CLINTON	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
COLUMBIANA	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
COSHOCTON	Indiana bat (E), northern long-eared bat (T), clubshell (E), fanshell (E), rayed bean (E), purple cat's paw pearly mussel (E), sheepnose (E), snuffbox (E), rabbitsfoot (T/CH), round hickorynut (PT), longsolid (PT)	

CRAWFORD	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
CUYAHOGA	Indiana bat (E), northern long-eared bat (T), piping plover (E), rufa red knot (T)	
DARKE	Indiana bat (E), northern long-eared bat (T), rayed bean (E)	
DEFIANCE	Indiana bat (E), northern long-eared bat (T), clubshell (E), northern riffleshell (E), white cat's paw pearly mussel (E), rayed bean (E), copperbelly water snake (T)	
DELAWARE	Indiana bat (E), northern long-eared bat (T), rayed bean (E), snuffbox (E), rabbitsfoot (T), round hickorynut (PT)	
ERIE	Indiana bat (E), northern long-eared bat (T), piping plover (E/CH), Lakeside daisy (T), rufa red knot (T), eastern massasauga (T)	
FAIRFIELD	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T), round hickorynut (PT)	
FAYETTE	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
FRANKLIN	Indiana bat (E), northern long-eared bat (T), Scioto madtom (E), clubshell (E), northern riffleshell (E), rayed bean (E), snuffbox (E), rabbitsfoot (T). round hickorynut (PT)	
FULTON	Indiana bat (E), northern long-eared bat (T), rayed bean (E)	
GALLIA	Indiana bat (E), northern long-eared bat (T), fanshell (E), pink mucket pearly mussel (E), sheepnose (E), snuffbox (E), longsolid (PT)	
GEAUGA	Indiana bat (E), northern long-eared bat (T)	
GREENE	Indiana bat (E), northern long-eared bat (T), clubshell (E), rayed bean (E), snuffbox (E), eastern massasauga (T)	
GUERNSEY	Indiana bat (E), northern long-eared bat (T)	
HAMILTON	Indiana bat (E), northern long-eared bat (T), fanshell (E), pink mucket pearly mussel (E), rayed bean (E), sheepnose (E), snuffbox (E)	
HANCOCK	Indiana bat (E), northern long-eared bat (T), clubshell (E), rayed bean (E)	
HARDIN	Indiana bat (E), northern long-eared bat (T), clubshell (E), rayed bean (E), copperbelly water snake (T), eastern massasauga (T)	
HARRISON	Indiana bat (E), northern long-eared bat (T)	
HENRY	Indiana bat (E), northern long-eared bat (T)	
HIGHLAND	Indiana bat (E), northern long-eared bat (T)	
HOCKING	Indiana bat (E), northern long-eared bat (T), American burying beetle (T), northern monkshood (T), small whorled pogonia (T)	
HOLMES	Indiana bat (E), northern long-eared bat (T), eastern prairie fringed orchid (T), eastern massasauga (T)	
HURON	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
JACKSON	Indiana bat (E), northern long-eared bat (T)	

JEFFERSON	Indiana bat (E), northern long-eared bat (T)	
KNOX	Indiana bat (E), northern long-eared bat (T), round hickorynut (PT)	
LAKE	Indiana bat (E), northern long-eared bat (T), piping plover (E/CH), snuffbox (E), rufa red knot (T), eastern massasauga (T), round hickorynut (PT/PCH)	
LAWRENCE	Indiana bat (E), northern long-eared bat (T), fanshell (E), pink mucket pearly mussel (E), sheepnose (E), snuffbox (E), round hickorynut (PT), longsolid (PT)	
LICKING	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T), round hickorynut (PT)	
LOGAN	Indiana bat (E), northern long-eared bat (T), rayed bean (E), eastern massasauga (T)	
LORAIN	Indiana bat (E), northern long-eared bat (T), piping plover (E), rufa red knot (T), round hickorynut (PT)	
LUCAS	Indiana bat (E), northern long-eared bat (T), Karner blue butterfly (E), piping plover (E), rayed bean (E), eastern prairie fringed orchid (T), rufa red knot (T), eastern massasauga (T)	
MADISON	Indiana bat (E), northern long-eared bat (T), Scioto madtom (E), clubshell (E), northern riffleshell (E), rayed bean (E), snuffbox (E), rabbitsfoot (T/CH)	
MAHONING	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
MARION	Indiana bat (E), northern long-eared bat (T), rayed bean (E), eastern massasauga (T)	
MEDINA	Indiana bat (E), northern long-eared bat (T)	
MEIGS	Indiana bat (E), northern long-eared bat (T), fanshell (E), pink mucket pearly mussel (E), sheepnose (E), snuffbox (E), round hickorynut (PT)	
MERCER	Indiana bat (E), northern long-eared bat (T)	
MIAMI	Indiana bat (E), northern long-eared bat (T), rayed bean (E), snuffbox (E)	
MONROE	Indiana bat (E), northern long-eared bat (T)	
MONTGOMERY	Indiana bat (E), northern long-eared bat (T), rayed bean (E), snuffbox (E), eastern massasauga (T)	
MORGAN	Indiana bat (E), northern long-eared bat (T), American burying beetle (T), fanshell (E), pink mucket pearly mussel (E), sheepnose (E), snuffbox (E), round hickorynut (PT), longsolid (PT)	
MORROW	Indiana bat (E), northern long-eared bat (T)	
MUSKINGUM	Indiana bat (E), northern long-eared bat (T), fanshell (E), sheepnose (E), snuffbox (E), rabbitsfoot (T), round hickorynut (PT), longsolid (PT)	
NOBLE	Indiana bat (E), northern long-eared bat (T)	
OTTAWA	Indiana bat (E), northern long-eared bat (T), piping plover (E), eastern prairie fringed orchid (T), Lakeside daisy (T), rufa red knot (T), eastern massasauga (T)	
PAULDING	Indiana bat (E), northern long-eared bat (T)	

PICKAWAY	Indiana bat (E), northern long-eared bat (T), Scioto madtom (E), clubshell (E), northern riffleshell (E), rayed bean (E), snuffbox (E), rabbitsfoot (T), round hickorynut (PT)	
PIKE	Indiana bat (E), northern long-eared bat (T), clubshell (E), northern riffleshell (E), rayed bean (E)	
PORTAGE	Indiana bat (E), northern long-eared bat (T), Mitchell's satyr (E), northern monkshood (T), eastern massasauga (T)	
PREBLE	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
PUTNAM	Indiana bat (E), northern long-eared bat (T)	
RICHLAND	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
ROSS	Indiana bat (E), northern long-eared bat (T), clubshell (E), northern riffleshell (E), rayed bean (E), snuffbox (E), round hickorynut (PT)	
SANDUSKY	Indiana bat (E), northern long-eared bat (T), piping plover (E), eastern prairie fringed orchid (T), rufa red knot (T), eastern massasauga (T)	
SCIOTO	Indiana bat (E), northern long-eared bat (T), clubshell (E), fanshell (E), northern riffleshell (E), pink mucket pearly mussel (E), rayed bean (E), sheepnose (E), snuffbox (E), small whorled pogonia (T), Virginia spiraea (T), round hickorynut (PT), longsolid (PT)	
SENECA	Indiana bat (E), northern long-eared bat (T)	
SHELBY	Indiana bat (E), northern long-eared bat (T), rayed bean (E)	
STARK	Indiana bat (E), northern long-eared bat (T), eastern massasauga (T)	
SUMMIT	Indiana bat (E), northern long-eared bat (T), northern monkshood (T), eastern massasauga (T)	
TRUMBULL	Indiana bat (E), northern long-eared bat (T), clubshell (E), eastern massasauga (T), round hickorynut (PT/PCH)	
TUSCARAWAS	Indiana bat (E), northern long-eared bat (T), longsolid (PT)	
UNION	Indiana bat (E), northern long-eared bat (T), Scioto madtom (E), clubshell (E), northern riffleshell (E), rayed bean (E), snuffbox (E), rabbitsfoot (T/CH)	
VAN WERT	Indiana bat (E), northern long-eared bat (T)	
VINTON	Indiana bat (E), northern long-eared bat (T), American burying beetle (T), round hickorynut (PT)	
WARREN	Indiana bat (E), northern long-eared bat (T), rayed bean (E), eastern massasauga (T)	
WASHINGTON	Indiana bat (E), northern long-eared bat (T), fanshell (E), pink mucket pearly mussel (E), sheepnose (E), snuffbox (E), round hickorynut (PT), longsolid (PT), pyramid pigtoe (PT)	
WAYNE	Indiana bat (E), northern long-eared bat (T), eastern prairie fringed orchid (T), eastern massasauga (T)	
WILLIAMS	Indiana bat (E), northern long-eared bat (T), clubshell (E), northern riffleshell (E), rayed bean (E), white cat's paw pearly mussel (E), rabbitsfoot (T/CH), copperbelly water snake (T), round hickorynut (PT)	

WOOD	Indiana bat (E), northern long-eared bat (T)
WYANDOT	Indiana bat (E), northern long-eared bat (T), rayed bean (E), eastern massasauga (T)

**IMPORTANT NOTE:** This list reflects data available as of September 2021 and will change as new data become available. For this reason, searches for listed species should not necessarily be limited to the counties noted above. Any decisions in that regard should be made only after calling the USFWS (614/416-8993) for guidance.

The Bald Eagle is no longer federally listed but remains protected by the Bald and Golden Eagle Protection Act. The USFWS recommends that all project areas be checked for the presence of eagle nests. For technical assistance on bald eagles, please visit the USFWS's Bald Eagle website: <a href="https://www.fws.gov/midwest/eagle/index.html">https://www.fws.gov/midwest/eagle/index.html</a>

E = Endangered

T = Threatened

PT = Proposed Threatened

CH = Critical Habitat

PCH = Proposed Critical Habitat

FEDERALLY LISTED MUSSELS OCCURRING IN OHIO		
Listed Species	Habitat	Ohio Streams (Counties)
Clubshell (E) Pleurobema clava	Streams and small rivers with clean, coarse sand and gravel runs, often downstream of a riffle.	Big Darby Creek - Franklin, Madison, Pickaway, Union Blanchard River - Hancock, Hardin Fish Creek - Williams Little Darby Creek - Franklin, Madison, Union Little Miami River - Greene Pymatuning Creek - Ashtabula, Trumbull Scioto River - Franklin, Pickaway, Pike, Ross, Scioto St. Joseph River - Defiance, Williams Treacle Creek - Union Walhonding River - Coshocton
Fanshell (E) Cyprogenia stegaria	Medium to large livers with gravel in relatively deep water with moderate current.	Killbuck Creek - Coshocton Muskingum River - Coshocton, Morgan, Muskingum, Washington Ohio River - Adams, Athens, Brown, Clermont, Gallia, Hamilton, Lawrence, Meigs, Scioto, Washington Walhonding River - Coshocton
Northern Riffleshell (E) Epioblasma torulosa rangiana	Stream riffles and runs with firm sand and gravel.	Big Darby Creek - Franklin, Madison, Pickaway, Union Fish Creek - Williams Little Darby Creek - Franklin, Madison, Union Scioto River - Franklin, Pickaway, Pike, Ross, Scioto St. Joseph River - Defiance, Williams
Pink Mucket Pearly Mussel (E) Lampsilis abrupta	Large rivers in shallow riffles to deep water with boulders, gravel, sand, or silt substrates.	Muskingum River (lower) - Morgan, Washington Ohio River - Adams, Athens, Brown, Clermont, Gallia, Hamilton, Lawrence, Meigs, Scioto, Washington
Purple Cat's Paw Pearly Mussel (E) Epioblasma obliquata obliquata	Medium to large rivers with boulder to sandy substrates; in water of shallow to moderate depth with moderate to swift currents.	Killbuck Creek - Coshocton Walhonding River - Coshocton

Rabbitsfoot (T) Quadrula c. cylindrica	Small to medium-sized streams and some larger rivers in shallow areas along the bank and adjacent runs and shoals where the water velocity is reduced. May also occur in deep water runs, having been reported in 9-12 feet of water. Bottom substrates generally include sand and gravel.	Big Darby Creek - Franklin, Madison, Pickaway, Union Fish Creek - Williams (CH) Little Darby Creek - Franklin, Madison (CH), Union (CH) Mohican River - Coshocton Muskingum River - Coshocton, Muskingum Olentangy River - Delaware Walhonding River - Coshocton (CH)
Rayed Bean (E) Villosa fabalis	Stream and small rivers with clean, coarse sand and gravel runs.	Big Darby Creek - Franklin, Madison, Pickaway, Union Blanchard River - Hancock, Hardin East Fork Little Miami River - Brown, Clermont Fish Creek - Williams Great Miami River - Butler, Hamilton, Logan, Miami, Shelby, Warren Little Darby Creek - Franklin, Madison, Union Little Miami River - Clark, Clermont, Greene, Hamilton, Warren Mill Creek - Delaware, Union Scioto Brush Creek - Adams, Scioto Scioto River - Franklin, Pickaway, Pike, Ross, Scioto St. Joseph River - Defiance, Williams Stillwater River - Darke, Miami, Montgomery Swan Creek - Fulton, Lucas Tymochtee Creek - Marion, Wyandot Walhonding River - Coshocton
Sheepnose (E) Plethobasus cyphyus	Primarily a larger-stream species. It occurs primarily in shallow shoal habitats with moderate to swift currents over coarse sand and gravel. Habitats with sheepnose may also have mud, cobble, and boulders.	Muskingum River - Coshocton, Morgan, Muskingum, Washington Ohio River - Adams, Athens, Brown, Clermont, Gallia, Hamilton, Lawrence, Meigs, Scioto, Washington Walhonding River - Coshocton

Snuffbox (E) Epioblasma triquetra	It is found in small to medium-sized creeks to larger rivers. Typically occurs in swift currents with gravel and sand with occasional cobble and boulders.	Big Darby Creek - Franklin, Madison, Pickaway, Union Grand River - Ashtabula, Lake Killbuck Creek - Coshocton Little Darby Creek - Franklin, Madison, Union Little Miami River - Greene Muskingum River - Coshocton, Morgan, Muskingum, Washington Ohio River - Adams, Athens, Brown, Clermont, Gallia, Hamilton, Lawrence, Meigs, Scioto, Washington Olentangy River - Delaware Salt Creek - Ross Scioto Brush Creek - Adams, Scioto South Fork Scioto Brush Creek - Adams, Scioto Stillwater River - Miami, Montgomery Walhonding River - Coshocton
White Cat's Paw Pearly Mussel (E) Epioblasma obliquata perobliqua	Small to medium-sized streams with coarse gravel and sand; in fast-flowing riffles and runs.	Fish Creek - Williams St. Joseph River - Defiance, Williams
Longsolid (PT) Fusconaia subrotunda	In small rivers in sand gravel in habitat: may also be found in large river in coarse gravel and cobble habitat	Ohio River – Gallia, Lawrence, Scioto Muskingum River – Morgan, Muskingum, Washington Tuscarawas River – Coshocton, Tuscarawas Walhonding River – Coshocton

Round Hickorynut (PT) Obovaria subrotunda	In streams and rivers in areas with sand and gravel in riffle and run habitats; may also be found in sandy mud in rivers	Alum Creek — Delaware, Franklin Big Darby Creek — Franklin, Pickaway Big Walnut Creek — Franklin, Pickaway Black River — Lorain East Branch Shade River — Meigs Federal Creek — Athens Fish Creek — Williams Grand River — Ashtabula, Lake, Trumbull Killbuck Creek — Coshocton Little Muskingum River — Washington Middle Branch Shade River — Meigs Middle Fork Salt Creek — Vinton, Ross Mill Creek (trib. to the Grand River) — Ashtabula Mill Creek (trib. to the Walhonding River) — Coshocton Muskingum River — Coshocton, Morgan, Muskingum, Washington Ohio River — Washington Rocky Fork Little Scioto River — Scioto Scioto River — Pickaway, Ross Symmes Creek — Lawrence Walhonding River — Coshocton Wakatomika Creek — Muskingum, Knox, Licking, Coshocton Walnut Creek — Fairfield, Franklin, Pickaway
Pyramid Pigtoe (PT) Pleurobema rubrum	In medium to large rivers, preferring a mixture of sand, gravel, and cobble stream bottoms	Muskingum River – Washington

**Note:** The mussel list reflects data available as of September 2021 and will change as new data become available. For that reason, searches for listed species should not necessarily be limited to the above streams and habitats. Any decisions in that regard should be made only after calling the USFWS (614/416-8993) for guidance.

E = Endangered SpeciesT = Threatened Species

CH = Critical Habitat

PT = Proposed Threatened

# **Butler County State Listed Animal Species**

Common Name	Scientific Name	Group	State Status	Federal Status	
Cave Salamander	Eurycea lucifuga	Amphibian	Endangered		
Upland Sandpiper	Bartramia longicauda	Bird	Endangered		
Lark Sparrow	Chondestes grammacus	Bird	Endangered		
Plains Clubtail	Gomphus externus	Dragonfly	Endangered		
Blue corporal	Ladona deplanata	Dragonfly	Endangered		
Tonguetied Minnow	Exoglossum laurae	Fish	Endangered		
Indiana Myotis	Myotis sodalis	Mammal	Endangered	Endangered	
Least Bittern	Ixobrychus exilis	Bird	Threatened		
Black-crowned Night-heron	Nycticorax nycticorax	Bird	Threatened		
Sloan's Crayfish	Orconectes (Rhoadesius) sloanii	Crayfish	Threatened		
American Eel	Anguilla rostrata	Fish	Threatened		
Black Sandshell	Ligumia recta	Mollusk	Threatened		
Fawnsfoot	Truncilla donaciformis	Mollusk	Threatened		
Kirtland's Snake	Clonophis kirtlandii	Reptile	Threatened		
Eastern Cricket Frog	Acris crepitans crepitans	Amphibian	phibian Species of Concern		
Sharp-shinned Hawk	Accipiter striatus	Bird	Species of Concern		
Henslow's Sparrow	Ammodramus henslowii	Bird	Species of Concern		
Grasshopper Sparrow	Ammodramus savannarum	Bird	Species of Concern		
Great Egret	Ardea alba	Bird	Species of Concern		
Common Nighthawk	Chordeiles minor	Bird	Species of Concern		



March, 2020 Page 1 of 3

Common Name	Scientific Name	Group	State Status	Federal Status
Black-billed Cuckoo	Coccyzus erythropthalmus	Bird	Species of Concern	
Northern Bobwhite	Colinus virginianus	Bird	Species of Concern	
Bobolink	Dolichonyx oryzivorus	Bird	Species of Concern	
American Coot	Fulica americana	Bird	Species of Concern	
Common Gallinule	Gallinula galeata	Bird	Species of Concern	
Red-headed Woodpecker	Melanerpes erythrocephalus	Bird	Species of Concern	
Vesper Sparrow	Pooecetes gramineus	Bird	Species of Concern	
Sora Rail	Porzana carolina	Bird	Species of Concern	
Prothonotary Warbler	Protonotaria citrea	Bird	Species of Concern	
Cerulean Warbler	Setophaga cerulea	Bird	Species of Concern	
Muskellunge	Esox masquinongy	Fish	Species of Concern	
Big Brown Bat	Eptesicus fuscus	Mammal	Species of Concern	
Silver-haired Bat	Lasionycteris noctivagans	Mammal	Species of Concern	
Red Bat	Lasiurus borealis	Mammal	Species of Concern	
Hoary Bat	Lasiurus cinereus	Mammal	Species of Concern	
Little Brown Bat	Myotis lucifugus	Mammal	Species of Concern	
Tri-colored Bat	Perimyotis subflavus	Mammal	Species of Concern	
Southern Bog Lemming	Synaptomys cooperi	Mammal	Species of Concern	
Common Gray Fox	Urocyon cinereoargenteus	Mammal	Species of Concern	
Elktoe	Alasmidonta marginata	Mollusk	Species of Concern	
Deertoe	Truncilla truncata	Mollusk	Species of Concern	
Eastern Box Turtle	Terrapene carolina carolina	Reptile	Species of Concern	



March, 2020 Page 2 of 3

Common Name	Scientific Name	Group	State Status	Federal Status
Northern Saw-whet Owl	Aegolius acadicus	Bird	Special Interest	
Long-eared Owl	Asio otus	Bird	Special Interest	
Canada Warbler	Cardellina canadensis	Bird	Special Interest	
Veery	Catharus fuscescens	Bird	Special Interest	
Hermit Thrush	Catharus guttatus	Bird	Special Interest	
Brown Creeper	Certhia americana	Bird	Special Interest	
Least Flycatcher	Empidonax minimus	Bird	Special Interest	
Dark-eyed Junco	Junco hyemalis	Bird	Special Interest	
Nashville Warbler	Oreothlypis ruficapilla	Bird	Special Interest	
Northern Waterthrush	Parkesia noveboracensis	Bird	Special Interest	
Golden-crowned Kinglet	Regulus satrapa	Bird	Special Interest	
Black-throated Blue Warbler	Setophaga caerulescens	Bird	Special Interest	
Blackburnian Warbler	Setophaga fusca	Bird	Special Interest	
Magnolia Warbler	Setophaga magnolia	Bird	Special Interest	
Western Meadowlark	Sturnella neglecta	Bird	Special Interest	
Winter Wren	Troglodytes hiemalis	Bird	Special Interest	
Bell's Vireo	Vireo bellii	Bird	Special Interest	
Blue-headed Vireo	Vireo solitarius	Bird	Special Interest	



March, 2020 Page 3 of 3

#### **Butler County**

			State	Federal
Scientific Name	Common Name	Last Observed	Status	Status
Arabis pycnocarpa var. adpressipilis	Southern Hairy Rock Cress	1965-04	Р	
Arabis pycnocarpa var. pycnocarpa	Western Hairy Rock Cress	1990-05-03	Χ	
Bromus kalmii	Prairie Brome	2013-07-01	Р	
Carex mesochorea	Midland Sedge	2005-06-05	Т	
Carex timida	Timid Sedge	2011-06-14	Т	
Cyperus acuminatus	Pale Umbrella-sedge	2014-09-19	Р	
Echinodorus berteroi	Burhead	2014-09-19	Р	
Ribes missouriense	Missouri Gooseberry	2013-07-01	Т	
Salix caroliniana	Carolina Willow	1991-06-02	Р	
Silene nivea	Snowy Campion	2013-07-01	Ε	
Viburnum molle	Soft-leaved Arrow-wood	2013-07-01	Т	



Ohio Division of Wildlife
Ohio Natural Heritage Database
Date Accessed: March 6, 2015
Based on 2014-15 Rare Plant List.

#### Status:

X = Extirpated

*E = Endangered* List Created: July 2016

T = Threatened

P = Potentially Threatened

# Section 6(f) Land and Water Conservation Funded (LWCF) Properties

ОН	85	POTTERS PARK	D	С	CITY OF HAMILTON	1971	63,400.00	BUTLER	8
ОН	128	WEBER W. SEBALD PARK	D	С	CITY OF MIDDLETOWN	1971	91,150.00	BUTLER	8
ОН	179	HAMILTON CENTRAL PARK ACQUISITION	А	С	CITY OF HAMILTON	1973	8,000.00	BUTLER	8
ОН	207	HAMILTON CENTRAL PARK ARENA	D	С	MIAMI UNIVERSITY HAMILTON	1973	330,750.00	BUTLER	8
ОН	240	FAIRFIELD MUNICIPAL PARK	А	С	CITY OF FAIRFIELD	1973	241,168.50	BUTLER	8
ОН	372	EXCELLO RIVER CORRIDOR	А	С	MIAMI CONSERVANCY DIST.	1975	53,000.00	BUTLER	8
ОН	404	UNION TWP PARK ACQ	А	С	TOWNSHIP OF UNION	1975	169,791.20	BUTLER	8
ОН	503	KEEHNER PARK	D	С	TOWNSHIP OF UNION	1977	137,371.00	BUTLER	8
ОН	517	LEFFERSON PARK	D	С	CITY OF MIDDLETOWN	1977	125,132.84	BUTLER	8
ОН	520	FAIRFIELD PARK DEVELOPMENT	D	С	CITY OF FAIRFIELD	1977	34,148.75	BUTLER	8
ОН	521	FAIRFIELD TOWNSHIP PARK	А	С	TOWNSHIP OF FAIRFIELD	1977	45,375.00	BUTLER	8
ОН	586	FAIRFIELD RECREATION COMPLEX	А	С	CITY OF FAIRFIELD	1978	633,482.00	BUTLER	8
ОН	679	D/RENTSCHER FOREST	С	С	BUTLER COUNTY	1979	118,052.00	BUTLER	8
ОН	701	FAIRFIELD TOWNSHIP PARK DEVELOPMENT	D	w	FIARFIELD TOWNSHIP, BUTLER CONTY, OH	1979	135,000.00		8
ОН	764	SMITH PARK	D	С	CITY OF MIDDLETOWN	1979	204,000.00	BUTLER	8
ОН	786	MIAMI WOODS ACQUISITION	А	С	CITY OF HAMILTON	1980	111,102.50	BUTLER	8
ОН	936	RENTSCHLER FOREST	С	С	BUTLER COUNTY	1982	192,677.15	BUTLER	8
ОН	1,040	INDIAN CREEK PRESERVE	D	С	BUTLER COUNTY	1985	9,024.35	BUTLER	8
ОН	1,110	HANOVER PARK	D	С	TOWNSHIP OF HANOVER	1987	10,319.13	BUTLER	8
ОН	1,135	D/WESTERN KNOLLS PARK	Α	С	CITY OF OXFORD	1989	23,226.50	BUTLER	8
ОН	1,267	D/WILHELMINA PARK	А	С	TOWNSHIP OF LIBERTY	2004	200,000.00	BUTLER	8
ОН	1,280	HANOVER MEMORIAL PARK	А	С	TOWNSHIP OF HANOVER	2005	40,050.00	BUTLER	8
ОН	1,304	HANOVER TOWNSHIP - MEMORIAL PARK	D	С	TOWNSHIP OF HANOVER	2005	66,588.00	BUTLER	8
ОН	1,413	SEBALD METROPARK ACQUISITION	А	С	METROPARKS OF BUTLER COUNTY	2015	187,500.00	Butler	8