

HOOVER NATURE PRESERVE MANAGEMENT PLAN

2023



HOOVER NATURE PRESERVE

EXECUTIVE SUMMARY

Columbus Nature Preserves

The Columbus Recreation and Parks Department has 20 designated nature preserves that encompass over 2,850 acres across Franklin and Delaware County. Nature preserves provide for the conservation, protection, and enhancement of ecologically significant land through research, awareness, and education. The first city nature preserves were adopted in 1988 with additional preserves added in 2004, 2010, and 2016. In 2022, the designation process of nature preserves was added into Columbus City Code.

Hoover Nature Preserve

 **33 Front St. Galena, OH 43021**

Hoover Nature Preserve has 2,200 acres of upland forest, streams, wetland, floodplain, and Hoover Reservoir. The nature preserve is located in Galena, in close proximity to Westerville, New Albany, and unincorporated portions of Genoa Township. Hoover was designated a Preserve in 1988 and was named for Charles Hoover, one of the City's first Water Superintendents.



Features and Amenities

Features

- Mature upland forest
- Estimated 3,500 linear feet of stream
- Numerous wetlands
- Freshwater mussels

Amenities

- Paved and natural trails
- Parking lot

Listed Species

- Indiana bat*
(*Myotis sodalist*)
- Monarch butterfly^
(*Danaus plexippus*)
- Prothonotary warbler***
(*Protonotaria citrea*)
- Northern long-eared bat*
(*Myotis septentrionalis*)
- Blue catfish***
(*Ictalurus furcatus*)
- Cerulean warbler***
(*Setophaga cerulea*)

*Endangered **Threatened ***Species of Concern ^Candidate Species

Habitat



- Upland Forest (23.5%)
- Wetland (4.2%)
- Grassland/ Herbaceous (1.8%)
- Maintained Lawn (0.6%)
- Reservoir (69.5%)
- River (0.4%)

Recommendations

To maintain, conserve, and restore Hoover Nature Preserve:



Keep the Nature Preserve in its original state and limit activities to pedestrian trail use only. Hoover has a mature forest containing high quality, free-flowing streams in highly urbanized watershed.



Remove invasive honeysuckle, reed canary grass, and other invasive plants. Invasive species are present, most notable honeysuckle and reed canary grass. Removal of these species should be performed first, and remove other invasive species as resources allow.



Install additional signage. Provide signage about the Nature Preserve and its boundaries, educational signage on park features, and to prohibit feeding wildlife.



Stabilize banks. Excessive erosion is present along several of the shoreline abutting Hoover Reservoir. Corrective actions can be implemented to mitigate erosion and improve water quality.

ACKNOWLEDGMENTS

This Nature Preserve Management Plan is the culmination of efforts of the Columbus community, individuals, and groups who devoted their time and energy to the future of the City of Columbus nature preserves. We sincerely appreciate everyone who made this plan possible through their enthusiasm, commitment, creative input, and support. A special thank you to the following organizations for their leadership throughout the planning process:

Columbus Recreation & Parks Department

Columbus City Council

Columbus Mayor's Office

Columbus Department of Public Utilities, Division of Water

Columbus Recreation and Parks Commission

Nature Preserve Advisory Council

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Hoover Known Species List (2022)

1 INTRODUCTION

1.1 Columbus Nature Preserves Overview

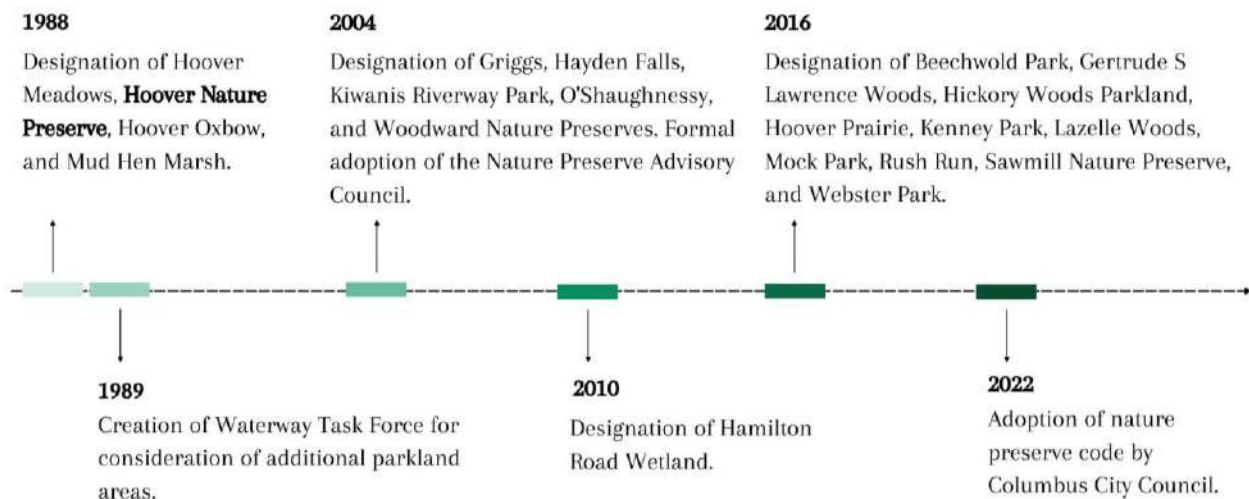
The Columbus Recreation and Parks Department (CRPD) works to preserve the local natural heritage for the Columbus community to enjoy. CRPD recognizes environmentally unique and sensitive areas as designated nature preserves. The Columbus Nature Preserve system is one of a few city nature preserve programs in the state of Ohio.

All Columbus nature preserves are managed by CRPD and advised by the Nature Preserve Advisory Council (NPAC). The NPAC, previously known as the Hoover Nature Preserve Advisory Council, was formally created by City Resolution with the designation of Hoover Nature Preserve, in 1988. In 2004, it was formally renamed by Resolution. The council is composed of nine (9) members. Within the Columbus Nature Preserves, the purposes and objectives of the NPAC are to:

1. Advise and make recommendations to the Executive Director of CRPD concerning the management and wise use of the natural resources.
2. Advocate for the conservation, protection, enhancement, and wise use of the natural resources.
3. Foster the development and application of science-based resource policies and practices and to promote through education and example, and ethic that recognizes the interdependence of people and the environment.

The first city nature preserve was adopted in 1988, for the purpose of protecting and maintaining the drinking water supply at Hoover Reservoir. Additional preserves were designated in 2004, 2010, and 2016. The timeline below lists the year each nature preserve was designated. Note that these properties were acquired years prior to their designation. To date, the system includes over 2,850 protected acres across 20 nature preserves. Of the 20 nature preserves, ten are adjacent to Griggs, Hoover, or O’Shaughnessy Reservoirs and therefore, jointly managed by Columbus Department of Public Utilities (DPU) Division of Water.

Columbus Nature Preserve Timeline.



Portions of Nature Preserves located adjacent to Hoover, Griggs, and O’Shaughnessy Reservoir qualify for inclusion in the city’s Land Stewardship Program. Any landowner participating in the Land Stewardship Program must comply with the standards regarding nature preserves in the Land Stewardship Design Standards (2020). The city’s Land Stewardship Program allows for authorized activities and limited access for adjacent landowners. The program provides a balanced approach to protect the long-term health of the reservoirs while maintaining public recreational access. DPU remains committed to maintaining the reservoirs for the primary function of providing a quality drinking water supply, while also providing the community with compatible recreational access.

1.2 Management Plan Purpose

This management plan describes the site history, amenities, landscape context, habitat types, plant and wildlife species, and recommendations. This plan fulfills Columbus City Code 919.27’s requirement for a management plan to provide the framework for management, restoration, and protection of the nature preserve. The intent is to ensure the long-term viability of the nature preserve’s natural resources while allowing visitors to experience nature.

2 SITE HISTORY AND DESCRIPTION

2.1 Preserve History

Hoover Nature Preserve (“Hoover”) is approximately 2,200-acres in size and was designated as a nature preserve in 1988 to protect the drinking water supply within Hoover Reservoir. It is located in Delaware County and includes portions of 117 different parcels. Hoover is the largest City of Columbus Nature Preserve and accounts for approximately 77 percent of all City of Columbus Nature Preserve acreage. Hoover Reservoir was named after Charles Hoover, one of the first superintendents of the City of Columbus Water Division. The reservoir was built between 1952 and 1955, primarily for flood control, but is also used for water supply.

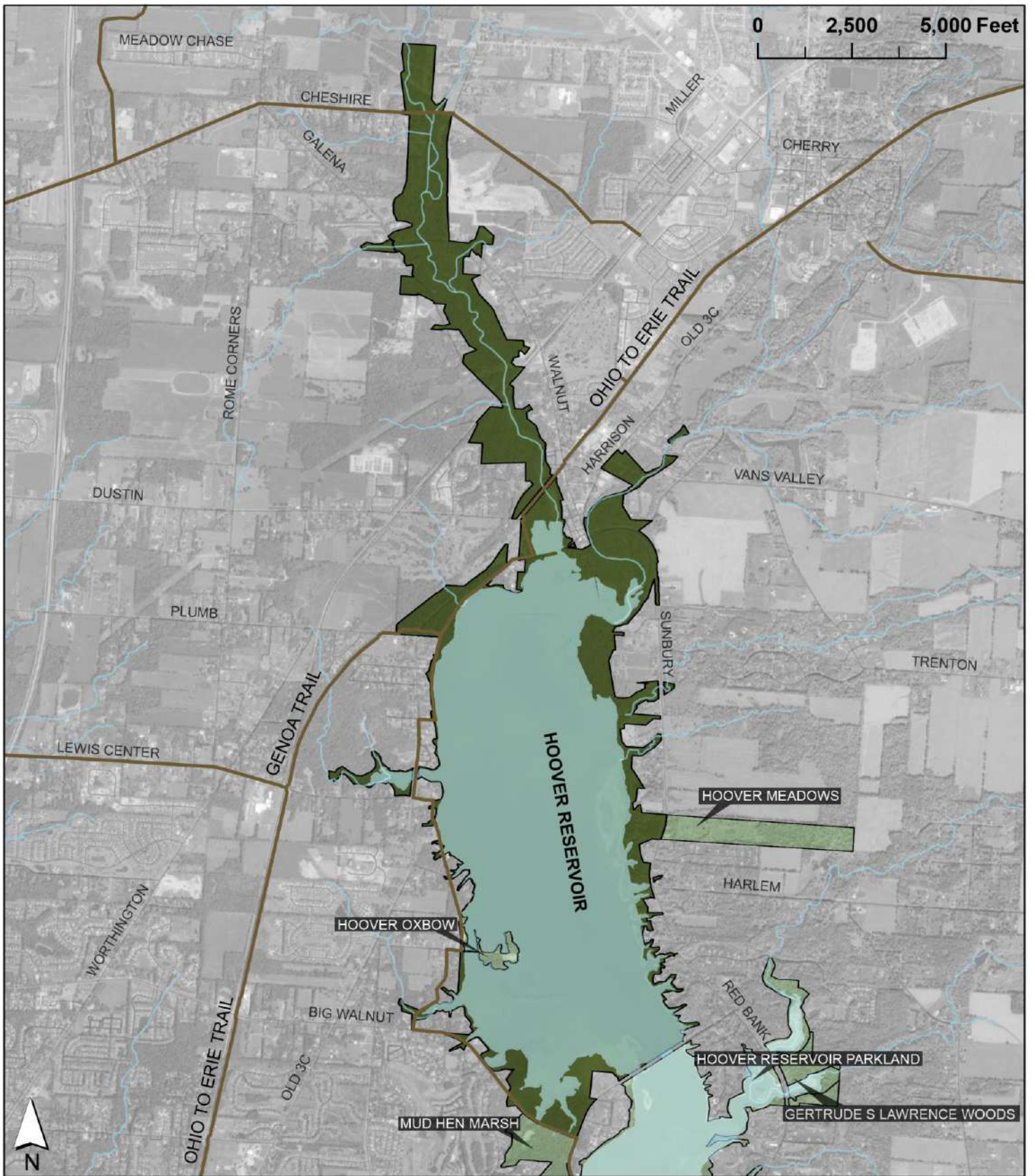
2.2 Location Description

Hoover’s address is 33 Front Street, Galena, Ohio 43021, in close proximity to Westerville, New Albany, and unincorporated portions of Genoa Township.

Hoover is surrounded by residential areas, agricultural fields, and forested areas. Five other Nature Preserves are located directly adjacent to Hoover. See “Hoover Nature Preserve” location map.



Low water levels at Hoover revealing mudflats.



33 FRONT ST, GALENA OH 43021

Hoover Nature Preserve

- Preserve Boundary
- Nearby CRPD Properties



3 AMENITIES AND NATURAL RESOURCES

3.1 Amenities

Portions of Hoover contain established trails, boat ramps, fishing access, parking areas, and the Hoover Mudflats Boardwalk. Visitors have also created natural trails in many areas, a majority of which are related to fishing access.

3.2 Natural Resources

Hoover contains varying topography, including steep hillsides and stream valleys, with the topography highest along northern hillslopes and lowest in bottomland areas in the southern portion. The Federal Emergency Management Agency (FEMA) Regulatory Floodway and 100-year floodplain cover a majority of Hoover. These floodplain areas provide fish and wildlife habitat, recharge groundwater, and improve surface water quality.

Due to the size of Hoover Nature Preserve, a portion of fieldwork was done via desktop review.

The following soils are mapped within Hoover:

- **Amanda silt loam** has steep slopes, is partially eroded, and includes a parent material of loess over loamy till.
- **Benington silt loam** is somewhat poorly drained soils formed in loamy till of medium lime content in relatively flat areas.
- **Cardington silt loam** has minimal to moderate slopes consisting of a limestone, sandstone, and shale parent material.
- **Centerburg silt loam** has minimal slopes and is associated with ground and end moraines.
- **Condit silt loam** has very poorly drained soils in relatively flat areas formed in loamy till deposited by glaciers.
- **Eldean-Urban land complex** has well-drained soils on flat topography consisting of sandy and gravelly material from outwash materials.
- **Gallman silt loam, loamy substratum** is relatively flat terrain with well-drained soils associated with outwash terraces.
- **Jimtown silt loam** has zero to minimal slopes and is associated with terraces.
- **Lobdell silt loam, channery substratum** has minimal slopes consisting of alluvium associated with floodplains.
- **Millgrove silt loam** has minimal slopes in flats and depressions on outwash areas.
- **Pewamo silt clay loam**, typically found in flat areas, is very poorly drained soil, ideal for wetland formation.
- **Sloan silt loam** is occasionally flooded, associated with depressions on relatively floodplains, and includes loamy alluvium.
- **Udorthents, clayey-urban land and pits complex** has minimal slopes, is composed of several different moderately to well-drained soils, typically associated with glacial till.

3.2.1 Streams

Hoover is located in three watersheds: the Hoover Reservoir-Big Walnut Creek (050600011308), Prairie Run-Big Walnut Creek (050600011306), and Little Walnut Creek (050600011305) watersheds. These watersheds which all contribute to the Hoover Reservoir, a major water source for Columbus.

Big Walnut Creek and Little Walnut Creek, large perennial streams, both flow through Hoover. These streams contain a Warmwater Habitat stream aquatic life use according to the Ohio Environmental Protection Agency.



Headwater stream flowing into Hoover Reservoir.

Several headwater streams also flow into Hoover, from the east and west. These streams contain a mixture of flow regimes, including perennial, intermittent, and ephemeral. Several of the perennial streams are classified as Ohio EPA Headwater Habitat Evaluation Index Class 3, the highest quality headwater streams based on physical habitat. These streams contain good quality physical habitat, with a mixture of cobble and gravel, little siltation, and deep pools. In total, it is estimated Hoover contains an estimated 3,500 linear feet of stream.

See “Hoover Streams & Wetlands A-E” map.

3.2.2 Wetlands

The area surrounding Hoover Reservoir is occasionally flooded by Hoover Reservoir and adjacent streams and contains forested, scrub-shrub, and emergent wetland area. Dominant species include sycamore (*Platanus occidentalis*), silver maple (*Acer saccharinum*), buttonbush (*Cephalanthus occidentalis*), wood nettle (*Laportea canadensis*), lizard tail (*Saururus cernuus*), orange jewelweed (*Impatiens capensis*) and Gray’s sedge (*Carex grayi*).



Forested wetland dominated by lizard tail.

The wetlands contain good habitat and hydrology qualities and received a preliminary wetland score of Category 2 using the Ohio EPA Ohio Rapid Assessment Method.

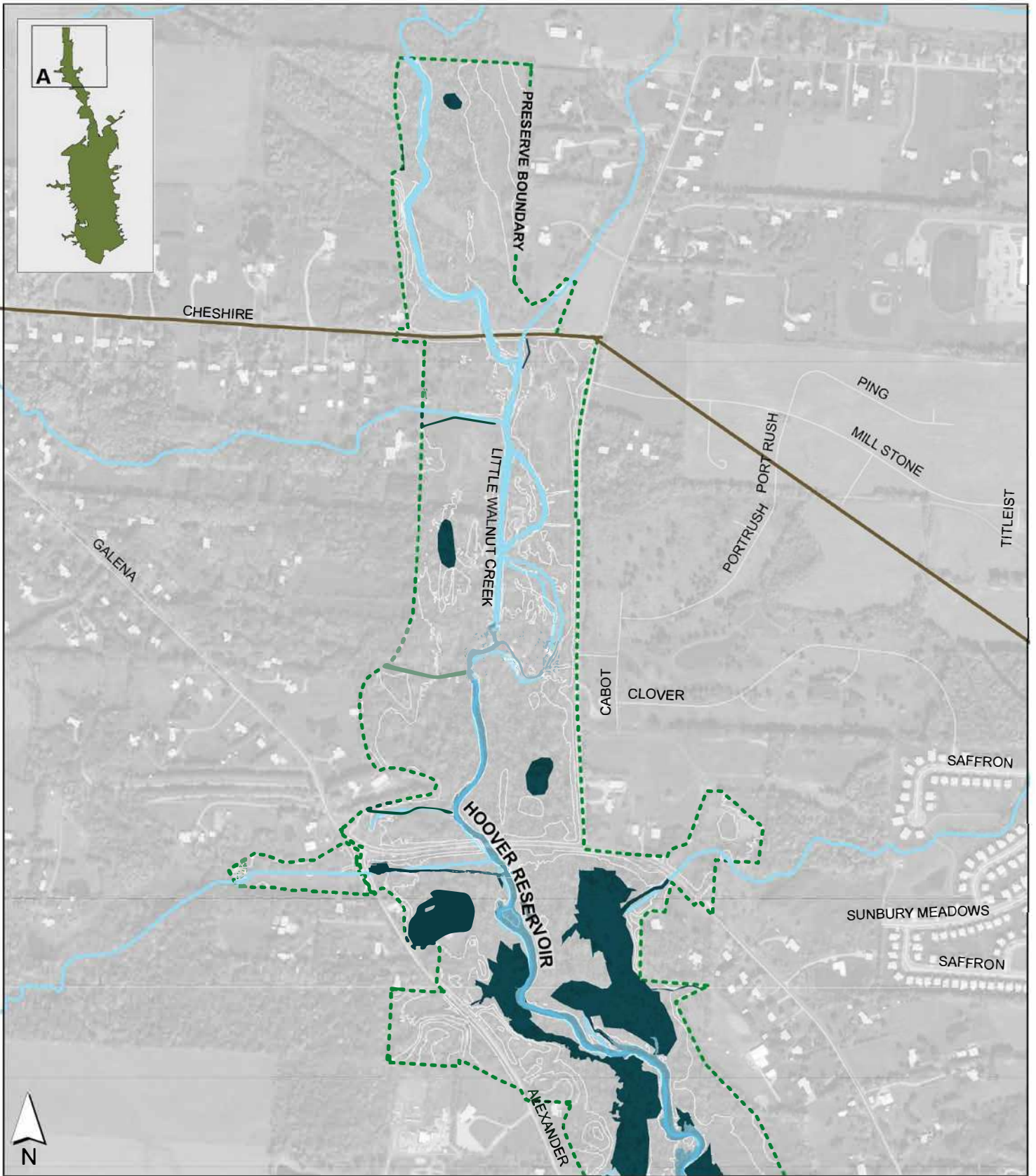
These wetlands serve an important function, filtering streams and surrounding drainage prior to entering Hoover Reservoir. In addition, it provides important habitat for several species, including breeding amphibian habitat.

Based on desktop and limited field review, it is estimated Hoover contains 92-acres of wetland.

See “Hoover Streams & Wetlands A-E” map.



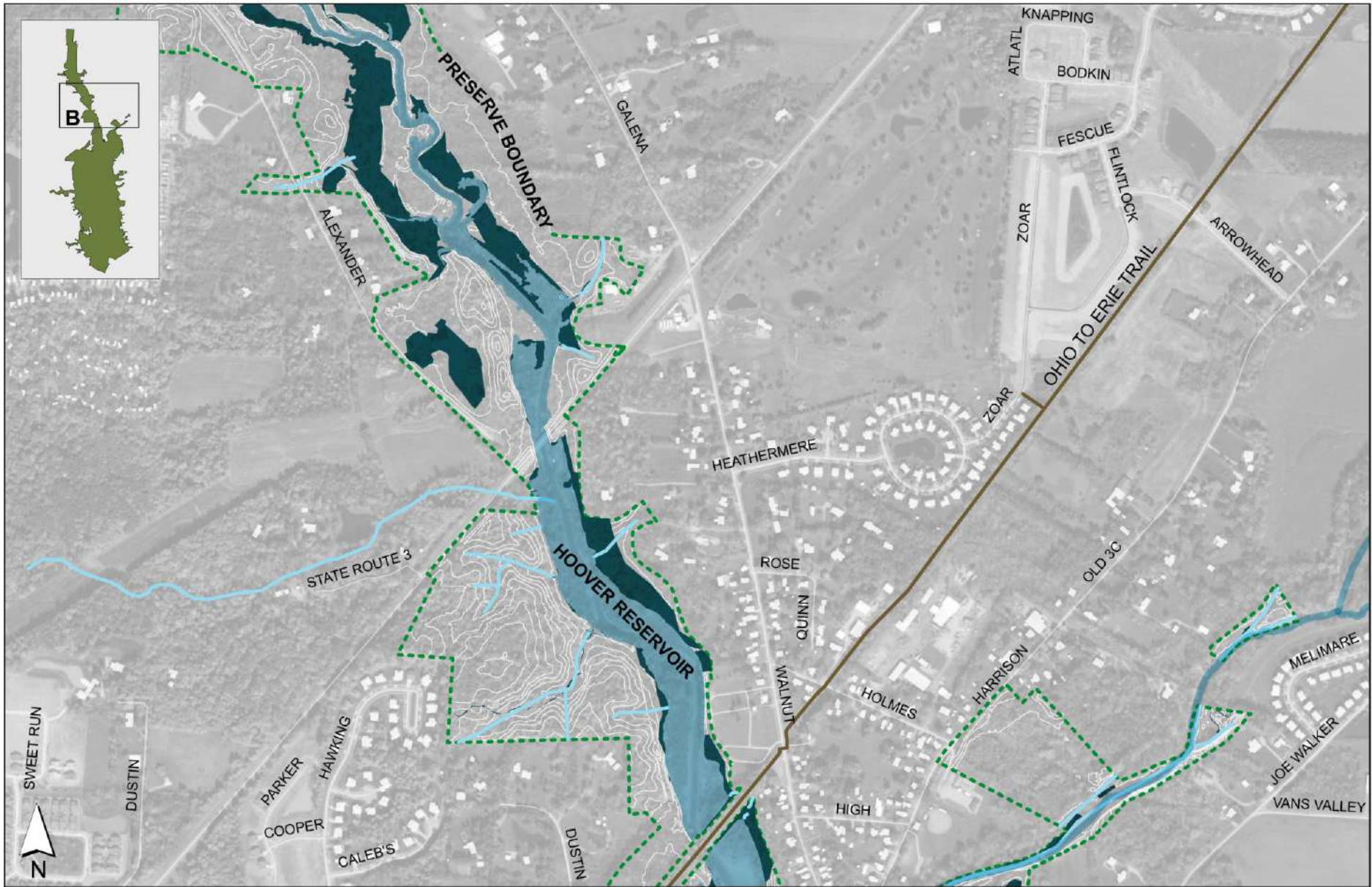
Swamp rose (*Rosa palustris*) in an emergent wetland.



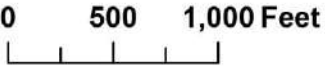
Hoover Streams & Wetlands A

- Wetlands
- Streams
- Reservoir
- 5' Contours



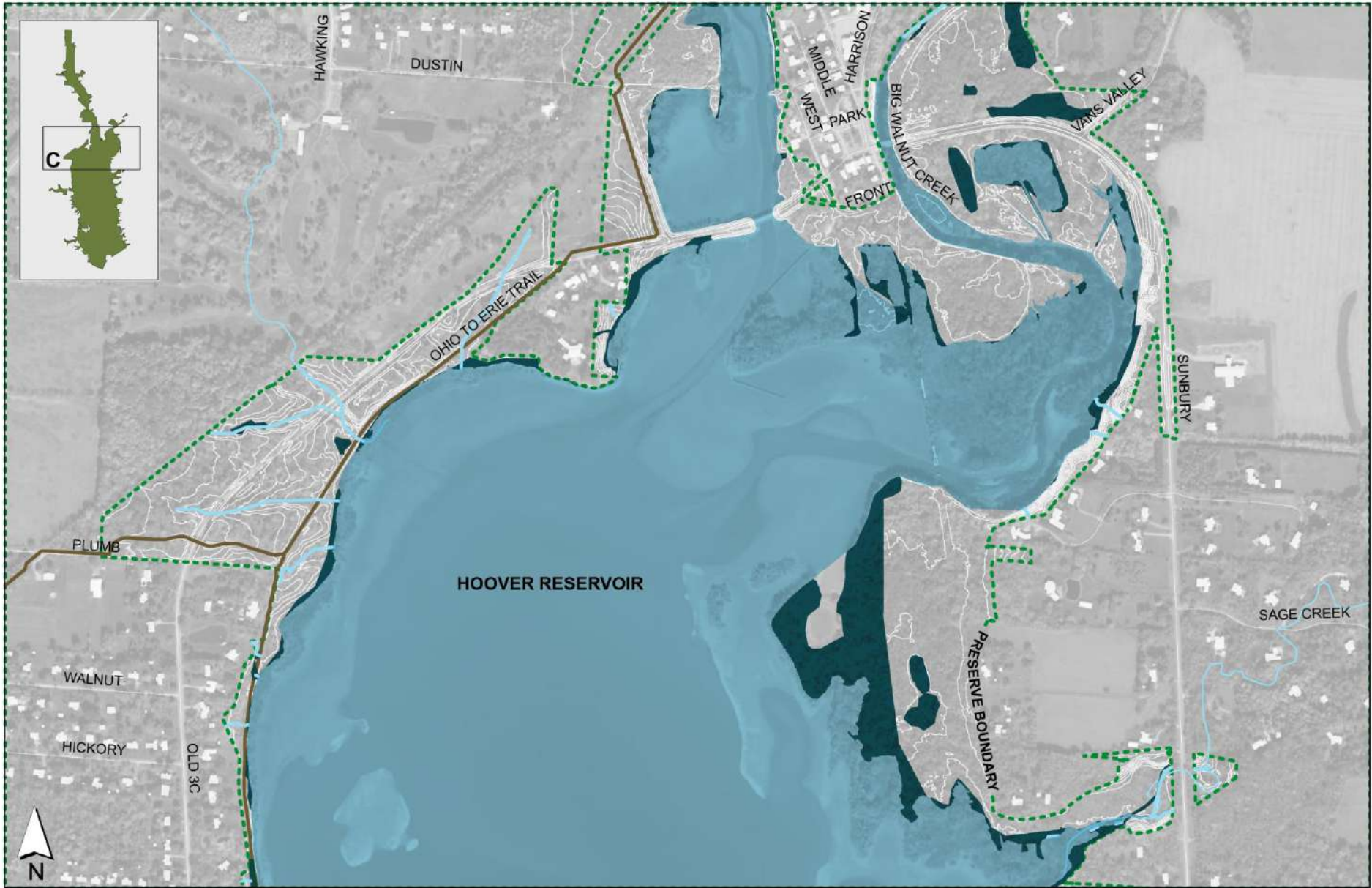


Hoover Streams & Wetlands B



- Streams
- Reservoir
- Wetlands
- 5' Contours

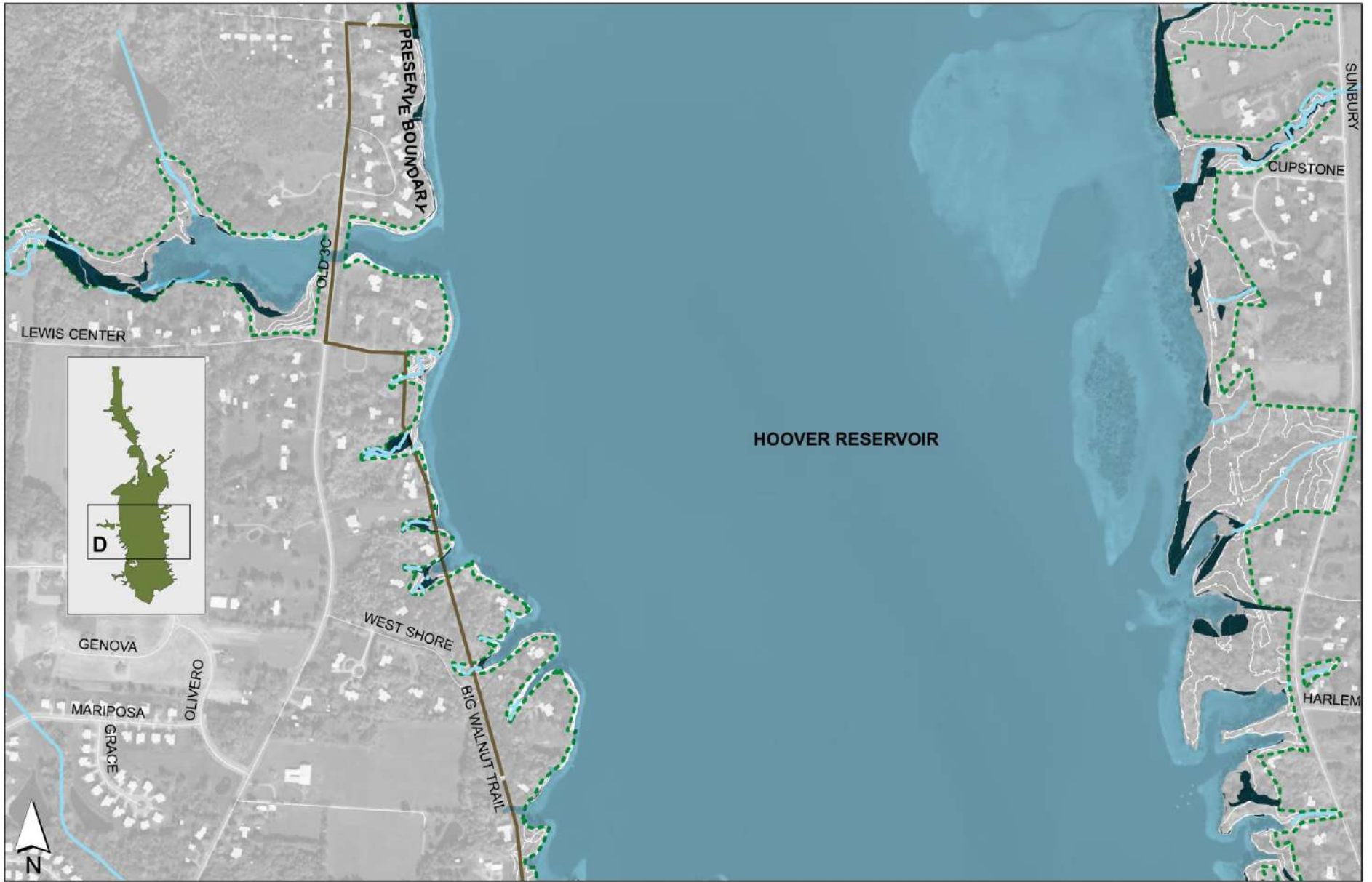




Hoover Streams & Wetlands C

- Streams
- Reservoir
- Wetlands
- 5' Contours





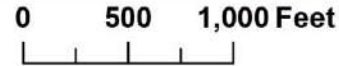
Hoover Streams & Wetlands D

- Streams
- Reservoir
- Wetlands
- 5' Contours





Hoover Streams & Wetlands E

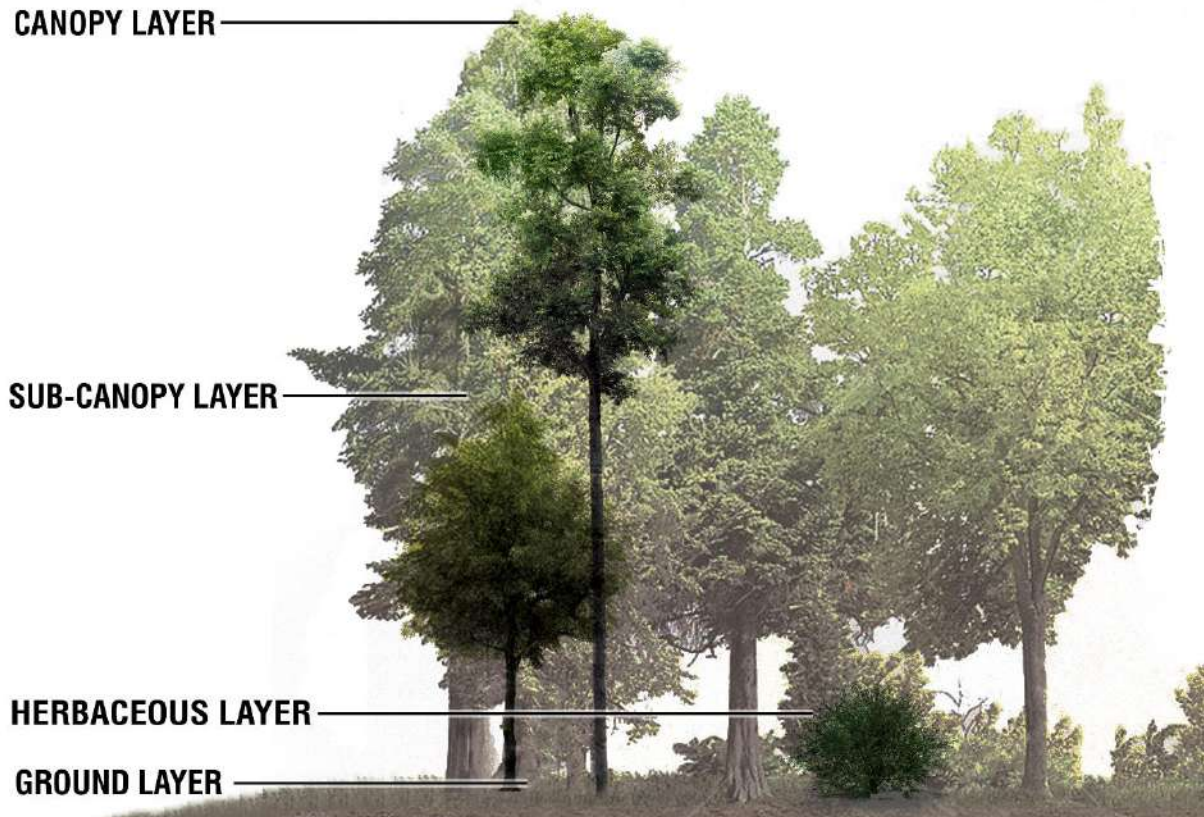


- Streams
- Reservoir
- Wetlands
- 5' Contours



3.3 Vegetation and Habitat

Commonly observed native tree species include sugar maple (*Acer saccharum*), hackberry (*Celtis occidentalis*), American elm (*Ulmus americana*), black walnut (*Juglans nigra*), and white oak (*Quercus alba*) within upland forest and transition zones. Along the edge of Hoover Reservoir, sycamore and silver maple are dominant.



Commonly observed native sub-canopy species include eastern redbud (*Cercis canadensis*), spicebush (*Lindera benzoin*), pawpaw (*Asimina triloba*), green ash saplings (*Fraxinus pennsylvanica*), and buttonbush.

The herbaceous layer is dominated by Virginia creeper (*Parthenocissus quinquefolia*), white snake root (*Ageratina altissima*), jump seed (*Persicaria virginiana*), and poison ivy (*Toxicodendron radicans*).

See “Hoover Habitat Types A-E” map that illustrates the general vegetation coverage within Hoover. The following habitat types were identified:

1. Upland Forest
2. River
3. Wetland
4. Impervious
5. Reservoir

6. Grassland/Herbaceous
7. Maintained Lawn

The “Hoover Known Species List (2022)” is included as an attachment.

3.3.1 Upland Forest

Hoover has 515-acres of upland forest, which includes portions of mature forest dominated by large diameter trees. This forest serves as an important riparian area for numerous streams and Hoover Reservoir and is habitat for a number of plant and animal species, including potential habitat for protected bat and bird species. Bats use forests during the summer to roost and often prefer to forage along riparian stream corridors like the one found in Hoover.



Upland Forest Habitat



Upland Forest Habitat

3.3.2 River

Hoover includes 8.3-acres of the Big Walnut Creek and Little Walnut Creek, prior to entering Hoover Reservoir. Riparian habitats along rivers are of particular importance for plant and wildlife habitat, and are often used by birds, mammals, and amphibians.



River Habitat

3.3.3 Wetland

Hoover includes numerous forested, scrub-shrub, and emergent wetlands along Hoover Reservoir and adjacent streams (see section 3.2.2 for details). Wetlands filter water and improve downstream water quality. They reduce flooding and store carbon. Wetlands also serve as wildlife habitat.



Wetland Habitat



Wetland Habitat

3.3.4 Reservoir

Hoover includes approximately 1,517-acres of Hoover Reservoir. Hoover provides suitable habitat for birds and fish, including federal and state listed species. It is also an important recreational destination.



Reservoir



Reservoir

3.3.5 Grassland/Herbaceous

Approximately 40-acres of grassland/herbaceous vegetation is present, consisting of wingstem (*Verbesina alternifolia*), Canada goldenrod (*Solidago canadensis*), wild garlic (*Allium canadense*), wild carrot (*Daucus carota*), deer tongue grass (*Dichanthelium clandestinum*), and other grasses.



Grassland/Herbaceous Habitat



Grassland/Herbaceous Habitat

3.3.6 Maintained Lawn

Approximately 12.7-acres of mowed area is present, adjacent to roads and parking lots.



Maintained Lawn



Maintained Lawn

3.3.7 Invasive Vegetation

Dominant invasive species within the upland forest habitat includes honeysuckle (*Lonicera* spp). Honeysuckle grows quickly, out-competing native understory plants and shading the forest floor, which prevents a native and diverse herbaceous layer. The berries are a food source for native birds but provide less nutritional content than native shrubs. Based on the extent of coverage and the multiple negative impacts from honeysuckle, removal of this invasive species is a priority.

In addition, areas of wetland include reed canary grass (*Phalaris arundinacea*), an invasive wetland grass. Specific mapping of invasive species was not completed due to the large size of Hoover.

3.4 Listed/Protected Plant and Wildlife Species

Plant and wildlife species data below were requested from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) data and the Ohio Department of Natural Resources (ODNR) Natural Heritage Data (NHD). Hoover is within the potential habitat ranges of the following endangered, threatened, or species of concern plants and/ or wildlife. Therefore, these species may be found within the Nature Preserve.

Plants

No USFWS federally listed plant species or ODNR state listed plant species ranges or records are known to exist within Hoover.

The following records or ranges for wildlife were identified within Hoover:

Mammals

The Federally endangered Indiana bat (*Myotis sodalists*) and northern long-eared bat (*Myotis septentrionalis*) are found in Ohio. These bats face extinction due to the range-wide impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent.

These species hibernate, therefore are not typically found in trees in the winter. However, when not in hibernation, they use the trees within forests for foraging, roosting, and raising their young in the summer, and often return to the same forests. The mature forest in Hoover provides suitable habitat for the bats.

Insects

The monarch butterfly (*Danaus plexippus*) is a candidate for being considered Federally Threatened or Endangered (due to the significant decline in their numbers). Monarchs seek milkweed plants for food and laying eggs as part of their annual migration from as far north as Canada down to central Mexico. Wildflowers present in Hoover provide suitable food sources for monarch butterflies.

Fish

The blue catfish (*Ictalurus furcatus*) is a State species of concern. These species can inhabit a variety of habitats and are present within Hoover Reservoir. During the spawning season they lay eggs along protected areas, such as rocks, root-wads, stream banks, and other areas where currents are minimal. The shoreline along Hoover Oxbow may provide suitable spawning habitat for this species.

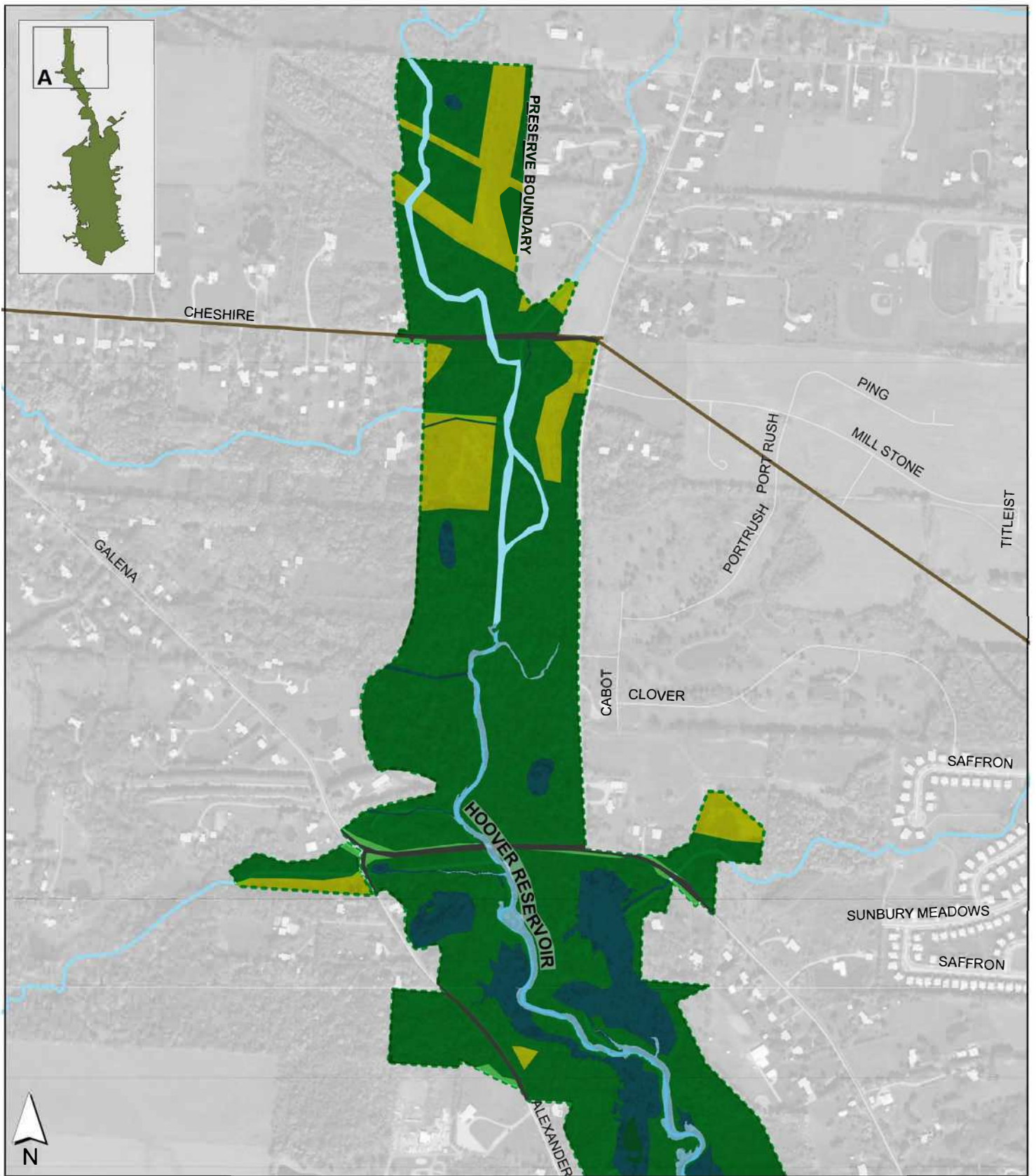
Birds

The Prothonotary warbler (*Protonotaria citrea*) is a State species of concern. These birds prefer forested habitat along rivers, wetlands, and large body of waters. They nest in the holes of standing dead trees and also utilize nest boxes. Hoover includes over 500-acres of suitable upland forest and includes several nest boxes.

The cerulean warbler (*Setophaga cerulea*) is a State Species of Concern. These birds require large forest tracts and prefer riparian areas along rivers, wetlands, and large body of water.

They nest in the top canopies of trees and utilize mid to top canopies for feeding. The cerulean warbler uses the upland forest at Hoover for habitat, as does the Prothonotary warbler.

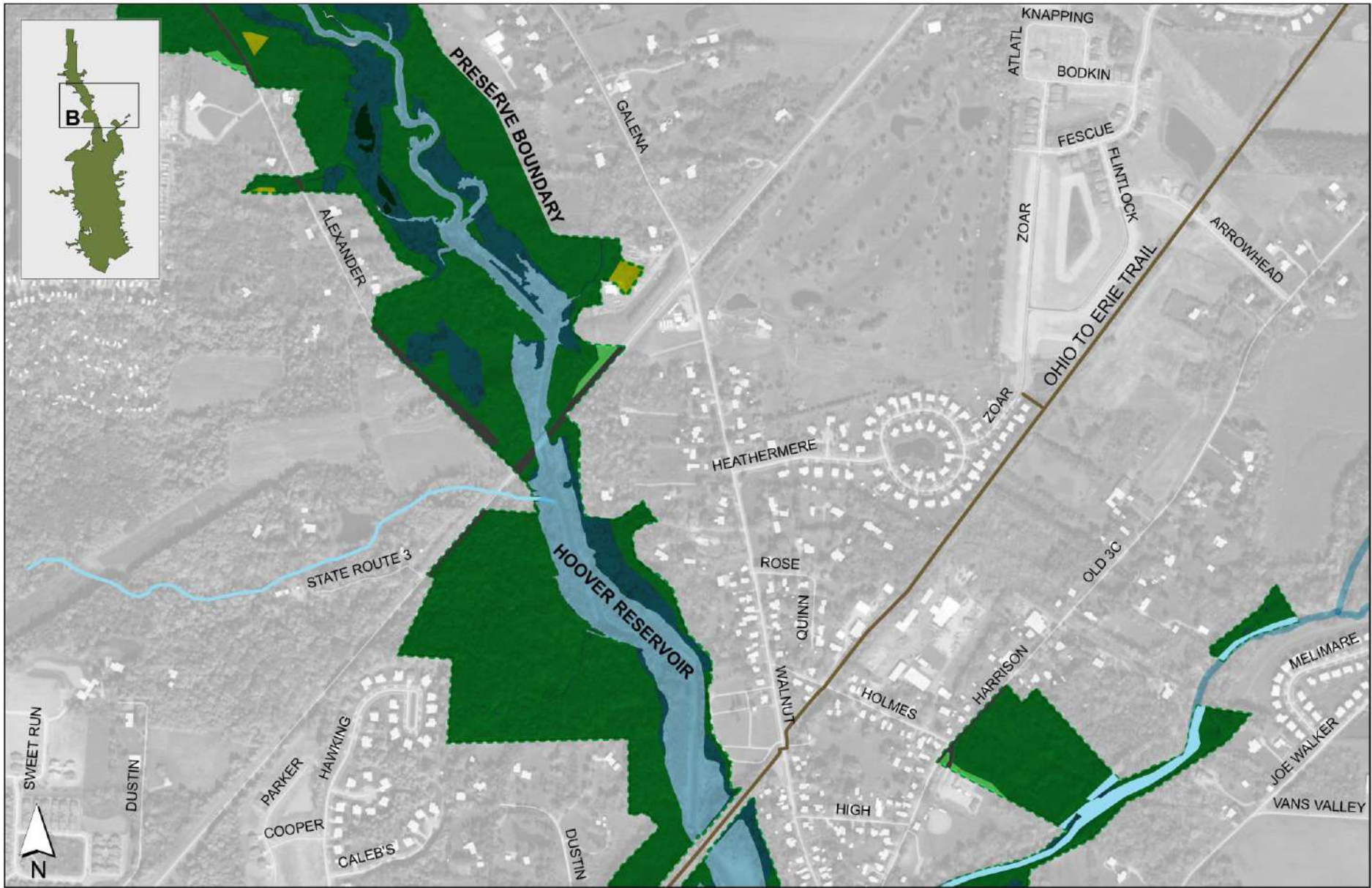
The bald eagle (*Haliaeetus leucocephalus*) is federally protected by the Bald and Golden Eagle Protection Act. Several bald eagle nests are present adjacent or within Hoover. These birds prefer nesting in large trees, capable of supporting their nests, adjacent to large bodies of water where they can forage for food.



Hoover Habitat Types A

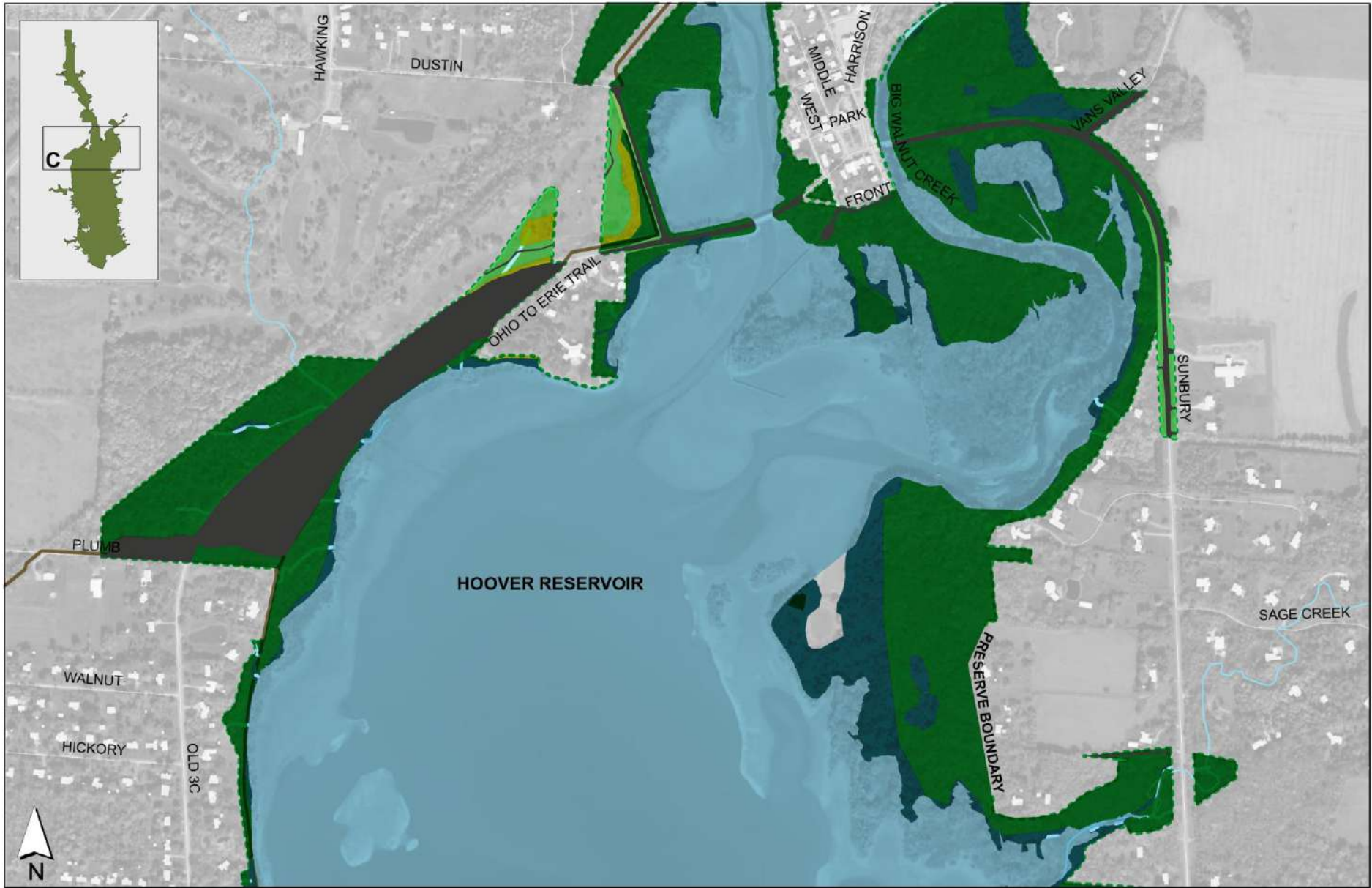
0 500 1,000 Feet



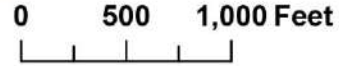


Hoover Habitat Types B





Hoover Habitat Types C



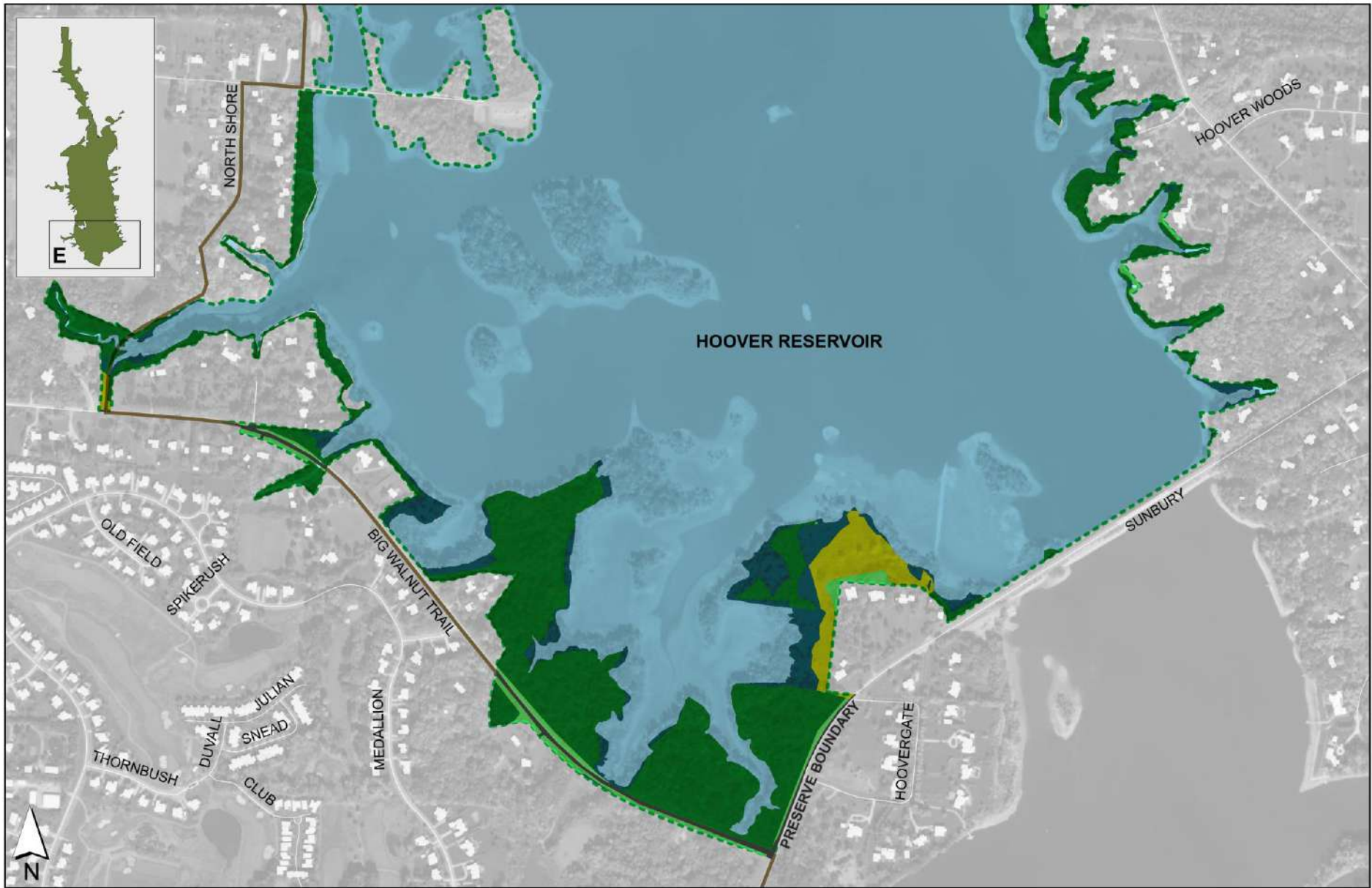
 Wetland (91.5 acres)	 River (8.27 acres)	 Reservoir (1,518 acres)	 Impervious (19.9 acres)
 Upland Forest (514 acres)	 Maintained Lawn (12.7 acres)	 Grassland/Herbaceous (40.3 acres)	



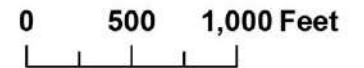


Hoover Habitat Types D





Hoover Habitat Types E



 Wetland (91.5 acres)	 River (8.27 acres)	 Reservoir (1,518 acres)	 Impervious (19.9 acres)
 Upland Forest (514 acres)	 Maintained Lawn (12.7 acres)	 Grassland/Herbaceous (40.3 acres)	



3.5 Wildlife

With its wide range of habitat types, Hoover supports populations of mammals, birds, reptiles, amphibians, freshwater mussels, and fish. A species list of wildlife documented in Hoover is attached.



Giant floater (*Pyganodon grandis*) shell.



Banded tussock moth (*Halysidota tessellaris*)

4 RECOMMENDATIONS

In 2022, Columbus City Code was amended by enacting Section 919.27 - Nature Preserve Code, to designate portions of parks as nature preserves for the benefit of present and future residents of the City of Columbus. The purpose of the Nature Preserve Code is to identify, protect, and manage Nature Preserves. The management of Nature Preserves includes ensuring it is maintained in its existing, near-natural, or restored state. In order to continue to benefit the residents of Columbus and follow Nature Preserve Code, the following actions are recommended.

4.1 Protection

4.1.1 Maintain Pristine, Native Habitat

Hoover Nature Preserve contains mature upland forest, wetland, several streams, river, and Hoover Reservoir. These varied habitats provide important habitat and water quality filtration. Hoover Reservoir is an important fishery resource and popular birding area, where winter birds frequently gather during migration. Continued protection of the natural resources within Hoover is vital, to ensure these resources remain for future generations. It is recommended that park users have a “leave no trace” mentality when visiting Hoover.

It is important to understand the natural resources within Hoover in order to prioritize management activities. One consideration would be to update the listing of observed species of flora and fauna within Hoover once every five years. This update should include a thorough survey of species through multiple seasonal field visits. Documenting the specific location of sensitive species and habitat in GIS could be used to protect the most rare or sensitive resources.

4.1.2 Plant Management

All native plants are to be left alone in their original state. If trees naturally fall, they are to remain where they land to provide habitat for wildlife. If trees are designated as a severe risk, trees should be cut to the remainder of a 20-to-30-foot stump of standing dead habitat.

4.1.3 Invasive Species Removal

Invasive plant species, including honeysuckle and reed canary grass, are dominant in areas of Hoover. Although eradication of invasive species is desirable to preserve the native biological diversity, extensive time and effort, as well as costs, are involved with this goal.

If addressing the invasive species at Hoover is pursued, removal of honeysuckle should be the first priority. This is due to the extensive coverage of honeysuckle and the multiple negative impacts it has on native resources. Native herbaceous plants should be planted in areas where heavily dominated invasive species areas have been cleared.

Removal efforts may be accomplished by the continued organization of volunteer events through Hoover partners. The application of pesticide should follow the standards described in the CRPD Integrated Pest Management Policy Statement. In some cases, planting of native species may be required once invasive plants are removed.

4.2 Conservation

4.2.1 Visitor Management

To provide a safe and enjoyable visitor experience while protecting Hoover's natural resources, CRPD will use strategies to achieve resource protection. These practices may include visitors having minimal impact on the natural area by respecting plant and wildlife, disposing of waste properly, and being considerate of others.



White-tailed deer (*Odocoileus virginianus*) are prevalent throughout Hoover.

4.2.2 Community Involvement

Engage neighbors and community members around Hoover through volunteer event signs posted in Hoover and posted on social media. Events may include education on encroachment, invasive species removal, litter pick-up events, plantings, and others.

4.3 Enhancement

4.3.1 Signage

Install signs identifying Hoover as a Nature Preserve at all access points, along with a summary of the Nature Preserve regulations. Additional signage along the preserve boundaries is recommended to aid in limiting encroachments. Educational signage may also be installed, regarding some of the unique natural resources.

4.3.2 Erosion

Excessive erosion is present along several of the shoreline abutting Hoover Reservoir. This erosion is likely due to fluctuation in water levels and wave action. It is recommended corrective actions are implemented to mitigate erosion.



Excessive erosion along Hoover Reservoir's shoreline.

ATTACHMENTS

Hoover Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Acer negundo</i>	Boxelder
<i>Acer saccharinum</i>	Silver Maple
<i>Acer saccharum</i>	Sugar Maple
<i>Ageratina altissima</i>	White Snakeroot
<i>Allium canadense</i>	Wild Garlic
<i>Arisaema triphyllum</i>	Jack-in-the-Pulpit
<i>Asimina triloba</i>	Pawpaw
<i>Carex sp.</i>	Sedges
<i>Celtis occidentalis</i>	Hackberry
<i>Cephalanthus occidentalis</i>	Buttonbush
<i>Cercis canadensis</i>	Eastern Redbud
<i>Cirsium arvense</i>	Creeping Thistle
<i>Claytonia virginica</i>	Spring-beauty
<i>Crataegus sp.</i>	Hawthorn
<i>Daucus carota</i>	Wild Carrot
<i>Desmodium canadense</i>	Showy Tick-trefoil
<i>Dichanthelium clandestinum</i>	Deer Tongue Grass
<i>Equisetum sp.</i>	Horsetails
<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Gleditsia triacanthos</i>	Honey Locust
<i>Gray's Sedge</i>	Carex Grayi
<i>Hibiscus palustris</i>	Swamp Rose-mallow
<i>Impatiens capensis</i>	Orange Jewelweed
<i>Iris pseudacorus</i>	Yellow Iris
<i>Juglans nigra</i>	Black Walnut
<i>Juncaceae sp.</i>	Rushes
<i>Justicia americana</i>	American Water-willow
<i>Laportea canadensis</i>	Wood Nettle
<i>Lemnoideae sp.</i>	Duckweeds
<i>Lindera benzoin</i>	Spicebush
<i>Lonicera sp.</i>	Honeysuckle
<i>Parthenocissus quinquefolia</i>	Virginia Creeper
<i>Persicaria amphibia</i>	Water Smartweed
<i>Persicaria virginiana</i>	Jump Seed
<i>Phalaris arundinacea</i>	Reed Canary Grass
<i>Pinus sylvestris</i>	Scotch Pine
<i>Platanus occidentalis</i>	Sycamore
<i>Populus deltoides</i>	Eastern Cottonwood

Hoover Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Quercus alba</i>	White Oak
<i>Rosa multiflora</i>	Multiflora Rose
<i>Rubus sp.</i>	Blackberry
<i>Salix nigra</i>	Black Willow
<i>Saururus cernuus</i>	Lizard Tail
<i>Solidago Canadensis</i>	Canada Goldenrod
<i>Toxicodendron radicans</i>	Poison-ivy
<i>Ulmus americana</i>	American Elm
<i>Verbesina alternifolia</i>	Wingstem
<i>Xanthium strumarium</i>	Rough Cocklebur

Hoover Known Species List (2022)	
Mammals	
Scientific Name	Common Name
<i>Canis latrans</i>	Coyote
<i>Castor canadensis</i>	American Beaver
<i>Didelphis virginiana</i>	Virginia Opossum
<i>Marmota monax</i>	Woodchuck
<i>Mephitis mephitis</i>	Striped Skunk
<i>Neovison vison</i>	Mink
<i>Odocoileus virginianus</i>	White-tailed Deer
<i>Ondatra zibethicus</i>	Muskrat
<i>Peromyscus maniculatus</i>	Deer Mouse
<i>Procyon lotor</i>	Raccoon
<i>Sciurus carolinensis</i>	Eastern Gray Squirrel
<i>Sciurus niger</i>	Fox Squirrel
<i>Sciurus vulgaris</i>	Red Squirrel
<i>Sylvilagus floridanus</i>	Eastern Cottontail Rabbit
<i>Tamias striatus</i>	Eastern Chipmunk
<i>Vulpes vulpes</i>	Red fox

Hoover Known Species List (2022)	
Amphibians	
Scientific Name	Common Name
<i>Anaxyrus americanus</i>	American Toad
<i>Lithobates pipiens</i>	Northern Leopard Frog
<i>Rana clamitans</i>	Green Frog

Hoover Known Species List (2022)	
Birds	
Scientific Name	Common Name
<i>Accipiter cooperii</i>	Cooper's Hawk
<i>Actitis macularius</i>	Spotted Sandpiper
<i>Agelaius phoeniceus</i>	Red-winged Blackbird
<i>Aix sponsa</i>	Wood Duck
<i>Ammodramus savannarum</i>	Grasshopper Sparrow
<i>Anas acuta</i>	Northern Pintail
<i>Anas crecca</i>	Green-winged Teal
<i>Anas platyrhynchos</i>	Mallard
<i>Anas rubripes</i>	American Black Duck
<i>Anser albifrons</i>	Greater White-fronted Goose
<i>Anser caerulescens</i>	Snow Goose
<i>Anthus spinoletta</i>	Water Pipit
<i>Archilochus colubris</i>	Ruby-throated Hummingbird
<i>Ardea alba</i>	Great Egret
<i>Ardea Herodias</i>	Great Blue Heron
<i>Aythya affinis</i>	Lesser Scaup
<i>Aythya Americana</i>	Redhead
<i>Aythya collaris</i>	Ring-necked Duck
<i>Aythya valisineria</i>	Canvasback
<i>Bombycilla cedrorum</i>	Cedar Waxwing
<i>Branta canadensis</i>	Canada Goose
<i>Bubo virginianus</i>	Great Horned Owl
<i>Bucephala albeola</i>	Bufflehead Duck
<i>Bucephala clangula</i>	Common Goldeneye
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<i>Butorides virescens</i>	Green Heron
<i>Calidris alba</i>	Sanderling
<i>Calidris alpina</i>	Dunlin
<i>Calidris bairdii</i>	Baird's Sandpiper
<i>Calidris fuscicollis</i>	White-rumped Sandpiper
<i>Calidris melanotos</i>	Pectoral Sandpiper
<i>Calidris minutilla</i>	Least Sandpiper
<i>Calidris pusilla</i>	Semipalmated Sandpiper
<i>Calidris subruficollis</i>	Buff-breasted Sandpiper
<i>Cardellina pusilla</i>	Wilson's Warbler
<i>Cardinalis cardinalis</i>	Northern Cardinal
<i>Cathartes aura</i>	Turkey Vulture
<i>Catharus ustulatus</i>	Swainson's Thrush

Hoover Known Species List (2022)	
Birds	
Scientific Name	Common Name
<i>Certhia americana</i>	Brown Creeper
<i>Chaetura pelagica</i>	Chimney Swift
<i>Charadrius semipalmatus</i>	Semipalmated Plover
<i>Charadrius vociferous</i>	Killdeer
<i>Chroicocephalus Philadelphia</i>	Bonaparte's Gull
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo
<i>Colaptes auratus</i>	Northern Flicker
<i>Colinus virginianus</i>	Northern Bobwhite
<i>Contopus virens</i>	Eastern Wood-pewee
<i>Coragyps atratus</i>	Black Vulture
<i>Corthylio calendula</i>	Ruby-crowned Kinglet
<i>Corvus brachyrhynchos</i>	American Crow
<i>Cyanocitta cristata</i>	Blue Jay
<i>Cygnus columbianus</i>	Tundra Swan
<i>Dumetella carolinensis</i>	Gray Catbird
<i>Empidonax virescens</i>	Acadian Flycatcher
<i>Eremophila alpestris</i>	Horned Lark
<i>Falco sparverius</i>	American Kestrel
<i>Gallinula galeata</i>	Common Gallinule
<i>Gavia immer</i>	Common Loon
<i>Geothlypis trichas</i>	Common Yellowthroat
<i>Haemorhous mexicanus</i>	House Finch
<i>Haliaeetus leucocephalus</i>	Bald Eagle
<i>Hirundo rustica</i>	Barn Swallow
<i>Hydroprogne caspia</i>	Caspian Tern
<i>Hylocichla mustelina</i>	Wood Thrush
<i>Icteria virens</i>	Yellow-breasted Chat
<i>Icterus galbula</i>	Baltimore Oriole
<i>Junco hyemalis</i>	Dark-eyed Junco
<i>Larus argentatus</i>	Herring Gull
<i>Larus delawarensis</i>	Ring-billed Gull
<i>Leiosthlypis peregrina</i>	Tennessee Warbler
<i>Limnodromus griseus</i>	Short-billed Dowitcher
<i>Limnodromus scolopaceus</i>	Long-billed Dowitcher
<i>Limosa haemastica</i>	Hudsonian Godwit
<i>Lophodytes cucullatus</i>	Hooded Merganser
<i>Mareca americana</i>	American Wigeon

Hoover Known Species List (2022)	
Birds	
Scientific Name	Common Name
<i>Mareca strepera</i>	Gadwall
<i>Megaceryle alcyon</i>	Belted Kingfisher
<i>Megascops asio</i>	Eastern Screech Owl
<i>Melanerpes carolinus</i>	Red-bellied Woodpecker
<i>Meleagris gallopavo</i>	Wild Turkey
<i>Melospiza melodia</i>	Song Sparrow
<i>Mergus merganser</i>	Common Merganser
<i>Mergus serrator</i>	Red-breasted Merganser
<i>Mimus polyglottos</i>	Northern Mockingbird
<i>Molothrus ater</i>	Brown-headed Cowbird
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron
<i>Oxyura jamaicensis</i>	Ruddy Duck
<i>Pandion haliaetus</i>	Osprey
<i>Passer domesticus</i>	House Sparrow
<i>Passerina cyanea</i>	Indigo Bunting
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
<i>Phalacrocorax auritus</i>	Double-crested Cormorant
<i>Phalaropus lobatus</i>	Red-necked Phalarope
<i>Phasianus colchicus</i>	Ring-necked Pheasant
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak
<i>Picoides pubescens</i>	Downy Woodpecker
<i>Piranga olivacea</i>	Scarlet Tanager
<i>Pluvialis squatarola</i>	Black-bellied Plover
<i>Podiceps auritus</i>	Horned Grebe
<i>Podilymbus podiceps</i>	Pied-billed Grebe
<i>Poecile atricapillus</i>	Black-capped Chickadee
<i>Poecile carolinensis</i>	Carolina Chickadee
<i>Polioptila caerulea</i>	Blue-gray Gnatcatcher
<i>Protonotaria citrea</i>	Prothonotary Warbler
<i>Quiscalus quiscula</i>	Common Grackle
<i>Regulus satrapa</i>	Golden-crowned Kinglet
<i>Riparia riparia</i>	Bank Swallow
<i>Setophaga castanea</i>	Bay-breasted Warbler
<i>Setophaga coronate</i>	Yellow-rumped Warbler
<i>Setophaga palmarum</i>	Palm Warbler
<i>Setophaga petechia</i>	American Yellow Warbler
<i>Sialia sialis</i>	Eastern Bluebird
<i>Spatula clypeata</i>	Northern Shoveler

Hoover Known Species List (2022)	
Birds	
Scientific Name	Common Name
<i>Spatula discors</i>	Blue-winged Teal
<i>Spinus pinus</i>	Pine Siskin
<i>Spinus tristis</i>	American Goldfinch
<i>Spizella passerina</i>	Chipping Sparrow
<i>Spizelloides arborea</i>	American Tree Sparrow
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow
<i>Sterna hirundo</i>	Common Tern
<i>Strix varia</i>	Barred Owl
<i>Sturnella magna</i>	Eastern Meadowlark
<i>Sturnus vulgaris</i>	European Starling
<i>Tachycineta bicolor</i>	Tree Swallow
<i>Thryothorus ludovicianus</i>	Carolina Wren
<i>Tringa flavipes</i>	Lesser Yellowlegs
<i>Tringa melanoleuca</i>	Greater Yellowlegs
<i>Tringa semipalmata</i>	Willet
<i>Troglodytes aedon</i>	House Wren
<i>Turdus migratorius</i>	American Robin
<i>Tyrannus tyrannus</i>	Eastern Kingbird
<i>Vermivora cyanoptera</i>	Blue-winged Warbler
<i>Vireo flavifrons</i>	Yellow-throated Vireo
<i>Vireo gilvus</i>	Warbling Vireo
<i>Vireo olivaceus</i>	Red-eyed Vireo
<i>Zenaida macroura</i>	Mourning Dove

Hoover Known Species List (2022)	
Reptiles	
Scientific Name	Common Name
<i>Apalone spinifera</i>	Spiny Softshell Turtle
<i>Chrysemys picta</i>	Painted Turtle
<i>Nerodia sipedon</i>	Common Watersnake

Hoover Known Species List (2022)	
Fish	
Scientific Name	Common Name
<i>Ameiurus natalis</i>	Yellow Bullhead
<i>Cyprinus carpio</i>	Common Carp
<i>Dorosoma cepedianum</i>	Gizzard Shad
<i>Ictalurus furcatus</i>	Blue Catfish
<i>Lepisosteus osseus</i>	Longnose Gar
<i>Lepomis macrochirus</i>	Bluegill
<i>Micropterus salmoides</i>	Largemouth Bass
<i>Morone chrysops</i>	White Bass
<i>Pomoxis nigromaculatus</i>	Black Crappie
<i>Sander canadensis</i> × <i>vitreus</i>	Saugeye
<i>Sander vitreus</i>	Walleye
<i>Ameiurus natalis</i>	Yellow Bullhead