

# HOOVER PRAIRIE NATURE PRESERVE MANAGEMENT PLAN

**2023**



7445 CUBBAGE RD, WESTERVILLE OH 43081

# HOOVER PRAIRIE 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 Prairie Nature Preserve

 7445 Cabbage Rd. Westerville, Ohio 43081

Hoover Prairie Nature Preserve features 38 acres of upland forest and more than an acre of prairie habitat. The prairie, which is over 100 years old, provides habitat to the only known Ohio population of the state-endangered Gattinger's foxglove.



## Features and Amenities

### Features

- Mature upland forest
- Over 2,600 linear feet of stream
- Historic prairie habitat

### Amenities

- Gravel trail
- Natural trails
- Parking lot

## Listed Species

- Indiana bat\*  
(*Myotis sodalist*)
- Monarch butterfly^  
(*Danaus plexippus*)
- Prothonotary warblers\*\*\*  
(*Protonotaria citrea*)
- Northern long-eared bat\*  
(*Myotis septentrionalis*)
- Blue catfish\*\*\*  
(*Ictalurus furcatus*)
- Gattinger's foxglove\*\*  
(*Agalinis gattingeri*)

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

## Habitat



■ Upland Forest (96%) ■ Grassland/ Prairie (4%)

## Recommendations

To maintain, conserve, and restore Hoover Prairie Nature Preserve:



Keep the Nature Preserve in its original state and limit activities to pedestrian trail use only. Hoover Prairie has a mature forest and a rare prairie habitat that has survived over 100 years.



Remove invasive multi-flora rose, and other invasive plants. Invasive species are present, most notably honeysuckle and multi-flora rose. Due to the small area and the proximity to potentially state threatened plants, removal of multi-flora rose 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.

## 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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# ATTACHMENTS

Hoover Prairie Known Species List (2022)

# 1 INTRODUCTION

## 1.1 Columbus Nature Preserves Overview

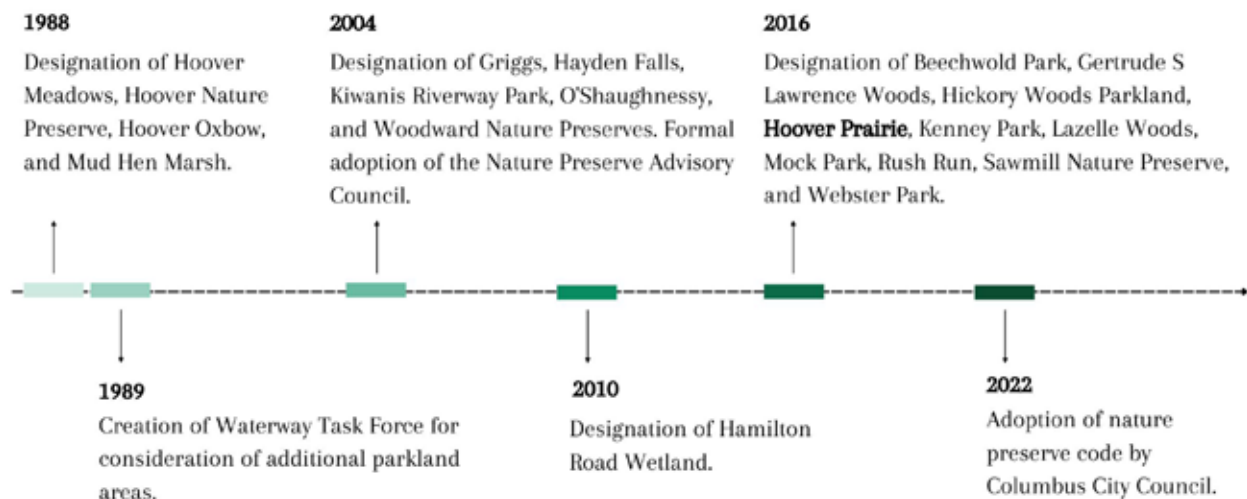
The Columbus Recreation and Parks Department (CRPD) works to preserve the local natural heritage for the Columbus community to enjoy. CRPD recognizes environmentally unique and sensitive areas as designated nature preserves. The Columbus Nature Preserve system is one of a few city nature preserve programs 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 details 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 Prairie Nature Preserve (“Hoover Prairie”) is 39.8-acres in size and was designated as a Nature Preserve in 2016. It is located on a portion of Franklin County Parcel ID #110-000007, which totals 989-acres.

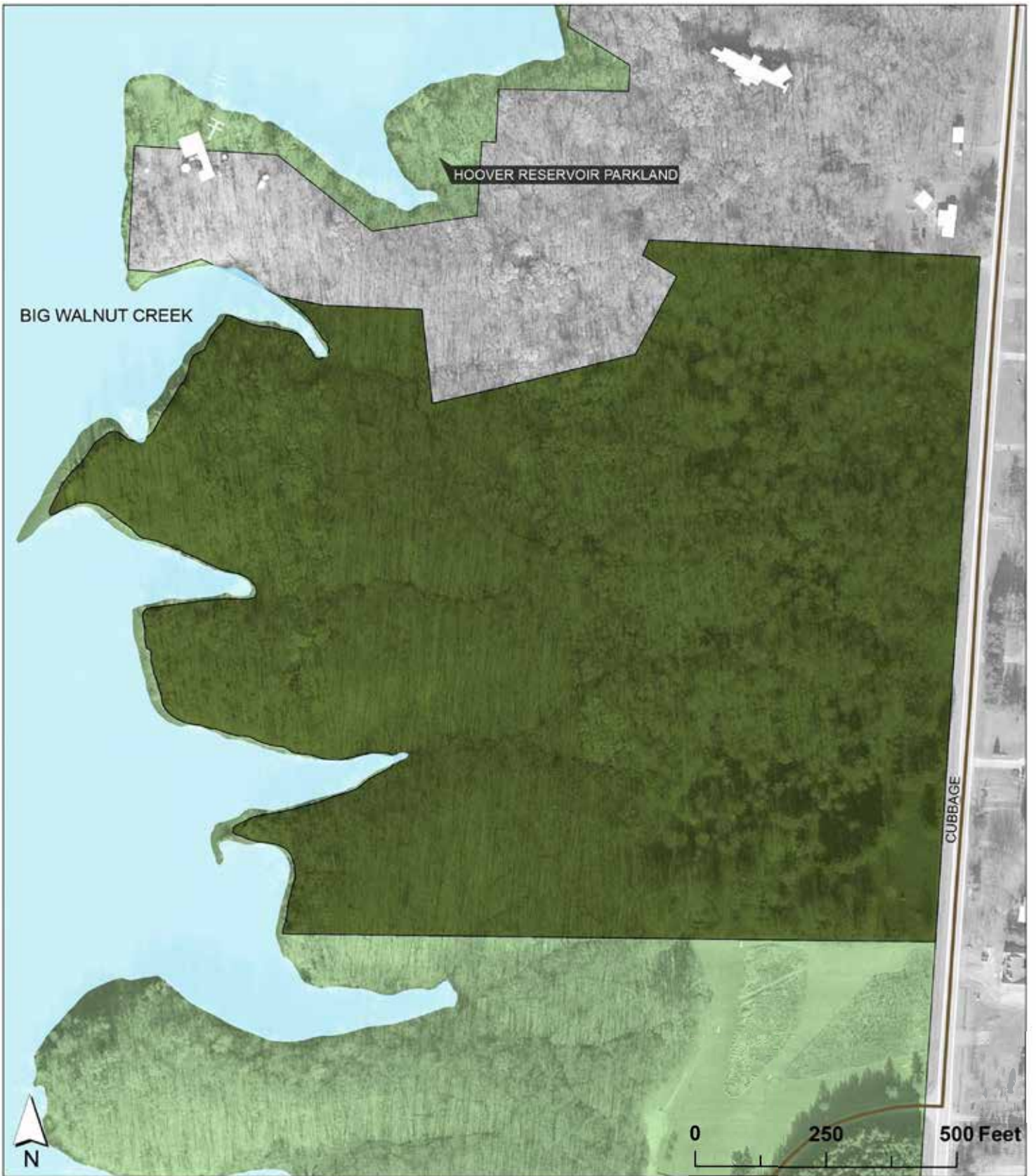
### 2.2 Location Description

Hoover Prairie’s address is 7445 Cabbage Road, Westerville, Ohio 43081. Hoover Prairie is located north of Central College Road, east of the Hoover Reservoir and dam, south of Smothers Road, and west of Cabbage Road.

Surrounding land use includes residential housing, agriculture, forested area, and Hoover Reservoir. See “Hoover Prairie Nature Preserve” location map.



Meandering trail with resting bench at Hoover Prairie.



7445 CUBBAGE RD, WESTERVILLE OH 43081

# Hoover Prairie Nature Preserve

Preserve Boundary
  Nearby CRPD Properties





### 3 AMENITIES AND NATURAL RESOURCES

#### 3.1 Amenities

Established natural and gravel trails exist throughout Hoover Prairie, with culverts over streams and low water areas. Additional natural trails, formed from visitor use, also exist. Parking lots exist to the south, outside Hoover Prairie boundaries. Two signs identifying prairie habitat restoration are present. No signage identifying Hoover Prairie as a nature preserve was observed.



Signage for the prairie habitat restoration.

#### 3.2 Landscape Context

Hoover Prairie consists of a flat hilltop, with steep slopes, and deep stream valleys. Drainage flows from east to west, into Hoover Reservoir.

Hoover Prairie contains Federal Emergency Management Agency (FEMA) 100-year floodplain along the several stream valleys. These floodplain areas provide habitat for fish and wildlife, recharge groundwater, and improve surface water quality.

The following soils are mapped within Hoover Prairie:

- **Alexandria silt loam** are deep, well drained soils composed of materials deposited by glaciers.
- **Cardington silt loam** are very deep, moderately well drained soils composed of debris that accumulate at the bottom of a glacier.
- **Mitiwanga silt loam** are moderately deep, somewhat poorly drained soils formed in till underlain by sandstone bedrock on relatively flat till and lake plains.

##### 3.2.1 Streams

Hoover Prairie is located in the Hoover Reservoir-Big Walnut Creek Watershed (Ohio Environmental Protection Agency (EPA) Hydrologic Unit (HUC) #050600011308). This watershed includes Hoover Reservoir, a major water source for Columbus, which was created by the Hoover Dam on Big Walnut Creek.



Ephemeral stream within a shallow valley.

Hoover Prairie contains approximately 2,627 linear feet of ephemeral streams. Ephemeral streams are important parts of the watershed and can filter nutrients, slow and regulate how fast water enters

downstream systems, and provide habitat and food sources to downstream systems. Hoover Reservoir is located downstream and serves as a drinking water source. These streams are important resources for the Hoover Reservoir watershed.

See “Hoover Prairie Streams” map.

**3.2.2 Wetlands**

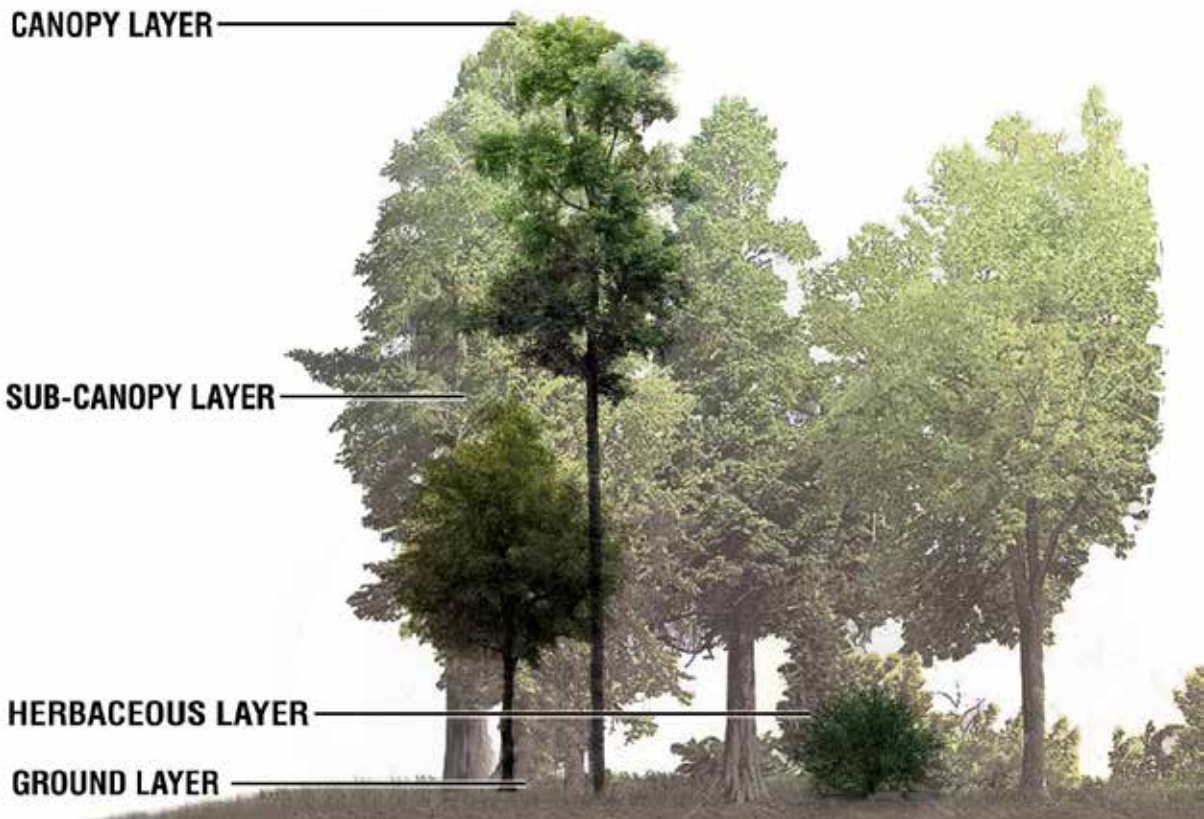
No wetlands were identified within Hoover Prairie.

**3.3 Vegetation and Habitat**

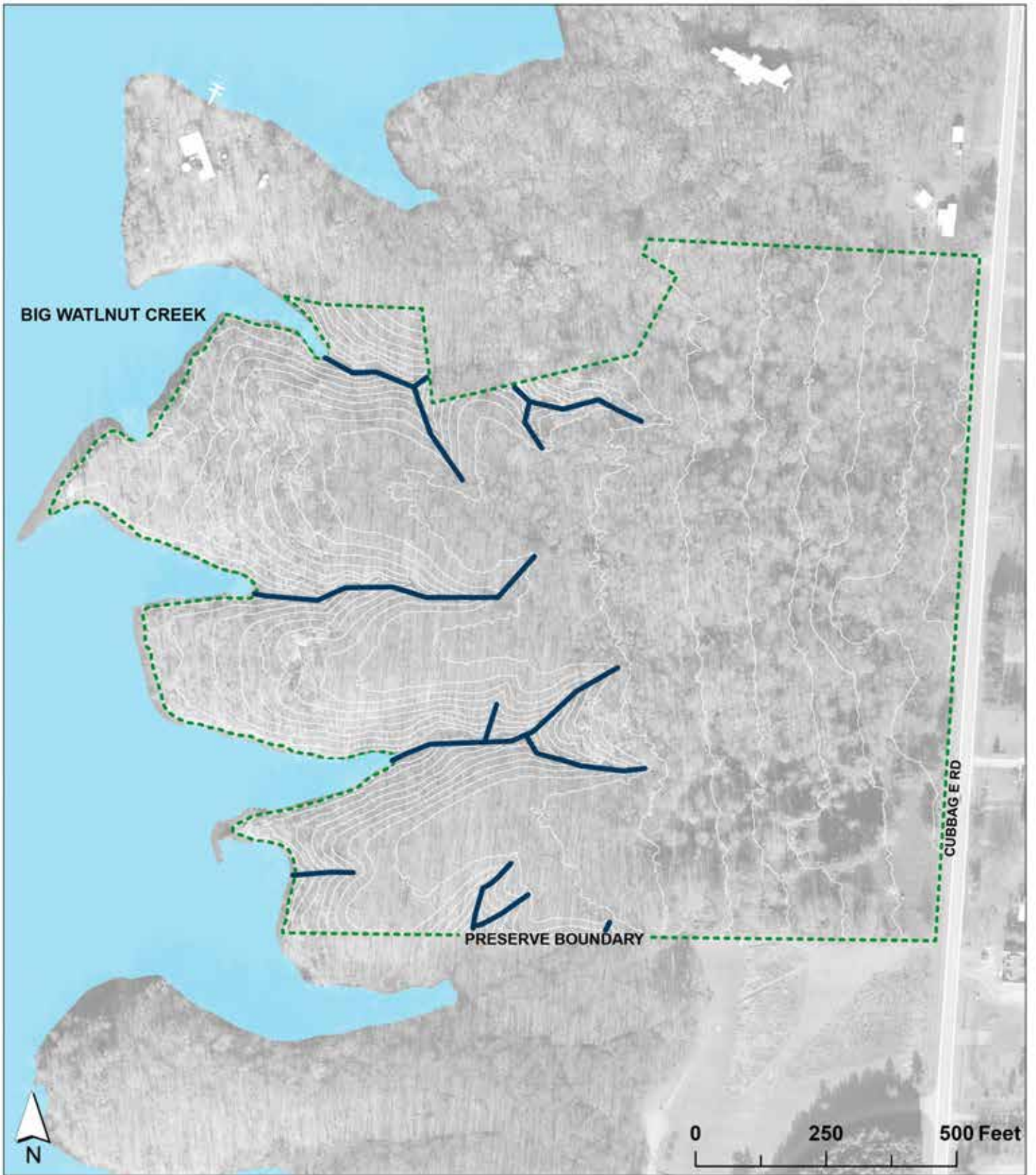
Commonly observed native tree species include sugar maple (*Acer saccharum*), shagbark hickory (*Carya ovata*), and white oak (*Quercus alba*).



Ephemeral stream, typical at Hoover Prairie.



Very little sub-canopy exists within Hoover Prairie. Sapling sugar maples are dominant within the sub-canopy.



## Hoover Prairie Streams

— Ephemeral Streams    5' Contours

The herbaceous layer is dominated by green ash (*Fraxinus pennsylvanica*) saplings and Virginia creeper (*Parthenocissus quinquefolia*), a deciduous climbing woody vine whose green leaves turn red in the fall.

See “Hoover Prairie Habitat Types & Invasive Species” map that illustrates the general vegetation coverage within Hoover Prairie. The following habitat types were identified:

1. Upland Forest
2. Grassland/Herbaceous

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

### 3.3.1 Upland Forest

Hoover Prairie consists of a contiguous 38.3-acres of upland forest, which includes portions of mature forest dominated by large diameter trees. This forest serves as important riparian area for numerous headwater streams that flow into Hoover Reservoir. This forest is also habitat for a number of plant and animal species, including potential habitat for protected bat species. Bats use forests during the summer to roost and often prefer to forage along riparian stream corridors, forested areas along streams, like the one found in Hoover Prairie. In addition, the forest contains populations of a potentially state threatened plant, prairie false indigo.



Upland Forest Habitat



Upland Forest Habitat



Viewing ephemeral stream exiting upland forest.

### 3.3.2 Grassland/Herbaceous

Approximately 1.5-acres of grassland/herbaceous vegetation (prairie restoration area), consisting of black raspberry (*Rubus occidentalis*), swamp agrimony (*Agrimonia parviflora*), goldenrod (*Solidago* spp.), dogbane (*Apocynum cannabinum*), and boneset (*Eupatorium perfoliatum*).

Prairies are rare throughout Ohio and provide critical habitat for wildlife and plants. The prairie within the Hoover Prairie is said to be over 100 years old, originally referred to as the Central College Prairie. Prairie restoration took place in the early 2000s and contains populations a potentially state threatened plant.



Grassland/Herbaceous Habitat



Grassland/Herbaceous Habitat

### 3.3.3 Invasive Vegetation

Dominant invasive species include two shrubs: honeysuckle (*Lonicera* spp.) and privet (*Ligustrum* spp.). These species are concentrated within the eastern portion of the upland forest within Hoover Prairie and cover an approximate 17-acres.

Multi-flora rose (*Rosa multiflora*) is dominant within the grassland/herbaceous habitat (prairie restoration area).

See “Hoover Prairie Habitat Types & Invasive Species” map.



Dutchman's pipe, a unique parasitic plant.



# Hoover Prairie Habitats & Invasives

**Habitat Types:**

- Upland Forest (38.3 acres)
- Grassland/ Herbaceous (1.54 acres)

**Invasive Species:**

- + + +  
+ + + Honeysuckle & Privet (16.7 acres)
- - -  
- - -  
- - - Multi-Flora Rose (0.83-acre)



### 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 Prairie 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 ranges or records are known to exist within Hoover Prairie.

The following ODNR state listed plant species contain records within Hoover Prairie:

- **Gattinger's foxglove** (*Agalinis gattingeri*) – State threatened. The beautiful pink flower known as Gattinger's foxglove was last seen in Ohio in 1929, and now can be found at Hoover Prairie. This species was identified along Hoover Reservoir.
- **Prairie false indigo** (*Baptisia lactea*) – Potentially State threatened. These flowering plants need open habitat, such as prairies to survive. This species was identified within the prairie area.

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

#### 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 Prairie 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 Prairie provide suitable food sources for monarch butterflies.



Gattinger's foxglove



Prairie false indigo

## 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 Prairie may provide suitable spawning habitat for this species.

## Birds

Hoover Reservoir is home to one of the largest populations of nesting prothonotary warblers (*Protonotaria citrea*) in the state. Prothonotary warblers are a state species of concern. They are cavity nesting birds, where they nest in natural cavities, most commonly in downy woodpecker (*Picoides pubescens*) holes, as well as bird boxes placed over water. Bird nest boxes have been installed throughout Hoover Reservoir.

### 3.1 Wildlife

Hoover Prairie supports healthy and diverse populations of mammals, birds, reptiles, amphibians, and fish. A species list of wildlife documented in Hoover Prairie is attached.

Fishing is prevalent within Hoover Reservoir, and crappie heavily populate the waters in the spring. Crappie are a popular sport fish and Hoover Reservoir contains a large population of both white crappie (*Pomoxis annularis*) and black crappie (*Pomoxis nigromaculatus*). The waters directly west of Hoover Prairie are areas where winter water birds frequently gather, making Hoover Prairie a favorite birding location.

## 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 Prairie Nature Preserve contains a mature forest with free-flowing streams. Continued protection of the natural resources within Hoover Prairie is vital, to ensure these resources remain for future generations. Visitor impacts should be limited to pedestrian trail use only. It is recommended that park users have a “leave no trace” mentality when visiting Hoover Prairie.

It is important to understand the natural resources within Hoover Prairie and the rarity of these resources, in order to prioritize management activities. One consideration would be to update the listing of observed species of flora and fauna within Hoover Prairie 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 privet, honeysuckle and multi-flora rose, are present within the eastern portion of the Hoover Prairie. 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.

When addressing the invasive species at Hoover Prairie, removal of multi-flora rose should be the first priority. This is due to the small area it currently occupies that is in proximity to a population of potentially state threatened plants. Once multi-flora rose removal is complete, planning to remove the honeysuckle and privet area can proceed, which will require a much larger effort. Native herbaceous plants should be planted in areas where heavily dominated invasive species areas have been cleared.

Removal efforts may be accomplished by organization of volunteer events. 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 Prairie'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.

#### **4.2.2 Community Involvement**

Engage neighbors and community members around Hoover Prairie through volunteer event signs posted in Hoover Prairie 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**

There is not a main park sign present. Install signs identifying Hoover Prairie 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 the history of the prairie, listed species, and upland forest habitat.

# **ATTACHMENTS**

<b>Hoover Prairie Known Species List (2022)</b>	
<b>Plants</b>	
Scientific Name	Common Name
<i>Acer saccharum</i>	Sugar Maple
<i>Agalinis gattingeri</i>	Prairie False Indigo
<i>Agrimonia parviflora</i>	Swamp Agrimony
<i>Apocynum cannabinum</i>	Dogbane
<i>Baptisia lacteal</i>	Gattinger's Foxglove
<i>Carya ovata</i>	Shagbark Hickory
<i>Eupatorium perfoliatum</i>	Boneset
<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Hypopitys monotropa</i>	Dutchman's Pipe
<i>Ligustrum vulgare</i>	Privet
<i>Lonicera spp.</i>	Honeysuckle
<i>Monotropa uniflora</i>	Ghost Pipe
<i>Parthenocissus quinquefolia</i>	Virginia Creeper
<i>Podophyllum peltatum</i>	Mayapple
<i>Quercus alba</i>	White Oak
<i>Rosa multiflora</i>	Multiflora Rose
<i>Rubus occidentalis</i>	Black Raspberry
<i>Solidago spp.</i>	Goldenrod

<b>Hoover Prairie Known Species List (2022)</b>	
<b>Birds</b>	
Scientific Name	Common Name
<i>Accipiter striatus</i>	Sharp-shinned Hawk
<i>Erynnis baptista</i>	Wild Indigo Skipper
<i>Protonotaria citrea</i>	Prothonotary Warbler

<b>Hoover Prairie Known Species List (2022)</b>	
<b>Mammals</b>	
Scientific Name	Common Name
<i>Odocoileus virginianus</i>	White-tailed Deer
<i>Sciurus carolinensis</i>	Eastern Gray Squirrel
<i>Vulpes vulpes</i>	Red fox

<b>Hoover Prairie Known Species List (2022)</b>	
<b>Butterflies</b>	
Scientific Name	Common Name
<i>Erynnis baptisia</i>	Wild Indigo Skipper