

# HAMILTON ROAD WETLAND NATURE PRESERVE MANAGEMENT PLAN 2023



# HAMILTON ROAD WETLAND 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.

### Hamilton Road Wetland Nature Preserve

 **6135 N. Hamilton Road Columbus, OH 43081**

The Hamilton Road Wetland Nature Preserve is comprised of 77 acres of mature woodlands featuring vernal pool wetlands. This preserve provides habitat to the largest great blue heron rookery in Franklin County. The herons nest in the interior beech-dominated area of the woods and have had as many as 50 nests at one time. Access to this preserve is by permit only.



## Features

- Mature upland forest with large diameter trees
- Great blue heron rookery with numerous beech trees
- Over 62 acres of wetlands which provide extensive breeding grounds for amphibians
- Population of small mouthed salamanders

## Listed Species

- Indiana bat\*  
(*Myotis sodalist*)
- Northern long-eared bat\*  
(*Myotis septentrionalis*)
- Monarch butterfly^  
(*Danaus plexippus*)

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

## Habitat



- Upland Forest (19.4%)
- Forested Wetland (80.2%)
- Emergent Wetland (0.3%)
- Maintained Lawn (0.1%)

## Recommendations

To maintain, conserve, and restore Hamilton Road Wetland Nature Preserve:



Keep the Nature Preserve in its original state and limit activities to permit use only. Hamilton Road Wetland is comprised of a large forested wetland complex. The sensitive habitat of the wetland and great blue heron rookery is also home to several species of amphibians such as salamanders and frogs. Visitor access should remain restricted to permitted use only.



Remove invasive plants. Native species dominate Hamilton Road Wetland. However limited numbers of invasive species are present, most notably multi-flora rose, privet, and American reed grass. If resources allow, remove all invasive plants within Hamilton Road Wetland to prevent invasive species spread.



Install additional signage. Provide signage about the nature preserve and its boundaries and educational signage on park features.



Vernal pool amphibian sampling and hydroperiod monitoring. The vernal pool hydroperiods may have been impacted by adjacent development. It is highly recommended to conduct monitoring to confirm and mitigate impacts.

## 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 Recreation and Parks Commission

Nature Preserve Advisory Council

Prepared By:

Stone Environmental Engineering & Science, a division of CAP-STONE & Associates, Inc.

# TABLE OF CONTENTS

## HAMILTON ROAD WETLAND EXECUTIVE SUMMARY

- 1 INTRODUCTION ..... 1**
  - 1.1 COLUMBUS NATURE PRESERVES OVERVIEW..... 1
  - 1.2 MANAGEMENT PLAN PURPOSE..... 2
- 2 SITE HISTORY AND DESCRIPTION..... 2**
  - 2.1 PRESERVE HISTORY..... 2
  - 2.2 LOCATION DESCRIPTION..... 2
- 3 AMENITIES AND NATURAL RESOURCES..... 4**
  - 3.1 AMENITIES ..... 4
  - 3.2 LANDSCAPE CONTEXT ..... 4
  - 3.3 VEGETATION AND HABITAT ..... 7
  - 3.4 LISTED/PROTECTED PLANT AND WILDLIFE SPECIES ..... 11
  - 3.5 WILDLIFE ..... 12
- 4 RECOMMENDATIONS..... 12**
  - 4.1 PROTECTION..... 12
  - 4.2 CONSERVATION ..... 13
  - 4.3 ENHANCEMENT ..... 13

### LIST OF MAPS

- Hamilton Road Wetland Nature Preserve..... 3
- Hamilton Road Wetlands..... 6
- Hamilton Road Habitat Types & Invasive Species ..... 10

# ATTACHMENTS

Hamilton Road Wetland Known Species List (2022)

# 1 INTRODUCTION

## 1.1 Columbus Nature Preserves Overview

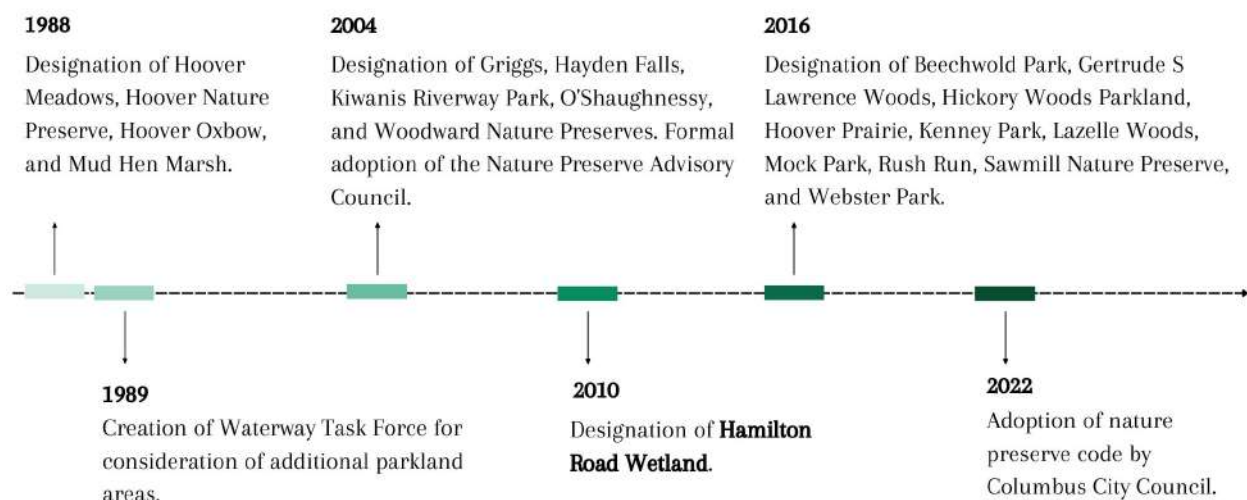
The Columbus Recreation and Parks Department (CRPD) works to preserve the local natural heritage for the Columbus community to enjoy. CRPD recognizes environmentally unique and sensitive areas as designated nature preserves. The Columbus Nature Preserve system is one of a few city nature preserve programs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



## 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

Hamilton Road Wetland Nature Preserve ("Hamilton Road Wetland") is approximately 77.7-acres in size, consisting of Franklin County Parcel ID #010-212436-00. Hamilton Road Wetland was designated a nature preserve in 2010. This land was donated to the City of Columbus by the New Albany Company in 2008 to preserve this wooded wetland and blue heron rookery. Hamilton Road Wetland contains a mitigated wetland and has deed restrictions to hold the property in perpetuity as conservation parkland. Hamilton Road Wetland is a mitigated wetland, protected by an Environmental Covenant and is a permit-access only preserve due to the sensitive habitat.

### 2.2 Location Description

Hamilton Road Wetland's address is 6135 N. Hamilton Road, Columbus, OH 43081. Hamilton Road Wetland is located in the neighborhood of Rocky Fork-Blacklick, north of State Route 161, east of the Big Walnut Creek, south of Central College Road, and west of New Albany.

Surrounding land use includes residential housing and highway (State Route 161).

There is a 25 ft. wetland buffer commitment and access easement by the adjacent, CASTO owned/developed property.



Interior view of the Hamilton Road Wetland Nature Preserve.

See "Hamilton Road Wetland Nature Preserve" location map.



# Hamilton Road Wetland Nature Preserve

Preserve Boundary
  Nearby CRPD Properties

6135 N HAMILTON RD, COLUMBUS OH 43081





### 3 AMENITIES AND NATURAL RESOURCES

#### 3.1 Amenities

No signage, trails, or other constructed amenities are present within Hamilton Road Wetland.

#### 3.2 Landscape Context

Hamilton Road Wetland's topography is flat, with several large depressional areas. There is no Federal Emergency Management Agency (FEMA) floodplain within the park.

The following soils are mapped within Hamilton Road Wetland:

- **Pewamo silty clay loam** soils very poorly drained and are typically found in flat areas, which are ideal soils for wetland formation.
- **Bennington silt loam** is described as somewhat poorly drained soils formed in loamy till of medium lime content in relatively flat areas.



Mature American beech trees which provide habitat for the great blue heron.

##### 3.2.1 Streams

Hamilton Road Wetland is located in the City of Gahanna-Big Walnut Creek Watershed (Ohio EPA Hydrologic Unit (HUC) #050600011502). This

watershed includes portions of Westerville, Gahanna, and Columbus, and drains to Big Walnut Creek downstream of Hoover Reservoir. No streams are present within Hamilton Road Wetland.

##### 3.2.2 Wetlands

Hamilton Road Wetland includes 62-acres of forested wetland and 0.2-acre of emergent wetland.

Using the Ohio EPA Ohio Rapid Assessment Method, the wetland is considered high quality. It contains several vernal pools, mature trees, and a diverse herbaceous layer. The wetland was scored with a preliminary Ohio EPA wetland Category 3, the highest category assigned by the Ohio EPA. Wetlands containing vernal pools are rare throughout Franklin County, due to expansive development and change in watershed hydrology that surrounds existing wetlands.

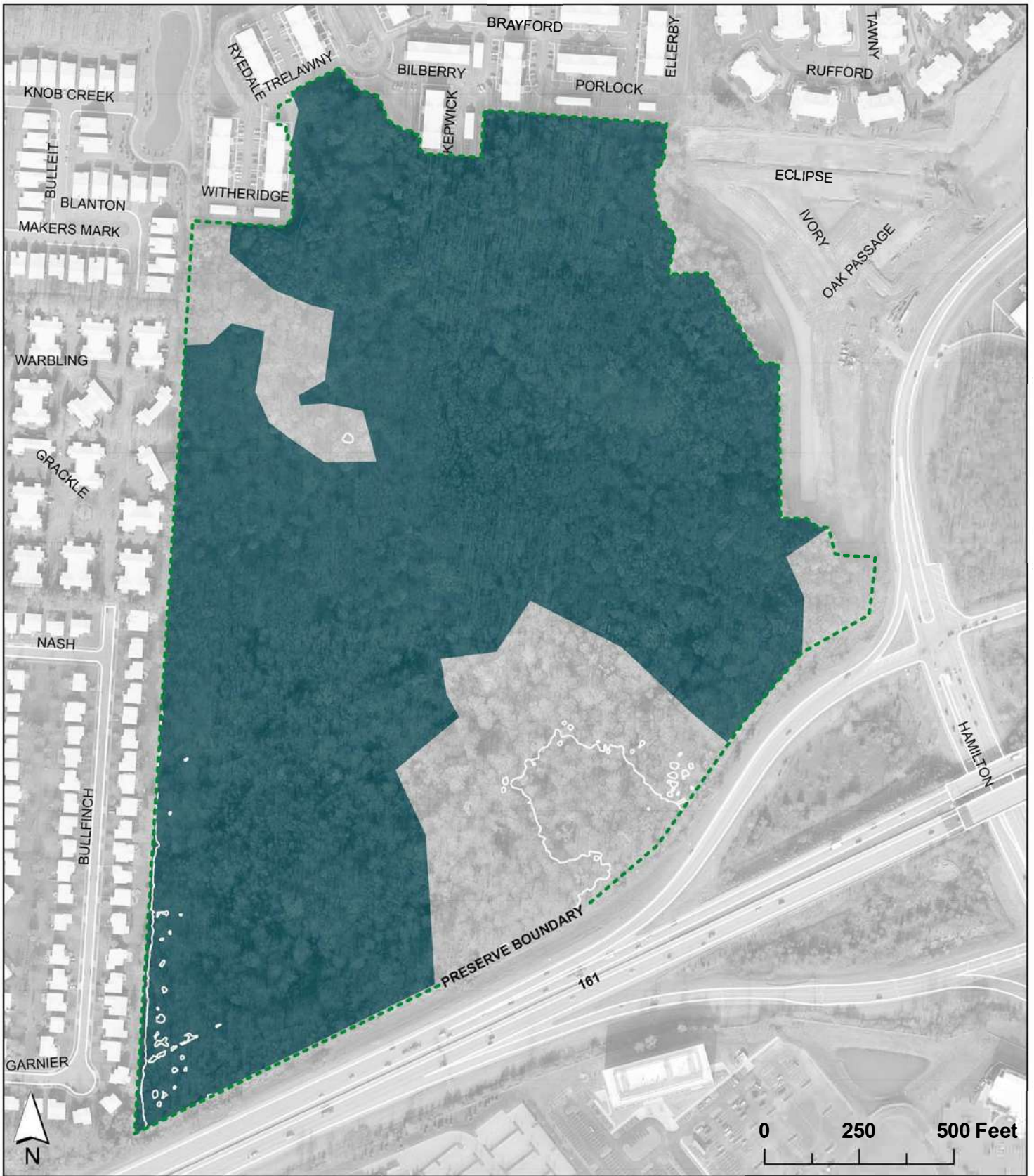
Wetland delineations were conducted in 1999. Both delineations identified the site as containing 67-acres of Category 3 wetlands. Throughout the wetland are dominant tree species such as silver maple (*Acer saccharinum*), a small shrub/sapling layer, a seasonally inundated palustrine broad-leaf deciduous forest, and an herbaceous wood reed grass and

sedge layer. At the east-central portion is a 2-acre scrub-shrub wetland that contains buttonbush (*Cephalanthus occidentalis*).

In addition to silver maple, dominant species include American elm (*Ulmus americana*), swamp white oak (*Quercus bicolor*), spicebush (*Lindera benzoin*), brome-like sedge (*Carex bromoides*), fringed sedge (*Carex crinata*), and Gray's sedge (*Carex grayi*).

This wetland receives water from precipitation and drainage from the surrounding landscape, which appears to have been altered due to adjacent development. Storm infrastructure collects a majority of drainage runoff within the watershed. This has likely altered the hydroperiod of the vernal pools, as evident through a previous 2013 study from the Ohio Environmental Council.

See "Hamilton Road Wetlands" map.



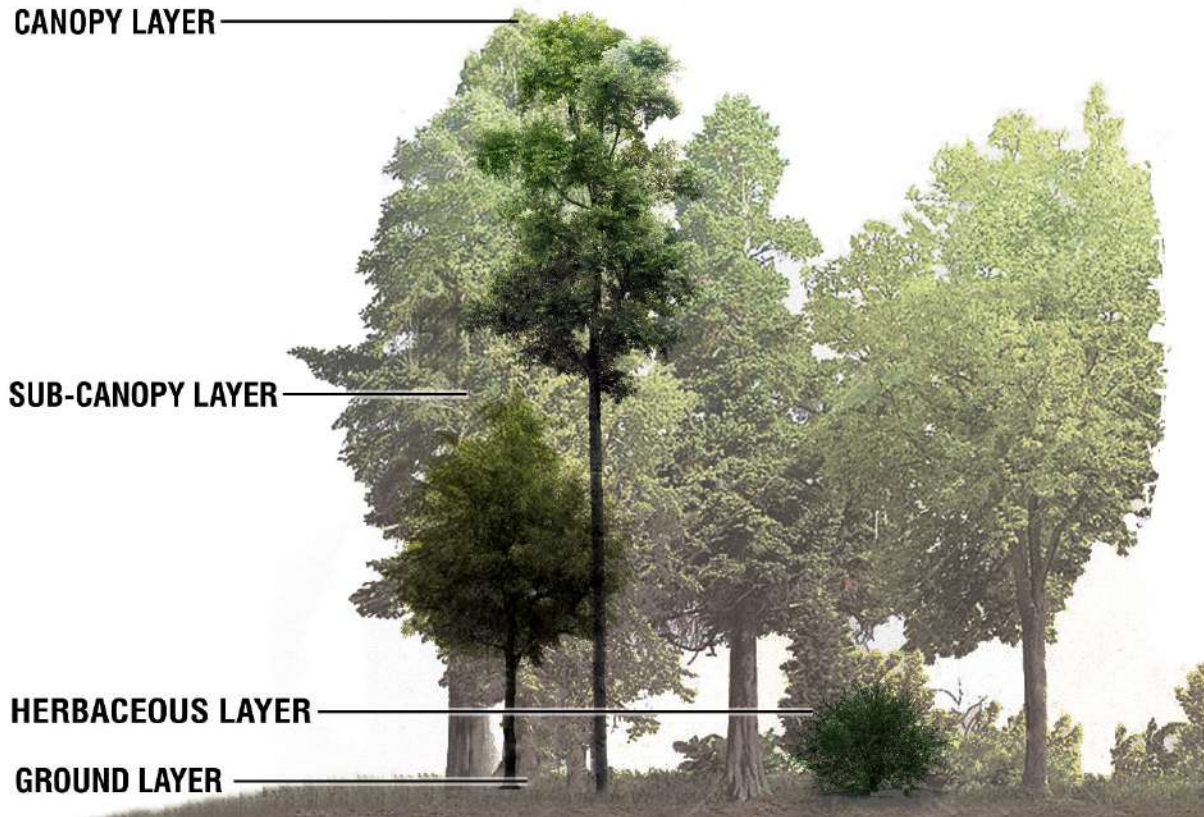
# Hamilton Road Wetlands

Wetlands
  5' Contours



### 3.3 Vegetation and Habitat

Commonly observed native tree species include American beech (*Fagus grandifolia*) and sugar maple (*Acer saccharum*).



Commonly observed native sub-canopy species includes spicebush (*Lindera benzoin*).

The upland herbaceous layer is dominated by Virginia creeper (*Parthenocissus quinquefolia*), jack-in-the-pulpit (*Arisaema triphyllum*), and mayapple (*Podophyllum peltatum*).

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

1. Upland Forest
2. Forested Wetland
3. Emergent Wetland
4. Maintained Lawn

The “Hamilton Road Wetland Known Species List (2022)” is included as an attachment.

#### 3.3.1 Upland Forest

Hamilton Road Wetland consists of 15-acres of upland forest, which includes portions of mature forest dominated by large diameter trees. This forest serves as an important resource

and habitat for a number of species, including potential habitat for protected bat species. Bats utilize forests during the summer to roost and often prefer to forage near water sources that Hamilton Road Wetland provides.



Upland Forest



Upland Forest

### 3.3.2 Wetland

Hamilton Road Wetland includes forested wetland and emergent wetland (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.

There are approximately 50 nests of great blue heron that return to the Hamilton Road Wetland every spring and require protection to continue breeding. The great blue heron is the largest species of heron in North America. The sensitive habitat of the wetland and rookery located in the southwest portion of the preserve is also home to several species of amphibians such as salamanders and frogs.



Forested Wetland



Forested Wetland



Emergent Wetland



Fringed sedge within an emergent wetland area.

### 3.3.3 Maintained Lawn

Approximately 0.1-acre of mowed area is present.

### 3.3.4 Invasive Vegetation

Hamilton Road Wetland includes minimal coverage of invasive species, and no species are dominant in any vegetation layer. There are small concentrations of multi-flora rose (*Rosa multiflora*), privet (*Ligustrum* spp), and American reed grass (*Phragmites americanus*). The presence of Japanese and amur honeysuckle (*Lonicera maackii*) and garlic mustard (*Alliaria petiolate*) were noted in 2012. It is a priority to remove all invasives within Hamilton Road Wetland, to prevent the species spread and to protect the high quality wetland and forested buffer.

See “Hamilton Road Habitat Types & Invasive Species” map.



# Hamilton Road Habitat Types & Invasive Species

**Habitat Types:**

- Forested Wetland (62.2 acres)
- Upland Forest (15.3 acres)
- Maintained Lawn (0.09-acre)
- Emergent Wetland (0.21-acre)

**Invasive Species Points:**

- + Multiflora Rose
- x Multiflora Rose
- Phragmites



### 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). Hamilton Road Wetland 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 Hamilton Road Wetland.

The following records or ranges for wildlife were identified within Hamilton Road Wetland:

#### 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 Hamilton Road Wetland 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 Hamilton Road Wetland provide suitable food sources for monarch butterflies.

#### Birds

The nature preserve is home to the largest Great Blue Heron Rookery in Franklin County. The herons (*Ardea herodias*) nest in the interior beech-dominated area of the upland forest and have had as many as 50 nests at one time. Species such as the great blue heron are protected under the Federal Migratory Bird Act of 1918.



Heron rookery located in Hamilton Road Wetland Nature Preserve.



### 3.5 Wildlife

Hamilton Road Wetland includes upland forest and forested wetland habitat that supports a diversity of mammals, birds, reptiles, and amphibians. When Hamilton Road Wetland was established as a nature preserve in 2010, it was dedicated to fulfill the purpose to “preserve the nesting site of approximately 50 nests of the Great Blue Heron. This is the largest rookery site found, thus far, in Central Ohio.”

Hamilton Road Wetland also supports spring-active amphibians such as the wood frog (*Rana sylvaticus*) and the smallmouth salamander (*Ambystoma texanum*). A species list of wildlife documented in Hamilton Road Wetland is attached.



Small mouth salamander found at Hamilton Road Wetland Nature Preserve.

## 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

Hamilton Road Wetland Nature Preserve has high biological diversity, including sensitive biota and vernal pools that support breeding amphibians. In addition, it supports a heron rookery, a large nesting site that is rare within Franklin County. Additional attributes include a large area of emergent and forested wetlands. Continued protection of the natural resources within Hamilton Road Wetland is vital to ensure these resources remain for future generations.

It is important to understand the breadth of natural resources within Hamilton Road Wetland and the uniqueness/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 Hamilton Road Wetland 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.

Vernal pool amphibian sampling and hydroperiod monitoring is recommended to gain an understanding of the amphibians utilizing the wetland as a breeding area. A 2013 study

conducted the Ohio Environmental Council suggested several of the vernal pool hydroperiods may have been impacted by adjacent development and the pools are drying too quickly for amphibians to develop. It is highly recommended hydroperiod monitoring is conducted to confirm this impact. Local universities and colleges may be a good resource to conduct this study.

#### **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**

Fortunately, native plant species are dominant within Hamilton Road Wetland. Small concentrations of invasive species including multi-flora rose, privet, and phragmites were observed within select areas of Hamilton Road Wetland. 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. It is recommended these species are removed prior to spreading further into the wetland and upland forest areas. Native herbaceous plants should be planted in areas where heavily dominated invasive species areas have been cleared.

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 invasives are removed.

### **4.2 Conservation**

#### **4.2.1 Visitor Management**

Hamilton Road Wetland currently requires a permit to enter. It is recommended this remain due to the sensitive and unique habitat located within the Preserve.

#### **4.2.2 Community Involvement**

Select community involvement should occur to educate adjacent residents about the sensitive and unique habitat within Hamilton Road Wetland. This may include creating an outreach and awareness program to inform and educate surrounding residents, businesses, and developers, through social media materials, flyer distribution, or presentations, retaining volunteer groups to continue to support monitoring/assessment efforts, and seeking out grant opportunities for education, acquisitions, or enhancement.

### **4.3 Enhancement**

#### **4.3.1 Signage**

Due to Hamilton Road Wetland being permit access only, main park signs are not recommended. However, it is recommended to install boundary markers to clearly demarcate the Hamilton Road Wetland Nature Preserve boundaries.

#### 4.3.2 Vernal Pool Enhancement

If monitoring confirms negative impacts to the existing vernal pools, it is recommended enhancement activities be completed within documented vernal pools. These enhancement activities would construct deeper depressions to establish areas with longer hydroperiods, capable of supporting amphibian larvae to full terrestrial development.

# **ATTACHMENTS**

<b>Hamilton Road Wetland Known Species List (2022)</b>	
<b>Plants</b>	
Scientific Name	Common Name
<i>Acer saccharinum</i>	Silver Maple
<i>Acer saccharum</i>	Sugar Maple
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Allium tricoccum</i>	Wild Leek
<i>Anthriscus cerefolium</i>	Chervil
<i>Arisaema triphyllum</i>	Jack-in-the-Pulpit
<i>Athyrium filix-femina</i>	Lady fern
<i>Cardamine concatenata</i>	Cut Leafed Toothwort
<i>Carex bromoides</i>	Bromelike Sedge
<i>Carex crinata</i>	Fridged Sedge
<i>Carex grayi</i>	Gray's Sedge
<i>Carex Intumescense</i>	Greater Bladder Sedge
<i>Carex pendula</i>	Drooping Sedge
<i>Carex stricta</i>	Tussock Sedge
<i>Cephalanthus occidentalis</i>	Buttonbush
<i>Circaea lutetiana</i>	Enchanter's Nightshade
<i>Cruciata laevipes</i>	Smooth Bedstraw
<i>Dryopteris intermedia</i>	Intermediate Shield Fern
<i>Epifagus virginiana</i>	Beechdrops
<i>Fagus grandifolia</i>	American Beech
<i>Galium asprellum</i>	Rough Bedstraw
<i>Geranium maculatum</i>	Wild Geranium
<i>Geum vernum</i>	Spring Avens
<i>Hydrophyllum virginianum</i>	Virginia Waterleaf
<i>Impatiens capensis</i>	Jewelweed
<i>Lactuca virosa</i>	Wild Lettuce
<i>Ligustrum vulgare</i>	Common Privet
<i>Lindera benzoin</i>	Spicebush
<i>Lonicera maackii</i>	Amur Honeysuckle
<i>Onoclea sensibilis</i>	Sensitive Fern
<i>Packera aurea</i>	Golden Ragwort
<i>Parthenocissus quinquefolia</i>	Virginia Creeper
<i>Persicaria arifolia</i>	Halberd-leaved Tearthumb
<i>Persicaria virginiana</i>	Virginia Knotweed
<i>Phragmites americanus</i>	American Reed Grass
<i>Podophyllum peltatum</i>	Mayapple
<i>Polemonium caeruleum</i>	Greek Valerian
<i>Quercus bicolor</i>	Swamp White Oak

<b>Hamilton Road Wetland Known Species List (2022)</b>	
<b>Plants</b>	
Scientific Name	Common Name
<i>Ranunculus septentrionalis</i>	Swamp Buttercup
<i>Rosa multiflora</i>	Multiflora Rose
<i>Sanicula spp.</i>	Sanicula
<i>Scutellinia scutellata</i>	Eyelash Cup Fungus
<i>Symplocarpus foetidus</i>	Skunk Cabbage
<i>Ulmus americana</i>	American Elm
<i>Viola spp.</i>	Violets

<b>Hamilton Road Wetland Known Species List (2022)</b>	
<b>Birds</b>	
Scientific Name	Common Name
<i>Andea herodias</i>	Great Blue Heron
<i>Branta canadensis</i>	Canada Goose
<i>Piranga olivacea</i>	Scarlet Tanager
<i>Strix Varia</i>	Barred Owl

<b>Hamilton Road Wetland Known Species List (2022)</b>	
<b>Mammals</b>	
Scientific Name	Common Name
<i>Canis latrans</i>	Coyote
<i>Odocoileus virginianus</i>	Whit-tailed Deer
<i>Procyon lotor</i>	Raccoon

<b>Hamilton Road Wetland Known Species List (2022)</b>	
<b>Amphibians</b>	
Scientific Name	Common Name
<i>Ambystoma texanum</i>	Smallmouthed Salamander
<i>Hyla versicolor</i>	Gray Tree Frog
<i>Pseudacris crucifer</i>	Spring Peeper
<i>Pseudacris triseriata</i>	Western Chorus Frog
<i>Rana pipiens</i>	Northern Leopard Frog
<i>Rana sylvatica</i>	Wood Frog

<b>Hamilton Road Wetland Known Species List (2022)</b>	
<b>Macroinvertebrates</b>	
Scientific Name	Common Name
<i>Anostraca spp.</i>	Fairy Shrimp
<i>Chironomidae spp.</i>	Chironmid Midge
<i>Collembola spp.</i>	Springtails
<i>Copepods</i>	Copepods
<i>Culicidae spp.</i>	Mosquito Larva
<i>Daphnia magna</i>	Daphnia
<i>Dytiscidae spp.</i>	Predaceous Diving Beetle
<i>Gastropoda spp.</i>	Aquatic Snail
<i>Hydrachnidia spp.</i>	Water Mite
<i>Isopoda spp.</i>	Isopod
<i>Lethocerus americanus</i>	Giant Water Bug
<i>Notonecta glauca</i>	Backswimmer
<i>Oligochaeta spp</i>	Aquatic Worm
<i>Palinuridae spp.</i>	Crayfish
<i>Pisidium moitessierianum</i>	Fingernail Clam
<i>Planeria spp.</i>	Planeria