

O'SHAUGHNESSY NATURE PRESERVE MANAGEMENT PLAN

2023



9280 DUBLIN RD, POWELL OH 43065

O'SHAUGHNESSY 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.

O'Shaughnessy Nature Preserve

 9280 Dublin Rd. Powell, OH 43065

O'Shaughnessy Nature Preserve has 80 acres of upland forest, wetlands and a large pond area that joins the Scioto River. The area is also known as "Twin Lakes" due to two large adjacent lakes within the nature preserve. The nature preserve is part of the O'Shaughnessy Reservoir, which was created in 1925 by damming the Scioto River. It was named after Jerry O'Shaughnessy Senior, who was a superintendent for the Columbus Waterworks. This area is within a migratory bird route where the nature preserve supports over 45 species of breeding birds and over 100 species of migrating birds. This area is within an important migratory bird route. Two statewide rare plant species, Drummond's aster and satin brome, grow along the stream banks. O'Shaughnessy is located about 9 miles northwest of Columbus in Delaware County and was designated a Preserve in 2004.



Features and Amenities

Features

- Steep stream valleys and expansive floodplain areas
- Excellent birding opportunities.

Amenities

- Boat ramp
- Natural trails
- Parking lot
- Picnic area

Listed Species

• Indiana bat*
(*Myotis sodalists*)

• Northern long-eared bat*
(*Myotis septentrionalis*)

• Monarch butterfly^
(*Danaus plexippus*)

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

Habitat



■ Upland Forest (62%)
■ Maintained Lawn (4%)

■ Emergent Wetland (5%)

■ Reservoir (29%)

Recommendations

To maintain, conserve, and restore O'Shaughnessy Nature Preserve:



Keep the Nature Preserve in its original state and limit activities to pedestrian trail use only. O'Shaughnessy has a mature forest, emergent wetland, and large open water area for water fowl.



Remove invasive reed canary grass, autumn olive, honeysuckle, and callery pear as resources allow. Removal of reed canary grass should be performed first since it has overtaken native wetland plants, covering over 1-acre of the preserve.



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



Habitat Restoration. An open field could be managed to allow the prairie to revert back to forest. Drummond's aster and satin brome are forest dwelling plants and commonly found along or near streams. The forested area of O'Shaughnessy provides suitable habitat and should be expanded in order to allow more habitat for these two plant species.

The southernmost peninsula of O'Shaughnessy could be converted to a pollinator plot/prairie area. This management action would create critical habitat for pollinators and educate the public on the importance of pollinators.

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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O’Shaughnessy Known Species List (2022)

1 INTRODUCTION

1.1 Columbus Nature Preserves Overview

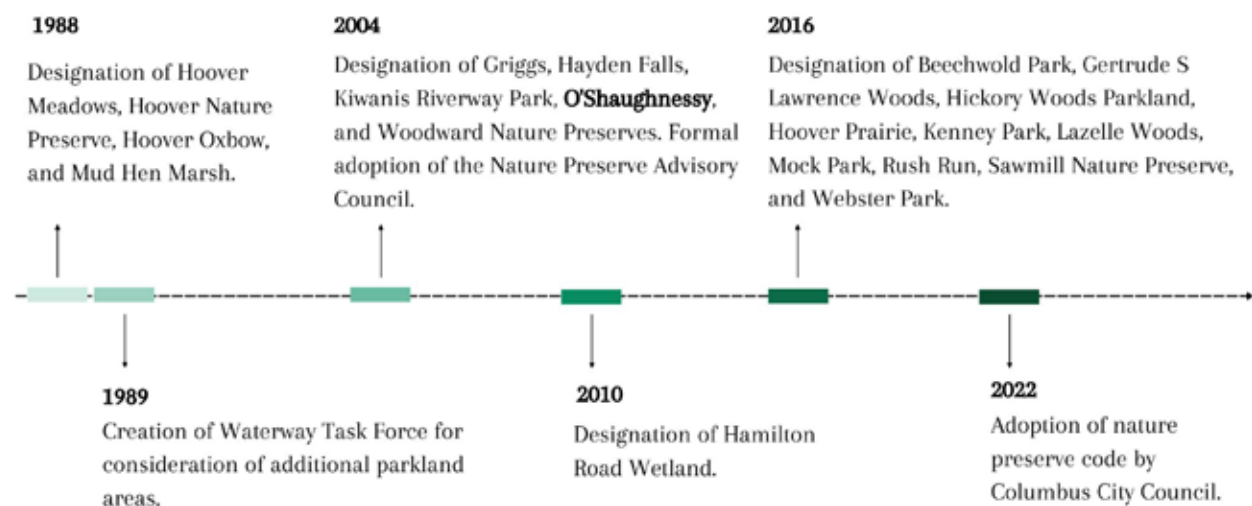
The Columbus Recreation and Parks Department (CRPD) works to preserve the local natural heritage for the Columbus community to enjoy. CRPD recognizes environmentally unique and sensitive areas as designated nature preserves. The Columbus Nature Preserve system is one of a few city nature preserve programs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

O'Shaughnessy Nature Preserve ("O'Shaughnessy") is approximately 80-acres in size and was designated as a nature preserve in 2004. It is located on a portion of the 310-acre Delaware County Parcel ID #60042301009000. O'Shaughnessy is situated on the west side of the O'Shaughnessy Reservoir, forming part of its 912-acres and 18.4 miles of shoreline. The reservoir was constructed in 1925 by damming the Scioto River downstream, in order to provide a second water source for the City of Columbus. It was named after Jerry O'Shaughnessy Senior, who was a superintendent for the Columbus Waterworks. The area is also known as "Twin Lakes" due to two large adjacent lakes within the nature preserve. The reservoir's surrounding watershed is approximately 770 square miles, composed mostly of agricultural land.

A historic cemetery, the Courtright Cemetery, is listed by the State Historic Preservation Office to have possibly been located northeast of the Dublin Road and Harriott Road intersection, within the southeastern corner of O'Shaughnessy.

2.2 Location Description

O'Shaughnessy's address is 9280 Dublin Road, Powell, OH 43065. O'Shaughnessy is located north of Harriott Road, east of Concord Road, south of Cook Road, and west of Dublin Road.

Surrounding land use includes the residential housing abutting the boundaries, forested areas, and O'Shaughnessy Reservoir. See "O'Shaughnessy Nature Preserve" location map.



O'Shaughnessy Reservoir and surrounding forest viewed from the boat ramp.



9280 DUBLIN RD, POWELL OH 43065

O'Shaughnessy Nature Preserve

Preserve Boundary
 Nearby CRPD Properties



3 AMENITIES AND NATURAL RESOURCES

3.1 Amenities

Maintained natural trails are present in the southern portion of O'Shaughnessy. Additional trails created by visitor usage extend north, throughout O'Shaughnessy. A maintained picnic area, restroom, boat launch, and parking area are also present.

3.2 Landscape Context

O'Shaughnessy contains steep stream valleys and expansive floodplain areas, with the topography generally highest to the west and dropping over 50 feet in elevation to reach the flat topography along the O'Shaughnessy Reservoir banks. 100-year floodplain exists within the reservoir and into the adjacent stream valleys. These floodplain areas provide habitat for fish and wildlife, recharge groundwater, and improve surface water quality.

The following soils are mapped within O'Shaughnessy:

- **Glynwood silt loam** has moderate slopes with deep, moderately well drained soils composed of materials derived from limestone and shale.
- **Glynwood clay loam** with steep slopes has deep, moderately well drained soils composed of materials from clayey tills.
- **Lybrand silt loam** has very steep slopes, described as deep, well drained soils composed of materials deposited in glacial till.
- **Millgrove silty clay loam** has low slopes with very deep, very poorly drained soils composed of materials typical in outwashes.
- **Rosburg silt loam** has low slopes with very deep, well drained soils composed of materials typical in alluvium.
- **Scioto silt loam** has low slopes with very deep, well drained soils composed of materials typical in outwashes.
- **Scioto silty clay loam** has moderate slopes consisting of very deep, well drained soils composed of materials typical in outwashes.

3.2.1 Streams

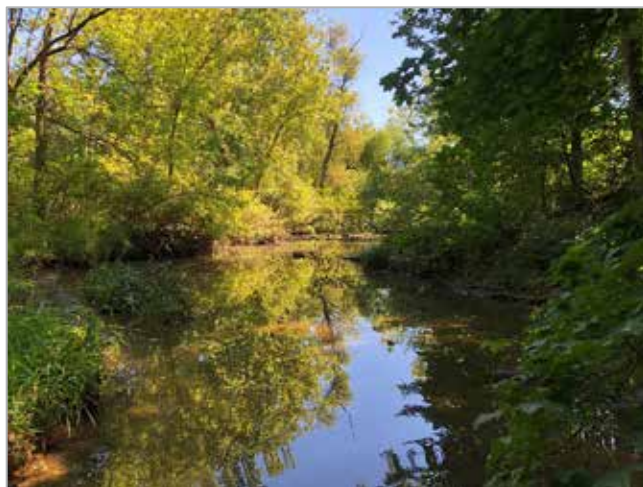
O'Shaughnessy is located in the Eversole Run Watershed (Ohio Environmental Protection Agency (EPA) Hydrologic Unit (HUC) # 050600011201). This watershed is a mixture of urban and agricultural landscape and drains into the Scioto River and O'Shaughnessy Reservoir.

Eversole Run is a perennial stream within O'Shaughnessy that flows directly into the Scioto River and the O'Shaughnessy Reservoir. It is designated by the Ohio EPA as a Warmwater Habitat Stream.



Perennial unnamed tributary to O'Shaughnessy Reservoir.

Additionally, O'Shaughnessy contains a perennial unnamed tributary to the O'Shaughnessy Reservoir. This stream contains a good mix of cobble and gravel, little siltation, and deep pools. This stream was previously assessed by the Ohio EPA in 2010 and scored as excellent for both fish species and physical habitat. The south bank of the stream is significantly eroded, with a wide and well-developed riparian area on the north bank.



Eversole Run, a perennial stream within O'Shaughnessy.

O'Shaughnessy also contains two intermittent streams and four ephemeral streams. In total, O'Shaughnessy contains approximately 5,000 linear feet of stream.

See "O'Shaughnessy Streams & Wetlands" map.

3.2.2 Wetlands

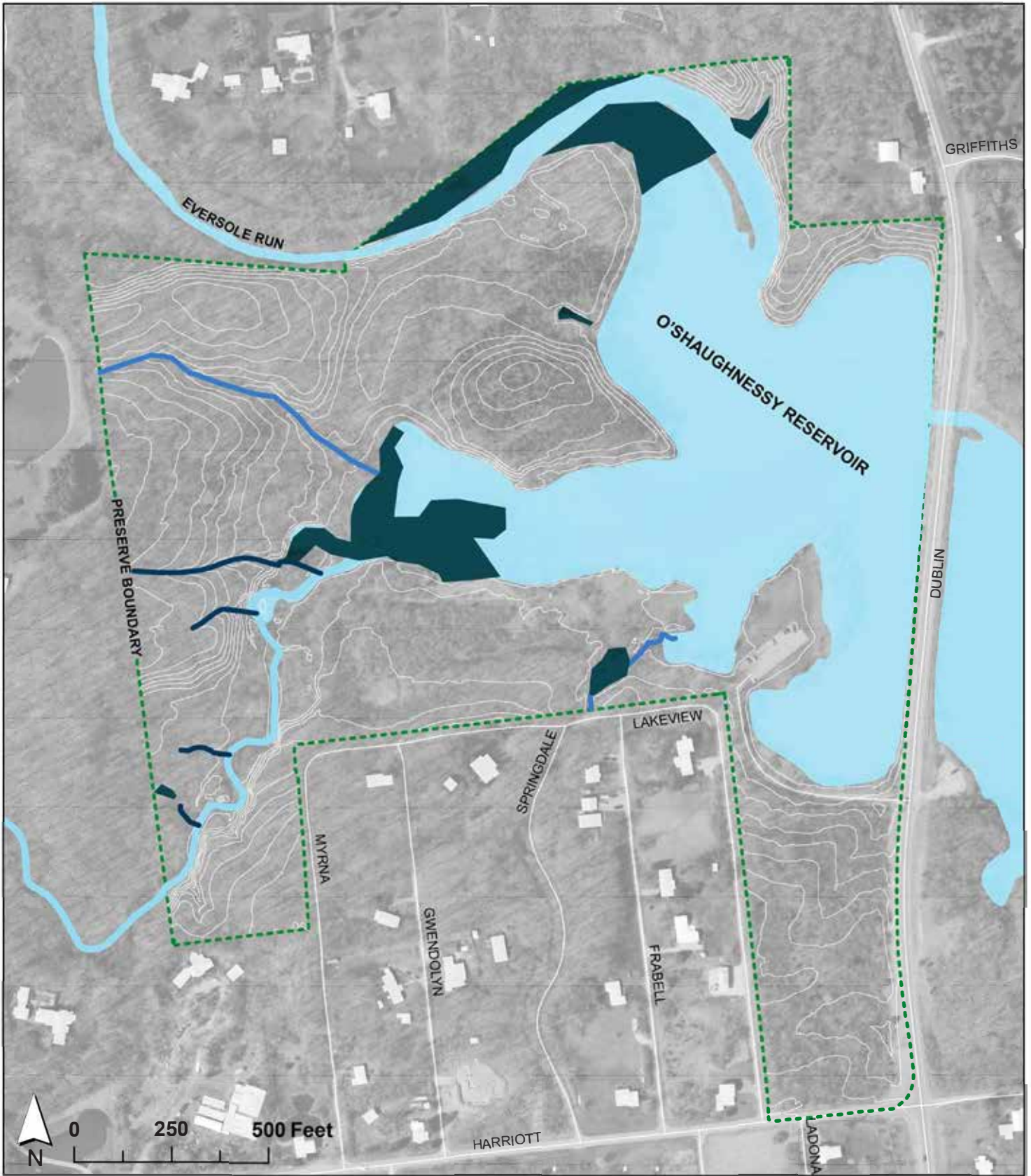
O'Shaughnessy includes about 4.12-acres of emergent wetland, dominated by lizard's tail (*Saururus cernuus*) and orange jewelweed (*Impatiens capensis*).

Using the Ohio EPA Ohio Rapid Assessment Method, the wetlands are considered higher quality with good habitat and hydrology qualities that should be protected, with a preliminary Ohio EPA wetland Category of 2.



Emergent wetland along O'Shaughnessy Reservoir.

The wetlands receive water from surrounding perennial, intermittent, and ephemeral streams, as well as from the O'Shaughnessy Reservoir and drainage from surrounding landscape. The wetlands with direct connections to the O'Shaughnessy Reservoir contain favorable conditions for breeding amphibians in the spring. All wetlands provide hydrological benefits by filtering water, retaining sediment, and holding water during flood events. See "O'Shaughnessy Streams & Wetlands" map.



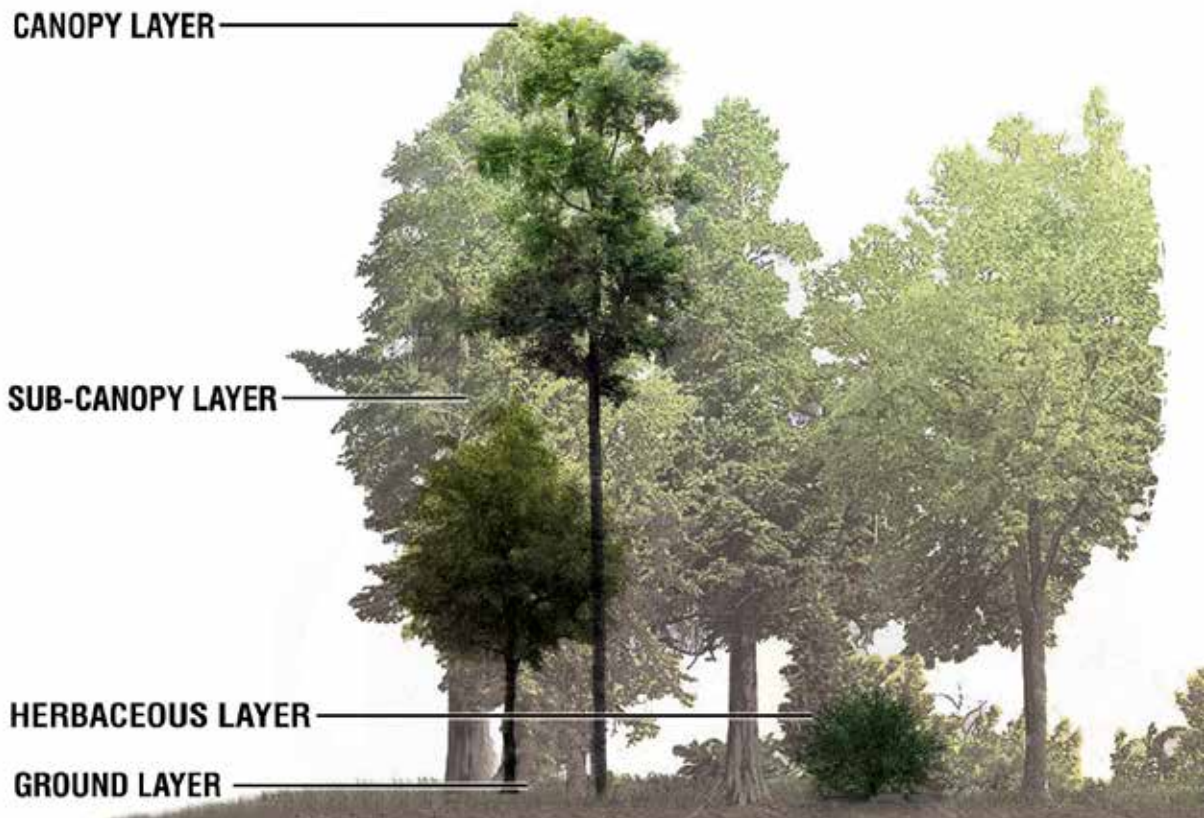
O'Shaughnessy Streams & Wetlands

- Perennial Streams
 - Intermittent Streams
 - Ephemeral Streams
-
- Wetlands
 - 5' Contours



3.3 Vegetation and Habitat

Commonly observed native tree species include sugar maple (*Acer saccharum*), black walnut (*Juglans nigra*), and pin oak (*Quercus palustris*) within upland areas and along stream banks. Black willow (*Salix nigra*) was dominant along the shoreline of O'Shaughnessy Reservoir.



The sub-canopy is relatively open, dominated primarily by immature green ash (*Fraxinus pennsylvanica*) and sugar maple (*Acer saccharum*) saplings.

The herbaceous layer is dominated by Canada goldenrod (*Solidago canadensis*), an Ohio native prairie plant that provides important late-season food and shelter for pollinators, and poison ivy (*Toxicodendron radicans*).

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

1. Upland Forest
2. Emergent Wetland
3. Impervious
4. Reservoir
5. Maintained Lawn

The “O'Shaughnessy Known Species List (2022)” is included as an attachment.

3.3.1 Upland Forest

O’Shaughnessy consists of approximately 50-acres of upland forest, which includes portions of mature forest dominated by large diameter trees. This forest serves as a riparian area, forested area surrounding streams, for the numerous headwater streams and is habitat for a number of plant and animal species, including potential habitat for protected bat species. Bats roost in forests during the summer and often forage along riparian stream corridors like those in O’Shaughnessy.

Two rare plant species can be found within the bottomland hardwood area of O’Shaughnessy: the Drummond’s aster and satin brome (*Bromus nottowayanus*). Drummond’s aster is a state threatened species in Ohio.



Upland Forest Habitat



Upland Forest Habitat

3.3.2 Reservoir

O’Shaughnessy includes approximately 23-acres of the O’Shaughnessy Reservoir. This reservoir provides vital habitat to fish and other amphibian species. Additionally, the reservoir provides a source of water to areas such as the surrounding emergent wetlands, which increases the water quality of the reservoir.



Reservoir Habitat



Reservoir Habitat

3.3.3 Emergent Wetland

O'Shaughnessy includes approximately 4.1 acres of 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.



Emergent Wetland Habitat



Emergent Wetland Habitat

3.3.4 Maintained Lawn

Approximately 2.89-acres of mowed area is present, located south of the O'Shaughnessy Reservoir. This area represents trails and adjacent recreational area.



Maintained Lawn

3.3.5 Invasive Vegetation

More than 1-acre of the emergent wetland area surrounding the O'Shaughnessy Reservoir is dominated by reed canary grass (*Phalaris arundinacea*). Reed canary grass is a highly adaptive plant originally introduced for livestock feed in the late 1800s. It prefers poorly drained soils such as those found in wetlands, along streams, and within roadside ditches. Reed canary grass is highly aggressive and can quickly take over native species in an area. Removal of this invasive species is a priority.

Autumn olive (*Elaeagnus umbellata*) was also found within the southern portion of O'Shaughnessy, covering approximately 0.29-acre, and was considered less of a threat than the reed canary grass.

Other invasive species present in smaller numbers include:

- honeysuckle (*Lonicera* spp)
- callery pear (*Pyrus calleryana*)
- multiflora rose (*Rosa multiflora*)

See "O'Shaughnessy Habitat Types & Invasive Species" map.

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). O'Shaughnessy 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 are known to exist within O'Shaughnessy. Previous survey information suggests the ODNR state threatened Drummond's aster (*Symphotrichum drummondii*) may exist within O'Shaughnessy. Drummond's aster is a perennial wildflower with lavender or light violet flowerheads.

The following records or ranges for wildlife were identified within O'Shaughnessy:

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 O'Shaughnessy 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 O'Shaughnessy provide suitable food sources for monarch butterflies.

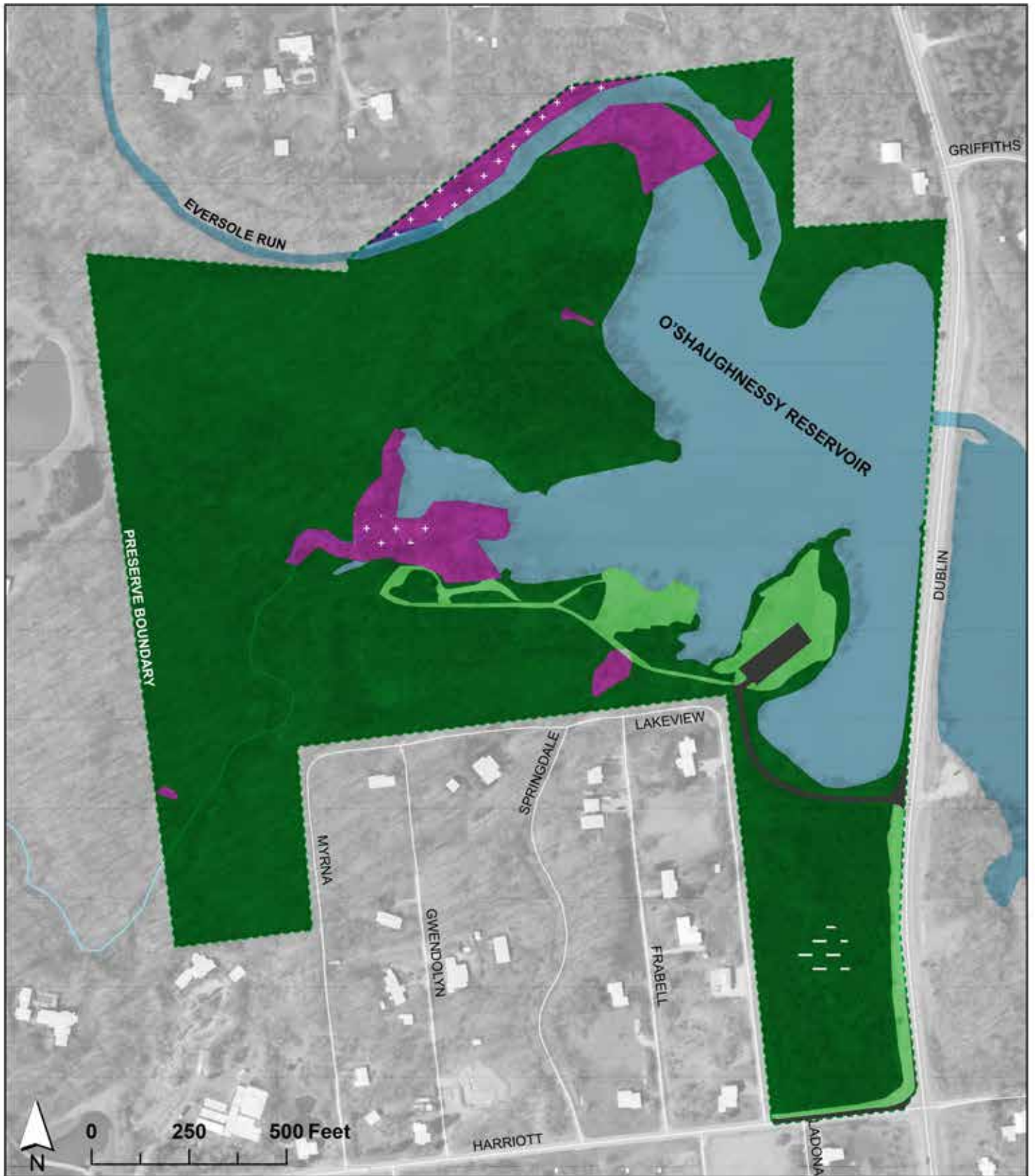
3.5 Wildlife

With its wide range of habitat types, O'Shaughnessy supports healthy and diverse populations of mammals, birds, reptiles, amphibians, and fish. A species list of wildlife documented in O'Shaughnessy is attached.

Northern two lined salamander (*Eurycea bislineata*) larvae were documented within the southern perennial stream. It is likely this portion of O'Shaughnessy contains a breeding population of these species, as the stream is surrounded by mostly undisturbed forest.

O'Shaughnessy supports over 45 species of breeding birds and over 100 species of migrating birds, making the area very popular for birding. According to National Audubon Society, the Scioto River is an important area for birds and is within a migratory bird route.

O'Shaughnessy Reservoir contains a sustainable population of sportfish, making it a common retreat for anglers. Fish species found in the Reservoir include: black crappie (*Pomoxis nigromaculatus*), white crappie (*Pomoxis annularis*), largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), white bass (*Morone chrysops*), and channel catfish (*Ictalurus punctatus*). The Ohio Division of Wildlife (DOW) also annually stocks saugeye (*Sander canadensis x Sander vitreus*) and hybrid striped bass (*Morone chrysops x Morone saxatilis*) in the Reservoir.



O'Shaughnessy Habitat Types & Invasive Species

Habitat Types:

- Emergent Wetland (4.12 acres)
- Upland Forest (49.9 acres)
- Maintained Lawn (40.3 acres)
- Reservoir (22.76 acres)
- Impervious (0.68-acre)

Invasive Species:

- Autumn Olive (0.29-acre)
- Reed Canary Grass (1.18 acres)



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

O'Shaughnessy Nature Preserve contains a forest with several free-flowing streams that drain directly into the O'Shaughnessy Reservoir, an important source of drinking water for central Ohio. The emergent wetland along the shoreline reservoir filters the reservoir and is important habitat for wildlife. Continued protection of the natural resources within O'Shaughnessy is vital 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 O'Shaughnessy.

It is important to understand the breadth of natural resources within O'Shaughnessy, in order to prioritize management activities. One consideration would be to update the listing of observed species of flora and fauna within O'Shaughnessy 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 reed canary grass and autumn olive, are dominant in areas of O'Shaughnessy. Honeysuckle, callery pear, and multiflora rose are also present. 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 O'Shaughnessy is pursued, removal of reed canary grass should be the first priority. This is due to the aggressive nature of reed canary grass and extensive coverage throughout the emergent wetland habitat. Native herbaceous plants should be planted in areas where heavily dominated invasive species areas have been cleared.

Removal efforts for cases of extensive reed canary grass coverage such as this are best performed by applying an aquatic safe herbicide. 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 O'Shaughnessy's natural resources, CRPD will use strategies to achieve resource protection. These practices 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 O'Shaughnessy through volunteer event signs posted within O'Shaughnessy 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

One O'Shaughnessy Nature Preserve sign is present. Install Nature Preserve rules signage at the main access points. Due to O'Shaughnessy being surrounded by residential development, additional signage could be considered to aid in limiting encroachments. Educational signage may also be installed, regarding some of the natural resources.

4.3.2 Stream Restoration

One area of potential stream restoration was identified. The south bank of the perennial unnamed tributary to O'Shaughnessy Reservoir in the southwest portion of O'Shaughnessy is steep and severely eroding. These slopes could be graded and reforested to mitigate erosion and reconnect the stream to its floodplain.

4.3.3 Habitat Restoration

An open field is being mowed north of Gwendolyn Drive and east of the perennial unnamed tributary to O'Shaughnessy Reservoir. Watershed

Management should cease mowing in this area to allow the prairie to revert back to forest. Drummond's aster and satin brome are forest dwelling plants and commonly found along or near streams. The forested area of O'Shaughnessy provides suitable habitat and should be expanded in order to allow more habitat for these two plant species.



Perennial unnamed tributary to O'Shaughnessy Reservoir with eroding banks.

Mowing takes place on the southernmost peninsula of the O'Shaughnessy. It is suggested that this area be converted to a pollinator area. This management action would reduce the amount of mowing needed, create critical habitat for pollinators, and educate the public on the importance of pollinators.

ATTACHMENTS

O'Shaughnessy Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Acer negundo</i>	Boxelder
<i>Acer rubrum</i>	Red Maple
<i>Acer saccharinum</i>	Silver Maple
<i>Acer saccharum</i>	Sugar Maple
<i>Achillea millefolium</i>	Yarrow
<i>Actaea alba</i>	White Baneberry
<i>Aesculus glabra</i>	Ohio Buckeye
<i>Agrimonia gryposepala</i>	Agrimony
<i>Agrimonia parviflora</i>	Swamp Agrimony
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Allium canadense</i>	Wild Onion
<i>Allium tricoccum</i>	Wild Leek
<i>Ambrosia artemisiifolia</i>	Common Ragweed
<i>Ambrosia trifida</i>	Giant Ragweed
<i>Anemone virginiana</i>	Tall Anemone
<i>Apocynum cannabinum</i>	Dogbane
<i>Arabis laevigata</i>	Rock-cress
<i>Arctium minus</i>	Common Burdock
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit
<i>Asarum canadense</i>	Canadian Wild Ginger
<i>Asclepias incarnata</i>	Swamp Milkweed
<i>Asclepias syriaca</i>	Common Milkweed
<i>Aster novae-angliae</i>	New England Aster
<i>Aster pilosus</i>	White Heath Aster
<i>Aster racemosus</i>	Small-headed Aster
<i>Aster sagittifolius</i>	Arrow-leaved Aster
<i>Aster undulatus</i>	Zigzag Aster
<i>Berberis thunbergii</i>	Barberry
<i>Bidens frondosa</i>	Devil's Beggarticks
<i>Boehmeria cylindrica</i>	False Nettle
<i>Botrychium virginianum</i>	Rattlesnake Fern
<i>Brachyelytrum erectum</i>	Brachyelytrum
<i>Bromus nottowayanus</i>	Satin Brome
<i>Calystegia sepium</i>	Bindweed
<i>Camassia scilloides</i>	Wild Hyacinth
<i>Cardamine concatenata</i>	Cut-leaved Toothwort
<i>Carex albursina</i>	Wood Sedge
<i>Carex amphibola</i>	Riverbank Sedge

O'Shaughnessy Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Carex cephalophora</i>	Oak Sedge
<i>Carex communis</i>	Communal Sedge
<i>Carex complanata</i>	Hirsute Sedge
<i>Carex davisii</i>	Davis's Sedge
<i>Carex digitalis</i>	Slender Woodland Sedge
<i>Carex emoryi</i>	Emory's Sedge
<i>Carex gracillima</i>	Graceful Sedge
<i>Carex granularis</i>	Limestone Meadow Sedge
<i>Carex Grayii</i>	Gray's Sedge
<i>Carex intumescens</i>	Bladder Sedge
<i>Carex jamesii</i>	James's Sedge
<i>Carex lupulina</i>	Hop Sedge
<i>Carex oligocarpa</i>	Few-fruited Sedge
<i>Carex pensylvanica</i>	Pennsylvania Sedge
<i>Carex rosea</i>	Rosy Sedge
<i>Carex shortiana</i>	Short's Sedge
<i>Carex sparganioides</i>	Bur-reed Sedge
<i>Carex stipata</i>	Awl-fruited Sedge
<i>Carex stricta</i>	Tussock Sedge
<i>Carpinus caroliniana</i>	Ironwood
<i>Carya ovata</i>	Shagbark Hickory
<i>Carya tomentosa</i>	Mockernut Hickory
<i>Catalpa speciosa</i>	Northern catalpa
<i>Celtis occidentalis</i>	Hackberry
<i>Cercis canadensis</i>	Redbud
<i>Cichorium intybus</i>	Chicory
<i>Cinna arundinacea</i>	Stout Wood Reed
<i>Circaea lutetiana</i>	Enchanter's Nightshade
<i>Cirsium altissimum</i>	Tall Thistle
<i>Claytonia virginica</i>	Spring-beauty
<i>Clematis virginiana</i>	Virgin's-bower
<i>Cornus amomum</i>	Silky Dogwood
<i>Cornus florida</i>	Flowering Dogwood
<i>Corylus Americana</i>	Hazelnut
<i>Cryptotaenia canadensis</i>	Honewort
<i>Cyperus strigosus</i>	Umbrella-sedge
<i>Cystopteris fragilis</i>	Fragile Fern
<i>Dactylis glomerata</i>	Orchard Grass

O'Shaughnessy Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Danthonia spicata</i>	Poverty Grass
<i>Datura stramonium</i>	Jimson-weed
<i>Daucus carota</i>	Queen Anne's Lace
<i>Diarrhena obovata</i>	Diarrhena
<i>Dioscorea villosa</i>	Wild Yam
<i>Elaeagnus umbellata</i>	Autumn Olive
<i>Eleusine indica</i>	Indian Goosegrass
<i>Elymus hystrix</i>	Bottlebrush Grass
<i>Elymus riparius</i>	Riverbank Rye
<i>Elymus virginicus</i>	Virginia Rye
<i>Equisetum arvense</i>	Field Horsetail
<i>Equisetum hyemale</i>	Rough Horsetail
<i>Erechtites hieracifolia</i>	Pilewort
<i>Erigeron strigosus</i>	Fleabane
<i>Erythronium americanum</i>	Yellow Trout Lily
<i>Euonymus atropurpureus</i>	Eastern Wahoo
<i>Euonymus fortunei</i>	Wintercreeper
<i>Euonymus obovatus</i>	Running Strawberry-bush
<i>Eupatorium perfoliatum</i>	Boneset
<i>Eupatorium rugosum</i>	White Snakeroot
<i>Euthamia graminifolia</i>	Flat-top Goldentop
<i>Fagus grandifolia</i>	Beech
<i>Festuca arundinacea</i>	Kentucky Fescue
<i>Festuca ovina</i>	Sheep Fescue
<i>Festuca subverticillata</i>	Nodding Fescue
<i>Floerkea proserpinacoides</i>	False Mermaid-weed
<i>Fraxinus Americana</i>	White Ash
<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Galium aparine</i>	Cleavers
<i>Galium circaezans</i>	Wild Licorice
<i>Galium concinnum</i>	Shining Bedstraw
<i>Galium tinctorium</i>	Marsh Bedstraw
<i>Galium triflorum</i>	Sweet-scented Bedstraw
<i>Gaura biennis</i>	Biennial Gaura
<i>Geranium maculatum</i>	Wild Geranium
<i>Geum canadense</i>	White Avens
<i>Geum vernum</i>	Spring Avens
<i>Gleditsia triacanthos</i>	Honey Locust

O'Shaughnessy Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Glyceria striata</i>	Fowl Manna Grass
<i>Hackelia virginiana</i>	Stickseed
<i>Heliopsis helianthoides</i>	False Sunflower
<i>Hesperis matronalis</i>	Dame's-rocket
<i>Hibiscus moscheutos</i>	Swamp Rose Mallow
<i>Houstonia caerulea</i>	Bluets
<i>Hydrastis Canadensis</i>	Goldenseal
<i>Hydrophyllum macrophyllum</i>	Large-leaved Waterleaf
<i>Hypericum punctatum</i>	Dotted St. John's-wort
<i>Impatiens capensis</i>	Spotted touch-me-not
<i>Impatiens pallida</i>	Pale Jewelweed
<i>Iodanthus pinnatifidus</i>	Purple Rocket
<i>Iris pseudacorus</i>	Yellow Flag
<i>Iris versicolor</i>	Northern Blue Flag
<i>Jeffersonia diphylla</i>	Twinleaf
<i>Juglans nigra</i>	Black Walnut
<i>Juncus tenuis</i>	Path Rush
<i>Juniperus virginiana</i>	Eastern Red Cedar
<i>Justicia Americana</i>	Water-willow
<i>Lactuca biennis</i>	Wild Lettuce
<i>Laportea canadensis</i>	Canadian Wood Nettle
<i>Leersia virginica</i>	Whitegrass
<i>Lemna minor</i>	Lesser Duckweed
<i>Ligustrum vulgare</i>	Privet
<i>Lindera benzoin</i>	Spicebush
<i>Lobelia cardinalis</i>	Cardinal Flower
<i>Lobelia inflata</i>	Indian-tobacco
<i>Lobelia siphilitica</i>	Great Blue Lobelia
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>Lonicera maackii</i>	Amur Honeysuckle
<i>Lonicera morrowii</i>	Morrow's Honeysuckle
<i>Lonicera tatarica</i>	Tartarian Honeysuckle
<i>Lycopus virginicus</i>	Bugleweed
<i>Lysimachia ciliata</i>	Fringed Loosestrife
<i>Lysimachia nummularia</i>	Creeping Jenny
<i>Lythrum salicaria</i>	Purple Loosestrife
<i>Maclura pomifera</i>	Osage-orange
<i>Medicago lupulina</i>	Black Medick

O'Shaughnessy Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Melilotus alba</i>	White Sweet Clover
<i>Menispermum canadense</i>	Canada Moonseed
<i>Microstegium vimineum</i>	Japanese Stiltgrass
<i>Mimulus ringens</i>	Monkeyflower
<i>Monarda clinopodia</i>	Basil Bee-balm
<i>Morus alba</i>	White Mulberry
<i>Morus rubra</i>	Red Mulberry
<i>Oenothera biennis</i>	Evening Primrose
<i>Ornithogalum umbellatum</i>	Star-of-Bethlehem
<i>Ostrya virginiana</i>	Hop-hornbeam
<i>Oxalis grandis</i>	Giant Wood-sorrel
<i>Oxalis stricta</i>	Wood-sorrel
<i>Parthenocissus quinquefolia</i>	Virginia Creeper
<i>Persicaria amphibia</i>	Water Smartweed
<i>Persicaria maculosa</i>	Redshank
<i>Phalaris arundinacea</i>	Reed Canary Grass
<i>Phlox divaricata</i>	Wild Blue Phlox
<i>Phragmites australis</i>	Common Reed
<i>Phyla lanceolata</i>	Fog-fruit
<i>Phytolacca Americana</i>	Pokeweed
<i>Pilea fontana</i>	Coolwort
<i>Pilea pumila</i>	Canadian Clearweed
<i>Pinus strobus</i>	Eastern White Pine
<i>Pinus sylvestris</i>	Red Pine
<i>Plantago lanceolata</i>	English Plantain
<i>Plantago rugelii</i>	American Plantain
<i>Platanus occidentalis</i>	American Sycamore
<i>Poa compressa</i>	Canada Bluegrass
<i>Poa nemoralis</i>	Bluegrass
<i>Poa pratensis</i>	Kentucky Bluegrass
<i>Poa sylvatica</i>	Woodland Bluegrass
<i>Poa trivialis</i>	Rough Bluegrass
<i>Podophylum peltatum</i>	May-apple
<i>Polemonium reptans</i>	Greek Valerian
<i>Polygonatum biflorum</i>	Two-flowered Solomon's-seal
<i>Polygonatum pubescens</i>	Hairy Solomon's-seal
<i>Polygonum amphibium</i>	Water Smartweed
<i>Polygonum persicaria</i>	Lady's-thumb

O'Shaughnessy Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Polygonum punctatum</i>	Dotted Smartweed
<i>Polymnia Canadensis</i>	Leafcup
<i>Populus deltoides</i>	Eastern Cottonwood
<i>Prenanthes altissima</i>	Lion's-foot
<i>Prunella vulgaris</i>	Heal-all
<i>Prunus serotina</i>	Black Cherry
<i>Prunus virginiana</i>	Choke-cherry
<i>Pyrus calleryana</i>	Callery Pear
<i>Pyrus malus</i>	Apple
<i>Quercus alba</i>	White Oak
<i>Quercus bicolor</i>	Swamp White Oak
<i>Quercus macrocarpa</i>	Bur Oak
<i>Quercus muhlenbergii</i>	Yellow Oak
<i>Quercus palustris</i>	Pin Oak
<i>Quercus rubra</i>	Northern Red Oak
<i>Ranunculus abortivus</i>	Kidney-leaved Crowfoot
<i>Ranunculus hispidus</i>	Hairy Buttercup
<i>Ranunculus recurvatus</i>	Hooked Crowfoot
<i>Rhamnus cathartica</i>	Buckthorn
<i>Rhus aromatica</i>	Fragrant Sumac
<i>Ribes cynosbati</i>	Dogberry
<i>Robinia pseudoacacia</i>	Black Locust
<i>Rosa multiflora</i>	Multiflora Rose
<i>Rubus allegheniensis</i>	Blackberry
<i>Rudbeckia hirta</i>	Black-eyed Susan
<i>Rudbeckia laciniata</i>	Green-headed Coneflower
<i>Ruellia strepens</i>	Wild Petunia
<i>Rumex crispus</i>	Curly Dock
<i>Rumex verticillatus</i>	Swamp Dock
<i>Sagittaria latifolia</i>	Common Arrowhead
<i>Salix amygdaloides</i>	Peachleaf Willow
<i>Salix discolor</i>	Pussy Willow
<i>Salix eriocephala</i>	Diamond Willow
<i>Salix exigua</i>	Sandbar Willow
<i>Salix nigra</i>	Black Willow
<i>Sambucus canadensis</i>	Elderberry
<i>Sanguinaria canadensis</i>	Bloodroot
<i>Sanicula gregaria</i>	Clustered Snakeroot

O'Shaughnessy Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Sanicula marilandica</i>	Maryland Snakeroot
<i>Saururus cernuus</i>	Lizard's Tail
<i>Scirpus atrovirens</i>	Dark-green Bulrush
<i>Scirpus validus</i>	Soft-stem Bulrush
<i>Scutellaria nervosa</i>	Nerved Skullcap
<i>Senecio aureus</i>	Golden Ragwort
<i>Senecio glabellus</i>	Butterweed
<i>Senecio obovatus</i>	Round-leaved Ragwort
<i>Silene stellata</i>	Starry Catchfly
<i>Sisyrinchium angustifolium</i>	Blue-eyed-grass
<i>Smilacina racemosa</i>	False Solomon's-seal
<i>Smilax hispida</i>	Bristly Greenbrier
<i>Solidago caesia</i>	Blue-stemmed Goldenrod
<i>Solidago canadensis</i>	Canada Goldenrod
<i>Solidago flexicaulis</i>	Zigzag Goldenrod
<i>Solidago ulmifolia</i>	Elm-leaved Goldenrod
<i>Sphenopholis intermedia</i>	Slender Wedgegrass
<i>Sphenopholis nitida</i>	Shiny Wedgescale
<i>Symphotrichum drummondii</i>	Drummond's Aster
<i>Taraxacum officinale</i>	Dandelion
<i>Thalictrum dioicum</i>	Early Meadow-rue
<i>Thaspium trifoliatum</i>	Meadow-parsnip
<i>Tilia americana</i>	Basswood
<i>Tovara virginiana</i>	Jumpseed
<i>Toxicodendron radicans</i>	Poison Ivy
<i>Tridens flavus</i>	Grease Grass
<i>Trifolium pratense</i>	Red Clover
<i>Trillium grandiflorum</i>	Large-flowered Trillium
<i>Trillium sessile</i>	Toadshade
<i>Triosteum aurantiacum</i>	Horse-gentian
<i>Ulmus americana</i>	American Elm
<i>Ulmus rubra</i>	Red Elm
<i>Uvularia grandiflora</i>	Large-flowered Bellwort
<i>Verbena urticifolia</i>	White Vervain
<i>Verbesina alternifolia</i>	Wingstem
<i>Vernonia gigantea</i>	Tall Ironweed
<i>Veronica officinalis</i>	Common Speedwell
<i>Viburnum acerifolium</i>	Maple-leaved Viburnum

O'Shaughnessy Known Species List (2022)	
Plants	
Scientific Name	Common Name
<i>Viburnum dentatum</i>	Southern Arrowwood
<i>Viburnum opulus</i>	Guelder-rose
<i>Viburnum prunifolium</i>	Black-haw
<i>Viola pubescens</i>	Downy Yellow Violet
<i>Viola sororia</i>	Common Blue Violet
<i>Viola striata</i>	Creamy White Violet
<i>Vitis aestivalis</i>	Summer Grape
<i>Vitis riparia</i>	Riverbank Grape
<i>Zanthoxylum americanum</i>	Prickly-ash

O'Shaughnessy Known Species List (2022)	
Amphibians	
Scientific Name	Common Name
<i>Anaxyrus americanus</i>	American Toad
<i>Dryophytes versicolor</i>	Gray Tree Frog
<i>Eurycea bislineata</i>	Northern Two-lined Salamander
<i>Lithobates catesbeianus</i>	Bullfrog
<i>Lithobates pipiens</i>	Northern Leopard Frog
<i>Pseudacris crucifer</i>	Spring Peeper

O'Shaughnessy Known Species List (2022)	
Insects	
Scientific Name	Common Name
<i>Celastrina neglecta</i>	Summer Azure
<i>Cercyonis pegala</i>	Wood Nymph
<i>Colias eurytheme</i>	Orange Sulphur
<i>Colias philodice</i>	Clouded Sulphur
<i>Epargyreus clarus</i>	Silver-spotted Skipper
<i>Limenitis arthemis</i>	Red-spotted Purple
<i>Megisto cymela</i>	Wood Satyr
<i>Nymphalis antiopa</i>	Mourning Cloak
<i>Papilio cresphontes</i>	Giant Swallowtail
<i>Papilio glaucus</i>	Tiger Swallowtail
<i>Pieris rapae</i>	Cabbage White
<i>Polygonia c-album</i>	Comma Butterfly
<i>Vanessa cardui</i>	Painted Lady

O'Shaughnessy Known Species List (2022)	
Birds	
Scientific Name	Common Name
<i>Accipiter cooperii</i>	Cooper's Hawk
<i>Agelaius phoeniceus</i>	Red-winged Blackbird
<i>Aix sponsa</i>	Wood Duck
<i>Anas acuta</i>	Northern Pintail
<i>Anas platyrhynchos</i>	Mallard
<i>Archilochus colubris</i>	Ruby-throated Hummingbird
<i>Ardea alba</i>	Great Egret
<i>Ardea herodias</i>	Great Blue Heron
<i>Aythya americana</i>	Redhead
<i>Aythya marila</i>	Greater Scaup
<i>Baeolophus bicolor</i>	Tufted Titmouse
<i>Bombycilla cedrorum</i>	Cedar Waxwing
<i>Botaurus lentiginosus</i>	American Bittern
<i>Branta canadensis</i>	Canada Goose
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<i>Butorides virescens</i>	Green Heron
<i>Calidris alpina</i>	Dunlin
<i>Calidris melanotos</i>	Pectoral Sandpiper
<i>Calidris pusilla</i>	Semipalmated Sandpiper
<i>Cardinalis cardinalis</i>	Northern Cardinal
<i>Chaetura pelagica</i>	Chimney Swift
<i>Charadrius vociferus</i>	Killdeer
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo
<i>Colaptes auratus</i>	Northern Flicker
<i>Contopus virens</i>	Eastern Wood-Pewee
<i>Corvus brachyrhynchos</i>	American Crow
<i>Cyanocitta cristata</i>	Blue Jay
<i>Dryocopus pileatus</i>	Pileated Woodpecker
<i>Dumetella carolinensis</i>	Gray Catbird
<i>Empidonax virescens</i>	Acadian Flycatcher
<i>Haemorhous mexicanus</i>	House Finch
<i>Hirundo rustica</i>	Barn Swallow
<i>Hydroprogne caspia</i>	Caspian Tern
<i>Hylocichla mustelina</i>	Wood Thrush
<i>Icterus galbula</i>	Baltimore Oriole
<i>Larus argentatus</i>	Herring Gull
<i>Larus delawarensis</i>	Ring-billed Gull
<i>Leuconotopicus villosus</i>	Hairy Woodpecker

O'Shaughnessy Known Species List (2022)	
Birds	
Scientific Name	Common Name
<i>Lophodytes cucullatus</i>	Hooded Merganser
<i>Megaceryle alcyon</i>	Belted Kingfisher
<i>Melanerpes carolinus</i>	Red-bellied Woodpecker
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker
<i>Meleagris gallopavo</i>	Wild Turkey
<i>Melospiza melodia</i>	Song Sparrow
<i>Molothrus ater</i>	Brown-headed Cowbird
<i>Myiarchus crinitus</i>	Great Crested Flycatcher
<i>Passer domesticus</i>	House Sparrow
<i>Passerina cyanea</i>	Indigo Bunting
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
<i>Phasianus colchicus</i>	Ring-necked Pheasant
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak
<i>Picoides pubescens</i>	Downy Woodpecker
<i>Pipilo erythrophthalmus</i>	Eastern Towhee
<i>Piranga olivacea</i>	Scarlet Tanager
<i>Poecile carolinensis</i>	Carolina Chickadee
<i>Polioptila caerulea</i>	Blue-gray Gnatcatcher
<i>Setophaga coronata</i>	Yellow-rumped Warbler
<i>Setophaga dominica</i>	Yellow-throated Warbler
<i>Sialia sialis</i>	Eastern Bluebird
<i>Sitta carolinensis</i>	White-breasted Nuthatch
<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>Spizella pusilla</i>	Field Sparrow
<i>Spizelloides arborea</i>	American Tree Sparrow
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow
<i>Sturnus vulgaris</i>	European Starling
<i>Tachycineta bicolor</i>	Tree Swallow
<i>Tringa flavipes</i>	Lesser Yellowlegs
<i>Troglodytes aedon</i>	House Wren
<i>Troglodytes aedon</i>	House Wren
<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

O'Shaughnessy Known Species List (2022)	
Mammals	
Scientific Name	Common Name
<i>Odocoileus virginianus</i>	White-tailed Deer

O'Shaughnessy Known Species List (2022)	
Reptiles	
Scientific Name	Common Name
<i>Regina septemvittata</i>	Queen Snake