

OPENLANDS PROPERTY MANAGEMENT PLAN

Wexler Property

14012 O'Brien Road, Hebron, IL (Hackmatack National Wildlife Refuge)

SECTION 1: PROPERTY INFORMATION

Property Address: North side of O'Brien Road in rural Hebron, Illinois. Property is accessed through an easement over private land at 14012 O'Brien Road, Hebron, IL 60034. Located between Alden Road to the west and Route 47 to the east.

Legal Description (Section, Township, Range, County):

Part of the North Half of Government Lot 2 of Section 19, Township 46 North, Range 7, East of the Third Principal Meridian, being described as follows: Beginning at the Northwest corner of said Government Lot 2; thence North 89 degrees 58 minutes 38 seconds East along the North line of said Government Lot 2, a distance of 1,282.49 feet to the Northeast corner thereof; thence South 00 degrees 18 minutes 45 seconds East along the East line of said Government Lot 2, a distance of 1,321.42 feet to the Southeast corner of the said North Half of Government Lot 2; thence North 89 degrees 59 minutes 34 seconds West along the South line of the said North Half of Government Lot 2, a distance of 50.00 feet; thence North 00 degrees 18 minutes 45 seconds West parallel with the East line of said Government Lot 2, a distance of 460.00 feet; thence North 76 degrees 09 minutes 21 seconds West, 591.38 feet; thence South 70 degrees 40 minutes 07 seconds West, 699.69 feet to the West line of said Government Lot 2; thence North 00 degrees 09 minutes 57 seconds West along said West line, 951.01 feet to the Place of Beginning, in McHenry County, Illinois.

Acres: 24.5 acres in a single parcel (Property Index Number TBD).

Location Information and Regional Context:

e.g. regional project connections, geological or natural community history, etc.

The Wexler property is located in rural Hebron, Illinois and falls within the Alden Sedge Meadow Core Area of Hackmatack National Wildlife Refuge ("Hackmatack"). The property is comprised of a single parcel totaling 24.5 acres. It is a pre-acquisition for Hackmatack and will eventually be transferred to the McHenry County Conservation District ("MCCD") or U.S. Fish and Wildlife Service for permanent protection.

McHenry County has a glaciated landscape with excellent farmland soils and variable topography. The county is home to 86 known species on the Illinois endangered and threatened list, with three of those species cross-listed as federally endangered or threatened. The County's Nippersink Creek watershed serves as the anchor for Hackmatack's footprint and it is designated as a Biologically Significant Stream in the state of Illinois, as well as a Class A stream of high quality. About 0.25 miles of the Nippersink Creek flows through the northeastern corner of the Wexler property, on an approximately northwest-southeast course.

The Wexler property is surrounded by farmland, protected conservation land, and rural residences on large lots, all characteristic of this rural area of McHenry County. Most farmland in the area is under conventional corn and soybean production. MCCD's Bailey's Woods / Winding Creek Conservation Area borders the Wexler property on its eastern boundary.

Land Use History:

e.g. past ownership history, adjacent land uses including public lands, potential adjacent threats, land use history such as agriculture or development, etc.

Historic records show that in 1872, the first year a plat book was available for McHenry County, the property was owned by G. Wickham. It appears to have been heavily wooded and the plat map shows the same meandering stream course of the Nippersink as seen today. The property changed hands by 1892, when it was under the ownership of Patrick Lorden through at least 1908. By the 1940's, the land was owned by Harry Durkee. Sometime prior to 1965, the land transferred hands again (possibly to the Lalor family, although the plat map records are not clear), and that party owned it until the late 1990's or early 2000's, when it was sold to the last owner prior to Openlands.

The property consists of undeveloped open space and does not have any farmland or structures present. Adjacent land to the south was previously part of the same property and that land contains a single-family home, garage, tennis court, and man-made pond. The parcel was split at the time of Openlands' purchase, creating a new Property Index Number for the 24.5 acres purchased by Openlands. A license by the McHenry County Conservation District will allow entry to the property from the east.

The 1872 plat map shows that the property's oak woodland was part of a much larger wooded complex extending to the north, east, and south. By the time the 1939 aerial photos were taken of McHenry County, most of the trees had been removed except for the scattered remnant oaks on the Wexler property and a second densely wooded stand to the east. The remaining oaks on the Wexler property are identified as a protection priority in the Morton Arboretum's "Private Oak Ecosystems" spatial data tool, which locates remnant oak community fragments throughout northeastern Illinois.

Nearby protected conservation lands include the following McHenry County Conservation District (MCCD) landholdings: Alden Sedge Meadow Conservation Area (1.7 miles to the northwest); High Point Conservation Area (3.8 miles to the northwest); and Bailey's Woods / Winding Creek (adjacent to the east). Two miles to the southeast lies Openlands' Powell #1 property and another 0.25 miles southwest of that is a protected refuge complex consisting of the Perricone property (owned by U.S. Fish & Wildlife Service), the Schaid property (owned by Openlands and undergoing transfer to the Service), and a private conservation easement held by The Land Conservancy of McHenry County.

Topography:

e.g. dominant landforms or glacial features

The property has a pronounced rolling topography, dropping in elevation about 68 feet from the hilly western portion of the parcel down to the lower, flatter area containing the creek and its surrounding wetlands.

Soils:

e.g. soil type description, drainage, runoff and erosion potential, agricultural potential, etc.

The property contains the following soil types in approximate order of dominance: 361E (Kidder loam, 12-20% slopes, eroded); 1776A (Comfrey loam, 0-2% slopes, undrained, occasionally flooded); 361D2 (Kidder loam, 6-12% slopes, eroded); 134B (Camden silt loam, 2-5% slopes); and 361E2 (Kidder loam, 12-20% slopes, eroded)

All of the above-listed soils, with the exception of 1776A, can support farmland uses but are considered vulnerable to water erosion. 1776A is subject to flooding and maintains a generally wet condition throughout the year that is supportive to wetland plants.

Hydrology:

e.g. presence of surface water on property such as streams or wetlands, potential for flooding, general water quality, etc.

About 8.8 acres of the property's eastern half, including the creek corridor, is located in a Zone A flood plain. A large wetland area also follows the same general outline of the flood plain but extends a bit further to the southwest and into the adjacent land to the south, where a man-made pond is fed by an artificial water-control structure.

Historic records do not provide any information about springs on the property and available historic maps do not define any wetland areas. However, maps do suggest the creek remained in its natural meandering course and was never ditched or drained. The 1872 McHenry County plat book also suggests that the entire riparian corridor on the property may have been shaded by scattered mature trees at one time.

Natural Communities and Wildlife:

e.g. natural community type, evidence of remnant communities, endangered or threatened species, known wildlife species, etc.

The property is comprised of two natural communities, a dry mix of white oak/burr oak dominant woodlands and a degraded sedge meadow tracing the Nippersink Sink creek in the north east corner of the property. The dry mix of white oak/burr oak community occupies approximately 23 acres of the 24.5 total acreage. Jack-in-the-pulpit (*Arisaema sp.*), wild geranium (*Geranium maculatum*), shooting star (*Dodecatheon meadia*), and wood anemone (*Anemone quinquefolia*) to name a few, were observed on the property on September 6, 2019. The Nippersink Creek found on the north east portion of the property connects the property to the larger Nippersink watershed and to Winding Creek Conservation Area of MCCD. The Nippersink is classified as ADID and is part of the larger watershed throughout the Hackmatack area.

Exotic Species:

e.g. species observed, distribution, frequency, etc.

The dry mix of white oak/burr oak dominant woodlands is shaded and occupies most of the property. The understory of the woodlands contains invasive species such as common buckthorn (*Rhamnus cathartica*), honeysuckle (*Lonicera japonica*), and multiflora rose (*Rosa multiflora*). The ecotone of woodlands to sedge meadow heading towards the north east corner abutting Nippersink Creeks also contains multiflora rose (*Rosa multiflora*). The property does not appear to be actively managed.

Cultural and Aesthetic Resources:

e.g. historic structures, archaeological resources, etc.

No structures are located on the property and no known archaeological or cultural resources are present. An enormous witness tree oak, featuring a carved blaze in the bark made by one of the original 1830's surveyors in McHenry County, is found along the eastern property line near the tennis court on adjacent land.

Restrictions:

e.g. any leases, mineral rights, right-of-ways, easements, etc. associated with the property, if applicable.

There are no leases on the property. Openlands is seeking a license from the McHenry County Conservation District to access the property from the east.

SECTION 2: MANAGEMENT PLAN**General Restoration and Management Goals:**

Provide a brief overview of project vision and purpose, e.g. maintain land health, restore pre-settlement vegetation, target habitat for key species, etc.

The Wexler property can be divided into two natural community management units: the Stream Unit, consisting of the Nippersink Creek corridor and surrounding wetlands; and the Savanna Unit, consisting of remnant oak woodland/savanna.

The purpose of restoration and management is to create resilient wildlife habitat in Hackmatack. This includes restoration activities that support recreated and remnant pre-settlement natural communities. It also moves beyond pre-settlement conditions into the unknown future, where we must plan ahead for adaptive management as the region is altered by climate change. Potential adaptive management approaches for the Wexler property include bank grading and riffles in the creek to create cooler microclimates for aquatic species that could be affected by higher temperatures and longer drought periods. It also includes assessing the condition of the mature oaks on the property and developing tree replacement and forestry management approaches that address the future loss of older trees due to climate-related disease or other stressors. This management plan will continue to be refined and updated as adaptive management plans are created, implemented, and measured.

Goals for each unit are as follows:

1. **Stream Unit:** Reestablish and enhance native wetland habitat. Assess and enhance aquatic habitat to support native fish and mussel populations.
2. **Savanna Unit:** Clear invasive brush to protect mature oaks and promote growth of young seedling trees. Reestablish native herbaceous understory. Assess condition of mature oaks and develop a long-term forestry plan.

Key Objectives:

List specific tasks that are instrumental in reaching goals, e.g. discourage brush encroachment, control invasive species, restore native vegetation, etc., and include reason for each objective

It is recommended that management objectives related to the above goals include the following:

- 1) In the **Stream Unit**, a survey will be performed to assess existing aquatic species and water quality conditions. This information will inform the development of a riparian restoration plan that may include the following activities: streambank grading and stabilization to reduce erosion, wetland plantings, invasive species management, and follow-up monitoring.
- 2) In the **Savanna Unit**, a survey of existing conditions will be performed to determine the extent of remnant oaks and other key native trees and the presence of any remnant savanna/woodland herbaceous plants. This survey will inform the development of a savanna restoration plan that may include the following activities: prescribed burning and other invasive species management,

brush clearing, planting, tree care, and follow-up monitoring. Additionally, a long-term adaptive forestry management plan will ensure mature trees are replaced as they die naturally over time.

Recommended Management Practices:

Provide overview of tools and methods used to complete objectives, e.g. prescribed fire, herbicide treatment, selective thinning, etc.

Management should be performed in accordance with regional industry practices. Tools and methods may include prescribed burning; herbicide application; selective thinning; mowing; use of a brush hog or other machine for heavy brush overgrowth; hand or machine seeding; erosion control measures such as erosion matting, blanket, or rip rap; plant plugs; and tree and shrub installation.

Timeline (per funding availability):

Task	Anticipated Completion
Stream Unit:	TBD
1) Conduct a survey of water quality conditions and aquatic biodiversity	TBD
2) Use collected data to develop a riparian restoration plan	TBD
3) Implement restoration plan activities (TBD, but expected to include brush clearing, invasives management, and planting/seeding)	TBD
4) Perform follow-up monitoring of water quality conditions and aquatic biodiversity	TBD
5) Perform invasive species management as needed	TBD
Savanna Unit:	TBD
1) Conduct a survey of existing tree populations and herbaceous species	TBD
2) Use collected data to develop a woodland/savanna restoration plan	TBD
3) Implement restoration plan activities (TBD, but expected to include brush clearing, invasives management, and planting/seeding)	Fall 2020
4) Perform follow-up monitoring to track community conditions	Fall 2020
5) Perform invasive species management as needed	Fall 2020

Additional Remarks:

This management plan serves as a working document that may be revised as necessary. The management plan was created on June 21, 2019 by Aimee Collins, Director of Regional Conservation.

Last updated on September 6, 2019

SECTION 3: MAPS

Hackmatack National Wildlife Refuge Wexler



Winding Creek
Conservation Area
Meharry County
Conservation District

Winding Creek
Conservation Area
Meharry County
Conservation District

Wexler



The data on this map varies in age and spatial accuracy. This map is not a legal survey document. Map created September, 2019.
GIS Project: LAND PRESERVATION/Land Acquisition Projects/bedlam_sls/ksm_xd2019/Wexler/land_8x111_090319.mxd

Soils Map

Map obtained from <https://websoilsurvey.nrcs.usda.gov/>



Note: Map is not to scale and boundaries of property are approximate

Map Unit

Symbol	Map Unit Name	Notes	Acres	Percent
134B	Camden silt loam	2 to 5 percent slopes	1.8	7.0%
361D2	Kidder loam	6 to 12 percent slopes, eroded	3.4	13.4%
361E	Kidder loam	12 to 20 percent slopes	11.4	45.4%
361E2	Kidder loam	12 to 20 percent slopes, eroded	0.5	1.9%
1776A	Comfrey loam	0 to 2 percent slopes, occ flooded	8.1	32.3%
Totals for Area of Interest			25.1	100.0%-