

Lessard-Sams Outdoor Heritage Council Laws of Minnesota 2014 Final Report



Date: January 31, 2020

Program or Project Title: Wirth Park Habitat Enhancements

Funds Recommended: \$600,000

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Legislative Citation: ML 2014, Ch.256, Art. 1, Sec. 2, Subd. 5(j)

Appropriation Language: \$600,000 in the second year is to the commissioner of natural resources for an agreement with the Minneapolis Park Board to enhance riparian and upland habitat within Wirth Park in Hennepin County. A restoration and enhancement plan and a list of proposed land restorations and enhancements must be provided as part of the required accomplishment plan.

County Locations: Hennepin

Eco regions in which work was completed:

- Metro / Urban

Activity types:

- Enhance

Priority resources addressed by activity:

- Wetlands
- Forest

Summary of Accomplishments:

\$530,500 of the allocated \$600,000 was used to enhance 150 acres of Wirth Park habitat. This project included habitat enhancement of woodlands and wetlands involving invasive species removal and planting of native species. This project benefits animal species including the pileated woodpecker and the threatened Blanding's turtle. Primary outcomes include better quality plant communities, reduced fragmentation, and higher functioning wetlands.

Process & Methods:

Theodore Wirth Regional Park was established more than 100 years ago to protect natural resources. Wirth's total 750 acres consist of wetland, woodland, savanna, shoreline and lake habitats. These habitats provide for a variety of wildlife including mammals, reptiles, amphibians, pollinating insects, fish, and migratory birds within a fully developed urban metro area.

The Eloise Butler Wildflower Garden and Bird Sanctuary, established in 1907 as a public wildflower garden to view Minnesota native plants and as a sanctuary for birds, is found in the southern portion of the park. A tamarack bog, a wetland plant community that is rare for the southern part of the State, is also found in the southern portion of the park within the project area. The tamarack bog and the Eloise Butler Wildflower Garden and Bird Sanctuary provide unique outdoor experiences for urban dwellers. Migratory birds use Wirth Park as a stopover on their migratory route the Mississippi flyway, just three miles to the east. Recently Wirth Park and Minneapolis Chain of Lakes Regional Park were designated an Important Bird Area by Audubon International for this reason.

When Wirth Park was established more than 100 years ago the land was not impacted by non-native invasive plants. Times have changed and Wirth park's oak forest is dominated by common buckthorn. Wetland areas as well have dense stands of both common and glossy buckthorn. Activities funded by the Outdoor Heritage Fund (OHF) included removal and control of invasive species in forest and wetland habitats and enhancement plantings with native plant species. Since 2005, Minneapolis Park and Recreation Board's (MPRB) Citizen Advisory Committees have consistently listed natural resource enhancements as top priorities for Wirth park and are a key component of the Wirth Park Master Plan.

Contracted work for the grant occurred from 2015-2016 and included saw cutting and forestry mowing of woody invasive species. Control of buckthorn in the oak forest and wetland areas consisted of cutting down large mature buckthorn with a chain or brush saw and treating the stump with herbicide. Due to the density of mature buckthorn in certain areas, the resulting brush resulted in large quantities of cut brush littering the landscape, making these areas impossible to access. In these situations the brush was chipped and left in place. Brush chipping allows for better access into the area for future control of invasive species and enhancement plantings.

In forested areas where there was low density of large mature buckthorn, forestry mowing was done through contracted services with a forestry brush mower. Where there were steeper slopes that a forestry mower couldn't safely operate, a brush saw was used. In 2017, the MPRB tried for the first time goat browsing to control invasive species through contracted services. The goat browsing occurred for three consecutive years (2017-2019) with one annual browsing occurring during the summer (June or July) in two locations in the oak forest. Forestry mowing, brush sawing and goat browsing all served to control the seeding of woody invasive species.

Oriental bittersweet has become an increasingly prevalent non-native invasive species in many park areas. Oriental bittersweet was first found in Wirth Park by MPRB staff in 2013 and has been reported to the Minnesota Department of Agriculture through eddmaps.org. It is found in the OHF project area and was part of invasive species control for this project. Control of mature Oriental bittersweet stems, where vines were entangled in the tree canopy, consisted of cutting the stem and treating the stump with an herbicide. Monitoring of the area occurred and any seedlings that sprouted were treated with herbicide to prevent maturation.

The wetland areas to the south of Glenwood Avenue are a unique natural resource that are part of a groundwater system which once provided water for the Glenwood Inglewood spring water plant. There is open water and seepage in this area throughout the seasons, making work in this area difficult. Common and glossy buckthorn are prevalent invasive species in this area as well as purple loosestrife. Purple loosestrife control through biological controls has been in place in Wirth park since the 1990s and is working well to control the plant in both the Glenwood wetlands and the wetland edges of Birch pond. Buckthorn removal occurred in the Glenwood wetlands during the winter and early spring months when the ground was more frozen. Buckthorn in these areas was hand cut and treated with an aquatic approved herbicide. As much brush as possible was chipped and left onsite. Record snowfalls during the winter of 2018-19 and record rainfall in 2019 made this area very difficult to work in.

The OHF project received assistance from the Conservation Corps Youth Outdoors (CCMI YO) program. CCMI YO adult and youth crews worked on invasive species control and planting enhancements from 2017 until the close of the grant in June 2019. Adult crews hand cut mature buckthorn from woodland and wetland areas. The youth program participants helped by hand pulling invasive species and piling brush for later chipping. Youth program participants also seeded in prairie grasses into areas that will be maintained as oak savanna.

Explain Partners, Supporters, & Opposition:

Partners involved in the habitat enhancement were several community volunteer groups and Friends of the Eloise Butler Wildflower Garden who assisted by hand pulling buckthorn seedlings and garlic mustard. Conservation Corps of Minnesota and Iowa Youth Outdoors' youth crews as well assisted with hand pulling invasive species and hauling brush.

Additional Comments:

Exceptional challenges, expectations, failures, opportunities, or unique aspects of program

Common buckthorn, continues to be difficult to control in Wirth park, due to seed sources in residential properties and in areas of the park that are not managed for invasive species control.

Garlic mustard is prevalent in some of the forested areas and difficult to control, as people and animals move the seeds. Oriental bittersweet has become an increasing problem in Wirth park. Park staff have worked to identify seed sources and prevent their maturation in the project area and adjacent park areas. Ongoing control of invasive species will be necessary into the future using a variety of control methods. Heavy snows and rainfalls (2018-2019) made the wetland areas of Wirth almost impossible to access. Ground water seeps and soft soils present additional challenges to wetland work. Green ash removals for emerald ash borer mitigation and diseased oak removals increased during the grant funding period.

Other Funds Received:

- Parks and Trails Fund

How were the funds used to advanced the program:

Theodore Wirth Park has received funding from the Parks and Trails fund in past years which has improved recreational facilities and existing recreational structures in the park. Work has improved trails, beaches, playgrounds, a picnic pavilion and other features. Some parks and trails funding enhanced a wetland adjacent to Wirth Lake which also receives storm water from a parking lot. Clean Water funds received by the Bassett Creek watershed improved the Wirth Lake outlet to Bassett Creek, a key project in its TMDL.

What is the plan to sustain and/or maintain this work after the Outdoor Heritage Funds are expended:

Invasive species control will continue into the future through a variety of methods including hand pulling, brush sawing, forestry mowing and potentially prescribed burning. At present Conservation Corps of Minnesota and Iowa Youth Outdoors (CCMI YO) program implements natural areas management in the Minneapolis Park system. The CCMI YO cost along with hiring of professional services to implement prescribed burning, and other management services such as forestry mowing and goat browsing is an ongoing budgetary need for Wirth park. Purchase of forestry mowing equipment could be an additional operational cost that would assist with ongoing management. At present a system wide natural areas assessment is in process for the entire park system. The management recommendations that will be developed will included more detailed cost estimates for management of park natural areas including staffing and equipment needs.

Outcomes:

The original accomplishment plan stated the program would

Programs in metropolitan urbanizing region:

- A network of natural land and riparian habitats will connect corridors for wildlife and species in greatest conservation need
- Improved aquatic habitat indicators
- Protected habitats will hold wetlands and shallow lakes open to public recreation and hunting

How will the outcomes be measured and evaluated?

In 2016 park staff, along with volunteers and Conservation Corps of Minnesota and Iowa, did an initial study of tree, shrub and forest floor layers of the Wirth project area. Random plots were selected and the data was entered into the iTree Eco online system. This monitoring will be base level data to assess invasive species control, forest regeneration and tree canopy composition. Ongoing monitoring will ensure progress is made to control invasive species and maintain the diverse forest and wetland habitats of Theodore Wirth Park.

Budget Spreadsheet

Final Budget line item reallocations are allowed up to 10% and do not need require an amendment to the Accomplishment Plan

Total Amount: \$600,000

Budget and Cash Leverage

BudgetName	Request	Spent	Cash Leverage (anticipated)	Cash Leverage (received)	Leverage Source	Total (original)	Total (final)
Personnel	\$35,000	\$3,400	\$160,000	\$160,000	MPRB General Fund, MPRB General Fund, MPRB General Fund, MPRB General Fund	\$195,000	\$163,400
Contracts	\$500,000	\$475,600	\$0	\$0		\$500,000	\$475,600
Fee Acquisition w/ PILT	\$0	\$0	\$0	\$0		\$0	\$0
Fee Acquisition w/o PILT	\$0	\$0	\$0	\$0		\$0	\$0
Easement Acquisition	\$0	\$0	\$0	\$0		\$0	\$0
Easement Stewardship	\$0	\$0	\$0	\$0		\$0	\$0
Travel	\$0	\$0	\$0	\$0		\$0	\$0
Professional Services	\$0	\$0	\$0	\$0		\$0	\$0
Direct Support Services	\$0	\$0	\$0	\$0		\$0	\$0
DNR Land Acquisition Costs	\$0	\$0	\$0	\$0		\$0	\$0
Capital Equipment	\$0	\$0	\$0	\$0		\$0	\$0
Other Equipment/Tools	\$0	\$0	\$0	\$0		\$0	\$0
Supplies/Materials	\$65,000	\$51,500	\$0	\$0		\$65,000	\$51,500
DNR IDP	\$0	\$0	\$0	\$0		\$0	\$0
Total	\$600,000	\$530,500	\$160,000	\$160,000		\$760,000	\$690,500

Personnel

Position	FTE	Over # of years	Spent	Cash Leverage	Leverage Source	Total
planning project management staff	0.16	5.00	\$0	\$45,000	MPRB General Fund	\$45,000
environmental operations management staff	0.20	5.00	\$3,400	\$60,000	MPRB General Fund	\$63,400
summer youth crew leaders	0.30	5.00	\$0	\$9,000	MPRB General Fund	\$9,000
summer youth crew workers	2.70	5.00	\$0	\$46,000	MPRB General Fund	\$46,000
Total	3.36	20.00	\$3,400	\$160,000		\$163,400

Explain any budget challenges or successes:

Not Listed

All revenues received by the recipient that have been generated from activities on land with money from the OHF:

Total Revenue: \$0

Revenue Spent: \$0

Revenue Balance: \$0

- E. This is not applicable as there was no revenue generated.

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands (original)	Wetlands (final)	Prairies (original)	Prairies (final)	Forest (original)	Forest (final)	Habitats (original)	Habitats (final)	Total (original)	Total (final)
Restore	0	0	0	0	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	0	0
Enhance	15	15	0	0	135	135	0	0	150	150
Total	15	15	0	0	135	135	0	0	150	150

Table 2. Total Funding by Resource Type

Type	Wetlands (original)	Wetlands (final)	Prairies (original)	Prairies (final)	Forest (original)	Forest (final)	Habitats (original)	Habitats (final)	Total (original)	Total (final)
Restore	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$252,000	\$190,500	\$0	\$0	\$348,000	\$340,000	\$0	\$0	\$600,000	\$530,500
Total	\$252,000	\$190,500	\$0	\$0	\$348,000	\$340,000	\$0	\$0	\$600,000	\$530,500

Table 3. Acres within each Ecological Section

Type	Metro Urban (original)	Metro Urban (final)	ForestPrairie (original)	Forest Prairie (final)	SE Forest (original)	SE Forest (final)	Prairie (original)	Prairie (final)	N Forest (original)	N Forest (final)	Total (original)	Total (final)
Restore	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	0	0	0	0
Enhance	150	150	0	0	0	0	0	0	0	0	150	150
Total	150	150	0	0	0	0	0	0	0	0	150	150

Table 4. Total Funding within each Ecological Section

Type	Metro Urban (original)	Metro Urban (final)	ForestPrairie (original)	Forest Prairie (final)	SE Forest (original)	SE Forest (final)	Prairie (original)	Prairie (final)	N Forest (original)	N Forest (final)	Total (original)	Total (final)
Restore	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$600,000	\$530,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$600,000	\$530,500
Total	\$600,000	\$530,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$600,000	\$530,500

Automatic system calculation / not entered by managers

Target Lake/Stream/River Feet or Miles (original)

1

Target Lake/Stream/River Feet or Miles (final)

0

Explain the success/shortage of acre goals:

In 2016 Park Board staff recommended and changed the contracted work to include chipping of woody invasive species that were cut. Because of the amount and size of debris generated from invasive species removals, not chipping the brush would cause certain areas of the project to be inaccessible for future natural area management and enhancement due to the density of cut woody debris laying on the forest floor. This additional chipping took place of the lake shoreline restoration (8/1/2016 status report).

Parcel List

Section 1 - Restore / Enhance Parcel List

Hennepin

Name	TRDS	Acres	Total Cost	Existing Protection?	Description
PID 1902924110002	0292411	38	\$132,600	Yes	Portion of Theodore Wirth Regional Park
PID 1902924120001	0292412	36	\$132,700	Yes	Portion of Theodore Wirth Regional Park
PID 2002924230002	0292423	38	\$132,600	Yes	Portion of Theodore Wirth Regional Park
PID 2902924210001	0292421	38	\$132,600	Yes	Portion of Theodore Wirth Regional Park

Section 2 - Protect Parcel List

No parcels with an activity type protect.

Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Completed Parcel: PID 1902924110002

# of Total Acres:	38
County:	Hennepin
Township:	029
Range:	24
Direction:	
Section:	11
# of Acres: Wetlands/Upland:	7.5
# of Acres: Forest:	30.5
# of Acres: Prairie/Grassland:	0
Amount of Shoreline:	0 (Linear Feet)
Name of Adjacent Body of Water (if applicable):	NA
Has there been signage erected at the site:	Yes
Total cost of Restoration/Enhancement:	\$132,600

Completed Parcel: PID 1902924120001

# of Total Acres:	36
County:	Hennepin
Township:	029
Range:	24
Direction:	
Section:	12
# of Acres: Wetlands/Upland:	7.5
# of Acres: Forest:	28.5
# of Acres: Prairie/Grassland:	0
Amount of Shoreline:	1270 (Linear Feet)
Name of Adjacent Body of Water (if applicable):	Twin Lake
Has there been signage erected at the site:	Yes
Total cost of Restoration/Enhancement:	\$132,700

Completed Parcel: PID 2002924230002

# of Total Acres:	38
County:	Hennepin
Township:	029
Range:	24
Direction:	
Section:	23
# of Acres: Wetlands/Upland:	7.5
# of Acres: Forest:	30.5
# of Acres: Prairie/Grassland:	0
Amount of Shoreline:	0 (Linear Feet)
Name of Adjacent Body of Water (if applicable):	NA
Has there been signage erected at the site:	Yes
Total cost of Restoration/Enhancement:	\$132,600

Completed Parcel: PID 2902924210001

# of Total Acres:	38
County:	Hennepin
Township:	029
Range:	24
Direction:	
Section:	21
# of Acres: Wetlands/Upland:	7.5
# of Acres: Forest:	30.5
# of Acres: Prairie/Grassland:	0
Amount of Shoreline:	0 (Linear Feet)
Name of Adjacent Body of Water (if applicable):	NA
Has there been signage erected at the site:	Yes
Total cost of Restoration/Enhancement:	\$132,600

Parcel Map

