



Lessard-Sams Outdoor Heritage Council

Daylighting Phalen Creek

Laws of Minnesota 2022 Accomplishment Plan

General Information

Date: 10/26/2023

Project Title: Daylighting Phalen Creek

Funds Recommended: \$3,312,000

Legislative Citation: ML 2022, Ch. 77, Art. 1, Sec. 2, subd. 5(u)

Appropriation Language: \$3,312,000 the second year is to the commissioner of natural resources for an agreement with the Lower Phalen Creek Project to restore and enhance priority aquatic and riparian habitats associated with Phalen Creek in St. Paul. A list of proposed restorations must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: Gabby Menomin

Title: Restoration Manager

Organization: Lower Phalen Creek Project

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Location Information

County Location(s): Ramsey.

Eco regions in which work will take place:

- Metro / Urban

Activity types:

- Restore

Priority resources addressed by activity:

- Habitat

Narrative

Abstract

Phalen Creek is a long-buried waterway snaking through Saint Paul's East Side. Until the early twentieth century, Phalen Creek served as a thriving wildlife corridor and as a cultural resource for the Dakota people. Now, Lower Phalen Creek Project, with widespread support from local residents, community organizations, and a wide array of government entities and additional stakeholders, proposes to daylight Phalen Creek for a ¼-mile stretch south of Lake Phalen. This daylight channel will restore and enhance critical habitat south of the vibrant Phalen Regional Park ecosystem and provide a range of recreational and educational opportunities for the community.

Design and Scope of Work

The proposed Reach 7 & 8 project will restore lotic aquatic habitat directly connected to Lake Phalen. The specific aquatic ecosystem intended to be restored will include several that were fully expatriated from this area, including wet meadows, shallow fresh marshes, and seasonally flooded wetlands. A 1,500 linear foot segment of Phalen Creek will be daylighted and approximately 9 acres restored to native habitat within City of Saint Paul property. The creek will be connected to Lake Phalen with a fish-passage friendly structure to support sustainable fishing within the proposed daylighted stream. Lake sedge, white turtlehead, and joe pye weed are among a diversity of native species that will be reintroduced through seeding and planting restoration strategies to support the establishment of healthy native plant communities. Restoration of these communities will help stabilize shoreline conditions and trap sediment to improve water quality while enhancing the terrestrial and aquatic habitat value. The stream itself will be representative of the former perennial stream that likely meandered through the oak savanna of the Mississippi River Valley uplands. Upland areas within the project will also be re-established with native plant and pollinator species. Flowering species such as Bottle Gentian, asters, butterfly milkweed and white wild indigo - a state-listed species of special concern native to prairie habitats- provide critical forage and nesting habitat for specialist pollinators while also providing year-round visual interest.

The project will also re-establish opportunities for wildlife habitat that disappeared when the stream was redirected to storm sewer pipes. The present-day context of the site within a dense urban area will limit some species from re-occupying their niches, but there are ample opportunities for a number of wildlife species to take advantage of the recreated ecology. At its core, the project will restore a meandering stream that will support macroinvertebrates, terrapins, amphibians, reptiles, wading birds and warm-water fish species endemic to the area.

The scope of the project will include the following elements:

Site Investigation: Topographic survey and Geotechnical Investigation of the site to support design, permitting, bidding, and construction phases. The survey will include topography, transportation and recreation infrastructure, existing utilities and easements, and major vegetation.

Meetings, engagement events, website updates, and emails are planned throughout the process to guide the design effort and inform the public. External funding will support stakeholder engagement and public outreach.

Design: Engineering, ecological, and geomorphic assessment and design of the proposed restored channel and associated wetland and upland areas. Deliverables include concept through final design of Bid Documents. Bid Documents will be sealed by a Professional Engineer licensed in the State of Minnesota.

Permitting: Submittal of necessary permits for construction

Site construction will be accomplished.

External funding will be sought to support solicitation of competitive bids for construction services, professional oversight and administration to implement the design vision.

Plant Warranty and Replacement: Anticipated construction contracts will include 2-year plant replacement warranties and maintenance requirements to support successful completion of the restoration efforts. The project will be closed out at the termination of the plant.

How does the plan address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species?

This project restores lost aquatic habitat that supports the ecological health of the lake and stream system of Phalen Creek, which was once the ecological backbone of the local environment. The specific aquatic habitats that are targeted include stream, inland shallow fresh marsh, inland deep fresh marsh, inland open fresh water, and inland fresh meadow. The proposed restoration of the creek and riparian habitat will support the return of a range of terrestrial, avian, insect, and aquatic species formerly endemic to this area. Specifically, the proposed habitat will be a high value resource for the following species.

The design will incorporate standing dead wood in the naturalized area, which will provide immediate habitat opportunities for bats, including the Eastern Pipistrelle, Northern Long-eared Bat, and Big Brown Bat, which are listed as species of Special Concern.

Insect species we anticipate to colonize the site include aquatic macroinvertebrates as well as terrestrial species like Monarch Butterflies. Insect species listed as Endangered, Threatened, or of Special Concern in Minnesota, which are anticipated to return, include several species of Caddisfly, Ghost Tiger Beetles, Iowa Skipper, Leadplant Flower Moth, Regal Fritillary, and Whitney's Underwing.

The site will provide habitat for a range of endemic turtle species, including the SGCN "threatened" status Blanding's Turtle. The restored naturalized shoreline and connectivity to the lake will be paired with areas in which the designers will dissuade human use, allowing for nesting sites.

The creek will be directly connected to Lake Phalen and provide enhanced forage and spawning habitat for many fish species including northern pike, green sunfish, pumpkinseed, sauger, bluegill, channel catfish, walleye, and largemouth bass. The proposed stream habitat will have sections that will be fishable for these species, offering a unique fishing experience to the residents and visitors. To support sustainable fish populations and aquatic ecology, the project proposes fish-passage connections to Lake Phalen and under Maryland Avenue, which will allow for the natural replenishment of fish lost through predation or resident fishing. The project will include a carp gate to exclude larger carp from the channel and improve water quality and clarity.

Describe how the plan uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:

The importance of this project is exemplified by the current lack of Natural Communities and Rare Species in the vicinity of the project. Similar to the efforts at the Trout Brook Nature Sanctuary, 2 miles to the east, this project

continues the process of creating and expanding north-south habitat corridors that enhance and support the overall Mississippi River flyway. There is a distinct lack of connectivity between the Mississippi River and riparian resources to the north of Saint Paul. This project will create critical habitat to reduce the isolation and fragmentation of critical habitat, bridging the gap between resources north and south of Saint Paul. To achieve those goals, LPCP previously completed a feasibility study (2017) which included the scientific evaluation of geology (surficial and bedrock) hydrology, topography, and soil types to identify the likely location of the lost riparian and creek habitat resources. Based on these foundational elements, LPCP has identified targeted habitats and appropriate locations to leverage the natural site conditions to achieve the ecological restoration goals.

LPCP has also conducted a series of preliminary habitat evaluations in the project area, with support and consultation from wildlife ecologists at the University of Minnesota, conservation professionals with Saint Paul Natural Resources, the DNR and the Minnesota Valley National Wildlife Refuge, technicians from Capitol Region and Ramsey-Washington Metro Watershed Districts, and other knowledgeable stakeholders. Additional research has been conducted to ensure that the daylighting of Phalen Creek is designed for targeted habitat improvements and expansions for Species of Greatest Conservation Need, in addition to the expansion of valuable riparian habitat. Habitat evaluations (e.g. wildlife surveys) will continue to be conducted during the project — with support from knowledgeable stakeholders and with the participation of residents through community science practices — to monitor and investigate ecosystem conditions.

Which two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?

- H5 Restore land, wetlands and wetland-associated watersheds
- H6 Protect and restore critical in-water habitat of lakes and streams

Which two other plans are addressed in this program?

- Minnesota DNR Strategic Conservation Agenda
- Minnesota's Wildlife Action Plan 2015-2025

Which LSOHC section priorities are addressed in this program?

Metro / Urban

- Protect, enhance, and restore riparian and littoral habitats on lakes to benefit game and nongame fish species

Outcomes

Programs in metropolitan urbanizing region:

- A network of natural land and riparian habitats will connect corridors for wildlife and species in greatest conservation need ~ *Success for this project is measured in the length of the restored stream channel and in the acreage of restored riparian habitat. The daylight stream channel will be assessed based on similar IBI indexes and hook and line surveys. Vegetation community will be assessed with transect surveys and/or confirmation of the presence of targeted plant species on-site. LPCP will also conduct regular wildlife habitat surveys to track presence of indicator species in the project area. The University of Minnesota and additional academic institutions will act as partners in these studies, surveys, and evaluations.*

Does this program include leveraged funding?

Yes

Explain the leverage:

LPCP has applied for, and will apply in the future for modest non-federal grants from Ramsey-Washington Metro Watershed District to support community engagement along the Phalen Creek corridor. LPCP also anticipates the continued support of staff time via a federal grant from the USDA Forest Service, at \$24,750 annually. Other stakeholders will provide in-kind contributions of staff & volunteer labor for design, engagement, and public habitat installation events. Additional leverage will be sought via donations to support the procurement of professional services, including legal counsel and project management consulting.

Per MS 97A.056, Subd. 24, Please explain whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.

This request is not supplanting or substituting for any previous funding not from legacy funds or used for the same purpose.

Non-OHF Appropriations

Year	Source	Amount
2021	Ramsey-Washington Metro Watershed District	\$10,000
2021	Capitol Region Watershed District	\$8,500
2020	Capitol Region Watershed District	\$4,700
2017	Capitol Region Watershed District	\$15,000

How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended?

This project will apply U.S. Fish and Wildlife Strategic Habitat Preservation principles throughout the project to ensure that project outcomes are achieved and maintained after the listed funding period. Namely, this project: (1) is prepared to monitor and encourage the positive watershed-wide impacts of extending riparian habitat from the north metro to the Mississippi River; (2) will continue a legacy of collaboration by working in partnership with community members, government entities, scientists, conservation professionals, and other stakeholders; (3) will utilize an adaptive management framework that incorporates biological planning, conservation design, and monitoring and research in the project and post-project activities; and (4) will rely on science and related tools to evaluate gaps in knowledge and implement best management practices.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2028	City of Saint Paul	Routine parkland maintenance (trash removal, etc.)	-	-
2027	Ramsey-Washington Metro Watershed District	Maintenance of riparian plantings	Routine water-quality monitoring	IBI assessment
2026	Ramsey-Washington Metro Watershed District	Maintenance of riparian plantings	Routine water-quality monitoring	IBI assessment

Provide an assessment of how your program celebrates cultural diversity or reaches diverse communities in Minnesota, including reaching low- and moderate-income households:

The project to daylight Phalen Creek directly south of Lake Phalen represents a unique opportunity to restore a natural resource with longstanding cultural value to the Dakota people of Minnesota, and presents a rare opportunity for stream restoration in the urban core.

The project directly serves environmental justice and social equity needs. More than 1,000 community members will be directly engaged during this project. Community engagement will parallel the development of compelling graphics and renderings, and community members will have direct input on project designs throughout the process. This is of particular importance to the East Side, where many residents lack access to naturalized public green spaces, and to the knowledge and health benefits these spaces provide. The area has the second-highest vacancy rate among all Racially Concentrated Areas of Poverty in Minnesota; 40% of households report an annual income of less than \$35,000, and over 64% of residents identify as People of Color. In the Payne-Phalen neighborhood alone, 37% of residents are Asian or Pacific Islander; 14% are Black or African American; 13% are Hispanic or Latino, and the neighborhood's 400+ Native American and Alaska Native residents are bolstered by a strong East Metro Indigenous community. Consistent engagement will ensure that community interests shape how the creek channel is designed and best utilized by residents.

According to the EPA, residents living within ½-mile of the Phalen Creek corridor are, statewide, in the 90th percentile or higher for wastewater discharge, traffic proximity and volume, respiratory hazards, and cancer risk. For over twenty years, LPCP has engaged local residents about restoring Phalen Creek. Numerous community surveys and targeted outreach events have shown overwhelming support for bringing Phalen Creek back to the surface—to recognize and celebrate the creek's value to the Dakota people, to whom this land has belonged for time immemorial and which holds unique value as a trade route and resource cache; to improve access to natural spaces and water resources in a heavily industrialized area of the city; and to align with regional watershed management plans surrounding water quality, storm-water runoff, and flood risk mitigation.

Activity Details

Requirements

If funded, this program will meet all applicable criteria set forth in MS 97A.056?

Yes

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program?

Yes

Is the restoration and enhancement activity on permanently protected land per 97A.056, Subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 or on lands to be acquired in this program?

Yes

Where does the activity take place?

- County/Municipal

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program?

No

Timeline

Activity Name	Estimated Completion Date
Plant Warranty & Replacement / Project Close-out	June 2026
Construction	June 2024
Design	February 2023
Project Initiation	July 2022

Date of Final Report Submission: 12/31/2027

Availability of Appropriation: Subd. 7. Availability of Appropriation

(a) Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the accomplishment plan approved by the Lessard-Sams Outdoor Heritage Council. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a specific appropriation. Money appropriated to acquire land in fee may be used to restore, enhance, and provide for public use of the land acquired with the appropriation. Public-use facilities must have a minimal impact on habitat in acquired lands.

(b) Money appropriated in this section is available as follows:

(1) money appropriated for acquiring real property is available until June 30, 2026;

(2) money appropriated for restoring and enhancing land acquired with an appropriation in this act is available for four years after the acquisition date with a maximum end date of June 30, 2030;

(3) money appropriated for restoring or enhancing other land is available until June 30, 2027;

(4) notwithstanding clauses (1) to (3), money appropriated for a project that receives at least 15 percent of its funding from federal funds is available until a date sufficient to match the availability of federal funding to a maximum of six years if the federal funding was confirmed and included in the original approved draft accomplishment plan; and

(5) money appropriated for other projects is available until the end of the fiscal year in which it is appropriated.

Budget

Budget reallocations up to 10% do not require an amendment to the Accomplishment Plan.

Totals

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$171,200	\$415,000	External funding (cash match), City of Saint Paul (in-kind match), Ramsey-Washington Metro Watershed District (in-kind match), Capitol Region Watershed District (in-kind match), Community partners (in-kind match)	\$586,200
Contracts	\$2,837,800	\$350,000	Project fundraising for high-end cost estimates and add-on design features	\$3,187,800
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$1,000	-	-	\$1,000
Professional Services	\$300,000	-	Grant-supported legal counsel & project management	\$300,000
Direct Support Services	-	\$2,000	Grant-supported administrative tasks	\$2,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$1,000	-	-	\$1,000
Supplies/Materials	\$1,000	-	-	\$1,000
DNR IDP	-	-	-	-
Grand Total	\$3,312,000	\$767,000	-	\$4,079,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
Lower Phalen Creek Project Staff	0.7	4.0	\$136,200	\$200,000	External funding (cash match)	\$336,200
Habitat Installation Team	0.25	2.0	-	\$50,000	Community partners (in-kind match)	\$50,000
Capitol Region Watershed District Design Team	0.1	4.0	-	\$50,000	Capitol Region Watershed District (in-kind match)	\$50,000
Ramsey-	0.25	4.0	-	\$100,000	Ramsey-	\$100,000

Washington Metro Watershed District Engineering Team					Washington Metro Watershed District (in-kind match)	
City of Saint Paul Project Design Team	0.1	4.0	\$35,000	\$15,000	City of Saint Paul (in-kind match)	\$50,000

Amount of Request: \$3,312,000

Amount of Leverage: \$767,000

Leverage as a percent of the Request: 23.16%

DSS + Personnel: \$171,200

As a % of the total request: 5.17%

Easement Stewardship: -

As a % of the Easement Acquisition: -

How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount?

LPCP has secured funds to support the project manager position at 1/2 FTE in 2021 - 2022, and expects to secure this funding on an annual basis. Additional personnel funds will be secured via external grants. Project design & construction costs were also adjusted to the listed amount.

Describe and explain leverage source and confirmation of funds:

LPCP has secured project funding from multiple external organizations. Government stakeholders have also indicated an in-kind match of staff time, and LPCP will seek additional leverage funds via grant awards and fundraising activities. Leveraged funding estimates were adjusted in May 2022 to reflect additional appropriations from LSOHC.

Personnel

Has funding for these positions been requested in the past?

No

Contracts

What is included in the contracts line?

This task includes the completion of site investigation (survey and geotechnical); 30/60/90 and bid-ready construction plans sealed by a professional engineer, specifications, and cost estimates. This task also includes construction services for the designed elements.

Travel

Does the amount in the travel line include equipment/vehicle rental?

No

Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging

Travel costs will only encompass local trips to and from the project site within the metro area.

I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:

Yes

Other Equipment/Tools

Give examples of the types of Equipment and Tools that will be purchased?

These funds are set aside for any materials needed habitat research, ecosystem monitoring, or project management software, though it is anticipated that the overwhelming majority of these materials will be made available by contractors, consultants, partner organizations, or other qualified stakeholders.

Federal Funds

Do you anticipate federal funds as a match for this program?

Yes

Are the funds confirmed?

Yes

Is Confirmation Document attached?

[Yes](#)

- Cash : \$24,750

Output Tables**Acres by Resource Type (Table 1)**

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	-	-	-	9	9
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	-	-	-	9	9

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	\$3,312,000	\$3,312,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	-	-	-	\$3,312,000	\$3,312,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	9	-	-	-	-	9
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	9	-	-	-	-	9

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	\$3,312,000	-	-	-	-	\$3,312,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	\$3,312,000	-	-	-	-	\$3,312,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	\$368,000
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	\$368,000	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-

Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-

Target Lake/Stream/River Feet or Miles

1,500 linear feet (1/4 mile) of Phalen Creek

Parcels

For restoration and enhancement programs ONLY: Managers may add, delete, and substitute projects on this parcel list based upon need, readiness, cost, opportunity, and/or urgency so long as the substitute parcel/project forwards the constitutional objectives of this program in the Project Scope table of this accomplishment plan. The final accomplishment plan report will include the final parcel list.

Parcel Information

Sign-up Criteria?

No

Explain the process used to identify, prioritize, and select the parcels on your list:

The project area encompasses an urban parcel south of Lake Phalen and near Maryland Avenue. The parcel was identified during a 2017 feasibility study commissioned by LPCP to evaluate ideal portions of Phalen Creek to be daylight. Subsequent project work has confirmed that this parcel is the ideal location for daylighting Phalen Creek. Restoring flow to the initiation point of the creek corridor will allow project managers and engineering professionals to determine the best course of action for daylighting additional portions of Phalen Creek to the south of the project site. Accordingly, this project will be conducted using best management practices and with the consideration of design elements for subsequent reaches of Phalen Creek. In order to better anticipate future project needs, we will complete Conceptual Level Design (10%) and Purple Line Coordination for Reaches 5 and 6 (Magnolia and Johnson Parkway, down Phalen Blvd to Arcade St.). Future projects will include the remaining creek path, which will ultimately run from the south end of Lake Phalen through Bruce Vento Nature Sanctuary to the Mississippi River.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Phalen Creek - Reach 7 & 8	Ramsey	02922228	9	\$3,928,000	Yes

Other Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Phalen Creek - Reach 5 & 6	Ramsey	02922228	19	\$59,000	Yes

Parcel Map

