LOWER MINNESOTA RIVER
WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, June 18, 2025

Agenda Item
Item 7. C. – Seminary Fen Ravine Stabilization – Ravine C-2 Update

Prepared By
Linda Loomis, Administrator

Summary
In August 2018, the City of Chaska identified several ravines contributing sediment to the Seminary Fen wetland complex. At that time, the City approached the LMRWD to request that stabilization projects for these ravines be incorporated into the LMRWD Watershed Management Plan. In response, the LMRWD included the ravine stabilization efforts in its Implementation Plan and allocated funding in the Implementation Program Budget based on cost estimates provided by the City.

The City has since been working toward stabilizing Ravine C-2. A feasibility report was completed, and the City successfully secured grant funding for the project. As the project advanced into the design phase, the estimated cost increased beyond the available funding. This increase is primarily due to the addition of a water quality treatment component to the stormwater collection system and the identification of an additional head-cut, which has now been included in the stabilization scope.

This project is a collaborative effort between the City of Chaska, the Carver County Watershed Management Organization, and the LMRWD. Representatives from all three partners met on Wednesday, June 11, to discuss the current funding shortfall, which totals $244,000. It was proposed that each partner contribute one-third of the shortfall—approximately $80,000 each. The LMRWD has allocated $80,000 for this project in its current budget. A breakdown of the most recent funding plan follows:

Overall Funding Plan		
Engineering (Engineer Estimate)	$	210,000
Grants (BWSR/CCWMO)	$	(140,000)
Unfunded Engineering	**$**	**70,000**
Construction (Engineer Estimate)	$	989,000
Grants (BWSR)	$	(815,000)
Unfunded Construction	**$**	**174,000**
Total Unfunded Cost	**$**	**244,000**

Although the stabilization work lies outside the LMRWD's jurisdictional boundaries, the Seminary Fen area receiving the sediment is within the District. The Board is asked to consider whether to participate financially in the project and, if so, to determine the amount of funding to be contributed.

Attachments

City of Chaska Comprehensive Project List for Financial Assistance From the LMRWD (August 2018)
C2 Seminary Fen Ravine Feasibility Report dated February 2022

Recommended Action

Motion to approve funding contribution as determined by the Board and to authorize preparation of a cooperative agreement between the LMRWD, City of Chaska and the Carver County WMO.

CITY OF CHASKA COMPREHENSIVE PROJECT LIST FOR FINANCIAL ASSISTANCE FROM THE LOWER MN WATERSHED DISTRICT

Map ID*	Project Name	Description	Ranking, Comments	Requested Amount from Lower MN (Schedule)
A	Seminary Fen Restoration Site A Property Purchase and Wetland Restoration (Alternative Options - Easement or Agreement with property owner to restore wetland)	It is recommended that the 3.61 acres of wetland that exist at the intersection of Engler and Audubon are purchased and restored. As an option to purchase easements could be obtained from property owner (First Minnetonka Bank) to allow it to be restored. This is the only privately owned portion of the Seminary Fen Wetland Complex that remains. The site is next to a 6 acre wetland restoration that was completed by the City of Chaska in partnership with the MNDNR. The area that requires restoration is dominated by reed canary grass and thus offers the greatest threat to the rare plants of the Seminary Fen Wetland Community.	High – This ranks as a high priority action because without invasive species control at this location, other efforts to restore vegetation in the wetland will continue to be threatened in the future by the source of reed canary grass at this site. It provides an immediate threat to the wetland restored by the City in 2013 (see location on attached map).	$75,000 Purchase, Design and Construction (2017 – 2020 dependent on other funding)
B	Seminary Fen Restoration Site B	From Falls Curve Road to Old Highway 12 there is a 17-acre swath of wetland that is predominantly reed canary grass. This appears to be the only area north of the trail that still has a functioning drainage	High – This ranks as a high priority project because the reed canary grass of this area provides the greatest threat to the adjacent unique plant community of the Seminary Fen	$75,000 Design and Construction (2017 – 2027 date dependent on other funding)

		system within the wetland that is partially draining the wetland complex. Wetland restoration would involve disabling the drainage system and restoring vegetation.	Wetland complex. Ditch blocking will help to restore the hydrology of the wetland and may also have a secondary benefit of reducing the flashy flows to Assumption Creek.	
C-2 and C-3	Seminary Fen Ravines Site C-2 and C-3 Studies	Seminary Fen Ravine Sites C-2 and C-3 on the attached exhibit are actively discharging sediment into the Seminary Fen Wetland Complex. It is recommended that a ravine study be conducted to estimate sediment contribution to the Seminary Fen, provide approaches and cost estimates for correcting the erosion problems, and identify potential funding sources. This information will be utilized to help secure future grants. Priorities of ravine stabilization efforts along the bluff could also result from the study.	C-2, High – This ranks as high because this ravine is actively eroding and contributing sediment loads to the seminary fen wetland complex. C-3, Moderate/High – A review of this ravine and stabilization options should be after C-2 is completed. This site is contributing less sediment to the seminary fen wetland complex than C-2, but still is a contributor.	C-2 Ravine Study: $30,000 (2017 – 2027 dependent on funding) C-3 Ravine Study: $30,000 (2017 – 2027 dependent on funding)
C-2 and C-3	Seminary Fen Ravines Site C-2 and C-3 Design and Construction	Ravine Sites C-2 and C-3 on the attached exhibit are actively discharging sediment into the Seminary Fen Wetland Complex. This project will involve completing the final design and construction of these projects.	C-2, High – This ranks as high because this ravine is actively eroding and contributing sediment loads to the wetland. C-3, Moderate/High – Secondary to C-2 due to reduced sediment loads.	C-2 Design/Construction: $75,000 - $100,000 (2019 – 2027 dependent on funding) C-3 Design/Construction: $75,000 - $100,000 (2019 – 2027 dependent on funding)

D	Assumption Creek Hydrology Restoration Study	It is believed that Assumption Creek at one time had more flow than it currently has today. Assumption Creek is a trout stream, and groundwater discharge is important to maintain temperatures for the trout. It has been reported that portions of the creek dry out periodically. It is unknown exactly what may have reduced the hydrology. It may have been the U.S. Army Corps of Engineers Channel, historic creek rerouting for the brick factory, road construction, or other development impacts. It is recommended that a study be conducted to look at opportunities to resupply groundwater hydrology to the creek.	Moderate – This is moderate priority because the hydrology alteration has already occurred, and there is no immediate threat to additional loss of hydrology to the creek.	Assumption Creek Hydrology Restoration Study: $30,000 (2019 – 2027 depending on funding)

* Map ID numbers refer to Attached Figure

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454000 455000 456000

4963000

4962000

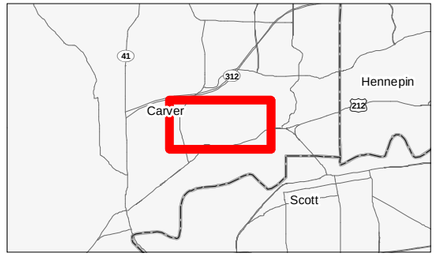
C-1
C-3
C-2
E-1
E-3
E-2
746.7
742.32
742.08
744.76
745.14
742.81
741.79
17 acres
B
F
D
A
3.61 acres
bing™

Legend

- Project Site
- Seminary Fen Wetland Complex (B)
- Calcareous Fen (Southeastern)
- Sedimentation Plumes (E-1, E-2, E-3)

Barr Restoration and Management Data

- Natural Drainageway
- Potential Tile (No tile observed)
- Surface Ditch
  - **745.14** Ditch Top Elevations
  - **742.32** Ditch Bottom Elevations
- 2013 Wetland Restored (F)
- Seminary Fen Restoration Site A - Wetland Purchase and Restoration
- Seminary Fen Restoration Site B - Wetland Restoration
- Hazeltine Bluff Wetland
- Seminary Fen Ravines (C-1(completed), C-2, C-3)



N

0 600 1,200 Feet

1:7,500 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources include: Stantec, USGS, and ESRI
3. Orthophotography: Microsoft Corporation, with permission

Figure No.
1

Title
City of Chaska Project Map for Lower Minnesota Watershed District

Client/Project
City of Chaska

Project Location
T116, R23, S34
C. of Chaska
Carver Co., MN

193702489
Prepared by CS on 2015-03-05
Technical Review by JS on 2015-09-18

Stantec