



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, March 18, 2020

Agenda Item

Item 6. A. - City of Carver Levee

Prepared By

Linda Loomis, Administrator

Summary

Staff has reviewed the information the LMRWD received from the City of Carver regarding its request for LMRWD funding for improvements to the Carver Levee. The analysis prepared by LMRWD staff is attached. This analysis has been shared with the City. LMRWD and the City are planning to meet to discuss this project further.

Attachments

LMRWD staff analysis of Carver Levee proposal

Recommended Action

No action recommended

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Katy Thompson, PE, CFM
Della Schall Young, CPESC, PMP

Date: March 12, 2020

Re: City of Carver Levee Improvement Funding Request Review

In 2019, the City of Carver (City) informed the Lower Minnesota River Watershed District (LMRWD or “the District”) of its plans to request state funding to help bring the City’s levee up to FEMA and U.S. Army Corps of Engineers (USACE) standards. On February 19, 2020, City of Carver Mayor Courtney Johnson presented to the LMRWD Board regarding the City’s plans and requested \$50,000 to help fund the improvements.

Background

The City has experienced repeated flooding (22 flood events in the past 10 years) and has developed several studies identifying alternatives to protect the historic downtown structures. The City of Carver downtown is protected by an earthen levee constructed following the 1965 flood of record. The levee was removed from the USACE Levee Safety Program in 2016 because of the current state of disrepair and is currently non-accredited on the current FEMA flood insurance maps.

The levee system consists of two levees, Carver–East Levee and Carver–West Levee, divided by high ground at Spring Creek, which runs between the two levees. The details of the levee system from the National Levee Database are provided in Table 1 below. The City of Carver has been part of the National Flood Insurance Program since 1972 and there are currently 30 flood insurance policies in the City, with total claims paid to date of approximately \$69,203.

Table 1. Levee Information from the National Levee Database

	Carver – East	Carver – West
Length	0.4 miles	0.36 miles
Number of Closure Structures	2 (Main Street and 3rd Street)	3 (Main Street, 3rd Street, and low point near 4th Street)
FEMA NFIP/FIRM Status	Non-Accredited	Non-Accredited
USACE Rehabilitation Status	Active	Active
Latest Inspection	07/07/2015	07/07/2015
People at Risk	111	59
Structures at Risk	51	25
Property Value	\$49.3M	\$13.7M

Funding Request Review

To establish impartial and fair evaluations of funding requests, we have developed a scoring methodology based on the LMRWD's 2018–2027 Watershed Management Plan and the prioritization process used by the Riley–Purgatory–Bluff Creek Watershed District. The scoring methodology is explained below.

1. Project Type

The Project Type Score considers whether a proposed project is tributary to an impaired waterway, if it solves an issue previously identified by the community or the LMRWD plans, and whether the project is explicitly included in the community or LMRWD plans. Points are awarded based on how well the project aligns with the community and LMRWD plans.

2. Plan Goals

The Plan Goals Score considers how well aligned a proposed project is with the goals of the LMRWD's Watershed Plan. Projects are assigned a score of 0 through 9 based on how many of the District's goals are addressed.

3. Water Capture

The Water Capture Score gives credit to projects meeting or exceeding the standards for stormwater runoff volume management. Projects are assigned a score of 0 to 7 based on the amount of volume reduction the proposed project provides.

4. Pollutant Management

The Pollutant Management Score gives credit to projects that meet or exceed the amount of water quality treatment provided beyond what is required for regulatory purposes. Projects without a pollutant reduction component will receive a score of 0, whereas those that reduce pollutant loading to downstream resources can receive a score up to 7.

5. Habitat Restoration

The Habitat Restoration Score gives credit to projects that provide habitat benefits. Projects with no habitat benefit receive a score of 0. Projects likely to achieve habitat benefits as a secondary project benefit receive a score of 3. Projects that include a replacement of the existing habitat with an improved habitat receive a score of 5. Projects that include habitat creation or enhancement as the primary purpose of the project receive a score of 7.

6. Bank Stabilization

The Bank Stabilization Score gives credit to projects that restore or stabilize degraded streambanks or shorelines. A project is assigned a bank stabilization score based on the length of the streambank or shoreline restored or stabilized and the level of existing degradation. This metric is only applied to projects with a designed restoration component (versus indirect benefits). Projects without a designed shoreline or streambank restoration component are assigned a score of 0.

7. Watershed Benefits

The Watershed Benefits Score gives credit to projects that provide benefits beyond the immediate site location. Scores are based on where the proposed project is located within the watershed, giving greater weight to those near headwaters.

8. Partnership Opportunities

The Partnership Opportunity Score gives credit to projects that allow the District to partner with other organizations. The District is interested in being a project partner with its member communities. A project receives the maximum score of 7 if one or more of the partners is a financial contributor to the project.

9. Public Education

The Public Education Score gives credit to projects that spread awareness of the District's projects and their benefits to the public. The score is based on the accessibility of the final project, giving the greatest weight to those on public lands with public access.

Carver Levee Improvement Summary

Based on the limited information received on the project and using the scoring criteria above, the project currently receives 24 out of a maximum 82 points, placing it in the low-to-moderate priority category. The details are provided in Table 2 below.

Table 2. City of Carver Levee Improvements Funding Request Scoring

	Scoring Metric	Project Score	Max Points	Comments
1	Project Type	10	24	The project is not included in the 2040 Comprehensive Plan, nor the Surface Water Management Plan, but flooding in Downtown Carver is mentioned in the LMRWD Watershed Plan. Numerous issues involving water quality and Spring Creek were included in the plans and may provide an opportunity to expand the project to address LMRWD goals and funding.
2	Number of Plan Water Resources Goals Addressed	1	9	Meets Goal #6—Floodplain and Flood Management; however, opportunities exist to meet additional goals, especially with Public Education and Outreach.
3	Volume Management/Water Captured	0	7	Based on the limited information provided thus far, the project includes no volume reduction goals.
4	Pollutant Management	0	7	Based on the limited information provided thus far, the project includes no pollutant reduction or protection goals; opportunities exist to incorporate pollutant reduction as part of the overall flood control project.
5	Habitat Restoration	0	7	Based on the limited information provided thus far, there are no identified plans for habitat restoration; however, the opportunity exists to create or improve the habitat on the river side of the levee.
6	Bank Stabilization	0	7	Based on the limited information provided thus far, there are no identified plans for bank stabilization.
7	Watershed Benefits	1	7	Based on the limited information provided thus far, the project has limited watershed benefits.
8	Partnership Opportunities	5	7	The City is requesting that the LMRWD fund a portion of the levee; although information on funding partners has not been provided, a project of this caliber would require multiple partnerships; opportunities exist to increase partnership with the LMRWD through meeting additional goals.
9	Public Education	7	7	The project is on public land that is highly visible and accessible by the public; opportunities exist to incorporate public education and signage to increase awareness of the Minnesota River and its unique natural resources
Total Score		24	82	

Recommendations

We believe the project has merit and could be funded with further collaboration with the City to achieve multiple benefits from the project, specifically around Spring Creek. Given the information we have received to date, we do not recommend funding until the project has been more clearly defined to demonstrate how it will address the LMRWD's specific goals and issues and additional funding partners have been identified.