



# LOWER MINNESOTA RIVER WATERSHED DISTRICT

## Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, February 21, 2024

### Agenda Item

#### Item 9. C. - Proposed Partnering with the MN River Collaborative on the Water Storage Study

#### Prepared By

Linda Loomis, Administrator

#### Summary

At the January 17, 2024, Board of Managers meeting, Suzanne Jiwani, Lori Cox, and Len Kremer, as the Minnesota River Collaborative, requested the LMRWD Board consider join them to request the US Army Corps of Engineers (USACE) conduct a hydrological study of the MN River Basin to determine cost effective locations for upland water storage. Since appearing before the LMRWD Board of Managers, the Collaborative met with Rita Weaver from BWSR. A message from Len Kremer summarizing the meeting is attached.

In addition, BWSR issued a press release announcing that it is accepting applications for water storage grants (this is reported in the February Administrator report, President Barisonzi asked the this be added to the discussion of the request by the collaborative).

This request made by the Collaborative is in line with the goals and strategies of the LMRWD. This is not the first time that the LMRWD has asked the USACE for this exact study.

In 2008, the Minnesota River Basin Interagency Study (MRBI) was started. Partners in this study included the following agencies:

- Minnesota Environmental Quality Board
- Minnesota Department of Agriculture
- Minnesota Board of Water and Soil Resources (MBWSR)
- Minnesota Department of Natural Resources (MNDNR)
- Minnesota Pollution Control Agency (MPCA)
- Metropolitan Council (Twin Cities metropolitan area)
- Minnesota River Board
- U.S. Army Corps of Engineers (USACE, Corps), St. Paul District
- Lower Sioux Indian Community
- Shakopee Mdewakanton Sioux Community
- Upper Sioux Community
- U.S. Environmental Protection Agency (EPA)
- U.S. Fish and Wildlife Service (USFWS)

- U.S. Geological Survey (USGS)
- U.S. Natural Resources Conservation Service
- Federal Emergency Management Agency
- National Park Service
- National Weather Service

In 2015, the LMRWD and its lobbyist Ron Harnack, began meeting with the USACE to discuss if there were actions the LMRWD could take to complete the MRBI. The LMRWD began to meet regularly with the USACE to discuss the status of the MRBI.

In 2018, the USACE informed the LMRWD that spin-off studies were possible once the MRBI was released. The LMRWD asked two spin-off studies be considered. One would be to determine how land-use changes influence sediment delivery rates to the MN River and the ecological and economic impacts of sedimentation on the Lower MN River Watershed. The second spin-off study would assess water storage opportunities and benefits associated with water storage. The LMRWD sent an official Letter of Interest. The LMRWD was informed that the USACE was not able to get funding for either study.

In 2020, the MRBI was released and the USACE again approached the LMRWD about spin-off studies. The LMRWD sent a formal letter of interest to the USACE. Once again funding for spin-off studies was not available. This was just before the COVID Health Emergency locked down everything.

The LMRWD was not able to get any state agency to join the LMRWD in its request. A hydrological study of the Minnesota River basin to assess storage has long been a goal of the LMRWD. The LMRWD has supported requests at the legislature to fund upland water storage in the MN River Basin as demonstrated by the funding of the activities of the Coalition for a Clean Minnesota River reported in the Executive Summary for Agenda Item 4. A. of this meeting.

#### **Attachments**

- Email message from Len Kremer dated February 16, 2024
- [News release: BWSR accepting applications for water storage grants](#)
- May 16, 2028, LMRWD Agenda Item 5. E. - Corps of Engineers - Lower Minnesota River Watershed District Storage Assessment
- Letter of Interest to Colonel Samuel Calkins dated June 13, 2018
- Letter of Interest to Karl Jansen dated February 20, 2020
- [Minnesota River Basin Interagency Study dated March 27, 2020](#)

#### **Recommended Action**

Motion to provide direction to staff



Linda Loomis &lt;naiadconsulting@gmail.com&gt;

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**Fw: Minnesota River Watershed Storage Plan**

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Len kremer <lenkremer@msn.com>  
To: Linda Loomis <naiadconsulting@gmail.com>  
Cc: Joseph Barisonzi <jbarisonzi@iwlamnvalley.org>

Fri, Feb 16, 2024 at 6:05 AM

Linda, we just recently were able to meet with Rita Weaver, the State Engineer for the Board of Water and Soil Resources to discuss the possible involvement of the Lower Minnesota River Watershed District in the preparation of a Storage Plan for the Minnesota River Watershed by the Corps of Engineers. The Plan was identified as a need in the 2020 Minnesota Interagency Study. Rita has been working with the Corps in the development of a scope of work for the preparation of the plan. We were unable to meet with her sooner because of her work schedule and her need to deal with family medical issues.

The Plan is to be developed in three phases. The first phase is a reconnaissance investigation to identify work that has been completed in the past that can be incorporated in the Plan. The second phase involves the identification of potential storage sites and the hydrologic modeling of alternatives that would meet total suspended solids reduction goals. The third phase is an evaluation of the cumulative effects of alternative scenarios for implementing the plan.

The BWSR board has just issued a request-for-proposal for a competitive **Water Quality and Storage Grants Program**. A portion of the program is set aside for modeling of storage plans and Rita agreed that it would be appropriate for the LMRWD to apply for a grant from that set aside for a portion of phase two of the development of the Storage Plan. The proposal for the grant is due April 11th so we need the permission of the District to submit a proposal on behalf of the District. The grant funds would be used to match Federal Funds so the Corps could start the modeling of the storage plan. We will prepare the proposal at no cost to the District for our work. We will provide review copies of the proposal for District review prior to submittal. Rita indicated that subsequent phases of the development of the plan would likely be funded by 2025 legislative appropriations.

We will also work on identifying possible grants for phase one, the reconnaissance investigation. We have been meeting with the Corps this week to determine the amount needed for phase one and we will apply for that grant when potential sources are identified. I will be available to respond to questions as needed.

Thanks,  
Len Kremer



# LOWER MINNESOTA RIVER WATERSHED DISTRICT

## Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting  
Wednesday, May 16, 2018

### Agenda Item

#### Item 5. E. - Corps of Engineers - Lower Minnesota River Watershed District Storage Assessment

#### Prepared By

Linda Loomis, Administrator

#### Summary

The Corps of Engineers informed the LMRWD that the Corps has an opportunity to get approval for an assessment that would look at issues on the Lower Minnesota River Basin. Nathan Campbell from the Corps asked if the Lower Minnesota River Watershed District would have an interest in such a study.

I asked him for more details and explained the LMRWD is concerned with sediment transport from the upper basin and tributaries and the impact the sediment has on the Lower MN River Valley.. Mr. Campbell said the Corps would like to be involved with a study like that. He explained that these types of projects generally require congressional approval however there is a mechanism built into the watershed assessment guidance that will allow for spin-off studies to take place in an area where a study authority is already present.

In this case the Minnesota River Basin assessment would qualify for that existing authority. In the final report for the Minnesota River Basin assessment, the Corps needs to identify potential "spin-offs". Mr. Campbell thinks that a flood risk assessment as a result of sedimentation would work really well as a spin-off. They could potentially receive funding next FY for it. There would be a 50/50 cost share requirement that could come in the form of work-in-kind. Cost share could come from state grants as well.

Mr. Campbell asked if it would be possible for the Watershed District to send a letter of interest for such a study. The letter of interest does not legally bind any one to anything; it just helps the Corps prioritize funding. If there is an interest and motivated sponsor, they are more likely to receive funding.

Mr. Campbell recommended that a letter of support should confirm that the watershed district would have a possible interest in pursuing the following:

- Impacts of sedimentation on flood risk in the Lower Minnesota River Watershed
- Assessment of water storage opportunities and benefits associated with water storage in the Minnesota river basin
- Study of how land-use changes may increase or decrease sediment delivery rates to the lower Minnesota river

He then provided explanations of two possible spin-off studies, which is attached. If the Board determines that it would benefit the LMRWD to participate we could also speak with the state agencies and urge participation.

#### Attachments

Spin off study explanations

#### Recommended Action

Motion to participate in spin-off study and direct preparation of a letter of interest

## Spin-Off Study Explanations

### Minnesota River Basin Assessment

5/10/2018

- 1) Analysis of how land-use changes may increase or decrease sediment delivery rates to the lower Minnesota River and an assessment of the ecological and economic impacts of sedimentation has on the Lower Minnesota River Watershed.

Sponsor: Lower Minnesota River Watershed District and Minnesota Pollution Control Agency

General Scope: This detailed look at sedimentation in the Lower Minnesota River Watershed will require monitoring, modeling, and analysis of sediment sources, sinks, and pathways in the watershed, a summary of how sources, sinks, and pathways may have changed over time, and estimates of the economic and ecological effects of sedimentation including:

- changes in stage-discharge relationships, which may affect flooding,
- effects on the cost to maintain a commercial navigation channel on the Minnesota River
- effects on the ecological conditions on the LMRW

Through these analyses a new baseline can be established and an understanding for how changes in land-use will alter that baseline in the Lower Minnesota River Watershed and create a new future condition.

Analysis needed to accomplish:

- Research available sediment rating relationships for tributaries
- Integrate the most simplistic sediment routing within existing HEC\_RAS model from Mankato to the mouth.
- Link HSPF hydrograph outputs for existing condition 12-year simulations at tributary confluences and route for a baseline
  - Assess natural reaches of sediment sources and sinks
  - Compare to USGS monitoring data
- Use HECRAS+sediment to route another land use condition with the same period of record (12 years).

Budget: \$600,000 (50% non-fed/50% fed)

- 2) Assessment of water storage opportunities and benefits associated with water storage in the Minnesota River basin

Sponsor: Lower Minnesota River Watershed District and Board of Water and Soil Resources

General Scope: Utilize the Agricultural Conservation Planning Framework (ACPF) and the Prioritize, Target, and Measure Application (PTMAApp) efforts going on in the basin to determine the flow reduction benefits received from placing storage measures in key locations throughout the basin.

This analysis will achieve a better understanding for the threshold for meaningful change realized in the basin and recommend specific levels of storage in the basin.

Analysis needed to accomplish:

- Hydro-corrected DEMs for the lower watershed where storage impacts are desired
- Run ACPF on priority sub-basins to determine where storage opportunities exist.
- Develop a detailed Hydrologic model if one doesn't exist.
- Run existing and storage scenario to determine how much discharges could be lowered for hypothetical rainfall events ranging from 10 year to 100 year events.
- Summarize the saturation of storage and the maximum change anticipated in the specific agroecoregion.

Time and Budget: \$600,000 (50% non-fed/50% fed)



June 13, 2018



LOWER MINNESOTA RIVER  
WATERSHED DISTRICT

Carver

Vacant

Dakota

Yvonne Shirk  
President

Hennepin

David Raby  
Secretary/Treasurer

Vacant

Scott

Jesse Hartmann  
Vice President

Colonel Samuel L. Calkins  
U.S. Army Corps of Engineers  
St. Paul District  
180 Fifth Street Suite 700  
St. Paul, Minnesota 55101

Dear Colonel Calkins:

This is in reference to the United States Army Corps of Engineers (Corps) Minnesota River Watershed Study "spinoff study" opportunity. The Lower Minnesota River Watershed District would like to state our interest in partnering with the Corps to further assess the following:

1. Analysis of how land-use changes may increase or decrease sediment delivery rates to the lower Minnesota River and an assessment of the ecological and economic impacts of sedimentation has on the Lower Minnesota River Watershed.
2. Assessment of water storage opportunities and benefits associated with water storage in the Minnesota River basin .

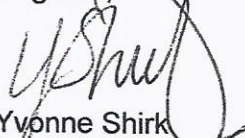
The Board wishes to support the further study of the Minnesota River Basin. We have particular interest in both possible studies detailed. Addressing issues critical to the understanding of increasing sediment transport in the Minnesota River is in line with the goals of the LMRWD and is consistent with the strategies and policies of the Watershed District.

We therefore fully support this initiative. We encourage the US Army Corps of Engineers to fund this project and wish every success to finding additional partners and for the accomplishment of the proposed work.

The Lower Minnesota River Watershed District understands study costs will be shared 50/50 pursuant to the terms of a Feasibility Cost Share Agreement and that other partners will be sought. This document is not legally binding in character.

Please contact District Administrator, Linda Loomis, by telephone at 763-545-4659 or by email at [naiadconsulting@gmail.com](mailto:naiadconsulting@gmail.com) to arrange a further discussion of this inquiry.

Regards,



Yvonne Shirk  
President

Linda Loomis, Administrator  
Home/Office: (763) 545-4659  
Cell: (763) 568-9522

112 East 5th Street  
Suite 102  
Chaska, MN 55318

E-mail: [lowermnriverwd.org](http://lowermnriverwd.org)

February 20, 2020



LOWER MINNESOTA RIVER  
WATERSHED DISTRICT

Carver

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Dakota

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Hennepin

David Raby  
Secretary/Treasurer

Adam Frey  
Vice President

Scott

Jesse Hartmann  
President

Colonel Karl Jansen  
U.S. Army Corps of Engineers  
St. Paul District  
180 Fifth Street Suite 700  
St. Paul, Minnesota 55101

Dear Colonel Jansen:

In June of 2018, the Lower Minnesota River Watershed District expressed its interest in participating with the US Army Corps of Engineers in possible "spinoff studies" related to the Minnesota River Watershed Study. Specifically the Lower Minnesota River Watershed District would be interested to partner with the Corps to further assess the following:

1. Analysis of how land-use changes may increase or decrease sediment delivery rates to the lower Minnesota River and an assessment of the ecological and economic impacts of sedimentation has on the Lower Minnesota River Watershed.
2. Assessment of water storage opportunities and benefits associated with water storage in the Minnesota River basin .

The Board wishes to support the further study of the Minnesota River Basin. We have particular interest in both possible studies detailed. Addressing issues critical to the understanding of increasing sediment transport in the Minnesota River is in line with the goals of the LMRWD and is consistent with the strategies and policies of the Watershed District.

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Regards,

Jesse Hartmann  
President

Linda Loomis, Administrator  
Home/Office: (763) 545-4659  
Cell: (763) 568-9522

112 East 5th Street  
Suite 102  
Chaska, MN 55318

E-mail: [lowermnriverwd.org](mailto:lowermnriverwd.org)