Water Management Coordination and Communication Efforts in the Red River Basin of Minnesota

A Presentation to the Minnesota Drainage Work Group August 11, 2022



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Topics

Red River Watershed Management Board (RRWMB) Overview

Coordination With the Minnesota Department of Natural Resources (DNR)

1998 Mediation Agreement and Flood Damage Reduction Work Group (FDRWG)

Technical Guidance and Tools

Communication Tools

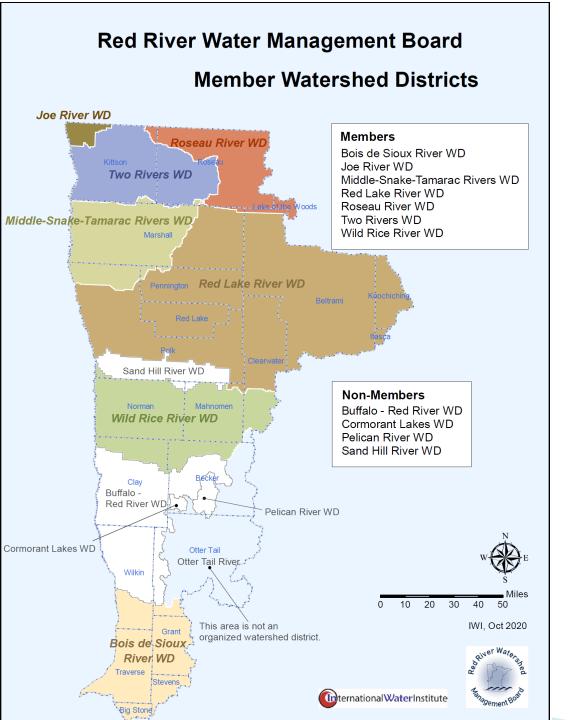
Results of Consensus and Partnerships



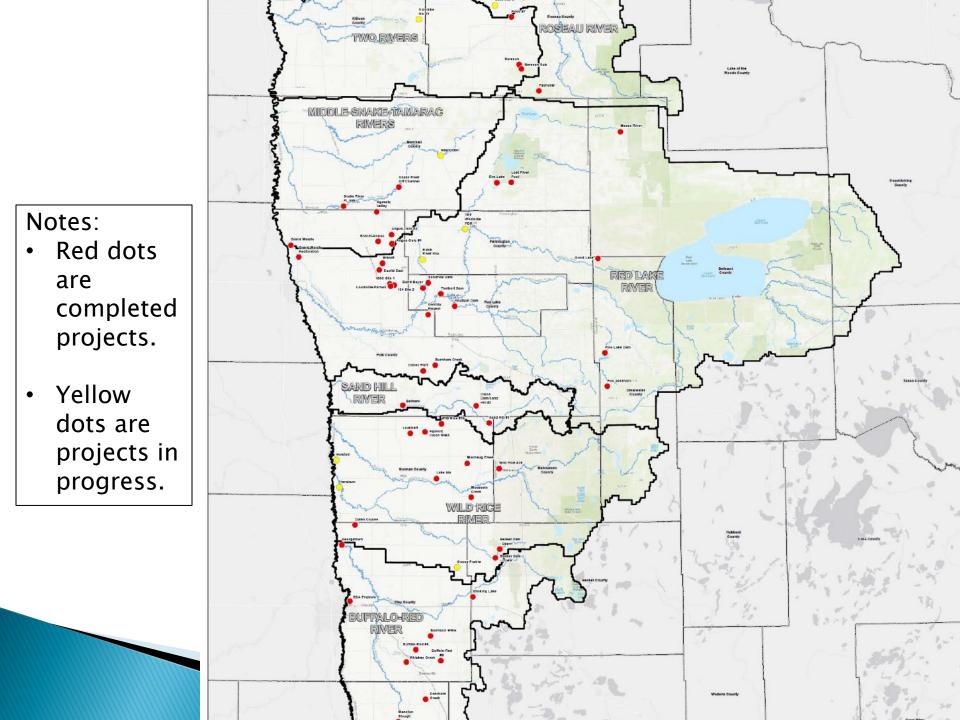
RRWMB Overview

- Formed in 1976 by the MN Legislature as the Lower Red River Watershed Management Board:
 Original focus on flood control only.
- Joint Powers Agreement of watershed districts.
- Taxation authority up to 0.04836 percent.
- 1991 Legislative Adjustments:
 - Changed the name to the RRWMB.
 - Authority redefined to develop, construct, and maintain projects and programs of benefit to the Red River Basin (RRB).





Counties Partially or Fully Within the RRWMB **Becker County** Beltrami County **Big Stone County** Clay County **Clearwater County** Grant County Itasca County Kittson County **Koochiching County** Lake of the Woods County Mahnomen County Marshall County Norman County Otter Tail County Pennington County **Polk County** Red Lake County **Roseau County** Stevens County **Traverse County** Wilkin County



Coordination With the DNR

- RRB Coordinator Position:
 - Position Created in 1979
 - Jointly Funded Position Between RRWMB and State of Minnesota (LCMR and Later DNR)
 - Facilitates:
 - FDRWG and Several of its Committees
 - RRWMB Technical Advisory Committee and Water Quality/Monitoring Advisory Committee
 - Works With Local Project Teams
 - Other Projects and Efforts as Necessary
 - Regular Communication With DNR Region 1 Leadership is Constant



1998 Mediation Agreement and FDRWG

- The Agreement is a result of court ordered mediation in the early 1990's between the RRWMB/member watershed districts and the US Army Corps of Engineers/Minnesota DNR related to flood control projects in the RRB of Minnesota.
- RRWMB is the fiscal agent for the FDRWG Funds pass through from DNR.
- The Agreement was a landmark milestone for local units of government and state and federal agencies to develop <u>consensus</u> and working <u>partnerships</u> on:
 - Planning, Design, and Funding;
 - Enhanced Coordination of RRB Flood Damage Reduction projects; and
 - Implementation of Natural Resource Enhancements (NRE).



Mediation Agreement Structure

- FDRWG oversees implementation of the Mediation Agreement and makes decisions about:
 - Annual Budget of \$264,000
 - State Funding Support for NREs (103F.161, subd. 3).
- Technical and Scientific Advisory Committee (TSAC)
- Several Internal Committees and Teams
- Watershed-based Local Project Teams and Project Team Handbook
- Advocate/promote/develop watershed-based approaches to water and natural resources management.



Who is Involved in the Mediation Agreement?

- Notes on FDRWG Membership:
 - 9 of 11 watershed districts in the RRB of Minnesota have received funding through the FDRWG regardless of RRWMB membership.
 - Project funding and development is spread across RRB counties.

- Representatives From the Following Entities are Current Participants of the Mediation Agreement:
 - RRWMB and Local Government (Counties and SWCD's
 - State Agencies BWSR, DNR, MDA, MDH, and MPCA
 - Federal Agencies NRCS and US Army Corps of Engineers
 - Environmental Groups and Red River Basin Citizens

Flood Damage Reduction Goals

- Prevent loss of human life.
- Prevent damage to structures, homes, communities (100 yr).
- Reduce damage to farmland (10 yr summer storm event, more if at minimal cost).
- Reduce damage to transportation, water quality, social and economic factors.

Natural Resource Goals

- Manage streams for natural characteristics.
- Enhance flow regimes in streams for water supply, water quality, recreation.
- Provide recreational opportunities.
- Improve water quality.
- Protect groundwater.
- Manage lakes for natural characteristics.

Incorporation of NREs Into FDR Projects



Waterfowl at the North Ottawa FDR Project: Bois de Sioux Watershed District

 Water Quality: Better water quality by reducing nitrogen, phosphorous, sediment loading and erosion.

• Wetlands:

- Protection and enhancement of naturally occurring wetlands.
- Storage via restored wetlands to hold and retain water on the landscape for longer periods of time while providing agricultural drainage benefits.
- Habitat: Nesting, resting, feeding and brooding habitat areas for migrating waterfowl, shorebirds and fish.
- Recreation: Enhanced and increased bird and wildlife viewing opportunities.



The state agencies and **RRWMB** recently recommitted to the Mediation Agreement.



Addendum No. 1 **To 1998 Mediation Agreement**

Red River Basin Flood Damage Reduction Work Group

Recommitment to 1998 Red River Basin Mediation Agreement as Amended January 2021

State Officers

By their signatures, the executive officers of Minnesota state agencies named below reaffirm the State's commitment to implementing the 1998 Red River Mediation Agreement, amended by Addendum No. 1 in December 2020. State actions will continue to be guided by the Memorandum of Understanding among the agencies dated June 2013.

Department of Natural Resources

Commissioner Sarah Strommen

Thom Petersen

Department of Agriculture Commissioner Thom Petersen

Department of Health

Commissioner Jan Malcolm

Board of Water and Soil Resources Executive Director John Jaschke

Pollution Control Agency **Commissioner Laura Bishop**

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Red River Watershed Management Board Officers

By their signatures, the officers of the Red River Watershed Management Board named below reaffirm the Board's commitment to implementing the 1998 Red River Mediation Agreement as amended by Addendum No. 1 in December 2020.

President John Finney

Vice-President Greg Holmvik

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Technical Tools and Guidance

- Lidar
- Technical and Scientific Advisory Committee:
 15 Technical Papers
- Basin Technical and Scientific Advisory Committee: 3 Technical Papers Related to Drainage
- RRWMB Model Watershed District Rules
- RRWMB Surface and Subsurface Drainage Guidance
- Long-term Flood Solutions and Flow Reduction Strategy
- DNR Watercourse Excavation Guidance



SECTION 4D(2). PROJECT FUNDING

Project Team Consent Form

Red River Basin Flood Damage Reduction Work Group

PROJECT NAME:

PROJECT PROPOSER: _____

DATE: _____

INSTRUCTIONS:

- List each official project team member and the organization, agency or interest they represent and have them indicate by their initials their consent to the proposed project.
- 2. For project team members who do not consent to the project leave the initials space blank.
- 3. When complete, attach this form to the RRWMB Project Funding Application.

Name	Organization	Initials
Project Team Handbook	Page 4D(2).1	8-8-07



1998 Mediation Agreement is the product of eight months of consensus-based, mediated negotiations by the Red River Basin (RRB) Flood Damage Reduction Work Group ("Work Group"). It responded to a mandate from the Minnesota Legislature to resolve gridlock over state permitting of flood damage reduction projects in the RRB.

The agreement was intended as the framework for a new, collaborative approach to implementing both flood damage reduction and natural resource protection and enhancement in the RRB in ways that will benefit all Minnesota's citizens.

The keys to this approach are clearly identified goals, comprehensive watershed planning, early consultation and collaboration on flood damage reduction projects among stakeholders, and a cooperative approach to permitting of those projects.

Mediation Agreement Weblink: http://www.rrwmb.org/FDRWG / FDRAGMT.pdf

Contact Information: Red River Watershed Management Board 11 5th Ave East Suite B Ada, MN 56510 Phone: 218-784-9500 Fax: 218-784-9502

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Red River Basin Flood Damage Reduction Work Group

Technical and Scientific Advisory Committee

The Flood Damage Reduction Work Group has relied on a Technical and Scientific Advisory Committee (TSAC) to provide technical and scientific information and analysis in support of the mediation effort. The TSAC represents a range of disciplines, including hydrology, engineering, ecology, soils science, and economics.

TSAC has developed a series of working papers to address key topics associated with flood damage reduction and modeled the use of different strategies for flood damage reduction. TSAC has completed its work based on consensus, and its work products reflect consensus recommendations to the Work Group. This document includes a list of the technical papers that have been developed since 1998

Technical Paper No. 1 An Overview of the Impacts of Water Level Dynamics ("Bounce") on Wetlands - Apfelbaum and Lewis (December 8, 1998).

Technical Paper No. 2 Small Wetlands Use for Stormwater Runoff Management in the Red River of the North Basin - Apfelbaum, Eppich, and Lewis (December 8, 1998).

Technical Paper No. 3 The Effectiveness of Agricultural Best Management Practices for Runoff Management in the Red River Basin of Minnesota - Larson (December 8, 1998).

Technical Paper No. 4 Siting and Design of Impoundments for Flood Control in the Red River Basin - Anderson and Lewis (December 8, 1998).

Technical Paper No. 5 Stream Restoration for Flood Damage Reduction in the Red River - Aadland, Anderson, and Jutila (December 8, 1998).

All TSAC Papers can be found at: http://www.rrwmb.org/FDRWG Committees. html Technical Paper No. 6 Watershed Modeling of Various Flood Damage Reduction Strategies - Solstad (December 8, 1998).

Technical Paper No. 7 Flood Frequency Based Design - St. Germain and Woodbury (December 8, 1998).

Technical Paper No. 8 Implementation of a Flood Damage Reduction Strategy in the Red River Basin - Technical and Scientific Advisory Group (December 8, 1998).

Technical Paper No. 9 Red River Basin Flood Damage Reduction Project Monitoring Program - Eppich, Kean, and MacGregor (April 2003).

Technical Paper No. 10 Basin Strategy: Hydrologic Analysis - Johnson (March 2003).

Technical Paper No. 11 Red River Basin Flood Damage Reduction Framework -Anderson and Kean (May 2004).

Technical Paper No. 12 Wetland Hydrology & Biodiversity in the Red River Basin, Minnesota - Apfelbaum, Eppich, and Solstad (August 2004).

Technical Paper No. 13 On-Channel Storage in the Red River Basin: Guidelines for Site Selection, Design, and Operation – Kean and Van Offelen (April 2005).

Technical Paper No. 14 Incorporation and Evaluation of Natural Resource Benefits in Red River Basin Flood Damage Reduction Projects – Buckhout, Groshens, Paakh, Van Offelen, and Wells (Updated March 2011).

Technical Paper No. 15 Culvert Sizing for Flood Damage Reduction: Preliminary Guidance - Anderson, Kean, and Solstad (October 2007). **Red River Basin Project Team Handbook**

SECTION 1.

Project Team Guidelines

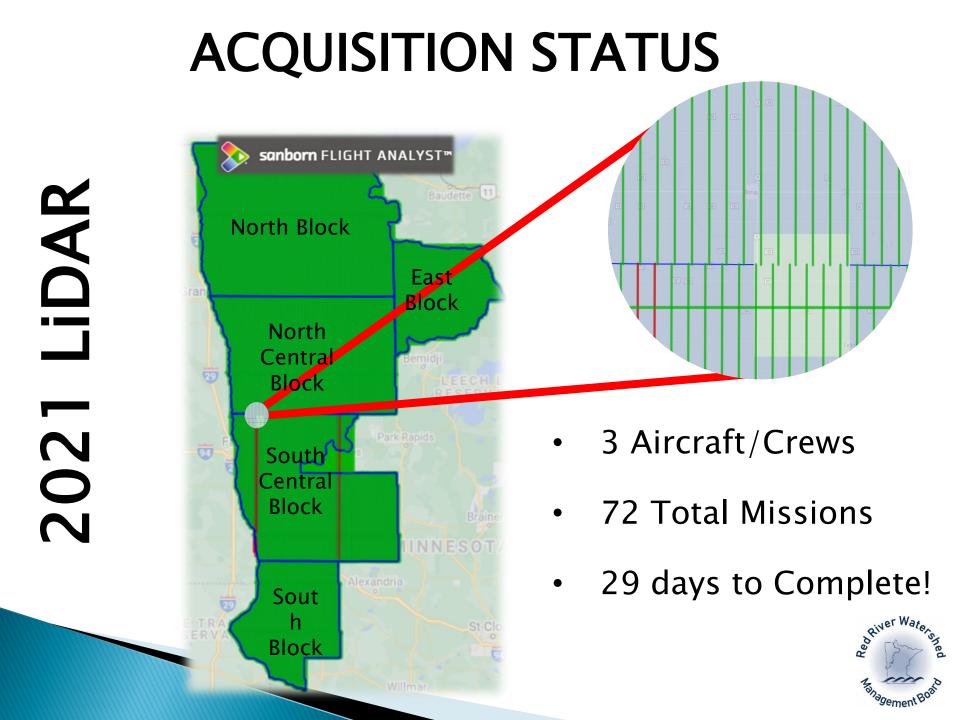
This section of the Project Team Handbook is designed to provide you with the information needed to give you a background on the Red River Basin Flood Damage Reduction Work Group agreement which created project teams. It also contains specific recommendations for the various roles needed to implement the plan.

- ⇒ 1A When Do We Need a Project Team?...definition of "project" and when to use Project Teams for this process.
- IB Project Team Overview...brief description of Project Teams and their purpose.
- ⇒ **1C Roles and Responsibilities**...highlights the roles and responsibilities of the various partners in this work.
- ⇒ **1D Team Membership**...guidelines for selecting Project Team members and an overview of what is expected of them
- ⇒ **1E Making Decisions**...guidelines for decision-making and the use of consensus in Project Team processes.

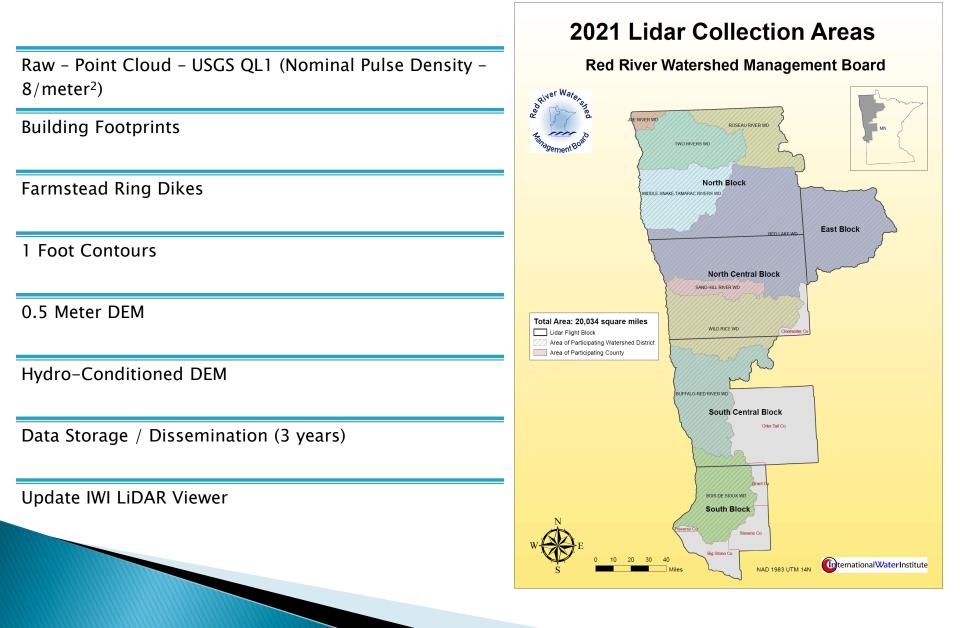


A User's Guide to Natural Resource Efforts in the Red River Basin

> A publication of Minnesota's Red River Basin Flood Damage Reduction Working Group



2021 LIDAR DELIVERABLES



Communication Tools

- Annual Conferences:
 RRBC
 - RRWMB/FDRWG
 - River Watch Forum
 - MAWD Conference
 - Big Iron
 - Prairie Grains Conference
 - AMC Conference





Communication Tools Continued

RRWMB:

- Social Media: Facebook, Twitter, Constant Contact, and website.
- Other Methods: Monthly Meeting materials, enewsletters, annual conference, press releases, presentations, etc.
- Annual Reports.
- Watershed District Requirements in MS 103E and 103D

Communication





Results of Consensus and Partnerships

Flood damage reduction/water storage projects.

Water quality/habitat projects.

Ring dikes and city protection.

Technical efforts, stream flow monitoring, River Watch Program, and various initiatives.





Several Flood Impoundments North of Crookston, MN on May 3, 2022. Photograph Courtesy of RRWMB.



Farmstead Ring Dikes North of East Grand Forks, MN on May 3, 2022. Photograph Courtesy of RRWMB.



Black River Flood Impoundment in the Red Lake Watershed District on May 3, 2022. Photograph Courtesy of RRWMB.



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Lower Wild Rice River Corridor Habitat Restoration Project



- Project Focus:
 - Flood damage reduction.
 - Water quality.
 - Habitat.
- Phases:
 - Phase 1 –Land Acquisition/Restoration
 - Phase 2 Detailed Design and Setback Levee Construction
 - Phase 3 Channel Rehabilitation
 - Phase 4 Operation and Maintenance

Funding – Phase 1: \$669,400 (RRWMB), \$334,600 (Wild Rice WD), and \$5,020,000 (LSOHC). Flooded Areas Along the Wild Rice River Near Ada, MN on May 3, 2022. Photograph Courtesy of RRWMB.

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Phase 1 of the Lake Traverse Water Quality Project in the Bois de Sioux Watershed District in August 2021. Photograph Courtesy of RRWMB.



RRWMB Partners and Stakeholders

- Red River Retention Authority
- Red River Joint Water Resource District
- Red River Basin Commission
- International Water Institute
- Watershed Districts
- FDRWG
- Agricultural Groups, Farmers, and Landowners
- Environmental Groups
- SWCD's
- Counties
- Cities
- Other







Contact Information

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