August 18, 2025

Ms. Catherine Neuschler
Executive Director
Minnesota Environmental Quality Board
520 Lafayette Road North
St. Paul, MN 55155-4194

Re: Comments on Draft Minnesota Groundwater Policy Report

Dear Ms. Neuschler:

The Red River Watershed Management Board (RRWMB) appreciates the opportunity to submit comments related to the Draft Minnesota Groundwater Policy Report to the Minnesota Environmental Quality Board (EQB). The RRWMB and its membership offer the following comments and recommendations:

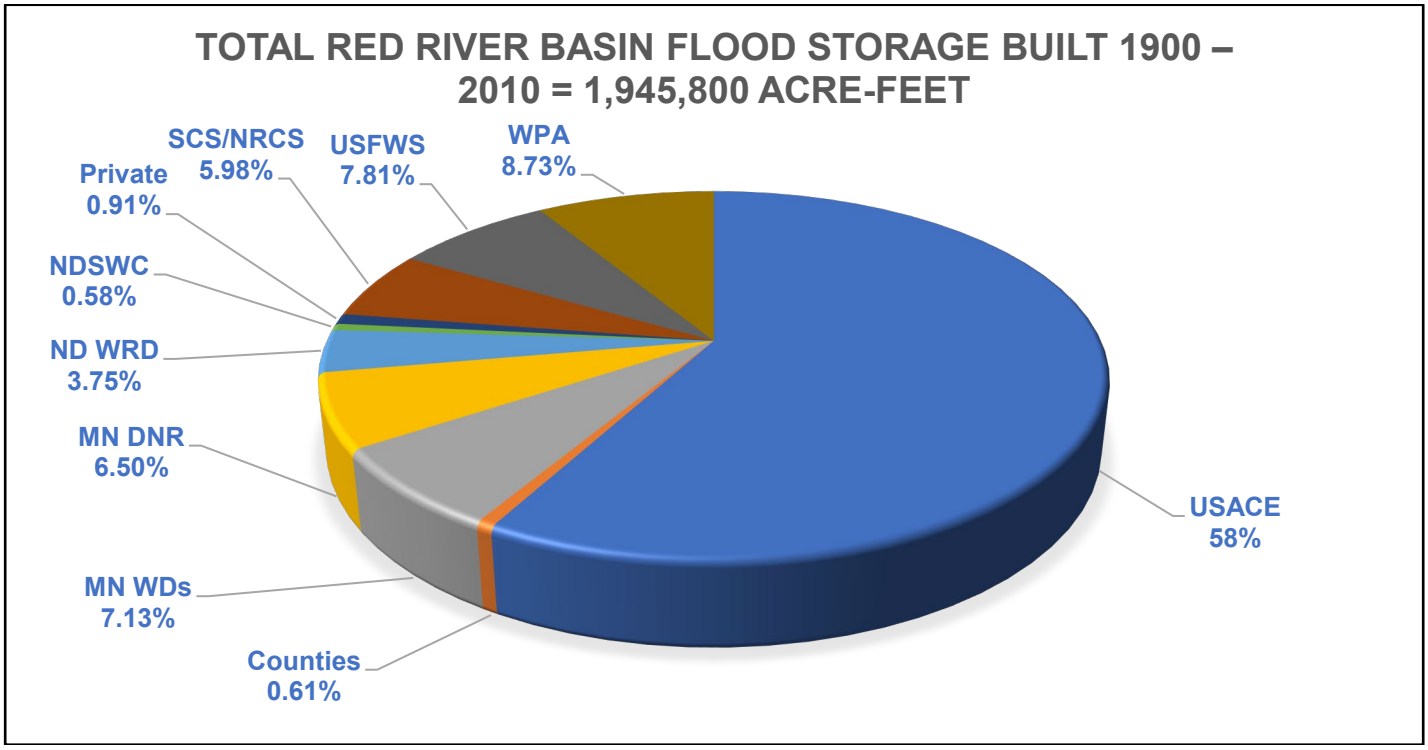
1. **Managed Aquifer Recharge:** The draft Report discusses recharge on Page 91, and the RRWMB and its member watershed districts are open to further discussion on this topic. The RRWMB has helped fund 60 + flood mitigation – water storage projects with its membership since 1976. Red River Basin (RRB) watershed districts already store massive quantities of water on the landscape, and more can be done for potential use for groundwater recharge. During large spring floods in the RRB, floodwater moves north to Canada through the Red River of the North. Spring floodwaters are a large and untapped resource that can potentially be used for aquifer recharge. RRWMB member watershed districts can construct more water storage, but consistent state funding is a key issue.

2. **Water Storage for Agricultural Uses:** Additional water storage can potentially be constructed by RRB watershed districts for crop irrigation/subirrigation and for livestock water usage. The RRWMB is available for discussion on this matter. To create awareness, from the 2011 Long-term Flood Solutions (LTFS) document specific to the RRB, Minnesota watershed districts built 138,800 acre-feet of storage from 1900 to 2010. The pie chart on the next page is from Page 30 of the 2011 LTFS and illustrates total storage built in the RRB from 1990 – 2010 including from the following local, state, and federal agencies and private entities:
   - USACE – United States Army Corps of Engineers

- MN WD – Minnesota Watershed District
- MN DNR – Minnesota Department of Natural Resources
- ND WRD – North Dakota Water Resource District
- NDSWC – North Dakota State Water Commission
- WPA – Works Progress Administration
- Private – e.g., Railroad, Power Company, Ducks Unlimited
- USFWS – United States Fish and Wildlife Service
- Counties – Minnesota and North Dakota County Government
- SCS/NRCS – Soil Conservation Service/Natural Resources Conservation Services

Data Source: 2011 Long-term Flood Solutions Document, Red River Basin Commission. 2011 LTFS (https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:709817e8-93f3-4012-9363-92fba7c82e6d).

An additional source for water storage is the National Inventory of Dams (https://nid.sec.usace.army.mil/#/). Based on a brief review of the National Inventory of Dams from September 2024, there are 286 structures with dams in the RRB – both public and private.



3. **RRB Flood Mitigation – Water Storage Projects Underway:** The table below depicts projects that are currently underway in the RRB, with close to 100,000 acre-feet of new water storage that will result from these critical projects. The RRWMB, its member watershed districts, and several State of Minnesota funding partners have provided funding for these projects through bonding, the Clean Water Fund, Lessard Sams Outdoor Heritage Fund, and other sources.

Project	Construction Status	Planned Acre-feet of Storage	Sediment Reductions Tons/Year	Phosphorus Reductions Pounds/Year	Nitrogen Reductions Pounds/Year
City of Newfolden Impoundment	Underway	2,335	5,000	4,625	Not Calculated
Nelson Slough Improvement Project – JD 19	Planned for 2026	9,550	11,903	11,010	109,680
Klondike Clean Water Retention Project*	Construction to Commence Fall 2025	37,250	See Note Below	See Note Below	See Note Below
Mustinka River Rehabilitation - Redpath Impoundment Project	Underway	23,000	235	72	
Roseau Lake Rehabilitation Project	Underway	22,000	279	184	3,383
Totals		**94,135**	**17,417**	**15,891**	**113.063**

***Reductions at Impoundment Outlet:** Sediment 62%, TN 81%, and TP 77%. Percent reduction numbers come from an HSPF model through the Minnesota Pollution Control Agency.

Note: PTMApp was used to make the calculations in the above table related to sediment, phosphorus, and nitrogen reductions. This information can be found in local 1W1P documents and watershed district capital improvement plans. More information about specific water quality models and how calculations were made is available upon request from individual watershed districts.

4. **Best Management Practices (BMP):** The two BMP documents below were developed specifically for the RRB and should be referenced in the draft Report, as BMPs in one part of the State of Minnesota may not be appropriate for other regions.
   - Best Management Practices for Controlling Runoff From Agricultural Land, RRB Flood Damage Reduction Work Group (FDRWG), Technical Paper No. 3, Updated July 2021. This technical paper can be found in the "Reference Documents" section of this website: https://www.rrwmb.org/fdrwg

   - Agricultural Practice Effectiveness for Reducing Nutrients in the Red River Basin of the North, October 2020. This document can be found at the following link: https://www.redriverbasincommission.org/beneficial-management-practices

The RRWMB specifically requests that the EQB acknowledge in the Report that regional differences in BMPs occur. In addition, the International Red River Watershed Board (IRRWB), under the International Joint Commission (IJC), is in place to guide water quality goals at the international border along with its partners. Deference should be given to the IRRWB and IJC as these entities continue their work in the RRB.

5. **RRB Flood Mitigation – Water Storage Study on Water Quality:** The Study is being conducted over a five-year period, which commenced in 2024, and is currently underway in the RRB, with the RRWMB acting as the fiscal agent and the RRB FDRWG managing the Study, which is funded through the Minnesota LCCMR. The Study has three main purposes that are discussed on the next page:
   - The outcomes of past flood mitigation – water storage projects to better understand how well they are achieving their original objectives for natural resource enhancement.
   - Determine whether re-investment in existing project features, and/or adjustment of project operations, could improve outcomes at existing projects.
   - Improve the planning, design and operation of new projects that will be developed across the RRB in the future.

   Water quality, habitat, and streamflow monitoring activities are being conducted at several sites as part of this Study. State of Minnesota staff have been involved in this Study through the FDRWG Technical and Scientific Advisory Committee. Data from this study could possibly inform how new flood mitigation – water storage projects can be utilized for recharge and agricultural crop irrigation/subirrigation and livestock water use. We suggest recognition of this effort in the Report to illustrate that such efforts are underway and will yield useful data and information.

6. **Tile and Drainage:** Tiling is discussed on Page 96 of the draft Report and Page 97 states that tiling is a threat. We request that this language be adjusted and that the EQB become better informed about how tiling and public drainage projects are permitted, reviewed, operated, and managed. Public and private drainage in the RRB is regulated by MS 103E and local watershed district rules and regulations. To date, the following drainage technical documents were developed in the RRB to guide local drainage authorities:
   A. **Technical and Scientific Advisory Committee (TSAC):** This is a Committee of the RRB FDRWG, which has developed 15 technical papers since 1998. Important technical papers related to drainage include the following: Culvert Sizing for Flood Damage Reduction: Preliminary Guidance from 2007. This technical paper can be found in the "Reference Documents" section of this website: https://www.rrwmb.org/fdrwg

   B. **RRWMB:** The RRWMB developed the following recommendations and model rules/guidance for its member watershed districts:
      - Recommended Guidelines for Tile Drainage Systems - Adopted on November 19, 2013.
      - Recommended Guidelines for Surface Drainage Systems - Adopted on December 16, 2014.
      - Model Watershed District Rules and Guidance Document - Approved in 2014.

C. **Red River Retention Authority - Basin Technical and Scientific Advisory Committee (BTSAC):** This Committee was established to answer specific questions about the impacts of agricultural drainage on flooding in the RRB. The BTSAC developed the following three briefing papers:

- Briefing Paper #1: Impacts of Subsurface Agricultural Drainage on Watershed Peak Flows - Finalized on March 30, 2011. btsac_briefing_paper1.pdf (redriverretentionauthority.net

- Briefing Paper #2: Water Management Options for Subsurface Drainage - Finalized on April 9, 2012. btsac_briefing-paper2.pdf (redriverretentionauthority.net

- Briefing Paper #3: Water Management Options for Surface Drainage - Finalized on September 15, 2014. btsac-bp3-final-9-15-14a.pdf (redriverretentionauthority.net

The reason for sharing this information with the EQB is to illustrate that technical guidance is in place and that the management of public and private drainage systems can be uniform and consistent. We suggest more information be included in the Report to illustrate how tiling and public/private drainage is managed. The Report implies that there is no regulation of tiling or public/private drainage in Minnesota.

D. **Local Drainage Rules and Regulations in the RRB:** There are 11 organized watershed districts in the RRB of Minnesota (refer to map on Page 7), which generally have regulations and permitting processes in place related to drainage. Watershed districts, counties, and townships can be contacted to determine specific permitting processes, requirements, and rules/regulations.

7. **RRWMB Water Quality Program:** In 2020, the RRWMB approved a Water Quality Program. Since inception, over 30 projects have been funded, with load reductions on the order of 6,800 tons per year of sediment and 1,700 pounds per year of phosphorus. Not every RRWMB watershed district has provided quantitative estimates of load reductions, so the values listed above may understate the total benefits generated by the projects funded. Funding provided by the RRWMB is usually combined with funding from other sources to achieve the outcomes listed here.

   The availability of RRWMB funding has extended the reach and scale of the water quality efforts of RRWMB member projects. A link to a 2024 report regarding the RRWMB Water Quality Program can be found below. It is suggested that the EQB consider including discussion of how regional programs such as the RRWMB Water Quality Program can have positive effects upon water quality.

   https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:72dad2f5-a3d7-4e81-a6fa-da79af2b51a6

5. **Precision Agriculture:** We believe that a high percentage of farmers in the RRB use LiDAR data, precision agriculture, variable rate fertilizer application, certified crop advisors, soil nutrient testing, and the 4Rs of fertilizer application that relate to timing, placement, amount, and source. The RRWMB recommends that case studies be included in the Report to illustrate how advanced technology is being used by Minnesota farmers to manage nutrients and water from both public and private drainage systems.

We suggest the EQB plan a trip to the RRB for a tour to see flood mitigation – water storage projects in action; to hear more about how public and private drainage systems are permitted, reviewed, operated, and managed; and to become further informed of agricultural practices. A summer tour in August 2026 is being planned in the RRB with several RRWMB partners including Minnesota Watersheds, the Minnesota Board of Water and Soil Resources, the Red River Retention Authority, and others. We would welcome EQB participation in this tour and we suggest that EQB could hold a regular public meeting in the RRB during this time.

Please contact RRWMB Executive Director Rob Sip at 218-474-1084 (cell), or by email at rob.sip@rrwmb.us or calling our main office at 218-784-9500 if you have any questions regarding this letter. The RRWMB appreciates the opportunity to comment on this draft Report and looks forward to continued dialogue on this and other water quality issues going forward.

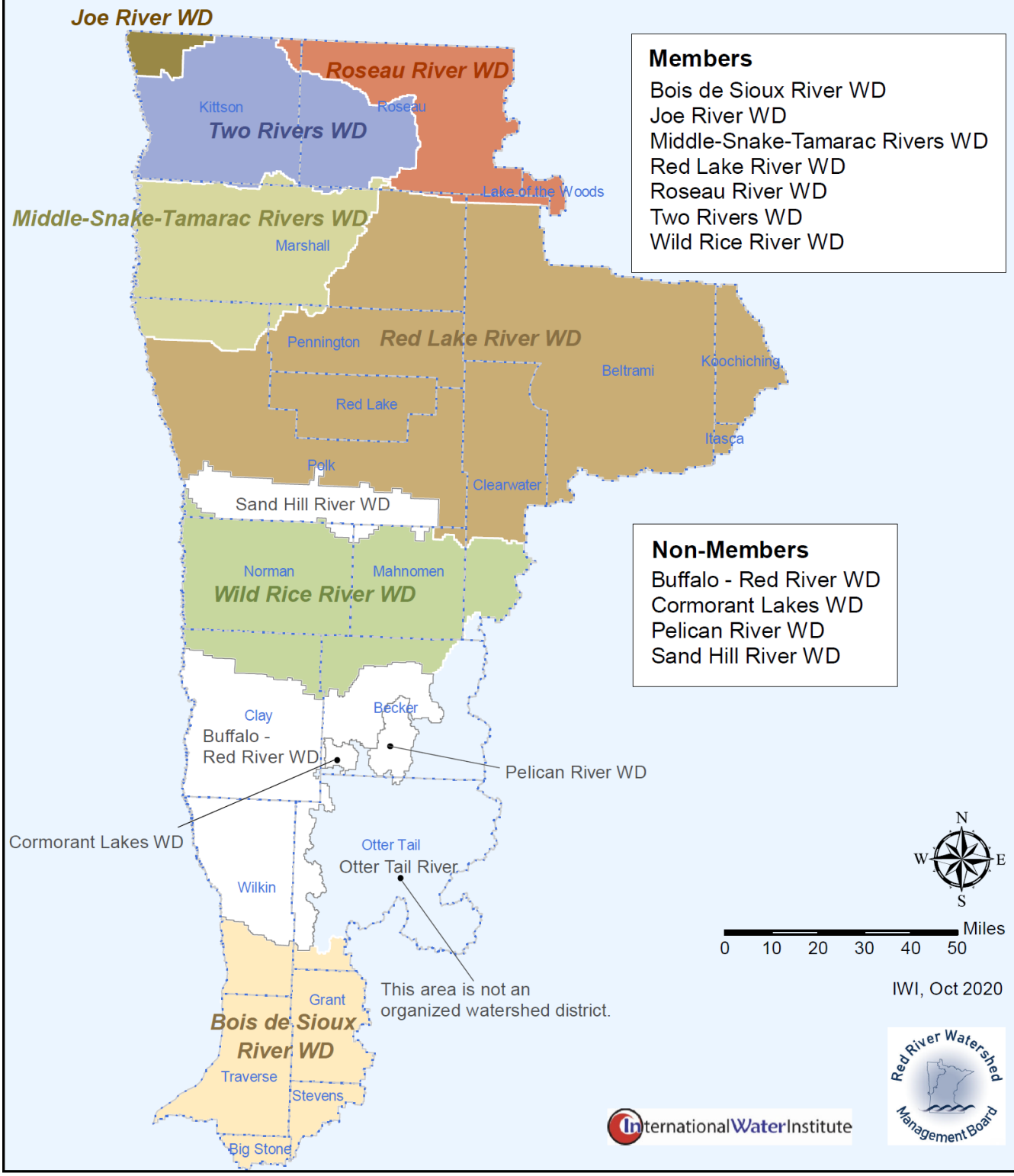
Sincerely,

John Finney, RRWMB President

CC: RRWMB Managers
Member Watershed Districts

Red River Water Management Board

Member Watershed Districts



Members

Bois de Sioux River WD
Joe River WD
Middle-Snake-Tamarac Rivers WD
Red Lake River WD
Roseau River WD
Two Rivers WD
Wild Rice River WD

Non-Members

Buffalo - Red River WD
Cormorant Lakes WD
Pelican River WD
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