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2025 Red River Basin

Priority Watershed Projects

The By-laws of the Red River Retention Authority (RRRA) state the Authority will prioritize retention projects in the Red River Basin (RRB). The following **2025** watershed project priority list is based on the project status and how close it is to being “shovel ready”, planning completed, land rights secured, permits secured, and adequate funds secured.



*Photo: Redpath Flood Impoundment and Mustinka River Rehabilitation
Courtesy of Bois de Sioux Watershed District, Jamie Beyer, Administrator

The top flood retention watershed projects as recognized by the RRRRA for 2025 are:

Redpath Flood Impoundment and Mustinka River

Rehabilitation Project (Bois de Sioux WD) - The purpose of this project is to provide local and regional flood risk reduction, as well as rehabilitation for over five miles of the Mustinka River. The total project cost is \$62.5M with contributions of \$20.3M RRWMB, \$10M MN FHM, \$2.7M LCCMR, \$2.4M LSOHF, and \$2.8M BWSR. An additional \$13.7M is needed from the State of Minnesota. Phase 3 will be bid and initiated in 2025, and Final Phase 4 in 2027.

City of Newfolden Flood Prevention Projects (Middle-Snake-

Tamarac WD) - The purpose of this project is to remove the City of Newfolden from the 100-year floodplain while contributing to the reduction of peak flows and volumes to the Red River. Total project cost: \$12.2M, construction started in 2022, construction consisted of railroad bridge replacement and impoundment construction. An additional \$1.7M was secured from the Red River Water Management Board to ensure the completion of the project in 2025. Originally the RRWMB allocated \$2.4M


Roseau Lake Rehabilitation Project (Roseau River WD)

- This is a partnership with the MN DNR utilizing approximately 4000 acres of WMA land and will provide roughly 20,000 acre-feet of gated storage, improvement of habitat, and water management capabilities. Approximate costs of the projects - \$22M (committed funds: RRWMB \$3M, State FHM \$4M, LSOHC \$2.6M) RRWMB Step 3 approved in July 2023. Phase 1 construction began in the fall of 2023 and additional phases will be constructed as funding allows.

Rush River (Cass County JWRD) – The project was initiated through the RRRRA RCPP and entails the construction of a 2.2-mile levee around the City of Amenia with interior stormwater pond and pumping station. The benefit/cost ratio was 1.5:1. Watershed Plan – EA was authorized by the NRCS Chief in April 2022. Project implementation cost is estimated to be \$3.3M, of which \$2.6M would be eligible for federal funding through the NRCS Watershed Operation Program. The final engineering design was funded by NRCS in 2020, however, due to requested alignment changes and work with the railroad, the design is still in the process of being finalized.



Whitney Lake (Roseau River WD) – The Whitney Lake project area covers a 74 sq. mi. drainage area and consists of 2 proposed impoundment sites, drainage system improvement, and construction of a new drainage system. CD #16 Improvement project – The Landowner petitioned \$1.5M project completed in 2022. WD #115 – Landowner petitioned new drainage system; under construction in 2023 for \$1.3M. Site A Impoundment – Est. cost \$8M; would provide 2,000 acre-feet of gated storage; adequacy of outlet study underway. Site C Impoundment – Est. cost \$3M; would provide 1,000-acre feet of gated storage.



Nelson Slough/ JD 19 – East Park WMA – (Middle-Snake-Tamarack WD) - Estimated Cost \$9.9M, expected construction start: 2026, estimated construction time: 1.5 years. Since DNR owns land and Marshall County owns JD#19, and the MSTRWD receives benefit from the project 's flood control feature, a new O&M plan is drafted and agreed upon by majority of partners. EAW is completed (No EIS). Permitting: The Joint Permit application was submitted in June 2022; all permits are secured (Dec 2024). Federal review on easements is yet to be processed as Federal funds originally used to purchase the project land over 50 years ago. Funding: Applied for both FHM and LSOHC (Secured \$5.7M in two applications). The remainder of funding needs anticipated from RRWMB (Step 2 approval: \$2.4 M), MSTRWD.

Upper Maple River (Cass County JWRD)- The project was initiated through the RRRRA RCPP and entails construction of a 2.3-mile-long embankment with ungated release, storage capacity 2,863 ac-ft to the auxiliary spillway crest. The project develops a 240-ac biomass harvest area for nutrient reduction, as well as 230 acres of wetlands and 1,290 acres of uplands for wildlife habitat. NED exception approved by NRCS for B/C 0.3:1 based on nutrient reduction and wildlife habitat benefits. Project implementation cost estimate is \$8 million, of which \$6.8 million would be eligible for federal funding through the NRCS Watershed Operations Program. NOI to prepare an EIS published to the federal register August 2023; EIS public scoping meeting held May 2023, followed by landowner meeting August 2023. Consultation with the ND State Historical Preservation Office has been holding up the planning process since January 2024. The preliminary draft Plan-EIS is nearly ready to submit for national NRCS review, pending completion of SHPO consultation.


Klondike Clean Water Retention Project (Two Rivers Watershed District)

The impoundment project will provide up to 34,250 acre-feet of gated storage, provide aquatic habitat, protect, and improve a prairie-rich fen, and achieve water quality benefits to the Two Rivers. The total estimated cost of this project is \$42M. Of this, non-state matching is anticipated in the amount of \$21M. Additionally, the LSOHC has approved \$2.9M for the project. \$17.3M is being sought from the 2024 legislature via the DNR's Flood Hazard Mitigation Grant Program. 14 out of 18 permits have been approved, including an EAW, wetland permits from the MN BWSR, DNR Protected Waters, ditch permits from joint county ditch authority, road permits from Townships and 2 Counties, and various other construction permits. The final right of way is nearly secured. An operating and maintenance plan is drafted which will guide gate closures and opening for drawdown. A three-phased construction plan has been adopted and depending on funding and permits, construction may begin in 2025.



Swift Coulee Channel Restoration Project (Middle-Snake-Tamarack Rivers WD)

- This project will restore the meandering channel and add a controlled flood plain in the form of a second stage of the channel in approximately 10 channel miles length of the stream. It has 28 different landowners to work with, and more than 90% of them are on board with the project. The best alternative was selected in 2021 and received the USACE's CP#3 approval. The total cost for phase 1 is est. at \$5.3M. The first phase which would be to purchase the easement is estimated to cost \$1M. Project potential partners would be: MSTRWD, RRWMB, DNR(FHM), MPCA/BWSR (Stream Restoration Grant,) and CWF. This project was formally adopted as an MSTRWD project under 103D.605 in June 2023. The project is divided into 3 phases now (for both easement acquisition and construction). The first phase will be on the downstream 4 miles. For easement acquisition, MSTRWD is working with SWCD and BWSR's RIM program. Phase 1 is scheduled to be in construction in 2025.




Matecjek Dam Rehab (Walsh County WRD) – The project involves dam safety upgrades to an existing high-hazard dam which currently poses a risk to human lives, homes, agricultural structures, roads, bridges, and cropland. The dam has a storage capacity of 7,274 ac-ft at the AS crest elevation and 9,060 ac-ft at the top of the dam. The preferred alternative would raise the top of the dam 4.2 feet, replace the existing principal spillway conduit and tower, construct a 300-foot-wide overtopping roller compacted concrete spillway, and install a new chimney filter and foundation drain system. In addition, improvements to a county road would be made as a part of the project. The estimated construction cost is \$30.1M, of which \$19.6M would be eligible for federal funding through the NRCS Watershed Rehabilitation Program. Development of the preliminary draft Plan-EA is underway by Houston Engineering.

Senator Young and Olson Dam Rehab (Pembina County WRD) – The project involves dam safety upgrades to two existing high-hazard dams which currently pose a risk to human lives, homes, agricultural structures, roads, bridges, and cropland. Senator Young has a storage capacity of 5,053 ac-ft at the AS crest elevation and 5,958 ac-ft at the top of the dam. Olson has a storage capacity of 861 ac-ft at the AS crest elevation and 1,077 ac-ft at the top of the dam. The preferred alternative for Senator Young is to raise the dam by 3 feet, construct a roller-compacted concrete spillway in the location of the current earthen AS, flatten the downstream dam slope, replace the principal spillway conduit and riser tower, and install a new chimney filter and foundation drain system. The preferred alternative for Olson is to line the existing north earthen AS with articulated concrete block, replace the principal spillway conduit and riser, flatten the downstream slope, install a new chimney filter and foundation drain system, and construct a new access road into the dam from the south side. The estimated construction cost is \$17.4M for Senator Young and \$7.5M for Olson. Development of the preliminary draft Plan-EA is underway by Houston Engineering.

Bylin Dam Rehab (Walsh County WRD) – The project involves dam safety upgrades to an existing high-hazard dam that currently poses a risk to human lives, homes, agricultural structures, roads, bridges, and cropland. The dam has a storage capacity of 4,223 ac-ft at the AS crest elevation and 5,554 ac-ft at the top of the dam. The preferred alternative would raise the top of the dam 3.9 feet, replace the existing principal spillway conduit and tower, line the earthen auxiliary spillway with articulated concrete block, flatten the downstream embankment slope, and install a new chimney filter and foundation drain system. The estimated project cost is \$10.9M, of which \$7.M would be eligible for federal funding through the NRCS Watershed Rehabilitation Program. The Supplemental Watershed Plan-EA was submitted to the NRCS Chief for authorization on 11/4/2024.



Fordville Dam Rehab (Grand Forks County WRD) – The project involves dam safety upgrades to an existing high-hazard dam that currently poses a risk to human lives, homes, agricultural structures, roads, bridges, and cropland. The preferred alternative would replace the existing principal spillway conduit and tower, line the earthen auxiliary spillway with articulated concrete block, and install a new chimney filter and foundation drain system. The dam has a storage capacity of 7,089 ac-ft at the AS crest elevation and 10,894 ac-ft at the top of the dam. The estimated implementation cost is \$11.8M. Development of the preliminary draft Plan-EA is underway; Houston Engineering has submitted everything except the economics appendix and plan document itself. Consultation with ND SHPO has been initiated.



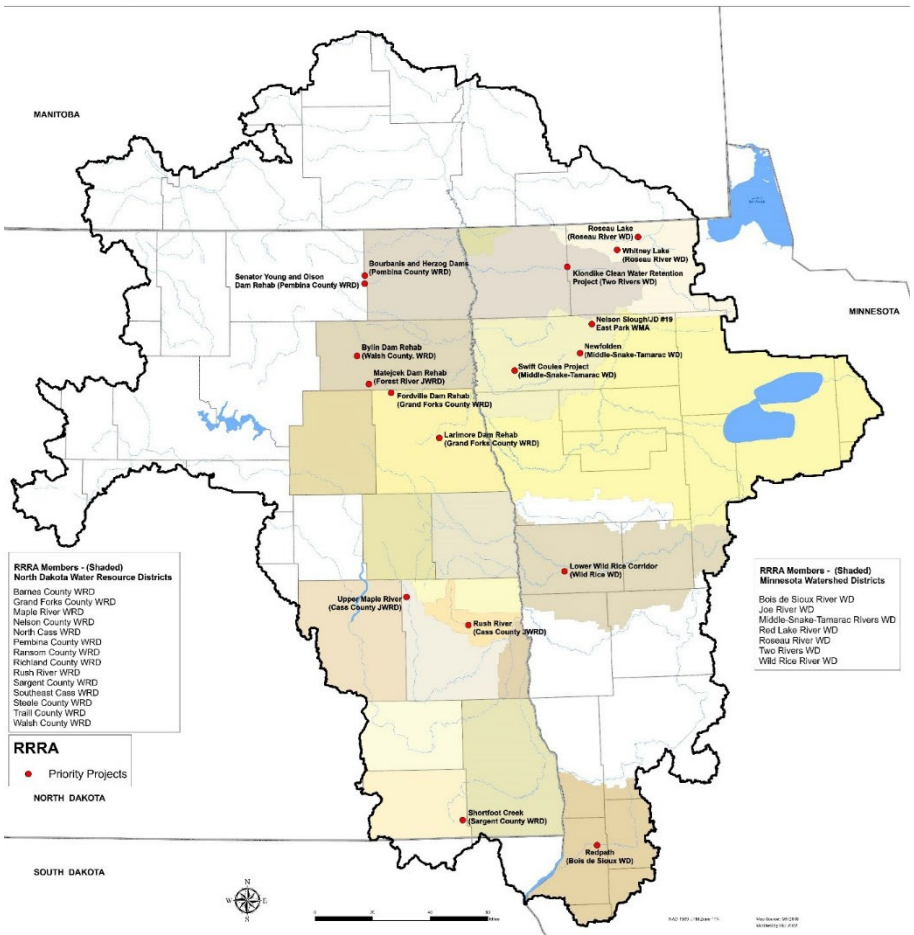
Larimore Dam Rehab (Grand Forks County WRD) – The project involves dam safety upgrades to an existing high-hazard dam that currently poses a risk to human lives, homes, agricultural structures, roads, bridges, and cropland. NRCS has developed alternatives to present to the Sponsor for consideration at a meeting tentatively scheduled for 1/14/25 in Grand Forks. The dam has a storage capacity of 5,003 ac-ft at the AS crest elevation and 10,410 ac-ft at the top of the dam. NRCS expects to complete the preliminary draft Plan-EA by December 2025.

Bourbanis and Herzog Dams (Pembina County WRD) - The project involves dam safety upgrades to what were originally 2 existing high-hazard dams that posed a risk to human lives, homes, agricultural structures, roads, bridges, and cropland. To relieve the imminent threat from damage during the 2022 flood, Bourbanis was partially breached. The watershed plan will look at alternatives for both dams in combination. A public scoping meeting will be conducted in early 2025 and NRCS/Houston Engineering expects to finish the preliminary draft Plan-EA in March 2026.

Lower Wild Rice Corridor Habitat Restoration (Wild Rice WD) - a voluntary initiative aiming to restore a natural corridor spanning 23 miles along the straightened section of the Lower Reach of the Wild Rice River. The project involves creating a protected corridor of half a mile width along the river channel. This entails moving back existing spoil banks, reconnecting oxbows, constructing a naturally meandering river channel, and revitalizing riparian wetland and prairie plant communities. Landowners could receive financial incentives by enrolling their land within the corridor into the program. The project has received \$2.8M in funding from the Lessard Sams Outdoor Heritage program. Currently, the project is in Phase 1 of its three-phase plan, which involves land acquisition and restoration efforts.

Shortfoot Creek (Sargent County WRD) – NRCS RCPP generated a project total cost of \$13.9M, supported by the RRRRA; it will convert to a WSOP project for final design and construction. A NED exception waiver will need to be requested and EIS initiated. Dam site #7 is a 1-mile-long embankment with ungated release, a storage capacity 1,250 ac-ft to the auxiliary spillway crest. The project develops a 130-ac biomass harvest area for nutrient reduction and enhances or restores 138 acres of wetlands for wildlife habitat. No progress was made on this planning effort in 2023 other than cultural resources work completed by NRCS; the Sponsor’s consulting firm is focused on completing the Upper Maple plan first.




**RRRR Members – (Shaded)
 ND Water Resource Districts**

- | | |
|------------------------|----------------|
| Barnes County WRD | Southeast Cass |
| Grand Forks County WRD | Steele County |
| Maple River WRD | Trail County |
| Nelson County WRD | Walsh County |
| North Cass WRD | |
| Pembina County WRD | |
| Ransom County WRD | |
| Richland County WRD | |
| Rush River WRD | |
| Sargent County WRD | |

**RRRR Members (Shaded)
 MN Watershed Districts**

- 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



RED RIVER
RETENTION AUTHORITY

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