

Two Rivers Watershed District

In Roseau, Kittson, & Marshall Counties

2024 Annual Report



Forward

The Two Rivers Watershed District Board and Staff would like to present the 2024 Annual Report. 2024 was another busy year with quite a few erosion control projects being undertaken. We performed the usual inspections of projects and ditches, and there were several maintenance activities that were done.

As this report will summarize, the District maintains three impoundment projects, nine legal ditch systems, and six other channel projects that provide flood control and drainage. The District operates under both MN Statute 103D, the Watershed Law, and MN Statute 103E, the Drainage Law. Its primary functions are to construct and maintain projects and programs to provide flood damage reduction, agricultural drainage, and natural resource enhancements. We actively monitor stream flows and water quality within our boundaries, and work closely with local, state and federal agencies in carrying out these various initiatives.

One of the driving factors in our mission of flood damage reduction is to achieve the regional goal of 20% peak flow reductions on the Red River of the North. For drainage, we are working to achieve a regional goal to provide capacity in drainage ditches to pass a 10 year runoff event (defined as about a 3.5" rainfall in a 24 hour period) within a 24 to 48 hour period after a rainfall. Our goals for natural resource enhancements include protecting, enhancing and improving water quality and aquatic habitat.

We hope the information provided in this report is helpful in understanding the "who, what, where, when and why" of the Two Rivers Watershed District. As always, please contact our office or one of our board members if you have any questions or would like more information!

Watershed District Description

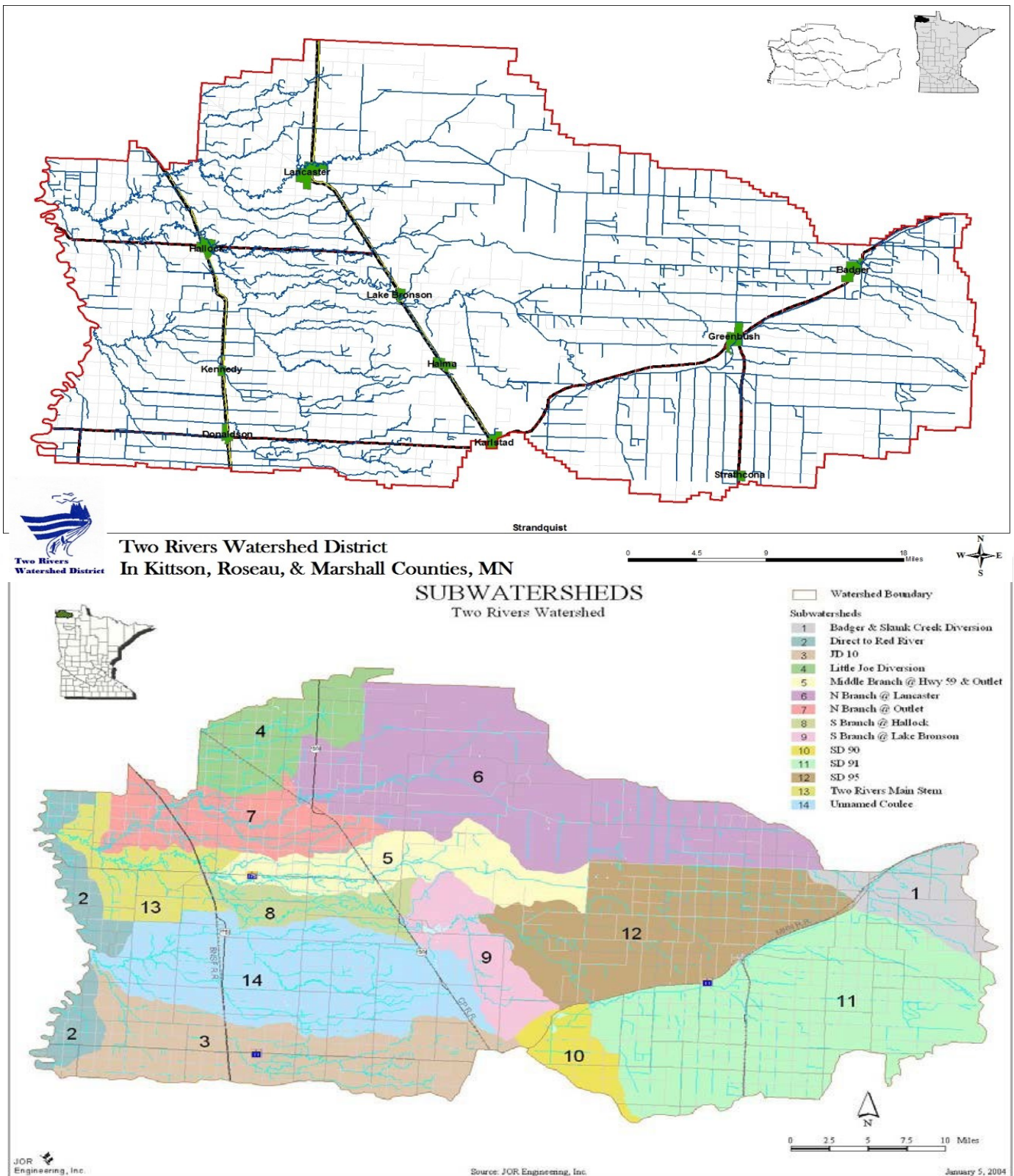
The Two River Watershed District (TRWD) was established by order of the Minnesota Water Resources Board on October 30, 1957. It was the second watershed district to be organized within the State of Minnesota, and the first to write and approve an overall plan. The TRWD is located northwest Minnesota in much of Kittson County, the western 1/3 of Roseau County, and extreme northwestern Marshall County.

The land area of the TRWD encompasses 1,454 square miles. The boundary does not follow political boundaries, rather it follows drainage boundaries. The TRWD stretches 65 miles from the Red River on the western boundary to the eastern boundary located between the cities of Badger & Roseau. At its widest north-south point, the TRWD stretches 33 miles. It is bordered to the north-west by the Joe River Watershed District; the north by the Province of Manitoba, Canada; the east by the Roseau River Watershed District; the south by the Middle-Snake-Tamarac Rivers Watershed District; and to the west by the Red River of the North, which is also the boundary with North Dakota.

The Two Rivers actually consists of three branches – the North, Middle and South Branch. The South Branch arises southeast of Badger, Minnesota and flows in a westerly direction along the south side of MN Highway 11 and provides drainage for the cities of Badger, Greenbush, Lake Bronson, and Hallock. The Middle Branch drainage area begins east of the Kittson & Roseau County line, travels through the central portion of Kittson County, and outlets into the South Branch just east of the city of Hallock. The North Branch drainage area begins in northwestern Roseau County, travels through Lancaster and Northcote, and joins the South Branch to form the main stem three miles east of its outlet into the Red River.

The southwest portion of the TRWD is a 360 square mile stand-alone drainage system that was added to the TRWD in the mid 1980's. This drainage system is comprised of a series of coulees which outlet into legal drainage systems. These legal drainage systems then outlet into

a series of coulee systems, which then outlet into the Red River at a point 10 miles south of the outlet of the Two Rivers.



Minnesota Statute 103E (the Drainage Code) to maintain 73 miles of legal drainage ditches.

Governance

The District Technical and Citizen's Advisory Committees are made up of concerned citizens, appointed officials, and representatives of governmental agencies that in some way work with or affect the water resources of the TRWD. These committees meet at least once per year to provide input and guidance to the Board of Managers regarding District programs and activities.

The TRWD is a member district of the Red River Watershed Management Board, which was established in 1976 by the MN Legislature. The RRWMB is made up of 7 watershed districts within the Minnesota side of the Red River basin. Its mission is to "institute, coordinate, and finance projects and programs to alleviate flooding and assure the beneficial use of water in the watershed of the Red River of the North and its tributaries". Through the RRWMB, the TRWD is affiliated with the Red River Flood Damage Reduction Work Group, the Red River Retention Authority, and the Red River Basin Commission. The TRWD is also a member of MN Watersheds, which is the statewide association of watershed districts.

Since its inception, the Board of Managers have established numerous policies regarding various management issues. Many of these relate to permits issued under the *Rules of the Two Rivers Watershed District*, and others relate to general activities of the TRWD. The TRWD follows its stated policies whenever possible and uses discretion when applying these policies.

Manager & Staff Roster 2024

| Board Members | Title | Phone | Email | Address | County | Term Ends |
|-------------------|----------------|--------------|-------|--|---------|------------|
| Rick Sikorski | President | 218-782-2783 | | 30825 110th Ave Lancaster, MN 56735 | Roseau | 10/31/2027 |
| Roger Anderson | Vice President | 218-455-6269 | | 1561 110th Street Drayton, ND 58225 | Kittson | 10/31/2027 |
| Daryl Klegstad | Secretary | 218-265-2073 | | 4151 210th Street Halma, MN 56729 | Kittson | 10/31/2025 |
| Gerald Olsonawski | Treasurer | 218-843-8094 | | P.O. Box 293 Hallock, MN 56728 | Kittson | 10/31/2025 |
| Bruce Anderson | Manager | 218-782-3147 | | 18960 170th Ave Greenbush, MN 56726 | Roseau | 10/31/2026 |
| Scott Klein | Manager | 218-843-2752 | | 1946 200th Street Hallock, MN 56728 | Kittson | 10/31/2026 |
| Mark Langehaug | Manager | 218-754-2042 | | 2423 360th Ave Lake Bronson, MN 56734 | Kittson | 10/31/2027 |

Staff Members

| | | | | |
|----------------|---------------|--------------|--------------------------------|---|
| Dan Money | Administrator | 218-843-3333 | dan.money@tworiverswd.com | 410 S. 5th Street, Suite 112, Hallock, MN 56728 |
| Tyler Coffield | Technician | 218-843-3333 | tyler.coffield@tworiverswd.com | 410 S. 5th Street, Suite 112, Hallock, MN 56728 |

Consultants

| | | | |
|---------------|----------|--------------|--|
| Jeff Hane | Attorney | 218-843-3686 | Brink Lawyers Hallock, MN |
| Blake Carlson | Engineer | 218-277-7409 | Widseth – Crookston, MN |
| Jacob Huwe | Engineer | 218-681-6100 | HDR Engineering Thief River Falls, MN |
| Tony Nordby | Engineer | 218-681-2951 | Houston Engineering Thief River Falls, MN |



Board & Staff: Front Row – Jerry Olsonawski, Rick Sikorski, Roger Anderson. Back Row – Tyler Coffield (Technician), Scott Klein, Bruce Anderson, Mark Langehaug, Daryl Klegstad, Dan Money (Administrator)

Meetings

The Board of Managers of the Two Rivers Watershed District generally held meetings on the first Thursday of each month in 2024. The Annual Meeting was held in January 2024. Special meetings were held from time to time at the discretion of the Board. All meetings of the TRWD are held in accordance with the MN Open Meeting Law. Meeting minutes are posted on the TRWD's website: www.tworiverswd.com.

Existing & Completed Projects: – Authorized under MN Statute 103D

The following are established and proposed projects of the Two Rivers Watershed District. They were built under Minnesota Statute 103D for various purposes including flood control, erosion control, water quality benefits, wildlife enhancement, and drainage for cropland. Each is inspected annually and operated and maintained by the TRWD.

Detailed information regarding each project is on file at the TRWD office. Interested individuals can obtain copies of all project information upon request.

| <i>Project Name</i> | <i>Description</i> | <i>Location</i> | <i>Established</i> | <i>Status</i> |
|----------------------------|------------------------------|---|---------------------------|---------------------------------|
| Middle Branch Project #1 | 9.0 mile channel improvement | Thompson & Hazelton Townships, Kittson Co | 1968; PL 566 | Yearly Inspection & Maintenance |

| | | | | |
|-------------------------------|---|---|---|---|
| North Branch Project #2 | 11.8 mile channel improvement | Richardville, St. Joseph, Granville, & Poppleton Townships, Kittson Co. | 1969; PL 566 | Yearly Inspection & Maintenance |
| Soler Project #4 | 5 mile extension of State Ditch #72 | Soler & Moose Townships, Roseau Co. | 1979; Petition Project | Yearly Inspection & Maintenance |
| Dewey Project #5 | 1.8 mile lateral to State Ditch #91 | Sections 26 & 35 Dewey Township, Roseau Co. | 1980; Petition Project | Yearly Inspection & Maintenance |
| Nereson Impoundment Project | Flood Control Impoundment | Sections 27-28 Nereson Township, Roseau Co | 1981; Board Initiated | Yearly Inspection & Maintenance |
| Nereson Modification Project | Flood Control Impoundment | Sections 33-34 Nereson Township, Roseau Co | 2005; Board Initiated | Yearly Inspection & Maintenance |
| Dewey 5 Improvement Project | Improvement of Dewey #5 Ditch System | Sections 26 & 35 Dewey Township, Roseau Co | 2002; Petition Project | Yearly Inspection & Maintenance |
| Horseshoe Lake Project | Drawdown Structure | Section 14, St. Joseph Township, Kittson Co | 1968; Modified 2006; Jointly by Kittson Co, DNR, & TRWD | Yearly Inspection & Maintenance; Gate Operation |
| Kennedy Project #6 | 2.6 mile ditch to connect Kittson CD4 & CD27 | City of Kennedy, MN | November 2009; Petition Project | Yearly Inspection & Maintenance |
| Ross Project #7 | Flood Control Impoundment | Sections 26, 27, 28, 32, 33,34, Ross Township, Roseau Co | November 2007; Board Initiated | Yearly Inspection & Maintenance; Gate Operation |
| Springbrook PL566 Project #10 | Set back dikes and Side water inlets along 8.65 miles of waterway | Springbrook Township sections 22,23,28,29,30; Davis Township sections 25,36 | December 2013; Petition Project | Yearly Inspection & Maintenance |

Ditch Systems:– Authorized under MN Statute 103E

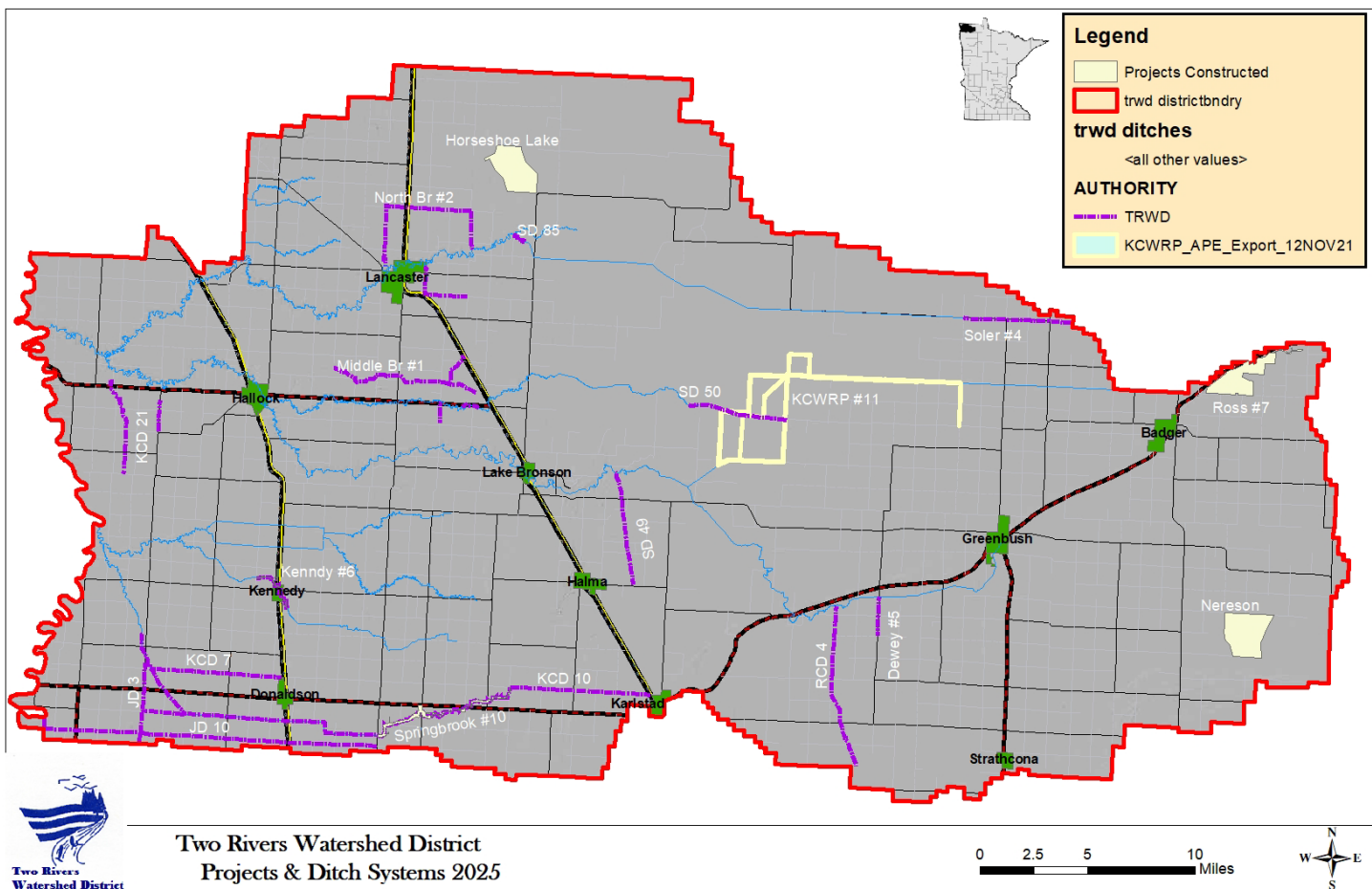
The following ditches were established under MN Statute 103E, the ditch law. Most were originally established between 1900 and 1920. Under the statute ditches are either managed by a county or a watershed district. However, if a new ditch is being petitioned or being petitioned to be improved then the petition goes to the watershed district. The statute also provides a process whereby ditches can be turned over by a county to a watershed district. Therefore the ditches listed below are under the jurisdiction of the TRWD.

| Legal Ditches Statute 103E | Length (Miles) | Township(s); County | 2024 Levy |
|--------------------------------|-------------------|-----------------------------------|-----------|
| State Ditch #49 | 5.25 | Norway; Kittson Co | \$ 0 |
| State Ditch #50 | 4.5 | Klondike; Kittson Co. | \$ 1,500 |
| State Ditch #85 Improvement | 0.75 | Poppleton; Kittson Co | \$ 0 |
| Judicial Ditch #3 | 5.5 | Teien; Kittson Co | \$ 0 |
| Judicial Ditch #10 | 31 | Davis, Svea, Teien, Kittson Co | \$ 2,000 |
| Kittson CD #7 | 6.5 | Svea; Kittson Co | \$ 0 |

| | | | |
|-------------------------------------|-----|------------------------|-----------|
| Kittson CD #10 | 7.0 | Deerwood; Kittson Co | \$ 5,000 |
| Roseau CD #4 | 7.5 | Lind, Dewey; Roseau Co | \$ 5,000 |
| Kittson CD #21 & KCD 21 Improvement | 6.5 | Hallock, Kittson Co | \$ 40,000 |

These systems are inspected annually and each system is surveyed a minimum of once every 5 years to assess any changes from erosion or sedimentation. Maintenance activities are undertaken if deemed necessary. These activities include beaver dam removal and beaver trapping, spraying of cattail and other nuisance vegetation, removal of silt and sediment, repair of sloughed side slopes or eroded culverts, and other items as needed. Detailed maintenance reports are kept and filed each year in the ditch file.

The TRWD, as the ditch authority for these ditches, is also responsible for maintaining a ditch fund to pay for maintenance expenses. Each year the TRWD assesses the needs of each ditch, and a tax is levied against the “benefited area” of each ditch, if necessary, and if the funding is needed. Each year the District certifies this levy to the County Auditor of the County where the ditch is located.



As a result of flooding during both the 2022 and 2023 Presidential Disaster Declarations, sloughing and erosion have occurred the North Branch #2 Project along SD 84 and also along JD 31. Site visits, surveys and engineering plans were prepared to fix the sloughing and erosion.

The work was completed at both sites in the summer of 2024.

Two petitions for improvement have been received:

- Kittson County Ditch #7 – a petition was received from landowners and engineer Blake Carlson of Widseth was appointed to prepare and submit a preliminary survey report. A public hearing was held and the Board of Managers accepted the report, directed Carlson to prepare a final survey report, and appointed Viewers to determine the benefits. Once the Engineer's Final Report and the Viewer's Report are submitted another public hearing will be held.
- Kittson County Ditch #13 – a petition was received from landowners and engineer Erik Jones of Houston Engineering was appointed by the Board of Managers to prepare and submit a preliminary survey report. Once the report is submitted a public hearing will be held.

OTHER PROJECTS

Past Projects:

The project listed below was a constructed project in 2008 that utilized federal, state, and local funding. It was coordinated by the TRWD but is not an official project of the TRWD and, therefore, future maintenance is the responsibility of the landowners along its course.

| | | | | |
|---------------------|---|--|--------------|--|
| Springbrook / CR 61 | 3.75 mile meandering channel & set back dikes – flood control | Sections 3,5,6 Springbrook & Sect. 1 Davis Twp, Kittson Co | August, 2008 | Maintenance responsibility of landowners |
|---------------------|---|--|--------------|--|

FARMSTEAD RING DIKES

After the historic flood of 1997, the District participated in a cost share program with the State of Minnesota and the Red River Watershed Management Board to design and install farmstead ring dikes. The dikes were designed and engineered by the TRWD and installed by local contractors. The landowner generally paid 12.5% of the cost, the state paid 75%, and 12.5% was paid by the RRWMB/TRWD. Using this program, 25 farmstead ring dikes were built between 1997 and 2012.

Future Projects:

KLONDIKE CLEAN WATER RETENTION PROJECT #11 – This multipurpose impoundment is planned to provide up to 35,000 acre feet of storage, create an adequate drainage outlet for Lateral 1 of State Ditch 95, store floodwater that overflows from the Roseau River into the Two Rivers, reduce damages to public and private infrastructure, improve aquatic habitat, protect a prairie rich fen, and provide water quality benefits to Lake Bronson, the Middle and South Branches of the Two Rivers and the Red River of the North. Additional project information can be found at www.tworiverswd.com/Klondike.html

HORSESHOE (SKULL) LAKE DAM REPLACEMENT – The original outlet structure was constructed in 1968 and is past its expected life span. The structure was discovered to be failing in 2022 and the TRWD is working with the MN DNR to replace it with a new structure.

Construction is planned to be completed in 2024.

JUNEBERRY PROJECT WORK TEAM (JPWT) – Historically flooding impacts happen when the Roseau River overflows into the Two Rivers, typically in larger runoff events. This unique work group is made up of representatives of Kittson County, Roseau County, Roseau River Watershed District, TRWD, DNR, BWSR, MPCA, and local landowners. The JPWT is working to find viable solutions to mitigate this flooding, reduce damages, and provide natural resources benefits.

LAKE BRONSON SEDIMENT PROJECT WORK TEAM (LBSPWT) – A group of cabin owners on Lake Bronson approached the TRWD with the problem they have been witnessing of sediment entering the lake from upstream sources and causing water quality degradation, reduced navigation, habitat issues, and economic issues. The LBSPWT consists of the cabin owners, DNR, MPCA, and TRWD and is in the process of looking at the feasibility of removing sediment from the lake to provide a long-term solution to these issues.

Programs

2024 Monitoring – Data Collection – Staff Activities

Surveys:

- ✓ Completed 16 miles of project and ditch surveys
- ✓ Surveyed several erosion damage areas to ditch systems for repair plans
- ✓ Completed several surveys for private individuals

Stream Flow – Flood Fighting:

- ✓ Erect staff gages & maintenance of existing gages
- ✓ Monitor several sites for high flow occurrences daily during runoff events (March through October); survey water elevations during flood events
- ✓ Analyze results & prepare annual stream flow report for distribution
- ✓ Establish rating curves for all stations @ high flow
- ✓ Prepare and distribute daily reports during flooding events – report to NWS, DNR, Others; collaborate with Lake Bronson dam operators
- ✓ Eventually develop rating curves for all flows, including low flow periods

Water Quality Monitoring

- ✓ Collect water samples at 10 locations throughout the TRWD
- ✓ Monitor on site water temperature, depth, dissolved oxygen, conductivity, ph, transparency, and physical characteristics
- ✓ Send samples to lab for analysis of nitrogen, phosphorous, E. Coli, chloride, total suspended solids, and nitrate
- ✓ Enter all data into spreadsheet database for analysis

Operations & Maintenance:

- ✓ Annual inspection & tour of Nereson Impoundment with DNR & Roseau Co.; Coordinate operation with DNR during flood events
- ✓ Annual inspection of Ross 7 Impoundment; operation during flood events
- ✓ Annual inspection of Skull/Horseshoe Lake with DNR & Kittson Co.; coordination with DNR for structure repair/replacement

Permits:

- ✓ The Rules of the Two Rivers Watershed District were enacted in 1981, and under these rules, a permit from the TRWD is generally required for any project that alters the flow of water or has the potential to alter the flow of water. This includes but is not limited to ditches, dikes, tile, culverts bridges, diversions and water appropriation.
- ✓ Process & inspect all permit applications as necessary – 51 in 2024
- ✓ Respond to and follow up on permit inquiries, violations and complaints
- ✓ Work on tile policies, issues, and permit procedures

Geographic Information System (GIS)

- ✓ All monitoring data that is collected is entered into ArcMap, the District's computer mapping and data program.

Education & Information:

- ✓ Participate in Envirothon event for high school students & Waterfest for grade school students
- ✓ Continue to coordinate with the Soil and Water Conservation District to publish two editions of the **Northland Conservation News** newsletter each year
- ✓ Booth @ Crop Improvement Day, Speak @ Association of Townships
- ✓ News releases, fact sheets, and informational meetings as necessary

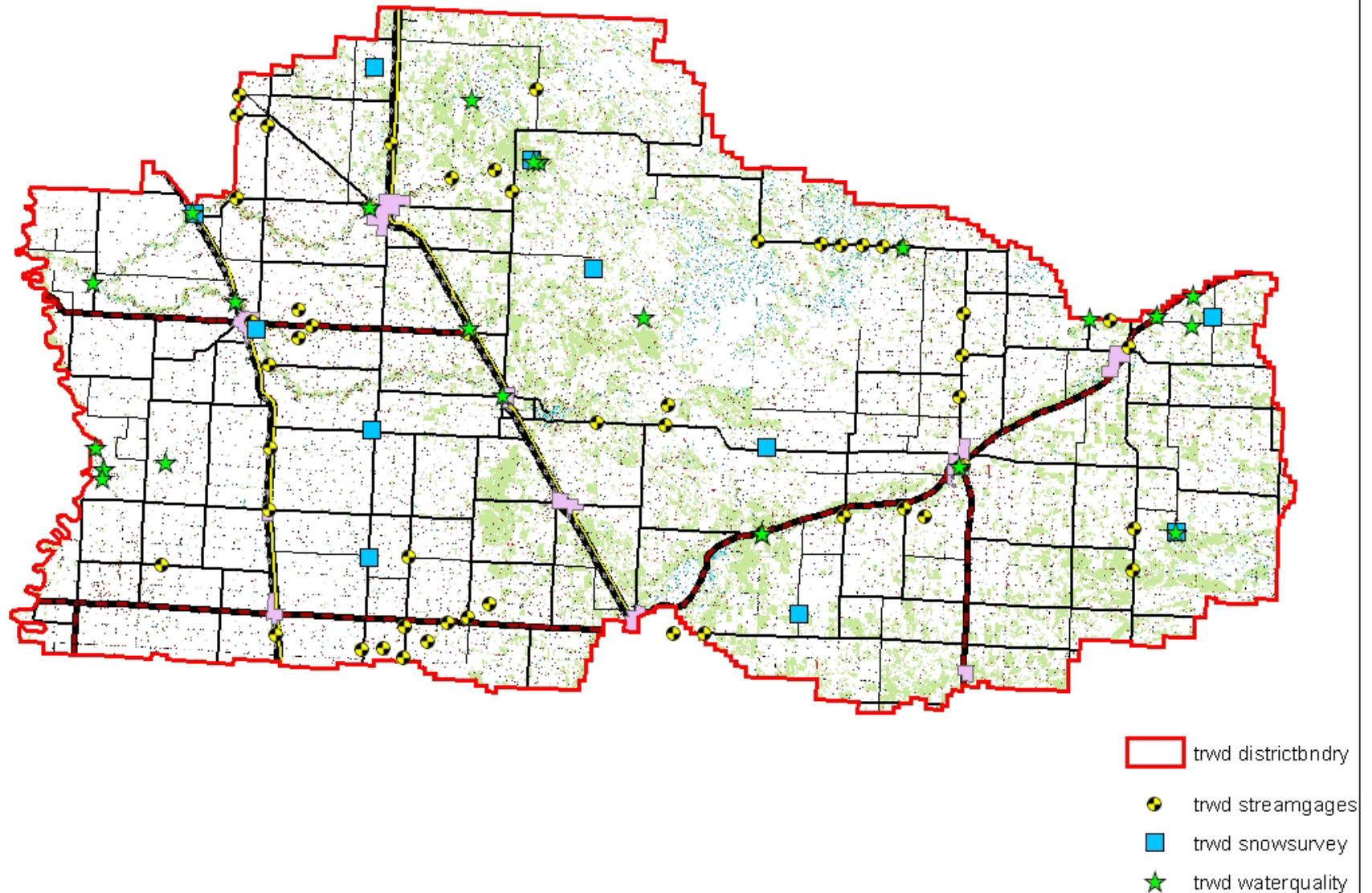
Miscellaneous Administrative:

- ✓ Prepare & distribute Annual Report & Audit as required by law
- ✓ Enter & track all financial data using Quickbooks computer program
- ✓ Prepare meeting notices, record & distribute meeting minutes, prepare agendas, etc.
- ✓ Daily office duties including handling phone calls & walk ins, preparing & sending letters, soliciting & administering program funding, grant writing, program coordination, plan writing, and attending RRWMB, FDRWG & MSTC meetings
- ✓ Coordinate staff activities between the District Administrator & District Technician
- ✓ Farm Lease Agreements & administration of District owned land
- ✓ Seek funding through legislature, state and federal agencies for projects and programs

Other Activities as Determined by TRWD Board of Managers

Two River Watershed District

Monitoring Stations



Two Rivers Watershed District 2024 Flood Control & Ditch Projects:

Ditch Projects & Legal Ditches: The following systems under TRWD jurisdiction are annually inspected for blockages, damages, beavers, etc. and maintenance is scheduled accordingly

- 112 miles of ditch are under TRWD authority / jurisdiction as listed below.

- **North Branch #1 – 11.8 mi:** Visual inspection & regular maintenance; surveyed – hiring contractor to repair damages from sloughing and erosion, two beavers trapped and removed
- **Middle Branch #2 – 9.0 mi:** Visual inspection & regular maintenance
- **Soler #4 – 5.0 mi:** Visual inspection & regular maintenance
- **Dewey #5 & Improvement – 1.8 mi:** Visual inspection & regular maintenance; surveyed
- **Kennedy #6 – 2.6 mi:** Visual inspection & regular maintenance; surveyed & identified damages, one beaver trapped and removed
- **Springbrook #10 PL566 – 8.65 mi:** Visual inspection and regular maintenance; sprayed vegetation, three beavers trapped and removed
- **Roseau CD #4 – 7.8 mi:** Visual inspection & regular maintenance; redetermination of benefits
- **Kittson CD #7 - 6.2 mi:** Visual inspection and regular maintenance; hired viewers and various info meetings on the petition for improvement
- **Kittson CD #10 - 6.5 mi:** Visual inspection and regular maintenance; two beavers trapped and removed
- **Kittson CD#13 improvement:** Petition received, appointed engineer, surveyed, etc.
- **Kittson CD 21 & Diversion 1 Improvement – 6.4 mi:** Visual inspection and regular maintenance; surveyed
- **Judicial Ditch #3- 5.3 mi:** Visual inspection and regular maintenance
- **Judicial Ditch #10 – 30.1 mi:** Visual inspections & regular maintenance; twelve beavers trapped and removed; beaver damn removed
- **State Ditch #49 – 5.1 mi:** Visual inspection & regular maintenance; four beavers trapped and removed
- **State Ditch #50 – 4.65 mi:** Visual inspection & regular maintenance
- **State Ditch #85 Improvement – 0.7 mi:** Visual inspection & regular maintenance

Impoundment Projects: The following flood control projects, under the TRWD jurisdiction, were worked on as listed below.

Nereson:

- ✓ Work with DNR to operate as necessary as per Operating Plan
- ✓ Annual inspection & maintenance
- ✓ Held meetings with township officials, county, & DNR

Ross #7:

- ✓ Operation as necessary as per Operating Plan during flooding
- ✓ Annual inspection & maintenance
- ✓ Management of Farm Lease Agreements

Skull / Horseshoe Lake:

- ✓ Annual inspection and maintenance
- ✓ Worked with HDR Engineering and FEMA on replacement of outlet structure
- ✓ Held meetings with DNR / Kittson County / Townships

KCWRP#11:

- ✓ Design
- ✓ Permits (USACE, WCA, EAW, SHPO, DNR, etc)
- ✓ Solicit Funding – LSOHC, Legislature, RRWMB, other
- ✓ Land management - maintenance

Other Items As Needed and Directed!!!

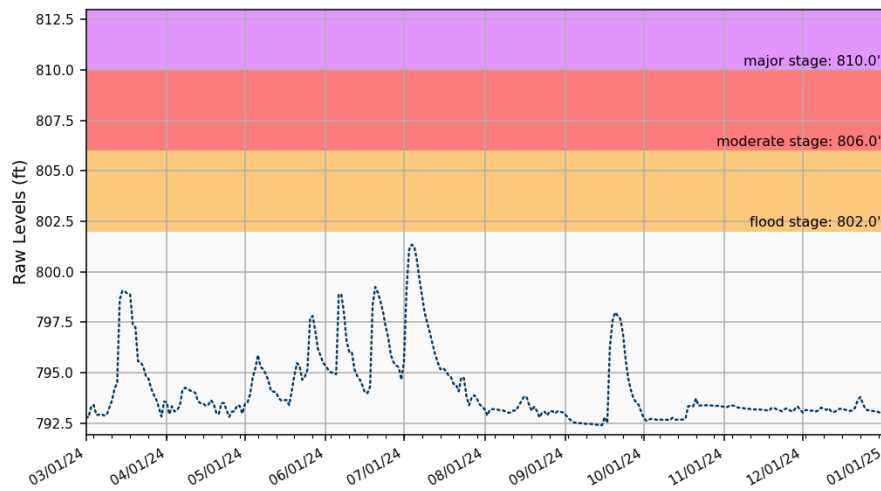
- Survey and data collection during the spring flooding
- Performed numerous private surveys for landowners

Water Year Summary

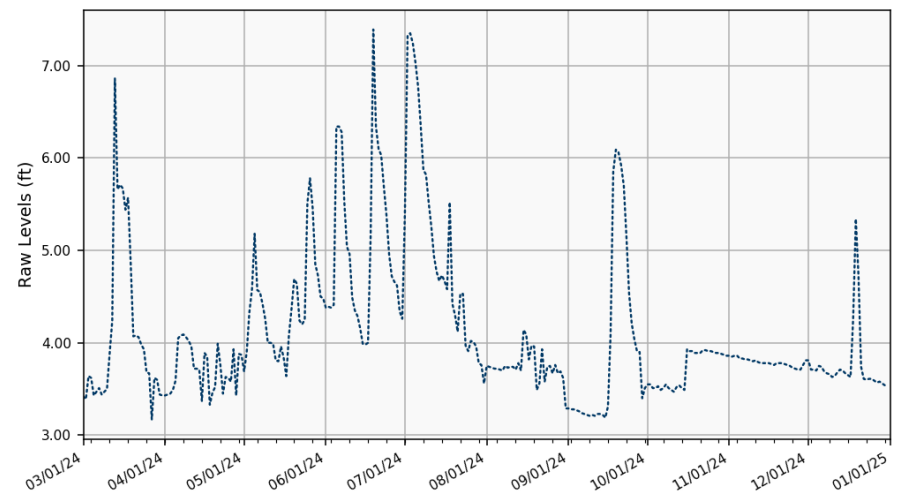
The following hydrographs show two locations on the South Branch Two Rivers, one on the North Branch Two Rivers, and one on Lateral 1 of State Ditch #95 for the period of March through November 2024.

As indicated by these graphs, spring runoff was minimal in the area. Water levels recorded at all locations were below flood stage. The remainder of the year proved to be normal to dry. Several rainfall events in May-June-July sustained river levels, however only one significant rainfall occurred throughout the remainder of the year. The US Drought monitor for May 7, 2024, showed moderate drought conditions for most of the Two Rivers watershed. Similarly, the October 29, 2024 report showed the Two Rivers watershed in the abnormally dry to moderate drought categories. This is also quantified by the graphs.

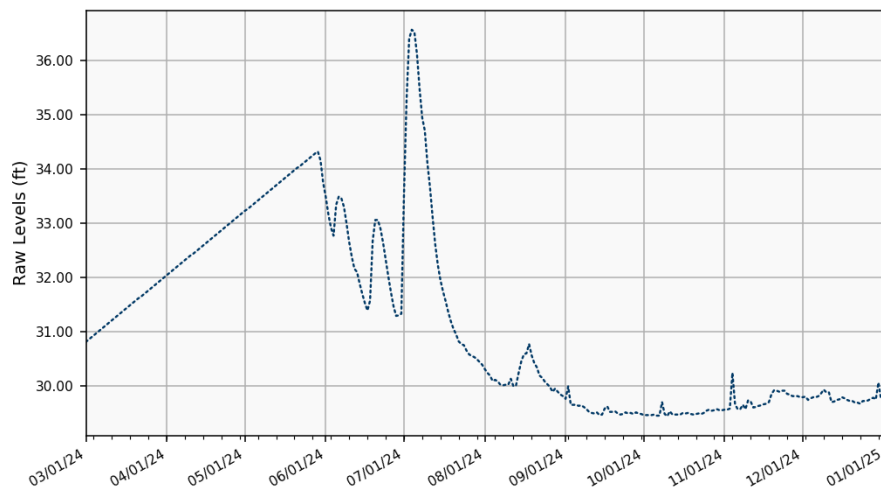
South Branch Two Rivers at Hallock, MN175 (70018001)
2024-3-1 to 2024-12-31



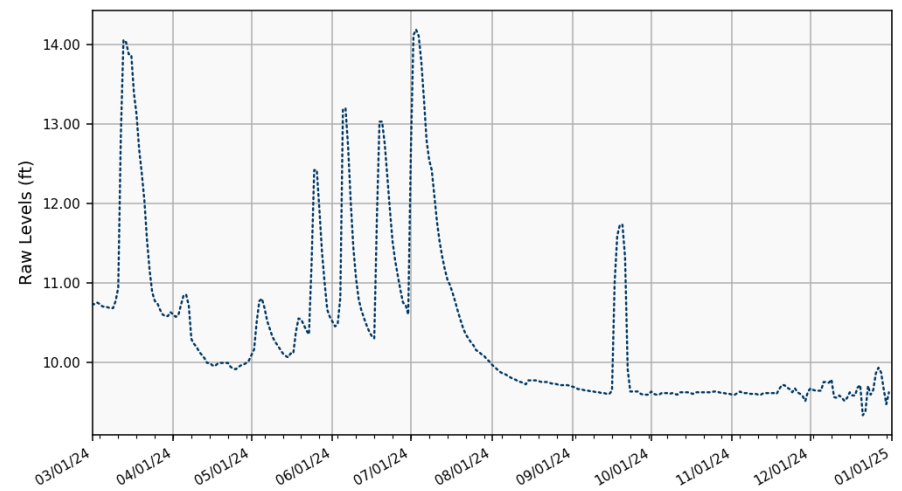
South Branch Two Rivers at Lake Bronson, MN (70033001)
2024-3-1 to 2024-12-31



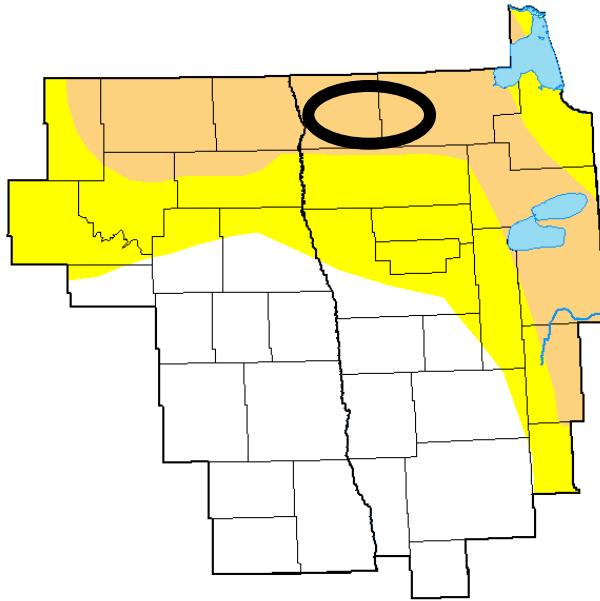
North Branch Two Rivers nr Northcote, CSAH1 (70021002)
2024-3-1 to 2024-12-31



Kittson Roseau Lateral Ditch 1 of State Ditch 95 nr Pelan, 440th Ave (70046001)
2024-3-1 to 2024-12-31



U.S. Drought Monitor Grand Forks, ND WFO



May 7, 2024

(Released Thursday, May. 9, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|-------|-------|-------|-------|-------|------|
| Current | 44.72 | 55.28 | 25.25 | 0.00 | 0.00 | 0.00 |
| Last Week 04-30-2024 | 19.31 | 80.69 | 55.28 | 24.95 | 0.00 | 0.00 |
| 3 Months Ago 02-06-2024 | 16.34 | 83.66 | 43.44 | 23.30 | 0.00 | 0.00 |
| Start of Calendar Year 01-02-2024 | 19.01 | 80.99 | 43.44 | 23.30 | 0.00 | 0.00 |
| Start of Water Year 09-26-2023 | 1.99 | 98.01 | 63.08 | 40.46 | 1.13 | 0.00 |
| One Year Ago 05-09-2023 | 53.01 | 46.99 | 0.00 | 0.00 | 0.00 | 0.00 |

Intensity:

| | |
|---------------------|------------------------|
| None | D2 Severe Drought |
| D0 Abnormally Dry | D3 Extreme Drought |
| D1 Moderate Drought | D4 Exceptional Drought |

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

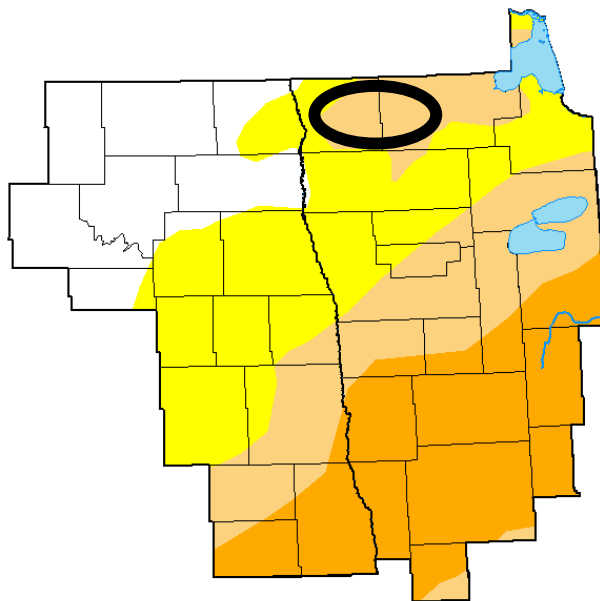
Author:

Curtis Riganti
National Drought Mitigation Center



droughtmonitor.unl.edu

U.S. Drought Monitor Grand Forks, ND WFO



October 29, 2024

(Released Thursday, Oct. 31, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|--------|-------|-------|-------|-------|------|
| Current | 18.79 | 81.21 | 51.56 | 26.54 | 0.00 | 0.00 |
| Last Week 10-22-2024 | 27.75 | 72.25 | 45.44 | 23.98 | 0.00 | 0.00 |
| 3 Months Ago 07-30-2024 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Calendar Year 01-02-2024 | 19.01 | 80.99 | 43.44 | 23.30 | 0.00 | 0.00 |
| Start of Water Year 10-01-2024 | 41.45 | 58.55 | 11.40 | 0.00 | 0.00 | 0.00 |
| One Year Ago 10-31-2023 | 5.00 | 95.00 | 44.97 | 28.86 | 0.00 | 0.00 |

Intensity:

| | |
|---------------------|------------------------|
| None | D2 Severe Drought |
| D0 Abnormally Dry | D3 Extreme Drought |
| D1 Moderate Drought | D4 Exceptional Drought |

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

2024 Budget Two Rivers Watershed District

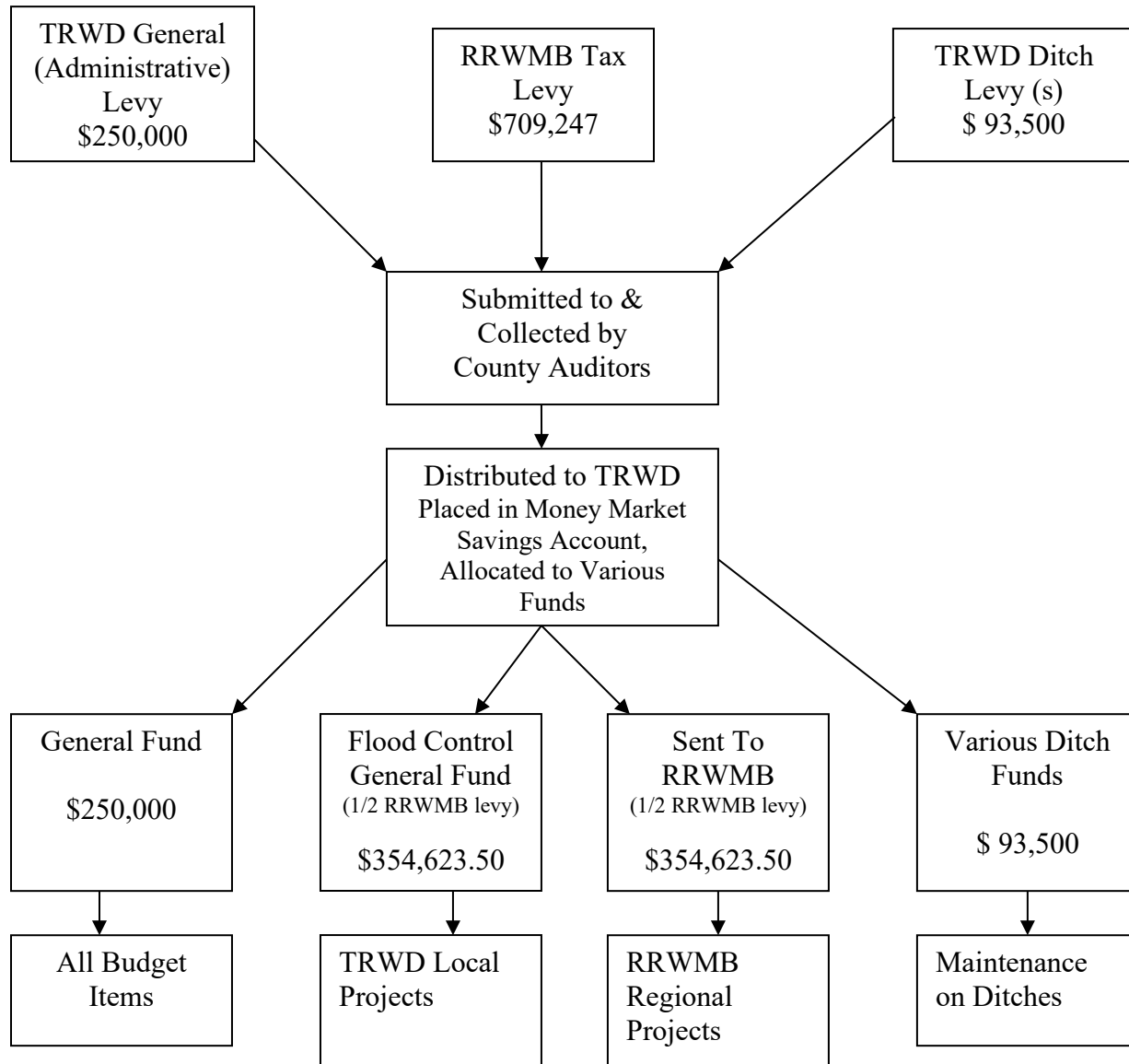
The following is the budget for 2024. This was approved following a budget hearing in September 2024 held by the Board of Managers as required by statute.

| Administrative Budget | 2024 Budget |
|---------------------------------|----------------|
| Administrative | 126,901 |
| Auto Expense | 3,500 |
| Capital Outlay | 15,000 |
| Conferences & Meetings | 7,000 |
| Dues & Subscriptions | 4,500 |
| Engineering | 17,500 |
| Information & Education | 5,500 |
| Insurance | 5,500 |
| Manager's Per Diem & Expense | 15,000 |
| Office Supplies & Miscellaneous | 3,00 |
| Payroll Expense | 32,723 |
| Postage & Delivery | 1,000 |
| Printing & Advertising | 1,500 |
| Professional & Legal | 18,000 |
| Rent | 12,000 |
| Stream Gage | 3,000 |
| Telephone | 3,000 |
| Water Quality | 5,000 |
| | |
| Totals | 279,624 |
| | |
| | |

Following the hearing, the Board of Managers considered and approved the 2024 general fund ad valorem tax levy of \$250,000, to be levied over the taxable market value within the boundaries of the TRWD.

An additional ad valorem tax set under law by the Red River Watershed Management Board was ratified. For 2024 the Red River Watershed Management Board has certified their levy at 75% of the maximum amount which equals \$709,247 within the Two Rivers Watershed District. 2024 Ditch levies for all legal ditches under the jurisdiction of the TRWD were also considered and approved in the total amount of \$93,500 at the hearing.

The following diagram shows how the tax levies were collected for 2024 and where they were distributed.



TRWD NEWS

2024 Construction Projects Completed

As the 2024 construction season comes to a close, the Two Rivers Watershed District would like to report on the projects that have been completed this past summer.

- **Kennedy #6:** Two erosion control projects were installed at the very downstream (west) end of the project. During a regular inspection, two head cuts were observed in tributary road ditches just upstream of a box culvert on the project. Twamley Construction was hired to repair the damage and install side water inlet structures to prevent further erosion.



- **North Branch Prj – JD 31:** Erosion control – rock drops for grade stabilization were installed. The ditch was downcutting and the side slopes were eroding. Four separate rock drops were installed by Anderson Brothers Construction at key locations along the grade of the ditch. This will stabilize the slopes and provide grade control to prevent future downcutting.



- **North Branch Prj – SD 84:** Erosion control – rock drops for grade stabilization were installed. Severe erosion to the ditch side slopes was sustained in the 2023 runoff event that was declared a Presidential Disaster. Several rock drops were installed by Twamley Construction to repair the damage and stabilize it to prevent future problems.



- **JD #10:** Erosion control – repair of side slope sloughing was completed. A thirty to fifty foot section of the ditch was experiencing sloughing along the ditch bank. The

area was excavated, and the side slope was rebuilt to match the up and downstream sections of the ditch. Erosion control blanket was installed in lifts to help prevent future bank sloughing.

- **Beaver Removal:** Numerous beavers and beaver dams were removed on watershed district ditches and projects. The current beaver policy is to pay a \$100 per beaver bounty on beavers that are building dams on ditches and projects that are under the jurisdiction of the TRWD. In 2024, 24 beavers have been removed along with several beaver dams. These were located on the Kittson County Ditch #10, Springbrook #10, State Ditch #49, Kennedy #6, Judicial Ditch #10, and North Branch projects.

Roseau County Ditch #4

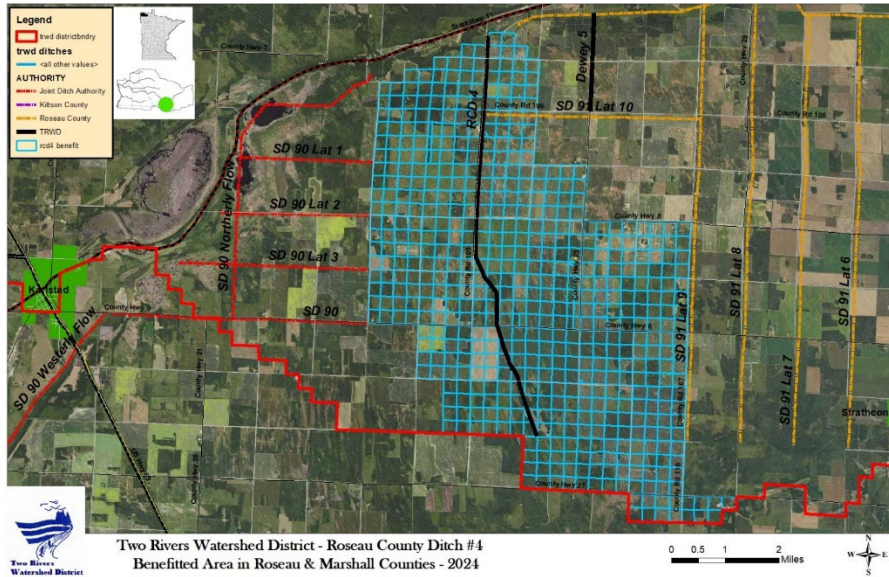
Redetermination of Benefits Completed

The “Redetermination of Benefits” for Roseau County Ditch #4 was completed this past summer. The process originally began in 2021 when the Board of Managers of the Two Rivers Watershed District determined that an update was needed. The ditch was originally established in 1908 and the benefits were last updated in 1948. Over the years, land values have changed significantly, the drainage area has been altered, and the current ditch documents do not represent present day conditions. The Board followed MN Statutes for the process and appointed three Viewers to consider updating the ditch benefits.

The Viewers examined the original ditch benefits, benefits that were updated in 1948, present day values, Lidar and other topographical information, and ground truthing to determine the updated benefitted area. They submitted their report, and a public hearing on the Viewer’s Report was held on November 21, 2023. Comments were received resulting in further investigation, resulting in a revised report on April 4, 2024, and a Final Viewer’s Report on May 2, 2024.

According to Minnesota’s drainage law, the benefitted area that is established by the Viewers and adopted by the Board of Managers is to be taxed, and the money collected is to be placed in a ditch fund that is for the sole purpose of maintenance of the ditch. Maintenance can be spraying of cattails, brush and other nuisance vegetation, removal of beavers, beaver dams and other blockages, repair of side slopes, culverts and bridges, and removal of sediment to restore the engineered grade and cross section of the ditch to its original design. Updates to the benefitted area are periodically needed.

The Board of Managers made official findings of fact and a final order to accept the Viewer’s Report and make the changes was adopted on May 2, 2024. A map of the newly adopted benefitted area is shown below. Roseau County Ditch #4 is inspected annually by the TRWD and a full survey of the ditch is conducted once every 5 years. This inspection schedule is used to determine any maintenance that is necessary on the ditch.



Water Quality & Streamflow Monitoring Programs

Since 1991, the TRWD has been involved with monitoring water quality and stream flows within the watershed district from east of Badger, MN to the Red River and from the Canadian Border south to Marshall County.

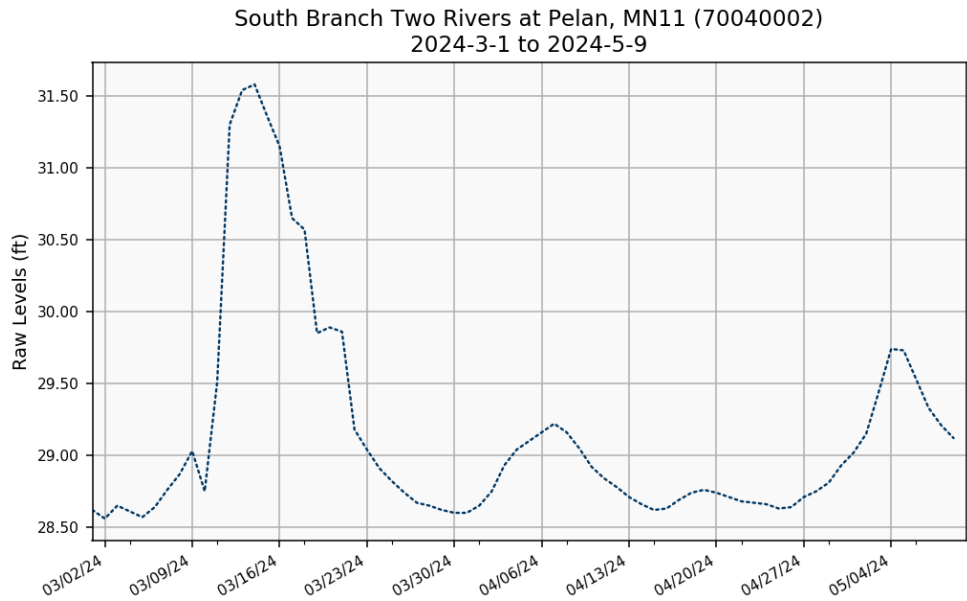
The TRWD has established up to 12 sites on the Two River and its tributaries to monitor water quality, and up to 20 sites to monitor stream flows. The water quality data helps to determine if the river is impaired with regard to dissolved oxygen, nitrogen, phosphorous and other items and whether it is trending over time for the better or for worse. The MN Pollution Control

Agency and the MN DNR are continually assessing whether waterbodies are at, above or below recommended levels. However, these state agencies typically only conduct their assessments



once every 10 years. The TRWD monitors most every year, and that way changes in the system can be detected. The data can also be used to determine whether the system can support healthy populations of fish and macro invertebrates.

Stream flow monitoring equipment is used to measure the velocity and the volume of water that passes through a monitoring site. This information is extremely valuable to the TRWD, MN DNR, MPCA, US Geological Survey, and the National Weather Service for a



variety of applications, including flood forecasting, planning, designing, and constructing flood damage reduction projects, determining water quality problems like how nutrients and pollutants enter a stream and are transported downstream, and for determining biological conditions and health of a watershed. Long term trends can be monitored and studied to help with projects that regulate stream flows to benefit aquatic organisms and help reduce erosion and sedimentation.

Please contact the TRWD if you are interested in more information about our monitoring programs!