# Two Rivers Watershed District



In Roseau, Kittson, & Marshall Counties

Board of Managers: President – Rick Sikorksi, V.P.- Roger Anderson, Secretary - Daryl Klegstad, Treasurer – Gerald Olsonawski Manager - Bruce Anderson, Manager - Scott Klein, Manager – Mark Langehaug Staff: Dan Money, District Administrator; Tyler Coffield, Head Technician

410 5th Street S., Suite 112, Hallock, MN 56728 - Phone (218) 843-3333 - Email: dan.money@tworiverswd.com World Wide Web: www.TwoRiversWD.com

Fall Newsletter October 2023

# Horseshoe Lake Dam Scheduled For Replacement

The Horseshoe Lake Dam, located about 6 miles northeast of the City of Lancaster, MN was constructed between June 1968 and September 1969 under a joint effort between the Natural Resources Conservation Service, MN DNR, Two Rivers Watershed District, Kittson SWCD and other local partners. Its original purpose was for water supply, flood control, and habitat for migratory waterfowl.

Construction was funded by the TRWD locally and NRCS federally through the federal PL-

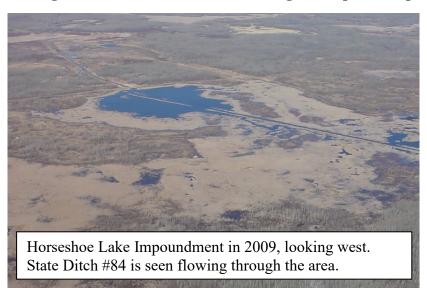
The outlet structure at Horseshoe Lake, constructed in 1968 and modified in 2007.

566 program. It was one component of a larger project known as the TRWD's "North Branch" project, which included channel work and installation of two grade stabilization structures along portions of State Ditch 84 and Judicial Ditch #31.

The work at Horseshoe Lake consisted of constructing two earthen dikes, an 8' x 16' concrete box inlet with a 68' x 58" pipe outlet through the dike. The structure underwent repairs in 1985 because the pipe had begun to sag and bow. Repairs were again completed in 1997. In 2007 through a joint effort between the MN DNR, the TRWD, and Kittson County, the structure was modified and a 4' x 6' stop log bay was cut into the concrete box inlet. This allowed water levels to be manipulated better for management purposes and provided a control to better allow for flood storage.

An operation and maintenance agreement was signed by the DNR, TRWD, and Kittson County. The operating plan generally states that the impoundment is closed

during times of downstream flooding and opened up after flooding has subsided to be



drained dry. The impoundment can store up to 800 acre feet of gated storage and 1,330 acre feet of temporary storage for a total of 2,130 acre feet. It will also be filled during the spring migration to provide a resting area for migratory waterfowl and in the fall to provide hunting opportunities.

The dike and the structure are beyond its expected 50 year life expectancy, and the annual inspections have been done. During last year's inspection it was discovered that the pipe is damaged and water has been

piping along and outside of the pipe instead of flowing through it. This has allowed the dike to erode and a hole is forming in the dike. An engineering inspection and recommendation has been made that the entire structure should be replaced in order to repair the damage and ensure the integrity of the dike. The cost estimate to replace the structure is \$212,489. Potential funding sources for the project include the TRWD, DNR, FEMA, and the Red River Watershed Management Board.

Detailed construction plans and specifications are currently being prepared. The next steps will be to put the project out for bids, hire a contractor, and perform the work. It is anticipated that the structure replacement can be completed in 2024. This joint local, state and federal effort will ensure that this area will continue to provide both flood control, habitat, and recreational opportunities well into the future.

## **2023 Construction Projects**

The 2023 construction season is about to wrap up, and as usual several projects were undertaken this past summer:

Judicial Ditch
#10 Branch B:
Disaster
declarations were
made each of the
last 2 years and
erosion has been
a problem. Using
FEMA funding, 3
ditch bank
sloughs were
repaired



TRWD North Branch Project (JD 31): Severe downcutting and side sloughing along a section of the ditch has occurred as a result of the last 2 disaster years. To address this problem, four rock drop structures are being installed to stabilize the slope and prevent future erosion. FEMA funding is being utilized for this project as well.



> Brush that was starting to overgrow the 'Kennedy #6' flood control project in the City of Kennedy was removed. It will be sprayed in 2024 as a secondary measure to keep the channel open and flowing.

Numerous beavers and beaver dams have been removed from ditch systems and

watershed district projects.



## **Navigating Minnesota's Drainage Law**

Minnesota Statute 103E, otherwise known as the "Drainage Law" governs all ditches that have a name and a number. These include State Ditches, County Ditches, and Judicial Ditches. Many of these ditches were established and constructed over 100 years ago. Through drainage law, an engineered design is approved, a tax is levied upon benefitted areas to construct, repair and maintain the ditch, and either a county or a watershed district is designated as the 'drainage authority' who maintains the ditch and the ditch fund.

Over the past 100+ years, the landscape has changed as areas of land were broken up and began to be farmed. Drainage practices have also improved with satellite imagery and Lidar mapping. Climate studies that in the past 30 years storms are more intense with larger amounts of rainfall. As a result of many different factors, the ditches that were designed originally no longer have the capacity to adequately carry the water from the landscape that now runs off faster and with heavier rainfall greater volume.

The Drainage Law contains several different types of ditch proceedings. These include construction of new ditches, repairs and improvements to existing ditches, adding a lateral or extending the outlets of existing ditches, and numerous sections describing the funding of ditches and other types of alterations.

In recent years, because of reasons mentioned above, many landowners have petitioned the Two Rivers Watershed for various types of proceedings. Once a petition is received, it sets into motion a very detail oriented process, which in most cases results in a newer, improved drainage system. The ditch authority must first appoint an engineer to do the necessary surveys and come up with a preliminary design. Once that is done, a public hearing must be held so that all affected landowners can review the proposal and comment. If all looks good, the engineer then refines his report and it is forwarded to DNR for review and comment. The benefitted lands are viewed and a report is put together showing what lands will be taxed and at what rate and then a second public hearing is held. If the proposal is still favorable, the ditch authority can then make findings of fact and order the project to be constructed.

The flow chart depicted below is from the "Understanding MN Public Drainage Law" handbook, and shows this detailed process. The full document can be found at: https://bwsr.state.mn.us/Minnesota-Public-Drainage-Manual.

If you have a ditch question or would like more information on anything ditch related, please contact the office and we can help navigate this complex and sometimes confusing process!

### Process Summary for "Drainage Projects" including State, County, & Judicial Ditches

MN Drainage Law - Statute 103E

#### **Informal Meetings**

A Drainage Authority (DA) may hold informal meetings in addition to the required Chapter 103E meetings or hearings "to inform persons affected by the drainage system about the drainage proceedings and provide a forum for informal discussions". These meetings can have substantial value when used for early coordination and consideration of projects before a drainage project is petitioned.

§103E.043

Petition written and required signatures of eligible Petitioners obtained

§103E.202 - §103E.225

Petition & Bond filed with proper DA county Auditor or watershed district Secretary

§103E.202

Drainage Authority Attorney reviews Petition and Bond

§103E.238

Drainage Authority appoints Engineer and orders Preliminary Survey and Report; Engineer submits oath and bond \$103E.241 If Petition and Bond do not meet requirements, referred back to Petitioners; if Petition and Bond meet requirements, referred to Drainage Authority

§103E.238

Engineer's Preliminary Survey Report prepared and filed; and sent to DNR; (and to BWSR if DA is a WD)

§103E.245; §103E.251; §103D.711

Hearing date set and notice mailed to appropriate parties

§103E.261

DNR and BWSR Advisory Report(s) prepared and filed with Drainage Authority

§103E.255; §103D.711

<sup>1</sup> If the Petition is not adequate, the Hearing is adjourned, and Petitioners may correct and resubmit Petition §103E.261, Subd. 3(b)

- <sup>2</sup> Proceedings are dismissed if:
- Adequate Petition not resubmitted
- Outlet is not adequate
- Project not of public benefit or utility
- Adverse environmental impacts greater than public benefit and utility
- Project is not feasible

§103E.261, Subd. 4, Subd. 5

#### **Preliminary Hearing**

- Drainage Authority examines petition and makes findings on sufficiency <sup>1</sup>
- · Engineer's Preliminary Survey Report presented & considered;
- · Advisory Report(s) read and considered
- · Testimony by interested parties presented and considered
- §103E.261 and §103E.015 requirements considered <sup>2</sup>
- If requirements met and project is feasible, Viewers appointed and Engineer ordered to prepare Detailed Survey and Report
- Drainage Authority makes findings and order, including any changes to drainage project plans

§103E.261; §103E.015; §103E.265; §103E.305

Drainage Authority and key advisor actions

Actions of others

Other pertinent information



Engineer's Detailed Survey Report prepared and filed with Auditor/Secretary

§103E.285; §103E.291

DNR prepares and files Final Advisory Report with Auditor/Secretary \$103E,301

Viewers' Report prepared and filed with Auditor/Secretary §103E.311 - §103E.321 Auditor/Secretary prepares and distributes Property Owners Report §103E.261 Hearing date set and notice published, posted and mailed to appropriate parties

§103E.325

#### Drainage Project proceedings dismissed, if: 3

- 1. Project benefits are less than total costs
- 2. Project not of public benefit and utility
- 3. Project not practicable considering §103E.015 criteria

§103E.341, Subd. 1

#### Drainage Project established, if: 3

- 1. Reports and proceedings completed
- 2. Reports are complete and correct
- 3. Benefits and damages properly determined
- 4. Benefits greater than total costs
- 5. Project of public untility and benefit
- 6. Project is practicable

§103E.341, Subd. 2

- Construction plans, specifications, contract and bond prepared
- · Invitation for bids published
- · Notice of awarding meeting published
- Bids and bonds reviewed, contractor selected and contract awarded

§103E.501; §103E.505; §103E.511

#### <sup>3</sup> Potential for Appeal

- A Final Order for benefits, damages, fees or expenses allowed, or compliance with §103E.015, Subdivision 1 criteria, can be appealed to Auditor/Secretary within 30 days, with a district court trial by jury, per §103E.091.
- A Final Order to dismiss drainage proceedings, establish or refuse to establish a drainage project can be appealed to Auditor/Secretary within 30 days, with a district court trial without a jury, per §103E.095.

#### **Final Hearing**

- · Petition reviewed
- · Engineer's Detailed Survey Report presented and considered
- · Viewers' Report presented and considered
- DNR Final Advisory Report read and considered
- Testimony by interested parties presented and considered
- Drainage Authority can amend Engineer's or Viewers' Reports, or resubmit to them for changes
- · Hearing can be adjourned and reconvened, as necessary
- Drainage Authority makes Final Order to dismiss the proceedings, or to establish the project

§103E.335; §103E.341

- · Project financing determined
- Damages paid and liens assessed
- · Construction: engineer inspection, any changes, partial payments

§103E.601 - .661; §103E.515 - .551

- Engineer conducts final inspection;
   prepares and submits report to DA
- Notice of hearing published or mailed; hearing conducted; project accepted
- · Final payment to contractor
- Final costs apportioned and assessed
- · As-built records prepared and filed

§103E.555; §103E.601 - §103E.655

#### 'RIFFLES & RUNS'

- News Briefs from Around the Watershed District-
- ❖ The **Red River Watershed Management Board** is nearing completion and release to the public updated **LIDAR** (light detection and ranging) land elevation data. This recent flight and data collection updates the old data from 2008 and provides the latest technology to provide state of the art land elevation data. Through a license agreement, members of the public will be able to access this latest technology. More information will be forthcoming as LIDAR becomes available toward the end of this year.
- ❖ The MN DNR is progressing with plans and specifications to replace the aging dam at Lake Bronson State Park. Public comments on the project Environmental Assessment Worksheet were due by 10/19/23 and several other permits are pending. Construction is slated over 2 construction seasons to begin in 2024 with the draining of the lake.

#### Juneberry Project Work Team:

- o The **TRWD**, **Roseau River Watershed District**, **Kittson County and Roseau County**, **and MN DNR** are meeting together to plan for flood control, wildlife habitat and drainage in area of the "Big Swamp". Discussions for projects include the State Ditch #69 and State Ditch #72 systems, the overflow flooding from the Roseau River into the Two Rivers, and the flood issues along Roseau County Road #7.
- ❖ Drainage Work Group: This statewide group is made up of counties, watershed districts, state agencies, ag groups, and environmental groups. Its purpose is to discuss Minnesota's Drainage Law and work on issues pertaining to legal drainage ditches in the state. This group is currently working on the definition of an "adequate outlet" and discussing a drainage portal that would provide notification regarding new ditches, ditch improvements, and other types of proceedings. Their work is reported to the Legislature.
- ❖ Cost Share For Erosion Control: The TRWD is partnering with Kittson SWCD to provide cost share for repair and prevention of severe erosion. This funding will provide up to 87.5% of the funds to fix washouts, gullies, head cutting, and other types of erosion along ditches, coulees and other watercourses.



# Funding Now Available for Construction of Farmstead Ring Dikes

The State of Minnesota has appropriated funding to assist with the construction of farmstead ring dikes within the Red River Valley. The 2022 legislature approved cost share funding of \$360,000 for this program. This funding will pay for up to 50% of the cost to design and construct a ring dike. The Red River Watershed Management Board will provide 25% funding. Additional funding is potentially available through the Two Rivers Watershed District.

Applicants must meet the minimum State of Minnesota requirements listed below in order to be considered for this grant opportunity. Per direction from the Legislature, the funding source is Minnesota's Environment and Natural Resources Trust Fund (ENRTF). Use of funding from this source requires that funded projects produce natural resource benefits. In order for an application to be considered, applicants must demonstrate:

- 1. That the site planned for ring levee construction is within the drainage area of the Red River Basin in Minnesota, and is outside the boundaries of any incorporated city or town.
- 2. That the project site has been used for the purposes identified for protection for at least five consecutive years before the date of the award. And that the landowner intends to continue using the protected site for this purpose for the foreseeable future (or declares any planned changes in use of the protected site in the application submitted).
- 3. That the site is substantially at risk from flooding.
- 4. That protection of the identified area will reduce the risk of flood water coming into contact and mobilizing fuels, chemicals, fertilizers, other hazardous substances, animal manure or wastewater in septic systems; or that the ring dike will provide other benefits to the environment and natural resources consistent with the ENRTF funding source.
- 5. That the ring levee will not be constructed on a property owned by a federal or state government agency. Properties owned by local governments or tribal agencies may be eligible if they are operated for the benefit of local residents and otherwise meet the eligibility criteria.
- 6. That the applicant can meet the matching requirement using non-state funds/resources.

Ring dikes constructed using this funding will be designed by a registered engineer. The landowner will be responsible to provide a source of dirt for dike and provide a portion of the cost share funding. Dikes will be designed with a minimum width, side slope, interior drainage, and other criteria.

Applications for ring dikes are currently being taken for this program on a first come first serve basis until the funding is used up. If you are interested, please contact the Two Rivers Watershed



District located in the Kittson County Courthouse in Hallock or call 218-843-3333.