

Klondike Clean Water Retention Project is Progressing

\$1.9 Million Awarded by LSOHC

The Two Rivers Watershed District was recently notified of a \$1.9 million funding award from the Lessard Sams Outdoor Heritage Council for the *Klondike Clean Water Retention Project*. The project has been in research and development dating back to 2009 and is being designed to reduce flooding and to improve natural resources. A multi-jurisdictional Project Work Team made up of local, regional, state and federal representatives was utilized to identify both flood damage reduction and natural resources enhancement goals.

Wide scale overland flooding occurs along lateral 1 of State Ditch #95. This ditch, built in the 1940's diverted Badger and Skunk Creeks away from the Roseau River and into the Two Rivers. However, the ditch is not large enough to accommodate the over 50 square miles of drainage, and overland flooding frequently occurs, causing erosion, sedimentation, damage to roads & bridges, and inundating cropland. The problems are located in Roseau County from the City of Badger, MN all the way west to the Roseau and Kittson County line.



FLOOD DAMAGE REDUCTION COMPONENTS

- STORE 37,250 ACRE FEET OF FLOODWATER
- PROVIDE ADEQUATE OUTLET FOR SD #95
- STORE LIMITED AMOUNT OF OVERFLOWS FROM SD #72 & ROSEAU RIVER
- REDUCE PEAK FLOWS ON RED RIVER UP TO 20%
- REDUCE PEAK FLOWS AT LAKE BRONSON UP TO 13%
- REDUCE DAMAGES TO ROADS, BRIDGES, & CROPLAND CAUSED BY OVERLAND FLOODING

Since that time work has been focused on specific project engineering details including plans and specifications, numerous wetland and environmental permits, natural resource enhancement plans and opportunities, development of an operating plan, and obtaining land right of way, easements, and other permissions. Although the focus of the project is to reduce flooding, several environmental issues have been addressed and

HDR Engineering was hired to do preliminary engineering and write an engineer's report to solve the problems. Research was done, and the idea of a large scale impoundment was developed. In 2017 the Two Rivers Watershed District held a public hearing on the report and ordered the project established.



NATURAL RESOURCES ENHANCEMENTS

- REDUCE SEDIMENT, NITROGEN, AND PHOSPHOROUS LOADING TO TWO RIVERS
- SUSTAIN STREAM FLOWS TO PREVENT LOW FLOWS BELOW 10-20 CUBIC FEET / SECOND
- PROTECT AND ENHANCE HABITAT IN A LARGE EXISTING PRAIRIE RICH FEN
- ADDRESS ALGAL BLOOMS IN LAKE BRONSON

incorporated into the project. Fish and aquatic organisms in the South and Middle Branches of the Two Rivers will benefit from sustained stream flows because of the project. A land form known as a prairie rich fen will be protected and enhanced by the project. Flood control benefits will be realized on Lateral 1 of State Ditch #95, on the Two Rivers, at Lake Bronson, and on the Red River because of the project.

The project is planned to be constructed in phases, with the first phase consisting of construction of an inlet ditch, dikes around the project, and two outlet structures. The cost of the first phase is estimated to be \$13 million. With the recent funding award from LSOHC, funding of \$5 million has been secured thus far. Project plans are about 90% complete and the TRWD will be applying for several permits this spring and summer. Other project activity will include obtaining right of way and seeking project funding. Once these steps are completed, bids for construction can proceed.

Public input on the project is important and opportunities for project information and public comments will be available. A project work team has been meeting since 2009 regarding the project, and several public meetings and a public hearing have been held. Also, the Board of Managers of the Two Rivers Watershed District meets monthly on the first Thursday of each month. As the project progresses, opportunities for information, education, and input will continue to be provided. Citizens can also contact the District office or check the District website at www.tworiverswd.com.

Pesky Beavers!

As we enter into the spring and summer of 2021, we undoubtedly will once again be faced with numerous beaver dams which tend to block legal ditch systems and watercourses and impede drainage of cropland. While many beaver dams are harmless to public infrastructure, many can cause damages. There are at least 3 entities in the local area that offer beaver bounties for removal of nuisance beavers.



The Two Rivers Watershed District and Kittson County each offer a bounty of \$75 per beaver. This bounty is only for beavers that are found on public drainage ditches that are governed under MN Statute 103E. Trappers must have in their possession a permit issued by the MN DNR. Also, prior to any trapping activities, the ditch authority must be contacted / notified of the beaver problem and the location including the ditch number and township, section, range information.

The Kittson Soil & Water Conservation District offers a \$30 bounty for beavers trapped in Kittson County that are not in ditches governed by Kittson County and the Two Rivers Watershed District. Trappers using this program must bring the beaver tails and their DNR permit to the KSWCD office in order to collect the bounty.

The MN DNR website has information regarding beavers and their perspective on how landowners can deal with nuisance beavers on their property. Methods that are mentioned are to use beaver exclusion methods such as a clemson beaver leveler, fencing around trees, and planting non beaver friendly trees such as common juniper.

The following information is reprinted from the DNR website:
https://www.dnr.state.mn.us/livingwith_wildlife/beaver/index.html

In many cases, beaver damage cannot be effectively managed unless the offending beavers are removed (killed). Removing a dam without removing the resident beavers generally results in the dam being immediately rebuilt. To remove a beaver dam that is causing flooding, a permit is not needed if:

- Removal of the dam does not constitute work in Public Waters (contact your [local DNR area hydrologist](#) PDF for a determination).
- The dam is located on land owned or managed by the individual experiencing the flooding.
- If the dam is NOT on land owned or managed by the individual experiencing flooding and permission has been granted by the land owner or manager.
- Authorized by state statute (i.e. road authorities, drainage authorities).

The DNR encourages property owners to work with local trappers to take beaver causing damage during the open trapping season. No permit is needed for a licensed trapper during the regular beaver season. Your local Conservation Officer or Area Wildlife Office may have names of local experienced trappers who may be willing to assist in trapping beaver for you. Fees, if any, will vary with seasons and individuals.

No Permit is Required Minnesota Statute 97B.655 which allows a landowner or legal occupant (e.g., authorized renter), or their authorized agent, to shoot or trap beaver that are causing damage. No license or permit is required if all four of these conditions are met:

1. The landowner/occupant must have beaver damage to their property.
2. The landowner/occupant must authorize the removal.
3. The animal must be on that landowner's/occupant's property, where it is causing damage, at the time it is shot or trapped.
4. The person taking the beaver must notify the DNR within 24 hours, by following the Reporting Requirements listed below.

The reporting requirements for a person who takes beaver causing damage, without a permit, is they must contact the local DNR Conservation Officer or Area Wildlife staff within 24 hours of killing the beaver. It is sufficient to leave a message or e-mail the [Information Center](#) (link sends email) 1-888-MINNDNR stating your name, address, telephone number, the total number of beaver shot or trapped, along with a brief explanation of the damage and location the beaver was shot or trapped.

A permit is required if the above conditions are not met. This permit is issued by the local conservation officer or regional wildlife manager, is free, and authorizes beaver to be taken out of season and without a license. All federal, state, or local regulations apply. This permit does not allow trespassing, using poison, using artificial lights or the discharge of firearms or use of traps where prohibited. Live relocation of beavers is not allowed.

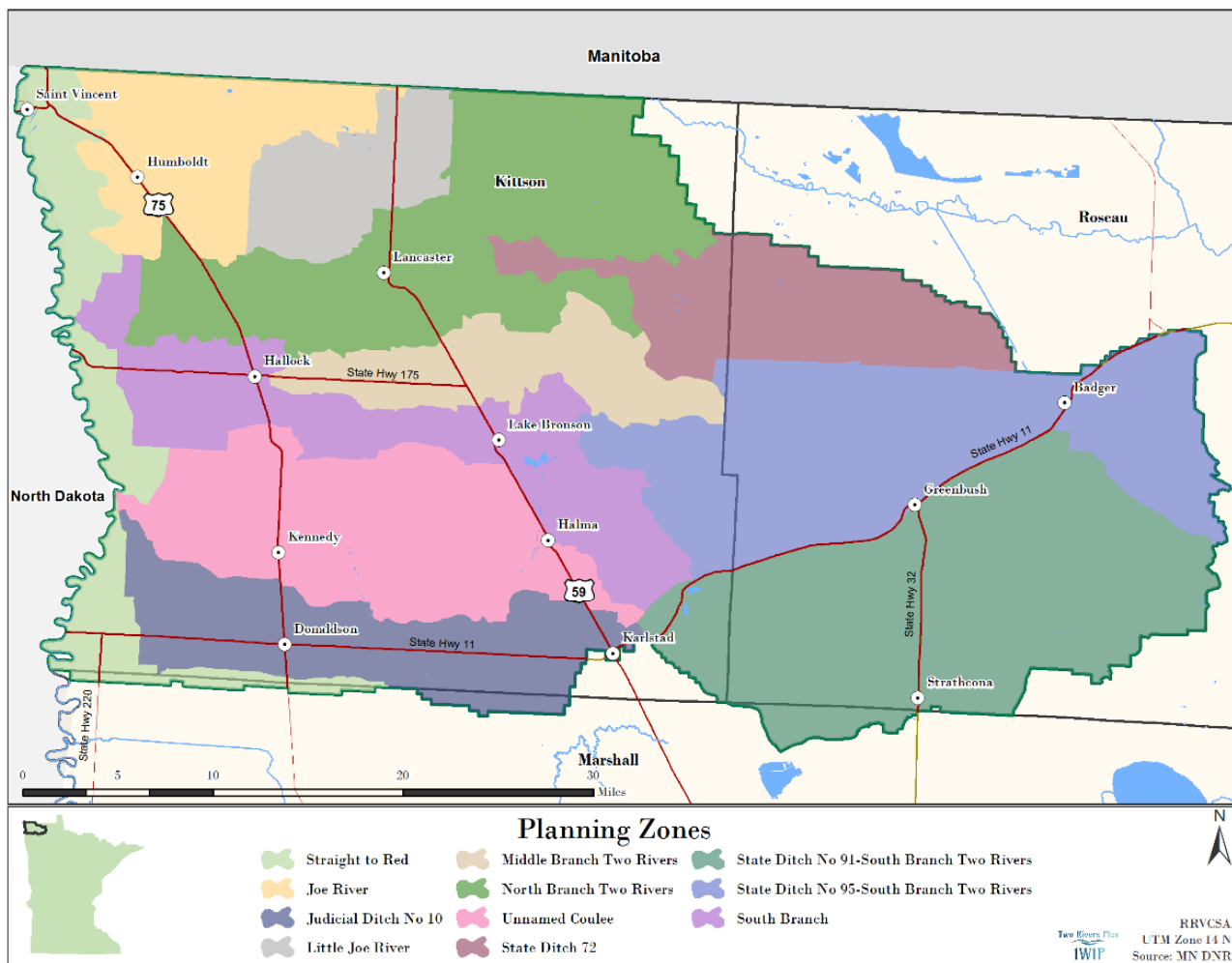
Federal, state, county, township or local governmental employees, while on duty as a representative of that government, do not need a permit while doing beaver removal on land under their jurisdiction.

Statute 97B.667 Removal of beaver dams and lodges by road authorities. When a drainage watercourse is impaired by a beaver dam and the water damages, or threatens to damage a public road, the road authority, as defined in section 160.02, subdivision 25, may remove the impairment and any associated beaver lodge within 300 feet of the road.

Two Rivers Plus ‘One Watershed One Plan’ Near Completion

10 year watershed plan addresses local water issues

In 2019 Roseau County, Roseau Soil & Water Conservation District, Kittson County, Kittson Soil & Water Conservation District, and the Two Rivers Watershed District began a joint planning process, known as the “Two Rivers Plus One Watershed One Plan”. The plan is intended to guide these local government agencies regarding broad categories of surface water, ground water, natural resources, and agricultural productivity, will take the place of past planning efforts such as WD overall plans and County Comprehensive Local Water Plans. Resource concerns like water quality, water quantity, aquatic and terrestrial habitat, drainage management, soil health, land management and other topics are included. A set of targeted goals and measurable priority actions were developed with the intent that they be implemented over the next 10 years. The plan will focus efforts on the areas that lie within the Two Rivers and the Joe River Watershed Districts. A final draft has been completed and is now out for a 60-day review and comment period.



Two Rivers Plus 1W1P Area

The planning group convened several local committees to aid in the process. A *‘Steering Team’* is made up of local staff from the local partners. This team attends to the day to day business of coordinating efforts, doing research and writing the plan. A *‘Citizen’s Advisory Committee’* of local landowners and a *‘Technical Advisory Committee’* of state agency representatives have been convened to discuss, analyze, and bring forth ideas, information, analysis, and comments for each issue and resource concern. A *‘Policy Committee’* consisting of board members / commissioners from each entity was formed. This committee has the authority to review and approve plan content, handle funding, and serves as the decision making body.

To begin the planning process, a series of public meetings were held in Greenbush, Kennedy, and Lancaster to gather public input on the various topics. The planning area was divided into 11 different sub-watershed areas called planning zones. Comments received from the public and information from the Steering Team and the Advisory Committees was tabulated and ranked within each zone. A list of issues were formulated, and a computer model was used to prioritize the issues, target specific areas to install projects or conservation practices, and measure the results. Watershed issues were group into the general categories of “water quality”, “hydrology & flooding”, “groundwater”, “natural resources”, and “ag productivity”. Priorities were identified for each of the 11 planning zones based upon the above categories.

Funding for the planning process is being provided by a grant from the MN Board of Water of Soil Resources (BWSR). Once the planning is completed and approved by the State, significant new implementation funding for water quality will become available using the State’s clean water fund from the 3/8 cent sales tax through the Clean Water Fund. This money will be used to implement conservation practices and build projects that will reduce soil erosion, reduce erosion on watercourses, and protect and improve water quality.

Information regarding this plan, the planning process, and how you can provide comments on the plan can be found at this webpage:

<https://www.tworiversplus1w1p.org/building-the-plan>

The plan is currently out for a 60 day public review and comment period until April 14, 2021. Once this comment period is over the planning group will review the comments received and make any necessary changes. A public hearing will then be held on May 3, 2021 to take further comments on the plan. The plan will then be submitted to the State of MN BWSR for formal state review and approval, and the plan process is expected to be completed by the middle of 2021. The plan is for a 10 year period and will be reviewed annually by the planning group.

Horseshoe Lake – PL 566 Project Considered for Rehabilitation

Project Team Meets to Consider Repair of 53 Year Old Project

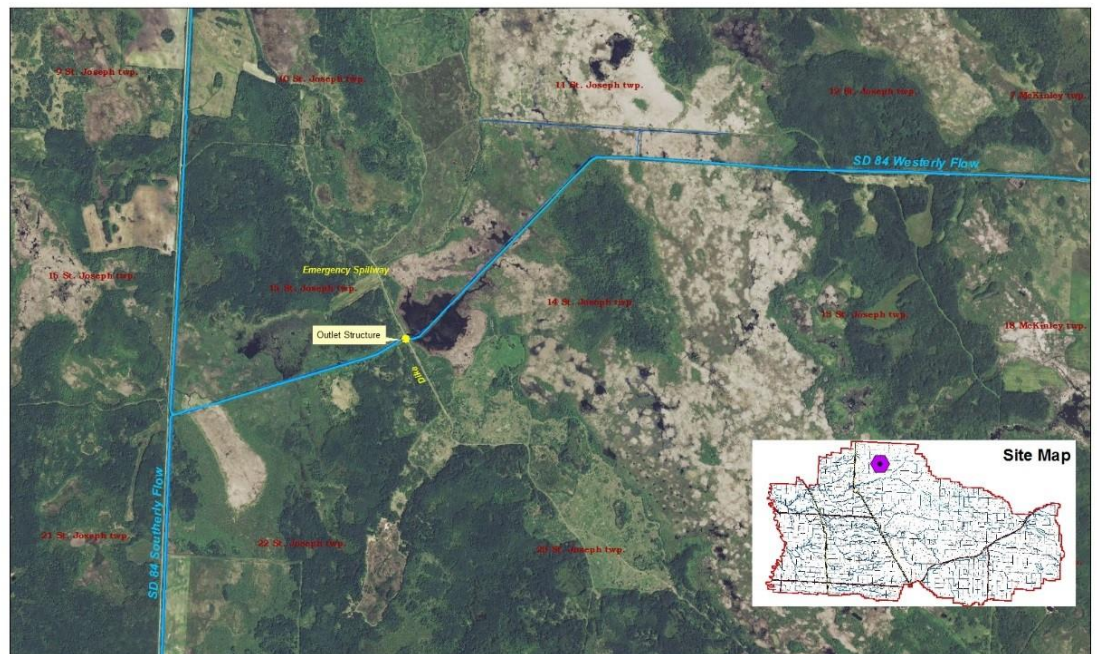
The Two Rivers Watershed District has constructed 9 projects, and one of the earliest projects that was built, the ‘Horseshoe Lake’ impoundment, has been showing its age. This project was a joint project built with cost share assistance from the Natural Resources Conservation Service using the federal “PL – 566” program in 1968. This project was one component of a larger project known as the “North Branch Project”. The project was largely a ditch rehabilitation and improvement project to upgrade several miles of ditches to better carry floodwaters. The Horseshoe Lake portion of the project is located 6 miles northeast of the City of Lancaster, MN. It included the construction of two dikes, an outlet structure, and an emergency spillway to create a water impoundment on State Ditch #84 with the dual purpose of creating a wildlife pool for waterfowl and creating a storage area to hold excessive floodwaters.

The original structure at the main outlet was a dike with a fixed elevation cement box outlet and a culvert through a dike. This created a permanent low water impoundment with storage available for large runoff events. As time passed since the construction,

cattails began to take over the impoundment area, and it became apparent the project was not accomplishing its wildlife habitat objective. It was also apparent that additional storage could be achieved by lowering the outlet elevation.

In 2005 the structure was

altered and a stop log bay was installed which allowed the pond to be drained. This anticipated better land management and also larger flood storage capability. An operating plan was re-written at that time to hold water in the spring and fall for waterfowl migration, and also to hold water when there is flooding going on. At all other times the stoplogs are removed and the impoundment is drained. This provides storage



Two Rivers Watershed District
Horseshoe Lake Impoundment

0 0.25 0.5 1 Miles



capacity and also inhibits cattail growth and provides a drier condition for the surrounding landscape.



The project is 53 years old and is well past its expected 30 year life span. Recent inspections have indicated the outlet pipe is damaged and has been affected by frost heaves. A project team consisting of representatives of DNR, TRWD, Kittson County, and St. Joseph Township recently met to discuss several issues with the project including the repair or replacement of the outlet pipe, repairs and / or alterations to the dikes that were constructed, and erosion concerns along SD 84 and a St. Joseph Township road. The group shared information and will be refining potential repair plans and will be looking at repair and funding options to move forward with continuing operations of the project.

Tile Outlets Must Be Closed During Flooding

The Two Rivers Watershed District would like to remind anyone that has received a permit from the District to install tile drainage must comply with the terms and conditions of the permit. During some of the recent flooding events over the past few years it was noted that some tile systems were discharging water which typically made the flooding worse directly downstream from the tile.

All tile permits issued by the Two Rivers Watershed District have the condition that no water can be discharged during times of downstream flooding. “Downstream Flooding” is defined as when the immediate outlet channel of the tile is full of water to the point that it is spilling out of or is about to spill out of the channel onto adjacent lands.

The reason for this condition is to ensure the tile system does not add to flooding that is happening downstream from the tile. If you own a tile system please take the necessary measures to prevent outflows from the tile during times when there is extreme runoff and flooding. If you see a tile system discharging during flooding, please contact the District office.