Two Rivers Watershed District

In Roseau, Kittson, & Marshall Counties

Board of Managers: *Roger Anderson, Jim Kukowski, Darrel Johnson, Paul Olsonawski, Allen Brazier, Daryl Klegstad, Gary Johnson*
Staff: *Dan Money, District Administrator; Matt Thompson, Head Technician*
410 5th Street S., Suite 112, Hallock, MN 56728 - Phone (218) 843-3333 - Email: daniel.money@mn.nacdnet.net
www.TwoRiversWD.com

November 2017 Newsletter

NEWS RELEASE
FOR IMMEDIATE RELEASE
Contact: Dan Money, District Administrator

River Watch Program Helping to Educate Area Students on Watershed Science

The Two Rivers Watershed District has been busy this fall assisting the International Water Institute to re-establish a River Watch program in Mr. Weberg's environmental science class at Kittson Central School in Hallock, MN. This past month, passersby may have spotted students wearing waders and carrying nets, on the hunt for aquatic macroinvertebrates in the South Branch Two Rivers near Lake Bronson. This was not just a morning of skipping class, rather it was an outdoor, hands on experience for these students, gathering real world scientific data that gets used by real world scientists to help assess water quality and establish the health of the river.

The Red River Basin River Watch program was initiated in 1995 as a pilot project involving four schools in the Sand Hill River watershed. As of 2017, the River Watch program includes over 30 schools/communities monitoring over 150 sites on rivers, creeks and ditches in northwest Minnesota and North Dakota. Over the years, River Watch has intermittently been done locally within the Two Rivers watershed at local school districts - Kittson Central, Lancaster, Tri-County, and in the Kittson County 4H program.

The International Water Institute's (IWI) River Watch (RW) program enhances watershed understanding and awareness for tomorrow's decision-makers through direct hands-on, field-based experiential watershed science. Schools throughout the Red River of the North Basin participate in a variety of unique and innovative watershed engagement opportunities suited to their school, community, and watershed needs. These include:

Water Quality Monitoring: Collect and record conditions at local rivers and streams using state-of-the-art scientific methods and equipment. Ph, dissolved oxygen, conductivity, water transparency (clarity), and water temperature are recorded.

Biological Monitoring: Macroinvertebrate (bugs that live in the water) monitoring provides additional insights on watershed health. Certain species can tolerate higher levels of pollution better than other species.

River Explorers: Guided kayak excursions on local rivers to observe and document watershed conditions.

Ongoing ***Teacher Training*** provides access to resources and experts on current watershed issues.

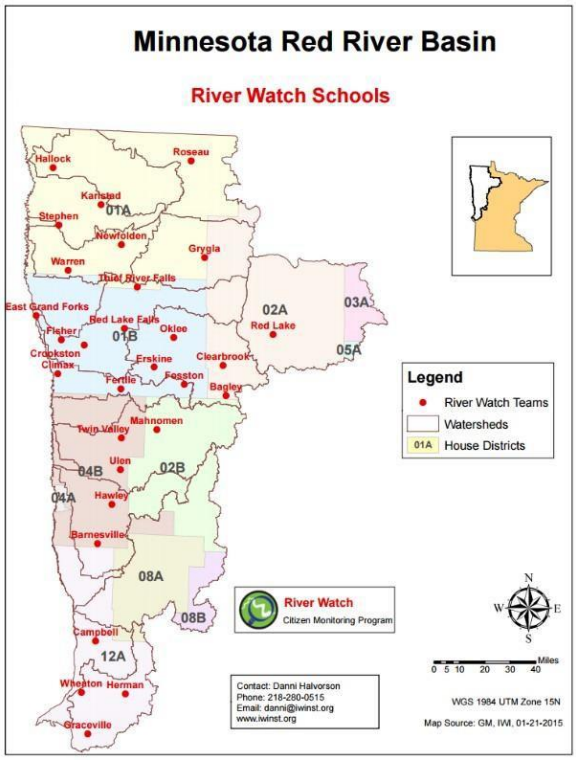
River Watch Forum: Annual regional opportunity for students to share with other schools and learn about emerging watershed issues.

New to River Watch!

- ***Snow Study:*** Students collect snow depth, snow water equivalency, and infiltration rate to help accurately forecast spring flooding.
- ***River of Dreams:*** Introducing elementary students to watershed science and terminology through geography, reading, writing, and art.

Support for the Red River Basin RW program is provided by the Red River Watershed Management Board, the Two Rivers Watershed District, and other regional partners. This collaboration has built a sustainable watershed education foundation across the Red River Basin. The RW program provides training to students who monitor physical and chemical conditions of local rivers using standard scientific operating procedures. RW teams have collected data at 150 sites totaling over 10,000 visits to rivers, streams, and agricultural ditches in the Red River Basin. Data are used by the MN Pollution Control Agency, National Weather Service, and local agencies to assess surface water conditions and provide flood forecasting.

Clean Water funds enable the IWI to build on this watershed education foundation by providing additional learning opportunities, specifically River of Dreams and the Snow Study. These new activities will expand the educational opportunities and provide a more comprehensive understanding of watersheds, promoting land and water stewardship to protect and improve Minnesota's valuable natural resources.



Back at the South Branch Two Rivers, students pick through the specimens they have found, identifying, sorting, and categorizing in order to rank and rate the water quality conditions for each site on the river. In the near future they will be heading back out to monitor water quality conditions at several locations on the South and Middle Branches of the Two Rivers. They will compile the data and present their findings at a River Watch conference to be held in March 2018 at the Alerus Center in Grand Forks, ND. Learning opportunities are being achieved both outside and inside of the classroom, and valuable lessons are being learned regarding the local environment.

For more information on water quality & river watch:

www.tworiverswd.com

www.iwinst.org

Klondike Clean Water Retention Project #11
Flood Damage Reduction Progress Report

Since its inception in 1957, the Two Rivers Watershed District has constructed 3 flood control impoundments, 22 farmstead ring dikes, and six channel projects to carry or control floodwater. In addition, the TRWD manages over 61 miles of legal ditch systems. Its latest undertaking is an impoundment project known as the Klondike Clean Water Retention Project #11. This project is proposed to be located on the Roseau and Kittson County line about half way between the cities of Greenbush and Lake Bronson.

The project was conceived when a group of landowners approached the District looking for solutions to the severe and repeated flooding that occurs along Lateral 1 of State Ditch #95, west of the City of Badger to the county line. This ditch was constructed in the mid 1940's and diverted Badger and Skunk Creeks from their original outlet in the Roseau River west into the Two Rivers. The ditch was not built large enough to handle

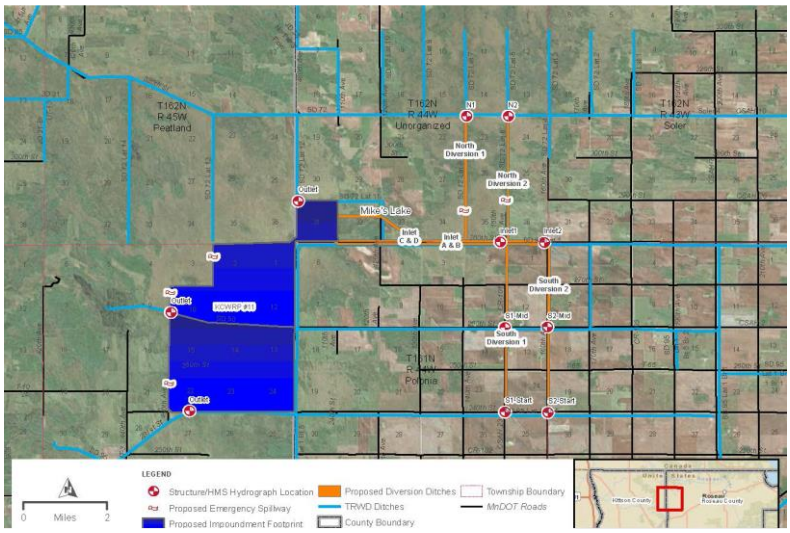
flows from the large upstream drainage area, and the result is overland flooding, damages to ag land, road overtopping and washouts, culvert erosion, and farmstead flooding.

Exacerbating the problem is that when larger flood events happen, the Roseau River overflows its banks, and spills south into the Two Rivers watershed. This inundates State Ditch #72, and water in turn comes south overland and enters the State Ditch 95 system. Floodwaters continue west affecting all three branches of the Two Rivers, working their way to Lake Bronson on the South Branch Two Rivers, Hallock on the Middle Branch Two Rivers, and Lancaster on the North Branch Two Rivers, and all points in between. Ultimately the floodwaters enter the Red River of the North.

The TRWD assembled a project team consisting of local landowners, township and county officials, Soil & Water Conservation Districts, nongovernmental organizations, and state and federal agencies. This team discussed solutions for flood damage reduction and also discussed natural resource enhancements that could be achieved. The result was a recommendation to construct an impoundment to hold back water during a flood and release it after the flood has passed. It was envisioned that this would reduce flooding in the State Ditch #72 and State Ditch #95 systems and also downstream on the three branches of the Two Rivers. It would also provide benefits to reduce flood peaks on the Red River.

Natural resource benefits are also planned to be achieved. The area being considered is adjacent to a naturally occurring ecologically sensitive large habitat area known as a prairie rich fen. The soils, groundwater movement, topography and other factors combine to form a unique area where only certain plants can grow. The area has been deemed by the MN DNR and The Nature Conservancy to be one of the most biologically diverse areas within the state. Therefore the legislature directed the DNR and the TRWD to jointly write a plan for the fen to protect, enhance, and improve it. The KCWRP#11 will consider the fen, and in addition will consider other environmental enhancements to improve water quality and stream flow conditions downstream at Lake Bronson and the 3 branches of the Two Rivers.

The TRWD is following the process under MN Statute 103D to plan, design, and build this project. The project is envisioned to store approximately 40,000 acre feet of floodwater on an area 12 square miles in size. The project will construct a dike around the perimeter that is on average 7 feet high. Outlet structures will be built to meter the water to all 3 branches of the Two Rivers. A diked inlet ditch 6-8 miles in length is planned to bring water in, and a north inlet diversion ditch and south inlet diversion ditch are also planned, along with associated inlet structures. The project cost is estimated between $39 million and $43.5 million. Funding is being pursued from the State of Minnesota at 75% and local / other sources at 25%. The Red River Watershed Management Board is considering a contribution of $7.2 million and the TRWD $3.7 million. Additional funding has been procured from USDA ($0.5 million) and Enbridge ($100,000).



The TRWD has completed an Engineer's Report and is holding a public hearing to provide project details and gather input and comments from the public and stakeholders. The hearing, held at the Kittson County Courthouse in Hallock, MN on Wednesday, November 1, 2018, will help the TRWD Board of Managers with the next steps in the process. The Board will next begin environmental permitting and detailed design of specific project components. Funding will also need to be sought out and procured. Construction will most likely be done in 3 phases over a period of 10 to 15 years. If all goes well, it is expected that construction on phase 1 could be completed in approximately 3 to 4 years.

Further information can be obtained by visiting our website at: www.tworiverswd.com