



WINTER 2019

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Beginning with the 2018-2019 school year, the Roseau River Watershed District and the Roseau High School teamed up with the International Water Institute to resurrect the **river.watch** program in the high school. Stu-



dents from Mr. Mack's 8<sup>th</sup> grade science classes ventured out to test water samples at various locations along the Roseau River. In all, 7 sites were monitored. According to Mr. Mack, "I thought that River Watch was great for students. Taking an active role in science and collecting meaningful, real world data made for an awesome learning experience. The class as a whole learned a lot through graphing our data as well and explored the relationship between Dissolved Oxygen and Water Temperature."

River Watch was initiated in 1995 in the Red River Basin to enhance watershed understanding and awareness through hands-on, field - based experiential watershed science. The program addresses STEM education and engagement opportunities and addresses standards set by the Minnesota Department of Education while providing learning opportunities outside of the classroom. Students increase their awareness of land and water stewardship while learning how topography and land use impact water quality. Data are entered in an online repository at <https://river.watch> allowing users to enter, chart, and map water quality data for their watershed. Parameters monitored include: pH, conductivity, dissolved oxygen, and water and air temperature. These data contribute to the Minnesota Pollution Control Agency's water quality assessments.



This spring, in addition to water quality monitoring, students from RHS will monitor macroinvertebrates at the sampling sites. Macroinvertebrates found, or not found, are indicators of biological health of our wetlands and waterways. Through monitoring macroinvertebrates students can draw conclusions and assess the extent of environmental impairment caused by pollutants.



# ROSEAU RIVER RESTORATION

At the turn of the century the Roseau River was dredged and straightened in an effort to improve drainage and pass floodwaters downstream to Canada. In total, the river was dredged to varying degrees three times from 1900 to 1930. The result was shortening the river 7.67 miles, this certainly increased the flow through these sections of the river often referred to as the “cutoffs”. This shortening of the river however, resulted in erosion of the river bottom and subsequent bank failures. This can be seen today in many of the steep banks that continue to undercut, slough or otherwise fail. The goal of the Roseau River Restoration Project is to better utilize the natural flood storage of the river channel and the flood plain, enhance wildlife habitat and increase recreation opportunities.



As technology and our understanding of how streams react to landscape changes have evolved, many communities have adopted modifications or restorations that work with, instead of against nature. These practices have become more and more popular in Northwest Minnesota, some examples include: The Grand Marais Outlet Project, Wolverton Creek Restoration, Dalen Coulee Project and The Whiskey Creek Enhancement. The City of Roseau was an early adopter of these practices with the Roseau Dam Modification in the early 2000’s. This modification allowed fish to get upstream of the dam and removed the hydraulic roller at the dam which can be a drowning hazard.

Currently the Roseau River Watershed District, MNDNR and Houston Engineering are collecting information on the existing conditions of the dredged portions of the Roseau River and the former natural channel. The information collected will determine the feasibility of re-establishing flows into the natural channels and the affect it will have on the river. The project partners will assess the existing ditch systems that feed into the river and choke points in the flood plain that may influence river levels following heavy rain or spring melt.

Water management benefits of restoring the natural channels include: better access to back water wetlands for minor flood storage, increase in channel capacity as a result of increased river miles and improved floodplain access; providing better storage during larger floods.

Wildlife benefits of the project include: Increase in fish spawning and rearing habitat, increased shorebird and waterfowl habitat, restored hydrology to wetlands and an overall gain in aquatic wildlife habitat. More miles of stream equates to more miles of habitat.

Recreational gains from the project will include but are not limited to: Increased fishing and hunting opportunities, increase in paddling or boating miles and an increase nature tourism (birding, wildlife photography etc.).



# ROSEAU RIVER WATER TRAIL

Over the last year and a half a group of stakeholders have worked on developing a plan to establish the Roseau River as a mapped state water trail. In August 2018 one milestone was reached in the completion of the Roseau River Water Trail Masterplan. Working with Virajita Singh, Senior Research Fellow and Miranda Olson, Graduate Research Assistant, both with the Center For Sustainable Building Research, the stakeholder group and steering committee worked through the summer to complete the plan which is available on our website at [www.roseauriverwd.com](http://www.roseauriverwd.com).

The next step for the group was to prioritize projects in the plan. The plan offers many great opportunities and the flexibility to get them accomplished. The initial phase will focus on making the channel passable, improving access, and signage. The group decided to focus on debris removal to from the Malung Town Hall to Roseau and downstream of the Roseau Dam, access sites at the Malung Town Hall and Roseau City Center, and installation of signage at various access points.

The stakeholder group will now be working with project partners on securing funding for the proposed work. There are opportunities for federal, state, local funds as well as charitable and non-profit organizations that support this type of recreational opportunity. The RRWD submitted one grant application to the Minnesota Pollution Control Agency for funding to contract with Minnesota Conservation Corps crews to start on debris removal.

Public outreach has been a large part of the planning process and continues into the implementation phase of the project. RRWD staff has met with township and City of Roseau officials and will continue their outreach to landowners. The “Launch Party” in June of 2018 was a big success and there was interest in making it an annual event. Events like this provide excellent opportunity for public input.

If you would like more information about the Roseau River Water Trail or to be involved, please contact our office. If you would like more information about the Roseau Outdoor Adventure & Recreation club, please contact Rebecca Lundgren at 218-469-1912.



Launch Party, June 2018





## Roseau River Watershed District named the 2018 Watershed District of the Year

The Minnesota Department of Natural Resources announced Friday, November 30<sup>th</sup> the recipient of its 2018 Watershed District of the Year award. Area DNR hydrologist, Stephanie Klamm nominated the Roseau River Watershed District for the award.

Out of the 46 watershed districts in Minnesota, the Roseau River Watershed District was honored with the award for its efforts in fostering relationships with landowners, the DNR, and Local Government Units. The Roseau River Watershed District was also honored for its watershed planning, work on flood damage reduction projects, water quality improvement goals, education, stream stabilization, and restoration projects.



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