



A lasting legacy on the Grand Marais

September 2016 Snapshots



Every year, the Minnesota Board of Water and Soil Resources (BWSR) picks a different part of the state to tour. The tour gives board members a chance to get a chance to see the projects they fund in action, and to learn firsthand from local conservation professionals about the challenges and opportunities found within their watersheds. This year's tour focused on northwest Minnesota, and the first stop, at the Grand Marais Creek Outlet Restoration, board members weren't the only ones learning about the value of these conservation projects. Governor Mark Dayton stopped in to gain a better understanding of how this work is helping address our state's water quality challenges, too.

Dayton talked with local leaders, state agency staff, and tour attendees during the stop and went out to view the outlet itself, one piece of a larger, multi-million dollar project that involves numerous partners to bring a number of benefits to the project area and beyond. Read on to learn why this project on the Grand Marais Creek has gained such notice.

When faced with a problem that is a hundred years in the making, the Red Lake Watershed District (RLWD) has shown how leveraging partnerships and multiple funding sources can assist local governments with achieving their goals. In the early 1900s, a 6-mile section of the Grand Marais Creek was abandoned in favor of a new, manmade cutoff ditch. After a century of use, the cutoff ditch severely eroded into a deep and unmanageable gully, exhibiting head cutting to the point that the banks failed well upstream, adjacent land was being lost, and the resulting sediment being transported to the Red River. The original natural outlet channel filled with sediment and was being farmed during dry years, resulting in the loss of local hydrology, riparian and aquatic habitat, sustainable fish passage, and local and regional drainage capabilities.

The RLWD formed a project team in the summer of 2007 for the purpose of defining the problem and the project objectives, identifying and assessing alternatives, and recommending a preferred alternative. This project team, like many in the Red River Basin, included representatives from federal, state, and local governments, non-government organizations, and private landowners.

Working through the project team process developed by the Red River Basin Flood Damage Reduction Work Group, the RLWD was able to clearly outline the project objectives which led to a preferred alternative that included multiple benefits. The work of the project team not only helped significantly in the permitting process, but it also opened the door to many different funding sources.



Top: Executive Director John Jaschke talks with Governor Dayton about the project.

Bottom: RLWD's Myron Jesme briefs tour attendees – and Governor Dayton – about the impact of the restoration on the watershed.

Even with a well-defined process, a project of this magnitude takes time for all of the stars to align. Construction of the project began in the fall of 2012 and was completed in the fall of 2015. The project contained two main components which were restoration of the original Grand Marais Creek outlet channel to handle low to normal flows and stabilization of the cutoff channel to assist conveying higher flows.

The 6-mile natural channel was reconstructed and a diversion structure was built to redirect low to normal flows down the original, reconstructed channel. Riprap grade stabilization structures were constructed at the outlet to the Red River along with multiple private and public channel crossings, all providing fish passage enhancements. Nearly 400 acres of wetland and native prairie habitat were restored. The slope of the cutoff channel was regraded to original design conditions, the side slopes were repaired, and grade stabilization structures and buffer strips were installed to provide sustainable channel stability.



These pictures show the creek before channel restoration began (left) and after (right).

This project reduces sediment loading to the Red River by an average annual 700 tons/year. That's the weight of 300 Ford F-150s. By reducing this loading to the Red River, the project is doing its part to remove the Red River from the list of impaired waters. Beyond water quality, the project restores the original hydrology, improves aquatic and riparian habitat, provides for fish passage and the use of spawning habitat, reduces flooding upstream of project limits, minimizes flood impacts on the project area, and provides improved and stable drainage.

According to Red Lake Watershed District Administrator Myron Jesme, "although this project was very complex and took years to materialize, it's a great example of how local, state, and federal agencies can get projects on the ground."

This project would not have been possible without the partnerships and multiple funding sources that the RLWD leveraged. In total, the project cost came in just slightly over \$7.25 million dollars. Ten different funding sources were applied to the project including RLWD, Clean Water Fund, Reinvest in Minnesota, Lessard-Sams Outdoor Heritage Council, Flood Damage Reduction, Red River Watershed Management Board, Polk County Drainage Authority, Working Lands Initiative, U.S. Fish and Wildlife Service, and DNR Fisheries.