

By: Corey Hanson, Water Quality Coordinator
For: October 14th, 2010
Red Lake Watershed District Board Meeting

Thief River Watershed Sediment Investigation

- After waiting a couple of weeks to collect feedback, some additions and edits were made on the Thief River Watershed Sediment Investigation Final Report. Both the final report and the SWAT report for this project are posted on the RLWD website (www.redlakewatershed.org). Bound copies of the report are available at the RLWD office.
- Completed a final grant report template that needs to be completed for the MPCA. It is required for approval of the final payment from the MPCA. This report is a summary of the accomplishments made during the project and the project's expenditures.
- Sent Thief River SWAT data to the MPCA.

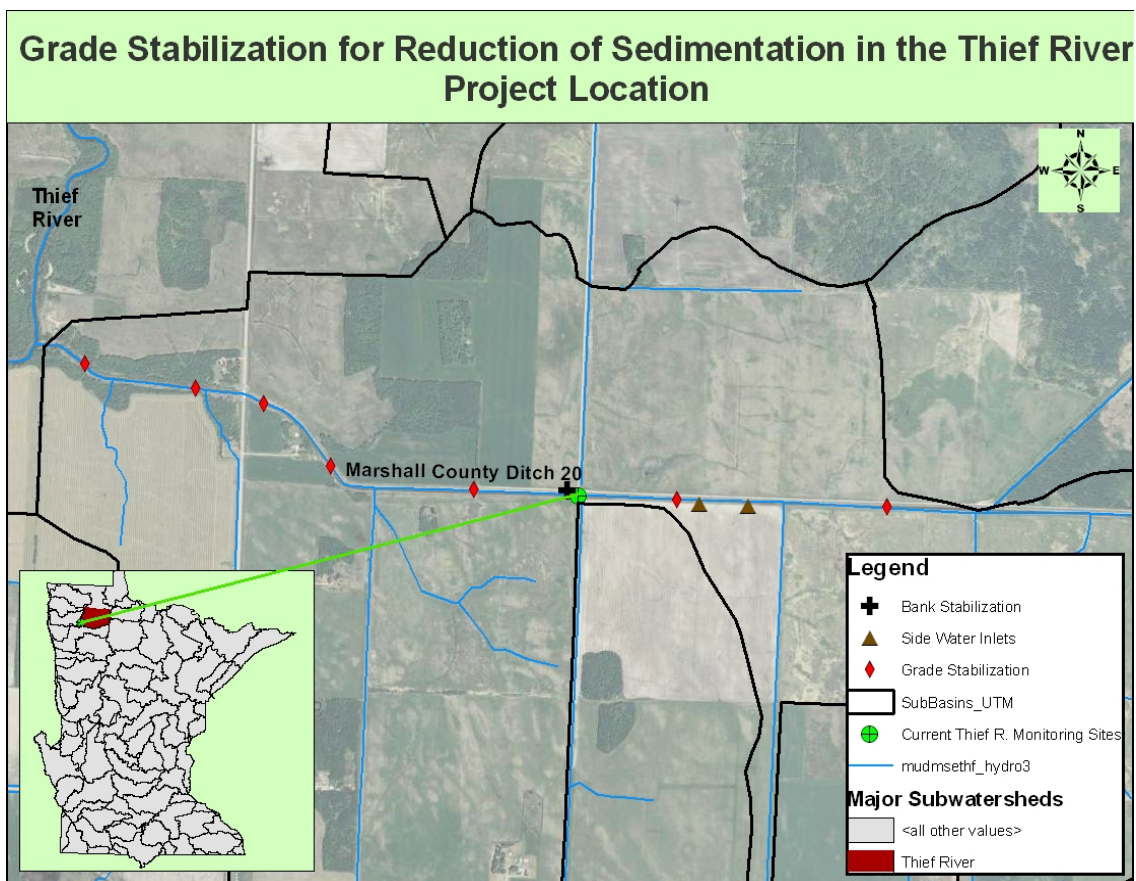
Education and Water Festivals

- Pennington County Outdoor Education Day
 - Jim – Minnow Races
 - Corey – The Incredible Journey (water cycle/water quality)
- Northwest Minnesota Water Festival (Warren, Fertile)
 - Jim – Watersheds
 - Corey – “Turbidity or Not Turbidity”



BWSR Clean Water Fund Grant Applications

- Marshall CD20
 - Collaboration with Lon Aune (Marshall County Highway Department), Jim Hest, and Lisa Newton
 - Channel incision in Marshall County Ditch 20 has caused sedimentation problems in the Thief River and has exacerbated gully formation in fields along the ditch. Local agencies will work together to install grade stabilization structures, side water inlets, and stream bank stabilization in the lower 2.5 miles of CD20
 - Stabilizing the grade of the lower two and a half miles of Marshall County 20 will halt channel incision in the ditch and its laterals. This will reduce the head cutting and sloughing along CD20. Side water inlets will be used to halt the gully erosion on field ditches along CD20. The streambank of CD20 will also be stabilized at a location where a confluence with another ditch is causing streambank erosion.



- Myron submitted an application for the cut-channel stabilization component of the Grand Marais Creek outlet restoration project.
- I provided the Pennington County SWCD with SWAT-based pollutant load reduction estimates for one of their applications.
- The Nature Conservancy submitted an application for the completion of the remaining wetland restorations at Glacial Ridge NWR.

Rain Gardens

The RLWD Board of Managers approved investigation of the feasibility of rain garden creation at the RLWD office. The size of a rain garden is determined by measuring the area of impervious surface that is draining into it. The wet areas in the RLWD lawn wouldn't work well as rain gardens because the water might be standing in those locations too long. Also, the wet areas collect runoff from both the building and the parking lot, so the square-footage of a rain garden in those locations would need to be very large. Wade Robinson of the Pennington County SWCD has some experience with rain garden installation, so he visited our office to help determine where the rain gardens could be located and how big they would need to be. We found two possible locations. One would be a 600 ft² rain garden that captures rainfall from the southwest portion of the office. The other would be approximately 470 ft² and would capture runoff from the northwest portion of the building. The garden near the northwest corner of the building would be the most aesthetically pleasing. It could be contoured to complement the existing landscaping. Either garden can be shaped so that it is easy to mow around. In October, we can take the next step of estimating the cost of a rain garden. Prairie Restorations, Inc. can provide the service of rain garden construction, but it would be nice to find a local landscaper that may be able to use this example to promote these to other local customers.





September 2010 Meetings and Events

- **September 1, 2010** – Teleconference with the MPCA about Civic Engagement strategies
- **September 10, 2010** – Met with Myron Jesme, Maggie Anderson, and Gregg Knutson to discuss the October 5th meeting.
- **September 15, 2010** – Pennington County Outdoor Education Day
- **September 21, 2010** – Northwest Minnesota Water Festival – Warren
- **September 22, 2010** – Northwest Minnesota Water Festival - Fertile
- **September 27, 2010** – Red River Basin Water Quality Team, Detroit Lakes MPCA
 - Stream Power Index
 - Recovery Potential Screening
 - Separate the “low hanging fruit” from areas that are “difficult to restore.”
 - Ecological capacity
 - Exposure to stressors
 - Social context.
 - Rapid Watershed Assessments (NRCS)
 - Provide general watershed descriptions that are very similar to what is included in the RLWD 10-year plan.

- Red Lake River:
<http://www.mn.nrcs.usda.gov/technical/rwa/Assessments/09020303.html>
- Grand Marais Creek:
<http://www.mn.nrcs.usda.gov/technical/rwa/Assessments/09020306.html>
- Thief River:
<http://www.mn.nrcs.usda.gov/technical/rwa/Assessments/09020304.html>
- Clearwater River:
<http://www.mn.nrcs.usda.gov/technical/rwa/Assessments/09020305.html>
- Red Lakes:
<http://www.mn.nrcs.usda.gov/technical/rwa/Assessments/09020302.html>
- **September 29, 2010** – Polk County Water Plan meeting, McIntosh
 - Water plan is on the Polk County website:
http://www.nwmnswcd.org/index.pl?id=2811&isa=Item&field_name=item_attachment_file&op=download_file
 - Accepting comments on priority concerns until October 27th, 2010.
 - An East Grand Forks representative inquired about monitoring total organic carbon in the Red Lake River. Higher levels of total organic carbon increase the amount of water treatment and chlorination that is needed. Trihalomethanes are byproducts of chlorination of water that contains lots of organic matter. These lead to an increased risk of bladder cancer and birth defects. The concern over TOC is applicable to the cities of Thief River Falls and East Grand Forks, which both draw drinking water from the Red Lake River. I will add TOC to the suite of tests that RMB runs on our district monitoring samples for just a few sites along the Red Lake River and at the pour points of the Thief River and Clearwater River.
- **September 30, 2010** – Met with Dan Svedarsky and Michael Knudson of UMC to discuss stormwater in Crookston and upcoming TMDL study

Plans for October 2010

- Last round of district monitoring for 2010.
- Write a Surface Water Assessment Grant Application for Thief River monitoring.
- Work on plans for a rain garden at the RLWD office.
- Fluvial geomorphology surveying in CD20 if flows recede.
- Keep swapping TS300 turbidity loggers at the Brandt Channel monitoring site until there isn't any water left in the channel.
- Water quality monitoring data entry and submittal to the MPCA for use in the 2011 statewide water quality assessment.

Future Meetings/Events

- **October 5, 2010** – Agassiz NWR Congressional meeting, RLWD Office, 1-4 PM.
- **October 13, 2010** – Pennington County Water Resources Advisory Committee meeting.

- **October 15, 2010** – Meeting at the Sand Hill Watershed District to discuss monitoring sites, schedules, and parameters for the Intensive Watershed Monitoring that will begin in 2011 in the Sand Hill River and Thief River watersheds.
- **October 22, 2010** - Red River Basin Monitoring Advisory Committee meeting, Fertile
- **October 25, 2010** – Red River Basin Water Quality Team
- **October 26, 2010** – University of Minnesota Crookston Program Advisory Committee meeting.
 - I was invited to discuss the topics that students should be learning about when they are pursuing a degree/career in water resources management.
- **November 3, 2010** - Marshall County Water Resources Advisory Committee Meeting, Newfolden
- **November 22, 2010** - Red River Basin Water Quality Team meeting, 10am, RLWD office - “Presenting Watershed Information”

Other Notes

- Finished the last month of sampling, field measurements, and data entry for the RRWMB Surface Water Assessment Grant in Beltrami, Red Lake, and Polk Counties.
 - High turbidity and E. coli in Kripple Creek
- The Thief River watershed geomorphology (stream channel stability assessment) work was rescheduled from late August to September 23rd, 24th, 27th, 28th, 29th, and 30th due to high water. September rain events brought water levels up even higher, in some places, than they were in August. So, this work may not be accomplished this year unless we get enough dry weather to allow us to safely work in some of the smaller ditches and river reaches.
- Project 60 area monitoring:
 - Swapped TS300 turbidity loggers on a 2-week interval.
 - A significantly sized beaver dam is blocking flow in the Brandt channel between the railroad tracks and Highway 75.



September Flooding

