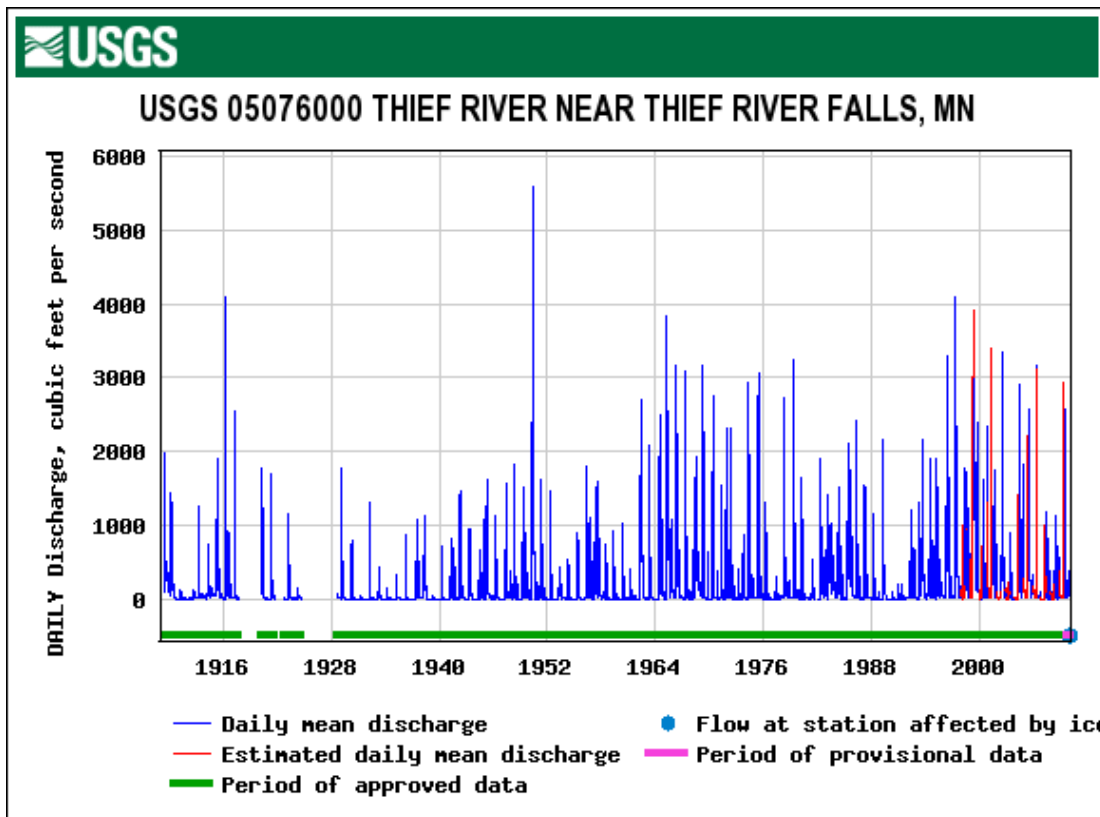


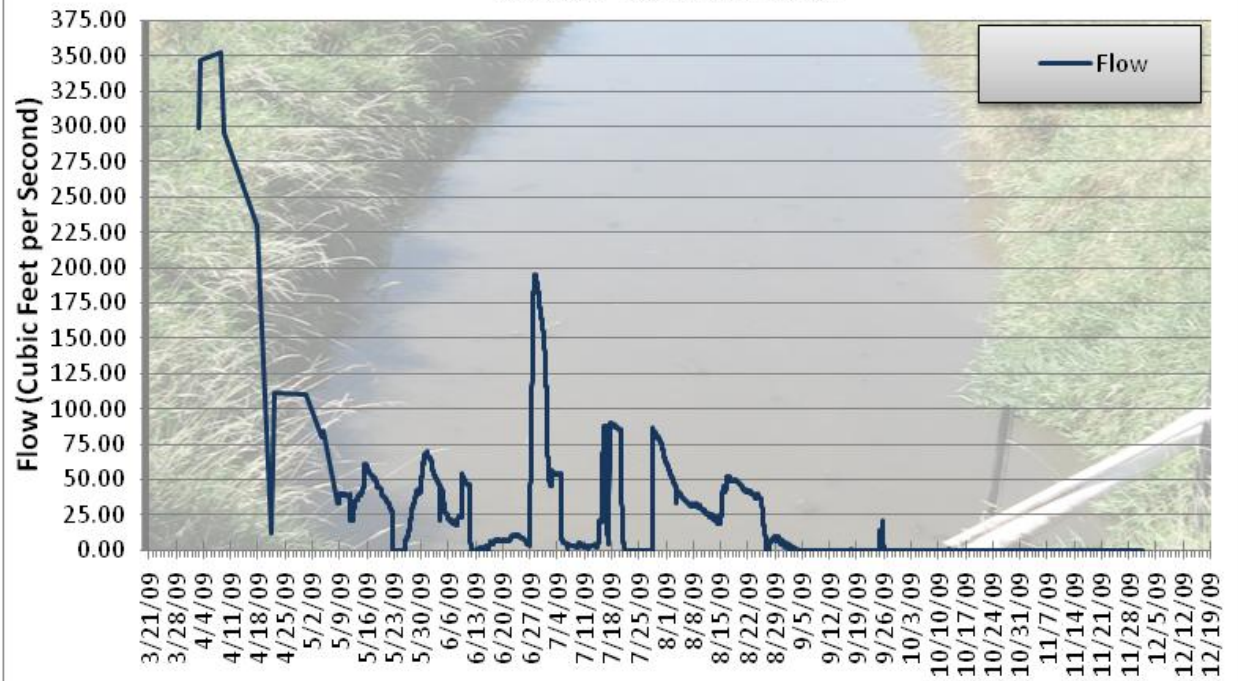
By: Corey Hanson, Water Quality Coordinator
 For: March 25, 2010
 Red Lake Watershed District Board Meeting

Thief River Watershed Sediment Investigation

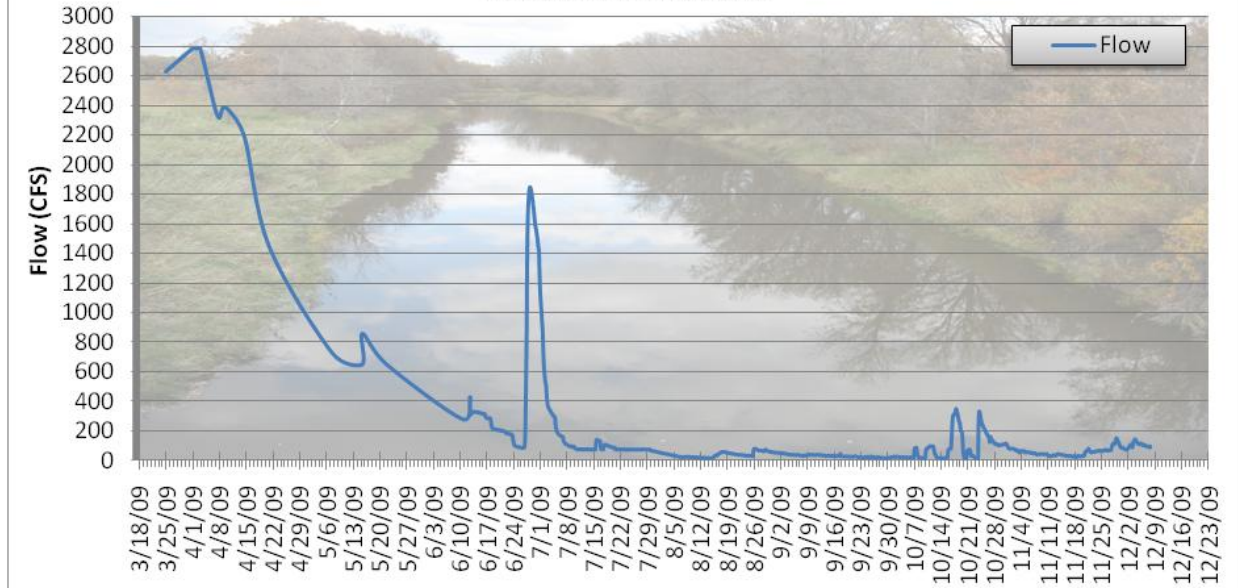
- Worked on compiling, correcting, and assessing continuous water quality and flow monitoring data. The flow records are finished and graphs have been included in the report for all the sites. Water level monitoring by fellow RLWD staff, Marshall County Water Planner, Agassiz National Wildlife Refuge Staff, and the Thief Lake DNR office helped fill in a lot of gaps and provide a historical record of measured flows at several sites.
- Added a lot of information to the final report.
- Signed a Memorandum of Agreement with Agassiz National Wildlife Refuge. They can use our time, equipment, and incoming State funds as a match to Federal funding that they are using to continue their water quality study.
- Thief River SWAT model progress report from Houston Engineering:
 - Began using an improved version of the SWAT modeling program
 - Started running the model in the 2nd week of February.
 - Talked to local staff from SWCDs and the U of M Extension office to get information on what types of farming practices and BMPs are used in the watershed.



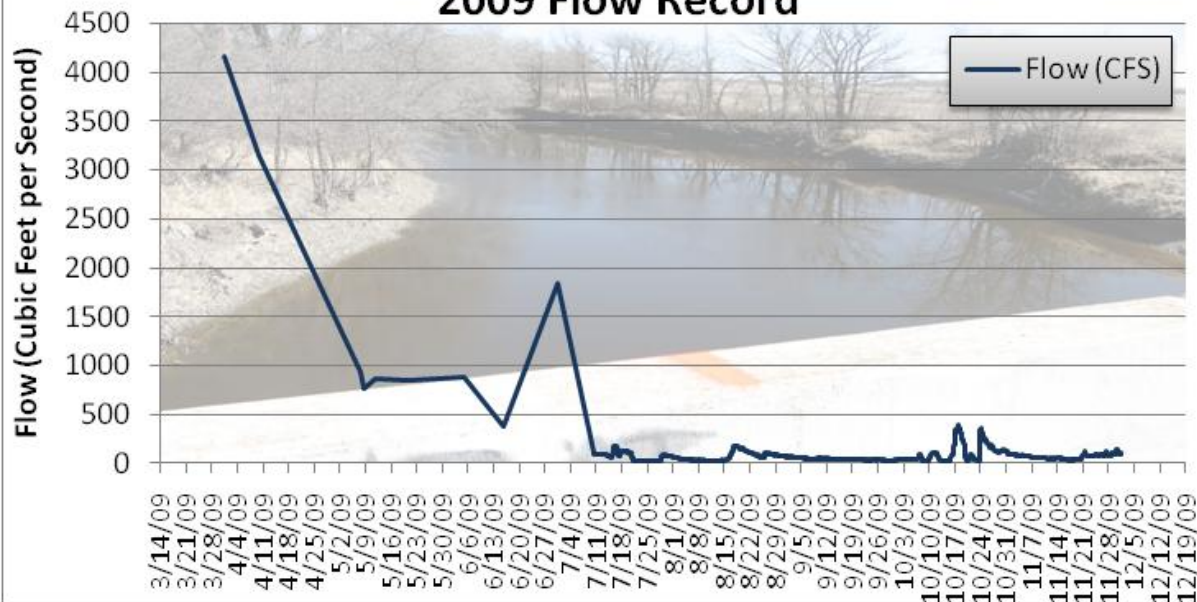
**Stream Gauge #6, Br 200 of JD11,
2009 Flow Record**



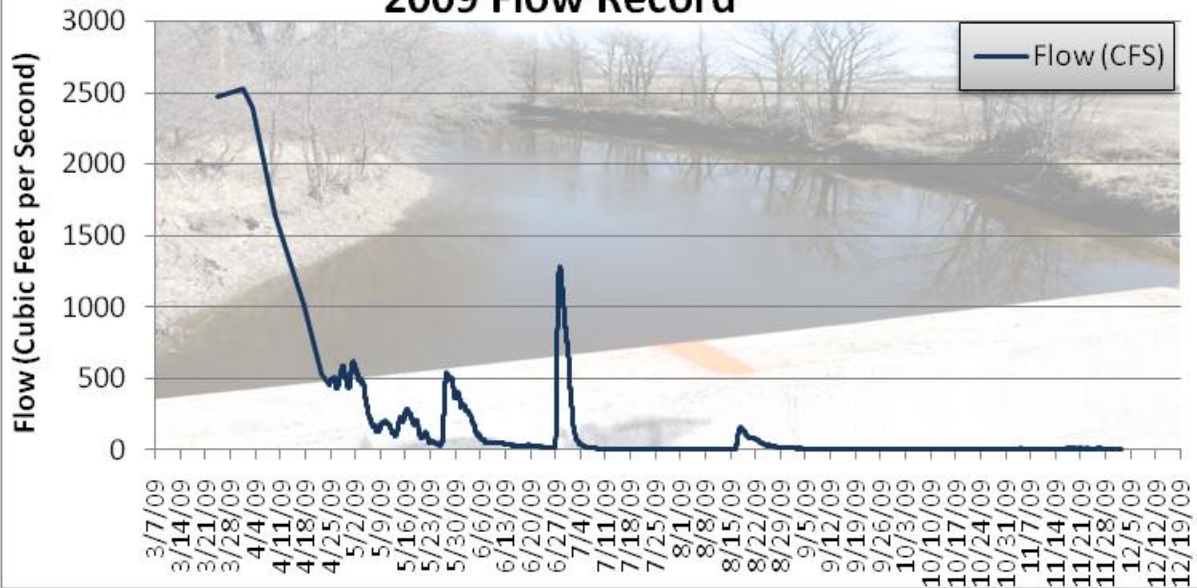
**Stream Gauge #2, Thief River at CSAH 12
2009 Flow Record**



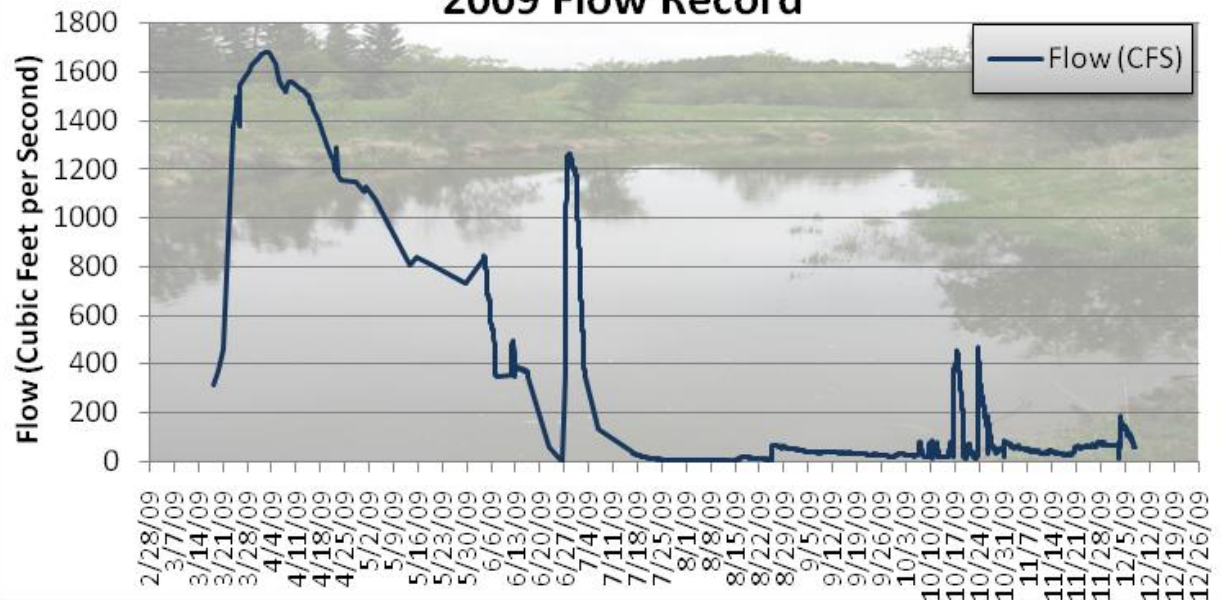
**Site 156, Thief River at CR44
2009 Flow Record**



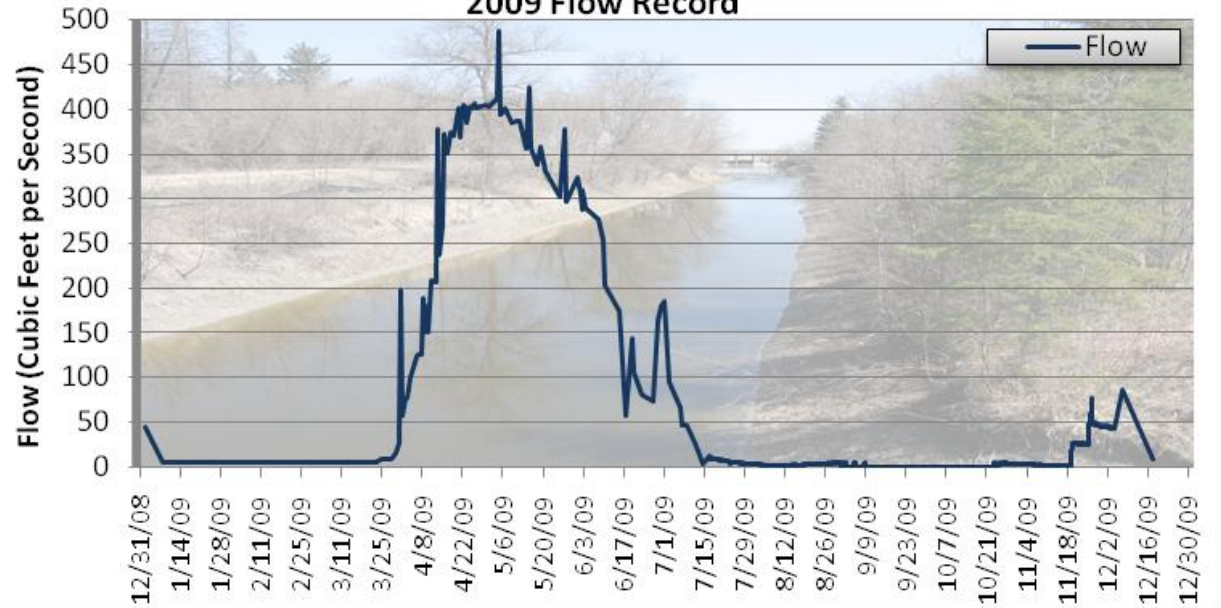
**Site 41, County Ditch 20
2009 Flow Record**

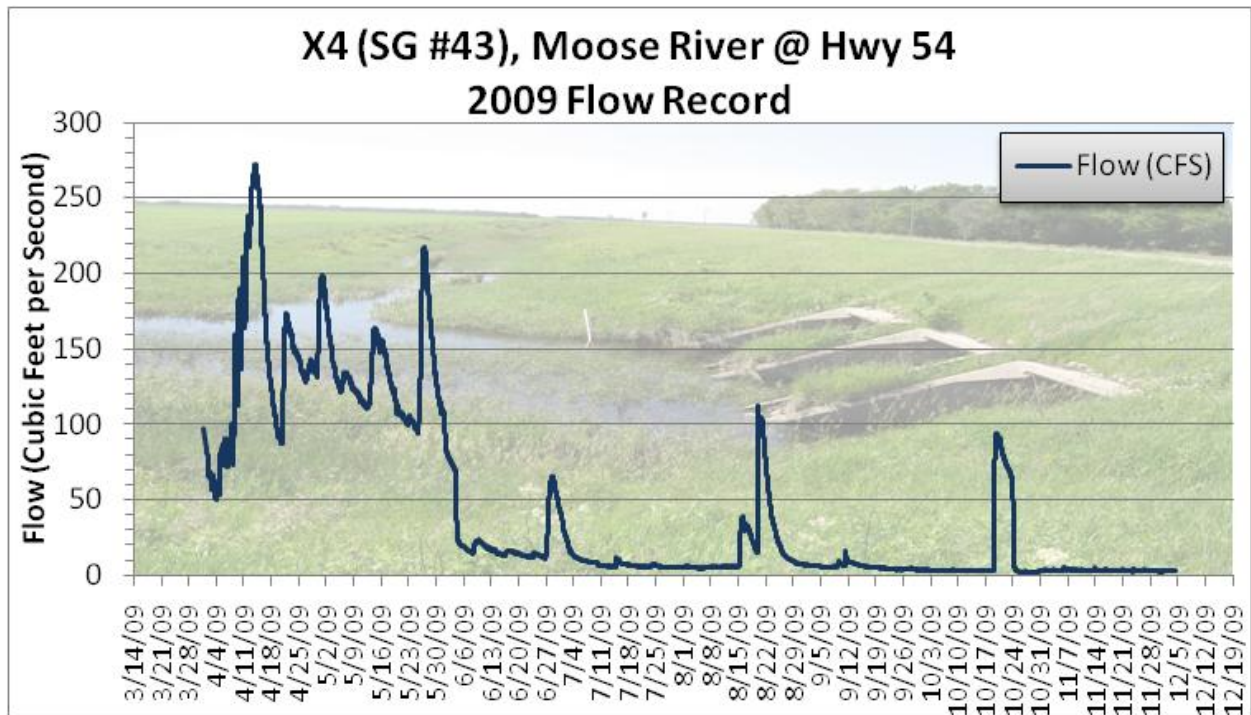
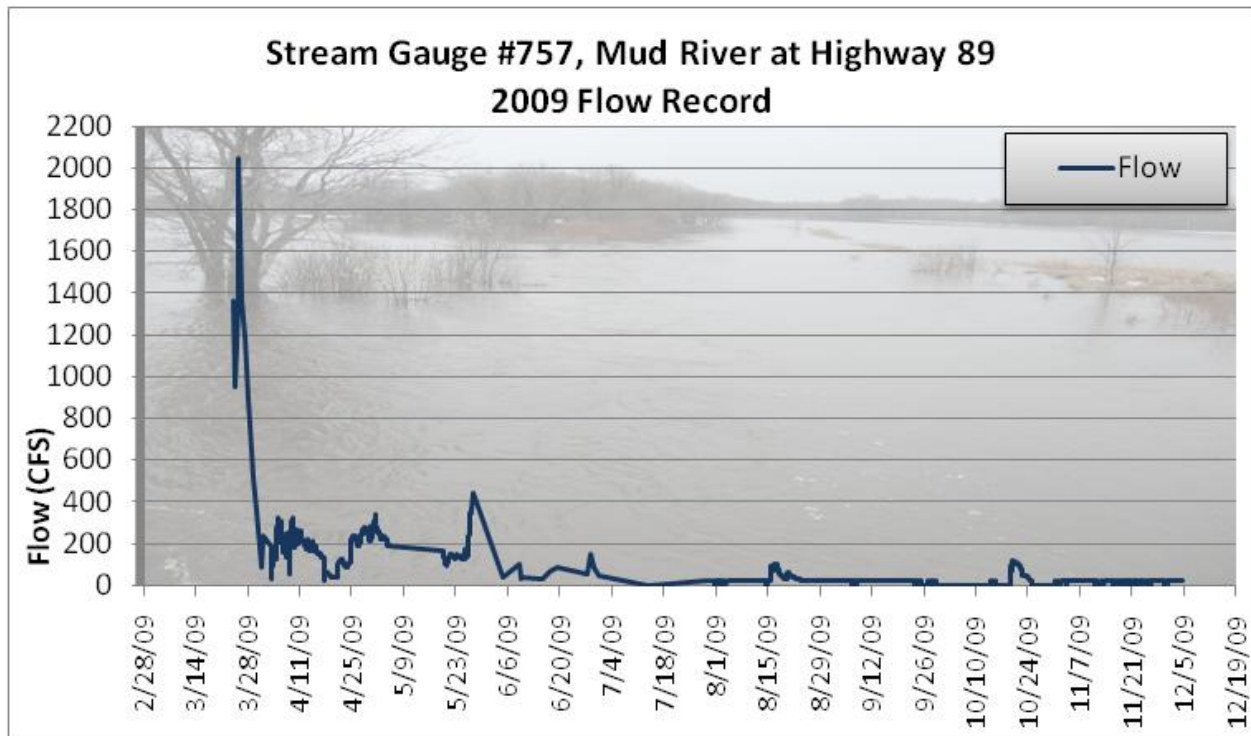


Site 40, Thief River at CR7 2009 Flow Record



Stream Gauge #98, Thief River at the Thief Lake Outlet 2009 Flow Record





Other Notes

- Completed a revision the Silver Creek TMDL Report on February 3rd and submitted it to the MPCA.
- Completed articles for the 2009 annual report.
- The EERC is working on a SWAT model for the Red Lake River watershed. I spent some time helping them find flow data.
- Supplied HDR Engineering with Ruffy Brook and Clearwater River related information for use in a feasibility study for the USACE Ruffy Brook Aquatic Ecosystem Restoration project.

February Meetings and Events

- **February 1, 2010** – The semi-annual report for the Thief River Watershed Sediment Investigation is due.
- **February 4, 2010** - Marshall County Water Resources Advisory Committee, 9:30 AM
 - The Marshall-Beltrami SWCD office will be closing on March 31st. It will be consolidating with the Marshall County SWCD.
 - The Marshall SWCD has received a big tree order from the pipeline project for replacement trees.
 - The Middle-Snake-Tamarac Watershed District has a newly updated website: <http://www.mstrwd.com/>
 - Danny Thorstad talked about the threat the emerald ash borer poses. The effects are more significant than just dying trees. Many tree rows are composed of ash trees. These insects can kill off tree rows and wind breaks, which can lead to soil loss, silting in ditches, and water quality degradation. We will need to diversify tree rows with other species like black cherry, hackberry, and hybrid poplar.
 - The EQIP Organic Initiative is being continued from 2009 into 2010. It offers financial assistance to farmers for the implementation of conservation practices on organic farms.
 - The USDA/NRCS is also offering the EQIP Initiative for Seasonal Tunnel Systems for Crops. A seasonal high tunnel is a temporary plastic, supported structure (at least 6 feet in height) that modifies the climate to create more favorable growing conditions for crops. This initiative intends to increase the amount and quality of locally grown produce.



Plans for March 2010

- Finish continuous data records from the Thief River Watershed Sediment Investigation.
- Revise the Draft Poplar River Dissolved Oxygen TMDL report.
- Print 2009 flow records for the stream gauge files
- Deploy HOBO water level loggers as soon as the ice thaws in the pipes and they are accessible.
- Collect flow measurements during spring runoff.
- Start collecting water quality samples at the end of the month.
- Decide upon BMP scenarios for the Thief River SWAT model.

Future Meetings/Events

- **March 4, 2010** – Annual Spring Water Quality Monitoring Training Session.
 - I will be presenting on two topics: Planning a Monitoring Effort, and Standard Operating Procedures.
- **March 19, 2010** – Meeting at the Red Lake DNR office to discuss monitoring plans in the Upper/Lower Red Lakes watershed.
- **March 26, 2010** – Red River basin Monitoring Advisory Committee Meeting. 9-noon, Sand Hill Watershed District.
- **March 29, 2010** – Red River Basin Water Quality Team meeting, 10am – 2pm, Detroit Lakes MPCA, 1st floor conference room.
 - How to host effective meetings
- **April 1, 2010** - Target date for the completion of new draft s of the Silver Creek and Poplar River TMDLs
- **April 26, 2010** – Red River Basin Water Quality Team open house meeting in Crookston. 3pm – 6pm.
- **April 28, 2010** - Envirothon
- **April 30, 2010** – Target date for completion of the Thief River SWAT model.
- **May 17, 2010** – Red River Basin Water Quality Team meeting, 10am, RLWD office
 - “Psychology of Sustainable Behavior”
- **May 20, 2010** - Marshall County Water Resources Advisory Committee, 9:30 AM
- **Spring 2010** – There will be a meeting with the MPCA Bio-Monitoring Unit to plan the 2011 monitoring for the Thief River and Sand Hill River watersheds prior to the start of the 2010 field season. We will decide on the number of sites, locations of sites, frequency of monitoring, and which parameters to monitor. So, we will then be able to use this information to apply for Surface Water Assessment Grant Applications that will pay for the monitoring during 2011 and 2012.
- **May 2010** – Reconnaissance of the Thief River Watershed with Dave Friedl of the DNR to prepare for the stream channel stability assessment.
- **June 2010** – The public review and comment period for the Silver Creek and poplar River TMDLs should begin sometime this month.
- **June 28, 2010** - Red River Basin Water Quality Team meeting, 10 am, Detroit Lakes MPCA office

- “Presenting Technical Information”
- **July 2010** – Construction on a stormwater retention pond in Clearbrook could start this month.
- **August 2010** – Stream channel stability assessment in the Thief River watershed. Two weeks of work will be needed to accomplish this task.
- **August 23, 2010** - Red River Basin Water Quality Team meeting, 10am, RLWD office
 - “Stressor Identification for Watersheds”
- **August 31, 2010** – Completion of the Thief River Watershed Sediment Investigation study.
- **September 27, 2010** - Red River Basin Water Quality Team meeting, 10am – 2pm, Detroit Lakes MPCA, 1st floor conference room.
- **September 30, 2010** – Target approval date for the Silver Creek and Poplar River TMDLs
- **November 22, 2010** - Red River Basin Water Quality Team meeting, 10am, RLWD office
 - “Presenting Watershed Information”