

By: Corey Hanson, Water Quality Coordinator  
For: September 24, 2009  
Red Lake Watershed District  
Board Meeting

### **Thief River Watershed Sediment Investigation**

- Continued to regularly clean and maintain continuous monitoring equipment.
- Completed and submitted a semi-annual report to the MPCA.
- Collected samples.
  - High E. coli concentrations were found at:
    - Mud River at highway 89 and upstream through Grygla.
- Collected a longitudinal survey of E. coli concentrations along the Mud River from Highway 89 to Grygla on August 4th. Concentrations were high at Highway 54 in Grygla, decreased for several miles, then were high at the crossings that are two and three miles east of Hwy 89.
- Moved the HOBO water level logger at stream gauge #2 (Rangeline Road) from its temporary high-water site to its regular deployment pipe.
- Deployed a Eureka Midge dissolved oxygen logger at the CSAH 54 crossing of the Moose River.
- Received SWAT modeling proposals. Houston Engineering was chosen as the (sub) contractor.
- Put together presentation slides for the Thief River reclassification meeting.
- Flow measurements
- Canoed the Thief River from the Rangeline Road into Thief River Falls with Jim Courneya (MPCA Project Manager). Erosion sites were GPS'd and photographed along the way.
- Deployed an In-Situ TROLL 9500 multi-parameter logging sonde at stream gauge 139 (State Forest Road crossing).
- Collected a longitudinal survey of E. coli concentrations along the Mud River from Highway 89 to Grygla on August 20th. Concentrations were high throughout the reach and peaked at 1732.9 CFU/100ml at a couple of sites near the middle of the reach.





### **Surface Water Assessment Grant Monitoring**

Two rounds of samples and field measurements were collected at the Blackduck River, South Cormorant River, Darrigan's Creek, O' Briens Creek, Kripple Creek, and Lower Badger Creek monitoring sites in June. This monitoring is being paid for by Surface Water Assessment Grant funds being administered by the Red River Watershed Management Board.

### **Project 60 Monitoring**

- Field measurements were conducted at the Project 60E (Brandt Channel and Polk CD 2) monitoring sites.
- The turbidity logger deployed in the Brandt channel was swapped for a clean, freshly calibrated logger in early August.
- In late August, I fixed the pipe at stream gage 71 on CD2 and deployed a turbidity logger.
- Because of the rain we've gotten this summer, there is still flow in the Brandt channel and CD2. They both have gone down to no flow around this time of the year in the past.



**Other Notes**

- Collected samples from Clear Brook and Silver Creek near Clearbrook to monitor the effectiveness of water quality improvement projects. E. coli is still high in Silver Creek downstream of the Clear Brook/Silver Creek confluence.
- Stream gauging at the Black River monitoring site.
- Ordered new survey rods, measuring tapes to replace broken/worn equipment.
- River Watch SWAG sampling continuous to find high E. coli concentrations in Nasset Brook and upper reaches of the Lost River.

**August Meetings and Events**

- **August 3, 2009** – Pennington County Water Resources Advisory Committee
  - Don Barron talked about creating an impoundment in the County Ditch 20 watershed. He mentioned that the cost of the project will keep increasing the longer it is delayed. Today, there would be a 25% increase over the original proposed cost of the project. In 2012, it will cost 41% more than when it was originally proposed.
  - CSP is available nationwide.
  - Garry Bennett reported that the Jerome Street project is getting positive feedback from the DNR during the permitting process.
  - Brian Malone reported that there are three new stream bank failures near town that need attention.
    - South of Oakland Park
    - North of the Golf Course along the Thief River
    - South of the St. Hilaire bridge on the Red Lake River.
- **August 12, 2009** – Red Lake River Corridor Enhancement teleconference.
- **August 17, 2009** – Red River Basin Water Quality Team, 10 am, RLWD meeting room
- **August 24, 2009** – Thief River reclassification meeting, Thief River Falls City Council Chamber, 5 PM
  - Thief River reclassification
    - The Thief River contributes to the drinking water supply for the City of Thief River Falls.
    - Change the classification of the lower portion of the Thief River to 1C, 2Bd, 3C (same as the Red Lake River).
    - Reach extent: From the County Hwy 12 crossing to the confluence with the Red Lake River.
    - Water quality standards for pollutants influenced by nonpoint source watershed issues – ammonia, dissolved oxygen and turbidity – do not change.
    - Standards for certain organics, such as benzene, change.
    - Activities affected:
      - Wastewater discharges
      - Storage tank remediation
      - Other remediation actions

- Construction stormwater
- Feedlot and manure management
- Water quality investigations
- Wetlands restoration focus
  - Reviewed *A method to prioritize and monitor wetland restoration for water-quality improvement*, a paper by J.E. Almindinger. How does this apply to the Red River Basin?
    - Where can we do them?
    - Where can they do the most good?
    - Where will we have the most success in getting them restored?
    - Watershed districts could offer an add-on incentive for wetland restorations within target watersheds.
    - Rural sociology: Why do some people go ahead with wetland restorations on their property and some don't?
    - New flow network based on LIDAR instead of 30 meter data will help with identifying restorable wetlands. Culvert inventories will be important for building the flow network.
    - Water quality and flood damage reduction benefits can come from riparian wetland restorations. Riparian restorations have previously been ignored in favor of upland wetlands that are used for waterfowl production.
- Civic engagement and stakeholder participation for watershed planning.
- **August 31, 2010** – Deadline for completion of the Thief River Watershed Sediment Investigation

### September Plans

- SWAG Monitoring
- Maintain continuous monitoring equipment
- District Monitoring with supplemental E. coli samples at several Red Lake River watershed sites that aren't meeting minimum data requirements for assessment.
- Thief River Watershed Sediment Investigation sampling
- Work on the Thief River SWAT model with Houston Engineering by providing them with the data they need to put together the model.

### Future Meetings/Events

- **September 16, 2009** – Pennington County Outdoor Education Day
- **September 22, 2009** – Northwest Minnesota Water Festival, Warren
- **September 23, 2009** – Northwest Minnesota Water Festival, Fertile
- **September 28, 2009** – Red River Basin Water Quality Team, Detroit Lakes
- **October 26, 2009** - Pennington County Water Resources Advisory Committee, 9 am
- **November 19, 2009** – Marshall County Water Resources Advisory Committee, 9:30 am, Newfolden