Stream Gauging

- Retrieved HOBO water level loggers where I could get access to the installation pipes. There are four sites (Mud River and the Thief River at CR7, CSAH 49, and CSAH 42) where I can’t get to the top of the installation pipe. I can’t even see the top of the pipes at the sites on the lower reach of the Thief River because water levels are so high.
- Cleaned loggers, downloaded data, and put them away for the winter.
- Compiled and plotted the 2010 flow record for stream gauge 81 on Silver Creek.

Other Notes

- Uploaded flow measurement data from the AquaCalc device, printed the records for the stream gauge file, and added the new measurements to rating curves.
- Finished entering monitoring data from this year, double-checked 10% of the entries against the original data sheets, and submitted the data to the MPCA for entry into the STORET database.
- Completed a revision of the Thief River Watershed Assessment Project work plan. More money was added to the civic engagement objective and the continuous monitoring plans were scaled back.
• Completed writing a Surface Water Assessment Grant proposal for monitoring in the Thief River Watershed.
  o The mandatory Conflict of Interest form was completed and sent to Ron Schwartz.
  o The grant proposal was sent to the MPCA in the morning of November 5th.
• We received the final payment from the MPCA for the Thief River Watershed Sediment Investigation ($9,650).
• The flume that measured flow from the Yaggie surface drained field was missing when I went to remove it. I’ve contacted the Red Lake County Highway Department and have talked to the neighbors and have had no luck in finding it.
• Successfully contacted a local landscaper to discuss the RLWD rain garden. It looks like we can save a lot of money by using a local contractor.
• Provided Maggie Anderson (USFWS) with in-kind matching expenditure amounts that she can use for the Agassiz NWR Water Quality Study grant.
• Retrieved, cleaned, and calibrated the TS300 turbidity loggers that were used at the Brandt Channel monitoring site in 2010.
• Visited the site of the Spring Lake Gravel dam breach (near Melvin, SE of Crookston) with Loren Sanderson, Larry Hanson (USFWS) and a relative of the landowner. The breach has caused erosion downstream, channel incision upstream, and drainage of wetlands. We will be putting together plans for a wetland restoration and erosion control project for this site over the winter. I have a map, photos, and notes that can be used to develop a proposal that can be brought to the RLWD Board at a later meeting – when we have clearer plans of what needs to be done.

November 2010 Meetings and Events

• **November 5, 2010** – Deadline for Surface Water Assessment Grant proposals
• **November 29, 2010** - Red River Basin Water Quality Team meeting, 9am – 4 pm, Detroit Lakes MPCA Office.
  o Triennial Review of Water Quality Standards
    ▪ These proposed standards won’t become official until 2013 at the earliest.
    ▪ Nitrates
      • Class 2A Waters:  3.1 mg/L
      • Class 2B Waters:  4.9 mg/L
        o *RLWD’s highest ever NO2+NO3level = 4.28 mg/L.*
      • Acute:  41 mg/L
    ▪ Total Suspended Solids
      • 10 mg/L for Class 2A (cold-water fishery) waters
      • 65 mg/L for the southern river nutrient region (Red River Valley)
      • 30 mg/L for the central river nutrient region (Upper Red Lake R.)
      • 15 mg/L for the northern river nutrient region (Clearwater R. Headwaters)
      • 100 mg/L for the mainstem of the Red River of the North
Sediment research at Agassiz National Wildlife Refuge (Gregg Knutson, Shawn Schottler)

Thief River Watershed Sediment Investigation (Dave Friedl, Corey Hanson)

**Plans for December 2010**

- Work on plans for a rain garden at the RLWD office.
- Retrieve the remaining water level loggers if water levels go down enough to allow access. If they don’t go down, I’ll have to wait until the channel freezes over and I can either drill through the ice to get them or leave them there until spring.
- Continue revising the work plan for the Red Lake River watershed-based TMDL before the Thief River watershed-based TMDL begins.
- Compile data from water level loggers and the Project 60 turbidity loggers.
- STORET data review
- Write annual report articles

**Future Meetings/Events**

- **December 10, 2010** – Red River Basin Monitoring Advisory Committee, Sand Hill Watershed District, 9:30 am
- **January 13, 2011** – Franklin Middle School Science Fair Judging