

By: Corey Hanson, Water Quality Coordinator
 For: January 13th, 2011
 Red Lake Watershed District Board Meeting

Stream Gauging

- Retrieved the HOBO water level logger from the Thief River near the Thief Lake Outlet (site #98). The water was still open, but it was still more than a foot above the top of the installation pipe. I was able to work the cap off with a rake, snag the cable near the cap, and drag it to shore.
- The 757 (Hwy 89) site on the Mud River was completely frozen over by the beginning of December, so it was impossible to find the installation pipe and remove the HOBO water level logger from that site.
- I was also unable to retrieve the HOBO water level at the CR7 crossing of the Thief River because of high water, then ice.
- The water level in the Thief River under the CSAH 44 bridge was frozen in the ice below a thick layer of suspended shelf ice. The layering of the bottom of the shelf ice looked spectacular, so I took some pictures of it.
- Retrieved the HOBO water level logger from the tile water control structure.
- The tile drainage study flume that was attached to the end of a culvert to measure flow from a surface-drained field was missing when I went to retrieve it in November. I found out that the landowner near found the flume and the water level logger in the woods. They disposed of the flume, which was destroyed by the high flows during the August and September 2010 rain events. They still had the HOBO water level logger, so I was able to retrieve it, salvage the data, and have it available for upcoming studies.
- Cleaned and downloaded data from the HOBO



Stream Gage Data		Latitude	47.9267
Gage Number:	37	Longitude	-95.9583
Stream:	Clearwater River		
Location: County	Polk	T 152N	R 39W Section(s) 0102
Type of Gage:	Wire weight		
Gage Read from	to	and	to
feet MSL			
Gage Location:	CR90, 7 mi. E of Roland		
Drainage Area	413	sq. mi.	
BM Elevation:	1163.64		
BM Description:	on SE corner of new bridge		
History:	There used to be a vertical staff gauge on the S pier on the W side of the old bridge. Bridge was replaced in 1999, wire wt. gage installed Mar. 20, 2003		
Remarks:	1000-121 STONE T Code Some continuous monitoring done here for a TMDL study. Rating curve has been developed.		
Date:	12/27/2010	by	CLM
Upstream		Downstream	

water level loggers that were retrieved.

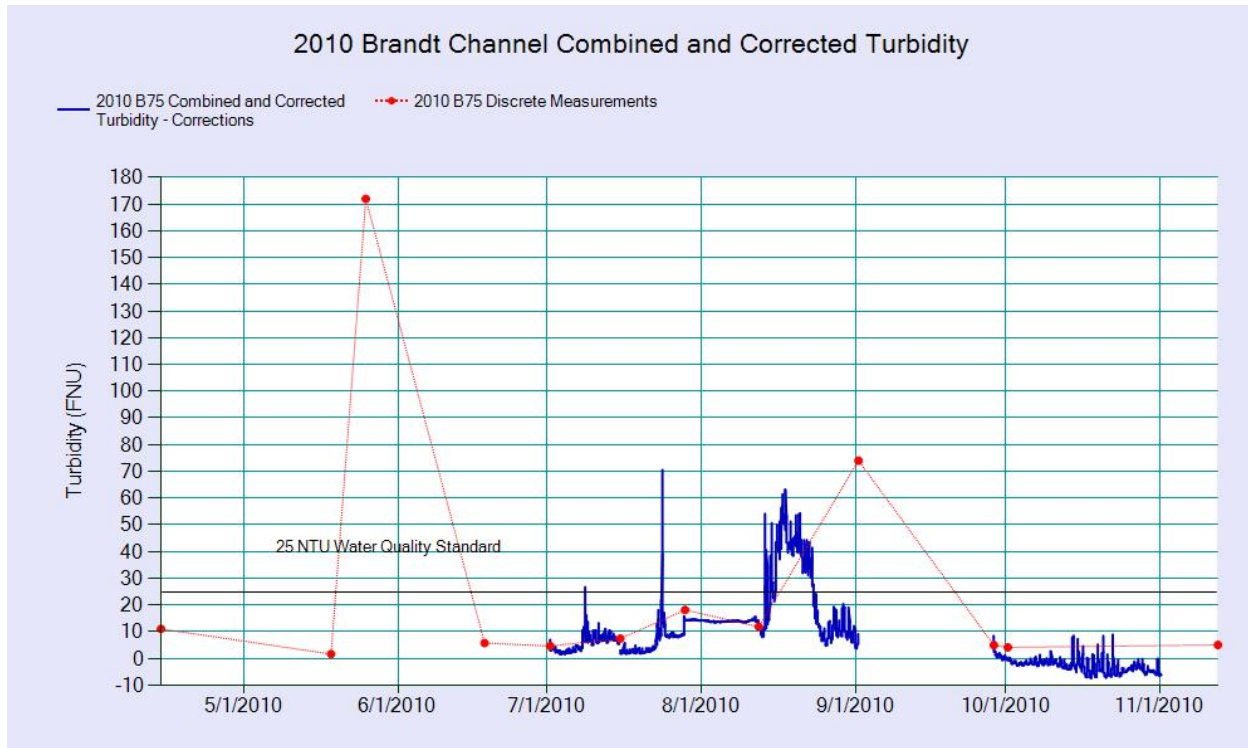
- Began working on a stream gauge network GIS file and 1-2 page summaries that can be incorporated into the interactive map on the RLWD website. The idea is to display the sites on the map and provide a link to the summary document when someone clicks on the site. The summary documents provide each site's name, description, location, stage measurement methods, photos, and rating curve (if available). This file will include USGS and other gauging stations and links to their respective websites.



Other Notes

- We learned that two BWSR Clean Water Fund projects proposed by the RLWD were awarded funding.
 - The Grand Marais Creek Cut Channel Stabilization Project received \$662,000.
 - The Grade Stabilization for Reduction of Sedimentation in the Thief River project was awarded \$187,974. It had the 4th highest score of all of this year's applications.
 - Area SWCDs also had projects that were awarded funding
 - Red Lake County SWCD
 - Accelerated Erosion Control Projects in the Red Lake River Watershed - \$102,895
 - Accelerated Streambank & Shoreland Projects in the Clearwater River Watershed - \$48,421
 - Pennington County SWCD
 - Judicial Ditch #30 & #18 Buffer Initiative - \$93,844
 - The Ralph Engelstad Arena Rain Garden Project - \$88,681
 - Halvorson Streambank Restoration - \$34,375
 - East Polk SWCD
 - Sand Hill River Watershed Accelerated Erosion Area BMPs - \$281,053
- Worked on plans for a rain garden at the RLWD office.
 - Picked out plants
 - Received a quote from Brieland Landscaping (a local landscaper in Thief River Falls) that was accepted by the RLWD Board of Managers.
 - Jim Brieland is working on designing the rain garden and figuring out an arrangement for all the plants.
- STORET data reviews
- Scanned the Clearwater Nonpoint Study document into a PDF document. Jim Blix posted a link to it on the RLWD website.
- Helped haul stuff from the RLWD's rented storage shed to the newly constructed garage.

- Compiled and adjusted Project 60 turbidity logger data. The turbidity levels in the Brandt Channel are normally pretty low. They did exceed the water quality standard during extreme events like spring runoff and the large rainfall events that occurred in August and September of 2010.



December 2010 Meetings and Events

- **December 10, 2010** – Red River Basin Monitoring Advisory Committee, Sand Hill Watershed District, 9:30 am
 - Created a handout describing the water quality standard changes that were discussed at the November 29th Red River Basin Water Quality Team meeting.
 - Decided to hold the Water Quality Training Session in late February
 - An EQUiS (STORET's replacement) training session should be held before 2012.
 - River Watch students, River Watch teachers, Wayne Goeken, Jim Blix, and others will be collecting snow and frost data for the Community Collaborative Rain, Hail, & Snow Network (CoCoRaHS) this winter. Here is a link to a map of current snow depths observed by volunteers in Minnesota:
 - <http://www.cocorahs.org/Maps/ViewMap.aspx?type=snowdepth>
- **December 20, 2010** – Red River Basin Water Quality Team Meeting (via WebEx)

Plans for January 2010

- Finish writing 2010 Annual Report articles
- Finish the stream gauge network GIS file and PDF summary pages
- Begin working on the Grade Stabilization for Reduction of Sedimentation in the Thief River work plan and summary document.

Future Meetings/Events

- **January 5, 2011** – Polk County Water Plan Meeting, McIntosh, old city hall, 10am
- **January 11, 2011** – BWSR Elink webinar, 10am – noon
- **January 12, 2011** – Marshall County Water Resources Advisory Committee
- **January 13, 2011** – Franklin Middle School Science Fair Judging
- **January 17, 2011** – Martin Luther King, Jr. Day
- **January 21, 2011** – Red River Basin Monitoring Advisory Committee Meeting, Sand Hill Watershed District
- **January 24, 2011** - Red River Basin Water Quality Team meeting
- **February 11, 2011** – Red River Basin Monitoring Advisory Committee Meeting, Sand Hill Watershed District
- **Late February 2011** – Annual Red River Basin Water Quality Training Session
- **February 28, 2011** - Red River Basin Water Quality Team meeting

