

By: Corey Hanson, Water Quality Coordinator
 For: January 22, 2009
 Red Lake Watershed District Board Meeting

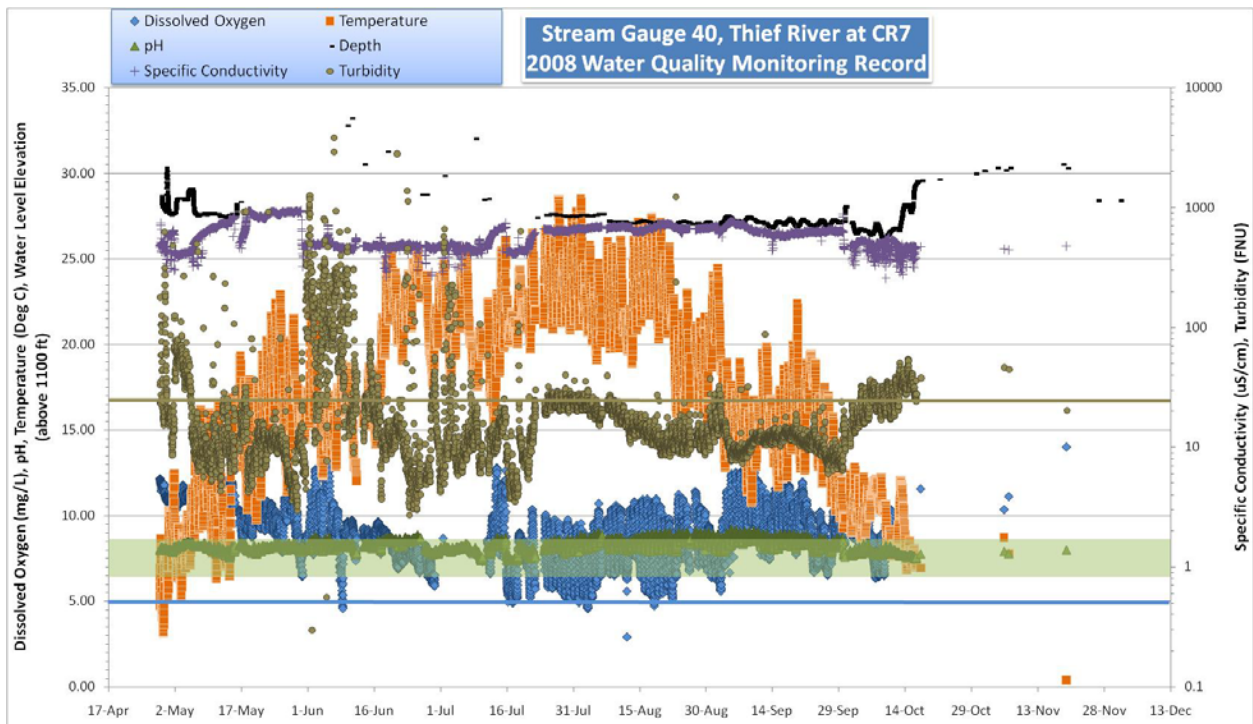
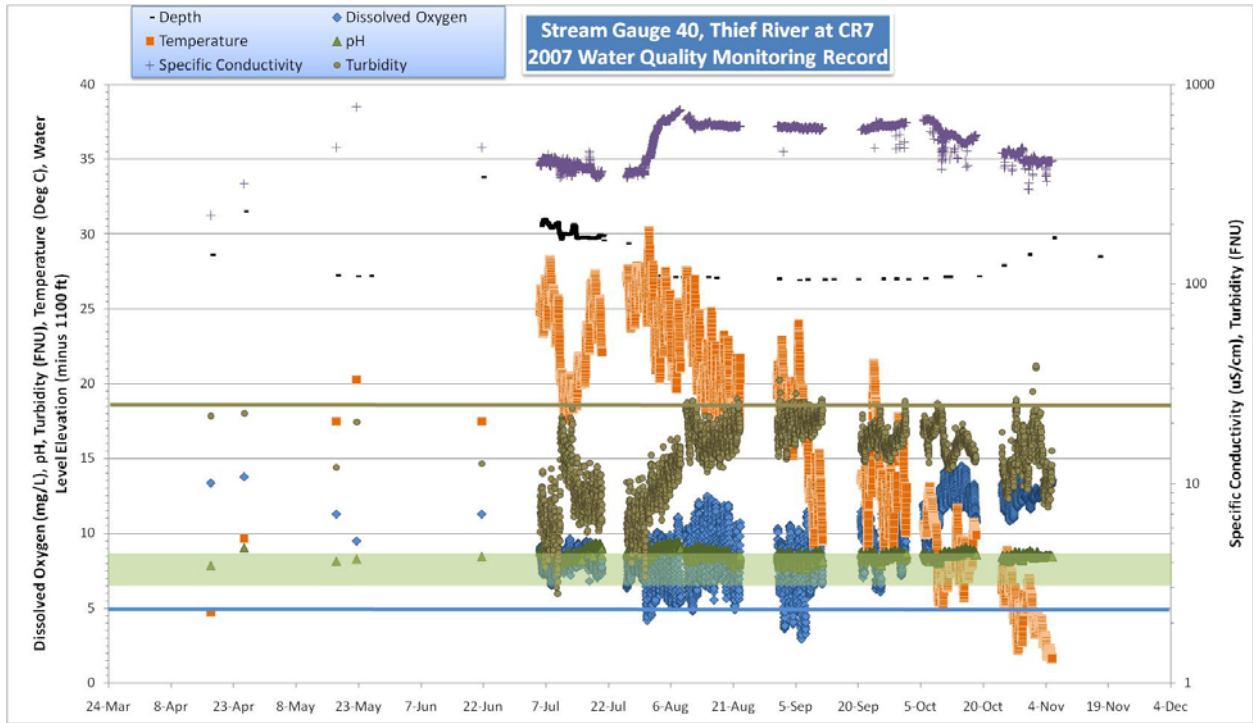
2009 Goals

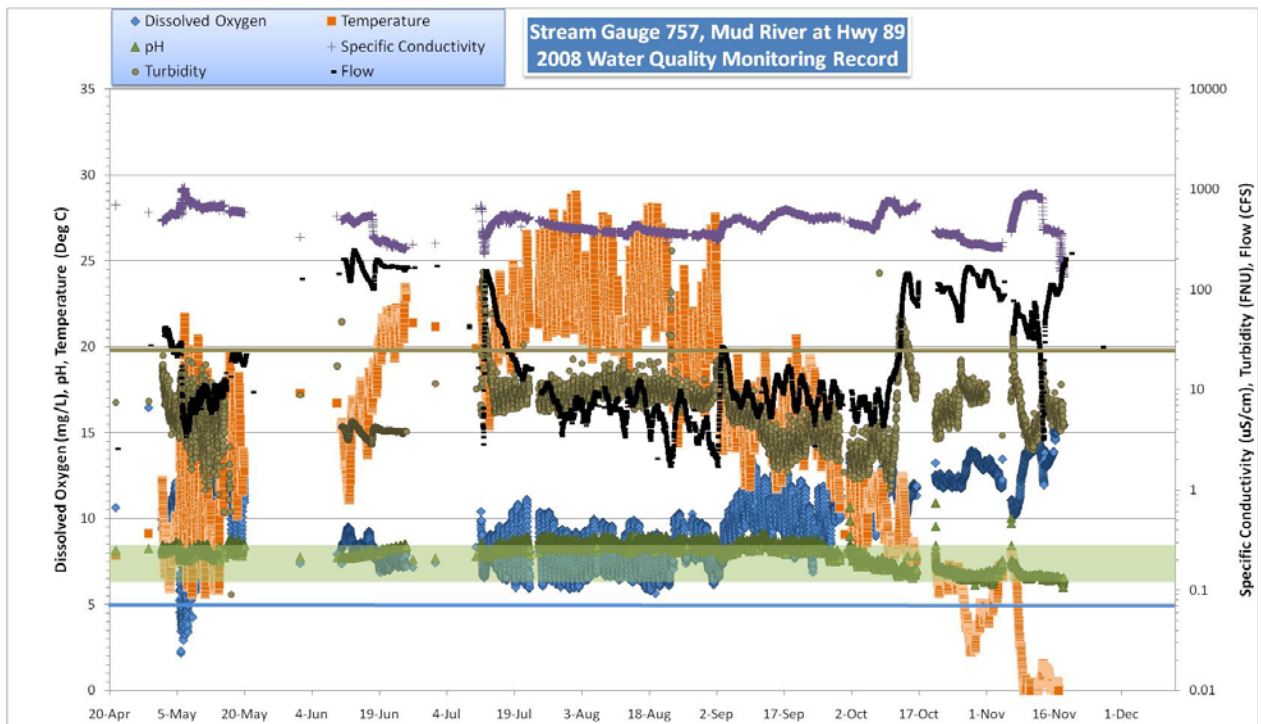
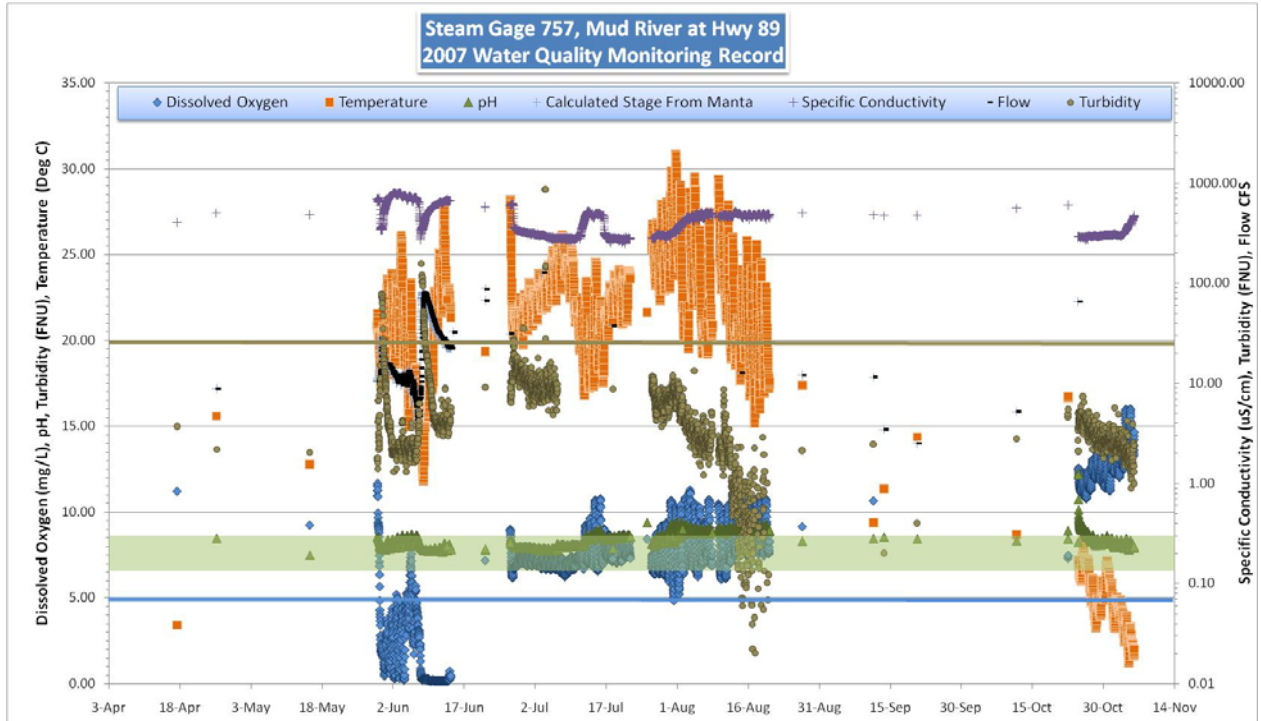
- Complete the Clearwater River Dissolved Oxygen and Fecal Coliform TMDL SWAT Modeling and Report.
- Collect the rest of the data needed for the Thief River Watershed Assessment Protocol
 - Coordinate the collection of weekly stage readings at Thief River Watershed sites to improve the accuracy of water level logger reading-to-actual stage conversions.
 - Add a continuous monitoring site on the Moose River using the RLWD’s In-Situ TROLL 9500 multiparameter sondes.
 - Double the sampling rate at TRWSI sites to bi-monthly.
 - Collect 8 sets of extra E. coli samples at certain sites to meet assessment data requirements and verify potential impairments.
 - Collect 2 longitudinal (every road crossing) sets of E. coli samples on the Mud River to help determine the extent and source of the potential impairment.
- Start the SWAT modeling process for the Thief River Watershed
- Finish the report for the Clearwater Habitat/Bioassessment Project.
- Continue flow monitoring for the tile drainage study.
- Long-term monitoring during spring runoff and the months of May, July, and September.
- Surface Water Assessment Grant monitoring on Cyr Creek, Kripple Creek, Lower Badger Creek, Blackduck River, Cormorant River, O’Briens Creek, and Darrigans Creek.
- Participate in the 2009 State Water Quality Assessment
- Work on another comprehensive water quality report.
- Look for funding for planned implementation projects.
 - Outline additional project ideas and budgets
- River Watch E. coli sampling SWAG (managed by Jim Blix).

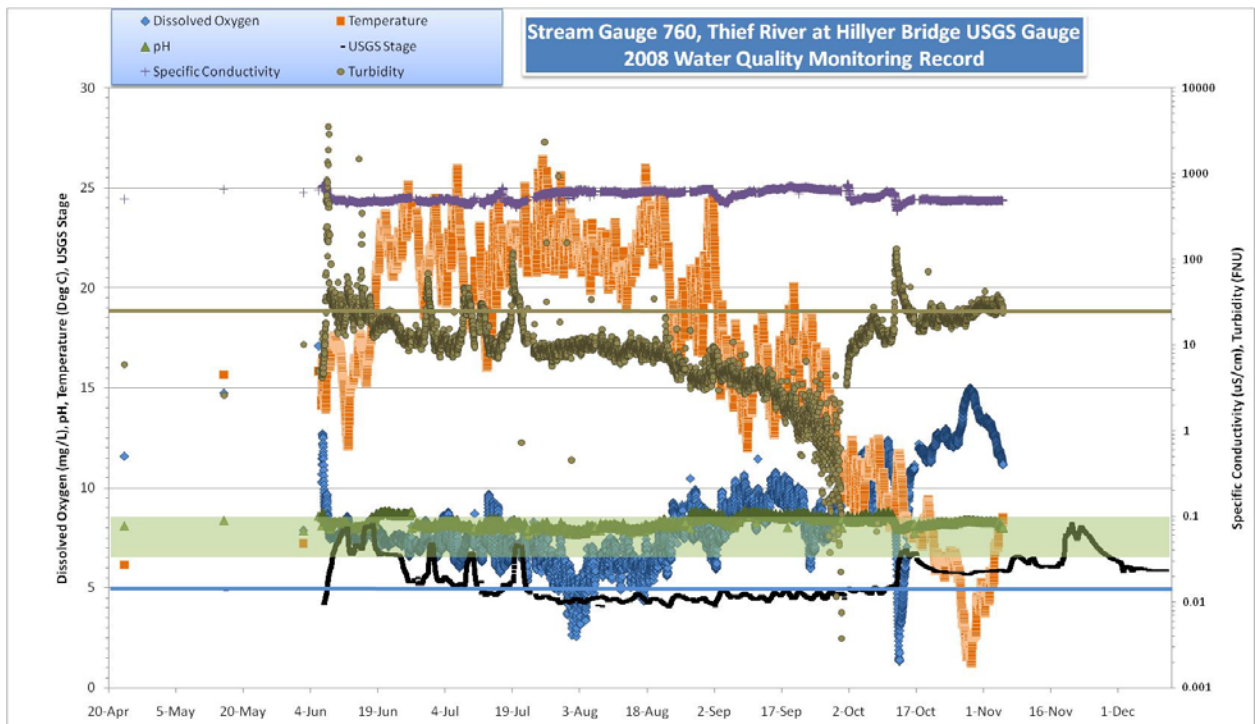
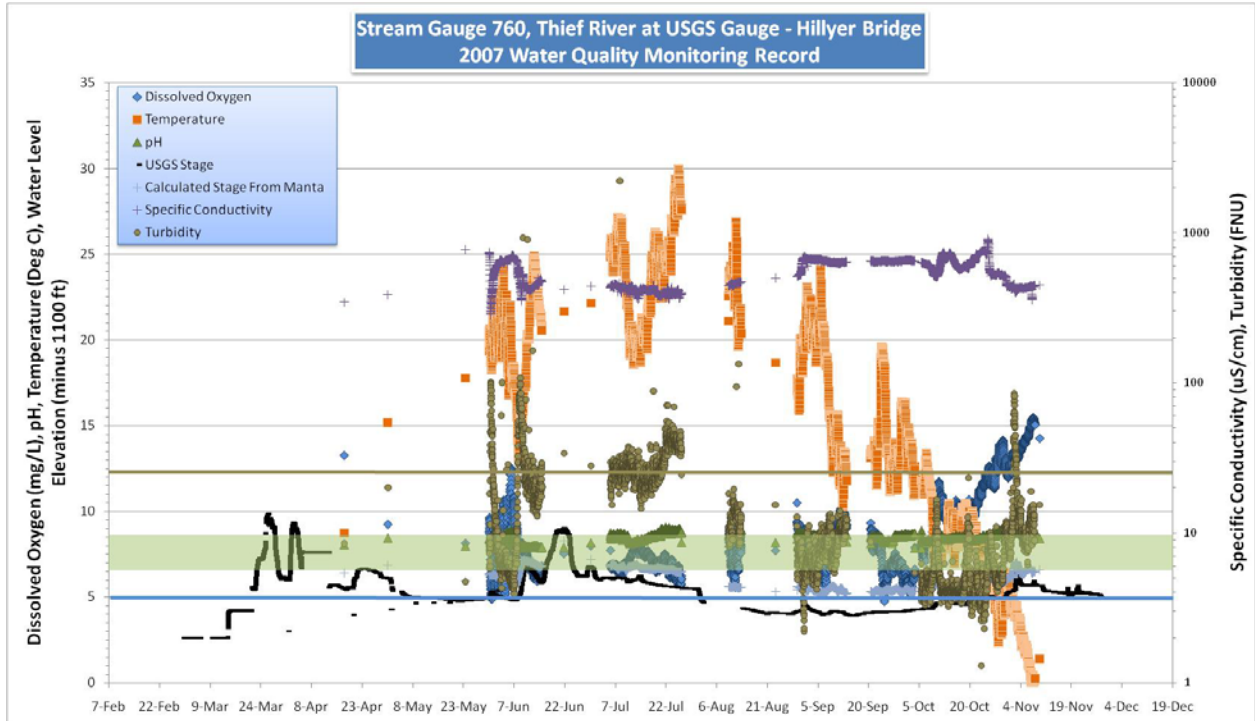
Thief River Watershed Sediment Investigation

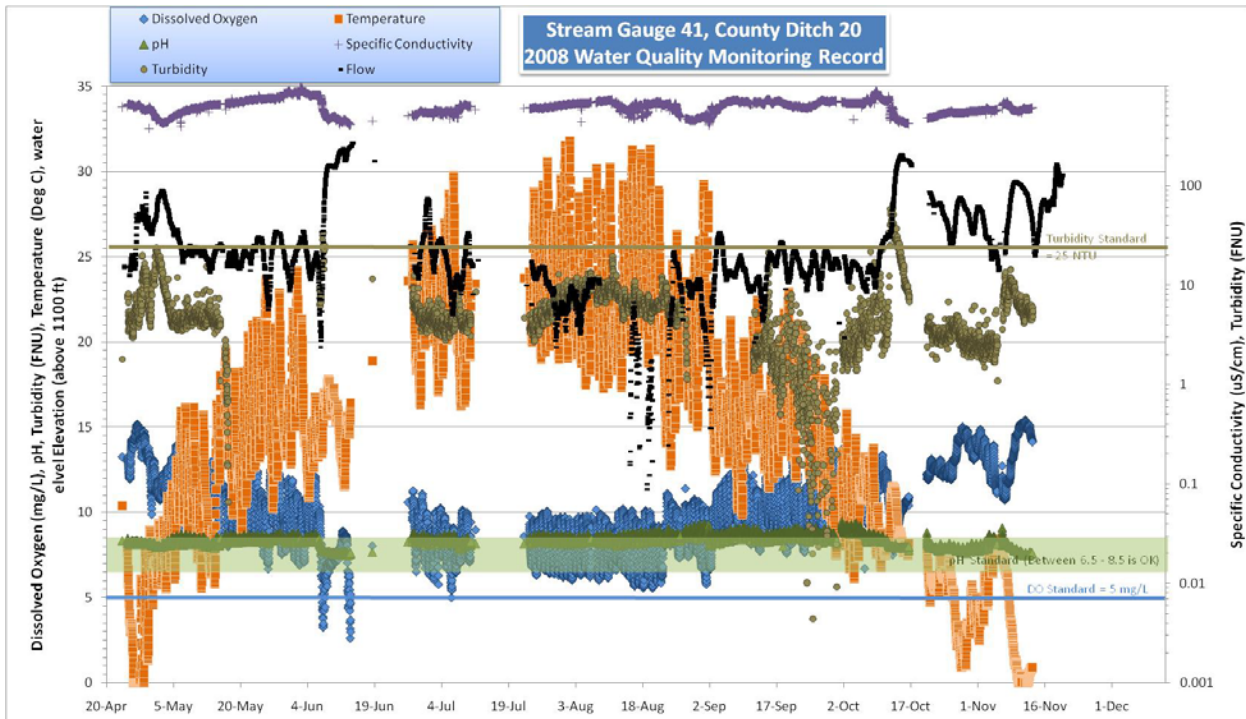
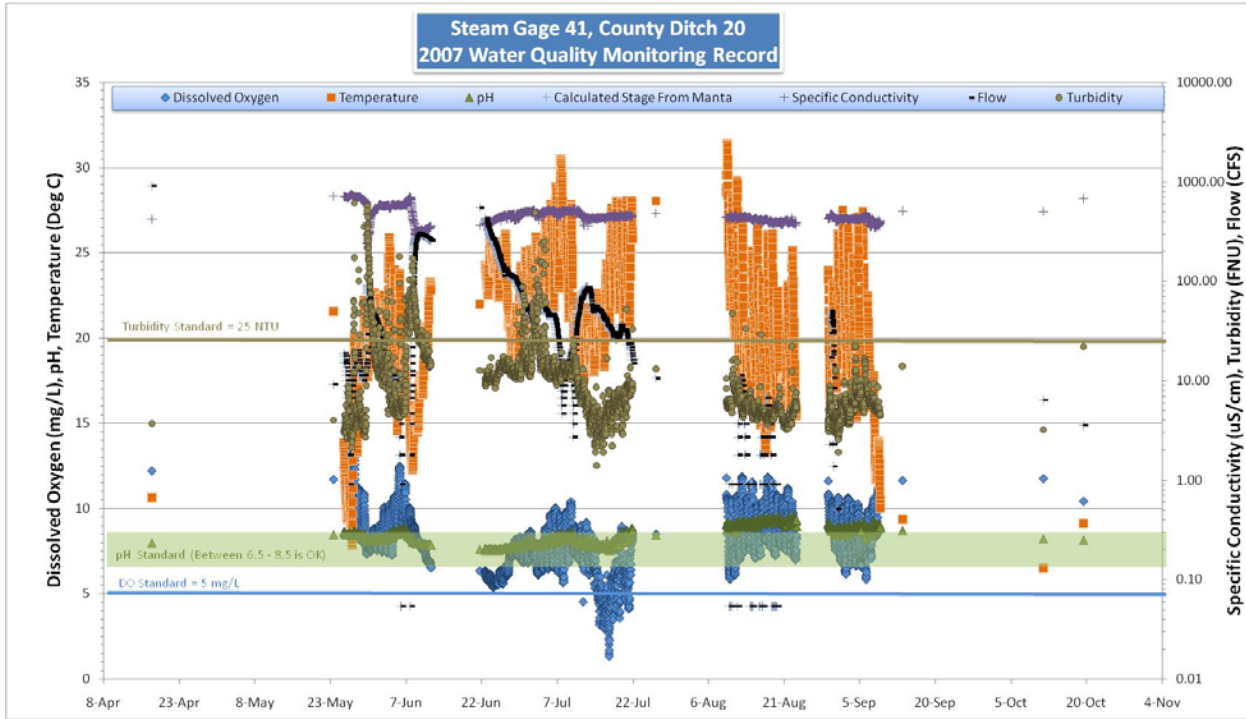
The main task during December for this study was data analysis. This included compilation of continuous stage and water quality data (see graphs). We also received an invoice from the Marshall County water planner for 2008. In the beginning of the month, I continued to check water levels in the places where the Thief River channel remained open due to the high flows.

Assessment of Combined Records of Spot Measurement and Continuous Monitoring Data for the Thief River watershed Sediment Investigation					
Site	River	2007		2008	
		Dissolved Oxygen	Turbidity	Dissolved Oxygen	Turbidity
757	Mud River	26.15%	1.85%	3.59%	2.47%
41	CD20	9.76%	12.20%	1.07%	1.40%
40	Thief River	9.00%	0.00%	4.32%	24.00%
760	Thief River	1.72%	21.15%	10.19%	15.92%
		Percentage of time that standards are not met.			









Tile Drainage Study

- The tile outlet at the Bachand field kept flowing until December 3rd.
- When flow stopped, HOBO Water Level Loggers were retrieved. Data was then downloaded and sent to HDR Engineering.

Other Notes

- STORET data reviews completed
- Reviewed and commented on the *Characterization of "Reference" Suspended-Sediment Transport Rates for Level III Ecoregions of Minnesota* document.
- Learned that there are straight-pipe sewer systems in Brooks that drain to the Hill River. These would be a likely source of the effluent plumes photographed at the RLWD's Hill River monitoring site.

December Meetings and Events

- **December 12, 2008** – Red River Basin Monitoring Advisory Committee, Sand Hill WD in Fertile at 9:30 am.
 - Training needs
 - There will be another water quality training session this spring
 - Allow more lab time
 - Drop the YSI speaker
 - Allow more time for early sessions so they are less rushed
 - Continuous monitoring session
 - Have a session on proposed standards changes
 - Data management, analysis, and reporting
 - Geomorphology assessment
 - I gave a presentation on the Red Lake River erosion site inventory.
 - WARSS discussion – supported by DNR, but expensive
 - Equipment
 - MPCA welcoming YSI users to help with this winter's mass calibration and inspection at the DL Office's lab.
 - Funding
 - RRWMB submitted SWAG application that would extend funding for current RRWMB SWAG monitoring through 2010.
- **December 15, 2008** - Red River Basin Water Quality Team Meeting at the RLWD
 - Thief River Watershed Sediment Investigation
 - Clearwater River Dissolved Oxygen and Fecal Coliform TMDL Study
 - Proposed 2009-2010 Projects in the Red River Basin
 - Wild Rice Sediment Study – Wild Rice Watershed District
 - Clearbrook Urban Runoff Project
 - Gave a summary of the project using a Power Point slide show provided by Wade Robinson of the Clearwater SWCD
 - We need to find approximately \$75,000 in additional funding to complete the project.
 - Red Lake Nation Wild Rice Farm – Installation of subsurface drainage
 - Thief River Watershed-based TMDL pilot study
 - SWAT Modeling

- In progress or completed: Upper Red, Bois de Sioux, Snake, Clearwater, Grand Marais, Red Lake, Sand Hill, Tow rivers
- To be completed: Otter tail, Buffalo, Wild Rice, Marsh, Lower Red (Tamarac and Joe), Middle, Roseau
- 2008 CWLA Projects Funded:
 - Polk County JD66
 - East Polk/Union Lake Shoreland Protection
 - Wilkin County Public Health Threat & Mitigation
 - Wolverton Creek/Comstock Coulee Watershed Sediment Reduction Project
 - Hay Creek/Stinking Lake Sediment Reduction Project.
- Reviews and discussion of the Reference Yield Sediment Study
- **December 22, 2008** – Pennington County Water Resources Advisory Committee meeting. 9 am.
 - Gave update on water quality projects
 - Airport road construction next year
 - Greenwood Street bridge should be opening in July, 2009
 - TRF Public utilities department plans to install a bird watching area by its ponds.
 - The MPCA representative, Jim Courneya, mentioned the possibility of watershed-based TMDL studies for the Thief River and Red Lake River watersheds
 - Penn. SWCD applied for a SWAG grant for biological monitoring in the area and add another monitoring site.`
 - The NRCS had a good year, administering approximately \$400,000 in EQIP and WHIP projects in 2008.

Future Meetings/Events

- **January 7, 2009** – Clearwater County Water Resources Advisory Committee meeting
- **January 14, 2009** – Red River Basin water Quality Team meeting in Detroit Lakes
- **January 15, 2009** – Science Fair Judging at Franklin Middle School
- **January 22, 2009** – Marshall County Water Resources Advisory Committee. 9:30 AM
- **January 30, 2009** – Red River Basin Monitoring Advisory Committee Meeting
- **February 1, 2009** – Deadline for Clearwater River Dissolved Oxygen and Fecal Coliform TMDL Study and Thief River Watershed Sediment Investigation semi-annual reports to the MPCA.
- **March 2, 2009** - Pennington County Water Resources Advisory Committee meeting. 9 am.
- **April 28, 2009** – Best Professional Judgment Group meeting for the Red River Basin for the 2009 State water quality assessment, St. Paul MPCA office.
- **April 30, 2009** – End of SWAT modeling contract with the EERC for the Clearwater River watershed.
- **June 30, 2009** – Deadline for completion of the Clearwater River Dissolved Oxygen and Fecal Coliform TMDL Study.
- **August 31, 2010** – Deadline for completion of the Thief River Watershed Sediment Investigation