Overview

The Clean Water Act, Section 303(d), requires that states publish a list of waters that do not meet water quality standards and do not support their designated uses every two years. These waters are then considered “impaired,” and a Total Maximum Daily Load (TMDL) must be developed. The TMDL provides a calculation of the maximum amount of a pollutant that can enter a water body and still allow it to meet water quality standards. It’s the sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources and natural background, a margin of safety (MOS), and a reserve capacity (RC).

TMDL = sumWLAs + sumLAs + MOS + RC

The Minnesota Pollution Control Agency (MPCA) is responsible for listing impaired waters in Minnesota. There are eleven reaches monitored for this project, all of which are impaired for turbidity and the affected use is aquatic life. The first impaired reach for this TMDL was listed in 1994, with additional reaches listed in 2004 (2), 2006 (4), and 2008 (4). The target start date for this TMDL was 2009, and the target completion date is 2013.

The eleven turbidity impairments for the Root River as well as the monitoring locations are spread out across the watershed (see map to right). There are two turbidity impairments on the North Branch, six in the South Branch watershed, one on the South Fork, one on Money Creek (tributary to the Main Branch), and one at the mouth of the Main Branch. Monitoring locations were established across the watershed to monitor these impairments. Besides impairments, existing monitoring data/equipment and site access were considered when determining the sites for this study.

Current Status

The 3rd and final monitoring season for the Root River Turbidity TMDL wrapped up in 2010. A majority of the monitoring equipment has been removed, except for select sites that will be continued for long term monitoring purposes. The final report is due to the U.S. Environmental Protection Agency (EPA) by June 30th, 2011. Up until then the Fillmore SWCD and MPCA will be compiling, processing, and analyzing 3 years of data and incorporating the results into the report. One of the end products will be a Load Duration Curve (LDC) for each impaired reach, which essentially “sets” the TMDL and establishes the percent reductions needed in order to meet the water quality standard. The LDC’s in addition to any supplemental data (e.g. sediment fingerprinting, load estimates) will help guide the implementation process. An implementation plan will eventually be developed (not sure on the timeline at this point) to address the impairments and necessary reductions.

Civic Engagement is Big Component of Upcoming Root Project

“Civic Engagement” is a key element of The Root River Comprehensive Strategy, an upcoming project in the Root River watershed. This project activity will operate at two levels: the Root River watershed as a whole, and a targeted effort within the upper South Fork Root River watershed.

For the Root River watershed as a whole, this project activity will promote the following four objectives:
1. Early involvement of stakeholders in the project
2. Early and frequent public information and outreach
3. Citizen leadership development
4. Inclusion of citizens in developing and implementing the comprehensive Root River watershed management strategy.

The targeted approach in the upper South Fork Root River watershed will involve residents in developing their own civic engagement plan. This plan will produce elements of a sub-watershed management strategy, and serve as a model of what can be accomplished through a more intensive civic engagement process.

This project is scheduled to start in 2011.