



Judicial Ditch #30 & #18 Buffer Initiative



Clean Water Funds: 2011

Clean Water Grant	\$93,844
Leveraged Funds*	\$23,461
Total Project Budget	\$117,305

* Leveraged Funds include required 25% local match

Targeted Water:

Judicial Ditch #30 and #18

Project Sponsor:

Pennington SWCD

Partners:

Pennington SWCD
Red Lake Watershed District
NRCS
FSA

Grant Period:

January 2011 - December 2012

Project Contact:

Bryan Malone
(218) 683-7075
bryan.malone@mn.nacdnet.net
www.nwmnswcd.org/pennington



Project Narrative

The 14,080 acre watershed of JD#30 and JD#18 drains into the Thief River four miles upstream of Thief River Falls. The City of Thief River Falls draws their drinking water from the reservoir the Thief River supplies. This reservoir is filling with sediment faster than anticipated. It was first estimated that the reservoir would require dredging every 50 years. The last dredging was needed in only 35 years at a price tag of \$1.1 million. Treatment of the water for drinking is a major expense to the City. Further downstream, the City of Grand Forks pulls its drinking water from the Red Lake River, making water quality of the Red Lake River a regional concern.

The Thief River is impaired for turbidity and low dissolved oxygen. The Red Lake Watershed District has done extensive monitoring of the Thief River Watershed in preparation for the TMDL process. The Pennington SWCD has completed surface water monitoring on JD#30. Hydrologic models indicate a significant reduction in the amount of sediment and phosphorus with the implementation of buffers and grade stabilization structures directly adjacent to the ditch system.

The JD#30 and #18 Buffer Initiative will provide incentive payments for landowners to install a 50 foot wide buffer strip and install grade stabilization structures such as side water inlets from field ditches along the 24 mile ditch system. Through this process, the sediment load will be reduced by 80 percent along with a 75 percent reduction in phosphorus.

Buffer strips and side water inlets slow down the flow of water. These pipes are sized according to the watershed acres draining towards them. Buffer strips increase infiltration, slow down runoff and prevent normal tillage from depositing chunks of soil in the waterway.

