Wilkin County on track to make their County Drainage Systems Water Quality Friendly

December 2014 Snapshots

Before: Heavy rain or snowfalls resulted in soil erosion and sediment deposits in downstream lakes and rivers.

After: Retrofitted ditches control the water flow to keep soil on the land and improve water quality.

Drainage ditches are important in Wilkin County, but the reasons why vary depending on who you ask. The County Board relies on the drainage ditches to help reduce flood damage. The Wilkin Soil and Water Conservation District (SWCD) wants ditches that help improve water quality. The Wilkin County engineering staff is concerned with the functionality of the drainage system as a whole. Three different goals. One major project.

To address both the water quality and quantity concerns, Wilkin County developed a plan to "retrofit" all public drainage systems to function as one big water and sediment control basin. Retrofitting involves installing side water inlets and riparian buffer strips to decrease erosion and sediment runoff.

The side inlets collect and store rainfall and snow melt until the water level in the drainage ditches recedes, at which point the collected water is slowly released into the county ditch systems. This system slows downstream flooding, which allows eroded soil to be deposited on the landscape rather than end up in the county ditches and bodies of water where the ditches empty.

Even before the Clean Water Legacy Amendment passed, the Wilkin SWCD had retrofitted 20 miles of public drainage systems. Starting in 2010 and continuing through 2012, Wilkin SWCD received Clean Water Fund grants to continue the project, resulting in 90 more miles of retrofitted systems.

The project has already produced results. An estimated 4,100 tons of sediment are kept out of the ditches each year, which achieved over 75% of the sediment reduction goal for the Lower Ottertail River. In addition, the efforts have reduced water flows during peak times by 50-75%. This helps keep the ditches functioning properly and reduces flood damage.

"A lot of credit has to be given to the landowners in the project area. They recognized the need for the retrofits. After realizing the benefits, they only wished we would have done them sooner," Don Bajumpaa, Wilkin SWCD District Manager, said.

The work is not done, though – Wilkin SWCD applied for another Clean Water Fund grant in 2014 to address 10 more miles of ditch system which will remove an additional 670 tons of sediment per year from entering nearby water bodies. Working together, the SWCD, County Board, and engineering staff have improved the county's ditch drainage system, creating positive, lasting effects for the county's land and water.