



# Agricultural Drainage DRAINAGE SURGE BASIN

## Mower County, Minnesota



In conjunction with the Minnesota Department of Agriculture, the Nature Conservancy, and Mower County, I&S designed two drainage surge basins in Mower County. These surge basins were constructed on the Kellogg and Start properties utilizing areas currently not tilled. Existing tile flow and overland flow was diverted into each basin to provide stormwater storage and treatment for agricultural runoff.

Each basin utilizes control structures to fluctuate the water levels throughout the year and to provide the opportunity for testing of flow rate, sediment load, and nutrient load at the outlet of each basin. Woodchip bioreactors were also constructed to provide additional treatment while water is stored in the basin. The Department of Agriculture's research on these basins will provide detailed information on how small surge basins can improve water quality in agricultural watershed.

Photo Courtesy of Mark Dittrich, Minnesota Department of Agriculture