

MAKING A DIFFERENCE



Water quality improvements in the Beaver Creek Watershed

Beaver Creek tumbles over a boulder-filled streambed into the Minnesota River near the city of Redwood Falls. A sub-watershed of Hawk Creek Watershed, Beaver Creek has seen a concentrated effort by the Hawk Creek Watershed Project, Renville Soil and Water Conservation District and many partners to improve and protect its water quality. The result is a 50 percent reduction of total suspended solids and a 25 percent reduction in total phosphorus. To achieve this impressive reduction, the various conservation organizations in the watershed aggressively contacted many of the landowners along the creek. They persuaded many to enroll critical areas into perpetual easements. Programs like Reinvest in Minnesota (RIM), the Conservation Reserve Enhancement Program (CREP) and Wetland Reserve Program (WRP) were effectively used to reduce sediment and nutrients from reaching Beaver Creek and further downstream.

Beaver Creek Watershed Buffers/Grasslands

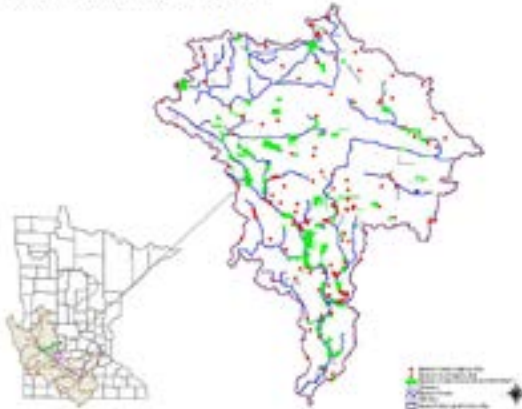


- Grass Practices directly adjacent to Beaver Creek
- RIM, CREP: 4,621 acres – 131 easements
 - CRP only: 75 acres
 - WMA: 188 acres
 - Other idle grass: 2,000 acres – this includes pasture, native prairie, etc.
 - Total: 5,840 acres in programs (4.5%) and 7,480 acres in grass (6.1%)

Beaver Creek Watershed BMPs (including buffers)

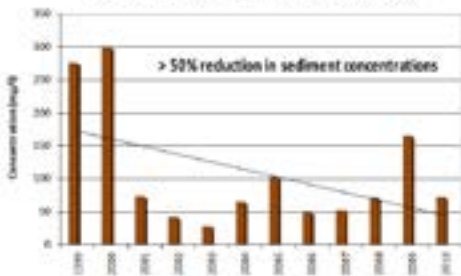


Beaver Creek Watershed Projects



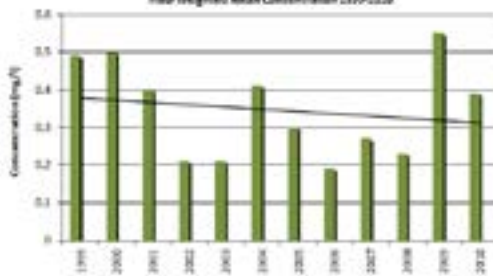
Beaver Creek Sediment

Total Suspended Solids Flow Weighted Mean Concentration 1999-2010



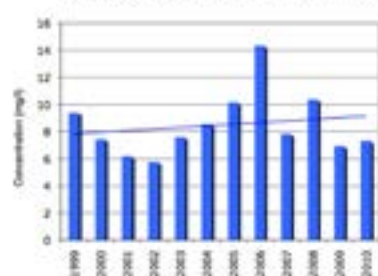
Beaver Creek Total Phosphorus

Flow Weighted Mean Concentration 1999-2010



Beaver Creek Nitrate-Nitrogen

Waste Nitrogen Flow Weighted Mean Concentration 1999-2010



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ASK an EXPERT
ABOUT THE MINNESOTA RIVER

Beaver Creek Continued

Only 6.1 percent of the watershed is enrolled into grass practices, a relatively small amount but placed in key areas. According to conservation staff, this means directly adjacent to streams, in the floodplain, and other critical locations and done through perpetual easement programs. Additionally, land has also been enrolled in the Conservation Reserve Program (10 to 15 year contracts) or established as Wildlife Management Areas (owned by the



Water quality improvement in Beaver Creek Watershed has been held up as a success story by government agencies, nonprofit organizations and citizens. In the 1970s and 80s conditions were less than ideal for the creek and its aquatic organisms. According to Renville SWCD staff, erosion amounting to hundreds of tons of sediment flowed from farm fields into the water on an annual basis. Work will continue to reduce sediment and phosphorus, along with ever-increasing nitrogen levels.



Dramatic water quality improvement in Beaver Creek is beginning to get attention of paddlers, state agencies and others. They noticed the water looked clearer, even after high intensity rain events. Hawk Creek Watershed Project, Renville SWCD and other partners consider this to be one of their biggest success stories. Levels of sediment and total phosphorus have been reduced after a targeted effort to enroll critical areas into perpetual easements.

Thanks to Tom Kalahar & Cory Netland Photos courtesy of Renville Soil & Water Conservation District & Hawk Creek Watershed Project "Ask an Expert about the Minnesota River" project profiles scientists and citizens answering questions about the health of the Minnesota River. More answers to questions about the Minnesota River can be found at: mrbdc.mnsu.edu/learn
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