



Clean Water Funded basins keep soil in place, holds back water



September 2013 Snapshots



(Picture 1) Farm in West Otter Tail County suffered erosion problems following June 2013 storm event. (Picture 2) Water and sediment control basins on neighboring farm prevent erosion and keep soil in place. (Picture 3) LiDAR identifies areas of high sediment contributions.

After strong storms blew across parts of northwestern Minnesota in June 2013, Aaron Larsen took the opportunity to check out how recently-installed conservation practices held up to the weather. He was pleased.

Larsen, the West Otter Tail Soil and Water Conservation District (SWCD) Farm Bill Technician, surveyed nine water and sediment control basins shortly after the storm. He found the basins did exactly what they were supposed to – they held the water back and kept the soil in place.

“I compared two properties after the storm – one where we worked with the landowner, John Boen, to install the basins last year, and a neighboring property that did not have any basins. Mr. Boen’s property didn’t have any erosion issues following the storm – the other landowner wasn’t so lucky,” Larsen said.

The nine basins were installed in 2012 as part of a Clean Water Fund grant from the Board of Water and Soil Resources (BWSR) to the Buffalo-Red River Watershed District. As part of an effort to target and reduce pollution sources to the South branch of the Buffalo River, tools like LiDAR terrain analysis and stream power index were used throughout the entire watershed to identify existing and potential areas of high sediment contributions.

Using these tools, SWCD staff contacted landowners where analysis targeted the best locations for high priority areas for installation of soil conservation practices, like water and sediment control basins and side inlet structures.

Boen, who started farming in 1945, said erosion has been a long-term problem on his property. “When SWCD staff contacted me with the basin idea, I thought it was a good one,” Boen said. “Anyone with crops on hilly ground would benefit from basins. The entire project went well – staff did a great job and the basins have been a good investment.”

Bruce Albright, Buffalo-Red River Watershed District Administrator, said this project gave landowners in the area the first look at this kind of practice. “The aftermath of the storm clearly points out there’s a right way and a wrong way to address erosion,” Albright said. “These basins improve water quality and save costs for landowners. We hope to work with many more landowners in the future to install more of these practices.”

Seventeen side inlet sediment controls were installed in Wilkin County as part of the same grant. Albright estimates that the project saves 358 tons of soil and reduces 400 pounds of phosphorus from reaching the Buffalo River every year.