



LeSueur River shoreline restoration saves homes, prevents erosion



(Picture 1) Bluff 3 had massive erosion prior to project construction. (Picture 2) Crews install natural materials during construction in 2011. (Picture 3) Six months following construction, vegetation has filled in, making the project stronger.

To some people, living on a high bluff overlooking the LeSueur River may seem like a dream come true, but residents in Blue Earth County might tell you otherwise. In 2003, the landowners of “Bluff 3” on the LeSueur River called their local soil and water conservation district (SWCD) to report a problem. The river bank had begun to erode, becoming a threat to their homes. Additionally, the erosion was contributing large quantities of sediment to the LeSueur, and subsequently, the Minnesota River.

Over the next few years, the Blue Earth SWCD worked with the “Bluff 3” landowners and landowners on three adjacent bluffs, Mankato Township, MN DNR and the South Central Technical Service Area to find an innovative and cost-effective way to stop the erosion and save the homes located on this stretch of the river.

After a little research, Jerad Bach, Blue Earth SWCD Manager, found erosion on the LeSueur could be controlled by establishing a flood plain bench, using all natural and local materials, known as a toewood shoreline restoration.

“The flood plain bench protects the banks by allowing the raised flood water to dissipate before flowing along the river. This prevents high-velocity water from cutting through the river bank, causing erosion,” Bach said.

With willing landowners and a plan targeted to fix the problem, Bach applied for and received a Clean Water Fund grant from the Board of Water and Soil Resources (BWSR) for project funding.

Construction on the project got started later than anticipated, due to a massive flood in southeastern Minnesota in the fall of 2010. Nearly a year later, the project began when water flows finally decreased to a workable level. Starting at Bluff 1 and working down to Bluff 4, this project was completed in 2012, only a few months behind schedule.

“Landowners helped by hauling in materials for use in the project,” Bach said. “By using natural materials, we completed the project for a total cost of \$246,750. That’s a huge cost-savings, compared to using traditional stone armoring method, which would’ve cost \$433,000 to fix just one stream bank.”

The materials came in forms of locally dumped trees and brush, as well as trees floating at a natural flood dumpsite near Bluff 4. Bach estimates that the project saves more than 4,800 tons of soil per year from entering the LeSueur River.

“Decreased cost is just one of many benefits of this restoration,” Bach said. “The project looks natural, is cheaper, and creates better habitat for fish and wildlife.”