



# Partnerships create lasting change in Dakota County

June 2015 Snapshots



An eroding ravine on Flint Hills Resources property was a growing concern. Water spilling onto the steep bluff face at the head of the ravine, near the interchange at U.S. Hwy 52 and Minnesota Hwy 55, caused extensive erosion. The erosion, already a problem, was accelerating, depositing sediment from the ravine into Spring Lake and the Lower Mississippi River.

A diverse group of partners emerged in search of a solution. Flint Hills Resources and the City of Rosemount joined forces with Dakota County, Dakota Soil and Water Conservation District (SWCD), the Minnesota Department of Transportation (MNDOT), and the Vermillion River Watershed Joint Powers Organization (VRWJPO) to address the severe erosion. The VRWJPO received \$175,440 in Clean Water Fund grant dollars from the Minnesota Board of Water and Soil Resources (BWSR) in January 2012 to install practices that would help.

A grade-control structure was the most effective and least expensive solution to control the erosion and prevent sediment from reaching Spring Lake and the Lower Mississippi River. This structure takes water from the top of the bluff and transports it to the bottom of the bluff through an underground pipe, eliminating further erosion.

A weir structure was also installed at the top of the bluff to slow down the water flow, which gives water time to be absorbed back into the soil. A pond installed at the bottom of the ravine stores the remaining water, allowing it to soak into the ground and sediment to settle rather than pollute Spring Lake and the Mississippi River. Finally, the ravine was re-vegetated with native plants to further prevent erosion and provide a habitat for pollinators.

The project was completed under budget in July 2014, and has already produced great results. Eighty-two tons of sediment a year is prevented from flowing into Spring Lake and the Lower Mississippi River. The Mississippi River Regional Trail, a paved walking and biking trail, is planned for installation at the top of the bluff, and the new stability of the bluff means an alternate trail alignment is not needed.

“One of the biggest accomplishments of this project was the partnership between so many organizations,” said Travis Thiel, Watershed Specialist at the VRWJPO. “We were able to produce a permanent solution that created long-term water quality change and provided stability to the bluff for a construction of the regional trail.”



*Clean Water Fund grant dollars made it possible to stabilize the ravine and prevent erosion and sediment runoff.*