



# The Sand Hill River: Big project, small watershed

October 2015 Snapshots



Taking a watershed approach to conservation isn't necessarily a new concept in resource management, but it's something we're hearing more and more of in Minnesota. In some parts of the state, it's been an informal part of local conservation for generations. In the northwest part of the state, where the Sand Hill river cuts through the southern half of Polk County, a whole host of conservation professionals and agencies have been working together for years to turn around a river system that was largely diverted, ditched, and drained throughout the early 1900s.

To understand the river's current challenges, we have to travel back in time to the early 1950s. The Sand Hill River had been diverted from its original channel into a seemingly more useful straight ditch between the northern Minnesota towns of Fertile and Beltrami. In the 1950s, noting bank erosion and a deepening of the channel because of the straightening, the Army Corps of Engineers designed and installed four very large drop structures to try and slow down the water as it moved downstream.

Sixty years later, faced with higher overall precipitation, more frequent significant rainfall events, more aggressive agricultural practices, and record-setting floods, those structures are no longer sufficient. Not only are they struggling to keep up with greater demands, these structures also hinder fish passage and natural stream channel habitat. What to do?

The answer for the Sand Hill River includes a watershed approach. While small projects were used to try to address emerging issues like fish passage over the years, in 2011 local conservation professionals started working together in a concerted effort. The Sand Hill River Watershed District, along with East Polk Soil and Water Conservation District (SWCD), started finding upstream landowners interested in implementing small, strategically-placed, farmable water retention practices called "water and sediment control basins." These structures help hold water back for a longer duration of time than a standard tile intake system. They can be farmed through, so they do not interfere with cropping, and they are cost-shareable with state and federal program money.



*One of the Army Corps drop structures installed between Fertile and Beltrami, Minnesota on the Sand Hill River. This structure will be modified as part of the project.*

East Polk SWCD has received over \$1.1 million from the Clean Water Fund for implementation efforts in the Sand Hill River Watershed, with more than \$300,000 coming directly from the Sand Hill River WD during that time. These practices set the stage for addressing the in-stream problems in the straightened stretch. Using a 2009 design developed in partnership by the Sand Hill River WD, Houston Engineering, and the MN Department of Natural Resources, a multi-purpose solution was created that addressed the erosion and sedimentation issues and fish passage and habitat.

West Polk SWCD was awarded \$475,000 from BWSR through the CWF to fund portions of the project's construction. Sand Hill River Watershed District contributed an additional \$118,000 and the SWCD leveraged another \$100,000 from the Enbridge Corporation's "Eco-Footprint" grant program. US Army Corps and Lessard-Sams Outdoor Heritage funds will be used to fund other project components. When all is said and done, the project as a whole is estimated to reduce the amount of sediment entering the Sand Hill River, which is impaired for turbidity, by over 50% or approximately 1200 tons of sediment per year, per mile over the five-mile project area.

Nicole Bernd, West Polk SWCD said of the project: "It's been really impressive seeing all the different partners and everyone making a genuine effort to work together in the Sand Hill Watershed, from all the work done upstream to here, it's exciting."

A shining example of collaboration and partnerships, this project includes eight funding sources, and many more partners including: West Polk SWCD, East Polk SWCD, Sand Hill WD, MN Board of Water and Soil Resources, MN DNR Ecological and Water Resources, and DNR Fisheries, Lessard-Sams Outdoor Heritage Council, Houston Engineering, NRCS, Red River Valley Conservation Service Area engineers, and most importantly over 100 local landowners. The result of these partnerships and collaborations will be a more fishable, swimmable river system, with cleaner water, more suitable fish habitat and connectivity, and the restoration of a small watershed's legacy in the Red River Valley.