Annual Report 2016

Sand Hill River Watershed

Drop Structures.....
Fish Passage Improved!

CLEAN WATER LAND & LEGACY

Rock Riffles in place

Funding received from the Clean Water Land & Legacy

DRAINAGE | WATER QUALITY | RECREATION | RESTORATION | COLLABORATION | WATER MANAGEMENT

ABOUT THE DISTRICT

The Sand Hill River Watershed District, founded in 1975, encompasses approximately 495 square miles that drain to the Sand Hill River and the Red River. The District encompasses portions of Polk, Norman, and Mahnomen counties in northwestern Minnesota. Municipalities within the District include Fosston, Winger, Fertile, Nielsville, and Climax.

Drop Structures

West of Fertile, MN, the West Mill Road Crossing over the Sand Hill River was historically a barrier to fish passage. The crossing consisted of steep box culverts that had velocities that were too high to allow fish passage. Sand Hill River Watershed District reset and extended the box culverts at a flatter grade line, and installed several rock riffles upstream and downstream of the culverts. The West Mill Road Crossing now allows for fish migration up the Sand Hill River, and also still provides a safe crossing for area residents.

This project is being coordinated with the US Army Corps of Engineers to retrofit the existing concrete drop structures with rock rapids for fish passage improvements. Together, both projects will improve grade stabilization and allow fish passage to upstream habitat that is currently isolated. Construction began in 2016, with final completion anticipated in 2017.

Targeted Watershed - Clean Water Fund

Erosion in the Upper Sand Hill River Watershed results in significant head cutting in agricultural fields and stream channels, sediment and nutrient loading on the Sand Hill River, and landowner costs to repair damages caused by gullies. The East Polk Soil and Water Conservation District and SHRWD has a long history of implementing BMPs to help resolve these issues.

In 2016, the East Polk Soil and Water Conservation District partnered with the Sand Hill River Watershed District to attain a Clean Water Fund Grant that provided financial assistance for public outreach, design, and installation of water and sediment control basins in the Upper Sand Hill Watershed.

Minnesota Board of Water & Soil Resources

Thanks to a grant received from MN BWSR, Sediment Control Basins will be strategically placed on the landscape using the results of a PTMApp analysis to develop a Prioritized Implementation Plan. When combined, BMPs installed through this collaborative effort will lead to reduced field erosion and downstream sediment and nutrient loading.

The Grant from MN BWSR also provides funding to reduce channel erosion on the Carlson Coulee, located near Winger, MN. The coulee currently has significant vertical fall, which results in head cutting in the channel. When completed, the project will provide grade control structures within the Carlson Coulee to ensure that erosion in the channel is reduced.

THE TOPOGRAPHY & LAND USE

The Sand Hill River Watershed District is characterized by rolling topography in the eastern and central portions of the District, flattening further to the west. There are many small lakes in the middle of the District between Fertile and Winger. These basins tend to be non-contributing or have poorly developed outlets. The primary land use for the District is agriculture.

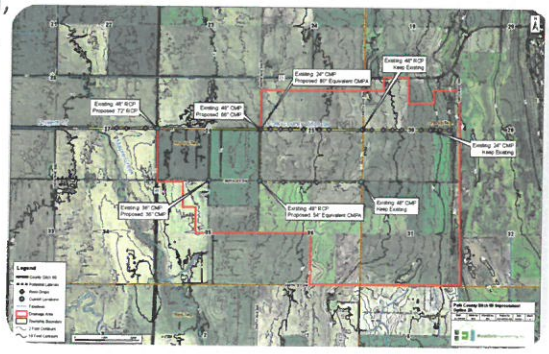
CLEAN WATER LAND & LEGACY AMENDMENT

DITCH # 80

A grant was received through the Multipurpose Drainage Management Program for side inlet pipes on Ditch #80.

In 2016, the district received a petition to improve Polk County Ditch # 80, which was recently transferred to the district by Polk County.

• Polk County Ditch 80 provides drainage for approximately 4.2 square miles. The existing ditch consists of approximately 3.5 miles of open channel, and has over 45 feet of vertical fall. Flows frequently break out of the drainage area, and flow overland, impacting the adjacent Maple Creek. Landowners submitted a petition to the SHRWD to investigate improving the system and adding laterals to control break out flows..



• In anticipation of the petition for Ditch 80, the SHRWD applied for funding through the Multipurpose Drainage Management Program, which is part of the Clean Water Fund administered by BWSR. The SHRWD was successful in securing funding ($68,000) for the installation of side inlet pipes along the ditch channel. These practices will reduce the contribution of sediment into the ditch system, and also reduce the costs required by the benefitting landowners.

Rock Riffles

In order to address the head cutting occurring downstream of the concrete drop structures installed in the 1950's by the US Army Corps of Engineers, the Sand Hill River Watershed District worked collaboratively with the Minnesota DNR, the Board of Water and Soil Resources, and the West Polk Soil and Water Conservation District to install 16 rock riffle structures. The riffles provide grade stabilization and enhanced fish passage for the Sand Hill River. Construction was substantially completed in 2016 by Spruce Valley, with final completion anticipated summer 2017.

Climax Flood Control

The project include installation of permanent flood protection for the community of Climax. Flood protection measures include flood control levees, internal storm sewer pumping stations, equipment, and other items required to provide 100-year flood protection for the community of Climax

The City of Climax flood control levee was substantially complete in the fall of 2016. Phase I, which included utility relocations to make way for the flood control levee, is already complete. Phase II includes construction of the flood control levee, and is underway. Project completion is anticipated in summer 2017.

Administrator 2016 reflections

"The district staff and board have worked very hard this year and have accomplished a lot. We look forward to the coming years success!"

- Thirty - four permits were brought before the board in 2016.
- Three LOMA's were been completed and approved.
- Swenby and Wilkens helped the SWCD staff and teachers with about 335 kids for the day educating fourth grade students about our watershed at the annual MN Water Festival held at Rydell Refuge.
- A sheet pile stoplog structure was installed near the outlet of Project 24, allowing for approximately 2 feet of runoff to be held in an existing water body to reduce low flows that often result in ice plugging of downstream culverts.
- The district plans to pursue a redetermination of benefits on three systems: (Ditch 9, 119, and SH Project #5).
- The district signed up for the RCPP funding to aid in the planning process for flood detention projects and reinstated the project team as required by the program.
- District computer systems were upgraded.
- The district began the implementation of digitizing all of their records and retained a five year contract with E-File Cabinet for the preservation of its records.

Managers & Staff

Stuart Christian - Chair

Scott Balstad - Vice Chair

Bill Brekke - Secretary

Phillip Swenson - Treasurer

Roger Hanson - Manager

Daniel Wilkens - Administrator

April Swenby - Admin. Asst.

The district thanks Bill Brekke for 17 years of service. On December 6, 2016, Bill Brekke attended his last Sand Hill River Watershed Board meeting as a board manager.