

# Sand Hill River Watershed

A watershed is the area within the geographic boundaries of land that drain into a surface water feature such as a stream, river, or lake and contributes to the recharge of groundwater. Watersheds are divided by areas of higher elevation that cause the drainage patterns of surface water within the watershed.

There are 81 major watersheds in Minnesota, some of which overlap into adjoining states. Together, these watersheds make up the State's ten drainage basins. The Sand Hill River watershed, located in the center of the Red River Watershed in Northwest Minnesota, is one of 10 major watersheds in the Red River Basin.

Because water is continually moving, it is a resource that tends to be more difficult to manage on the basis of linear political boundaries. Municipal and county lines, based on the rectangular grid of original government surveys, are not often well suited for the management of water resources.

## 2010 in review

✓ *Fifteen permits were brought before the board in 2010*

✓ *The Sand Hill Restoration project has been placed on hold due to EPA requirements. The district will continue the project when a negotiation is made with EPA.*

✓ *The Project Team continued to meet and discussed the area of the Garden Slough. They are developing a Purpose and Needs statement that will satisfy the USACOE permitting process. Time is of the essence as Norman County is rebuilding the road along Garden Slough.*

✓ *Houston Engineering continues to work on the district's overall plan.*

✓ *Two district managers were trained to use LIDAR.*

✓ *The East Polk SWCD and the Sand Hill River Watershed District continue to coordinate their efforts to provide erosion control measures to landowners.*



Roger Hanson

Roger Hanson and his wife Shirley farm near Beltrami, MN, and have two children and 6 grandchildren. The Hanson's enjoy fishing, reading and travel. Hanson has been involved in the Sand Hill River Watershed District since 1978. Hanson says serving a community need makes being a Sand Hill Watershed representative worth while and enjoys being able to work in an area of interest.



Bill Brekke Jr.

Robert Brekke Jr. and his wife Heidi farm near Nielsville, MN. They have three children and one grandchild. Bill enjoys hunting/shooting sports and is most known for his hunting trips to Africa. He has been a Sand Hill River Watershed District manager since 1999 and will continue to "help water move".



Stuart Christian

Stuart Christian is self-employed. He enjoys spending time with his wife Penny and their 4 daughters, Kalle, Andrea, Mariah, and Natalie. They enjoyed the outdoors and take advantage of skiing, snowmobiling and all lake activities. Manager Christian has been involved in the Sand Hill River Watershed District since 1999.

In 1955, the Minnesota Legislature passed the Watershed Act in order to better address water-related issues and concerns occurring within the state at the watershed level. Watershed districts are special purpose units of local government that have been created to help prevent and solve water resource problems on a watershed basis. The boundaries of a watershed district generally follow the hydrologic or topographical limits of an area or region. Most often, watersheds are named for the major surface water resource within the watershed. Hence, the name Sand Hill River Watershed District.

### History of the Sand Hill

The Sand Hill River in its natural state passed north of the City of Beltrami in a poorly defined channel and dispersed into marshes which extended westerly for over ten miles before reappearing as a river which flowed into the Red River of the North. In an effort to confine the Sand Hill River in a fixed channel, two state ditches were constructed during 1894-1898, substantially along the course now occupied by the present channel. The improvements were not adequate and additional construction was completed in 1917.

As drainage and flood problems persisted, the Corp of Engineers began a study of the river in 1942. As a result the Sand Hill Drainage and Conservancy Board was established by an order of the District Court of Polk County, State of Minnesota, on the 18th day

of May, 1949 to carry out the Corps project to improve the main channel. The overall purpose of the Board was for "flood control and improvement of the Sand Hill River channel." Construction work was completed in the fall of 1954.

The process to establish the Sand Hill River Watershed District was a Court Hearing at Crookston, MN on August 28, 1974. The place of business of the Sand Hill River Watershed District was determined to be at Fertile, MN. The duties and responsibilities of the old Sand Hill River Drainage and Conservancy Board were given to the new District on May 28, 1975 in accordance with the Minnesota Watershed Act.

In 1976 the Sand Hill River Watershed District signed a joint powers agreement with six other watershed districts to form an organization now known as the Red River Watershed Management board. In 1980 the Buffalo Red Watershed District joined and in 1994, Boise De Sioux also joined.

On March 8, 1978 the Sand Hill River Watershed adopted the Rules and Regulations pursuant to Minnesota Statutes. They were later amended on October 3, 1978.

The District's south boundaries were hydrologically determined and established at a hearing at the Fertile Community Center June 26, 1984. The north boundaries were established from the old Sand Hill Drainage & Conservancy District. The District encompasses 475 square miles, almost wholly in

the south part of Polk County, with a small part in Mahanomen and Norman County. The area includes the entire drainage basin of the Sand Hill River.

The average width of the basin is 8 miles and it is approximately 55 miles long. The Sand Hill River originates in Sand Hill Lake, located about four miles south of the City of Fosston and outlets two miles west of Climax into the Red River of the North. Elevation at the eastern end of the watershed is nearly 1,350 feet above sea level with an elevation of 850 feet at the western end.

Approximately 90 percent of the land in the District is used for agricultural or agriculturally related purposes. The watershed can be divided into three areas as follows:

a.) West End: This is the Red River Valley area, which was the bed of Glacial Lake Agassiz. It is nearly level and almost all cultivated. It extends easterly from the Red River of the North to a point about 6 miles west of the City of Fertile.

b.) Central Region: This area is located from 6 miles west of the City of Fertile to a point about 3 miles east of the City with a major drop of nearly 300 feet in elevation from east to west. This area has considerable wetlands, gravel ridges and scrub tree growth.

c.) East End: The upper reaches of the watershed are glacial in origin and its soils support agricultural uses. It is mostly gently rolling terrain with numerous potholes, the majority of which have been drained.



**Harold Vig**

Harold Vig is a retired farmer. He and his wife reside in Fosston and share three children. Aside from his family, Manger Vig enjoys the sport of golf. He has been involved in the Sand Hill River Watershed District since 1994 and is pleased to see a project come to completion.



**Scott Balstad**

Scott Balstad joined the Sand Hill River Watershed District Board of manager in 2010, filling the previous spot of the late Gordon Sonstelie. Scott resides in the Fosston area where he and his family farm. He is no stranger to the "world of water" as he has served as a district advisory committee member for years.



**Gordon Sonstelie**

Gordon Sonstelie was born on April 16, 1938 and passed away suddenly on Saturday, April 3, 2010. The Sand Hill River Watershed Board of managers thanks him and his family for his many years of service in the water world and will miss his proven dedication to the district and pay tribute to his friendship. Additional words on last page.....



### Project # 24

Project #24 will improve Polk County Ditches #77 and # 166 in the Nielsville area. It consists of approximately 17 miles of ditch improvement, covering about 10,000 acres.

The preliminary hearing was held June 17th at 10:00 AM at the Legion Hall in Nielsville. Managers reconvened the preliminary hearing of Ditch # 24 at the following monthly board meeting. At that time, the manager order the project in.

### Drainage Records Modernization

The District  
submitted

a signed grant agreement and a work plan/budget to BWSR. The grant is designed to help district's preserve historical records. Houston Engineering has been contracted to digitize the district records and make pertinent information such as permits available on the web. In 2011, the district hopes to have the majority of their records digitized.

### Garden Slough

Woodbury presented 5 alternatives to the managers and for the project team. The results of the wetland inventory and assessment work for each site was also presented.

### Fish Passage

The district continues their efforts to make the Sand Hill River a viable fishery. Mike Wyatt highlighted Section 1135 projects in

regards to the Sand Hill Restoration Project (I.E. Fish Passage) as an ecosystem restoration project. The USACE will provide the project design/technical information, construction contract/management and cost share at 75%. The district is responsible for the 25% cost share, lands and easements necessary, and to obtain the state and local permits necessary for the project. Houston Engineering was optimistic that the USACOE 1135 program will have grant money available in the near future for the Fish Passage project.

### TMDL

MPCA is coordinating with the District and is participating in the process and/or taking the lead role in the process. The TMDL study for the Sand Hill River Watershed will be reimbursed to the district from MPCA for \$150,000 for the first year

# Sand Hill 2010



Fish passage

The district continues to collaborate with the US Army Corp. of Engineers and the MN DNR on design and future funding to bring the project to completion. When completed this project will provide 60 + miles of pristine stream for fish spawning.



East Polk Cost Share

The district continues to support the East Polk SWCD in constructing sediment ponds. The district cost shares with the landowners and the SWCD help reduce the sediment load in the Sand Hill River, giving great water quality benefits.



Farmstead Ring Dikes

Three farmstead ring dikes were constructed in 2010. The landowners cost shared the funding supported through West Polk NRCS. All ring dikes were located in Hubbard and Vineland Township.

and \$100,000 for the second year. This process began in July of 2010.

#### District Boundary Revision

The Red Lake Watershed District and the Sand Hill River Watershed are coordinating with Houston Engineering to develop a boundary request that is expected to be completed early in 2011.

#### City of Fosston

The district received a permit application from the City of Fosston for an industrial park drainage project. Pursuant to ditch law, the district has advised the City of Fosston to explore the possibility of petitioning the watershed district for an improvement project in this area.

#### Farmstead Ringdikes

Three farmstead ringdike projects were awarded to Custom Earth, Inc.



#### Gordon Sonsteli

Gordon Sonsteli was born on April 16, 1938 and passed away suddenly on Saturday, April 3, 2010.

The Sand Hill River Watershed Board of managers remember Sonsteli as a devoted district manager who knew the art of mediation and had a love for the area. Gordon was a valued director and was an asset to those who lived near the lake. Not only was he a district manager, but a husband, father and a grandfather.

# Yearly Review



Project # 24

Project # 24 is located in Hubbard Township. It consists of approximately 17 miles of ditch improvement covering a land area of approximately 10,000 acres.

This project will improve drainage and provide erosion control. This will greatly enhance water quality and reduce future maintenance.



Sand Hill Ditch

The district began working with the EPA to restore the upper reaches of the Sand Hill Ditch to accommodate high flows and fish passage issues. Construction is planned for 2011.



Liberty Onstad

JC & J Trucking was awarded a bid to clean the Liberty Onstad ditch. The ditch had a foot and a half of sediment, greatly reducing the capacity. Cleaning will begin in 2011.



# Sand Hill River Watershed

ANNUAL  
REPORT  
2010