

## **Watershed Projects Throughout The State Improve Water Quality & Soil Health**

*By Lura Roti for SDSHC*

Private landowners play a critical role in caring for South Dakota's nearly 100 thousand miles of streams and rivers explains Kris Dozark, an environmental scientist with the S.D. Department of Environment and Natural Resources (SD DENR).

Some examples of practices that help to improve water quality include the implementation of riparian buffers and grass waterways to reduce field sediment and nutrient run-off, preventing animal waste from entering waterways, grassland management practices, as well as various practices which help to increase infiltration rates. Cost-share projects which include these, and many others are underway across the state, including a project being administered by the SD Soil Health Coalition.

Dozark says the cost-share projects are a win-win - improving the state's water quality and helping improve land values. "In many cases, 319 Watershed Projects solve a problem for agriculture producers. Whether the current feed yard is muddy most of the season or erosion is leading to land loss, once we mitigate the issues, cost-share dollars are spent helping the landowner get something they need, like concrete bunks or a drip irrigation system and water quality improves."

"Because the majority of land abutting lakes and streams is privately owned, we depend on private partnerships to help deal with water quality issues," says Dozark, South Dakota's 319 Implementation Coordinator.

The type of water quality issues Dozark works on are those that impact watersheds throughout the state. With funds from the Environmental Protection Agency (EPA), he coordinates a team of engineers and scientists who work with landowners across the state to reduce non-point source water pollution through the Watershed Protection Program.

Like its name suggests, non-point source pollution is water pollution that does not come from a specific point – such as a pipe dumping waste directly into a stream or river. Some examples of non-point source pollution include urban storm runoff, sediment, livestock waste or nutrient runoff.

"We fund the implementation of projects and conservation practices that help improve water quality and help agriculture producers and other landowners as well," Dozark explains.

### **Active Implementation Projects**

#### Belle Fourche River Watershed Partnership

Project Coordinator: Justin Krajewski, 605-877-2134, [Justin.Krajewski@respec.com](mailto:Justin.Krajewski@respec.com)

The Belle Fourche River Watershed Partnership (BFRWP) is a 501c3 organization, comprised of the District Chairs from the Butte, Lawrence, and Elk Creek Conservation

Districts, and the Belle Fourche Irrigation District (BFID), and has been committed to conservation within the Belle Fourche Watershed for more than 20 years.



Link to graphic [here](#)  
Photos Courtesy of Belle Fourche River Watershed Partnership

*Flood irrigated field converted to a center-pivot irrigation system in the Belle Fourche River Watershed.*



Link to graphic [here](#)  
Cross fence installed to improve grazing management within the Belle Fourche River Watershed.



Link to graphic [here](#)  
Photos Courtesy of Belle Fourche River Watershed Partnership

*Livestock watering facility installed in the uplands to replace watering on the Belle Fourche River.*



Link to graphic [here](#)  
Buried pipeline to supply livestock watering facilities in the Belle Fourche River Watershed.

### Northeast Glacial Lakes Watershed Project

Project Coordinator: Dennis Skadsen, 605-345-4661 ext.118,  
[dennis.skadsen@sd.nacdnet.net](mailto:dennis.skadsen@sd.nacdnet.net), [www.neglwatersheds.org](http://www.neglwatersheds.org)

The focus of this project is to maintain the water quality of 13 lakes located on the Prairie Coteau, and streams and rivers comprising the Upper Minnesota River Basin in northeast South Dakota that are not yet impaired.



Link to graphic [here](#)  
Photo Courtesy of Doug Backland

*The project promotes the installation of buffer strips between lakeshore property and the lake shore. Buffers reduce phosphorus and other lawn care products from entering the lake to reduce and prevent nuisance algal blooms. Lakefront property owners are also encouraged to use “No P” lawn fertilizers and to test their soil.*



Link to graphic [here](#)  
Photo Courtesy of Northeast Glacial Lakes Watershed Project

*The project works with farmers to protect riparian areas by installing buffers to prevent sediment and nutrient runoff to streams and rivers. It also partners with livestock producers to install livestock stream crossings to reduce stream erosion and better utilize pastures.*

### Upper Big Sioux River Watershed Project

Project Coordinator: Roger Foote, 605-882-5250, [rfoote@watertownsd.us](mailto:rfoote@watertownsd.us)

The Big Sioux River Watershed Project works to reduce the amount of sediment, phosphorus, and e Coli present in the Big Sioux River, Lake Kampeska and Lake Pelican. Cost share funds allow for construction of grassed waterways, sediment traps, lake shore protection, riparian area management and buffer strips along impaired water bodies.



Link to graphic [here](#)  
Photos Courtesy of Upper Big Sioux Watershed Project

*Grassed Waterway*



Link to graphic [here](#)

*Shoreline Protection*



Link to graphic [here](#)

*Wetland Restoration*

## Soil Health Improvement and Planning Project

Project Coordinator: Cindy Zenk, (605) 280-4190, [sdsoilhealth@gmail.com](mailto:sdsoilhealth@gmail.com)

The SD Soil Health Coalition's project provides information and education to local landowners and the general public, to enable them to better understand the relationship between soil health practices, benefits, and water quality. Project components include assisting landowners with funding, technical assistance, BMP information, planning, as well as the preparation of applications for financial assistance when necessary.



Link to graphic [here](#)  
Photo Courtesy of SDSHC

*A slake test helps to demonstrate how increased soil health and aggregation can reduce its susceptibility to erosion. The best way to increase water quality is to prevent soil erosion at its source.*



Link to graphic [here](#)  
Photo Courtesy of USDA-NRCS SD

*Cover crops can be utilized to increase organic matter and infiltration in prevent plant fields. Increasing organic matter increases a soils capacity to hold and store water.*

## Big Sioux River Watershed Project

Project Coordinator: Barry Berg, (605) 330-4545, [barry.berg@sd.nacdnet.net](mailto:barry.berg@sd.nacdnet.net)

## South Central Watershed Project

Project Coordinators: Rocky Knippling, (605) 734-5953, [rocky.knippling@sd.nacdnet.net](mailto:rocky.knippling@sd.nacdnet.net)  
Shane Deranleau, (605) 210-0188, [shanederanleau@gmail.com](mailto:shanederanleau@gmail.com)  
Matthew Cavenee, [mattcavenee@gmail.com](mailto:mattcavenee@gmail.com)

## SD Discovery Center Information and Education Project

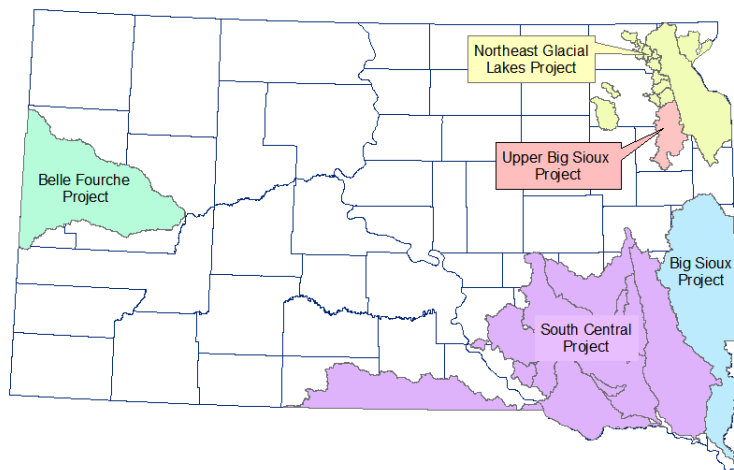
Project Coordinator: Anne Lewis, (605) 224-8295, [annelewis@sd-discovery.com](mailto:annelewis@sd-discovery.com)



## Soil Health & Water Quality

The five principles of soil health align with the best management practices or BMPs listed and implemented in the 319 Watershed Projects, says Barry McLaury, Administrator of the Watershed Protection Program for SDDENR. “Healthy soil increases the soil’s ability to hold water on the landscape so that it does not run off. This ability to store water helps improve water quality and reduces flood issues downstream. The Natural Resources Conservation Services ‘rainfall simulator illustrates how important soil health really is.”

A list of current watershed projects which are all working to improve water quality and many times include funding for soil health related practices is listed above. The SD Soil Health Coalition is one of the listed organizations, working to administer a watershed project and is excited to announce that new funding will soon be available through this project to cost share soil health practices such as the seeding of cover crops or the implementation of proper grazing management. To learn more about watershed projects throughout the state, or how to implement a project on your land, visit <https://denr.sd.gov/dfta/wp/wp.aspx> or call 605-773-4254. Contact the project coordinators listed above for more information regarding funding specific to each project and area.



Link to graphic [here](#)

*Map Courtesy of SD DENR*

“The type of water quality issues Dozark works on are those that impact watersheds throughout the state. With funds from the Environmental Protection Agency (EPA), he coordinates a team of engineers and scientists who work with landowners across the state to reduce non-point source water pollution through the Watershed Protection Program.