

RIPARIAN

B U F F E R S



WATER'S LAST DEFENSE

In 2015, SCCD distributed a Social Indicators Survey to urban and rural residents within the Goose Creek watershed. The purpose of the survey was to help improve planning and evaluation of watershed projects by identifying the awareness, knowledge, values and beliefs of individuals regarding issues and management practices within the watershed. Approximately 50% of respondents were unfamiliar with riparian buffers.

Riparian buffers are strips of vegetated land located between areas of land use and a waterbody. The buffer provides a natural filtration of pollutants that move across the landscape during a runoff event. In a healthy ecosystem, almost all snowfall and rainfall is retained within the living plant material, litter, and topsoil, with minimum runoff. Bare ground and hard packed soils, such as on overgrazed rangeland or roadways and parking areas, act to prolong and intensify drought conditions because almost all precipitation runs off the landscape. This not only deprives the system of moisture but provides a clear path for bacteria and other pollutants to enter the waterbody. Many streams in the Goose Creek watershed have been identified as having bacteria and sediment concerns.

Riparian buffers should be well vegetated with a mix of perennial grasses, forbs, and woody plants of several species and age classes. Often these natural features are missing in developed and residential areas and on farms and ranches. Vegetation also

helps controls erosion and provides wildlife habitat. Once established, a riparian buffer is relatively easy to maintain and can return measurable water quality benefits.

Both urban and rural residents can play their own part in protecting water quality with the following practices:

RURAL RESIDENTS AND LIVESTOCK OWNERS

- Fence off riparian areas to protect and encourage native plant growth within the buffer area and allow the riparian pasture to be managed separate from uplands
- Locate feeding, watering and shelter areas away from waterbodies to minimize livestock access and prevent overuse of streams and riparian corridors
- When necessary, graze riparian areas during the dry season when runoff potential is minimal
- Leave a space along streambanks when haying or farming adjacent areas

URBAN RESIDENTS

- Leave a space along streambanks when mowing, burning and weed-eating adjacent areas
- Allow grasses and forbs to grow naturally along the waterway and/or plant willows or other woody species to help re-vegetate bare areas
- Pick up after your pets-in your yard, parks, and along the pathways, especially near water

WANT TO INSTALL A BUFFER? FENCE OFF THE CREEK?



Through federal and state grants, the SCCD offers financial assistance for projects that benefit water quality in the Goose Creek watershed. Typical projects include installing fencing or stockwater systems to minimize livestock access to waterbodies and relocating corrals or animal feeding areas away from waterbodies. SCCD also offers assistance for replacing eligible septic systems to eliminate sewage discharges.

If you would like to apply for cost-share funds through one of SCCD's many water quality improvement programs, we encourage you to contact SCCD or visit our website at www.sccdwy.org to determine if the project is eligible and to learn more about the application process. In the event that you are ineligible for cost-share funds, the SCCD and NRCS can still provide technical assistance.



2018 GOOSE CREEK MONITORING PRELIMINARY DATA

SCCD conducts water quality monitoring on the Goose Creek Watershed, which has occurred every 3-4 years since 2001. The purpose of monitoring is to document changes in water quality over time. Some pollutants, such as bacteria, can vary in response to a number of different factors, including changes in water temperature, water quantity, and runoff conditions. A long-term data set can help with the big picture, rather than isolated instances and locations.

In 2018, SCCD collected samples from 18 sites from May through September, including ten sites on the Big Goose, Little Goose, and Goose Creek mainstems and eight tributary sites. The parameters included water temperature, pH, conductivity, dissolved oxygen, discharge (flow), turbidity and bacteria; macroinvertebrate sampling and habitat assessments were performed at select stations.

Since monitoring began in 2001, water temperature for cold-water fisheries and bacteria concentrations for recreational use have been the primary concern at locations throughout the watershed; sediment has also been an issue. For the most part, bacteria concentrations in 2018 continued to exceed state water quality standards at the same sites as in previous years. Bacteria concentrations at individual sites were generally greater in 2018 than in 2001. Samples in 2001 were collected during drought conditions; precipitation in 2018 was higher than normal, which would increase runoff potential.

Bacteria concentration and flow information can be used to determine the percent reduction needed for bacteria levels to meet water quality standards. Reduction figures are based on the average of data collected over the entire monitoring season. In 2018, only three tributary subwatersheds required greater than 65% reduction in bacteria levels compared to seven in 2012. SCCD updates the load reduction estimates after each monitoring season. While bacteria concerns continue to exist, information from monitoring efforts allows SCCD to prioritize projects and efforts as conditions change. Further bacteria reductions can be supported through continued implementation of projects and practices to improve water quality.

Once approved by the Wyoming Department of Environmental Quality, the report will be available on our website www.sccdwy.org

2018-2019 GOOSE CREEK WATERSHED PROJECTS

2018 WATER QUALITY PROJECTS

- Two septic system replacements in the Little Goose Creek watershed

2019 WATER QUALITY PROJECTS

- One septic system replacement in the Little Goose Creek watershed
- One septic system replacement in the Big Goose Creek watershed
- A corral runoff management project in the Little Goose Creek watershed
- A streambank stabilization project in the Little Goose Creek watershed
- Removal of 1 acre of Russian Olive in the Little Goose Creek watershed

ANNUAL GOOSE CREEK WATERSHED STEERING COMMITTEE MEETING

**THURSDAY, FEBRUARY 27TH, 6 PM
INNER CIRCLE, SHERIDAN COUNTY LIBRARY**

The Goose Creek Watershed Steering Committee, which is comprised of landowners and interested parties, provides input and recommendations to the SCCD for implementing resource programs within the Goose Creek Watershed.

The meeting is open to anyone living in or interested in the Goose Creek Watershed.

Please join us on February 27th,
your input is always welcome!