2019 Prairie Dog Creek Watershed Annual Newsletter





Every year during and after spring runoff, we receive calls from folks concerned about bank erosion and flooding. Often the concerns are related to fears about loss of infrastructure or property. While these concerns are certainly understandable, an eroding bank is not necessarily cause for alarm. Erosion is a natural stream process and some level of continual channel adjustment is expected and desired in a healthy stream. Similarly, deposition of material eroded elsewhere is a natural part of stream function. Both of these functions occur because streams are constantly trying to balance their water and sediment supplies. Streams are dynamic systems, constantly adapting to changing conditions.

Removal of deep-rooted, woody cover to enhance the view of the stream, can contribute to bank instability. Similarly, closely mowing, grazing, or producing crops or hay up to the stream edge removes vegetation, and weakens root systems and the plant's regenerative ability, which limit the plants' ability to hold banks in place. Vegetation is the best protection for streambanks, and when managed appropriately is self-regenerating. Planting willow cuttings can be an effective method for controlling erosive banks. All types of willows can be established from cuttings. Cutting and planting needs to be completed in early spring before willows break dormancy. Some success has also been seen with fall establishment. Cuttings must be planted deep enough to reach the water table and be protected from deer, livestock and other wildlife. The SCCD offers assistance for cutting establishment on a first come, first serve basis.

PRAIRIE DOG CREEK WATERSHED *E. COLI* Total Maximum Daily Loads

During 2007-2008, SCCD conducted a watershed assessment in the Prairie Dog Creek Watershed, initiating interim water quality monitoring in the watershed in 2011. Before and after the assessment, segments of both mainstem and tributaries to Prairie Dog Creek indicated levels of bacteria that exceeded Wyoming Water Quality Standards for recreational use, and were added to the Wyoming Department of Environmental Quality (WDEQ) 303(d) list. A watershed plan was approved in 2011, which recommended continued monitoring, informational and educational activities, and continued administration of cost-share programs for improvement projects. WDEQ completed a Total Maximum Daily Load (TMDL) for the Prairie Dog Creek Watershed, which was approved by the EPA in February 2018. A TMDL indicates the amount of a given pollutant a waterbody can receive and still meet water quality standards. SCCD plans to incorporate recommendations from the TMDL into future implementation strategies in the Prairie Dog Creek Watershed.

PRAIRIE DOG CREEK WATER QUALITY MONITORING

In 2007, the SCCD, NRCS, and local watershed stakeholders initiated a watershed assessment and subsequent water quality improvement efforts in the Prairie Dog Creek Watershed. Interim monitoring has occurred every three years since 2011. Parameters monitored include water temperature, pH, conductivity, dissolved oxygen, discharge, turbidity, and *E. coli*. Benthic macroinvertebrate collections and habitat assessments are completed each monitoring year.

Early season bacteria concentrations were generally higher than late season concentrations, corresponding with runoff. All but one site had mean bacteria concentrations that exceeded the Wyoming Water Quality Standards during the early season. An overall increase in early season bacteria concentrations was reported at most sites from 2014–2017, with more variation in concentrations during the late season. Bacteria concentrations at all but one site decreased from 2011 to 2017 during the late season. Bacteria concentrations are known to vary in response to a number of different factors, including changes in water temperature, water quantity, and suspended sediment loads.

The purpose of monitoring is to document changes in water quality over time. While bacteria concerns continue to exist and it may seem like we aren't gaining anything, collected data is useful for us to prioritize projects and efforts as conditions change. The 2017 Prairie Dog Creek Interim Monitoring Report was approved by the Wyoming Department of Environmental Quality in November 2018, and is available for your reading pleasure on our website at **www.sccdwy.org**







SHERIDAN COUNTY Sheridan County Conservation District 1949 Sugarland Drive, Suite 102 Sheridan, WY 82801 (307) 672-5820 ext. 3 www.sccdwy.org

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Protecting Sheridan County's water and land quality through assistance programs, education, monitoring and planning.



PRAIRIE DOG CREEK WATERSHED STEERING COMMITTEE MEETING The annual Prairie Dog Creek Watershed Steering Committee Meeting will be held on Tuesday, February 19th at 6:00 p.m. at the Prairie Dog Community Center (702 Highway 14, East of Sheridan). The Prairie Dog 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 Prairie Dog Creek Watershed.

The meeting is open to anyone living in or interested in the Prairie Dog Creek Watershed. Join us on February 19th, your input is always welcome!

FINANCIAL ASSISTANCE AVAILABLE FOR **QUALIFIED PROJECTS**

Through federal and state grants, the SCCD offers financial assistance for projects that benefit water quality in impaired watersheds. Typical projects include installing fencing or stockwater systems to minimize livestock access to waterbodies, relocating corrals or animal feeding areas away from waterbodies, and replacing eligible septic systems to eliminate sewage discharges. Descriptions of select projects are available on SCCD's website at www.sccdwy.org. 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 to determine if the project is eligible and to learn more about the application

process.







HAVE YOU SEEN THESE GRASSES?

Ventenata and medusahead are aggressive annual grasses capable of excluding desirable native species and drastically reducing livestock forage. Always clean shoes, animals, and equipment before entering or exiting an area to prevent the spreading of seeds. If you have seen either species, please report the type and location on EDDMaps (online or through the smartphone app) or contact Sheridan County Weed and Pest at (307) 672-3740. For more information, visit www.scweeds.com



