

Upper Big Goose Creek Watershed Control Program

Scope: Local

Location: Wyoming

CONTACT INFORMATION:

Collaborative Leads: City of Sheridan & Sheridan Area Water Supply Joint Powers Board (SAWS-JPB)

Contacts:

Tom Manolis - Water Treatment Superintendent
City of Sheridan
tmanolis@sheridanwy.net
(307) 674-8532

Dan Coughlin Project Manager
Sheridan Area Water Supply JPB
dcoughlin@sheridancounty.com
(307)675-2930

Cory Medill
Source Water/Intake Operator
City of Sheridan
cmedill@sheridanwy.net
307-674-7906

Website: https://www.sheridanwy.gov/government/utilities/water/source_water_protection

SCOPE:

- The purpose of the Upper Big Goose Creek Watershed Control Program (UBGCWCP) is to address Cryptosporidium pollution in the Big Goose Creek watershed above Sheridan's drinking water intake. This project will help achieve compliance with the Safe Drinking Water Act and maintain current compliance with the Clean Water Act above the source water intake.
- The US Environmental Protection Agency supports a comprehensive strategy to address Cryptosporidium contamination in headwaters areas. The completed Upper Big Goose Watershed Management Plan (UBGCWMP) is designed to meet the standards set forth in 40 CFR 141.716(A)(2)1 and will serve as the basis for a Watershed Control Program under the EPA's Long Term 2 Enhanced Surface Water Treatment Rule (LT2) rule.
- The UBGCWMP is meant to provide a framework for managing efforts to protect overall watershed health and decrease the likelihood for pollutants to enter the watershed.

COLLABORATIVE FORMATION:

- The UBGCWCP was formed to implement the Upper Big Goose Creek Watershed Management Plan, which was developed by Vela Environmental and stakeholder members in 2015. Since the overwhelming majority of the Big Goose Creek Watershed is located on land managed by the USFS, the number of stakeholders is smaller than it is in most watersheds. A number of government agencies and forest users constitute the group of impacted stakeholders and partners

STRUCTURE/FUNDING:

- UBGCWCP Leaders: City of Sheridan and Sheridan Area Water Supply. The group meets 2-3 times annually and as needed between agencies.
- Implementation of the Upper Big Goose Creek Watershed Control Program is guided by the Upper Big Goose Creek Watershed Management Plan.
- Primary potential funding sources for implementation activities are the following:
- *Wyoming Department of Environmental Quality - Section 319 Grants*
 - Section 319 funds support a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects and monitoring to assess the success of specific nonpoint source implementation projects.
 - 319 funding for projects on public land requires a nonfederal match of 40%.
 - Eligible 319 activities include BMP implementation, information and education, and a limited amount of problem identification.
- *Wyoming Department of Agriculture—Water Quality*
Water quality grants available to conservation districts for water quality related projects, such as education, BMP projects, water quality monitoring, or research.
- *Wyoming Water Development Commission—Small Water Project Program (SWPP)*
The purpose of the SWPP is to participate with land management agencies and sponsoring entities in providing incentives for improving watershed condition and function. Projects eligible for SWPP grant funding assistance include the construction or rehabilitation of small reservoirs, wells, pipelines and conveyance facilities, springs, solar platforms, irrigation works, windmills and wetland development for sediment removal.
- *City of Sheridan*
The City of Sheridan can provide funding for capital expenditures as well as operating costs through the revenue from water utility rates, issuance of bonds, and other local sources.
- *Sheridan Area Water Supply Joint Powers Board*
SAWSJPB can provide funding for capital expenditures as well as operating costs through the revenue from water utility rates, issuance of bonds, and other local sources.
- *Sheridan County Conservation District Cost Share Programs*
SCCD offers financial assistance for projects that benefit water quality. SCCD receives money from federal sources to implement projects at the local level.

MEMBERS:

- EPA Region 8
- USDA Forest Service
- Sheridan County Conservation District
- Sheridan Area Water Supply (SAWS)
- City of Sheridan
- Wyoming Association of Rural Water Systems
- Wyoming Department of Environmental Quality (DEQ)

WATER CONCERNS:

- Nonpoint source pollution resulting in elevated concentrations of Cryptosporidium, E. coli and sediment.


STRATEGIES:

- The goals of the UBGCWMP are:
 - Locate where and how Cryptosporidium is entering the watershed and identify sources.
 - Gathering the needed information and data to determine the source of Cryptosporidium is outlined as part of the implementation of the UBGCWMP. Sampling for the presence of Cryptosporidium is conducted monthly and if a sample tests positive, genotyping will also be conducted. No current testing has been done to determine the genotype of the Cryptosporidium oocysts that have been present in the Big Goose Creek watershed. The EPA recommends, due to lower analytical cost, that in addition to the proposed periodic Cryptosporidium sampling that periodic E. coli sampling with enumeration analysis be conducted at key points along the Big Goose Creek.

- Act to minimize potential contributions from all sources of pollutant contributors in the Upper Big Goose Creek Watershed, and increase public outreach, involvement, and education concerning the Big Goose Creek Watershed.
- Educating the public on watershed protection and creating awareness for the status of the watershed as a drinking water supply have been key strategies early on in implementation of the Watershed Control Program.
- Once a source or sources of Cryptosporidium are identified implementation of specific Best Management Practices can be addressed in earnest.

RESULTS:

- Implementation of the UBGCWMP began in the spring of 2018. These activities are ongoing:
 - Assessment and additional monitoring to be used to target installation of conservation practices or BMPs.
 - Examples of early outreach efforts include: hanging signs within the watershed to help create watershed protection awareness among watershed users, sending out mailers to home owners within the watershed to remind them that septic systems need regular maintenance and creating a web page to let the public know what we are doing and what they can do to help.



Information current as of November 2020. Please check with the Collaborative contacts (or website if available) for the most up to date information. To find other source water collaboratives across the U.S. or to add yours to the list, visit the Source Water Collaborative's [How To Collaborate Toolkit](#)