

Prairie Dog Creek Watershed Meeting
March 27, 2018
Prairie Dog Women's Club
Meeting Minutes

Present:

Susan Holmes, SCCD
John Kane

Charlie Cook
Sue Cook

Jackie Carbert, SCCD
Carrie Rogaczewski, SCCD

Meeting Opening and Introductions

Susan Holmes called the meeting to order at 6:00 pm and introductions were made. Carrie gave a brief history on water quality monitoring on the Prairie Dog Creek watershed. She outlined the formation of the Prairie Dog Creek watershed steering committee, the Prairie Dog Creek Watershed Assessment and Plan, and the monitoring efforts that have resulted thus far.

2017 Monitoring Results

Jackie provided a recap of the 2017 monitoring results on the Prairie Dog Creek watershed.

Two sites reported temperatures at or slightly above the 20°C instream temperature standard on July 11th. PD01 reported 20.5°C; PD05 reported 20.0°C. All other sites reported temperatures below the standard for the entirety of the monitoring season. For continuous temperature readings, PD10 did not report any measurements above the standard. All other sites reported continuous temperature readings that exceeded the 20°C standard.

All sites reported pH values within the Wyoming water quality standard (6.5 to 9.0 SU). All sites met the minimum instantaneous dissolved oxygen concentration standard of 5.0 mg/L for early life stages and 4.0 mg/L for other life stages.

Average conductivity values generally increased from upstream to downstream at mainstem and tributary sites (handout). Conductivity was higher earlier in the season (May-July) than later in the season (July-September) at all mainstem sites, with the exception of PD10, which remained relatively stable throughout the season. Tributary sites WCC01 and JC01 also had higher conductivity averages from May- July than from July-September. MC01 reported higher conductivity averages from July-September than in May-July.

Bacteria concentrations exceeded the Wyoming water quality standards (126 cfu/100 mL) at all stations from May-July, apart from PD10 (reported 62 cfu/100 mL). The same was observed from July-September, except for PD09 (reported 115 cfu/100 mL) and JC01 (reported 93 cfu/100mL) from July-September. Typically, concentrations were higher from May-July than from July-September, except at WCC01 and PD10.

In May-July an increase in bacteria concentrations from 2014 to 2017 was observed at most mainstem stations (handout). PD10, however, decreased during this time. In July-September, bacteria concentrations increased at PD01, PD05 and PD06 from 2014 to 2017. Concentrations at PD09 and PD10 decreased during this time.

In May-July an increase in bacteria concentrations from 2014 to 2017 was observed at tributary sites MC01 and JC01. WCC01 reported a slight decrease during this time. In July-September, all three tributary sites decreased from 2014 to 2017. JC01 fell back within the standard in 2017.

Carrie explained that many factors can affect bacteria concentrations, including precipitation. The bacteria being sampled are not pathogenic, but are present in the digestive tracts in warm-blooded animals. These bacteria serve as indicator organisms and MAY indicate increased potential for the presence of other pathogens.

Progress Updates/Priority Areas

Plan Review

The Prairie Dog Creek Watershed Based Plan, which was approved in 2011, was updated in 2016 to reflect new data, load information, and project needs. Carrie went over completed milestones which included annual watershed meetings, updated progress registers and load reduction estimates, annual watershed newsletters, and water quality monitoring. Overall, the SCCD is on track with the implementation goals of the updated plan, with the exception of project installation. Project requests are down in all watersheds. It is unclear whether that is because all of the “easy” projects are done, current economic conditions, or lack of awareness on issues/programs. Carrie would still like to conduct some sort of follow-up on past completed projects, but has not been able to coordinate that yet.

Progress Registers – Completed Projects

The group reviewed the progress update and progress register (handouts). The progress register (map) documents water quality projects within the watershed to demonstrate progress that may not be reflected in water quality sampling in the short-term. Carrie explained the different projects on the register. The projects that are on the progress registers are primarily those done through the SCCD office and do not reflect other activities/projects completed by other organizations or individuals. Since 2001, 20 projects have been completed within the watershed that include corral relocations, septic replacements, stockwater and fencing installations, diversion replacements, and riparian buffers.

Reduction Requirements/Priority Areas

Load reduction requirements are calculated for each subwatershed for each monitoring year. Maps depicting the load reduction category (low, medium, high and very high) provide a visual representation of general changes in reduction requirements over time. The maps are not intended to be used to determine specific water quality trends within the watershed. SCCD uses the maps when ranking projects; the load reduction category of the appropriate subwatershed is one of several ranking criteria used to determine whether a project is funded. Just because a project falls within a low reduction category does not mean it won't receive assistance. As of the 2017 data, most subwatersheds are in the low or medium reduction category, with the exception of the Meade Creek subwatershed, which is in the high reduction category. The largest subwatershed, Dutch Creek, was not sampled in 2017 and therefore had no data to determine a load reduction category for the area.

TMDL and Watershed Plan Update

Carrie briefly explained the Wyoming Department of Environmental Quality's (WDEQ) requirements; when waterbodies do not meet water quality standards, the state has 8-13 years to develop a pollution remediation plan through a Total Maximum Daily Load (TMDL). The Prairie Dog Creek watershed has no permitted point sources for bacteria; programs to address non-point sources are voluntary. WDEQ utilized much of the Prairie Dog Creek Watershed Plan in writing the TMDL, as much of the work had already been completed for the plan. The TMDL for the Prairie Dog Creek watershed has been submitted and is currently awaiting EPA approval. Once the TMDL is approved, the streams, while still impaired, will be moved to another “list” of waterbodies with completed TMDLs.

Carrie also mentioned the TMDL to be completed by the Montana Department of Environmental Quality (MDEQ) on portions of the Tongue River watershed located within Montana in 2018. The MDEQ will be looking at electrical conductivity (salinity) and may utilize some of the conductivity data that has been collected by the SCCD in the northern WY regions of the watershed. WDEQ meets with the MDEQ regularly to keep up to date with their project.

The meeting was adjourned at 6:45 p.m. The next meeting is tentatively scheduled for February 2018.

Submitted by Jackie A. Carbert, Program Assistant