



**Minnesota
Pollution
Control
Agency**

Carver, Bevens and Silver Creeks

Total Maximum Daily Load: Fecal Coliform

Water Quality, Impaired Waters 7-04a • October 2006

Public Comments

Submit in writing to
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Comments Due

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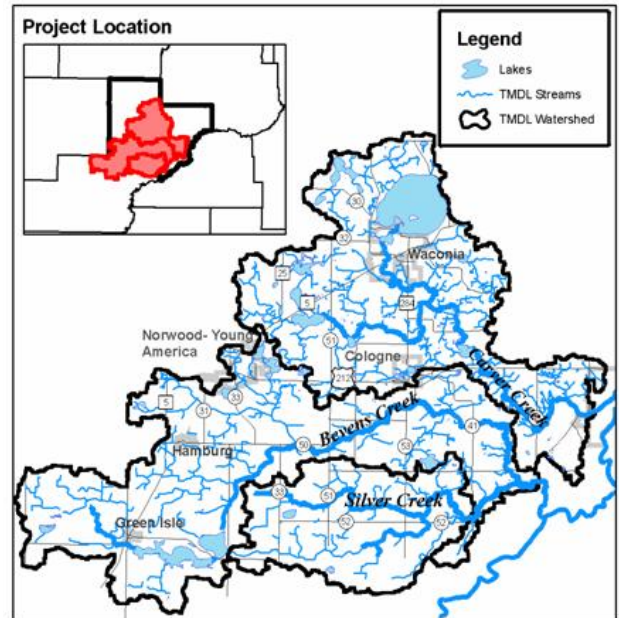
Carver, Bevens and Silver Creeks are located in Carver County, southwest of the Twin Cities Metropolitan Area. Carver Creek flows about 89 miles through its 54,220-acre watershed. Bevens Creek and its tributary, Silver Creek, flow roughly 97 miles with a combined watershed of approximately 82,764 acres. Land use in these areas is primarily tilled agriculture.

The Carver, Bevens, Silver Creek area is designated for use as recreational water including primary contact activities such as swimming and boating. Water quality analysis conducted in Carver, Bevens and Silver Creeks indicates that fecal coliform levels in these waters violate state standards. Fecal coliform bacteria come from the intestines of warm-blooded animals. If fecal coliform bacteria are present, disease-causing organisms may be as well.

TMDL Background

Based on the federal Clean Water Act, waters that do not meet water quality standards are “impaired.” The Clean Water Act requires states to develop a clean up plan for each impairment affecting a water body. The clean up plan and the process used to create it is a Total Maximum Daily Load (TMDL).

A TMDL must identify all sources of the pollutant causing a water body to violate standards. The TMDL also determines the amount by which each source must reduce



its contribution to ensure a water body meets applicable water quality standards.

The following information provides a brief description of the Carver, Bevens, Silver Creek TMDL.

The Concern

The water quality standard for fecal coliform bacteria is an average of 200 colony-forming units (CFU) per 100 milliliters (mL) of water. Above this level, there is a greater risk of disease caused by bacteria. Water containing higher levels of fecal coliform is less suitable for swimming and recreation.

Water samples from Carver, Bevens and Silver Creeks have consistently revealed violations of the state fecal coliform standard.

Sources of Fecal Coliform

The main sources of fecal coliform bacteria in the Carver, Bevens, and Silver Creek project area include failing septic systems during dry conditions and manure application during wet conditions. Runoff from feedlots and overgrazed pastures also contributes to fecal coliform loads.

The TMDL recommends the following seasonal goals for reduction of fecal coliform in the Carver, Bevens, Silver Creek project area:

Spring	55-93%
Summer	56-90%
Fall	85-91%

TMDL Process

Staff from Carver County led the Carver, Bevens, Silver Creek TMDL project. The County worked closely with its Water, Environment and Natural Resources Committee to gather stakeholder input and share information about the project. County staff published news releases, conducted workshops and facilitated many stakeholder outreach activities during the course of the project.

Implementation Plan

The TMDL results suggest, to achieve this level of reduction, implementation efforts should focus on the areas of manure management, animal feedlots, and septic system updates.

Carver County, through the Water Management Plan, has embraced a basin wide goal for protecting water quality in the Carver, Bevens, and Silver Creek watersheds. Currently, Carver County has developed detailed action strategies to address several of the issues identified in this TMDL.

A draft implementation plan charts the course Carver County will take to incorporate TMDL results into local management activities as well as the Carver County Water Management Plan.

Implementation strategies are largely directed at manure management and failing septic systems since they are considered major contributing sources. However, all contributing sources will be considered.

For More Information

Review the *Carver, Bevens, Silver Creek TMDL: Fecal Coliform* full report on the MPCA Web site at <http://www.pca.state.mn.us/water/tmdl>

Direct questions, comments and requests for additional information to

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