



Minnesota
Pollution
Control
Agency

Sunrise River, North Branch

Draft TMDL for Fecal Coliform Bacteria

Water Quality/Impaired Waters • September 2006

Public Comments

Submit in writing to:
Craig Affeldt
520 Lafayette Rd N
St. Paul, MN 55155-
4194

Deadline:

November 29, 2006
4:30 p.m.

The MPCA listed the North Branch of the Sunrise River as an impaired water in 1998, under Section 303(d) of the federal Clean Water Act. The listing of the river is based on an extensive amount of water quality data that has frequently shown excessive levels of fecal coliform bacteria, especially during times of increased runoff from rain or snowmelt. As a result, the river, from its headwaters near Weber in Isanti County to its confluence with the Sunrise River near Hay Creek in Chisago County, is impaired for swimming and other primary contact recreation.

The North Branch of the Sunrise River is located in east central Minnesota. It is a tributary of the Sunrise River and is part of the larger St. Croix River basin.

TMDL background

Impaired waters are those that do not meet water-quality standards needed to protect their designated uses such as recreation, fishing, agricultural irrigation, and livestock watering. Examples of pollutants that can land a lake or stream on the impaired waters list include nutrients, bacteria, sediment, low dissolved oxygen and bioaccumulative toxins such as mercury and PCBs. Waters may also be impaired by more than one pollutant.

For each impaired water, federal law requires that the states determine an acceptable Total Maximum Daily Load (TMDL) for each pollutant causing impairment and necessary reductions among all identified sources of the pollutant. This information is then used to



create a plan for achieving the necessary reductions and restoring the water to required standards. A lake or stream may need more than one TMDL depending on the type of impairment. The North Branch of the Sunrise River is also impaired for aquatic life based on indices of biotic integrity for fish and aquatic invertebrates.

The problem

Fecal coliform is a group of bacteria that lives in the intestines of warm-blooded animals, including humans. Their presence in high concentrations means the water or its tributaries are likely to have been recently contaminated by human or animal feces and that waterborne disease-causing bacteria, viruses or protozoa may be present.

Sources of fecal coliform

An assessment of the predominant fecal coliform sources in the watershed was completed to aid in the TMDL process. The sources were livestock, septic systems, wastewater treatment plant, septage land application sites, wildlife and pets.

The top three sources were unregulated livestock facilities, pasture near streams and malfunctioning septic systems that are determined to be an imminent threat to public health. These three sources represented about 80% of the total daily fecal coliform load to the river and will be the primary focus of reduction efforts.

Reductions needed

In order to comply with the required water quality standard, the numbers of fecal coliform bacteria entering the river will have to be reduced by approximately 52%. This percentage is based on water quality data collected during conditions under which water quality standard violations were more likely to occur and is considered a protective guideline.

Implementation plan

A detailed implementation plan will be developed following completion and approval of this TMDL. Clean-up may be expected to take a number of years, given the uncertainties associated with the assistance that landowners may need to adopt or install non-point source control measures. It is expected that compliance with water quality standards can be achieved in ten years or less. If this water quality goal is not achieved, the MPCA will be required to re-open the TMDL.

Public involvement

The public was informed and involved in the development of the TMDL project through a variety of ways including:

- Chisago County Water Plan Policy Team
- TMDL advisory committee
- April 2004 public informational meeting
- September 2005 public informational meeting
- October 2006 public informational meeting
- Local newspaper and newsletter articles, press releases and letters to the editor
- Chisago County Web site
- Direct mail to local environmental groups

The draft TMDL report is available at www.pca.state.mn.us/water/tmdl.html

Public notice of the draft TMDL report is also provided in the State Register. Written comments must be submitted to Craig Affeldt, 520 Lafayette Road North, St. Paul, MN 55155-4194 and must be received before 4:30 p.m. on November 29, 2006.

For more information

For additional information on the Sunrise River, North Branch TMDL project, please contact Craig Affeldt at 651-296-6062 or craig.affeldt@pca.state.mn.us

General information about TMDLs is available online.

Minnesota Pollution Control Agency:
www.pca.state.mn.us/water/tmdl/
U.S. Environmental Protection Agency:
www.epa.gov/owow/tmdl/

