



Minnesota
Pollution
Control
Agency

Nine Mile Creek Total Maximum Daily Load Chloride Project Overview

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Assessments by the Minnesota Pollution Control Agency (MPCA) and its partners have revealed that Nine Mile Creek in southwest Hennepin County contains excess levels of chloride. As a result, the MPCA has placed the creek on Minnesota's list of impaired waters and prepared a plan to improve water quality in Nine Mile Creek. The project began in 2008 and has been a collaborative effort between the MPCA, Nine Mile Creek Watershed District, and Barr Engineering Company.



Nine Mile Creek

Nine Mile Creek watershed covers an area of 44.5 square miles and is fully developed with various urban land uses, several large open areas and numerous lakes and large wetland complexes. Portions of six cities are in the watershed: Bloomington, Eden Prairie, Edina, Hopkins, Minnetonka and Richfield.

TMDL background

Based on the federal Clean Water Act, lakes and streams that do not meet water quality standards are classified as "impaired." The Clean Water Act requires states to develop a clean-up plan for each impairment affecting a water body. This plan is called a Total Maximum Daily Load (TMDL) study. A TMDL must identify all sources of the pollutant that cause a water body to violate standards. The TMDL also determines how much pollutant reduction is needed from each source to ensure the water body meets water quality standards in the future.

Pollution sources

Excessive chloride in streams can harm aquatic life, including fish, invertebrates and aquatic plants. Monitoring data suggest that chloride levels in the creek are generally highest in the winter and likely only exceed the standard following snow melt runoff. Chlorides are present in road salts, which most road authorities and commercial and private applicators in the metropolitan area use extensively in the winter. A network of freeways, highways, and local roads, all of which eventually drain to the creek, are distributed throughout the watershed along with significant areas of high density development.

Implementation strategies

The draft TMDL report indicates that chloride loading in Nine Mile Creek must be reduced by 62 percent in order to meet the water quality standard. This will require improved management of road salt inputs from both road authorities and commercial and private applicators. The overall approach for implementation is expected to include a pilot-scale chloride loading study to better determine the sources and potential improvement measures for chloride load reductions. Other strategies will include public education and training/information exchange for municipal staff and private/commercial salt applicators, and potentially a cost-sharing initiative for retrofitting and upgrading salt application equipment.

For more information

To contact the MPCA project manager for this TMDL, visit the project Web page at: www.pca.state.mn.us/water/tmdl/index.html.

Alternatively, you may call the MPCA at 651-296-6300 or 800-657-3864 and ask for the Metro and St. Croix Unit (in the Watershed Section).

General information on TMDLs can be found on the Web at: www.pca.state.mn.us/water/tmdl and www.epa.gov/owow/tmdl.