

Summary

Total Maximum Daily Load Report Chippewa River Watershed

<https://www.pca.state.mn.us/water/watersheds/chippewa-river>



Purpose

The 2016 Chippewa River Watershed Total Maximum Daily Load (TMDL) report addresses impairments identified in the 2009, monitoring and assessment cycle that have not been addressed in prior TMDL studies, that have an approved water quality standard, and have sufficient data for assessment. According to the report, lakes and streams in the Chippewa River Watershed are polluted with excess nutrients (nitrogen and phosphorus), algae, and sediment, and have low levels of dissolved oxygen and altered habitat conditions. In some areas, the pollution is severe enough to harm aquatic insects and fish.

The TMDL report applies to 48 separate impairment listings for 16 stream reaches and 25 lakes in the watershed. Supporting documentation for the proposed listing of the impairments can be found in: Chippewa River Watershed Monitoring and Assessment Report (MPCA 2012b), and Chippewa River Watershed Stressor ID Report (MPCA 2012d).

TMDL process

The following TMDL reports provide more details: Pope Lakes TMDL (MPCA 2011b), the Chippewa River Fecal Coliform TMDL Report (MPCA 2006), and the TSS TMDL for Chippewa River Watershed (Wenck 2014).

The TMDL report is part of a nationwide effort under the federal Clean Water Act requiring states to adopt water quality standards to protect lakes, streams, and wetlands from pollution. The TMDL establishes the maximum amount of a pollutant a waterbody can receive on a daily basis and still meet water quality standards.

Minnesota's 80 major watersheds are on a 10-year schedule to be monitored and assessed for water quality. Ranking criteria for scheduling TMDL projects include, but are not limited to: impairment impacts on public health and aquatic life; public value of the impaired water resource; likelihood of completing the TMDL in an expedient manner, including a strong base of existing data and restorability of the waterbody; technical capability and willingness locally to assist with the TMDL; and appropriate sequencing of TMDLs within a watershed or basin.

Description

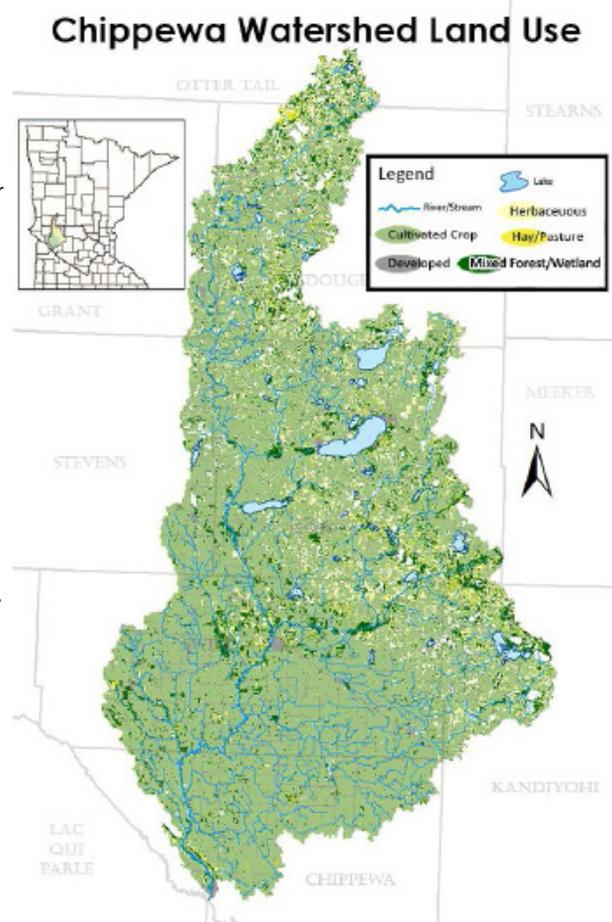
The Chippewa River Watershed drains a 2,080 square-mile area entering into the Minnesota River near Montevideo. It includes portions of Otter Tail, Grant, Douglas, Stevens, Pope, Swift, Kandiyohi, Chippewa counties, and a very small portion of Stearns. The watershed landscape is dominated by cultivated crops with small portions of perennially vegetated landscapes and developed areas. Because of poor natural drainage in many parts of the southern area, large portions have been altered by artificial drainage for settlement and farming. Benson and Glenwood are the largest towns in this largely rural watershed. Potential changes in population and land use over time in the Chippewa River Watershed could result in changing sources of pollutants. Overall, there is likely very little to no anticipated future growth in the watershed.

The majority of pollutant reductions in the Chippewa River Watershed will need to come from non-point source contributors in order for the impaired waters to meet water quality standards. Of these sources, agricultural drainage and stormwater runoff are the dominant sources. Due to the lack of existing regulations and the current federal exemptions in creating regulations, reasonable assurance in the technical sense cannot be guaranteed.

Recommendations

The Chippewa River Watershed Project is a non-regulatory, cooperative partnership and citizen based approach focused on improving water quality and watershed life in the Chippewa River and its tributaries.

Unique among the state's 80 watersheds, the Chippewa River Watershed's "10 % project" engages farmers, landowners, scientists and conservationists to create more continuous living cover. This helps to protect and restore waters for fishing, hunting, swimming and recreation, provide good wildlife habitat, and is profitable for farmers.



Watershed restoration and protection strategy

A group of professional water quality, planning, and conservation staff collaboratively will develop the strategies presented in the Chippewa River WRAPS Report (MPCA 2016). These strategies, adopted at generally wide-scale and integrated in suites, are expected to bring waters in the Chippewa River Watershed into a supporting status. Refer to the Chippewa River WRAPS Report (MPCA 2016), for details and adoption rates.

The strategies and corresponding adoption rates presented in the Chippewa River WRAPS Report (MPCA 2016) are intended to meet interim water quality targets. To fully address the widespread water quality impairments in agriculturally-dominated watersheds such as the Chippewa River watershed, an integrated and multi-faceted approach using suites of BMPs is likely necessary.

Full report

A copy of the full report is available on the Chippewa River watershed webpage: <https://www.pca.state.mn.us/water/watersheds/chippewa-river>

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