

Lake Status

Overall Strategy: Impaired Watershed Management

Water Quality Rating: C: Secchi – 5.9 ft.; TP – 52 µg/L

Impairment: *Aquatic recreation* due to excess nutrients in the lake.

Water Quality Trend: Secchi & TP – Improving

Shoreland Classification: Natural Environment

Subwatershed Land Cover: 33% developed, 5% forests and woodlands, 1% grassland/shrubland/sparse vegetation, 18% lakes and open water wetlands, 24% planted or cultivated, 19% wetlands.



Resource Goals

Short Term Goals – Year 2015

- Maintain a water quality rating of at least C-.
- Maintain a five-year mean summer phosphorus concentration at or below 75 µg/L ± 4%.
- Maintain a mean summer secchi depth no less than 5 ft.
- Encourage an active Lake Association for teaming on lake management and education.
- Revise goals based on the CMSCWD Lake TMDL Study.

Long Range Goals - Year 2020

- Achieve a water quality rating of at least C.
- Achieve a five-year mean summer phosphorus concentration at or below 60 µg/L ± 4%.
- Achieve a mean summer secchi depth no less than 6 ft.
- Revise goals based on the CMSCWD Lake TMDL Study.
- Conduct watershed management in consideration of the area’s statewide importance to the Blanding’s turtle.

DNR Fisheries Lake Management Plan: None

BASIC FACTS	
DNR ID	82006500
Section	26
Township	32
Range	20
Lake Area	34 acres
Subwatershed Area	N/A
Low Water Level	971.00 (’00)
High Water Level	973.41 (’03)
Ordinary High Water	972.40
100-Yr. Flood Elev	N/A
Greatest Depth	7 ft.
Control Structures:	N/A
Fish Species:	N/A
Aquatic Nuisance Species:	Reed Canary Grass
CMSCWD References:	WCD Water Monitoring Report (’08) DNR Lake Water Level Report CMSCWD Lake TMDL - Phase I Report (’08)

Implementation

Operational Priorities

Impaired Watershed Management per TMDL Study Recommendations

Education

Impaired Watershed Education Program per TMDL Study Recommendations

Regulatory

Activities impacting Hay Lake will be regulated by the watershed district through its *Rules of the District*. Regulatory efforts will be coordinated with Scandia, Washington County and the Minnesota DNR, where applicable.

Projects

Current:

- CMSCWD Lake TMDL Study
- Best Management Practices (BMP) Program per
- Water Quality Monitoring Program per TMDL Study Recommendations
- Permitting Program

Future/Potential:

- TMDL Implementation Plan Projects

* See 2010 Watershed Management Plan Section V, Lake Management Plans for additional information on District lake management activities.

Overall Assessment: Hay Lake

Hay Lake is located in the City of Scandia. The major land use of the Hay Lake watershed is rural/agricultural. The Hay Lake watershed flows into the Sand Lake watershed which overflows downstream through an ephemeral channel within William O'Brien State Park to Mill Stream and ultimately the St. Croix River. Hay Lake does not have public access and the majority of the shoreland is in private ownership. 2020 land use shows the majority of the watershed converting to rural or large-lot residential land use. As land use in the watershed converts to rural or large lot residential and multi-optional development, the amount of impervious surface will increase.

The Lower St. Croix River Spring Creek Stewardship Plan was completed in 2003 and included a watershed fact sheet for the Mill Stream watershed, including Hay Lake. The fact sheets describe each creek's watershed, significant features and findings of the technical work. Specific management recommendations for natural resource management are also provided.

Hay Lake was considered a eutrophic lake in 2008 based on the WCD Water Monitoring Report of the same year. The 2008 summer average TP concentration was 52 µg/L, slightly exceeds the North Central Hardwood Forest Eco-Region Range of 23 – 50 µg/L. In-lake phosphorus concentrations typically exceed the MPCA shallow lake standard of (60µg/L) and the lake is therefore listed as impaired. In 2008 the lake transparency was better than the MPCA shallow lake standard of 1 m for sechi depth transparency.

Hay Lake is one of 10 lakes in the CMSCWD on the EPA's 303(d) list of impaired waters impaired for nutrients. Phase I of the Lake Total Maximum Daily Load (TMDL) Study is complete. The target completion date for the Hay Lake TMDL is 2015. As a result of the lake's impairment, this watershed is undergoing impaired watershed management.

