

**Lake Status**

**Overall Strategy:** Routine Watershed Management

**Water Quality Rating:** B: Secchi – 3.5 ft;  
TP (2007) – 27 µg/L

**Impairment:** Not Impaired

**Water Quality Trend:** Secchi – N/A (shallow);  
TP – No Trend

**Shoreland Classification:** Natural Environment

**Subwatershed Land Cover:** 15% developed, 13% forests and woodlands, 13% grassland/shrubland/sparse vegetation, 20% lakes and open water wetlands, 29% planted or cultivated, 10% wetlands.

**Resource Goals**

**Short Term Goals – Year 2015**

- Achieve a water quality rating of at least B.
- Maintain a five-year mean summer phosphorus concentration at or below 35 µg/L ± 4%.
- Achieve a mean summer secchi depth no less than 4.5 ft.
- Encourage an active Lake Association for teaming on lake management and education.

**Long Range Goals - Year 2020**

- Achieve a water quality rating of at least B.
- Maintain a five-year mean summer phosphorus concentration at or below 35 µg/L ± 4%.
- Achieve a mean summer secchi depth no less than 4.5 ft.
- Conduct watershed management in consideration of the area’s statewide importance to the Blanding’s turtle.

**DNR Fisheries Lake Management Plan:** None



**BASIC FACTS**

<b>DNR ID</b>	82001800
<b>Section</b>	18
<b>Township</b>	30
<b>Range</b>	20
<b>Lake Area</b>	69 acres
<b>Subwatershed Area</b>	399 acres
<b>Outlet Elevation</b>	N/A
<b>Low Water Level</b>	883.52 ('00)
<b>High Water Level</b>	885.70 ('95)
<b>Ordinary High Water</b>	884.80 ft.
<b>100-Yr. Flood Elev</b>	N/A
<b>Greatest Depth</b>	6 ft

**Control Structures:**  
None

**Fish Species:**  
Bullhead

**Aquatic Nuisance Species:**  
Reed Canary Grass

**CMSCWD References:**  
WCD Water Monitoring Report ('07 & '08)  
DNR Lake Water Level Report

## Implementation

### Operational Priorities

Routine Watershed Management

### Education

Routine Watershed Education Program

### Regulatory

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

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## Projects

### Current:

- Routine Watershed Water Quality Monitoring
- Routine Watershed Best Management Practices (BMP) Program
- Ongoing Monitoring of BMPs
- Permitting Program

### Future/Potential:

- Maintenance of the outlet channel and Seifert field culvert

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

## Overall Assessment: North Twin Lake

North Twin Lake is a shallow, well-developed lake with above average water quality for a shallow lake. In-lake phosphorus concentrations are significantly better than the MPCA shallow lake standard of (60µg/L), and the lake is identified as mesotrophic in 2008. North Twin along with South Twin, Silver, Carol and Loon lakes form the headwaters of the Silver Creek Flowage and a part of the Silver Creek Protective Corridor. Lake levels are controlled by an old beaver dam and a downstream field road culvert on the private property at the north end of the lake. In the past the District has participated with the landowner in the maintenance of the culvert and outlet channel.

Based on an Aerial Lakeshore Analysis study (1998), the greatest impact to the lake is runoff non-point source pollution. The most common problem identified is a lack of buffer strips between the residences and the lake. The recommendations from that study are to develop or expand vegetative buffers between the residences and the lake, install berms or other retention devices where vegetative buffers are not feasible and check septic system compliance.

Based on measured lake characteristics and land use in the lake's minor subwatershed, water quality modeling indicated that minimal protection efforts to reduce phosphorus input to the lake can help maintain its good water quality. However, increased phosphorus loading from future development and unsound land use will cause the water quality to degrade.

North Twin Lake has achieved the 2010 goal of a five-year mean summer phosphorus concentration at or below 35 µg/L ± 4%. However, it has not achieved the 2010 goal of a mean summer secchi depth no less than 4.5 ft and water quality rating of 'B' based on the 2008 WCD Water Monitoring Report. These goals have been transferred to 2015 goals and North Twin Lake is undergoing routine watershed management.

