

Lake Status

Overall Strategy: Routine Watershed Management

Water Quality Rating: A: Secchi – 15 ft.;
TP (2007) – 26 µg/L

Impairment: Not Impaired

Water Quality Trend: Secchi – Improving;
TP – No Trend

Shoreland Classification: Natural Environment

Subwatershed Land Cover: 7% developed, 15% forests and woodlands, 5% grassland/shrubland/sparse vegetation, 16% lakes and open water wetlands, 43% planted or cultivated, 14% wetlands.



BASIC FACTS

DNR ID	82004400
Section	21
Township	31
Range	20
Lake Area	49 acres
Subwatershed Area	317 acres
Outlet Elevation	Landlocked
Low Water Level	915.67 ('07)
High Water Level	918.67 ('96)
Ordinary High Water	918.30
100-Yr. Flood Elev	919.5 (FEMA)
Greatest Depth	39 ft.

Control Structures:
Culvert under Norell Ave. connected to East Boot Lake

Fish Species:
Black Bullhead, Black Crappie, Golden Shiner, Hybrid Sunfish, Largemouth Bass, Northern Pike, Pumpkinseed Sunfish, Yellow Bullhead, Yellow Perch (1998)

Aquatic Nuisance Species:
Purple Loosestrife (1999)

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

Resource Goals

Short Term Goals – Year 2015

- Maintain a water quality rating of at least B+.
- Maintain a five-year mean summer phosphorus concentration at or below 25 µg/L ± 4%.
- Maintain a mean summer secchi depth no less than 9 ft.
- Establish an active Lake Association for teaming on lake management and education.

Long Range Goals - Year 2020

- Maintain a water quality rating of at least B+.
- Maintain a five-year mean summer phosphorus concentration at or below 25 µg/L ± 4%.
- Maintain a mean summer secchi depth no less than 9 ft.
- Conduct watershed management in consideration of the area's statewide importance to the Blanding's turtle.

DNR Fisheries Lake Management Plan (1999)

- Long Range Goal: Provide gamefish population to support 75-100 fishing hours per acre.
- Operational Plan:
 - Annual winter fish house counts.
 - Monitor winter oxygen levels.
- Mid Range Objective: Identify and develop an adequate public access with parking for 2-5 car/trailer units.
- Potential Plan:
 - Develop adequate public access.
 - Install a fishing pier.
 - Install a winter aeration system.

Implementation

Operational Priorities

Routine Watershed Management

Education

Routine Watershed
Education Program

Regulatory

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

Projects

Current:

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

Future/Potential:

- Roadside Revegetation Project
- Water Quality Diagnostic Feasibility Study
- Purple Loosestrife Control.

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

Overall Assessment: West Boot Lake

West Boot Lake is a relatively unused lake with very few homeowners adjacent to it. It receives some fishing pressure in both winter and summer. Fishing is reportedly good, and the water quality has a good 'A' rating. In-lake phosphorus concentrations are better than the State standard (40 µg/L). The problems that exist on this lake are non-point source runoff from adjacent agriculture and a road that parallels its eastern banks. Most current residents do not have an obvious impact on the lake and appear to be using some Best Management Practices (BMPs). The lake outlets to East Boot Lake via an equalizer culvert under Highway #55. East boot Lake is impaired and also landlocked.

Based on an Aerial Lakeshore Analysis study (1998), the major influence on the lake is non-point source runoff from agricultural fields adjacent to the lake followed by toxic non-point source pollution from County Road #55. The recommendations from that study are to develop vegetative buffers or berms adjacent to the shoreline and road and educate the landowners in the newer developments on the negative impacts of suburban style lawns. 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. 2010 goals have been met (maintain a water quality rating of at least 'B+', achieve a five year mean summer phosphorus concentration at or below 25 µg/L ± 4% and achieve a mean summer secchi depth no less than 9 ft); this lake is undergoing routine watershed management.

