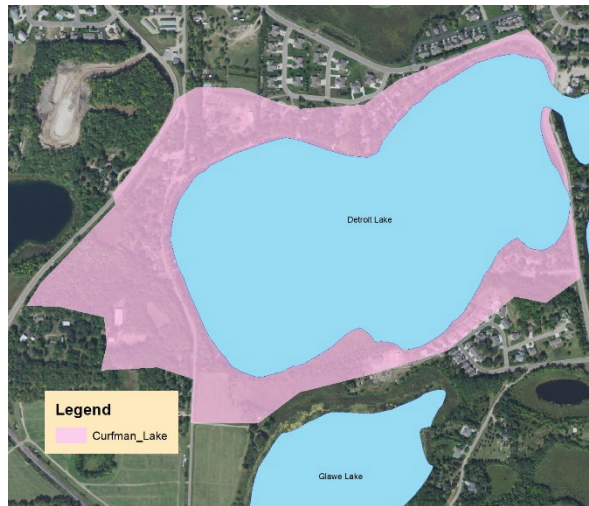


Overall Strategy:
Maintain Water Quality

Impairment:
Listed as impaired for mercury;

Shoreland Classification:
General Development



Catchment Area Land Cover:
56.3% open water, 8.7% wetlands,
5.1% grassland, 17.6% forest,
12.3% developed land

Water Quality	10-Year Average (2008-2017)	Trend
Secchi	10 ft.	Stable
Total Phosphorus	24 µg/L	Stable
Ortho Phosphate	5.2 µg/L	Stable
Chlorophyll-a	7.8 µg/L	Stable

Note: Zebra Mussel infested water listing in 2016

Short Term Goals - Year 2025

- Maintain a 5-year mean summer phosphorus concentration at or below 25 µg/L
- Maintain mean summer Secchi depth no less than 9 ft

Long Range Goals – Year 2035

- Achieve a 5-year mean summer phosphorus concentration at or below 25 µg/L
- Maintain mean summer Secchi depth no less than 9 ft

Overall Assessment

Curfman Lake is a small recreational development lake with heavily developed shorelines. While it is truly an embayment of Big Detroit, Curfman is considered a separate lake by the Minnesota Department of Natural Resources.

Curfman Lake is polymictic with a maximum depth of 21 feet and comprised of 85 acres (71%) littoral surface area. The southern shoreline is

Basic Facts

DNR ID /Becker No	MN03-0363-00 / 363
Township(s)	Lake View (Sec 9,10)
Classification	Recreational Development
Lake Area	121 acres
Littoral Area	85 acres (71%)
Sub-watershed Area	200 acres
Shoreline Length	1.7 miles / 9,239 feet
Inlet(s)	Detroit Lake
Outlet(s)	Detroit Lake
Control Structures	None
Highest Recorded*	1335.78 feet (7/11/1998)
Lowest Recorded*	1333.34 feet (9/13/1970)
Ordinary High* Water Level*	1334.3 feet
Recorded Range	2.44 feet
Maximum Depth	21 feet
Main Fish Species	Walleye, Muskellunge, Northern Pike, Largemouth Bass, Bluegill, Black Crappie
Secondary Fish Species	Hybrid Sunfish, Pumpkinseed, Yellow Perch, Lake Sturgeon, White Sucker, Black/Brown/Yellow Bullhead
MN DNR/ Private Fish Stocking	Walleye, Muskellunge, Lake Sturgeon
Aquatic Invasive Species	Flowering rush, Curly - leaf pondweed, Chinese mystery snail, Zebra Mussels
Public Access Sites	None
Marinas	None
Public Beach	None
References	DNR Lake Finder, Becker County

*Datum: NGVD 1929 (ft.) ** Elevations NAVD 88

heavily vegetated with both submergent and emergent aquatic vegetation. This important vegetation population allows Curfman to provide some of the nursery and spawning habitat for Detroit Lake.

Curfman Lake is considered mesotrophic with relatively good water quality. Water quality has been stable for the last 10 years with mean phosphorus level ranging from 20ppb to 29ppb (24ppb average) and clarity levels ranging from 7.5 feet to 11 feet (average 10 feet), typically mirroring that of Big Detroit. Late summer algal blooms have been observed, typically following large rain events.

Residential developmental pressures have increase along the south shoreline with the conversion of forested land to the Golden Bay Shores planned unit development. Following the construction on the south side of the lake, approximately 25 acres (29%) of the contributing upland drainage area consists of developed land, 17.5 acres (20%), 35 acres (40%) of forested land, and 10 acres (11%) of grassland.

The aquatic invasive plants Flowering Rush and Curly-leaf pondweed are both present in the lake, along with invasive invertebrates Zebra Mussels and Chinese Mystery snail. The District recognizes the importance of managing nuisance invasive plant populations to promote a diverse native plant community; therefore both Flowering Rush and Curly-leaf Pondweed and assessed and management via herbicide treatments annually.

Past Studies

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- K-V Associates Inc. 1980. Septic Leachate Survey, Detroit Lakes, MN
- Hecock, R. 1993. Diagnostic and Feasibility Study and Management Alternatives for Lake Sallie and Detroit Lake
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- Larson, Peterson, and Ulteig. 2004. Wastewater Treatment Facility Effluent Discharge Feasibility Study; City of Detroit Lakes Preliminary Engineering Report
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- A.W. Research Laboratories. 1996. Proposal for Locating Ground Water in the Wetland West of Detroit Lake
- McComas, Steve. Blue Water Science. 1999. Pelican River Watershed District Aquatic Plant Harvesting Program Evaluation
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- Iverson, Steven W. 1992. The Pelican River Navigation Restoration Project
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