

2024 Study of the Water Quality of 164 Metropolitan Area Lakes

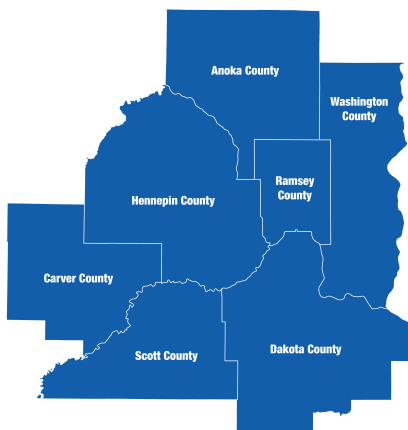


December 2025

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2024 Study of the Water Quality of 164 Metropolitan Area Lakes

Report by

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December 2025

Executive Summary

This report is the latest in a continuing series of reports summarizing results of the annual lake monitoring program of the Metropolitan Council Environmental Services division (Met Council) in the seven-county Twin Cities metro region (region). The Met Council has collected water quality data on area lakes since 1980. This report contains data from a total of 179 lake sites on 164 lakes monitored in 2024. The monitoring program in 2024 included 8 lakes and 11 newly established lake sites not previously monitored by the Council. There are 950 lakes in the region. The Met Council monitors just a subset of these lakes due to limited resources. Additional lakes are monitored by other units of government which help to further provide important regional lake water quality data, but the data collected from these other entities are not included in this report.

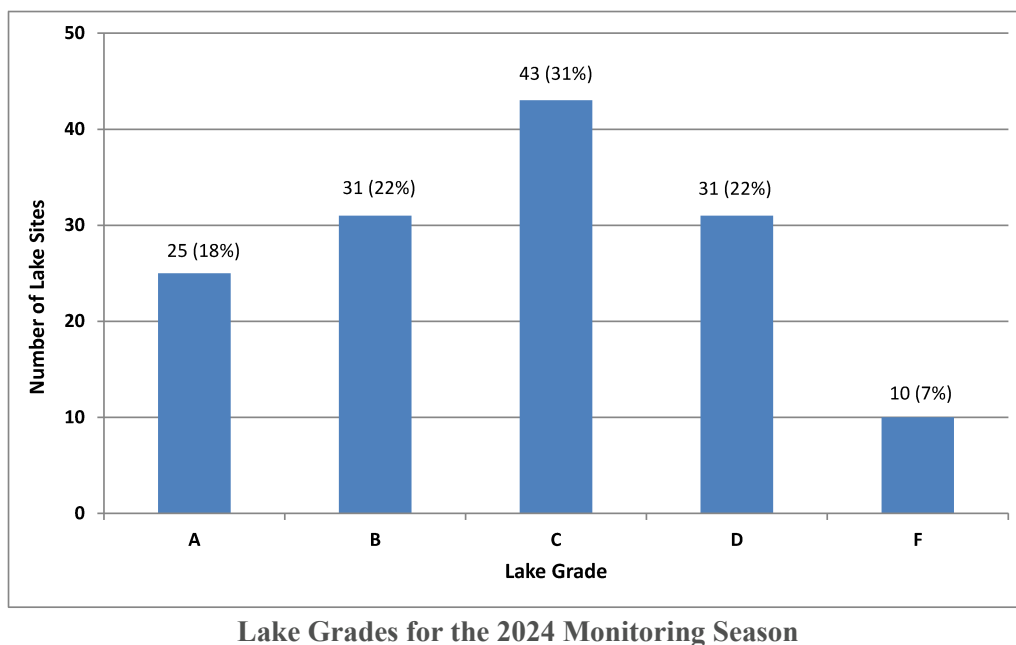
To date, the Met Council's lake monitoring program (including monitoring by Met Council staff and volunteers) has provided an important tool for making informed lake management decisions. Data from our regional lake monitoring program are frequently used to determine possible trends in lake water quality, estimate expected ranges in water quality of non-monitored lakes, determine potential water quality impairments, and investigate the relationships between land use and water quality.

The objectives of this program are:

1. Provide the Met Council and our partners water quality data and information to help effectively manage the lakes of the region.
2. Use the data to determine lake water quality conditions and water quality trends, including ranking lakes on the Met Council's A - F grading system.

The year 2024 marked the 32nd year that the Community-Assisted Monitoring Program (CAMP), formerly called the Citizen-Assisted Monitoring Program, was used to increase our knowledge of the water quality of the region's lakes. CAMP volunteers visited their assigned lake on a biweekly basis from mid April to mid October. The volunteers measured surface water temperature and water transparency, documented lake and weather conditions, and collected surface water samples. The samples were analyzed for total phosphorus, total Kjeldahl nitrogen, and chlorophyll-a by the Met Council's analytical laboratory located at the Metropolitan Water Resource Recovery Facility in St. Paul, MN. CAMP volunteers are sponsored by a local partner. In 2024, there were 29 sponsors who consisted of a mix of municipalities, watershed management organizations (WMOs), watershed districts (WDs), and counties.

Most lakes were given a lake grade which was calculated on the basis of three parameters: total phosphorus, chlorophyll-a (trichromatic), and Secchi depth (water clarity). Not all lake sites received a lake grade because of an insufficient quantity of data during the summer-time period of May through September. The distribution of lake grades for all the lake sites monitored in 2024 is shown in the following figure.



In 2024, for those lake sites with sufficient data to calculate a lake grade, about 31% of the lake sites received a lake grade of C. The water quality of these sites is considered about average as compared to other lakes in the region. Forty percent the lake sites received a grade of “A” or “B”, meaning that they had relatively good water quality. The remaining 29% of lake sites received a water quality grade of “D” or “F”, meaning that they had relatively poor water quality.

Since 1980, 418 lakes have been monitored in the region through the Met Council’s lake monitoring program. Since some of these lakes have multiple monitoring sites, a total of 464 lake sites have been monitored. The data from the Met Council’s lake monitoring program are stored in the Met Council’s Environmental Information Management System (EIMS) and the Minnesota Pollution Control Agency’s Environmental Quality Information System (EQulS). Data for all Met Council lake monitoring sites can be conveniently retrieved via the Met Council’s web-based EIMS, at: <http://es.metc.state.mn.us/eims/>. While the Met Council has done its best to enhance and expand the region’s lake water quality database, it is apparent that one of the most economical and efficient methods to expand knowledge of our lakes has been with the assistance of volunteers and the cooperation and financial support of local partners via the CAMP.

If you have questions pertaining to the lake data or descriptions contained in this report, inquiries about CAMP, or suggestions of lakes the Met Council should consider monitoring in the future, please contact Brian Johnson of the Met Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Acknowledgments

This report represents the coordinated efforts of many individuals. The author would like to acknowledge the following people for their technical and supportive contributions to the preparation of this report:

Community-Assisted Monitoring Program Volunteers and Local Partners

The enthusiastic participation of local sponsors and volunteers help make the CAMP successful. A list of sponsors and volunteers is shown in Appendix C. The following volunteers and organizational staff are given added appreciation for their multiple years of service:

17 to 32 years of service

32 years of service

Diane Coderre – Sunset Lake

31 years of service

Washington CD staff – multiple lakes

29 years of service

Wargo Nature Center – George Watch Lake

24 years of service

Gene Berwald – Pine Tree Lake

Lakeville staff

23 years of service

Bob Coderre – Sunset Lake

22 years of service

Bonnie Juran – Klawitter Pond

21 years service

David Florenzano – Riley Lake

20 years of service

Carpenter Nature Center – Lake St. Croix

Jim and Roberta Harper – Lake St. Croix

Jeff Keene – O'Connor Lake

19 years of service

David Bluhm – White Rock Lake

Minnesota DOT staff – Rest Area Pond

18 years of service

Jim Naves – sample pickups and monitoring kit deliveries — City of Sunfish Lake

Dan Stanek – Scout Lake

11 to 16 years of service

16 years service

Jeff Christianson – Farquar Lake

Tim and Sharon McCotter – Lucy Lake

Wally Ostlie – Comfort Lake

Joe Reithmeyer – Lake Edith

Steve Schmaltz – Forest Lake, west basin

Tim Weber – La Lake

15 years of service

Fred Fox – Little Johanna Lake

Jeff Slutier — Cobblestone Lake

James Stowell – Sunfish Lake

14 years of service

Pat Barrett – Klawitter Lake

Paul Erdmann – Bush Lake

Lisa McIntire – Penn Lake

12 years service

Thomas Chaklos – Haas Lake

Andrew Elmquist – Karth Lake

Elizabeth Erdmann – Bush Lake

Barrie Froseth – Lost Lake

Gary Gerding — Karth Lake

Bob Kistler – Valentine Lake

11 years service

Steve Beckey – Buck Lake

Bernie DeMaster – Twin Lake

Scott Spaeth – Hornbeam Lake

6 to 10 years of service

10 years service

Holly Birkeland – Lake Minnetoga
Chanhassen staff – Susan Lake
Hastings Environmental Protectors – Lake Rebecca
Doug Joens – Forest Lake
Joan Kettelkamp – Long Lake
Mark Vierling – Thole Lake

9 years service

Gabrielle & Brian Gallagher – Lake Marion

8 years service

Amy Baudler – Sweeney Lake
Jennel Bilek – Twin Lake
Sig Birkeland – Minnetoga Lake
Paula Thomsen – Cates Lake
David Wallace – Red Rock Lake
Kevin Zahler – St. Joe Lake

7 years service

Eric Campbell – Duck Lake
David DeKraker – Alimagnet Lake
Jim & Nancy Norlen – Earley Lake
Prior Lake — Spring Lake WD staff – Little Prior Lake

6 years service

Frank Bastyr – Long Lake
Tom Bucher – Lake Demontreville and Olson Lake
Steve Donen – Lotus Lake
Gary Fields – Lake Demontreville and Olson Lake
Joel Jensen – Edith Lake
Randy Koenig – Keller Lake
Steven Lane — Cedar Island Lake
Karen & Paul Richtman – Brewer Pond
David Rossmiller – Rogers Lake
Max Wallin – Seidl Lake

3 to 5 years of service

5 years service

Burnsville staff – Earley Lake
Comfort Lake — Forest Lake WD staff — multiple lakes
Maxine Hughes — Lake O’Dowd
Debra James — Schmitt Lake
Randy Mikolai — Medicine Lake
Lisa Povolny — Dickman Lake
David Short — Little Johanna Lake
Denny Strunc — Medicine Lake
Scott Thulien — Crystal Lake

4 years service

Tom Furey – Bone Lake
Renee Marino – Karth Lake
Scott Norling – Lemay Lake
Steve Seeman – Heifort’s Pond
Amy Vislisl – Moody Lake

3 years service

Keith Bremel
Rick Budde
Deb Campbell
Pamela Carson

Met Council Staff

- Met Council Water Resources staff for assistance with lake monitoring and the CAMP.
- Henry McCarthy for creation of the new lake maps.
- The Met Council’s Laboratory Services section, for laboratory analysis of the lake samples.
- The Met Council’s Electronic Lake Monitoring Report Team for the continued improvement of the automation of the annual lake report.

Contents

Executive Summary.....	i
Acknowledgments	iii
Introduction	1
Metropolitan Council Staff Lake Monitoring Program	3
Methods	4
Results	6
Blue Lake [Site 1, main lake] (70–0088) <i>Metropolitan Council</i>	7
Blue Lake [Site 2, east outlet] (70–0088) <i>Metropolitan Council</i>	10
Fisher Lake [Site 1, main lake] (70–0087) <i>Metropolitan Council</i>	13
Fisher Lake [Site 2, east outlet] (70–0087) <i>Metropolitan Council</i>	16
Gun Club Lake (19–0078) <i>Metropolitan Council</i>	19
Jane Lake (82–0104) <i>Metropolitan Council</i>	22
Rice Lake [Site 1, main lake] (70–0025) <i>Metropolitan Council</i>	25
Rice Lake [Site 2, west outlet] (70–0025) <i>Metropolitan Council</i>	28
Snelling Lake (27–0001) <i>Metropolitan Council</i>	31
Community-Assisted Monitoring Program	34
CAMP Overview	34
Acknowledgments.....	34
CAMP Methods	35
Recruiting Volunteers.....	35
Training Volunteers.....	35
Monitoring Methods	35
Laboratory Analytical Methods.....	38
Data Management.....	38
Quality Assurance.....	38
Lake Quality Report Card	42
2024 Lake Grades.....	43
Monitoring Results for CAMP Lakes 2024.....	44
Alimagnet Lake (19–0021) <i>City of Burnsville</i>	45
Ardmore Lake (27–0153) <i>Pioneer — Sarah Creek Watershed Management Commission</i>	48
Augusta Lake (19–0081) <i>Lower Mississippi River Watershed Management Organization</i>	51
Bass Lake [Plymouth] (27–0098) <i>Shingle Creek Watershed Management Commission</i>	54
Bass Lake [East] (82–0124) <i>Brown’s Creek Watershed District</i>	57
Birger Pond (19–0224) <i>City of Rosemount</i>	60
Bone Lake (82–0054) <i>Comfort Lake-Forest Lake Watershed District</i>	63
Brewers Pond (82–0022) <i>Brown’s Creek Watershed District</i>	66
Brewers Pond (82–0022) <i>Brown’s Creek Watershed District</i>	69
Buck Lake (70–0065) <i>Prior Lake — Spring Lake Watershed District</i>	72
Bush Lake (27–0047) <i>Nine Mile Creek Watershed District</i>	75
Cates Lake (70–0018) <i>Prior Lake — Spring Lake Watershed District</i>	78
Cedar Lake (70–0091) <i>Scott Watershed Management Organization</i>	81
Cedar Island Lake (27–0119) <i>Shingle Creek Watershed Management Commission</i>	84
Cobblecrest Lake (27–0053) <i>City of St. Louis Park</i>	87
Cobblestone Lake (19–0456) <i>City of Apple Valley</i>	90
Colby Lake (82–0094) <i>City of Woodbury</i>	93
Comfort Lake (13–0053) <i>Comfort Lake — Forest Lake Watershed District</i>	96
Crystal Lake [Burnsville] (19–0027) <i>Black Dog Watershed Management Commission</i>	100
Crystal Lake [Prior Lake] (70–0061) <i>Prior Lake — Spring Lake Watershed District</i>	103
DeMontreville Lake (82–0101) <i>Valley Branch Watershed District</i>	106
Dickman Lake (19–0046) <i>Lower Mississippi River Watershed Management Organization</i>	109
Duck Lake (27–0069) <i>City of Eden Prairie</i>	112
Eagle Lake (27–0111–01) <i>Shingle Creek Watershed Management Commission</i>	115
Earley Lake (19–0033) <i>City of Burnsville</i>	118
East Lake (19–0349) <i>City of Lakeville</i>	121
Edith Lake (82–0004) <i>Valley Branch Watershed District</i>	124

Farquar Lake (19–0023) <i>City of Apple Valley</i>	127
Fish Lake [Woodbury] (82–0093) <i>City of Woodbury</i>	130
Forest Lake [West Basin] (82–0159) <i>Comfort Lake — Forest Lake Watershed District</i>	133
Forest Lake [Middle Basin] (82–0159) <i>Comfort Lake — Forest Lake Watershed District</i>	136
Forest Lake [East Basin, Site 3] (82–0159) <i>Comfort Lake — Forest Lake Watershed District</i>	139
George Watch Lake (02–0005) <i>Rice Creek Watershed District</i>	142
Haas Lake (70–0078) <i>Prior Lake — Spring Lake Watershed District</i>	145
Hannan Lake (27–0052) <i>City of St. Louis Park</i>	148
Heifort’s Pond (82–0485) <i>Brown’s Creek Watershed District</i>	151
Heifort’s Pond (82–0485) <i>Brown’s Creek Watershed District</i>	154
Hornbeam Lake (19–0047) <i>City of Sunfish Lake</i>	157
Horseshoe Lake [Sunfish Lake] (19–0051) <i>City of Sunfish Lake</i>	160
Karth Lake (62–0072) <i>Rice Creek Watershed District</i>	163
Keewahtin Lake (82–0080) <i>Comfort Lake – Forest Lake Watershed District</i>	166
Keller Lake [Burnsville] (19–0025) <i>Black Dog Watershed Management Commission</i>	169
Klawitter Pond (82–0368) <i>Valley Branch Watershed District</i>	172
La Lake (82–0097) <i>City of Woodbury</i>	175
Lac Lavon Lake (19–0446) <i>Black Dog Watershed Management Commission</i>	178
Lamplighter Park Pond (27–0710) <i>City of St. Louis Park</i>	181
Lee Lake (19–0029) <i>City of Lakeville</i>	184
LeMay Lake (19–0082) <i>City of Mendota Heights</i>	187
Lilly Lake (19–0084) <i>Lower Mississippi River Watershed Management Organization</i>	190
Little Comfort Lake (13–0054) <i>Comfort Lake — Forest Lake Watershed District</i>	193
Little Johanna Lake (62–0058) <i>Rice Creek Watershed District</i>	196
Long Lake [Apple Valley] (19–0022) <i>City of Apple Valley</i>	199
Long Lake [Pine Springs] (82–0118) <i>Valley Branch Watershed District</i>	202
Lost Lake (27–0103) <i>Bassett Creek Watershed Management Commission</i>	205
Lotus Lake (10–0006) <i>City of Chanhassen</i>	208
Lucy Lake (10–0007) <i>City of Chanhassen</i>	211
Marion Lake (19–0026) <i>City of Lakeville</i>	214
Markgrafs Lake (82–0089) <i>City of Woodbury</i>	217
McMahon Lake (70–0050) <i>Scott Watershed Management Organization</i>	220
Medicine Lake [Site 1, Southwest Bay] (27–0104) <i>Bassett Creek Watershed Management Commission</i>	223
Medicine Lake [Site 2, Main Lake] (27–0104) <i>Bassett Creek Watershed Management Commission</i>	226
Minnetoga Lake (27–0088) <i>Nine Mile Creek Watershed District</i>	229
Minnewashta Lake [Site-1] (10–0009) <i>City of Chanhassen</i>	232
Mitchell Lake (27–0070) <i>City of Eden Prairie</i>	235
Moody Lake (13–0023) <i>Comfort Lake — Forest Lake Watershed District</i>	238
Nielson Lake (82–0055) <i>Comfort Lake — Forest Lake Watershed District</i>	241
Northwood Lake (27–0627) <i>Bassett Creek Watershed Management Organization</i>	244
O’Connor Lake (82–0002) <i>South Washington Watershed District</i>	247
O’Dowd Lake (70–0095) <i>City of Shakopee</i>	250
Olson Lake (82–0103) <i>Valley Branch Watershed District</i>	253
Orchard Lake (19–0031) <i>Black Dog Lake Watershed Management Organization</i>	256
Penn Lake (27–0004) <i>Nine Mile Creek Watershed District</i>	259
Pine Tree Lake (82–0122) <i>Rice Creek Watershed District</i>	262
Powers Lake (82–0092) <i>City of Woodbury</i>	265
Lake Rebecca (19–0003) <i>City of Hastings</i>	268
Red Rock Lake (27–0076) <i>City of Eden Prairie</i>	271
Reshanau Lake (02–0009) <i>Rice Creek Watershed District</i>	274
Rest Area Pond (82–0514) <i>Valley Branch Watershed District</i>	277
Riley Lake (10–0002) <i>City of Chanhassen/City of Eden Prairie</i>	280
Rogers Lake (19–0080) <i>City of Mendota Heights</i>	283
Schmitt Lake (19–0052) <i>Lower Mississippi River Watershed Management Organization</i>	286
School Lake (13–0057) <i>Comfort Lake — Forest Lake Watershed District</i>	289

Scout Lake (19-0198) <i>City of Apple Valley</i>	292
Seidls Lake (19-0095) <i>Lower Mississippi River Watershed Management Organization</i>	295
Shields Lake (82-0162) <i>Comfort Lake — Forest Lake Watershed District</i>	298
Simley Lake (19-0037) <i>City of Inver Grove Heights</i>	301
Smetana Lake (27-0073) <i>Nine Mile Creek Watershed District</i>	304
Lake St. Croix [Bayport Pool - Site 1N] (82-0001) <i>Metropolitan Council Environmental Services</i>	307
Lake St. Croix [Bayport Pool-Site 2] (82-0001) <i>Metropolitan Council Environmental Services</i>	310
Lake St. Croix [Troy Beach Pool-Site 4] (82-0001) <i>Metropolitan Council Environmental Services</i>	313
Lake St. Croix [Black Bass Pool-Site 6] (82-0001) <i>Metropolitan Council Environmental Services</i>	316
Lake St. Croix [Kinnickinnic Pool-Site-7] (82-0001) <i>Metropolitan Council Environmental Services</i>	319
St. Joe Lake (10-0011) <i>City of Chanhassen</i>	322
Sunfish Lake (19-0050) <i>City of Sunfish Lake</i>	325
Sunset Lake (82-0153) <i>Rice Creek Watershed District</i>	328
Sunset Pond (19-0451) <i>City of Burnsville</i>	331
Susan Lake (10-0013) <i>City of Chanhassen</i>	334
Swamp Lake (70-0111) <i>Prior Lake — Spring Lake Watershed District</i>	337
Sweeney Lake [Site-1, South Site] (27-0035-01) <i>Bassett Creek Watershed Management Commission</i>	340
Sweeney Lake [Site-2, North Site] (27-0035-01) <i>Bassett Creek Watershed Management Commission</i>	343
Teal Lake (27-0275) <i>Elm Creek Watershed Management Commission</i>	346
Thole Lake (70-0120) <i>Scott Watershed Management Organization</i>	349
Thompson Lake (19-0048) <i>Lower Mississippi River Watershed Management Organization</i>	352
Twin Lake [Burnsville] (19-0028) <i>City of Burnsville</i>	355
Twin Lake [Golden Valley] (27-0035-02) <i>Bassett Creek Watershed Management Commission</i>	358
Valentine Lake (62-0071) <i>Rice Creek Watershed District</i>	361
Valley Lake (19-0348) <i>City of Lakeville</i>	364
Victoria Lake (27-0051) <i>City of St. Louis Park</i>	367
Westwood Lake (27-0711) <i>Bassett Creek Watershed Management Organization</i>	370
White Rock Lake (82-0072) <i>Rice Creek Watershed District</i>	373
Wilmes Lake (82-0090) <i>City of Woodbury</i>	376
Wolfe Park Lake (27-0664) <i>City of St. Louis Park</i>	379
Wood Lake (19-0024) <i>City of Burnsville</i>	382
References	385
Appendix A	386
Appendix B.....	411
Appendix C.....	428

Introduction

This 2024 report continues a series of annual lake reports from 1980 to present. Since 1980, 418 lakes in the Twin Cities seven-county metropolitan region (region) have been monitored through the Metropolitan Council Environmental Service's (Met Council) lake monitoring program. Since some of these lakes have multiple monitoring sites, a total of 464 lake sites have been monitored. This report contains data from 179 lake sites on 164 lakes that were monitored in 2024, including 8 lakes and 11 lake sites that have not been previously monitored by the Met Council lake monitoring program. Figure 1 shows the location of the lakes monitored in 2024 by volunteers of the Community-Assisted Monitoring Program (CAMP), formerly called the Citizen-Assisted Monitoring Program. A list of lakes that have been monitored by the Met Council's monitoring program is shown in Appendix A. Refer to Appendix B for morphometry and other lake characteristic data.

There are 950 lakes in the region. The Met Council monitors just a subset of these lakes due to limited resources. Additional lakes are monitored by other units of government which help to further provide important regional lake water quality data, but the data collected from these other entities are not included in this report.

Met Council lake monitoring data are available via:

- the Met Council's Environmental Information Management System (EIMS), at <https://eims.metc.state.mn.us>
- the Minnesota Pollution Control Agency's (MPCA) Environmental Data Access (EDA) system, at <http://www.pca.state.mn.us/index.php/data/surface-water.html>
- The U.S. EPA's national water quality data repository, at <https://www.epa.gov/waterdata/water-quality-data>

The objectives of the Met Council lake monitoring program are:

1. Provide the Met Council and our partners water quality data and information to help effectively manage the lakes of the region.
2. Use the data to determine lake water quality conditions and water quality trends, including ranking lakes on the Met Council's A - F grading system.

The long-term goal of the Met Council lake monitoring program is to provide a comprehensive database to enable our partners (cities, counties, watershed management organizations (WMOs), watershed districts (WDs), conservation districts) to better manage the region's lakes. The Council believes that without such comprehensive lake data, the foundation of lake and watershed management plans is weakened. While the Met Council has provided a commendable lake monitoring program, monitoring by other organizations is also encouraged (Osgood 1989a).

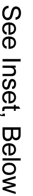
To date, the Met Council lake monitoring program has been an important tool for making informed lake management decisions. The majority of the lakes have been visited on a rotating schedule, so as to develop an historical database to help lake and watershed managers in decision making. Data from the Met Council lake monitoring program are frequently used to determine possible trends in lake water quality, estimate expected ranges in water quality of non-monitored lakes, examine intra-and interregional differences, and investigate the relationships between land use and water quality. A comprehensive regional lake monitoring program should ensure adequate spatial and temporal representation of water quality. However, due to cost and logistical problems, ground-based monitoring programs usually sacrifice spatial coverage (fewer lakes) in favor of more frequent sampling.

As is the case throughout the United States, the majority of lakes in the region suffer from this lack of water quality data. Area lakes and watershed managers need a broad, comprehensive water quality database for regulatory and decision-making purposes. Because of the lack of public funding and the high ratio of area lakes to monitoring staff, very little data exist for the majority of the region's lakes, and local decision-makers are forced to make management decisions lacking adequate information.

The Met Council addressed this lack of adequate lake water quality data by initiating the CAMP in 1993. The purpose of the CAMP is to provide a more complete and improved water quality database for the region's lakes. This database gives local decision makers a better idea of the water quality of their lakes, thereby assisting them in decision making on water quality issues. The Met Council's goal for the CAMP is to provide a means to gather as much information on the region's lakes as is economically possible.

Questions and comments pertaining to the information contained in this report and inquiries about CAMP can be directed to Brian Johnson at (651) 602-8743 or brian.johnson@metc.state.mn.us.

- Monitored by CAMP
- Monitored by MCES staff



2

Metropolitan Council Staff Lake Monitoring Program

Met Council staff monitored 9 sites on 6 lakes in 2024.

- Blue Lake (70–0088), 2 sites
- Fisher Lake (70–0087), 2 sites
- Gun Club Lake (19–0078)
- Jane Lake (82–0104)
- Rice Lake (70–0025), 2 sites
- Snelling Lake (27–0001)

The following section describes the methods and results of that monitoring effort.

Methods

Met Council staff monitored lake sites during the open water season of May through October. The lake monitoring sites were located generally over the deepest spot of the lake basin or a central location of a sub-basin. A hand-held Global Positioning System (GPS) receiver was used to determine the coordinates of a lake site, and to aid in relocating lake sites during subsequent monitoring events. Time, water surface conditions, weather, lake depth, and water transparency were recorded on an electronic monitoring form. Water transparency was measured using a 20 cm black-and-white Secchi disk. Temperature, dissolved oxygen (DO), pH, specific conductivity, turbidity, and oxidation reduction potential (redox) were measured at one-meter intervals throughout the water column. For depths below 10 m, the sampling interval was increased to every 2 m. These parameters were measured using a YSI EXO2 multi-parameter sonde that was connected to a YSI EXO data logger.

The sonde probes for DO and pH were calibrated before each field trip. The calibration for the pH probes was checked the same day after returning from the field. The conductivity probe was calibrated on a weekly schedule. The turbidity and redox probes were calibrated on a monthly schedule.

Water was collected from the lake surface using a two-meter or one-meter vertical integrated sampler (PVC pipe and rubber plug) with a two-liter and one-liter capacity, respectively. Two surface samples were collected and mixed together in a 4-liter plastic jug. The surface sample was then decanted into an opaque polyethylene bottle. If the lake was too shallow to sample with an integrated sampler, the surface sample was collected by submerging a 4-liter plastic jug to forearm depth. Subsurface samples were collected using a 2-liter vertical Van Dorn—type sampler. All water samples were transported on ice in a dark cooler and processed and preserved within 18 hours of collection.

The surface and subsurface samples were analyzed for the standard parameters as shown in Table 1. Chlorophyll was not analyzed in the subsurface samples. Samples that were analyzed for filtered matrices were filtered through a 0.45 μm membrane filter and then analyzed. Chemical analyses were performed mainly at the Met Council Environmental Services laboratory. Starting in 2024, the Met Council laboratory began using a new low-level total phosphorus method utilizing EPA method 365.1. The chlorophyll analysis results were reported by the laboratory according to two different equations: the trichromatic equation and the monochromatic equation. The trichromatic equation gives the following chlorophyll parameters:

- chlorophyll-a (CLA),
- chlorophyll-b,
- chlorophyll-c.

The monochromatic equation gives the following parameters:

- chlorophyll-a corrected for pheophytin,
- pheophytin-a.

The chlorophyll data in this report are reported as trichromatic CLA. However all the analytical results from the trichromatic and monochromatic equations can be accessed via the monitoring data databases as provided in the Introduction section.

Table 1. Summary of Analytical Methods

Parameters	Analytical Method
Alkalinity	EPA Method 310.2 Rev. 1974
Ammonia Nitrogen	U.S. EPA, Method 350.1, Rev. 2.0
Chloride	Standard Methods for the Examination of Water and Wastewater, Method 4500-Cl ⁻ E-2011
Chlorophyll	ASTM Method D3731–87
Hardness	Standard Methods for the Examination of Water and Wastewater, Method 2340 B-2011
Kjeldahl Nitrogen, total (TKN)	U.S. EPA Method 351.2, Rev. 2.0
Metals: Calcium, Magnesium, and Iron	U.S. EPA, Method 200.8, Revision 5.4

Parameters	Analytical Method
Nitrate/Nitrite	U.S. EPA, Method 353.2, Rev. 2.0
Organic Carbon, Total	Standard Methods for the Examination of Water and Wastewater, Method 5310 C-2014.
Ortho Phosphate	Standard Methods for the Examination of Water and Wastewater, Method 4500–P F-2011
Phosphorous, low level, total (TP) and dissolved (TDP).	U.S. EPA Method 365.1
Sulfate	U.S. EPA, Method 300.0, Rev 2.1

Results

The water quality of each staff-monitored lake is discussed in the following section. Each lake report includes a description of the lake's water quality condition and the year's water quality data shown in tables and figures. The water quality grades from 1980 through 2024 are shown for lake sites that were monitored for trophic status.

For data of samples collected at depth and of depth profile measurements, please refer to the Met Council's Environmental Information Management System (EIMS) at <http://es.metc.state.mn.us/eims/> to access this additional data.

Any questions about the 2024 Met Council lake monitoring data should be directed to Brian Johnson at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Blue Lake [Site 1, main lake] (70–0088) *Metropolitan Council*

Blue Lake is located in the city of Shakopee (Scott County). It has a surface area of 154 acres. Site 1 is located in the open water area of the lake. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) and is located within the Minnesota Valley National Wildlife Refuge. The Metropolitan Council is monitoring the lake as part of a larger effort to collect monitoring data on its priority lakes with historical, current, or potential wild rice stands in the Minnesota River valley in support of potential development of a sulfate site-specific water quality standard for the downstream Mississippi River.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

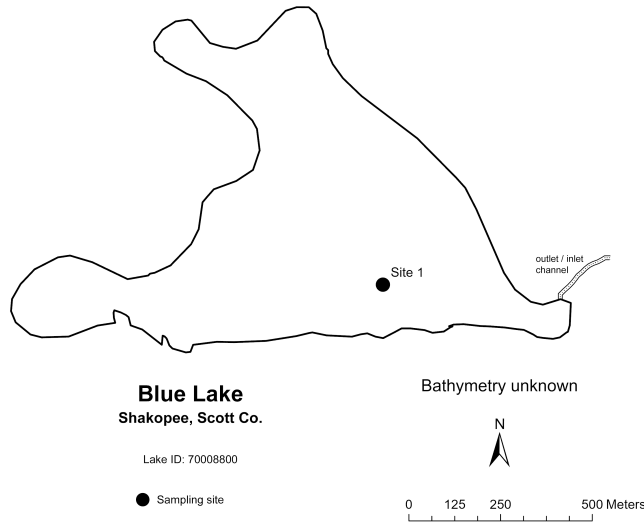
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	94	40	186	D
CLA (µg/l)	31	11	74	C
Secchi (m)	0.7	0.5	1.0	D
TKN (mg/l)				
			Lake Grade	D

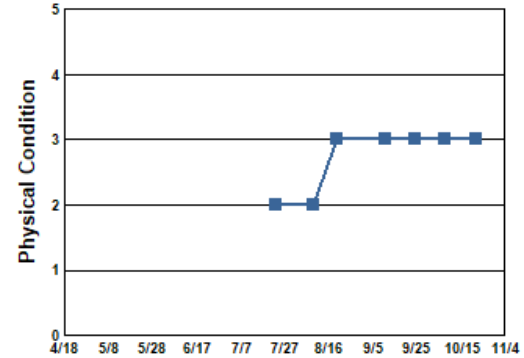
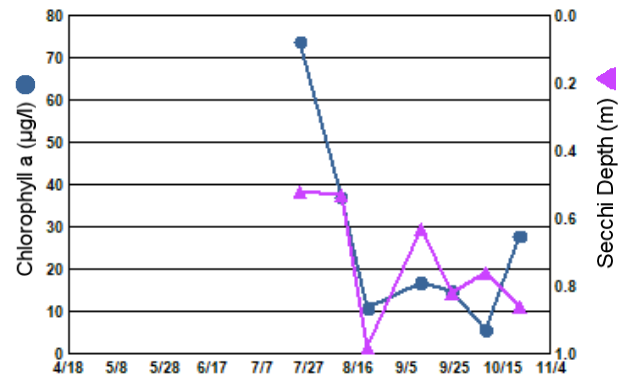
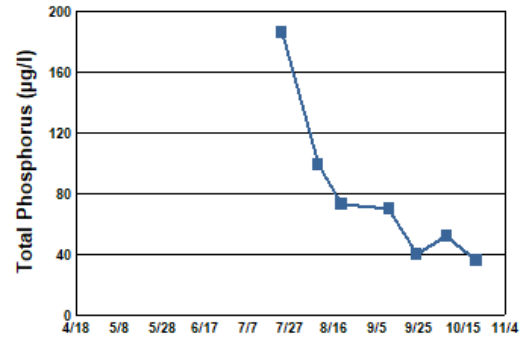
The lake received a lake grade of D. Monitoring in 2024 was greatly affected by major flooding of the Minnesota River during the summer of 2024. Blue Lake was completely inundated by the Minnesota River floodwaters. Monitoring was delayed until late July to allow the flood waters to recede and access to Blue Lake.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

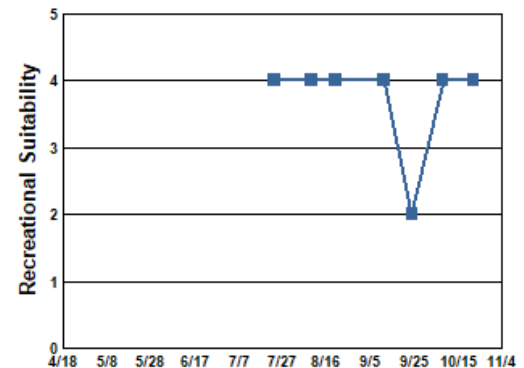
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

**2024 Data**

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
07/23/24	24.6	11.0	74	186	0.5	2	4
08/09/24	19.2	10.3	37	99	0.5	2	4
08/20/24	24.2	12.6	11	73	1.0	3	4
09/11/24			17	70	0.6	3	4
09/24/24	19.3	10.8	15	40	0.8	3	2
10/08/24	14.7	9.6	5.8	52	0.8	3	4
10/22/24	15.7	13.5	28	36	0.9	3	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									D
CLA									C
Secchi									D
Lake Grade									D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Blue Lake [Site 2, east outlet] (70–0088) *Metropolitan Council*

Blue Lake is located in the city of Shakopee (Scott County). It has a surface area of 154 acres. Site 2 is located in the channel near the east outlet of the lake. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) and is located within the Minnesota Valley National Wildlife Refuge. The Metropolitan Council is monitoring the lake as part of a larger effort to collect monitoring data on its priority lakes with historical, current, or potential wild rice stands in the Minnesota River valley in support of potential development of a sulfate site-specific water quality standard for the downstream Mississippi River.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

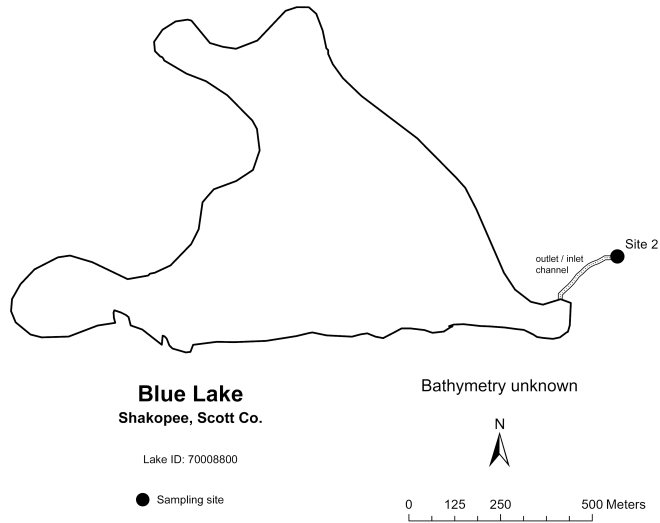
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	206	154	260	F
CLA (µg/l)	19	5.5	39	B
Secchi (m)	0.5	0.3	0.7	F
TKN (mg/l)				
			Lake Grade	D

This lake site received a lake grade of D. Monitoring in 2024 was greatly affected by major flooding of the Minnesota River during the summer of 2024. Blue Lake was completely inundated by the Minnesota River floodwaters. Monitoring was delayed until late July to allow the flood waters to recede and access to Blue Lake.

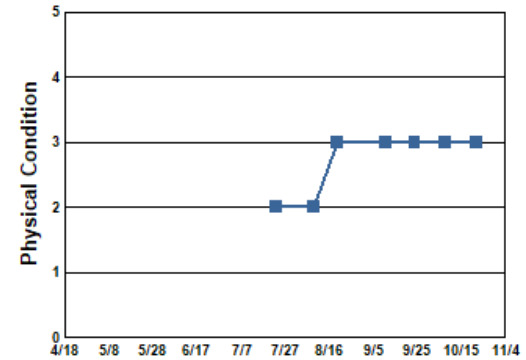
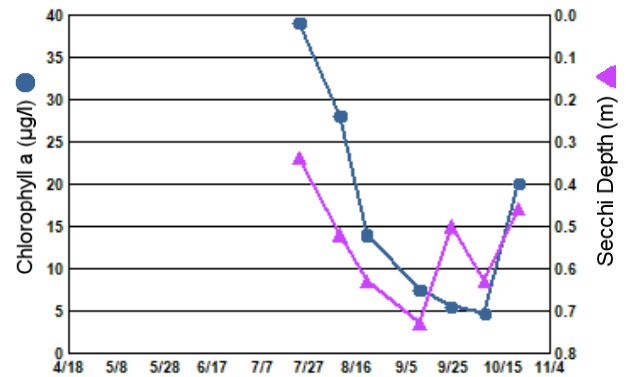
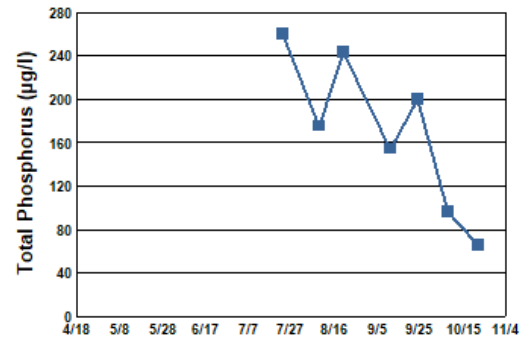
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

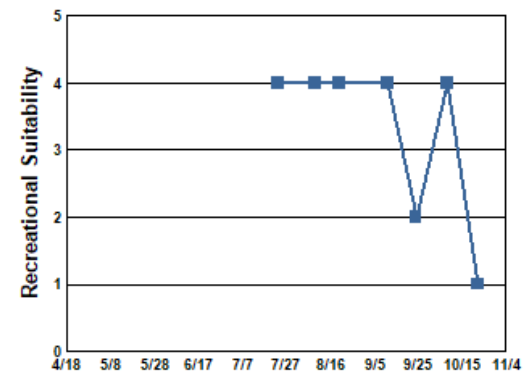


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
07/23/24	24.2	5.2	39	260	0.3	2	4
08/09/24	22.3	7.7	28	175	0.5	2	4
08/20/24	24.2	4.2	14	243	0.6	3	4
09/11/24			7.5	154	0.7	3	4
09/24/24	20.0	3.7	5.5	200	0.5	3	2
10/08/24	14.2	6.7	4.7	96	0.6	3	4
10/22/24	16.8	7.8	20	65	0.5	3	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									F
CLA									B
Secchi									F
Lake Grade									D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Fisher Lake [Site 1, main lake] (70–0087) *Metropolitan Council*

Fisher Lake is located in the city of Shakopee (Scott County). It has a surface area of 259 acres. Site 1 is located in the open water area near the east end of the lake. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) and is located within the Minnesota Valley National Wildlife Refuge. The Metropolitan Council is monitoring the lake as part of a larger effort to collect monitoring data on its priority lakes with historical, current, or potential wild rice stands in the Minnesota River valley in support of potential development of a sulfate site-specific water quality standard for the downstream Mississippi River.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

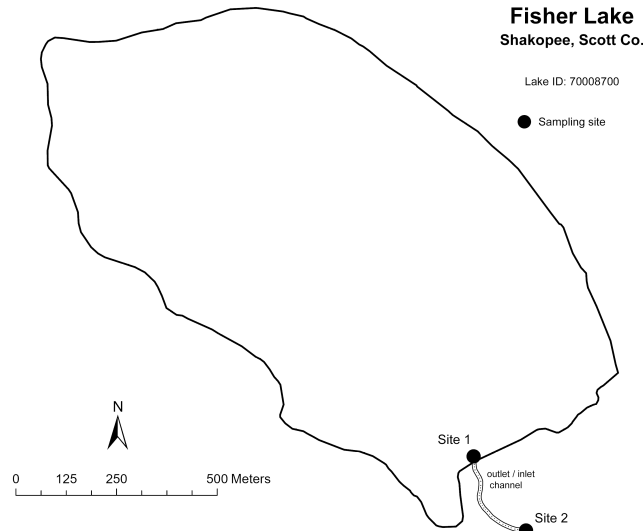
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	211	76	350	F
CLA (µg/l)	24	5.5	41	C
Secchi (m)	0.7	0.3	1.3	F
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D. Monitoring in 2024 was greatly affected by major flooding of the Minnesota River during the summer of 2024. Fisher Lake was completely inundated by the Minnesota River floodwaters. Monitoring began in May 2024 but was discontinued in June due to the flooding and was delayed until late July to allow the flood waters to recede and access to the lake.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

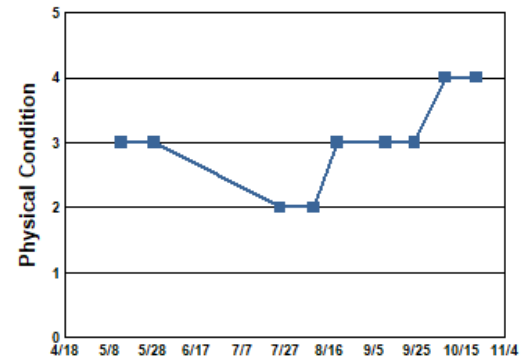
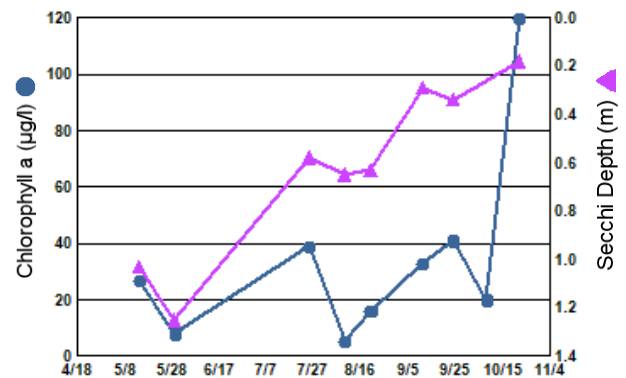
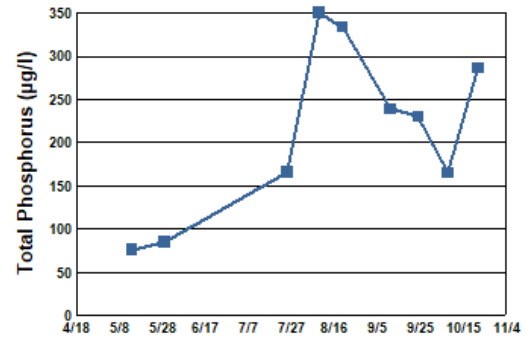
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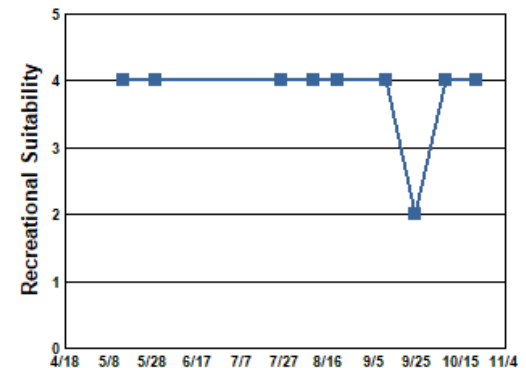
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	17.8	9.6	27	76	1.0	3	4
05/29/24	18.5	6.2	8.0	85	1.3	3	4
07/25/24	24.6	11.8	39	166	0.6	2	4
08/09/24	19.4	6.3	5.5	350	0.7	2	4
08/20/24	24.8	4.0	16	333	0.6	3	4
09/11/24			33	239	0.3	3	4
09/24/24	19.0	6.3	41	230	0.3	3	2
10/08/24	13.8	5.1	20	165	+0.2	4	4
10/22/24	16.2	5.6	120	286	0.2	4	4

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									F
CLA									C
Secchi									F
Lake Grade									D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Fisher Lake [Site 2, east outlet] (70–0087) *Metropolitan Council*

Fisher Lake is located in the city of Shakopee (Scott County). It has a surface area of 259 acres. Site 2 is located in the east outlet channel of the lake. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) and is located within the Minnesota Valley National Wildlife Refuge. The Metropolitan Council is monitoring the lake as part of a larger effort to collect monitoring data on its priority lakes with historical, current, or potential wild rice stands in the Minnesota River valley in support of potential development of a sulfate site-specific water quality standard for the downstream Mississippi River.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

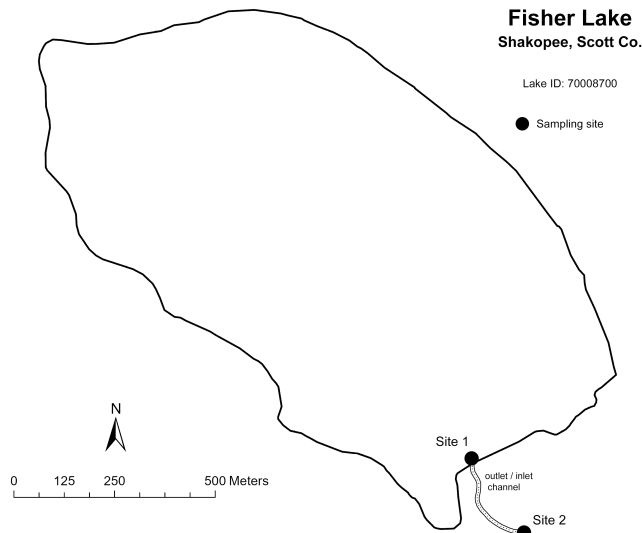
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	258	83	458	F
CLA (µg/l)	57	7.0	140	D
Secchi (m)	0.5	0.3	1.3	F
TKN (mg/l)				
			Lake Grade	F

Site 2 received a lake grade of F. The water quality of Site 2 was worse than Site 1 (lake grade of D), which was driven mainly by higher concentrations of phosphorus and chlorophyll at Site 2 during the summer-time period. Monitoring in 2024 was greatly affected by major flooding of the Minnesota River during the summer of 2024. Fisher Lake was completely inundated by the Minnesota River floodwaters. Monitoring began in May 2024 but was discontinued in June due to the flooding and was delayed until late July to allow the flood waters to recede and access to the lake.

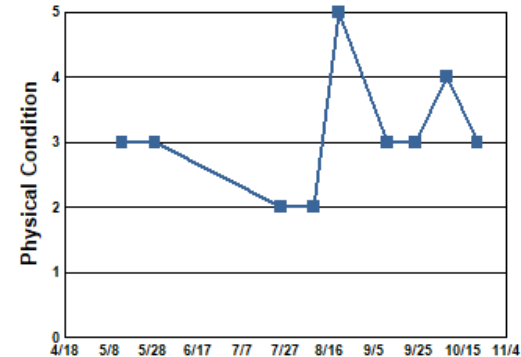
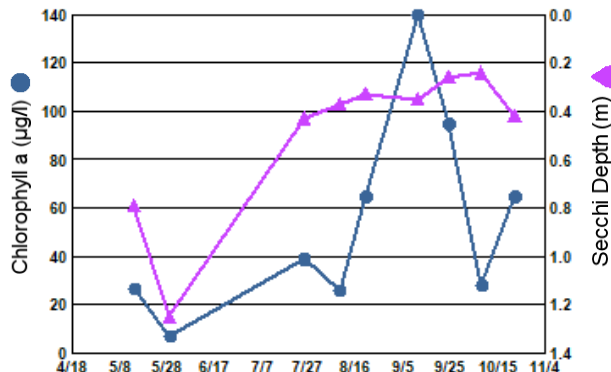
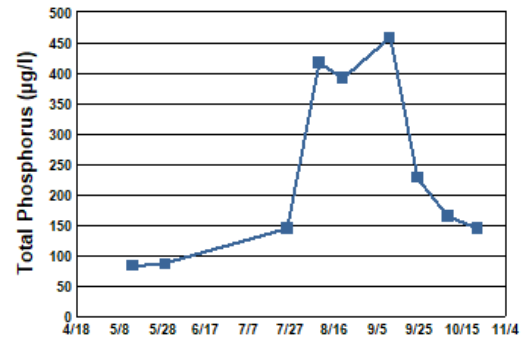
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

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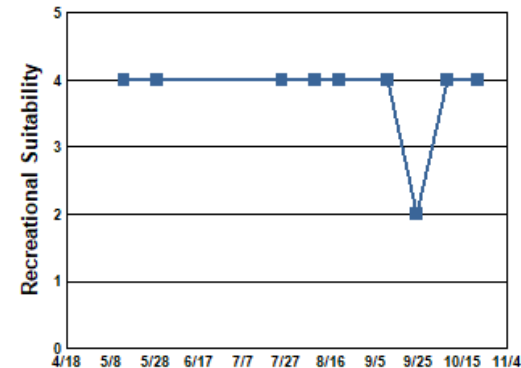


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	17.9	9.8	27	83	0.8	3	4
05/29/24			7.0	86	1.3	3	4
07/25/24	24.4	11.0	39	144	0.4	2	4
08/09/24	20.9	5.6	26	416	0.4	2	4
08/20/24	25.0	3.5	65	392	0.3	5	4
09/11/24			140	458	0.4	3	4
09/24/24	19.2	3.7	95	228	0.3	3	2
10/08/24	14.0	5.6	28	164	0.2	4	4
10/22/24	15.2	7.8	65	144	0.4	3	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									F
CLA									D
Secchi									F
Lake Grade									F

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Gun Club Lake (19–0078) *Metropolitan Council*

Gun Club Lake is located in the city of Mendota Heights (Dakota County). It has a surface area of 533 acres. The monitoring site is located in the open water area of the lake near a previously established Minnesota Pollution Control Agency monitoring site. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) and is located within Fort Snelling State Park. The Metropolitan Council is monitoring the lake as part of a larger effort to collect monitoring data on its priority lakes with historical, current, or potential wild rice stands in the Minnesota River valley in support of potential development of a sulfate site-specific water quality standard for the downstream Mississippi River.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	122	83	163	
CLA (µg/l)	9.5	5.6	15	
Secchi (m)	+1.1	>1.0	+1.2	
TKN (mg/l)				
			Lake Grade	

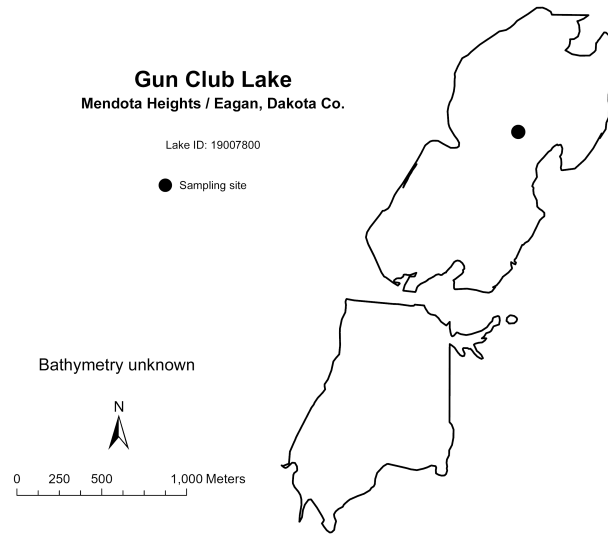
+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

Monitoring in 2024 was greatly affected by major flooding of the Minnesota River during the summer of 2024. Gun Club Lake was completely inundated by the Minnesota River floodwaters. Monitoring began in May 2024 but was discontinued in June due to the flooding and was delayed until late August to allow the flood waters to recede and for Fort Snelling State Park and the access road to the lake to reopen. There were less than 5 monitoring events during the summer-time period (May — September). At least 5 monitoring events are required during the summer-time period to determine a parameter grade. At least 5 values are needed within the summer-time period (May — September) to calculate a parameter grade. A lake grade was not given because all three parameter grades are required to issue a lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

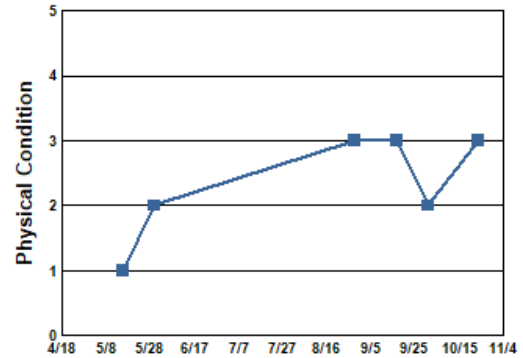
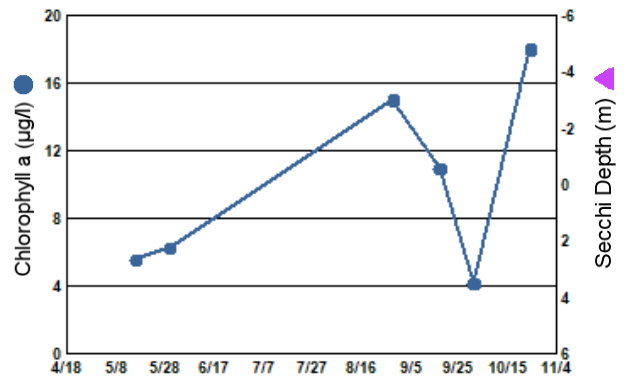
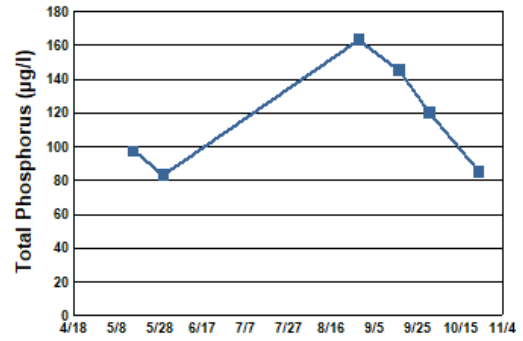


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/16/24	19.4	4.1	5.6	97	>1.0	1	4
05/30/24	20.2	9.7	6.3	83	+1.2	2	2
08/29/24	24.0	3.5	15	163	>1.1	3	4
09/17/24			11	145	+1.2	3	4
10/01/24	18.6	7.2	4.2	120	+1.1	2	2
10/24/24	13.5	10.3	18	85	+1.3	3	4

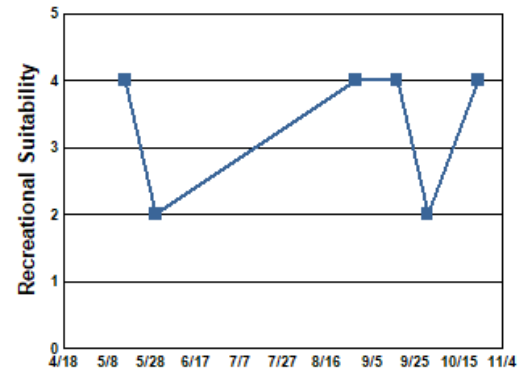
+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									
CLA									
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Jane Lake (82–0104) Metropolitan Council

Lake Jane is located in the northwest corner of the City of Lake Elmo (Washington County). It has a surface area of 155 acres. The mean and maximum depths are 3.7 m and 12.0 m, respectively. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](https://metro council.org/priority-waters-list)

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 2006 and aquatic life (fish bioassessments) in 2022. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2012 and zebra mussels (*Dreissena polymorpha*) (veligers) in 2025.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	16	13	19	A
CLA (µg/l)	3.8	1.4	6.3	A
Secchi (m)	3.9	2.6	6.0	A
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A this year, which consistent with its historical water quality database.

Throughout the monitoring period, METC staff ranked the lake's physical condition and recreational suitability on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

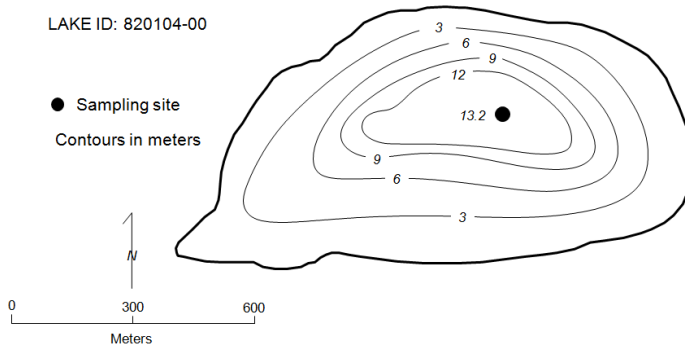
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lake Jane Lake Elmo, Washington Co.

LAKE ID: 820104-00

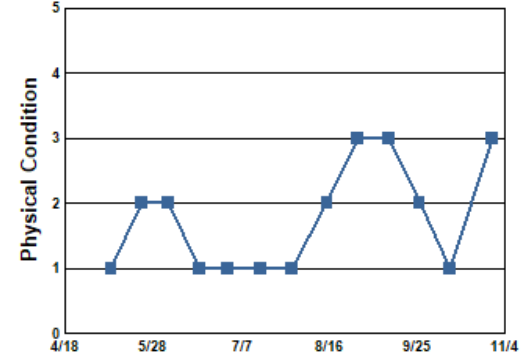
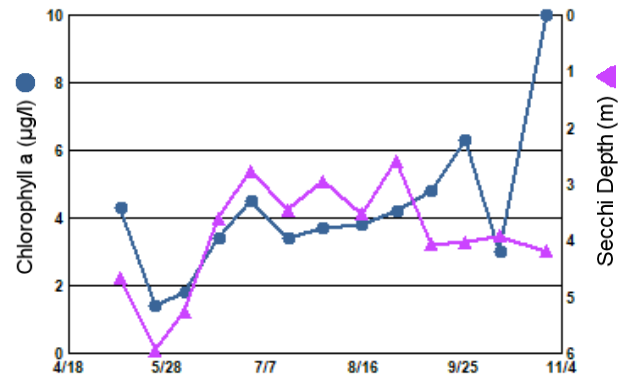
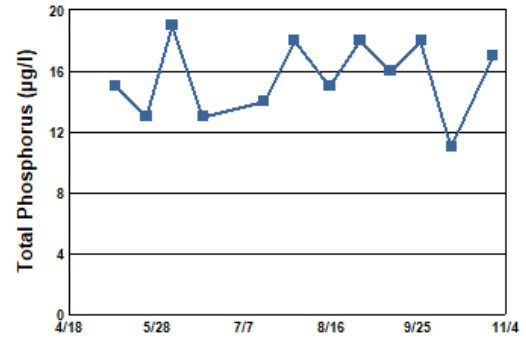
● Sampling site

Contours in meters



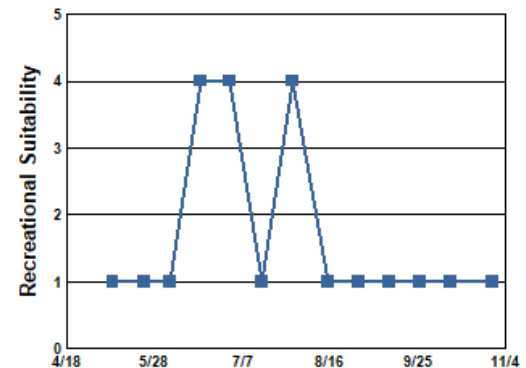
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/09/24	16.1	10.6	4.3	15	4.7	1	1
05/23/24	20.1	9.1	1.4	13	6.0	2	1
06/04/24	22.3	9.1	1.8	19	5.3	2	1
06/18/24	22.2	8.3	3.4	13	3.6	1	4
07/01/24	23.2	8.5	4.5		2.8	1	4
07/16/24	26.2		3.4	14	3.5	1	1
07/30/24	27.6	8.9	3.7	18	3.0	1	4
08/15/24	24.0	9.2	3.8	15	3.5	2	1
08/29/24	24.6	8.4	4.2	18	2.6	3	1
09/12/24	22.5	9.3	4.8	16	4.1	3	1
09/26/24	21.6	8.8	6.3	18	4.0	2	1
10/10/24	16.6	7.7	3.0	11	3.9	1	1
10/29/24	13.5	10.0	10	17	4.2	3	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	B	B			C		B	B				B
CLA					C		B	B				B
Secchi	A	A	A	A	B	B	B	B	B	B	B	B
Lake Grade					C		B	B				B

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			A						A			
CLA			A						A			
Secchi	C	B	B						A			
Lake Grade			A						A			

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	A	A	A	A	A	A	A	A				A
CLA	A	A	A	A	A	A	A	A				A
Secchi	A	A	A	A	A	A	A	A				A
Lake Grade	A	A	A	A	A	A	A	A				A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	A	A	A	A		A
CLA	A	A	A	A	A	A	A		A
Secchi	A	A	A	A	A	A	A		A
Lake Grade	A	A	A	A	A	A	A		A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQS database(s)

Rice Lake [Site 1, main lake] (70–0025) *Metropolitan Council*

Rice Lake is located mainly in the city of Savage (Scott County). It has a surface area of 116 acres. Site 1 is located in the open water area of the lake. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) and is located within the Minnesota Valley National Wildlife Refuge. The Metropolitan Council is monitoring the lake as part of a larger effort to collect monitoring data on its priority lakes with historical, current, or potential wild rice stands in the Minnesota River valley in support of potential development of a sulfate site-specific water quality standard for the downstream Mississippi River.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

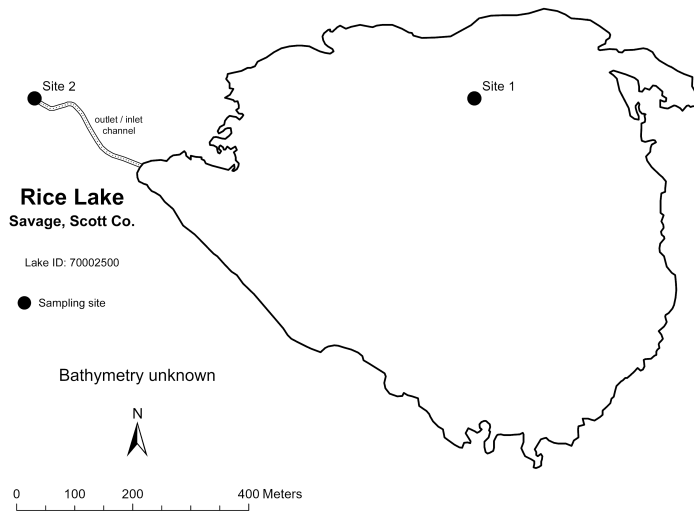
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	463	47	828	F
CLA (µg/l)	37	11	80	C
Secchi (m)	+0.8	0.4	+2.0	D
TKN (mg/l)				
			Lake Grade	D

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

The lake received a lake grade of D. Monitoring in 2024 was greatly affected by major flooding of the Minnesota River during the summer of 2024. Rice Lake was completely inundated by the Minnesota River floodwaters. Monitoring began in May 2024 but was discontinued in June due to the flooding and was delayed until late July to allow the flood waters to recede and access to the lake.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

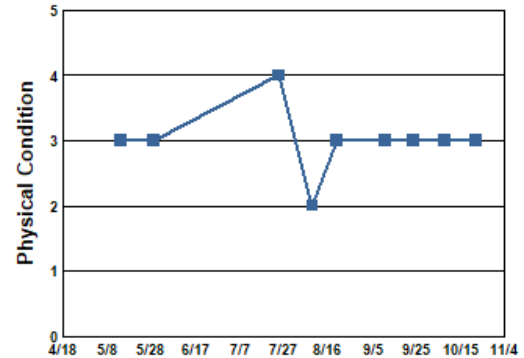
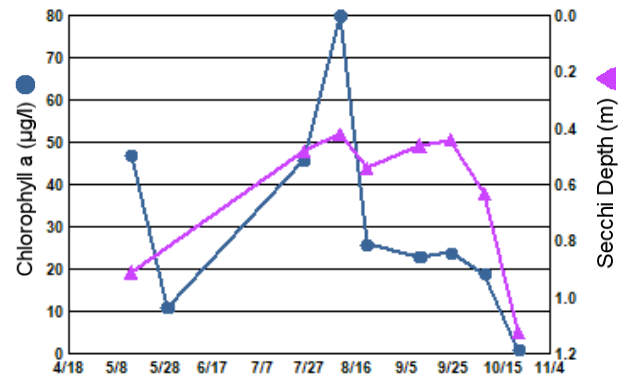
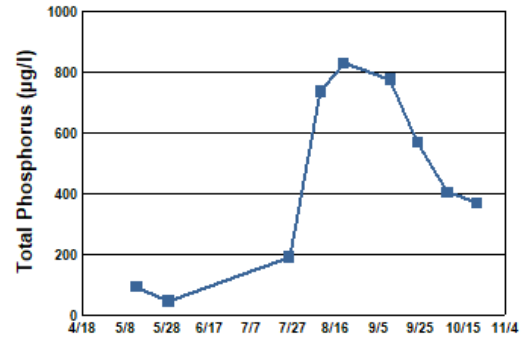
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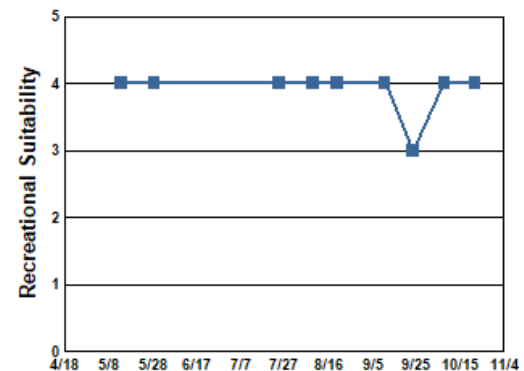
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	18.7	14.0	47	94	0.9	3	4
05/29/24			11	47	+2.0	3	4
07/25/24	25.4	12.1	46	192	0.5	4	4
08/09/24	21.4	8.5	80	735	0.4	2	4
08/20/24	24.9	7.1	26	828	0.5	3	4
09/11/24			23	775	0.5	3	4
09/24/24	20.5	7.4	24	569	0.4	3	3
10/08/24	14.8	8.2	19	404	0.6	3	4
10/22/24	15.7	9.4	1.0	369	1.1	3	4

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									F
CLA									C
Secchi									D
Lake Grade									D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Rice Lake [Site 2, west outlet] (70–0025) *Metropolitan Council*

Rice Lake is located mainly in the city of Savage (Scott County). It has a surface area of 116 acres. Site 2 is located in the west channel outlet of the lake. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) and is located within the Minnesota Valley National Wildlife Refuge. The Metropolitan Council is monitoring the lake as part of a larger effort to collect monitoring data on its priority lakes with historical, current, or potential wild rice stands in the Minnesota River valley in support of potential development of a sulfate site-specific water quality standard for the downstream Mississippi River.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

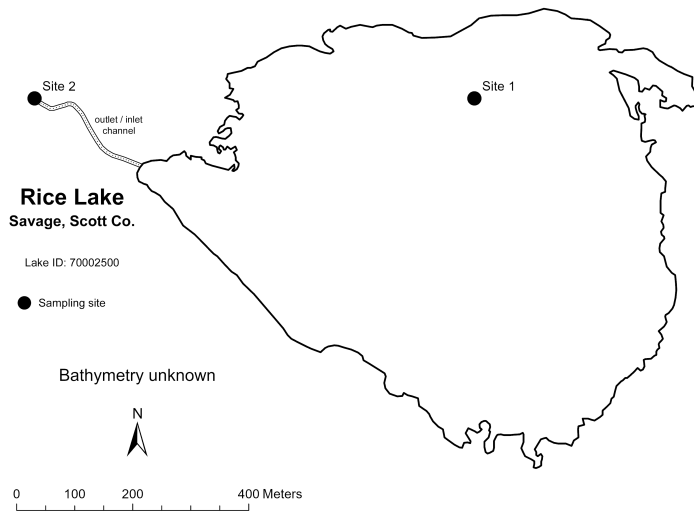
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	520	82	1010	F
CLA (µg/l)	27	6.8	51	C
Secchi (m)	+1.2	0.5	+1.9	D
TKN (mg/l)				
			Lake Grade	D

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

Site 2 received a lake grade of D. Monitoring in 2024 was greatly affected by major flooding of the Minnesota River during the summer of 2024. Rice Lake was completely inundated by the Minnesota River floodwaters. Monitoring began in May 2024 but was discontinued in June due to the flooding and was delayed until late July to allow the flood waters to recede and access to the lake.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

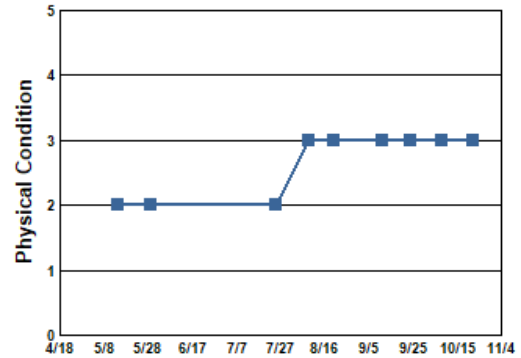
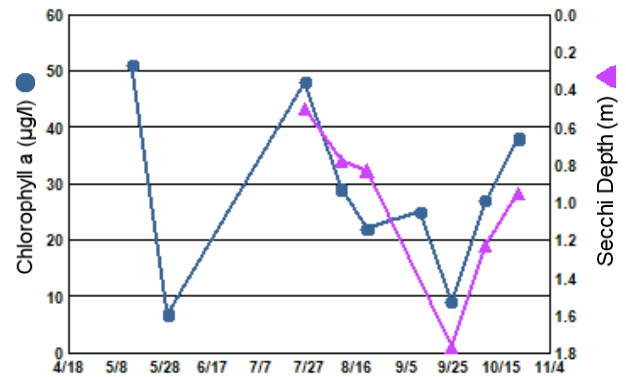
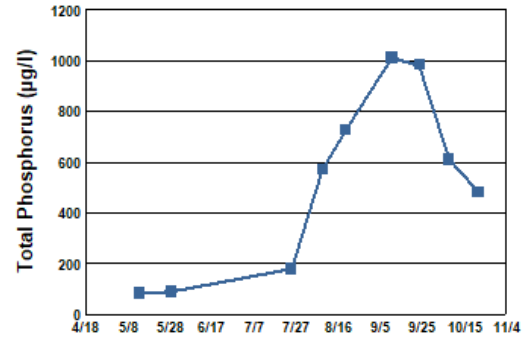
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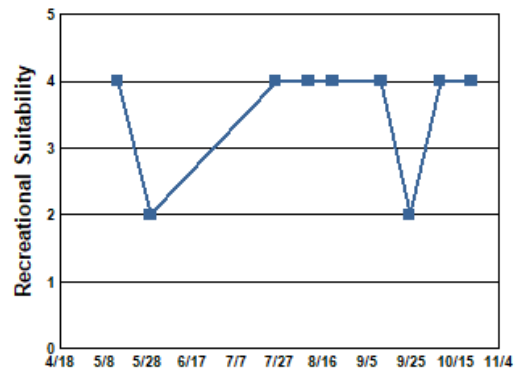
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	18.5	11.4	51	82		2	4
05/29/24			6.8	88		2	2
07/25/24	24.9	8.9	48	180	0.5	2	4
08/09/24	22.4	2.6	29	570	0.8	3	4
08/20/24	24.7	1.7	22	728	0.8	3	4
09/11/24			25	1010	+1.9	3	4
09/24/24	20.0	1.0	9.0	984	1.8	3	2
10/08/24	14.2	1.8	27	610	1.2	3	4
10/22/24	15.1	1.4	38	482	1.0	3	4

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									F
CLA									C
Secchi									D
Lake Grade									D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Snelling Lake (27-0001) *Metropolitan Council*

Snelling Lake is located in Fort Snelling (Anoka County). It has a surface area of 103 acres. The monitoring site is located in the open water area of the lake. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) and is located within Fort Snelling State Park.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured, and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

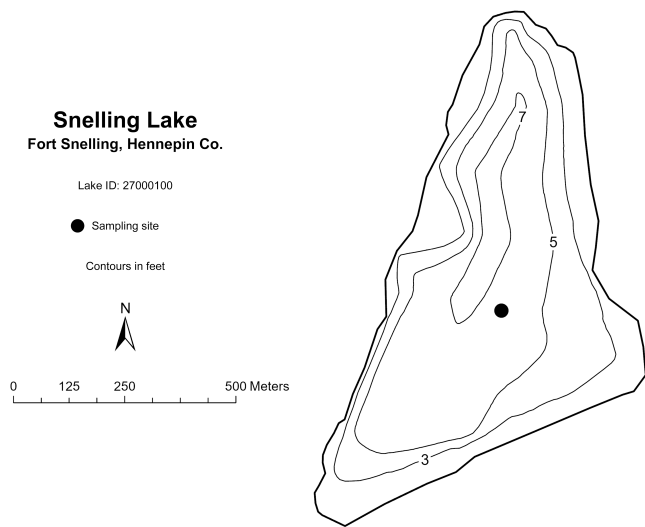
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	126	27	222	D
CLA (µg/l)	42	3.3	92	C
Secchi (m)	>1.3	0.6	2.6	C
TKN (mg/l)				
			Lake Grade	C

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of C. Monitoring in 2024 was greatly affected by major flooding of the Minnesota River during the summer of 2024. Snelling Lake was inundated by the Minnesota River floodwaters. Monitoring began in May 2024 but was discontinued in July due to the flooding and was delayed until mid August to allow the flood waters to recede and for Fort Snelling State Park to reopen.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

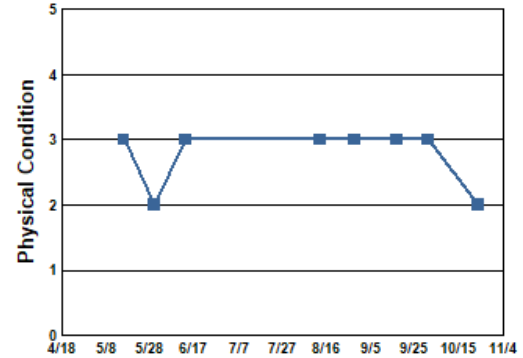
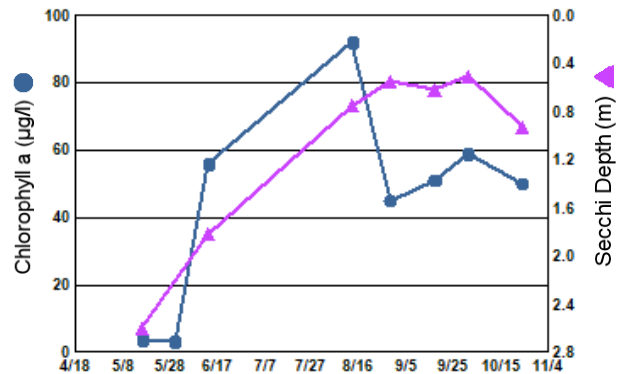
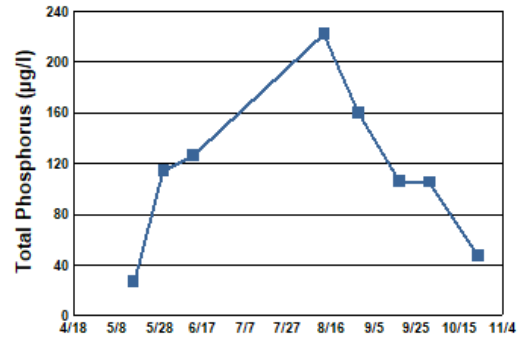
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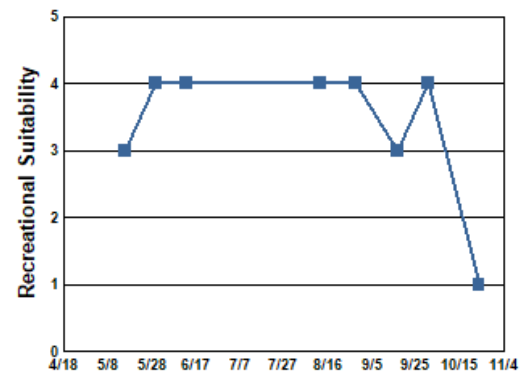
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/16/24	19.1	14.2	3.8	27	2.6	3	3
05/30/24	19.9	9.6	3.3	114	>1.6	2	4
06/13/24	21.2	5.3	56	126	1.8	3	4
08/13/24	23.5	16.2	92	222	0.8	3	4
08/29/24	24.1	5.5	45	160	0.6	3	4
09/17/24			51	106	0.6	3	3
10/01/24	19.7	8.2	59	105	0.5	3	4
10/24/24	13.7	8.7	50	47	0.9	2	1

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									D
CLA									C
Secchi									C
Lake Grade									C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Community-Assisted Monitoring Program

Topics Covered in this Chapter

- ◆ [CAMP Overview](#)
- ◆ [Acknowledgments](#)
- ◆ [CAMP Methods](#)

The following section describes an overview of the Community-Assisted Monitoring Program (CAMP), methods, and results.

CAMP Overview

In 1993, the Met Council initiated a monitoring program to expand coverage of the lakes in the region, supported through a corps of dedicated volunteers. Originally called the Citizen-Assisted Monitoring Program, the name was changed in 2024 to the Community-Assisted Monitoring Program (CAMP) to better reflect the community partnerships that make the program possible. The program brings together different levels of the community that support the monitoring of our area lakes: volunteers (local residents), sponsors (cities, watershed districts, watershed management organizations, counties), and the Met Council. Pulling together as a community, across many levels, we are able to collect more water data and then use that data to make better lake management decisions.

The CAMP monitored 170 lake-sites on 158 lakes in 2024, including 3 lakes that have not been previously monitored by the Met Council (Figure 1). The CAMP is jointly funded by the Met Council and local sponsors such as WDs, WMOs, counties, and cities.

The main purpose of the CAMP is to provide lake and watershed managers with water quality data that can support them in properly managing water resources, and also provide much needed historical data to help document water quality changes and trends. Previous volunteer monitoring programs conducted throughout the United States have shown that, with proper equipment and instructions, volunteers can be trained to produce credible water quality data. Because most of the volunteers live near the lakes they are monitoring, they are very interested in determining any trends and/or changes in local water quality (Nichols 1992). An additional benefit of the monitoring program is the volunteer's increased awareness of the lake's condition and workings throughout the summer, which may foster grass-roots initiatives to protect lakes and promote support for lake management.

Prior to the inception of the CAMP in 1993, the Met Council conducted a pilot study in 1991 to assure that the data collection methods used by volunteers would be credible. Results of the pilot study showed that the volunteer monitoring methods, as used in the CAMP, yielded results comparable to monitoring methods used by Met Council staff (Hartsoe and Osgood 1991).

CAMP volunteers collect surface water samples that are analyzed for total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll-a (CLA). In addition, they measure surface water temperature and water transparency, and record user perceptions. Some lakes are monitored for dissolved oxygen. Most lakes are visited biweekly from April through October (fourteen sampling dates), and are sampled over the lake's deepest open-water location. In 2024, some of the lakes were not monitored on each of the desired 14 sampling weeks. The reasons for the missed sampling dates varied. However, the majority of the lakes, even with the missed sampling dates, were sampled adequately and often enough to provide an annual overview of the water quality of each lake. Water samples were submitted to Met Council staff and then analyzed at the Met Council laboratory in St. Paul, MN.

Acknowledgments

The successful performance of the 2024 CAMP would not have been possible without the greatly appreciated work performed by monitoring volunteers, and the support of the organizations that enrolled lakes in the program including 12 cities, 15 watershed management organizations and watershed districts, 1 county, and 1 conservation district. Without their support, the program would not have been successful.

Those deserving the greatest appreciation are the volunteers themselves. Their efforts have made this program successful. A list of the 2024 CAMP volunteers is shown in Appendix C. The Met Council and the local sponsors thank them for their sustained efforts, including their quality work.

CAMP Methods

Recruiting Volunteers

Active recruitment interested volunteers for the CAMP began in the winter months prior to the monitoring season. Potential sponsors were solicited for their list of lakes that they wished to enroll in the CAMP. The sponsors were encouraged to recruit volunteers for each lake they enrolled in the program. If there were problems finding willing volunteers, the Met Council assisted with the search; however, the belief is that the sponsoring organization would benefit in the long run by having direct contact with the volunteers it recruited. This contact would hopefully open a two-way communication line between interested residents and local partners.

Training Volunteers

Starting in 2020, volunteers were trained through an on-line training course that volunteers accessed by a personal computer or mobile device. This was a significant change from the in-person training done in previous years. The course is a combination of timed slides containing audio, video, and quizzes (with instructional feedback) to enable the volunteer to learn about the CAMP and the program's methods and procedures. As part of taking the course, the volunteers are required to take and pass a final assessment to demonstrate that they learned the content. The on-line course provides more efficient training by allowing volunteers to attend the course on their own schedule. Another version of the course is available as an on-demand reference for those who passed the exam and veteran volunteers. Volunteers are also given a handbook in their monitoring kit as a reference document. The handbook describes the program, methods, and discusses the basic biology and ecology of lake systems (Anhorn 2003a).

Monitoring Methods

Volunteers monitored their designated lake site(s) on a biweekly or monthly basis from mid-April to mid-October, including up to 14 possible sampling periods. During pre-arranged sampling weeks, volunteers located and anchored their boat at pre-determined monitoring locations (typically the deep open-water area of the lake). Once at the monitoring location, lake and weather conditions were recorded on a monitoring form, either on an electronic form using Survey123 app or a paper form (Figure 2). The form also provides space to record natural and cultural observations which may have influenced what was happening in the lake (e.g. heavy rains prior to monitoring, application of herbicide, etc.), and includes an area to document general perceptions of the lake's physical condition and suitability for recreation.

The volunteers measured water transparency (also called water clarity) by lowering a Secchi disk on the shady side of the boat to the point at which it disappeared. After the disk disappeared, the disk was slowly raised until at the point where the disk reappeared. The point at which the disk reappeared was defined as the Secchi depth (also called the Secchi transparency). The Secchi depth was recorded on the monitoring form.

A surface water sample was collected in a clean one-gallon plastic (HDPE) jug. The volunteer pre-rinsed the jug three times with lake water. After rinsing, the jug was filled with lake water by submerging it upside down to forearm depth and turning it upright while submerged. The filled jug was returned to the boat, wherein immediately the volunteer measured the water temperature in the jug. After the temperature was measured, aliquots were poured from the jug for laboratory analysis. These aliquots were decanted either while the volunteer was in the boat, or after returning to shore. The collection methods for each parameter are given as follows:

- **Temperature:** Surface water temperature was measured in the volunteer's sampling jug using a digital thermometer that reads to 0.1°C. The temperature was measured immediately following sample collection. Special care was taken to keep the sample out of direct sunlight in order to minimize temperature change.
- **Total Phosphorus (TP) and Total Kjeldahl Nitrogen (TKN):** Sample aliquots were decanted from the volunteer's jug into respective triple rinsed, pre-labeled sample containers: 50 milliliter (ml) polypropylene vials for TKN

analysis and 250 ml HDPE bottles for TP analysis. These samples were then immediately placed in the volunteer's freezer. The samples were kept frozen during storage and delivery to the laboratory.

- **Chlorophyll.** A chlorophyll sample from the volunteer's jug was filtered in the field, out of direct sunlight, using a field filtration apparatus (called a filter holder) and a hand pump. Water from the sampling jug was decanted into graduated cylinder for accurate volumetric measurement, and then poured into the reservoir of the filter holder. The reservoir holds approximately 250 ml. By squeezing the handle of the pump, the sample water was forced through a nominal 1 micrometer (μm) glass-fiber filter, and the suspended planktonic algae were trapped on the filter. The filtered water was discarded. If possible, this process was repeated if possible to a maximum of 1,000 ml of sample water was allowed to pass through the filter. However, if the water sample contained much suspended material a lesser volume of water was filtered. The volume of water that passed through the filter was recorded on the monitoring form and the sample label. The filter was then removed from the filter holder with a tweezers, and placed in a Petri dish. The Petri dish was then labeled and then wrapped in aluminum foil to keep the sample in the dark. The sample was kept frozen during storage and delivery to the laboratory.

The frozen samples were picked by the sponsor and delivered to its own central storage location for pick up by Met Council staff during 3 sample pick up rounds, generally within approximately 15-75 days from sample collection. The frozen samples were then picked up by Met Council staff and were delivered to the Met Council laboratory for analysis.

For some CAMP lakes, sub-surface samples were also collected for analysis of TP, TKN, chloride, orthophosphate, and/or total iron. These sub-surface samples were usually collected near the bottom of the lake using a Van Dorn sampler or Kemmerer sampler. Vertical profiles of dissolved oxygen and temperature measurements were also obtained on some lakes. However, subsurface samples and vertical profiles were typically collected and measured by staff of local partner organizations rather than volunteers.

CAMP Monitoring Form
Metropolitan Council Environmental Services

Lake Name: _____
DNR ID#: _____

Site #: _____

Sampling Date: _____

Time: _____ (military time)
(Use the same time on the sample labels.)

Name(s) of Volunteer(s): _____

Quantity of
samples collected: _____

Nutrient: _____
CLA: _____

SECCHI DISK DEPTH: _____ meters

Check the box if the disk is visible on the bottom of the lake: ☐

Check the circle if the visibility of the disk is completely blocked by vegetation: ☐

SURFACE TEMPERATURE: _____ °C

VOLUME OF FILTERED LAKE WATER (CLA): _____ ml

GENERAL OBSERVATIONS

(Circle the one best choice)

Water Color

Clear Yellow
Green Gray
Brown Blue-Green
Comment: _____

Odor of Water

None Rotten Egg-like
Fishy Septic-like
Musty Other: _____
Comment: _____

Wind Conditions

Calm Light Breezy Strong
North South East West

(Choose one principal direction that
the wind is mainly coming from.)

Water Surface

Calm Moderate Waves
Ripple Whitecaps
Small Waves
Comment: _____

Cloud Cover

0% 75%
25% 100%
50%

Lake Level

Above Normal
Normal
Below Normal
Staff Gage Reading _____

Amount of Aquatic Plants

None Moderate
Minimal Substantial
Slight

Air Temperature (°F)

< 40 81-90
41-60 > 90
61-80

Unusual Conditions

in the past week: (e.g. storms,
high winds, temp. extremes,
fish kills, chemical applications,
harvesting of vegetation, etc.)

Physical Condition

Crystal Clear (1)
Some Algae Present (2)
Definite Algae Present (3)
High Algal Color (4)
Severe Bloom (5)
(Odor, Scum)

Suitability for Recreation

Beautiful (1)
Minor Aesthetic Problem (2)
Swimming Slightly Impaired (3)
No Swimming / Boating OK (4)
No Aesthetics Possible (5)

Figure 2. CAMP Monitoring Form

Laboratory Analytical Methods

The chemical analyses of CAMP samples were performed at the Met Council laboratory according to the methods shown in Table 1. Starting in 2024, the Met Council laboratory began using a new low-level total phosphorus method utilizing EPA method 365.1.

CAMP samples were typically analyzed for low-level TP, TKN, and chlorophyll but some samples from a few lakes were analyzed for additional parameters as requested by the CAMP sponsor. The results for those extra analyses are not shown in this report but are available on Met Council's EIMS <https://eims.metc.state.mn.us>. Samples that were analyzed for filtered matrices were filtered through a 0.45 µm membrane filter and then analyzed. Chlorophyll samples collected by the CAMP were analyzed according to the method shown in Table 1, except that the samples were not preserved with magnesium carbonate (MgCO₃). Instead, the CAMP chlorophyll samples were preserved by freezing.

The chlorophyll analysis results were reported by the laboratory according to two different equations: the trichromatic equation and the monochromatic equation. The trichromatic equation gives the following chlorophyll parameters:

- chlorophyll-a (CLA),
- chlorophyll-b,
- chlorophyll-c.

The monochromatic equation gives the following parameters:

- chlorophyll-a corrected for pheophytin,
- pheophytin-a.

The chlorophyll data in this report are reported as trichromatic CLA. However all the analytical results from the trichromatic and monochromatic equations can be accessed via the monitoring data databases as provided in the Introduction section.

Data Management

The field data from the volunteers' monitoring forms and the analytical results from the Met Council laboratory were entered into the Council's Environmental Information Management System (EIMS). The EIMS is a system for providing timely and reliable information for environmental planning and decision-making. The EIMS can be accessed via the internet at <http://es.metc.state.mn.us/eims/>. If there were questions concerning the data and lake observations, Met Council staff contacted the volunteer. The Met Council maintained contact with most volunteers throughout the season by telephone, email, or through their sponsor's CAMP coordinator.

Quality Assurance

CAMP uses a quality assurance (QA) program which includes quality control (QC) activities. The purpose of the QA program is to assure that CAMP produces and reports scientifically credible water quality data. The Met Council laboratory follows its own internal QA program, which employs an extensive internal and external quality control system to ensure credible data. Documentation of the laboratory's QA program and QC procedures can be obtained from the laboratory.

The CAMP QA program has several components. One important component is training, which ensures that the volunteers are familiar with the CAMP monitoring methods prior to their first monitoring season. The training also ensures that the same monitoring methods are used by all the volunteers. Another component is that the volunteers' samples were checked by Met Council staff prior to submitting the samples to the Met Council laboratory. The samples were checked for legible and correct labeling and sample integrity (e.g. cracked vials, missing caps, torn filters, etc.). Samples with poor integrity were discarded to avoid producing potentially erroneous data. If a problem was discovered during the sample checking and process and additional information was needed, the volunteer was contacted to discuss the cause of the problem. If the problem was due to volunteer error, the volunteer was coached as needed on how to correct the situation. If the problem resulted in erroneous data, then the data were censored and excluded from the database.

The CAMP sample data are reviewed after receipt from the Met Council laboratory. The data are reviewed for outliers and other inconsistencies. Data that are determined to be suspect are qualified (i.e. flagged) as such in the database. Data determined to be erroneous are censored.

QC monitoring is another important component of the CAMP QA program. The purposes of QC monitoring are:

- To verify that the monitoring methods are producing reproducible data.
- To verify the monitoring performance of the volunteers with respect to professional staff.

A Met Council staff member performed QC monitoring by accompanying a volunteer during a regularly scheduled monitoring visit. The Met Council staff member monitored the lake site using the same methods and identical types of equipment as the volunteer. After the QC samples were collected, they were handled, stored, and submitted to the laboratory in the same manner as the volunteer's samples. Met Council staff also observed whether the volunteer was monitoring according to CAMP methods. Volunteers were coached if deviations were observed from the CAMP methods.

There were 5 QC monitoring events on 5 lake sites in 2024. Each Met Council QC monitoring event occurred the same day and within a few minutes of the corresponding volunteer monitoring event. The QC monitoring data and associated volunteer monitoring data are shown in Table 2.

Table 2. CAMP Quality Control Data 2024

Lake Name	DNR ID#	Date	Date	TP, µg/L	TP, µg/L	CLA, µg/L	CLA, µg/L	Secchi, m	Secchi, m	TKN, mg/L	TKN, mg/L
		MC QC	CAMP	MC QC	CAMP	MC QC	CAMP	MC QC	CAMP	MC QC	CAMP
Bass Lake	27009800	9/30/24	9/30/24	57	62	42	45	0.7	0.8	1.32	1.63
Bone Lake	82005400	10/3/24	10/3/24	36	36	22	17	1.3	1.2	1.08	1.11
Bush Lake	27004700	10/4/24	10/4/24	14	13	2.7	2.9	3.1	3.1	0.60	0.61
Lucy Lake	10000700	10/14/24	10/14/24	75	76	56	51	0.8	0.8	1.87	1.95
O'Dowd Lake	70009500	9/4/24	9/4/24	35	34	18	17	1.1	1.1	0.86	0.86

MC QC = Met Council Quality Control monitoring; CAMP = volunteer monitoring; NA = Not analyzed

Linear regression analysis was performed on the TP, CLA, and Secchi results (Figures 3, 4, and 5, respectively) to compare Met Council quality control data and CAMP volunteer data. The regression line for the TP results shows a slope close to a 1:1 relationship with an R² value of 0.994 (Figure 3), indicating very good agreement between Met Council staff and volunteer data. The CLA results also closely followed a 1:1 relationship with an R² value of 0.973 (Figure 4), which also indicates very good agreement between Met Council and volunteer data. The Secchi depth regression line (Figure 5) showed an R² value of 0.997 and a very close 1:1 relationship indicating very good agreement between Met Council and CAMP volunteer Secchi depths. Taken together, the 2024 CAMP quality control analysis shows very good agreement between QC and CAMP volunteer monitoring results.

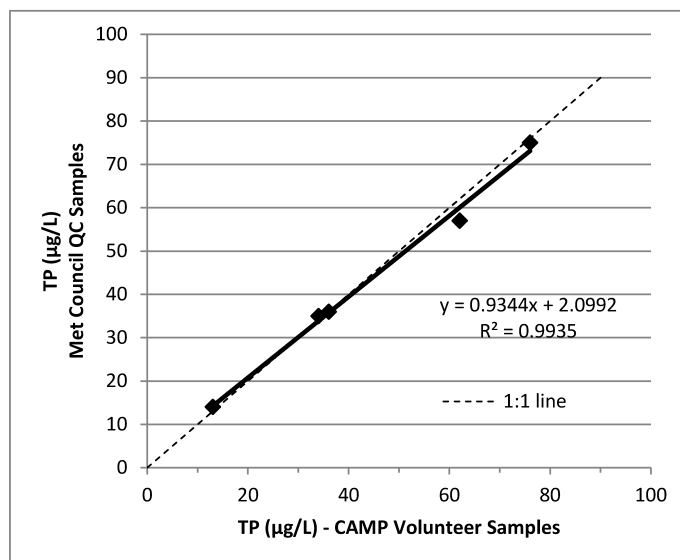


Figure 3. Total Phosphorus Quality Control Data

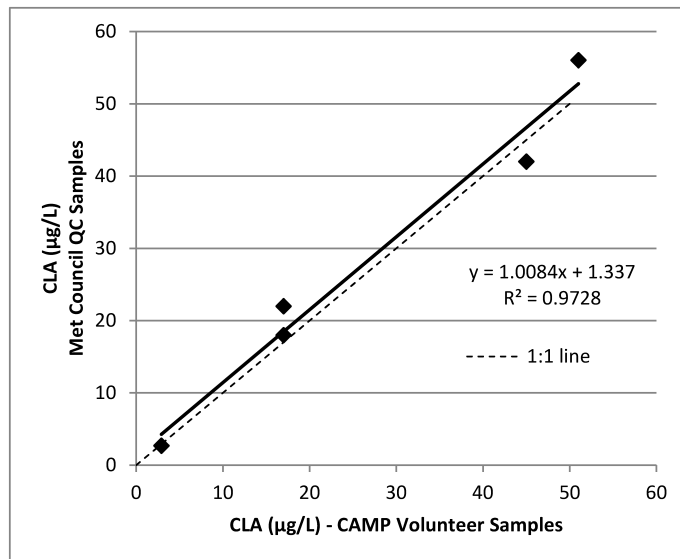


Figure 4. Chlorophyll-a Quality Control Data

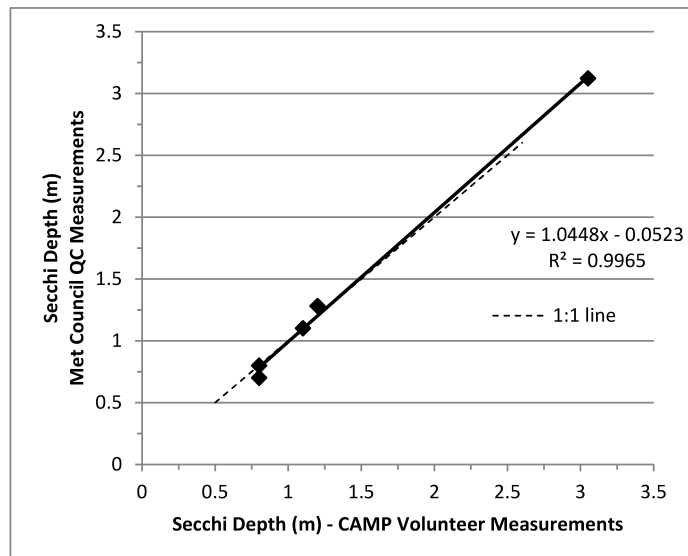


Figure 5. Secchi Depth Quality Control Data

Lake Quality Report Card

The Met Council, following its 1989 lake survey (Osgood 1989b), developed the lake quality report card. The idea is simply that lake water quality characteristics can be ranked by comparing measured values to those of other Metro Area lakes. In this way, technical information, which in the past had required professional analysis, can more easily be used by a less technical audience to visualize the water quality of their lake relative to other lakes in the region. The lake grading curve (Table 2) represents percentile ranges for three water quality indicators: the summertime (May - September) average values for total phosphorus, chlorophyll-a, and Secchi depth. These percentiles use ranked data from 120 lakes that were monitored from 1980 – 1988:

Table 3. Lake Grading Curve

Grade	Percentile	TP (µg/L)	CLA (µg/L)	Secchi (m)
A	< 10	< 23	< 10	> 3.0
B	10 — 30	23 — 32	10 — 20	2.2 — 3.0
C	30 — 70	32 — 68	20 — 48	1.2 — 2.2
D	70 — 90	68 — 152	48 — 77	0.7 — 1.2
F	> 90	> 152	> 77	< 0.7

The three variables used in the grading system (TP, CLA, Secchi depth) give an indication of the trophic status of the lake (Carlson 1977, Osgood 1982). The trophic status is the condition of the biological productivity of the lake ecosystem. The trophic status is strongly related to open-water nuisance-aspects of a lake (e.g. algal blooms, excess vegetation growth, poor water clarity), which can indicate accelerated aging (cultural eutrophication). For example, lake phosphorus concentration has been related to increased algal abundance, increased frequency of algal blooms, and to the increased abundance of blue-green algae (Osgood 1988). Chlorophyll-a, which is a pigment in plants (including algae) essential in the photosynthesis process, is used to estimate the algal abundance of a lake. Secchi depth relates to the appearance of a lake (generally the fewer algae, the better the transparency of a lake). TKN concentration was not included in the grading process because most lake nuisances in the area are related to the phosphorus concentration of the lake (Osgood 1988).

These water quality grades, however, only characterize the open-water quality of lakes. Other nuisances, such as the abundance of aquatic macrophytes, are not indicated in these grades.

The percentile curve can be used to assign individual grades for TP, CLA and Secchi depth to the monitored lakes. For example, a lake having a mean summertime Secchi depth of 1.7 m would receive a “C” grade for Secchi depth. A grade of C is considered average for lakes in the region. Lakes were also assigned a single, overall grade, called a lake grade. Lake grades were determined by averaging the individual parameter grades. A lake grade generally corresponds to descriptive rankings and recreational use conditions of the lake. Lakes receiving an “A” grade (upper 10 percentile) can be deemed as having full recreational use capability. A lake receiving a “B” lake grade is considered to have very good water quality and some recreational use impairment. Lakes receiving a “C” lake grade are considered to have average water quality but are recreationally impaired. A “D” grade lake translates to a very poor ranking with severely impaired recreational use. Lakes receiving an “F” lake grade have extremely poor water quality with little to no possible recreational use.

In 2000, the percentiles determined from the 1980-1988 water quality database of 120 lakes were compared to calculated percentiles from a more current and expanded 1980-1999 water quality database of 230 lakes. It was found that the percentiles from the expanded database were very similar to those determined from the 1980-1988 database. For this reason, and in an attempt to maintain consistency, the original 1980-1988 percentiles continued to be used for lake quality grading purposes (Anhorn 2003b).

2024 Lake Grades

Each lake monitoring site was given a lake grade if there were sufficient data to calculate the grade. At least 5 monitoring events are required to calculate a lake grade, and these 5 events must occur during the May-September (summer) period. Some lakes were not monitored sufficiently, so they did not receive a lake grade. The distribution of lake grades for lake sites monitored in 2024 is shown in Figure 6. Most lakes with an A or B lake grade have deeper maximum and mean depths, thermally stratify during the summer months, and have small contributing watersheds relative to the lake's surface area. However there are a few shallow lakes in the region that received an A or B lake grade. The majority of lakes with a D or F grade are generally shallower with higher watershed-to-lake ratios. Lakes with high watershed to lake area ratios tend to receive relatively larger phosphorus loads than lakes with lower watershed to lake area ratios given similar land-use in their respective watershed. Shallow lakes typically do not stratify during the summer months, allowing the potential release of phosphorus from sediments to mix through the water column and become available for plant growth during the summer season.

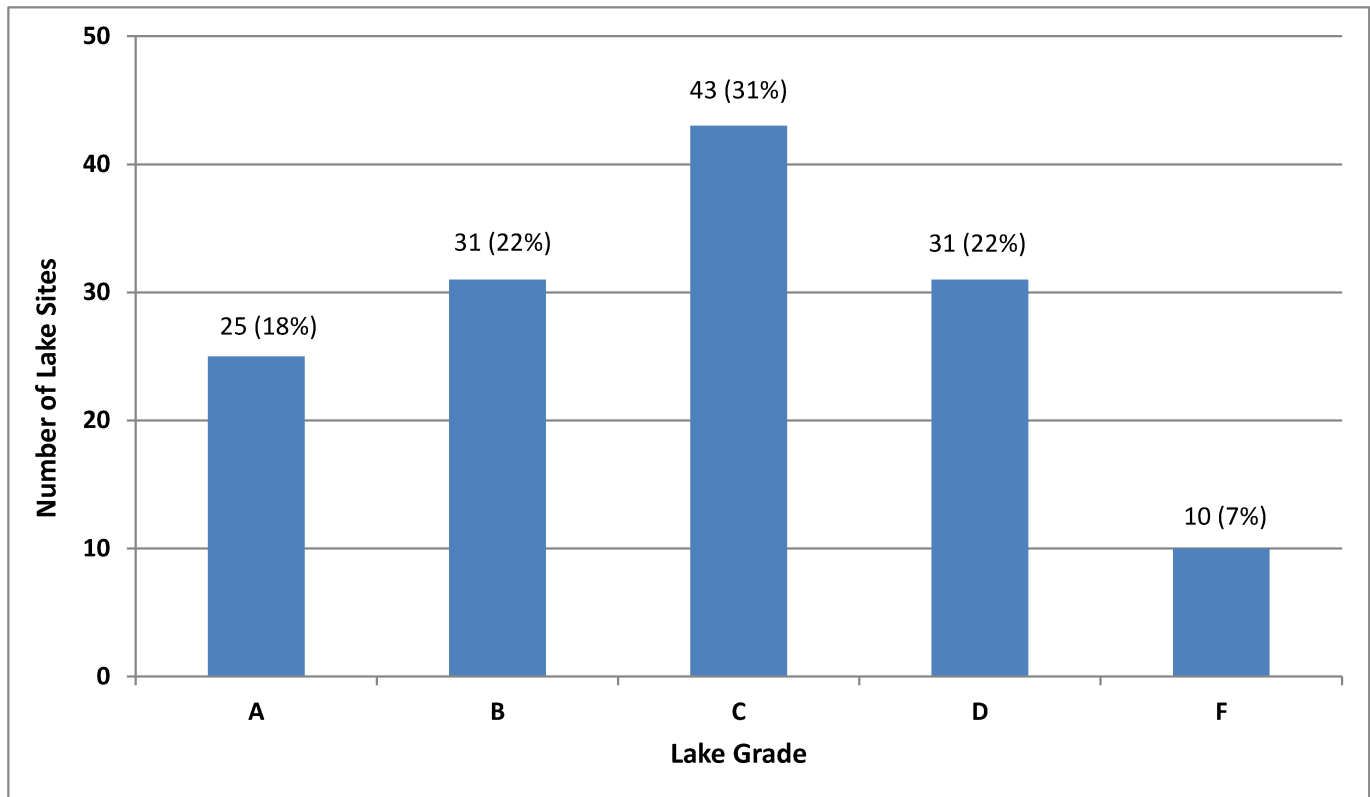


Figure 6. Distribution of 2024 Lake Grades

As discussed in the Metropolitan Council's 2023 Study of the Water Quality of 159 Metropolitan Area Lakes, the 2021 and 2023 lake grade distributions showed a shift towards higher grades (A's and B's) as compared to year 2022 and years previous to 2021. It was speculated that the shift to higher grades was related to the drought conditions in 2021 and 2023. For analysis and discussion of the shift refer to 2023 report. For 2024, the lake grade distribution showed a return to a similar pattern typically observed in years prior to 2021, with C grades being the dominant grade, the quantity of B grades greater than A grades, and the quantity of D grades greater than the F grades. The return to a more normal lake grade distribution pattern in 2024 is consistent with the ending of the drought in 2024 due to spring rains relieving drought conditions, and more extreme summer rains that brought flooding to the region (MnDNR 2024).

Monitoring Results for CAMP Lakes 2024

The water quality of each CAMP-monitored lake is discussed in the following section. Each lake report includes a description of the lake's water quality condition, the year's water quality data, shown in tables and figures, and the water quality grades from 1980 through 2024. The data qualifier signs in the tables in the individual lake reports are defined as follows:

Total Phosphorus

- < indicates the result is less than the method detection limit.
- ~ indicates the result is between the method detection limit and the reporting limit.

Secchi Depth

- + indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.
- > indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Met Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Alimagnet Lake (19–0021) City of Burnsville

Volunteer: David DeKraker

Approximately half of Alimagnet Lake's 109-acre surface area is located within the City of Apple Valley, the other half in the City of Burnsville (Dakota County). The lake has maximum and mean depths of 3.0 and 1.5 m, respectively. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2014.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	70	25	139	D
CLA (µg/l)	56	3.3	190	D
Secchi (m)	1.1	0.3	2.3	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D this year. The lake's historic lake grades indicate that the lake fluctuates between a C and D with the occasional F.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

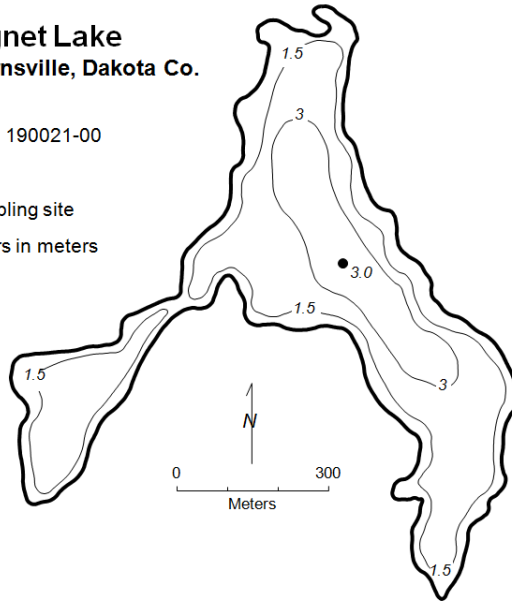
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Alimagnet Lake Apple Valley/Burnsville, Dakota Co.

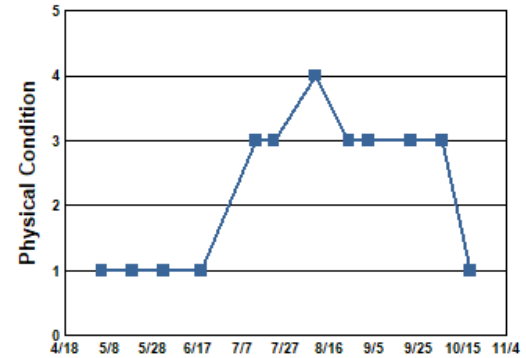
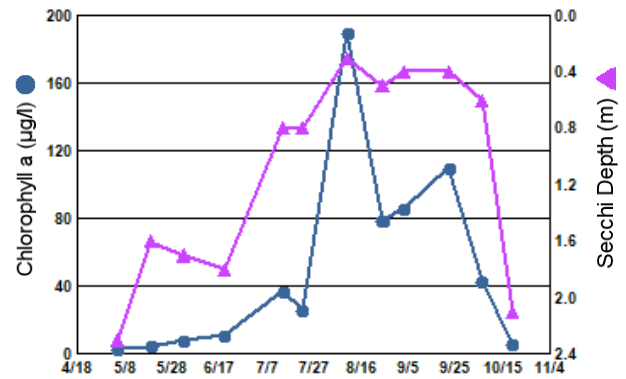
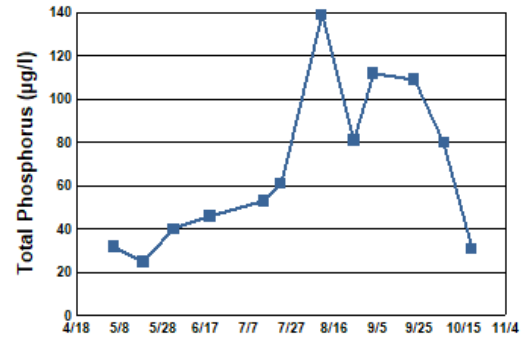
Lake ID: 190021-00

● Sampling site
Contours in meters

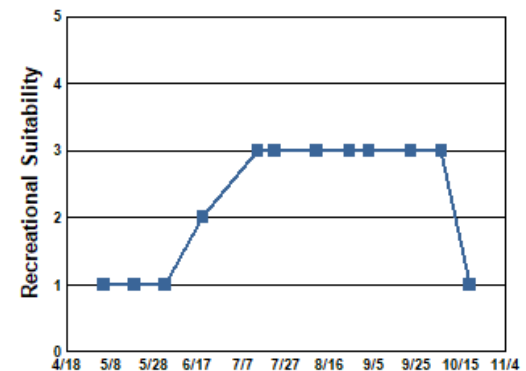


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	16.5		3.3	32	2.3	1	1
05/19/24	20.9		4.8	25	1.6	1	1
06/02/24	21.3		8.0	40	1.7	1	1
06/19/24	23.0		11	46	1.8	1	2
07/14/24	25.8		37	53	0.8	3	3
07/22/24	27.0		26	61	0.8	3	3
08/10/24	23.3		190	139	0.3	4	3
08/25/24	25.0		79	81	0.5	3	3
09/03/24	23.7		86	112	0.4	3	3
09/22/24	22.3		110	109	0.4	3	3
10/06/24	17.2		43	80	0.6	3	3
10/19/24	13.0		5.5	31	2.1	1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	F	D									F	
CLA											D	
Secchi	F	F	D	D	C	D	F	F	F	F	D	C
Lake Grade											D	

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP				D	D	C	D	F	D	D	D	D
CLA				B	C	C	C	D	D	C	C	C
Secchi	D	C	C	C	D	C	C	D	F	D	F	F
Lake Grade				C	D	C	C	D	D	D	D	D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D	D	F	D	D	D	C	C	D	D	D	D
CLA	D	D	D	D	D	C	C	C	C	D	D	D
Secchi	F	F	F	F	F	F	D	C	C	D	D	D
Lake Grade	D	D	F	D	D	D	C	C	C	D	D	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	D	D	D	D	C	D
CLA	F	D	D	C	C	D	C	D	D
Secchi	F	F	F	D	C	D	D	C	D
Lake Grade	F	D	D	D	C	D	D	C	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Ardmore Lake (27–0153) Pioneer — Sarah Creek Watershed Management Commission

Volunteer: Joel Settles

Ardmore Lake is located in the city of Medina (Anoka County). The lake has a surface area of 10 acres. The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2016.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	268	199	310	F
CLA (µg/l)	177	89	280	F
Secchi (m)	0.3	0.2	0.4	F
TKN (mg/l)				
			Lake Grade	F

The lake received a lake grade of F which is consistent with its historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

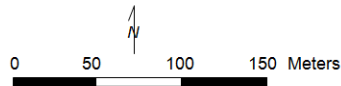
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Ardmore Lake Medina, Hennepin Co.

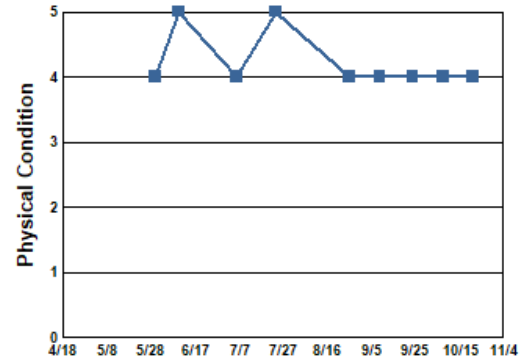
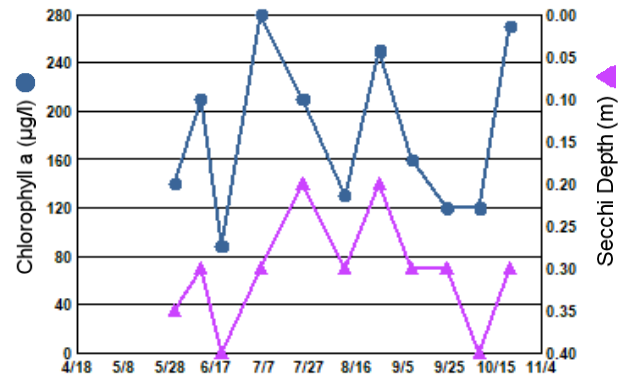
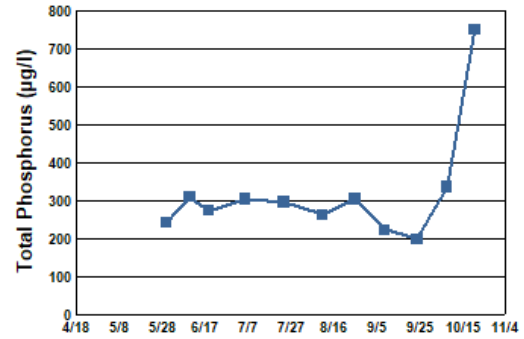
Lake ID: 270153-00

● Sampling site
Contours in meters

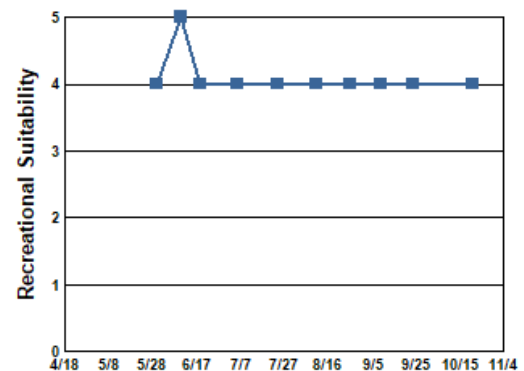


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/30/24	20.1		140	242	0.4	4	4
06/10/24	22.7		210	310	0.3	5	5
06/19/24	20.8		89	274	0.4		4
07/06/24	23.6		280	304	0.3	4	4
07/24/24	24.2		210	296	0.2	5	4
08/11/24	23.0		130	263	0.3		4
08/26/24	26.6		250	304	0.2	4	4
09/09/24	20.4		160	223	0.3	4	4
09/24/24	18.9		120	199	0.3	4	4
10/08/24	14.4		120	337	0.4	4	
10/21/24	14.2		270	750	0.3	4	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												F
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP				F	F	F	F					
CLA				F	F	F	F					
Secchi					F	F	F					
Lake Grade				F	F	F	F					

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									F
CLA									F
Secchi									F
Lake Grade									F

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Augusta Lake (19–0081) Lower Mississippi River Watershed Management Organization

Volunteer: Collin Rust

Augusta Lake is located in the city of Mendota Heights (Dakota County). The lake has a surface area of 38 acres and maximum depth of 10.1 m.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2010.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	158	106	241	F
CLA (µg/l))	113	33	180	F
Secchi (m)	0.2	0.1	0.3	F
TKN (mg/l)				
			Lake Grade	F

The lake received a lake grade of F, which is consistent with its historical water quality database.

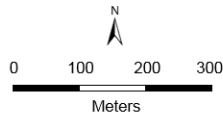
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lake Augusta Mendota & Mendota Heights, Dakota Co.

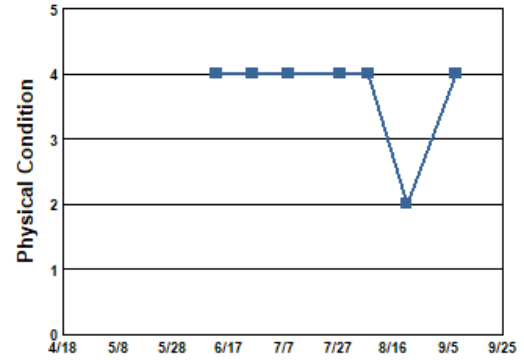
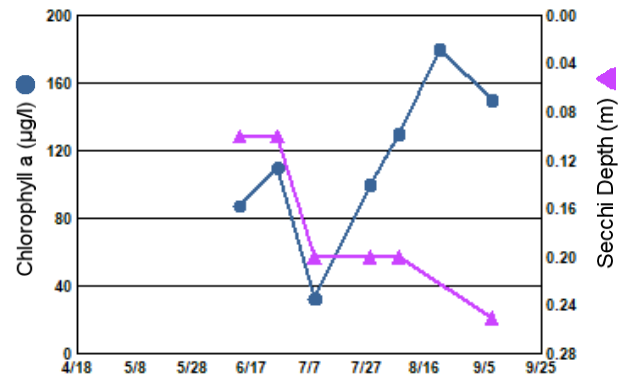
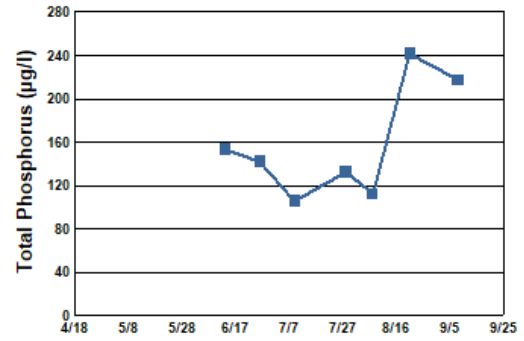
Lake ID: 190081-00
WMO: Lower Mississippi River

- Sampling site
- Contours in meters

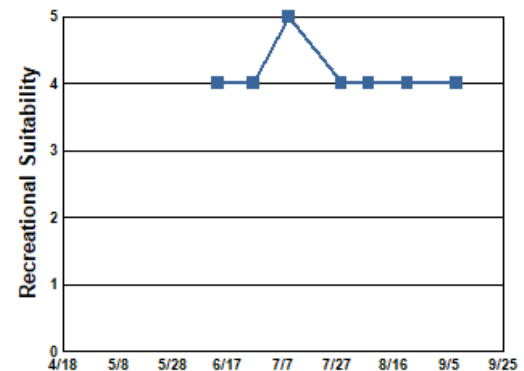


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/13/24	23.1		88	153	0.1	4	4
06/26/24	25.1		110	142	0.1	4	4
07/09/24	26.9		33	106	0.2	4	5
07/28/24	24.8		100	132	0.2	4	4
08/07/24	25.2		130	112	0.2	4	4
08/21/24	24.6		180	241		2	4
09/08/24	21.8		150	217	0.3	4	4



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4 = High Algal Color
5 = Severe Algal Bloom



- 1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	F		D	D	D	F			F
CLA	F		F	F	F	F			F
Secchi	F		F	F	F	F			F
Lake Grade	F		F	F	F	F			F

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Bass Lake [Plymouth] (27–0098) *Shingle Creek Watershed Management Commission*

Volunteer: Rick Budde

Bass Lake is located in the City of Plymouth (Hennepin County). The lake has a surface area of 194 acres and a watershed area of 3,100 acres, giving a large watershed-to-lake area ratio of 16:1. The greater the ratio, the greater the potential stress on the lake from surface runoff. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1998. The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002 but the impairment was delisted in 2024.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	49	20	62	C
CLA (µg/l)	46	6.1	89	C
Secchi (m)	>0.9	0.5	2.1	D
TKN (mg/l)				
			Lake Grade	C

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of C which is consistent with its historical water quality database. Continued monitoring is recommended to determine if this recent improvement in water quality is part of a longer term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

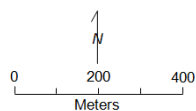
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Bass Lake
Plymouth, Hennepin Co.

LAKE ID: 270098-00

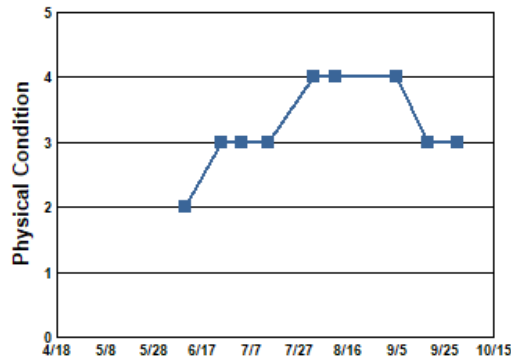
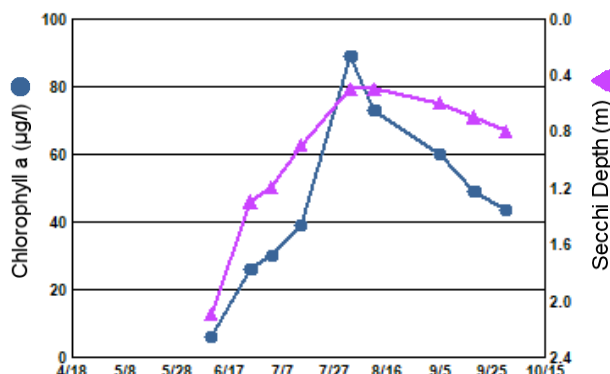
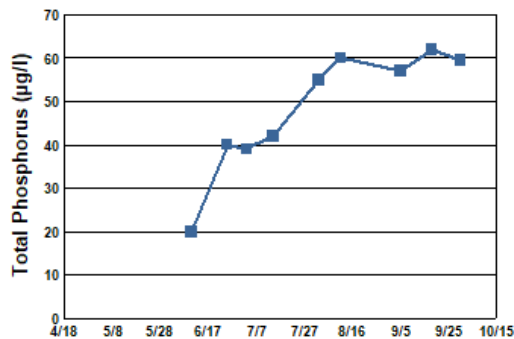
● Sampling site
Contours in meters



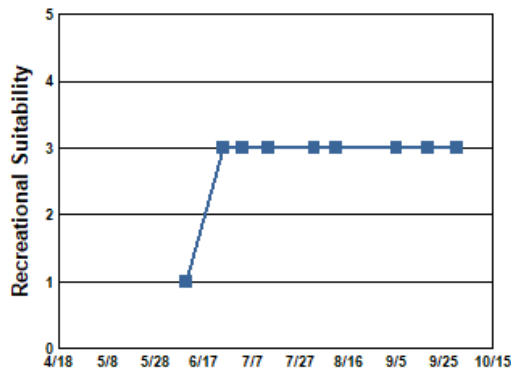
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/10/24	23.8		6.1	20	2.1	2	1
06/25/24	25.2		26	40	1.3	3	3
07/03/24	22.9		30	39	1.2	3	3
07/14/24	25.6		39	42	0.9	3	3
08/02/24	26.8		89	55	0.5	4	3
08/11/24	23.3		73	60	0.5	4	3
09/05/24	22.4		60	57	0.6	4	3
09/18/24	23.9		49	62	0.7	3	3
09/30/24	21.4		44	60	>0.8	3	3

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C			C		C		C		C
CLA			C			C		C		C		C
Secchi			C			C	D	C	C	C		C
Lake Grade			C			C		C		C		C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C		C		C		C				C
CLA		D		D		C		C				C
Secchi		C		D		C		C				D
Lake Grade		C		D		C		C				C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		C					C		C
CLA		C					B		C
Secchi		C					B		D
Lake Grade		C					B		C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Bass Lake [East] (82–0124) *Brown's Creek Watershed District*

Monitoring Personnel: Washington Conservation District staff

Bass Lake (east) is located east of Joliet Lane in Grant Township. There are few known morphological data available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2023 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	30	<22	<44	
CLA (µg/l))	3.0	1.0	5.3	A
Secchi (m)	2.4	2.0	3.4	B
TKN (mg/l)	0.59	0.50	0.66	
			Lake Grade	

The TP summer-time mean was calculated by using one or more TP results that were below the Met Council laboratory's method detection limit (MDL) or the contract laboratory's reporting limit (RL). This was done due to the Met Council laboratory's elevated MDL and RL and use of a contracted laboratory in 2023, as discussed in the Met Council Staff Lake Monitoring Program Methods and the CAMP Laboratory Analytical Methods sections of this report. If a TP result was below the Met Council laboratory's MDL or the contract laboratory's RL, the respective MDL or RL value was used in the mean calculation. This means that the summer-time mean value given in the data summary table should be considered a maximum value, but it could be less than the value indicated, meaning that the TP summer-time mean value could span over a potential range of values. To estimate the potential lower bound for the summer-time mean, the TP results that were below the Met Council laboratory's MDL or the contract laboratory's RL were replaced with the contract laboratory's lowest RL of 10 ug/L. Using this value in the mean calculation indicates a potential lower bound mean value of <23 ug/L which is in a different grade range than the maximum mean value indicated in the data summary table. This range of potential mean values overlaps with one or more of the percentile TP grade break points. Therefore, the TP grade could not be determined with certainty due to this overlap.

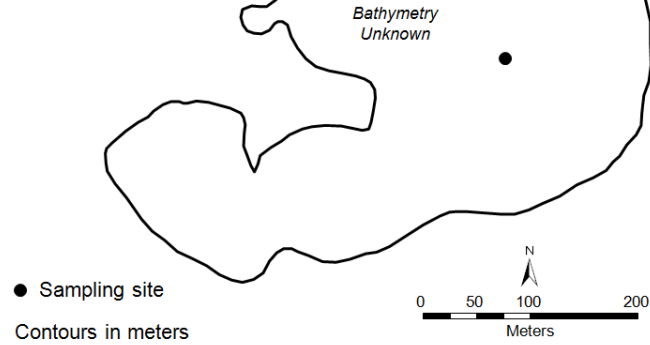
The lake water quality has been in the A to B range with CLA grades of A and at least B Secchi grades since 2013.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

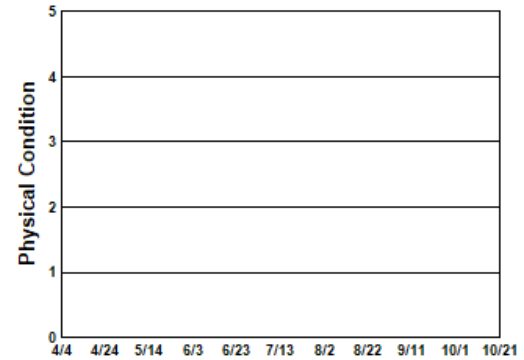
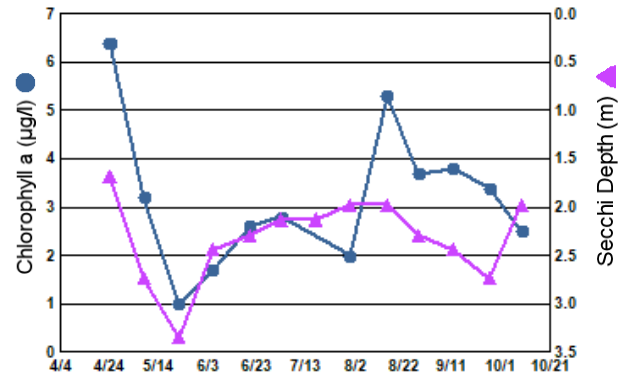
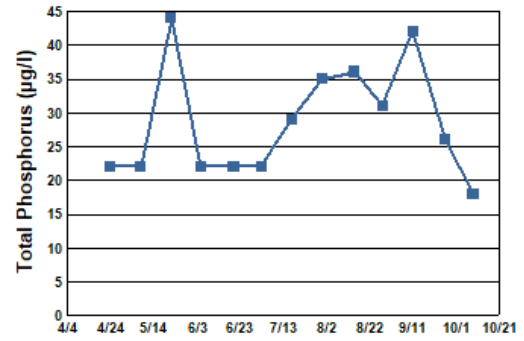
Bass Lake East Grant, Washington Co.

LAKE ID: 820124-00

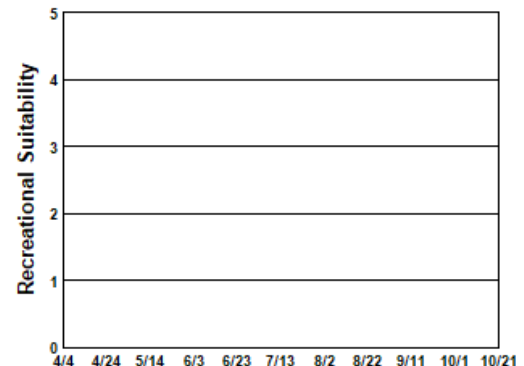


2023 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/24/23	6.6	10.9	6.4	<22	1.7		
05/08/23	17.6	8.6	3.2	<22	2.7		
05/22/23	20.6	11.6	1.0	<44	3.4		
06/05/23	28.9	11.9	1.7	<22	2.4		
06/20/23	25.7	11.4	2.6	<22	2.3		
07/03/23	28.3	7.6	2.8	~22	2.1		
07/17/23	23.2	8.1		~29	2.1		
07/31/23	26.7	7.9	2.0	~35	2.0		
08/15/23	23.2	3.9	5.3	~36	2.0		
08/28/23	24.2	8.3	3.7	31	2.3		
09/11/23	22.1	4.5	3.8	42	2.4		
09/26/23	19.4	7.0	3.4	~26	2.7		
10/09/23	14.7	7.1	2.5	18	2.0		



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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			C	C	C	C	C	C	C	B	B	A
CLA			B	B	C	A	A	B	A	A	A	A
Secchi			C	B	C	B	B	B	B	B		B
Lake Grade			C	B	C	B	B	B	B	B		A

Year	2016	2017	2018	2019	2020	2021	2022	2023
TP	C	A	A	B	A	A	B	
CLA	A	A	A	A	A	A	A	A
Secchi	B	B	B	B	A	B	B	B
Lake Grade	B	A	A	B	A	A	B	

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Birger Pond (19–0224) *City of Rosemount*

Volunteer: Pamela Carlson

Birger Pond is located in the city of Rosemount (Dakota County). There are few morphological data available on the pond.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

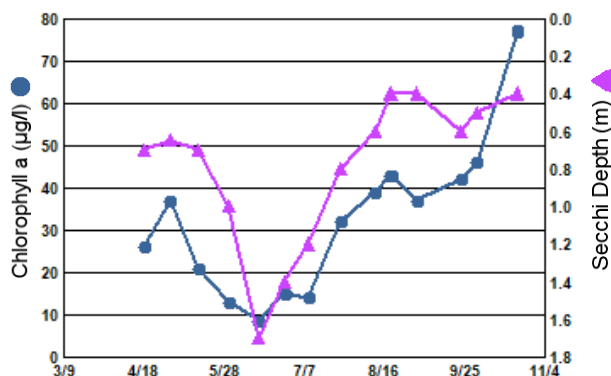
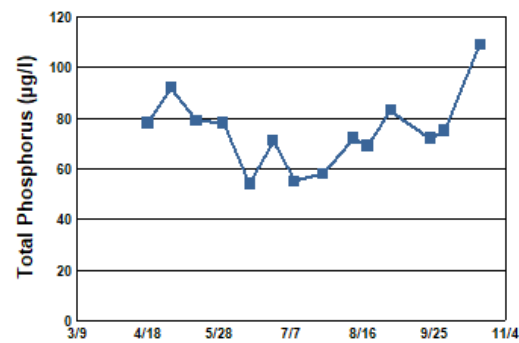
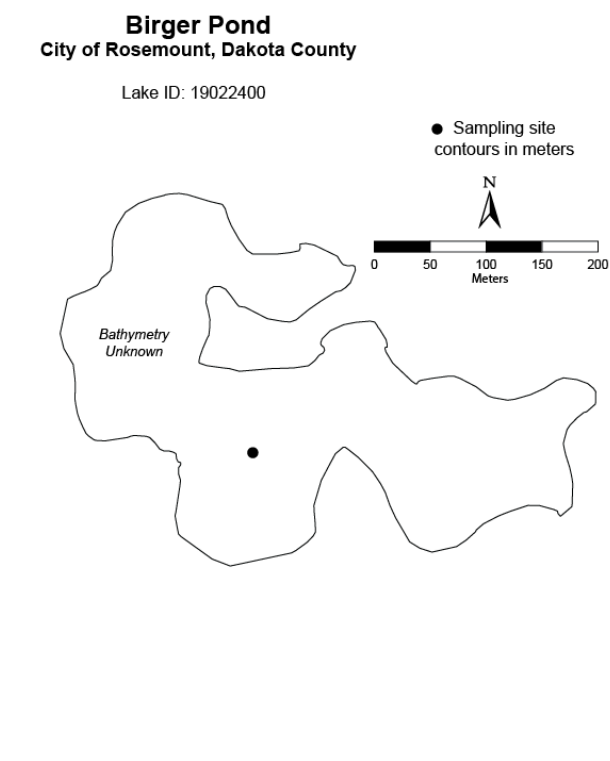
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	71	54	92	D
CLA (µg/l))	27	8.5	43	C
Secchi (m)	0.9	0.4	1.7	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D which is consistent with its limited historical database. The lake has varied in the C to D range since 2022.

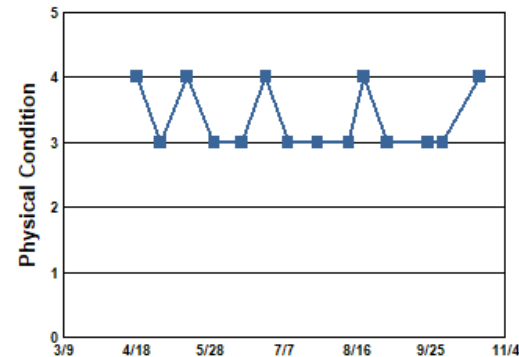
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

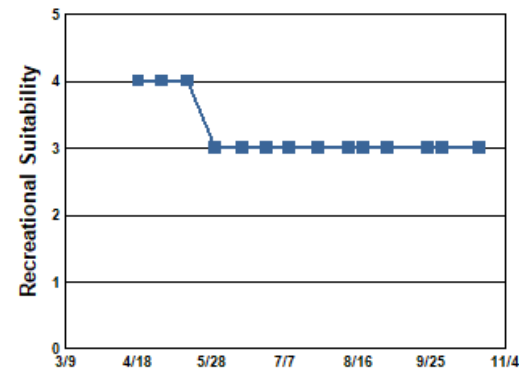


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	12.7		26	78	0.7	4	4
05/01/24	15.7		37	92	0.7	3	4
05/15/24	21.4		21	79	0.7	4	4
05/30/24	22.6		13	78	1.0	3	3
06/14/24	27.0		8.5	54	1.7	3	3
06/27/24	25.9		15	71	1.4	4	3
07/09/24	27.1		14	55	1.2	3	3
07/25/24	27.1		32	58	0.8	3	3
08/11/24	23.6		39	72	0.6	3	3
08/19/24	27.8		43	69	0.4	4	3
09/01/24	25.7		37	83	0.4	3	3
09/23/24	22.4		42	72	0.6	3	3
10/01/24	20.1		46	75	0.5	3	3
10/21/24	15.6		77	109	0.4	4	3



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2 = Some Algae Present
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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP							D	C	D
CLA							C	C	C
Secchi							D	D	D
Lake Grade							D	C	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Bone Lake (82–0054) *Comfort Lake-Forest Lake Watershed District*

Volunteer: Tom Furey

Sponsor: Comfort Lake — Forest Lake Watershed District

Bone Lake is located in the City of Scandia (Washington County). The lake has a maximum and mean depth of 9.8 m and 3.7 m (32 ft and 12 ft), respectively.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) and aquatic life (fish bioassessments). The lake was delisted from the impaired waters list for aquatic recreational use (nutrient/eutrophication biological indicators) in 2024. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) and zebra mussels (*Dreissena polymorpha*).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	26	18	32	B
CLA (µg/l)	14	2.6	27	B
Secchi (m)	2.2	1.2	4.2	B
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B this year, which continues the recent improvement in the lake's water quality.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

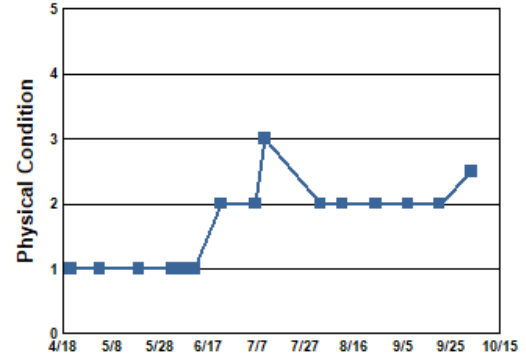
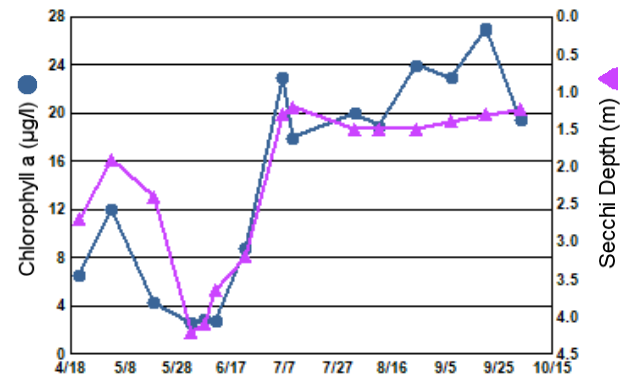
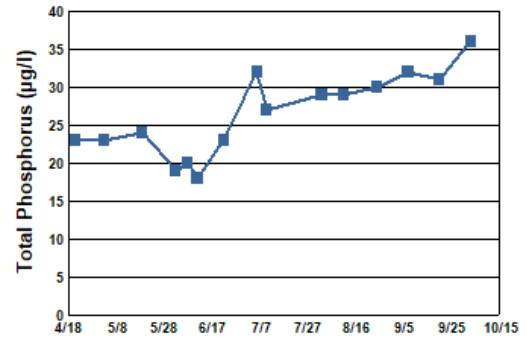
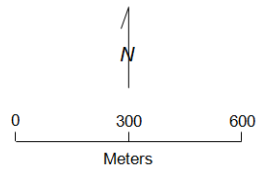
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

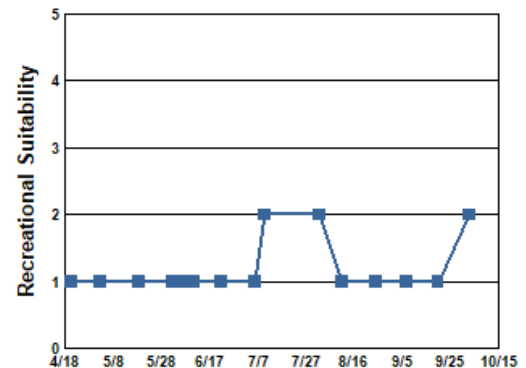
Bone Lake Scandia, Washington Co.

Lake ID: 820054-00

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	9.3		6.6	23	2.7	1	1
05/03/24	12.2		12	23	1.9	1	1
05/19/24	19.7		4.3	24	2.4	1	1
06/02/24	20.5		2.6	19	4.2	1	1
06/07/24	19.7		2.9	20	4.1	1	1
06/11/24	21.3		2.8	18	3.7	1	1
06/22/24	21.9		8.8	23	3.2	2	1
07/06/24	22.4		23	32	1.3	2	1
07/10/24	27.0		18	27	1.2	3	2
08/02/24	26.2		20	29	1.5	2	2
08/11/24	22.4		19	29	1.5	2	1
08/25/24	23.8		24	30	1.5	2	1
09/07/24	21.1		23	32	1.4	2	1
09/20/24	23.8		27	31	1.3	2	1
10/03/24	19.1		20	36	1.2	3	2

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					D			C	C	C		D
CLA					C			B	C	C		C
Secchi					C		D	C	D	C	C	C
Lake Grade					C			C	C	C		C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C				C	C	C		C	C	D
CLA		C				B	B	C		C	C	C
Secchi		C	D	C		C	C	D		C	D	C
Lake Grade		C				C	C	C		C	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	C	C	C	C	B	C	C	C	C
CLA	C	B	B	B	B	B	B	A	B	B	C	C
Secchi	C	C	C	C	C	C	C	C	C	C	C	D
Lake Grade	C	C	C	C	C	C	C	B	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	B	B	B	B	B	A	B
CLA	C	B	B	B	B	A	B	B	B
Secchi	C	C	C	C	C	C	C	C	B
Lake Grade	C	C	B	B	B	B	B	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Brewers Pond (82–0022) *Brown's Creek Watershed District*

Volunteer: Karen Richtman, Paul Richtman

Brewers Pond is located in the city of Stillwater. Few morphological data are available for the pond.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	40	37	44	C
CLA (µg/l))	31	16	47	C
Secchi (m)	1.0	0.5	1.6	D
TKN (mg/l)				
			Lake Grade	C

Note that the lake grades shown in the data summary table above and the following historical grade tables were calculated from monitoring data sets from both the volunteer and Washington Conservation District staff. However, the mean, minimum, and maximum values shown in the above data summary table and the results in the data table on the following page are specific to the volunteer's monitoring data. The pond received a lake grade of C this year which is similar to water quality observed in 2020 and 2023 and an improvement over the F grade received in 2022. Continued monitoring is recommended to continue to build the water quality database.

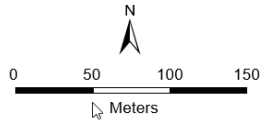
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Brewer's Pond Stillwater, Washington Co.

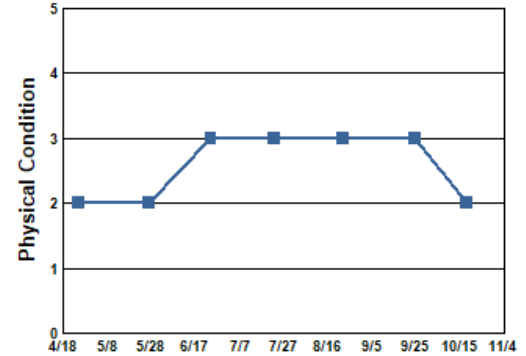
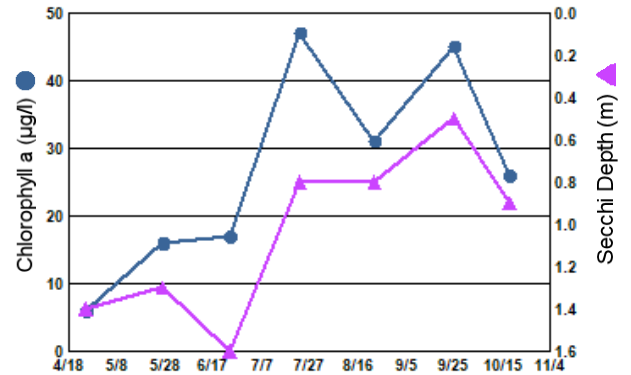
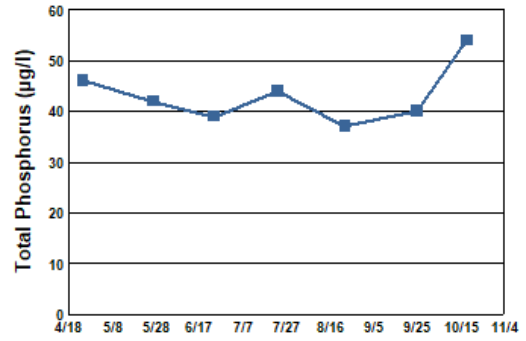
Lake ID: 82002200

- Sampling site
- Contours in meters

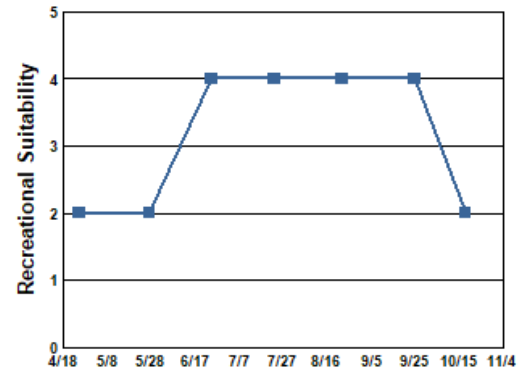


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/25/24	12.5		6.0	46	1.4	2	2
05/27/24	19.7		16	42	1.3	2	2
06/24/24	24.0		17	39	1.6	3	4
07/23/24	25.2		47	44	0.8	3	4
08/23/24	24.2		31	37	0.8	3	4
09/25/24	20.3		45	40	0.5	3	4
10/18/24	11.7		26	54	0.9	2	2



- 1 = Crystal Clear
- 2 = Some Algae Present
- 3 = Definite Algal Presence
- 4 = High Algal Color
- 5 = Severe Algal Bloom



- 1 = Beautiful
- 2 = Minor Aesthetic Problem
- 3 = Swimming Impaired
- 4 = No Swimming; Boating OK
- 5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		D	C	C	C	C	D	C	C
CLA		D	D	C	C	D	F	C	C
Secchi		F	F	F	D	F	F	D	D
Lake Grade		D	D	D	C	D	F	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Brewers Pond (82–0022) *Brown's Creek Watershed District*

Monitoring Personnel: Washington Conservation District staff

Brewers Pond is located in the city of Stillwater. Few morphological data are available for the pond.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	44	38	49	C
CLA (µg/l))	31	4.3	50	C
Secchi (m)	0.9	0.5	1.8	D
TKN (mg/l)				
			Lake Grade	C

Note that the lake grades shown in the data summary table above were calculated from monitoring data sets from both the volunteer and Washington Conservation District (WCD) staff. However, the mean, minimum, and maximum values shown in the above data summary table and the results in the data table on the following page are specific to WCD staff monitoring data. The pond received a lake grade of C this year which is similar to water quality observed in 2020 and 2023 and an improvement over the F grade received in 2022.. Continued monitoring is recommended to continue to build the water quality database.

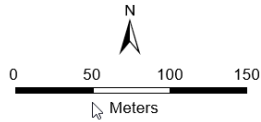
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Brewer's Pond Stillwater, Washington Co.

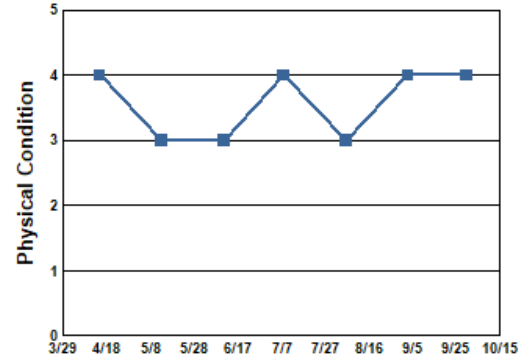
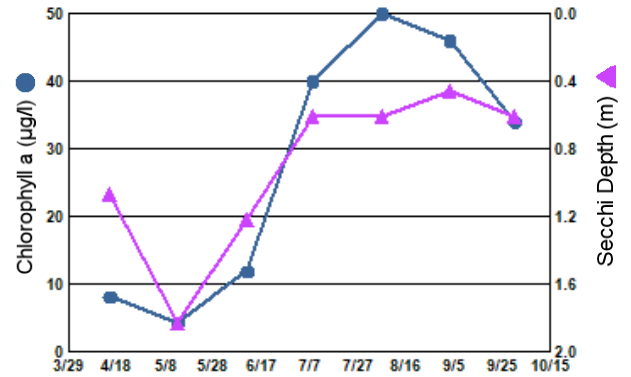
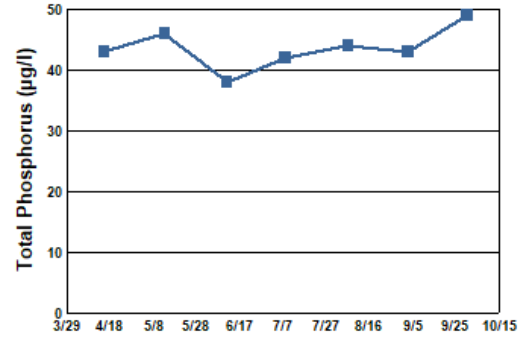
Lake ID: 82002200

- Sampling site
- Contours in meters

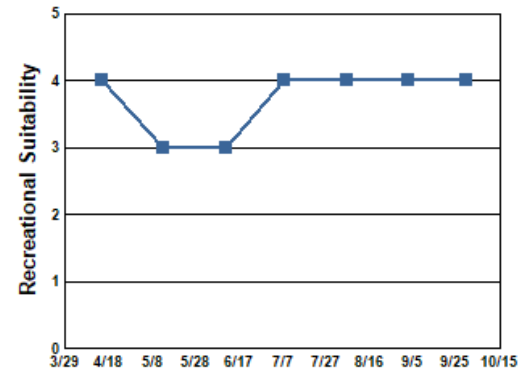


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/15/24	15.4		8.2	43	1.1	4	4
05/13/24	20.8		4.3	46	1.8	3	3
06/11/24	22.1		12	38	1.2	3	3
07/08/24	26.0		40	42	0.6	4	4
08/06/24	24.9		50	44	0.6	3	4
09/03/24	23.1		46	43	0.5	4	4
09/30/24	21.5		34	49	0.6	4	4



- 1 = Crystal Clear
- 2 = Some Algae Present
- 3 = Definite Algal Presence
- 4 = High Algal Color
- 5 = Severe Algal Bloom



- 1 = Beautiful
- 2 = Minor Aesthetic Problem
- 3 = Swimming Impaired
- 4 = No Swimming; Boating OK
- 5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		D	C	C	C	C	D	C	C
CLA		D	D	C	C	D	F	C	C
Secchi		F	F	F	D	F	F	D	D
Lake Grade		D	D	D	C	D	F	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Buck Lake (70–0065) *Prior Lake — Spring Lake Watershed District*

Volunteer: Steve Beckey

Buck Lake is located in Spring Lake Township (Scott County). It has a depth of approximately 3 m at the monitoring location, which is assumed to be the deepest point of the lake. No other bathymetric information is available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	222	71	386	F
CLA (µg/l))	18	7.0	35	B
Secchi (m)	1.0	0.6	1.6	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D this year, which is consistent with its historical water quality database. The water quality for the lake typically varies in the C to D lake grade range. The TP grade continues to receive F grades. Continued monitoring is recommended to build the water quality database for this lake and to determine if the TP increases are part of a longer term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

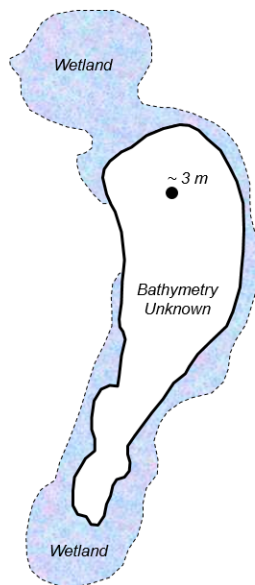
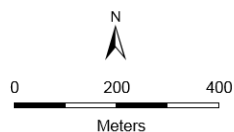
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Buck Lake
Spring Lake Twp., Scott Co.

Lake ID: 700065-00
WD: Prior Lake – Spring Lake

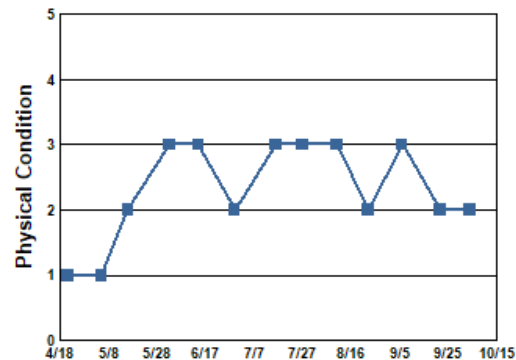
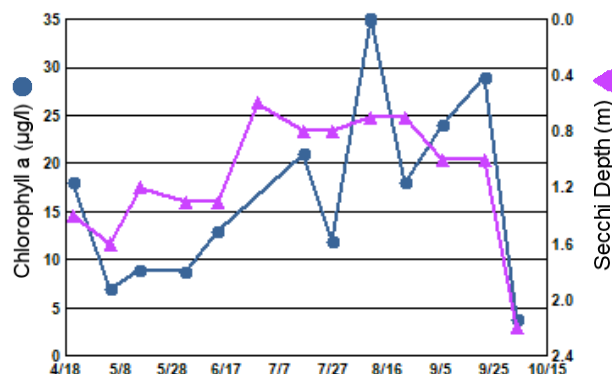
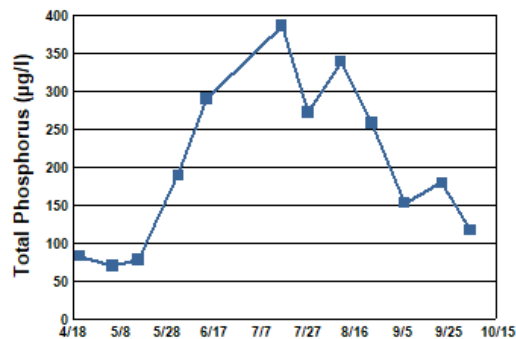
- Sampling site

Contours in meters

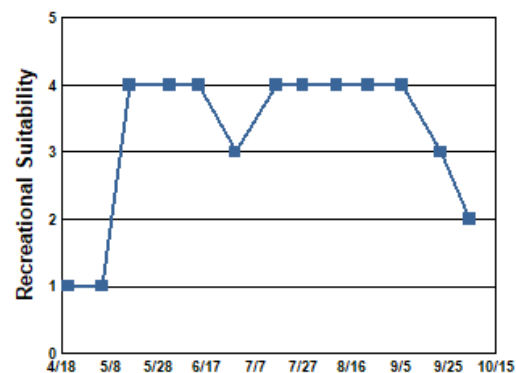


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	9.8		18	83	1.4	1	1
05/05/24	17.3		7.0	71	1.6	1	1
05/16/24	20.8		9.0	79	1.2	2	4
06/02/24	21.3		8.8	190	1.3	3	4
06/14/24	23.1		13	290	1.3	3	4
06/29/24	21.5				0.6	2	3
07/16/24	25.5		21	386	0.8	3	4
07/27/24	25.5		12	272	0.8	3	4
08/10/24	21.2		35	339	0.7	3	4
08/23/24	22.7		18	258	0.7	2	4
09/06/24	21.5		24	153	1.0	3	4
09/22/24	21.4		29	180	1.0	2	3
10/04/24	17.6		3.9	118	2.2	2	2



1 = Crystal Clear	4 = High Algal Color
2 = Some Algae Present	5 = Severe Algal Bloom
3 = Definite Algal Presence	



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP											D	D
CLA											A	B
Secchi												C
Lake Grade												C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	D	D	F	F	F	F
CLA	C	A	C	A	C	B	C	B	B
Secchi	D	C	D	C	D	C	D	C	D
Lake Grade	D	C	D	C	D	C	D	C	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Bush Lake (27–0047) *Nine Mile Creek Watershed District*

Volunteer: Paul Erdmann, Elizabeth Erdmann

Bush Lake is located in the City of Bloomington (Hennepin County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org) The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue). The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	14	11	15	A
CLA (µg/l))	2.8	1.6	4.5	A
Secchi (m)	3.5	2.8	4.6	A
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A this year. The lake grades fluctuate between A and B according to its historical water quality database but with A's being more frequent.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

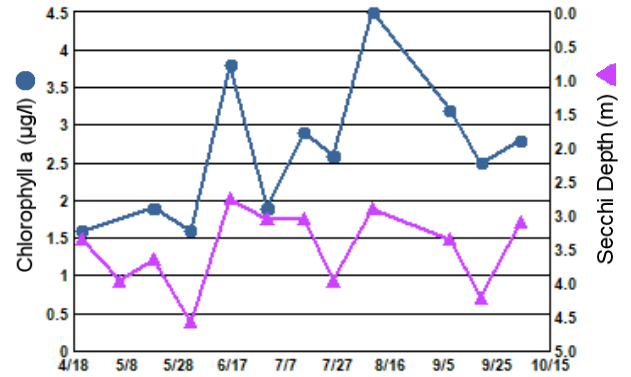
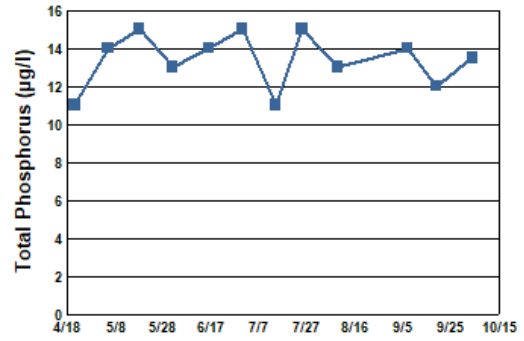
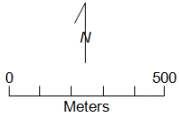
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Bush Lake Bloomington, Hennepin Co.

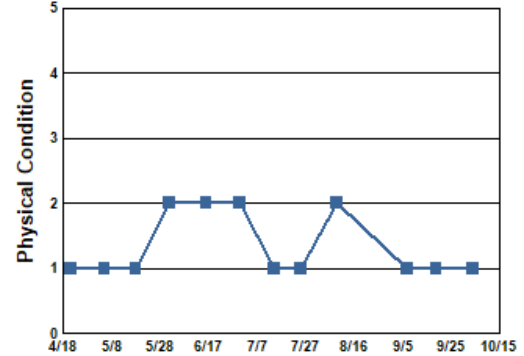
Lake ID: 270047-00

● Sampling site
Contours in meters

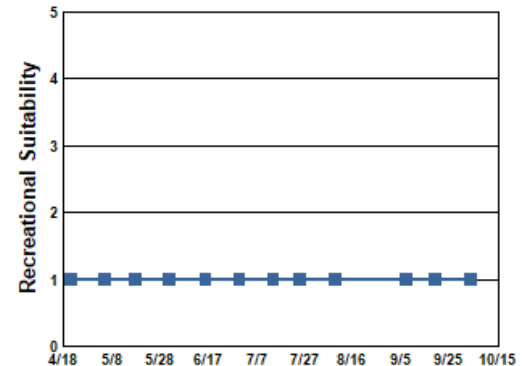


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	10.0		1.6	11	3.4	1	1
05/05/24	17.9			14	4.0	1	1
05/18/24	21.2		1.9	15	3.7	1	1
06/01/24	23.0		1.6	13	4.6	2	1
06/16/24	24.4		3.8	14	2.8	2	1
06/30/24	26.1		1.9	15	3.1	2	1
07/14/24	30.1		2.9	11	3.1	1	1
07/25/24	27.3		2.6	15	4.0	1	1
08/09/24	24.6		4.5	13	2.9	2	1
09/07/24	24.4		3.2	14	3.4	1	1
09/19/24	25.7		2.5	12	4.2	1	1
10/04/24	19.6		2.8	14	3.1	1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP				B	A							
CLA				B	A							
Secchi				B	A	B	A	B	C			
Lake Grade				B	A							

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		A	A					B		A		
CLA		A	A					B		B		
Secchi		A	B					B		A		
Lake Grade		A	A					B		A		

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	A		A	A	A	A	A	A	C	A	A	A
CLA	B		A	B	A	A	A	A	A	A	A	A
Secchi	B		B	B	A	A	B	B	A	A	A	A
Lake Grade	B		A	B	A	A	A	A	B	A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	A	A	A	A	A	A
CLA	A	A	A	A	A	A	A	A	A
Secchi	A	A	B	A	A	A	A	A	A
Lake Grade	A	A	A	A	A	A	A	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Cates Lake (70–0018) Prior Lake — Spring Lake Watershed District

Volunteer: Paula Thomsen

Cates Lake is a 27-acre lake located in the City of Savage (Scott County). The maximum depth of the lake is 4.0 m (13 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	23	17	34	A
CLA (µg/l)	5.4	2.2	11	A
Secchi (m)	>1.7	>1.2	>2.2	
TKN (mg/l)				
			Lake Grade	

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received TP and CLA grades of A each, which is a return to the better water quality conditions as observed prior to 2020. There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade.

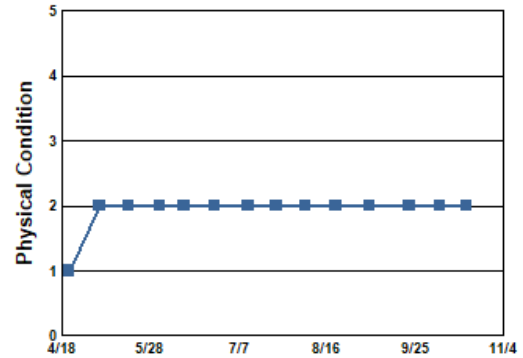
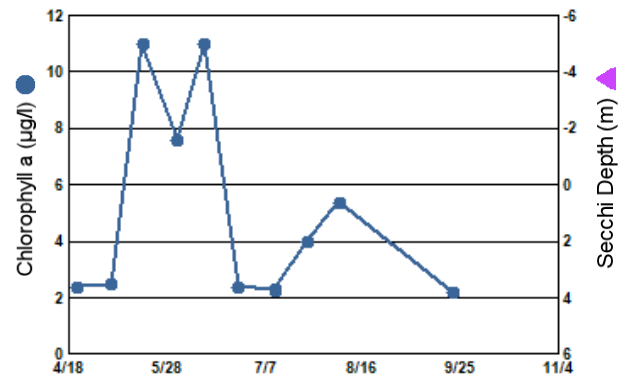
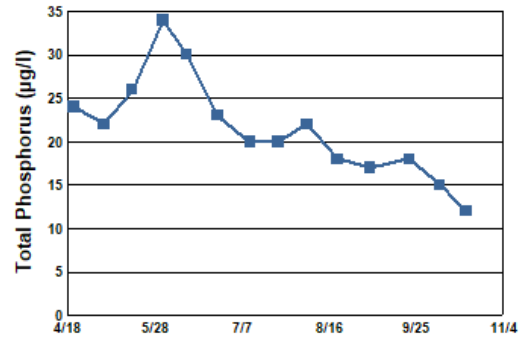
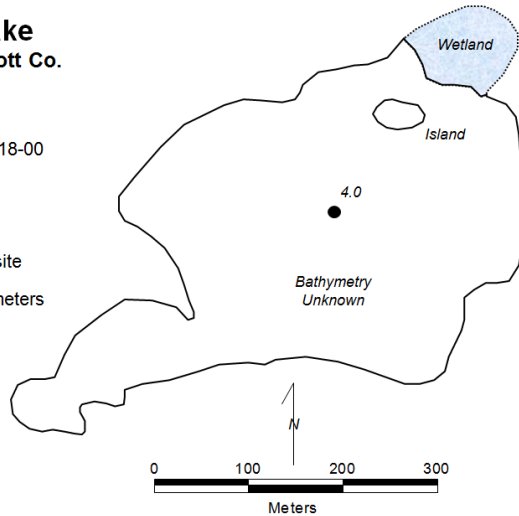
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

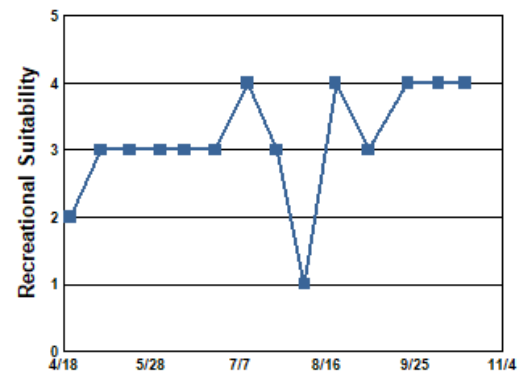
Cates Lake Prior Lake, Scott Co.

LAKE ID: 700018-00

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	10.7		2.4	24	>2.1	1	2
05/05/24	16.8		2.5	22	>2.2	2	3
05/18/24	22.2		11	26	>1.8	2	3
06/01/24	20.7		7.6	34	>1.7	2	3
06/12/24	22.0		11	30	>1.3	2	3
06/26/24	24.5		2.4	23	>1.8	2	3
07/11/24	25.5		2.3	20	>1.9	2	4
07/24/24	25.5		4.0	20	>1.6	2	3
08/06/24	26.2		5.4	22	>2.0	2	1
08/20/24	24.1			18	>1.8	2	4
09/04/24	22.9			17	>1.6	2	3
09/22/24	22.6		2.2	18	>1.2	2	4
10/06/24	16.1			15	>2.4	2	4
10/18/24	12.2			12	>2.2	2	4

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP											A	B
CLA											A	A
Secchi											C	C
Lake Grade											B	B

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	B	A	B	A	A	A	A	B	C	A		
CLA	A	A	A	A	A	A	A	A	A	A		
Secchi	C	C	C	C	C	C	B	C		C		
Lake Grade	B	B	B	B	B	B	A	B		B		

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		B	B	B	C	C	B	A	A
CLA		A	A	A	A	B	A	A	A
Secchi			C	C					
Lake Grade			B	B					

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Cedar Lake (70–0091) *Scott Watershed Management Organization*

Volunteer: Ted Schnaare, John Tuschner

Cedar Lake is located in Cedar Lake Township (Scott County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/priority-waters/) The lake has a maximum depth of 4.7 m (15 ft) and a mean depth of 2.1 m (6.9 feet). The lake has a surface area of 742 acres and watershed area of 11,104 acres, giving a watershed to lake area ratio of 15:1. The larger the ratio the greater the potential effects of runoff on the water quality of the lake. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) and aquatic recreational use (nutrient/eutrophication biological indicators). The MN DNR designated the lake as being infested with zebra mussels (*Dreissena polymorpha*) in 2025.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	76	21	141	D
CLA (µg/l)	55	7.0	120	D
Secchi (m)	1.0	0.5	2.5	D
TKN (mg/l)				
			Lake Grade	D

The lake site received a lake grade of D this year, which is consistent with its historical water quality database. The water quality of the lake has varied in the C to F range.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

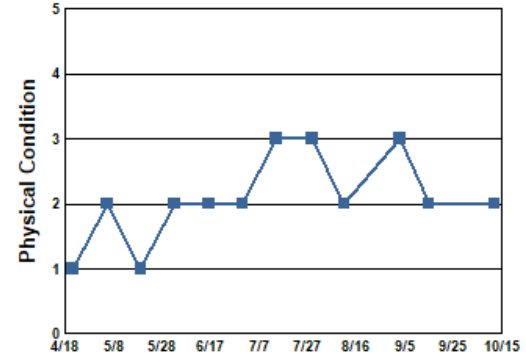
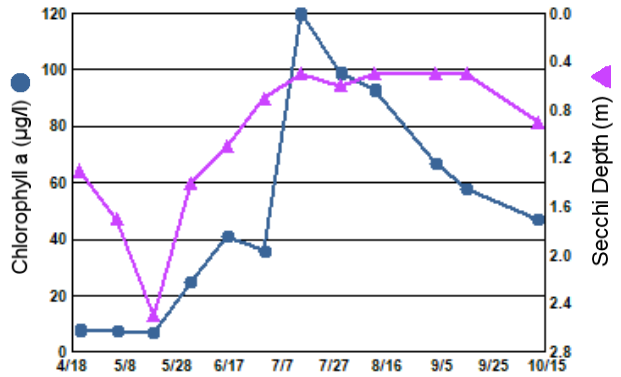
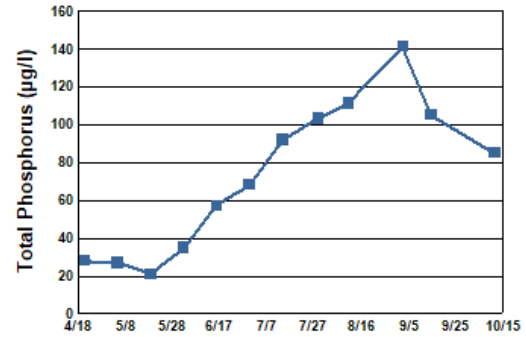
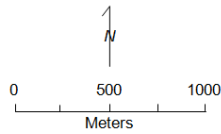
Cedar Lake

Cedar Lake Twp./Helena Twp.,
Scott Co.

LAKE ID: 700091-00

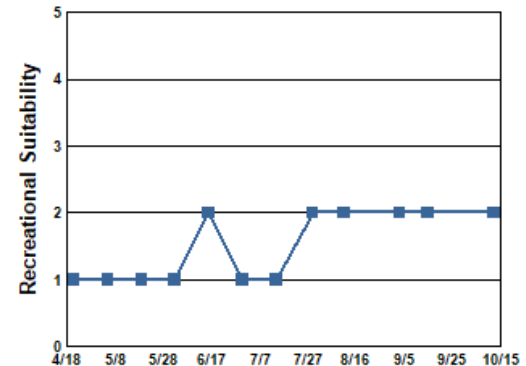
● Sampling site

Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	9.7		8.0	28	1.3	1	1
05/05/24	16.2		7.5	27	1.7	2	1
05/19/24	20.0		7.0	21	2.5	1	1
06/02/24	21.1		25	35	1.4	2	1
06/16/24	24.1		41	57	1.1	2	2
06/30/24	25.2		36	68	0.7	2	1
07/14/24	28.0		120	92	0.5	3	1
07/29/24	29.0		99	103	0.6	3	2
08/11/24			93	111	0.5	2	2
09/03/24	23.0		67	141	0.5	3	2
09/15/24	24.0		58	105	0.5	2	2
10/12/24	16.2		47	85	0.9	2	2

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	F	F			F							
CLA	F	D			D						D	
Secchi	C	C	C	C	C	C				F	D	D
Lake Grade	F	D			D							

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		F					F			F		
CLA		C					D			F		
Secchi	D	C					D			D		
Lake Grade		D					D			F		

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		D	F	F	F		F	F	F	F	D	D
CLA		C	D	D	D		D	D	C	C	C	D
Secchi		C	D	D	D		D	D	D	C	C	D
Lake Grade		C	D	D	D		D	D	D	D	C	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	F	D	D	D	D	D	D
CLA	C	C	F	F	F	C	D	F	D
Secchi	D	D	D	F	D	C	D	F	D
Lake Grade	D	D	F	F	D	C	D	F	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Cedar Island Lake (27–0119) *Shingle Creek Watershed Management Commission*

Volunteer: Steve Lane

Cedar Island Lake is located in the city of Maple Grove (Hennepin County). The lake has a surface area of 80 acres. The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2004.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	98	73	141	D
CLA (µg/l))	47	29	64	C
Secchi (m)	0.9	0.8	1.1	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D which is an improvement over the F grades received during the 2000's, the last period when CAMP monitoring occurred on the lake.

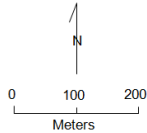
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Cedar Island Lake
Maple Grove, Hennepin Co.

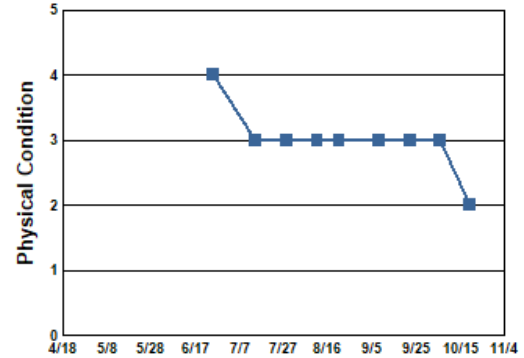
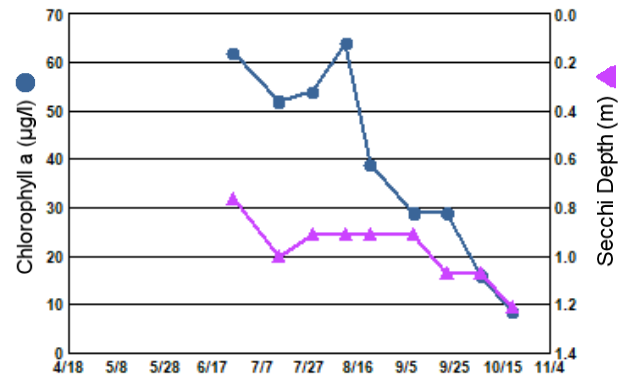
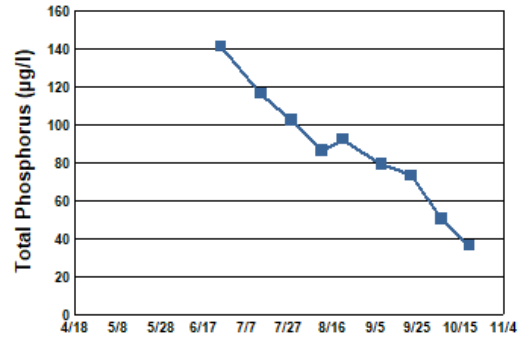
Lake ID: 270119-00

● Sampling site
Contours in meters

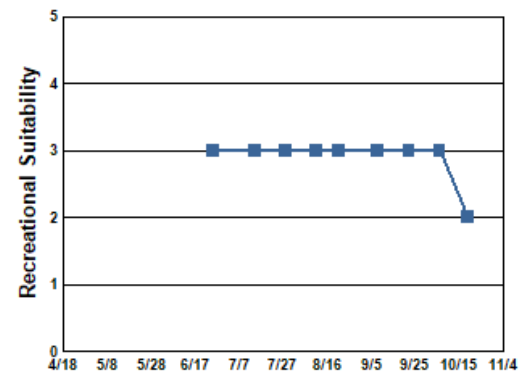


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/25/24	25.7		62	141	0.8	4	3
07/14/24	26.4		52	116	1.0	3	3
07/28/24	29.2		54	102	0.9	3	3
08/11/24	21.7		64	86	0.9	3	3
08/21/24	25.6		39	92	0.9	3	3
09/08/24	20.2		29	79	0.9	3	3
09/22/24	21.1		29	73	1.1	3	3
10/06/24	15.8		16	50	1.1	3	3
10/19/24	11.9		8.5	36	1.2	2	2



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					D							
CLA					B							
Secchi					D						F	
Lake Grade					C							

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP				D						D		F
CLA				F						D		F
Secchi	F	F	F	F	F	F	F	F	F	D	F	F
Lake Grade				F						D		F

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			F			F						
CLA			F			F						
Secchi			F			F						
Lake Grade			F			F						

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									D
CLA									C
Secchi									D
Lake Grade									D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Cobblecrest Lake (27–0053) *City of St. Louis Park*

Volunteer: Dan Zierath

Cobblecrest Lake is a small shallow lake located within City of St. Louis Park (Hennepin County). There is little known morphological data available for the lake.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

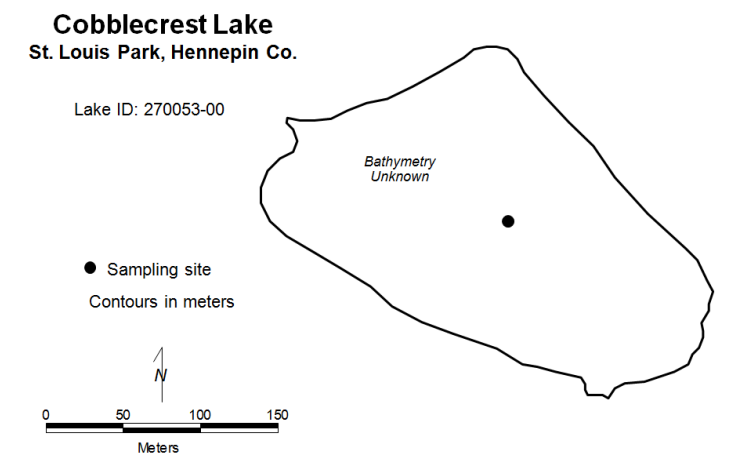
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)				
CLA (µg/l)				
Secchi (m)				
TKN (mg/l)				
			Lake Grade	

There were less than 5 monitoring events during the summer-time period (May — September). At least 5 monitoring events are required during the summer-time period to determine a parameter grade. A lake grade was not given because all three parameter grades are required to issue a lake grade.

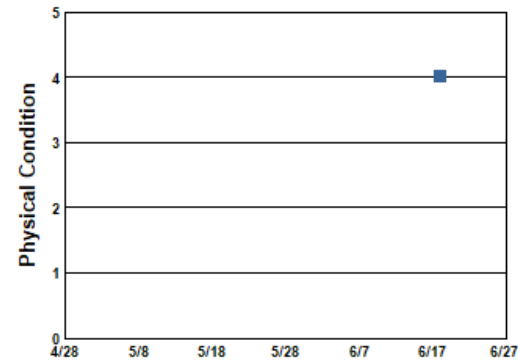
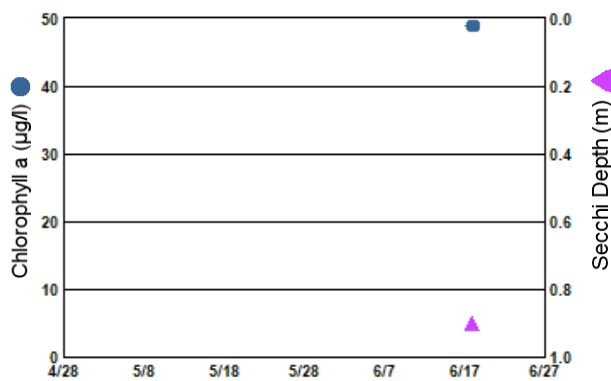
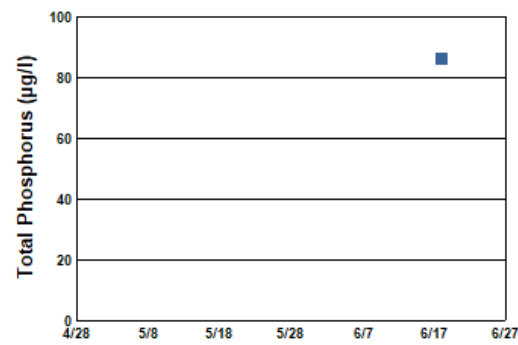
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

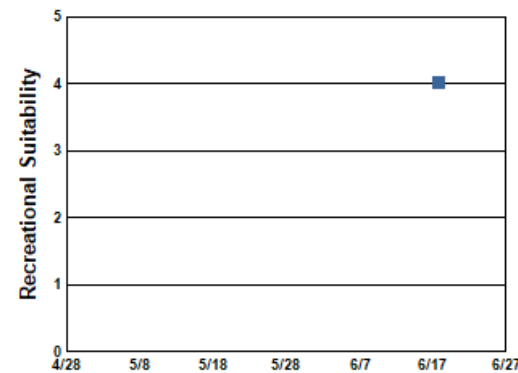


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/18/24	22.7		49	86	0.9	4	4



- 1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
- 4 = High Algal Color
5 = Severe Algal Bloom



- 1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
- 4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP											C	
CLA											C	
Secchi											C	
Lake Grade											C	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D	F	D	F	F	F	D	D		C		
CLA	F	F	F	F	F	F	F	C		C		
Secchi	F	F	F	F	F	F	F	F		F		
Lake Grade	F	F	F	F	F	F	F	D		D		

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									
CLA									
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Cobblestone Lake (19–0456) City of Apple Valley

Volunteer: Jeff Sluiter

Cobblestone Lake is located in the City of Apple Valley (Dakota County). The lake has a surface area of 37 acres, and a maximum depth of 6 meters. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2012.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

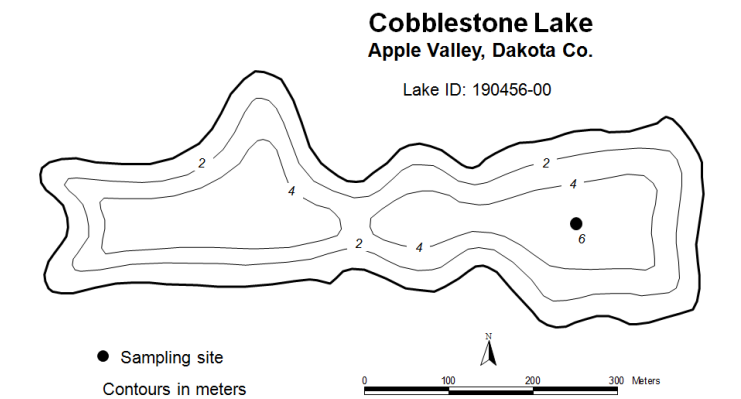
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)				
CLA (µg/l))				
Secchi (m)				
TKN (mg/l)				
			Lake Grade	

There were less than 5 monitoring events during the summer-time period (May — September). At least 5 monitoring events are required during the summer-time period to determine a parameter grade. A lake grade was not given because all three parameter grades are required to issue a lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

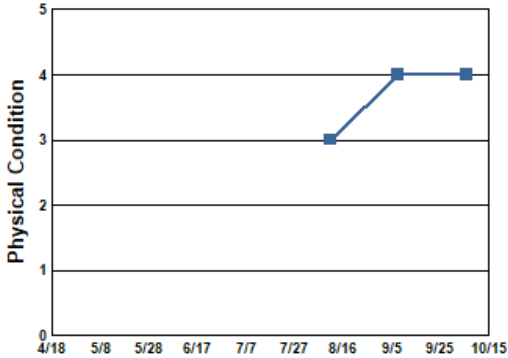
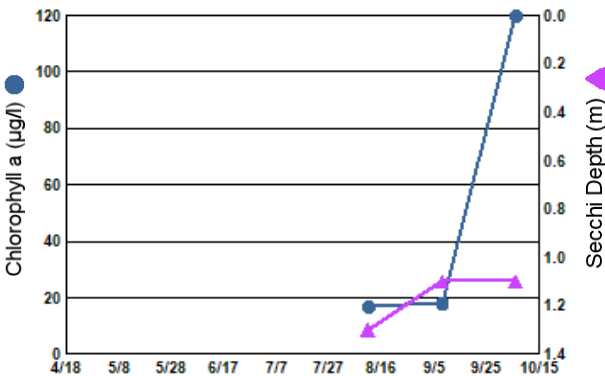
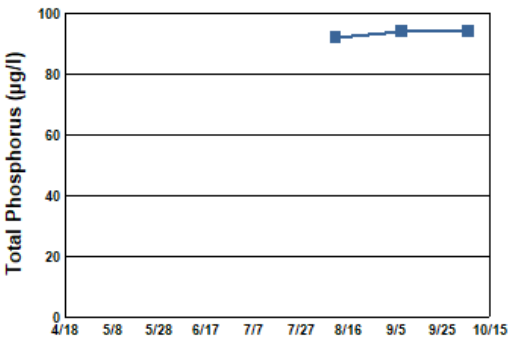
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

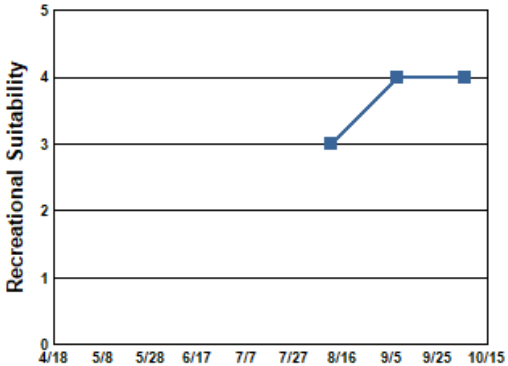


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
08/11/24	15.4		17	92	1.3	3	3
09/08/24	15.1		18	94	1.1	4	4
10/06/24	15.4		120	94	1.1	4	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		D	C	C	C	C	C	C	C	C	C	C
CLA		D	C	C	C	B	C	C	C	B	C	D
Secchi		F	D	D	D	D	D	D	D	C	D	D
Lake Grade		D	C	C	C	C	C	C	C	C	C	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		C	C	C	C				
CLA		C	C	B	C				
Secchi		D	D	D	D				
Lake Grade		C	C	C	C				

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Colby Lake (82–0094) *City of Woodbury*

Monitoring Personnel: Washington Conservation District staff

Colby Lake is located in the City of Woodbury in Washington County. The lake has a surface area of 71 acres and a maximum depth of 3.4 m (11 ft). The lake has a watershed area of 8,088 acres which gives a large watershed to lake area ratio of 114:1. Generally the larger the ratio, the greater the potential stress on the lake from surface runoff. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2006. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2012.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	64	36	93	C
CLA (µg/l)	28	5.0	61	C
Secchi (m)	1.3	0.9	1.8	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C. The TP grade of C continues the improvement over the D and F grades received prior to 2023. Continued monitoring is recommended to determine if this recent improvement in water quality is part of a longer term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

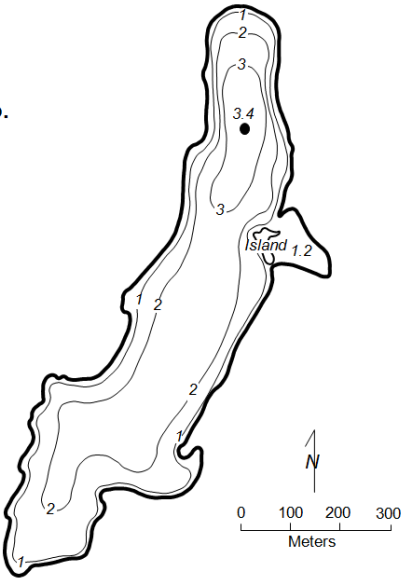
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Colby Lake
Woodbury, Washington Co.

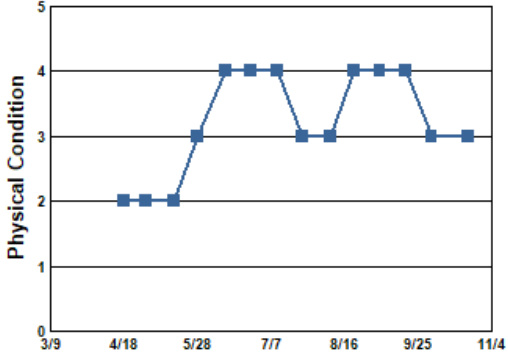
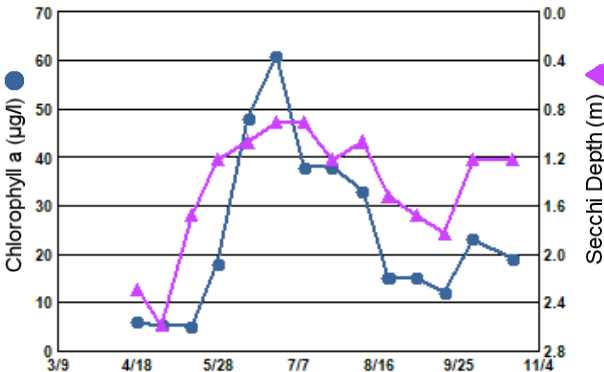
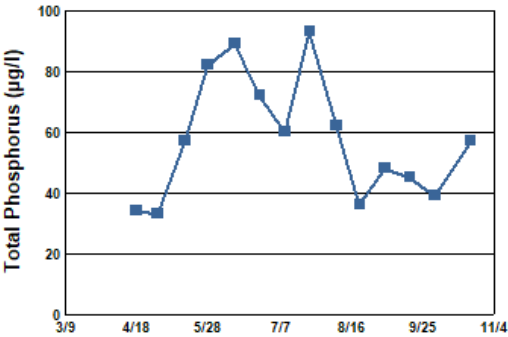
Lake ID: 820094-00

● Sampling site
Contours in meters

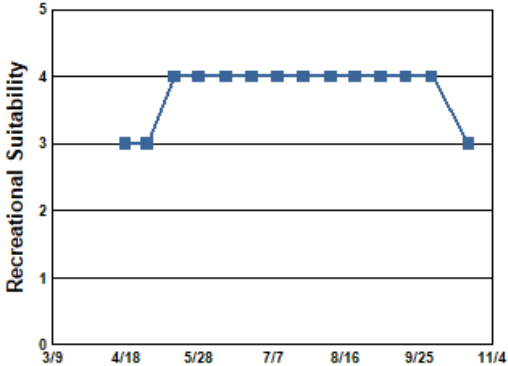


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	12.4		6.0	34	2.3	2	3
04/30/24	13.0		5.3	33	2.6	2	3
05/15/24	19.8		5.0	57	1.7	2	4
05/28/24	19.6		18	82	1.2	3	4
06/12/24	22.6		48	89	1.1	4	4
06/26/24	24.5		61	72	0.9	4	4
07/10/24	25.2		38	60	0.9	4	4
07/24/24	26.3		38	93	1.2	3	4
08/08/24	23.3		33	62	1.1	3	4
08/21/24	25.3		15	36	1.5	4	4
09/04/24	22.7		15	48	1.7	4	4
09/18/24	23.5		12	45	1.8	4	4
10/02/24	18.3		23	39	1.2	3	4
10/22/24	14.8		19	57	1.2	3	3



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			D	D	F	F	F	D	D	F	F	F
CLA			D	F	F	C	F	F	D	F	C	D
Secchi			F	F	F	F	F	D	D	D	F	F
Lake Grade			D	F	F	D	F	D	D	F	D	F

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D	D	F	D	F		D	D	D	F	D	D
CLA	C	F	F	D	D		C	C	D	C	D	C
Secchi	F	D	F	F	F		D	D	D	D	D	F
Lake Grade	D	D	F	D	F		D	D	D	D	D	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	D	D	D	D	C	C
CLA	C	C	D	C	C	C	C	B	C
Secchi	D	D	D	C	D		D	C	C
Lake Grade	D	D	D	C	D		D	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Comfort Lake (13–0053) *Comfort Lake — Forest Lake Watershed District*

Volunteer: Wally Ostlie

Sponsor: Comfort Lake — Forest Lake Watershed District

Comfort Lake is located northeast of the City of Forest Lake in Chisago County. The lake has a surface area of 219 acres, and a maximum depth of 14.3 m (47 feet).

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) and aquatic recreational use (nutrient/eutrophication biological indicators). The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) and zebra mussels (*Dreissena polymorpha*).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

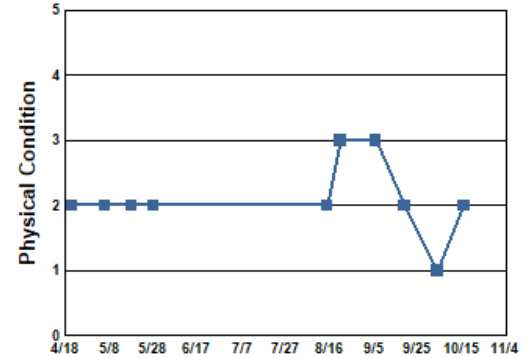
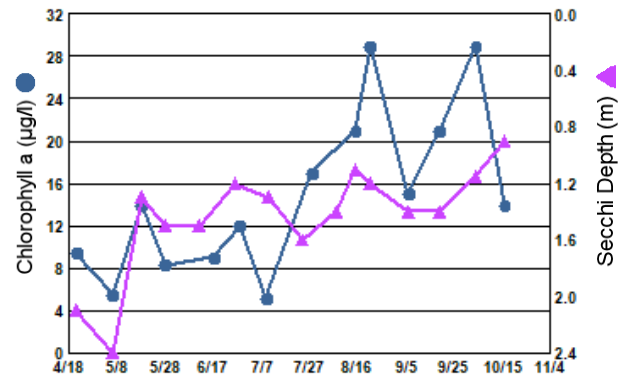
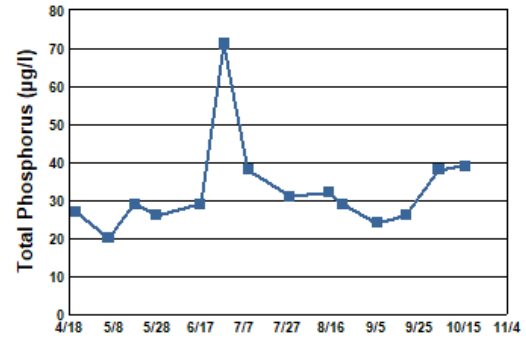
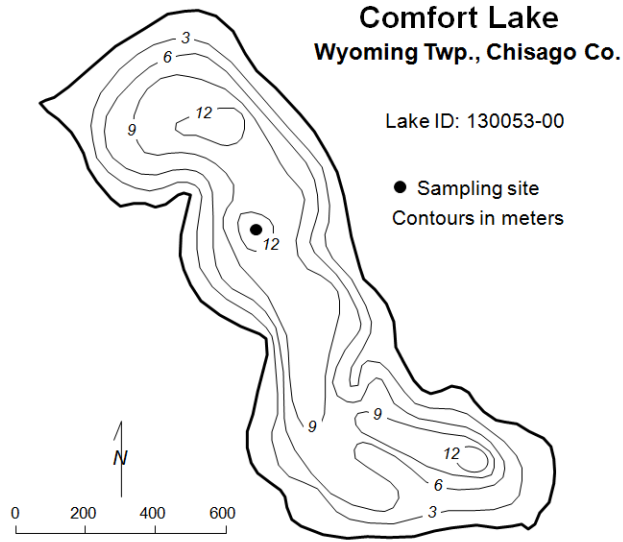
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	32	20	71	C
CLA (µg/l)	14	5.2	29	B
Secchi (m)	1.4	1.1	2.4	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of B, which is consistent with its water quality database going back to the mid 2000s. The lake typically receives a lake grade of B or C and a Secchi grade of C.

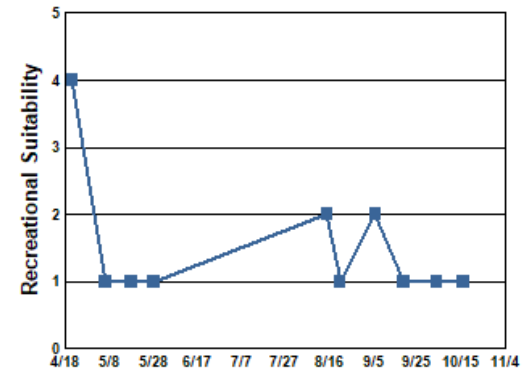
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	10.0		9.4	27	2.1	2	4
05/06/24	15.1		5.5	20	2.4	2	1
05/18/24	20.8		14	29	1.3	2	1
05/28/24	19.1		8.3	26	1.5	2	1
06/11/24	20.5				1.5		
06/17/24			9.0	29			
06/26/24	23.2				1.2		
06/28/24			12	71			
07/09/24			5.2	38			
07/10/24					1.3		
07/24/24	24.2				1.6		
07/28/24			17	31			
08/07/24	24.4				1.4		
08/15/24	22.3		21	32	1.1	2	2
08/21/24	23.4		29	29	1.2	3	1
09/06/24	23.1		15	24	1.4	3	2
09/19/24	23.4		21	26	1.4	2	1

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/ l)	Secchi (m)	PC	RS
10/04/ 24	19.7		29	38	1.2	1	1
10/16/ 24	13.3		14	39	0.9	2	1

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi								B	B	B		
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			D						C	B	C	C
CLA			B						C	B	C	C
Secchi			C	C		C	C		C	C	C	C
Lake Grade			C						C	B	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	B	C	A	B	B	B	C	C	B	C	B
CLA	B	B	B	A	A	B	B	B	B	B	B	B
Secchi	C	C	C	C	C	C	C	C	C	C	C	C
Lake Grade	C	B	C	B	B	B	B	C	C	B	C	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	C	B	B	B	A	B	A	C
CLA	B	B	B	B	B	A	B	A	B
Secchi	C	C	C	C	C	B	C	C	C
Lake Grade	B	C	B	B	B	A	B	B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Crystal Lake [Burnsville] (19–0027) *Black Dog Watershed Management Commission*

Volunteer: Mike Yung

Crystal Lake is located mainly in the City of Burnsville (Dakota County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) The lake has a surface area of 292 acres.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998. The lake was delisted for aquatic recreational use (nutrient/eutrophication biological indicators) in 2018. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

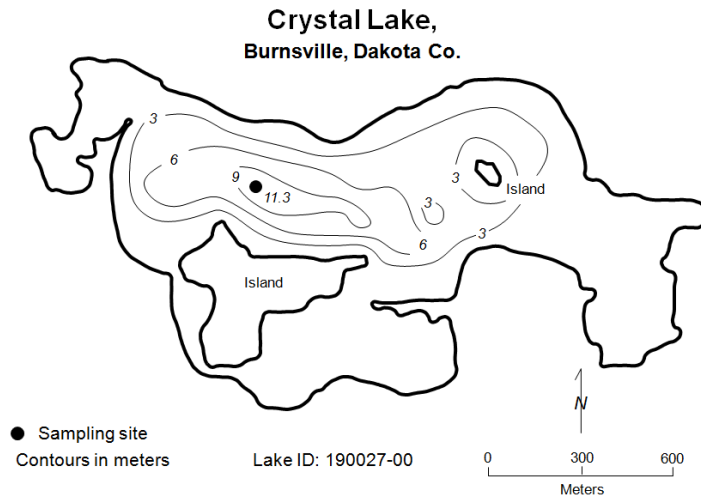
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	24	15	31	B
CLA (µg/l)	11	2.2	21	B
Secchi (m)	2.3	1.3	5.3	B
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B which is consistent with water quality for the past decade, which has varied in the A to C range.

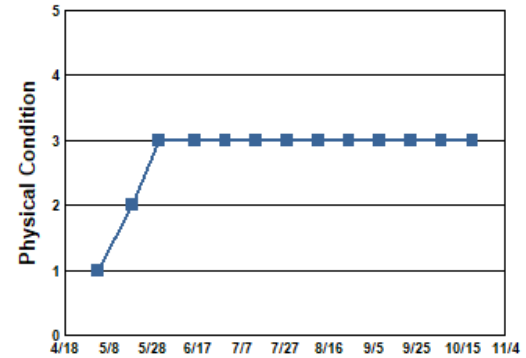
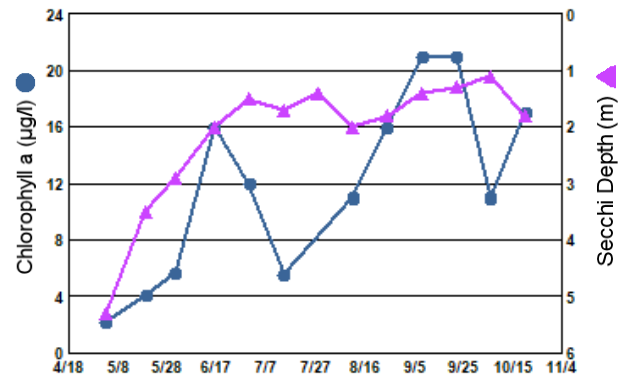
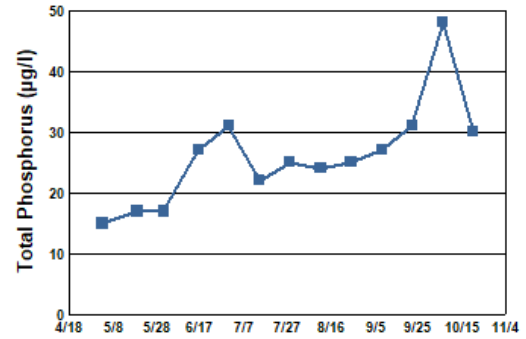
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

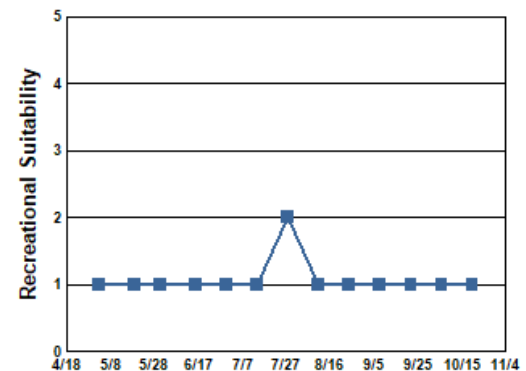
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

**2024 Data**

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/03/24	13.1		2.2	15	5.3	1	1
05/19/24	20.1		4.1	17	3.5	2	1
05/31/24	20.7		5.7	17	2.9	3	1
06/16/24	23.5		16	27	2.0	3	1
06/30/24	23.4		12	31	1.5	3	1
07/14/24	27.0		5.6	22	1.7	3	1
07/28/24	28.1			25	1.4	3	2
08/11/24	22.9		11	24	2.0	3	1
08/25/24	25.2		16	25	1.8	3	1
09/08/24	21.9		21	27	1.4	3	1
09/22/24	22.3		21	31	1.3	3	1
10/06/24	17.1		11	48	1.1	3	1
10/20/24	13.9		17	30	1.8	3	1



1 = Crystal Clear 4 = High Algal Color
2 = Some Algae Present 5 = Severe Algal Bloom
3 = Definite Algal Presence



1 = Beautiful 4 = No Swimming; Boating OK
2 = Minor Aesthetic Problem 5 = No Aesthetics Possible
3 = Swimming Impaired

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	C	C		C						B		
CLA	C			B				C		B		
Secchi	C	C	C	B	C	B	B	C	C	B	C	B
Lake Grade	C			B						B		

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C	C	C	C	C	C	C	B	C	C
CLA			B	C	C	C	C	B	C	B	B	C
Secchi	B		C	C	C	C	C	C	C	C	C	C
Lake Grade			C	C	C	C	C	C	C	B	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	C	C	B	B	A	C	B	A	A
CLA	B	C	C	C	C	B	C	B	B	B	A	B
Secchi	C	C	C	C	C	C	C	C	C	C	B	C
Lake Grade	C	C	C	C	C	B	C	B	C	B	A	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	B	B	C	B	A	B	A	B
CLA	B	B	A	B	B	A	A	A	B
Secchi	C	B	B	C	B	B	C	B	B
Lake Grade	B	B	B	C	B	A	B	A	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Crystal Lake [Prior Lake] (70–0061) *Prior Lake — Spring Lake Watershed District*

Volunteer: Scott Thulien

Crystal Lake is located mainly in the City of Prior Lake (Scott County). The lake has a maximum depth of 7.9 m and a surface area of about 31 acres. More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	43	19	70	C
CLA (µg/l))	17	2.5	52	B
Secchi (m)	1.8	1.0	3.1	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year which is consistent with its historical water quality database. The lake grades have varied in the B to C range since 1997. Continued monitoring is recommended to build the water quality database.

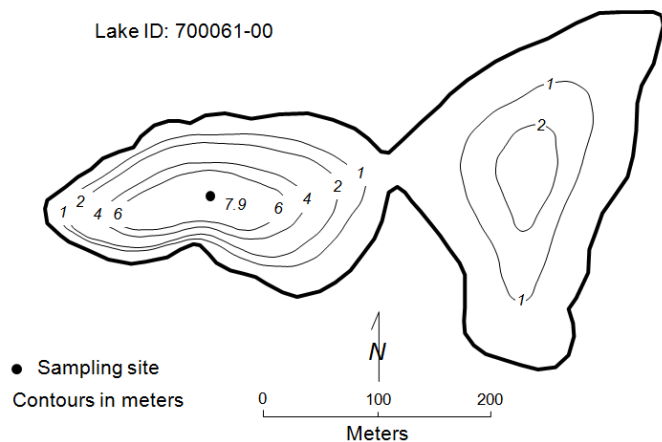
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

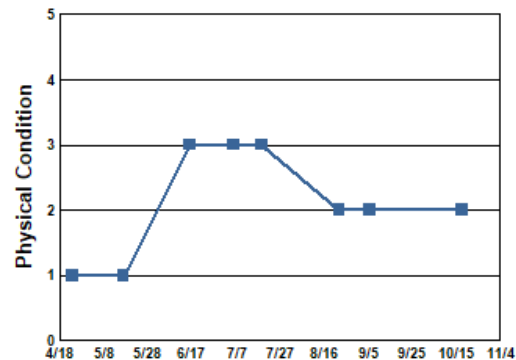
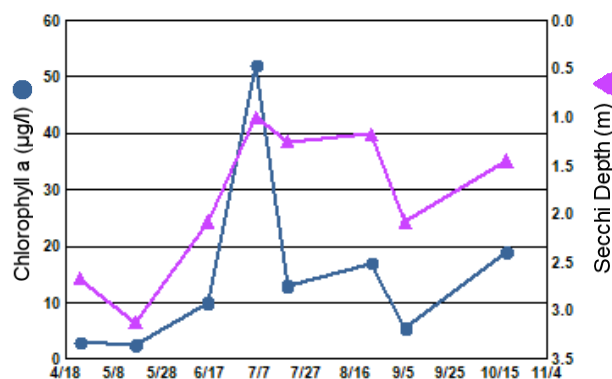
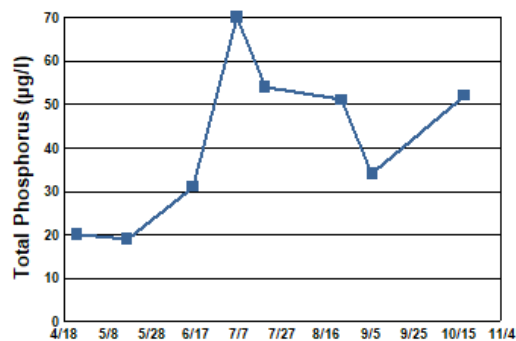
Crystal Lake Prior Lake, Scott Co.

Lake ID: 700061-00

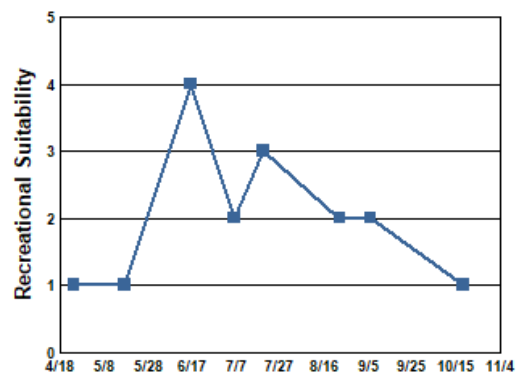


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/24/24	13.9		3.0	20	2.7	1	1
05/17/24	22.5		2.5	19	3.1	1	1
06/16/24	26.0		10	31	2.1	3	4
07/06/24	24.6		52	70	1.0	3	2
07/19/24	25.2		13	54	1.3	3	3
08/23/24	25.1		17	51	1.2	2	2
09/06/24	22.4		5.5	34	2.1	2	2
10/18/24	13.5		19	52	1.5	2	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP						C		C				
CLA						A		B				
Secchi						C		C				
Lake Grade						B		C				

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP					B		B	B	C
CLA					A		A	A	B
Secchi					C		B	B	C
Lake Grade					B		B	B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

DeMontreville Lake (82–0101) Valley Branch Watershed District

Volunteer: Tom Bucher, Gary Fields

Lake DeMontreville is located in Lake Elmo (Washington County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](https://metro council.org/priority-waters)

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 2020. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2009.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	26	14	55	B
CLA (µg/l)	11	1.0	41	B
Secchi (m)	>2.7	0.7	4.1	B
TKN (mg/l)				
			Lake Grade	B

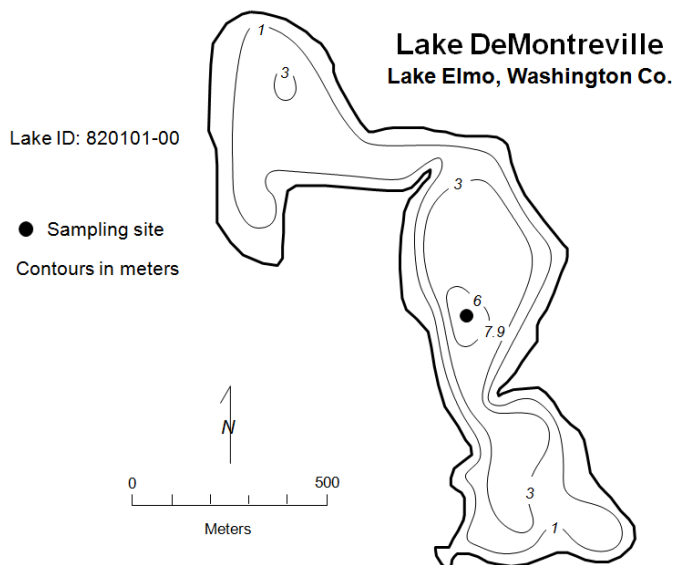
> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of B this year. The lake grades for the years 1980 through 2022 show that the quality of the lake has improved over the past 40 years but recent years has shown a decrease in water quality with grades varying in the A to B range.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

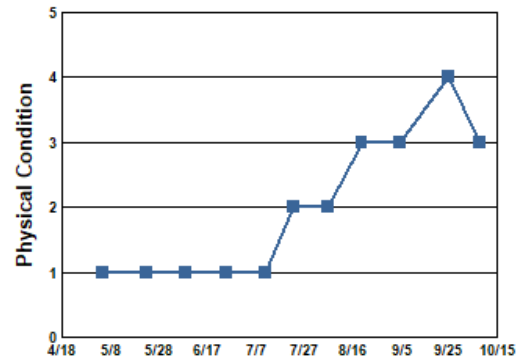
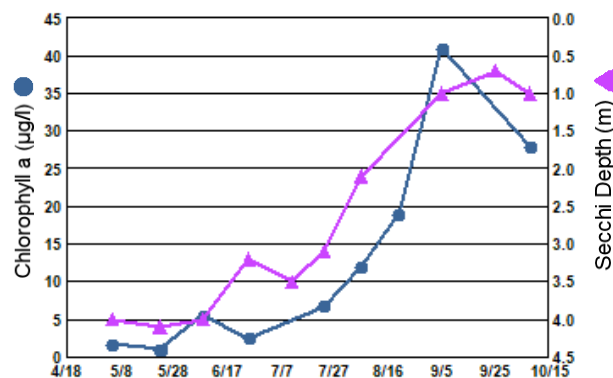
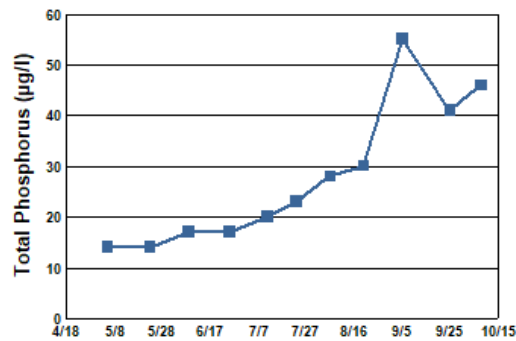
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

**2024 Data**

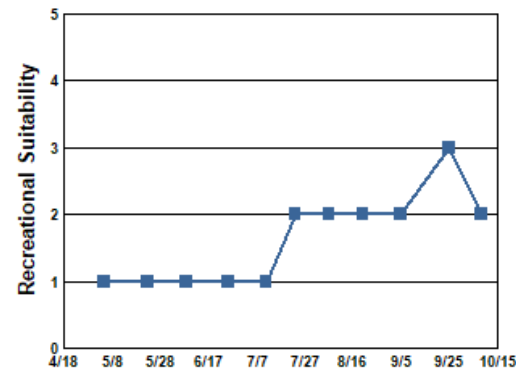
Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	16.2		1.7	14	4.0	1	1
05/23/24	21.4		1.0	14	4.1	1	1
06/08/24	23.1		5.5	17	4.0	1	1
06/25/24	26.3		2.5	17	3.2	1	1
07/11/24	27.1			20	3.5	1	1
07/23/24	27.3		6.8	23	3.1	2	2
08/06/24	27.1		12	28	2.1	2	2
08/20/24	27.4		19	30	>1.5	3	2
09/05/24	23.8		41	55	1.0	3	2
09/25/24	22.2			41	0.7	4	3
10/08/24	17.7		28	46	1.0	3	2

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	C				C							B
CLA	C				C							C
Secchi	C				C	C	C		C	D		C
Lake Grade	C				C							C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		B		C					A			A
CLA		A		B					A			B
Secchi		B		B					A			A
Lake Grade		B		B					A			A

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	A	B	C	B	A	B	C	A	B	A	A	A
CLA	A	B	B	C	A	A	B	A	A	A	A	A
Secchi	B	A	B	C	A	B	A	A	A	A	B	A
Lake Grade	A	B	B	C	A	B	B	A	A	A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	A	B	B	B	A	B
CLA	A	A	B	A	B	A	B	A	B
Secchi	A	A	B	A	B	A	B	A	B
Lake Grade	A	A	B	A	B	A	B	A	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Dickman Lake (19–0046) *Lower Mississippi River Watershed Management Organization*

Volunteer: Lisa Povolny

Dickman Lake is located in the city of Inver Grove Heights (Dakota County). There is little bathymetric information available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	73	53	82	D
CLA (µg/l))	59	17	76	D
Secchi (m)	0.5	0.4	0.7	F
TKN (mg/l)				
			Lake Grade	D

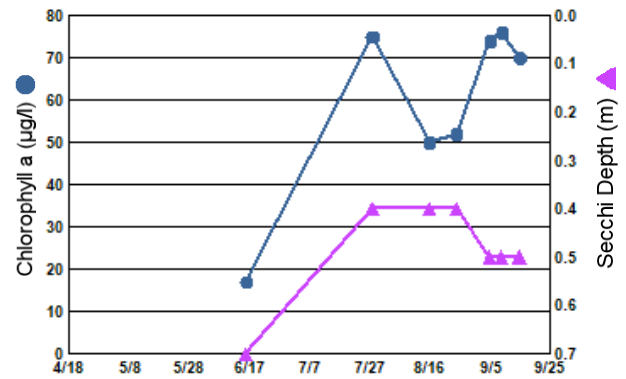
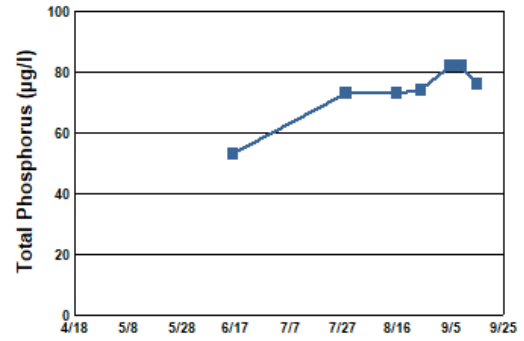
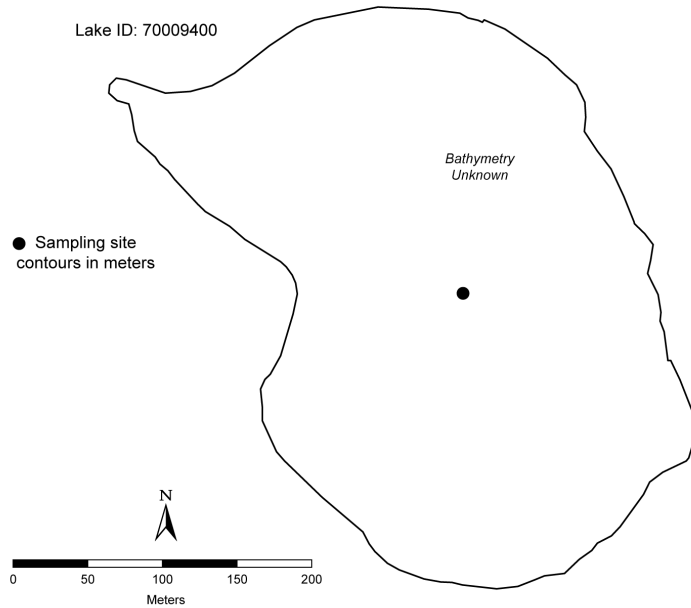
The lake received a lake grade of D which is consistent with its limited water quality database. Continued monitoring is recommended to continue to build the water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

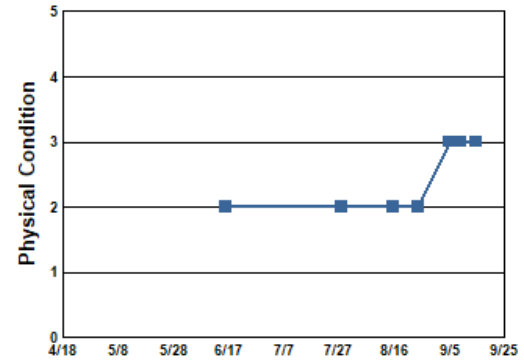
Dickman Lake Sunfish Lake, Dakota County

Lake ID: 70009400

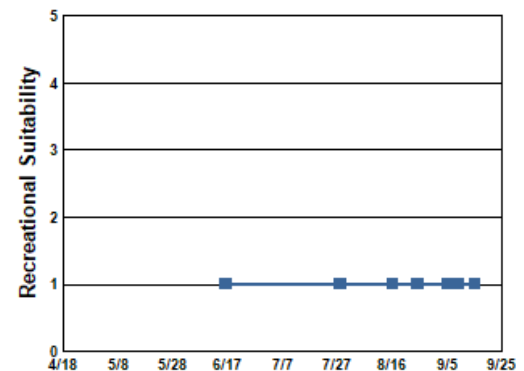


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/16/24	25.7		17	53	0.7	2	1
07/28/24	28.6		75	73	0.4	2	1
08/16/24	27.3		50	73	0.4	2	1
08/25/24	24.0		52	74	0.4	2	1
09/05/24	22.9		74	82	0.5	3	1
09/09/24	22.5		76	82	0.5	3	1
09/15/24	22.7		70	76	0.5	3	1



1 = Crystal Clear
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3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP					D		D	C	D
CLA					D		D	C	D
Secchi					F		A	F	F
Lake Grade					D		C	D	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQGIS database(s)

Duck Lake (27–0069) City of Eden Prairie

Volunteer: Eric Campbell, Deb Campbell

Duck Lake is located in the city of Eden Prairie (Hennepin County). The lake has a surface area of 46 acres, and a maximum depth of about 2.6 m. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column. The lake's watershed has an area of 200 acres, giving a relatively small watershed to lake surface area ratio of 4.4. The higher the ratio, the greater the influence that the watershed has on the lake's water quality.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2020.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	23	19	25	A
CLA (µg/l)	2.9	1.3	4.9	A
Secchi (m)	>1.6	>1.4	>2.0	
TKN (mg/l)				
			Lake Grade	

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade. The lake received TP and CLA grades of A and A, respectively, in 2024 which is a return to better water quality as observed prior to 2019 and an improvement over the TP and CLA grades of C and B, respectively, in 2021.

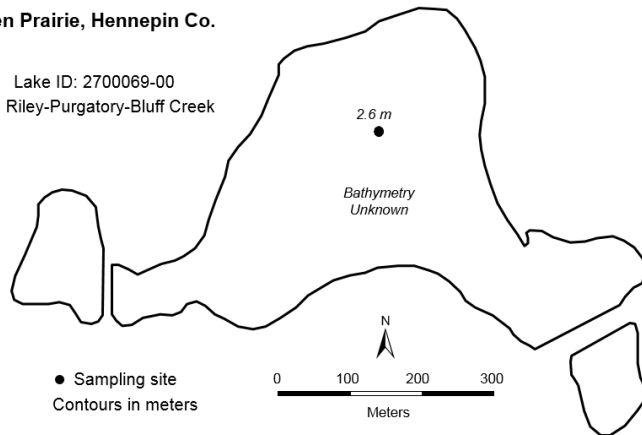
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The lake has been occasionally stocked with various panfish and bass. Information on the stocking can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Duck Lake Eden Prairie, Hennepin Co.

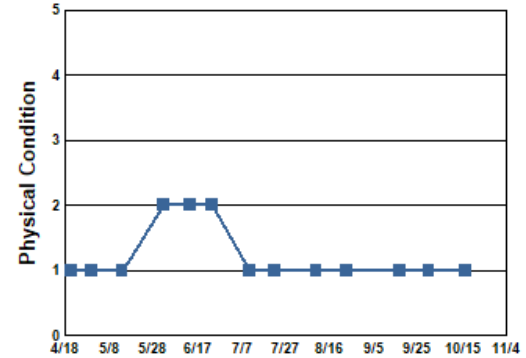
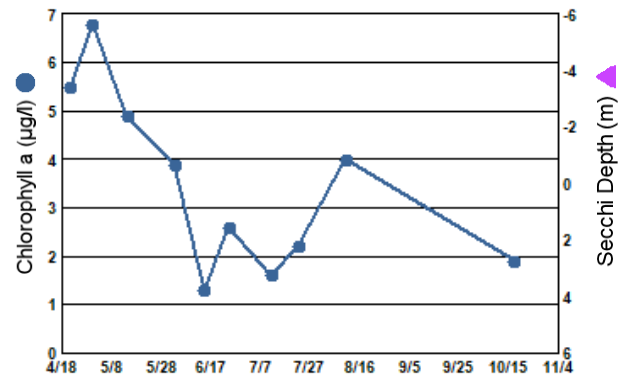
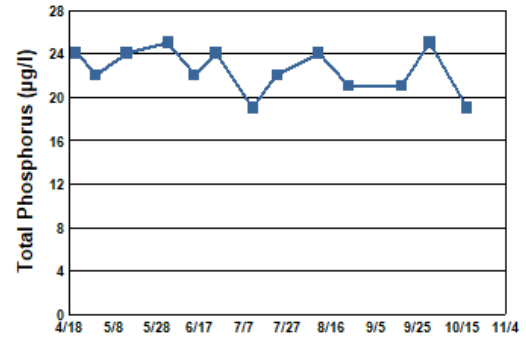
Lake ID: 2700069-00
WD: Riley-Purgatory-Bluff Creek



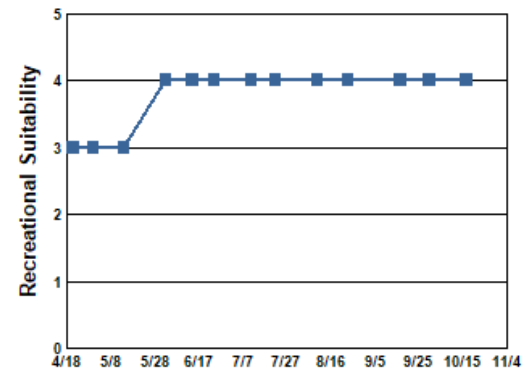
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	11.3		5.5	24	>2.0	1	3
04/30/24	12.7		6.8	22	>2.0	1	3
05/14/24	21.1		4.9	24	>2.0	1	3
06/02/24	24.9		3.9	25	>1.8	2	4
06/14/24	26.2		1.3	22	>1.7	2	4
06/24/24	26.4		2.6	24	>1.7	2	4
07/11/24	30.6		1.6	19	>1.6	1	4
07/22/24	28.1		2.2	22	>1.4	1	4
08/10/24	24.1		4.0	24	>1.4	1	4
08/24/24	26.0			21	>1.4	1	4
09/17/24	25.4			21	>1.4	1	4
09/30/24	22.2			25	>1.5	1	4
10/17/24	12.1		1.9	19	>1.6	1	4

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP											A	B
CLA											A	A
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	B	B	C	A	B	A
CLA	A	A	A	A	A	B	A	A	A
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Eagle Lake (27–0111–01) Shingle Creek Watershed Management Commission

Volunteer: Patrice Carlson

Eagle Lake is located in the city of Maple Grove (Hennepin County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters)

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2008, aquatic consumption (mercury in fish tissue) in 1998, and aquatic life (fish bioassessments) in 2024. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	42	17	71	C
CLA (µg/l)	36	8.4	53	C
Secchi (m)	1.4	0.8	3.6	C
TKN (mg/l)				
			Lake Grade	C

The lake received a C lake grade this year. The lake grades have fluctuated between B and C since 1980.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

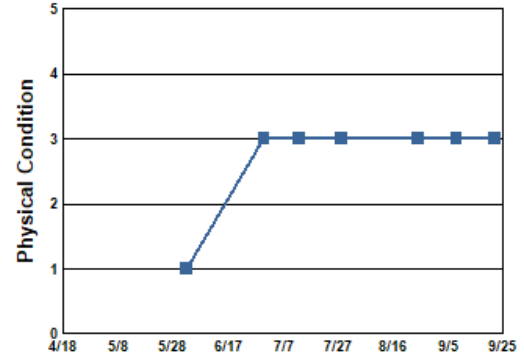
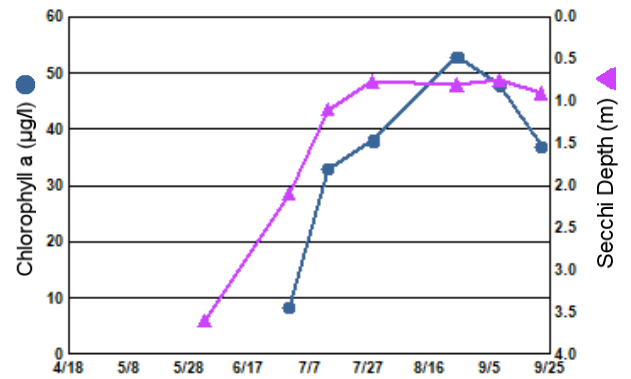
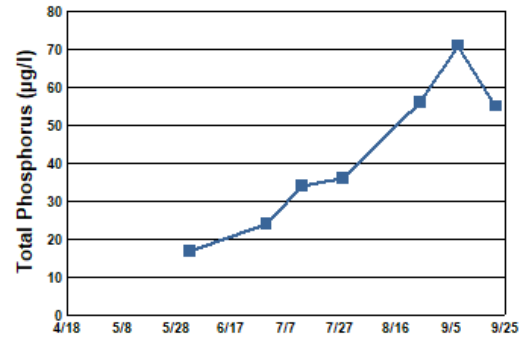
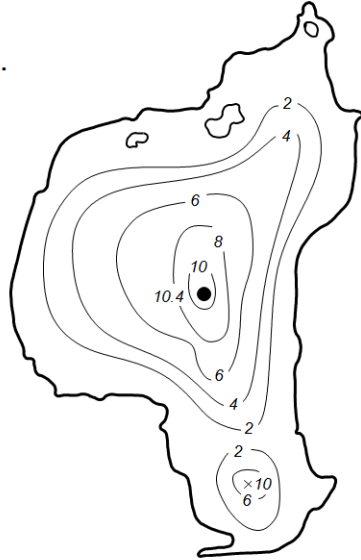
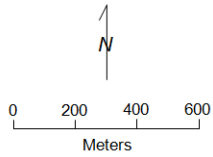
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Eagle Lake, Maple Grove, Hennepin Co.

Lake ID: 270111-01

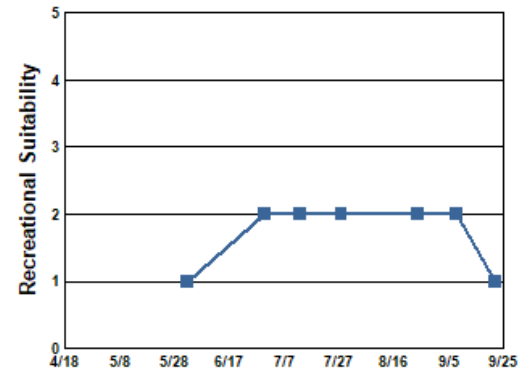
● Sampling site
Contours in meters



2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/02/24	20.6			17	3.6	1	1
06/30/24	23.8		8.4	24	2.1	3	2
07/13/24	26.4		33	34	1.1	3	2
07/28/24	26.6		38	36	0.8	3	2
08/25/24	24.4		53	56	0.8	3	2
09/08/24	21.6		48	71	0.8	3	2
09/22/24	21.5		37	55	0.9	3	1

1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	C			C			C	C				C
CLA	D			C			B	C				C
Secchi	D			C			C	C				C
Lake Grade	D			C			C	C				C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		B			B	B	B		C		C	
CLA		B			B	A	B		A		A	
Secchi		B			C	C	C		B		D	
Lake Grade		B			B	B	B		B		C	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C				B			D			
CLA		B				B			C			
Secchi		B				A			C			
Lake Grade		B				B			C			

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP						C			C
CLA						B			C
Secchi						B			C
Lake Grade						B			C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Earley Lake (19–0033) City of Burnsville

Volunteer: Nancy Norlen, Jim Norlen

Earley Lake is located within the City of Burnsville in Dakota County. The 29-acre lake receives flow from Crystal Lake (Burnsville) and the Earley Lake watershed. Most of its 1,629-acre watershed is either parkland or open space. The watershed-to-lake size ratio is a rather large 56:1. The greater the ratio, the greater the potential stress on the lake from surface runoff. Earley Lake drains at its west end to Sunset Pond.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2006.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

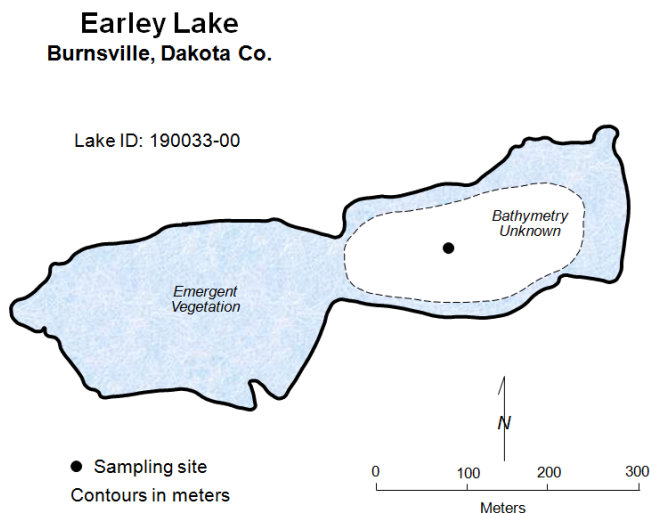
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	40	18	69	C
CLA (µg/l)	15	2.3	47	B
Secchi (m)	>1.7	1.1	>2.1	C
TKN (mg/l)				
			Lake Grade	C

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of C which is consistent with its historical water quality database. The lake's water quality typically varies in the B to C range. The relatively low CLA concentrations in combination with the observations of moderate to substantial macrophyte growth, indicate that the primary production of the lake is focused on production of aquatic macrophytes rather than algae.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

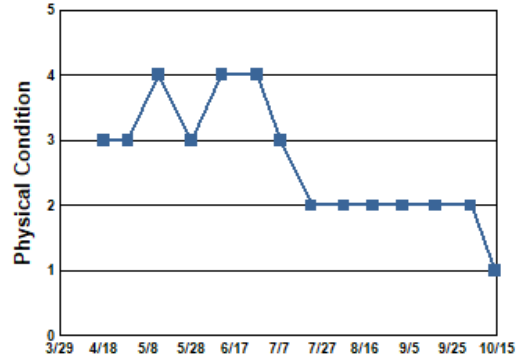
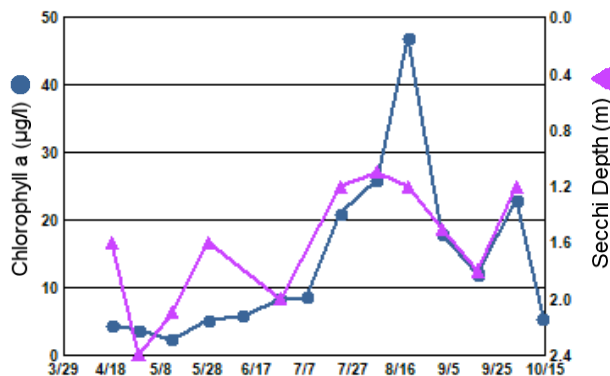
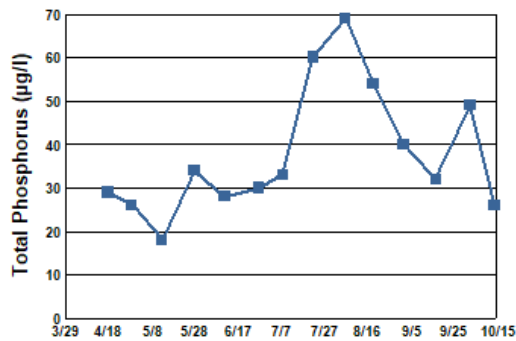
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.



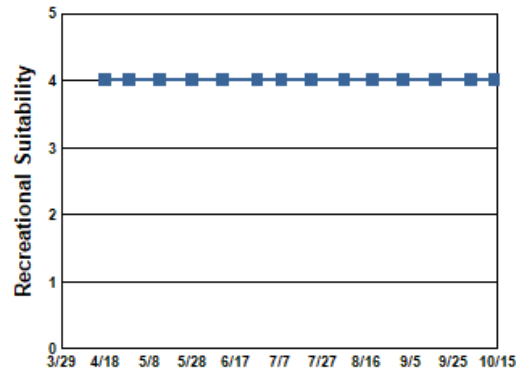
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	11.0		4.4	29	1.6	3	4
04/29/24	11.0		3.7	26	2.4	3	4
05/13/24	22.0		2.3	18	2.1	4	4
05/28/24	18.0		5.2	34	1.6	3	4
06/11/24	23.0		5.8	28	>2.0	4	4
06/27/24	25.0		8.3	30	2.0	4	4
07/08/24	27.0		8.6	33	>2.1	3	4
07/22/24	25.0		21	60	1.2	2	4
08/06/24	22.0		26	69	1.1	2	4
08/19/24			47	54	1.2	2	4
09/02/24	22.0		18	40	1.5	2	4
09/17/24	24.0		12	32	1.8	2	4
10/03/24	17.0		23	49	1.2	2	4
10/14/24	13.0		5.4	26	+2.2	1	4

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.
> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C	C	C	C	C	C	C	C	C	C
CLA			B	B	B	B	B	B	B	B	B	B
Secchi			C	C	C	C	C	C	C	C	C	C
Lake Grade			C	C	C	C	C	C	C	C	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	C	C	C	C	B	C	C	C	B
CLA	B	B	A	B	A	A	B	A	A	B	A	A
Secchi	C	C	C	C	C	C	C	C	C	C	C	C
Lake Grade	C	C	B	C	B	B	C	B	B	C	B	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	D	C	C	C	C	C	C	C
CLA	A	B	A	A	A	A	B	A	B
Secchi	C			C	C				C
Lake Grade	B			B	B				C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

East Lake (19–0349) *City of Lakeville*

Monitoring Personnel: City of Lakeville staff

East Lake is a small lake located in Lakeville (Dakota County). The lake is shallow, with a maximum depth of about 3.0 m. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2012.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

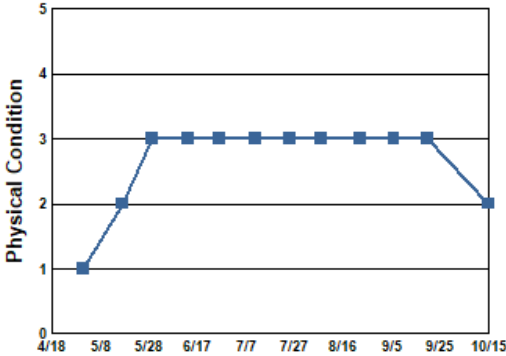
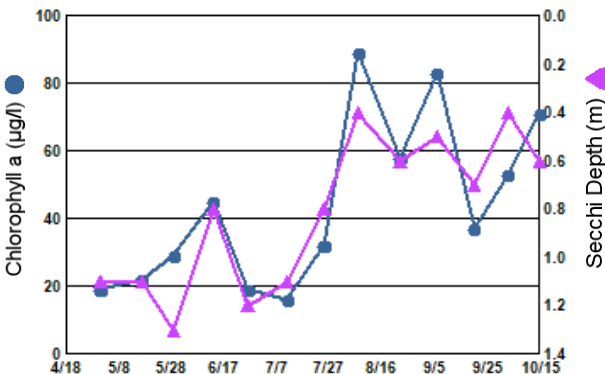
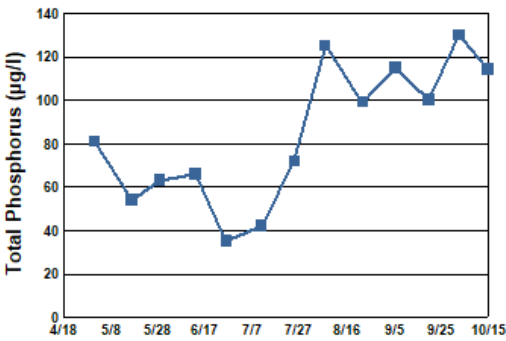
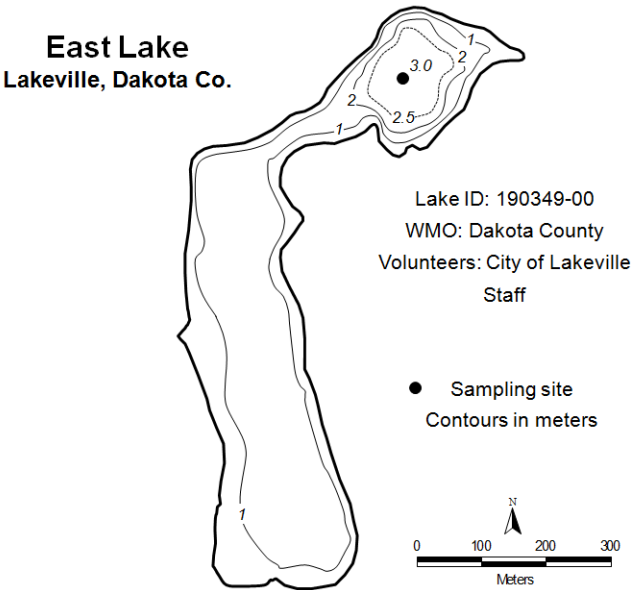
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	77	35	125	D
CLA (µg/l)	41	16	89	C
Secchi (m)	0.9	0.4	1.3	D
TKN (mg/l)				
			Lake Grade	D

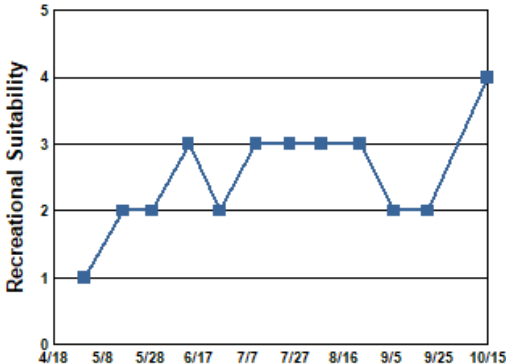
The lake received a lake grade of D this year. The lake grades typically fluctuate between D and F with the occasional C.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/01/24	15.4		19	81	1.1	1	1
05/17/24	23.1		22	54	1.1	2	2
05/29/24	23.6		29	63	1.3	3	2
06/13/24	24.8		45	66	0.8	3	3
06/26/24	27.9		19	35	1.2	3	2
07/11/24	31.1		16	42	1.1	3	3
07/25/24	27.0		32	72	0.8	3	3
08/07/24	23.9		89	125	0.4	3	3
08/23/24	22.8		58	99	0.6	3	3
09/06/24	21.9		83	115	0.5	3	2
09/20/24	24.1		37	100	0.7	3	2
10/03/24	18.3		53	130	0.4		
10/15/24	12.3		71	114	0.6	2	4

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		F		F	D		D	F	D	D	C	D
CLA		F		F	F		D	F	F	C	C	D
Secchi		F		F	D		F	F	F	D	D	F
Lake Grade		F		F	D		D	F	F	D	C	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	C	D	D	D	D	D
CLA	D	D	F	C	D	D	F	F	C
Secchi	F	D	F	D	D	F	F	F	D
Lake Grade	D	D	F	C	D	D	F	F	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Edith Lake (82–0004) Valley Branch Watershed District

Volunteers: Joseph Reithmeyer, Joel Jensen

Edith Lake is a 81-acre lake located within Afton (Washington County). The lake has a maximum depth of approximately 13.0 m (43 feet).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

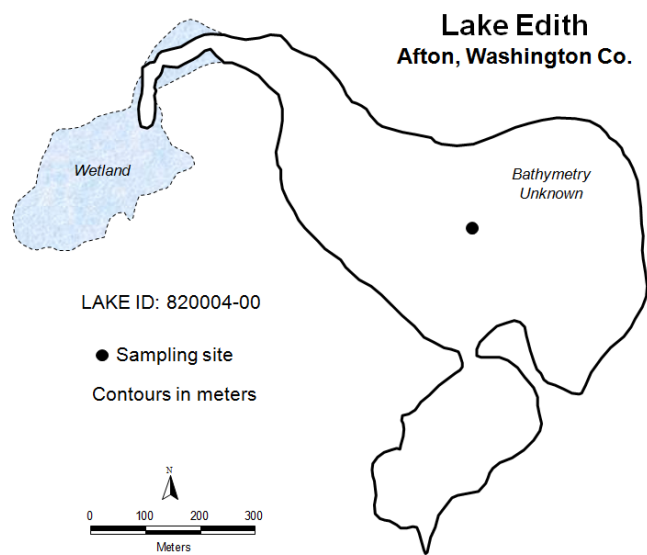
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	14	11	16	A
CLA (µg/l))	3.4	1.5	6.0	A
Secchi (m)	2.7	1.8	3.8	B
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A. For the years that the lake has been monitored via the CAMP, the lake has fluctuated between a lake grade of A and B with A's dominating for the past 10 years.

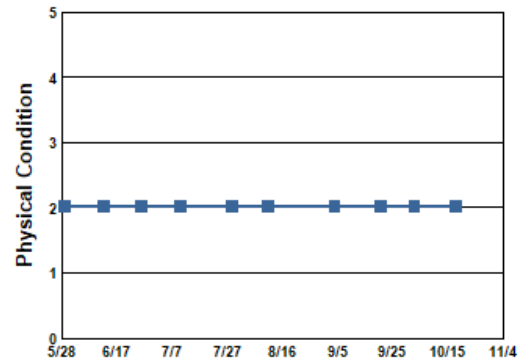
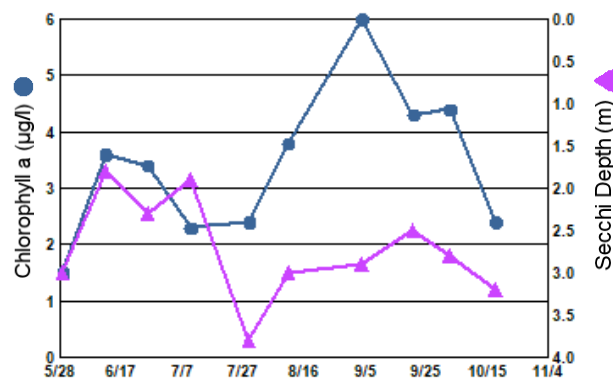
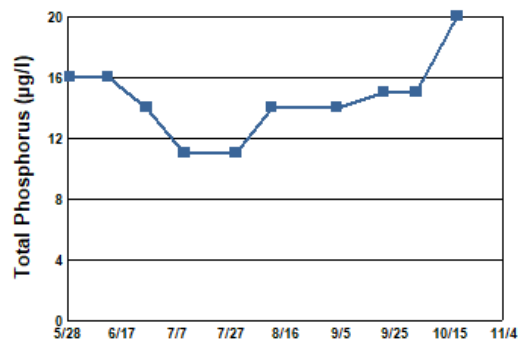
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

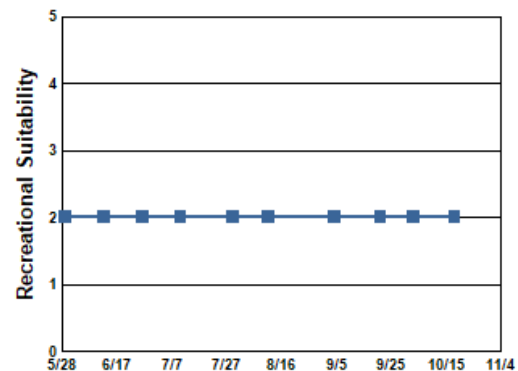
**2024 Data**

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/29/24	20.2		1.5	16	3.0	2	2
06/12/24	21.7		3.6	16	1.8	2	2
06/26/24	25.0		3.4	14	2.3	2	2
07/10/24	26.1		2.3	11	1.9	2	2
07/29/24	21.1		2.4	11	3.8	2	2
08/11/24	24.1		3.8	14	3.0	2	2
09/04/24	22.7		6.0	14	2.9	2	2
09/21/24	24.2		4.3	15	2.5	2	2
10/03/24	18.6		4.4	15	2.8	2	2
10/18/24	13.4		2.4	20	3.2	2	2



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5 = Severe Algal Bloom



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5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		A	B	A	B	B		B	B	A	A	A
CLA		A	A	A	A	A		A	A	A	A	A
Secchi		B	C	B	C	C		B	B	B	B	B
Lake Grade		A	B	A	B	B		B	B	A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	A	A	A	B	A	A
CLA	A	A	A	A	A	A	A	A	A
Secchi	B	A	B	A	A	A	B	B	B
Lake Grade	A	A	A	A	A	A	B	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Farquar Lake (19–0023) *City of Apple Valley*

Volunteer: Jeff Christianson

Farquar Lake is located in the City of Apple Valley (Dakota County). The lake covers an area of 67 acres and has a maximum depth of 3.0 m (10 feet). The lake's mean depth of 1.4 m (4.6 feet) and surface area translates to an approximate lake volume of 290 ac-ft. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	105	62	149	D
CLA (µg/l)	69	6.5	140	D
Secchi (m)	0.8	0.5	1.4	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D. The lake's water quality ranges in the D to F range with the occasional C.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

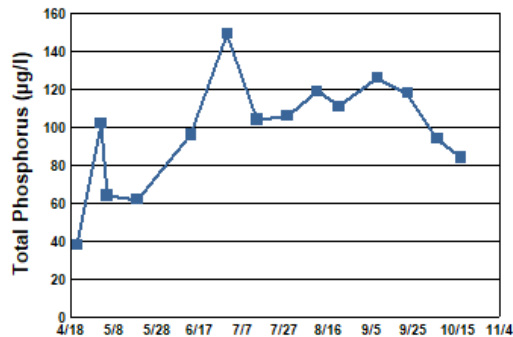
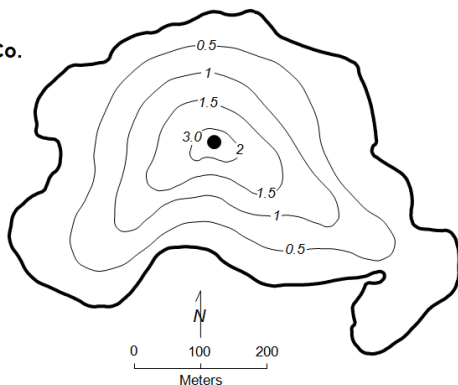
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Farquhar Lake Apple Valley, Dakota Co.

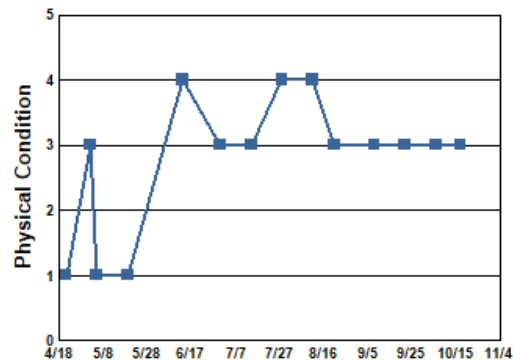
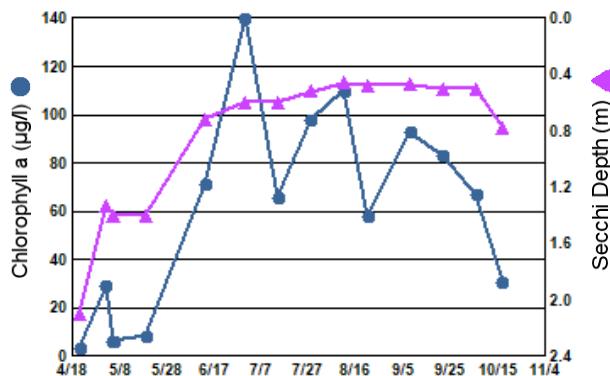
Lake ID: 190023-00

● Sampling site
Contours in meters

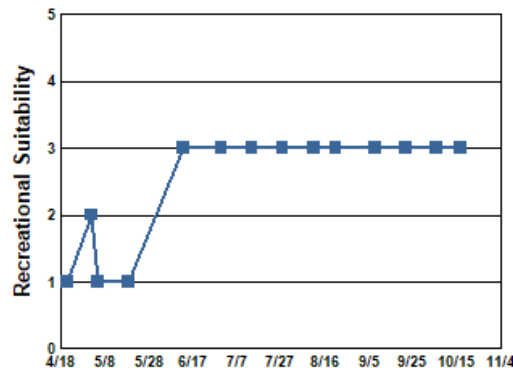


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	12.0		3.7	38	2.1	1	1
05/02/24	23.6		29	102	1.3	3	2
05/05/24	18.2		6.5	64	1.4	1	1
05/19/24	24.0		8.4	62	1.4	1	1
06/13/24	27.5		71	96	0.7	4	3
06/30/24	26.3		140	149	0.6	3	3
07/14/24	31.7		66	104	0.6	3	3
07/28/24	27.8		98	106	0.5	4	3
08/11/24	26.0		110	119	0.5	4	3
08/21/24	26.2		58	111	0.5	3	3
09/08/24	24.1		93	126	0.5	3	3
09/22/24	22.3		83	118	0.5	3	3
10/06/24	16.6		67	94	0.5	3	3
10/17/24	12.1		31	84	0.8	3	3



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Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C	D	D	D		F	F	F	F	D
CLA			B	C	C	D		F	F	F	F	F
Secchi			C	D	C	D		F	F	F	F	F
Lake Grade			C	D	C	D		F	F	F	F	F

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	F	F	F	F	D	F	D	D	F	D	D	D
CLA	F	D	C	D	F	F	D	F	F	C	F	D
Secchi	F	F	F	F	D	F	F	F	F	D	D	D
Lake Grade	F	F	D	F	D	F	D	F	F	D	D	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	C	D	D	D	D	D	C	D
CLA	D	C	C	C	F	D	D	C	D
Secchi	D	C	D	C	F	D	D	D	D
Lake Grade	D	C	D	C	F	D	D	C	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Fish Lake [Woodbury] (82–0093) *City of Woodbury*

Monitoring Personnel: Washington Conservation District staff

Fish Lake is located in the City of Woodbury (Washington County). It has a surface area of approximately 5 acres. Little morphological information is available for the lake. The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2024.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	99	78	128	D
CLA (µg/l))	14	1.8	29	B
Secchi (m)	+0.7	>0.5	+1.1	
TKN (mg/l)				
			Lake Grade	

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

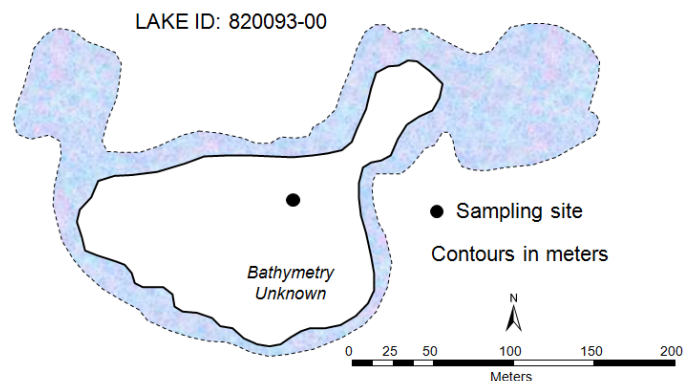
> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade. The TP and CLA parameter grades are consistent with its varying historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

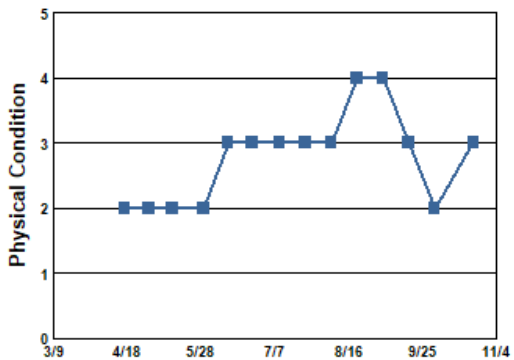
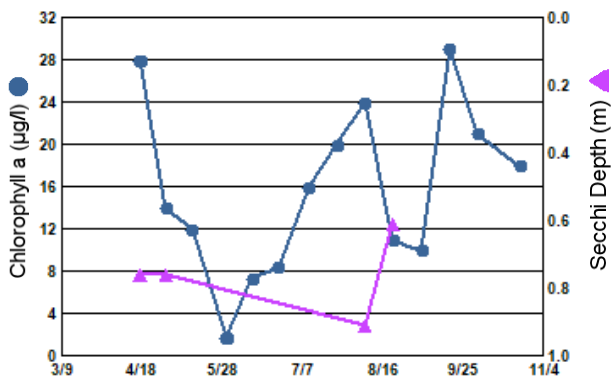
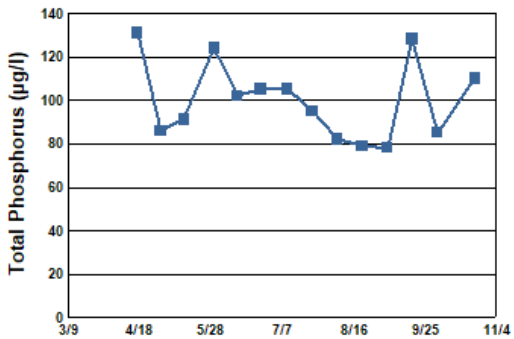
Fish Lake
Woodbury, Washington Co.



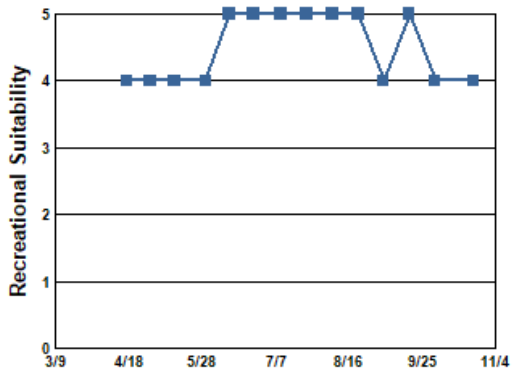
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/17/24	11.7		28	131	0.8	2	4
04/30/24	11.0		14	86	0.8	2	4
05/13/24	23.6		12	91	>0.6	2	4
05/30/24	19.4		1.8	124	>0.8	2	4
06/12/24	21.4		7.4	102	>0.5	3	5
06/25/24	24.8		8.4	105	+0.6	3	5
07/10/24	22.8		16	105	+0.6	3	5
07/24/24	23.6		20	95	+0.5	3	5
08/07/24	23.0		24	82	0.9	3	5
08/21/24	23.4		11	79	0.6	4	5
09/04/24	22.5		10	78	+1.1	4	4
09/18/24	21.4		29	128	>0.9	3	5
10/02/24	15.1		21	85	+0.9	2	4
10/23/24	13.6		18	110	>0.6	3	4

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.
> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



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Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP							F	D	F	D	D	D
CLA							F	D	F	B	D	D
Secchi							F	D	D	D		
Lake Grade							F	D	F	C		

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	D	D	C	D	D	D	D
CLA	B	B	B	B	B	C	B	C	B
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Forest Lake [West Basin] (82–0159) *Comfort Lake — Forest Lake Watershed District*

Volunteer: Steve Schmaltz

Sponsor: Comfort Lake — Forest Lake Watershed District

Forest Lake is located in the City of Forest Lake (Washington County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) The lake is divided into three distinct basins. The entire lake has a surface area of 2,249 acres. The mean and maximum depths are 3.4 m and 11.5 m, respectively. The lake's watershed area is 4,285 acres, which gives a relatively low watershed-to-lake area ratio of 1.9. The greater the ratio, the greater the potential stress on the lake from surface runoff.

The MPCA listed the lake as impaired with respect to aquatic consumption (PCBs in fish tissue) in 2002. The lake was delisted in 2020 for aquatic consumption for mercury in fish tissue. The MN DNR designated the lake as being infested with flowering rush (*Butomus umbellatus*) in 2007, Eurasian water milfoil (*Myriophyllum spicatum*) in 2015, and zebra mussels (*Dreissena polymorpha*) in 2015.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

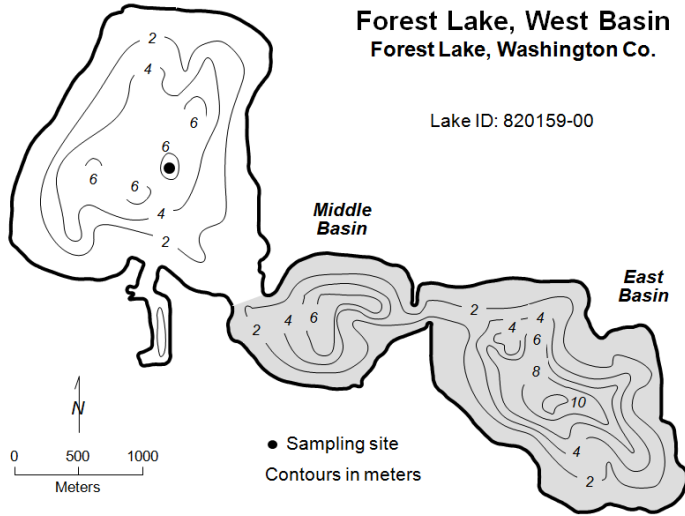
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	26	19	32	B
CLA (µg/l)	10	2.2	18	B
Secchi (m)	1.8	1.2	2.8	C
TKN (mg/l)				
			Lake Grade	B

The west basin received a lake grade of B. The water quality of the west basin has fluctuated between lake grades of B and C with the 3 recent A grades received in 2019, 2021 and 2022.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

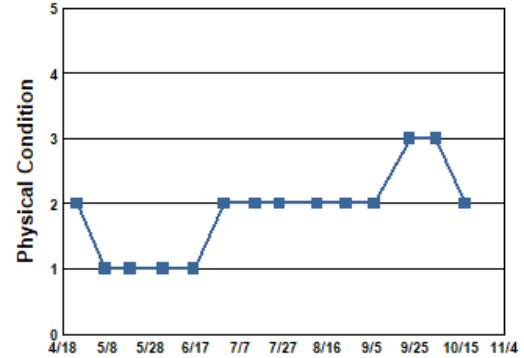
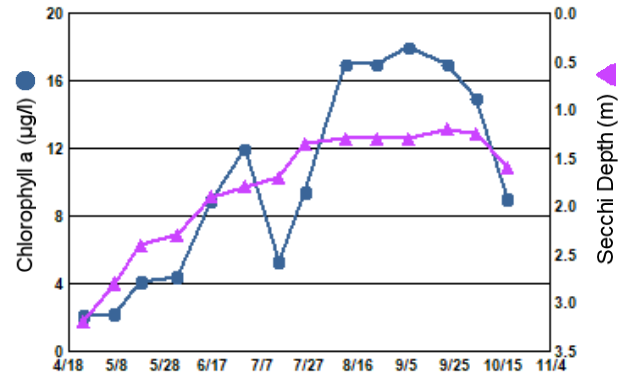
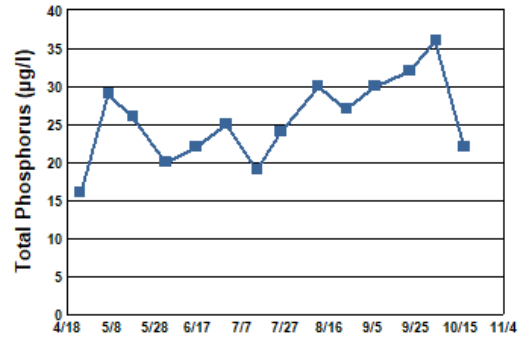
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

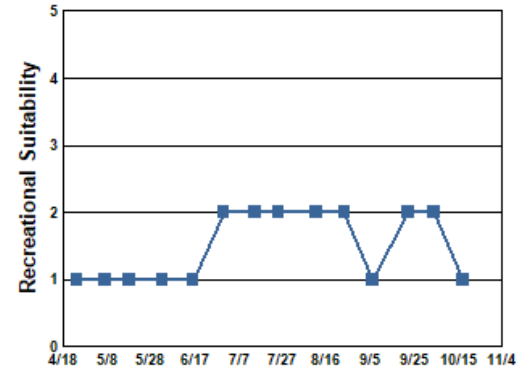


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/24/24	9.9		2.1	16	3.2	2	1
05/07/24	14.9		2.2	29	2.8	1	1
05/18/24	19.3		4.1	26	2.4	1	1
06/02/24	20.2		4.4	20	2.3	1	1
06/16/24	22.0		8.9	22	1.9	1	1
06/30/24	22.4		12	25	1.8	2	2
07/14/24	29.4		5.3	19	1.7	2	2
07/25/24	25.2		9.4	24	1.4	2	2
08/11/24	23.3		17	30	1.3	2	2
08/24/24	23.3		17	27	1.3	2	2
09/06/24	21.7		18	30	1.3	2	1
09/22/24	22.2		17	32	1.2	3	2
10/04/24	18.4		15	36	1.3	3	2
10/17/24	12.0		9.0	22	1.6	2	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					C		C	C	C	B		C
CLA					C		C		C	B	C	B
Secchi					C		C	C	C	C	C	C
Lake Grade					C		C		C	B		C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C			C	B	B	C	C	B	C	C
CLA		B			B	B	B	B	B	B	B	B
Secchi		C			C	C	C	C	C	C	C	C
Lake Grade		C			C	B	B	C	C	B	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	B	C	C	C	C	B	B	C	C	C	B	B
CLA	A	C	B	C	A	A	B	B	B	B	B	B
Secchi	B	C	C	C	C	C	C	C	C	C	D	C
Lake Grade	B	C	C	C	B	B	B	C	C	C	C	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	B	C	A	B	A	A	A	B
CLA	B	A	B	A	A	A	A	A	B
Secchi	C	C	C	B	C	B	B	C	C
Lake Grade	C	B	C	A	B	A	A	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Forest Lake [Middle Basin] (82–0159) *Comfort Lake — Forest Lake Watershed District*

Volunteer: Doug Joens

Sponsor: Comfort Lake — Forest Lake Watershed District

Forest Lake is located in the City of Forest Lake (Washington County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) The lake is divided into three distinct basins. The entire lake has a surface area of 2,249 acres. The mean and maximum depths are 3.4 m and 11.5 m, respectively. The lake's watershed area is 4,285 acres, which gives a relatively low watershed-to-lake area ratio of 1.9. The greater the ratio, the greater the potential stress on the lake from surface runoff.

The MPCA listed the lake as impaired with respect to aquatic consumption (PCBs in fish tissue) in 2002. The lake was delisted in 2020 for aquatic consumption for mercury in fish tissue. The MN DNR designated the lake as being infested with flowering rush (*Butomus umbellatus*) in 2007, Eurasian water milfoil (*Myriophyllum spicatum*) in 2015, and zebra mussels (*Dreissena polymorpha*) in 2015.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

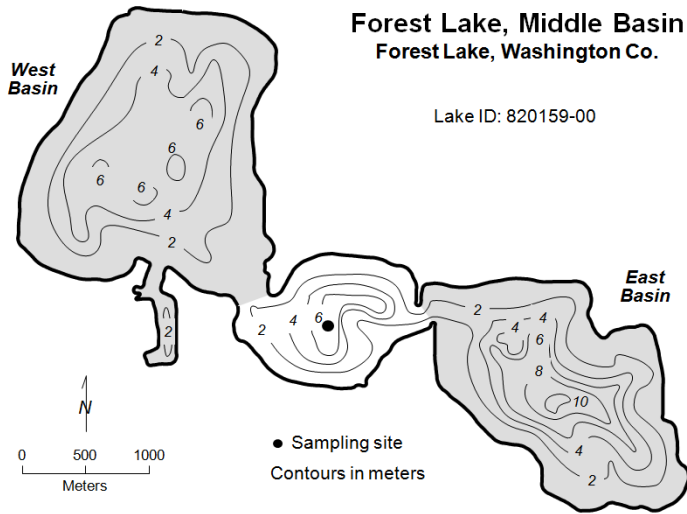
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	26	17	40	B
CLA (µg/l)	16	2.2	46	B
Secchi (m)	2.1	0.9	3.7	C
TKN (mg/l)				
			Lake Grade	B

The middle basin received a lake grade of B. The middle basin typically has received B and C grades but with an A grade received in 2023.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

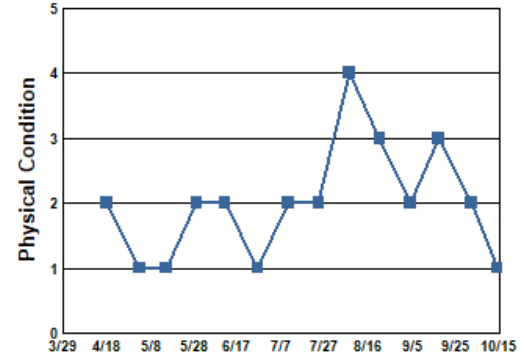
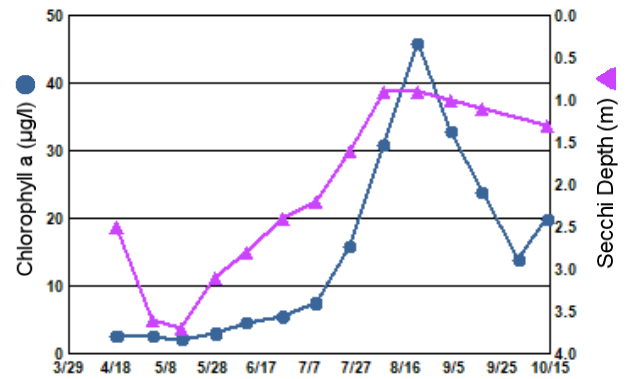
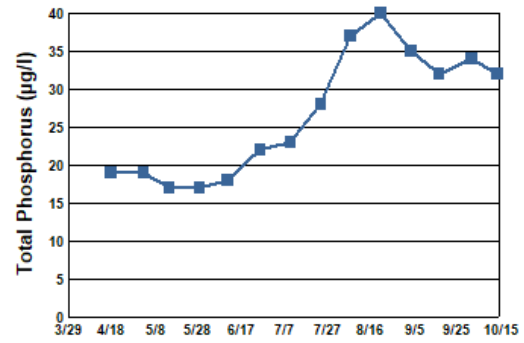
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.



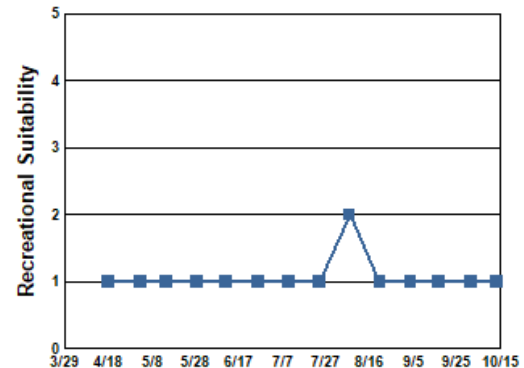
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	10.8		2.8	19	2.5	2	1
05/03/24	12.1		2.7	19	3.6	1	1
05/15/24	18.5		2.2	17	3.7	1	1
05/29/24	19.2		3.1	17	3.1	2	1
06/11/24	21.2		4.7	18	2.8	2	1
06/26/24	24.8		5.6	22	2.4	1	1
07/10/24	26.7		7.6	23	2.2	2	1
07/24/24	25.5		16	28	1.6	2	1
08/07/24	25.1		31	37	0.9	4	2
08/21/24	24.2		46	40	0.9	3	1
09/04/24	21.9		33	35	1.0	2	1
09/17/24	23.6		24	32	1.1	3	1
10/02/24	18.8		14	34	+0.9	2	1
10/14/24	13.8		20	32	1.3	1	1

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					C		C	C	C	B		C
CLA					C		C		C	B	B	B
Secchi					C		C	C	C	C	C	C
Lake Grade					C		C		C	B		C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C		B							A	
CLA		B		B							B	
Secchi		C		C							C	
Lake Grade		C		B							B	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	C					C	C	B	B	B
CLA		C	B					B	B	B	B	B
Secchi		C	C			B		C	C	C	C	C
Lake Grade		C	C					C	C	B	B	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	B	C	C	B	B	A	B
CLA	B	B	B	B	C	A	B	A	B
Secchi	C	B	B	B	C	B	C	B	C
Lake Grade	C	B	B	B	C	B	B	A	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Forest Lake [East Basin, Site 3] (82–0159) *Comfort Lake — Forest Lake Watershed District*

Sponsor: Comfort Lake — Forest Lake Watershed District

Monitoring Personnel: Comfort Lake — Forest Lake Watershed District staff

Forest Lake is located in the City of Forest Lake (Washington County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) The lake is divided into three distinct basins. The entire lake has a surface area of 2,249 acres. The mean and maximum depths are 3.4 m and 11.5 m, respectively. The east basin is the deepest of the three basins. The lake's watershed area is 4,285 acres, which gives a relatively low watershed-to-lake area ratio of 1.9. The greater the ratio, the greater the potential stress on the lake from surface runoff.

The MPCA listed the lake as impaired with respect to aquatic consumption (PCBs in fish tissue) in 2002. The lake was delisted in 2020 for aquatic consumption for mercury in fish tissue. The MN DNR designated the lake as being infested with flowering rush (*Butomus umbellatus*) in 2007, Eurasian water milfoil (*Myriophyllum spicatum*) in 2015, and zebra mussels (*Dreissena polymorpha*) in 2015.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	28	16	45	B
CLA (µg/l)	17	2.6	41	B
Secchi (m)	>2.1	1.0	3.8	C
TKN (mg/l)				
			Lake Grade	B

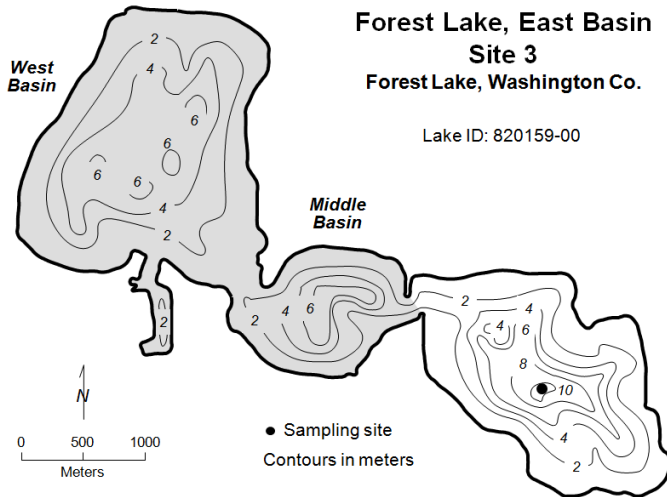
> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The east basin received a lake grade of B. The east basin has typically received B and C lake grades but has received more B's than C's since 2012. Prior to 2012 the east basin received mainly C lake grades.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

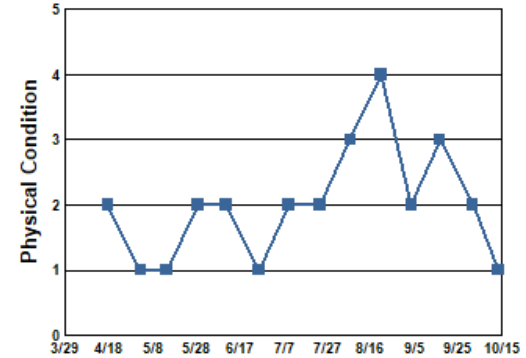
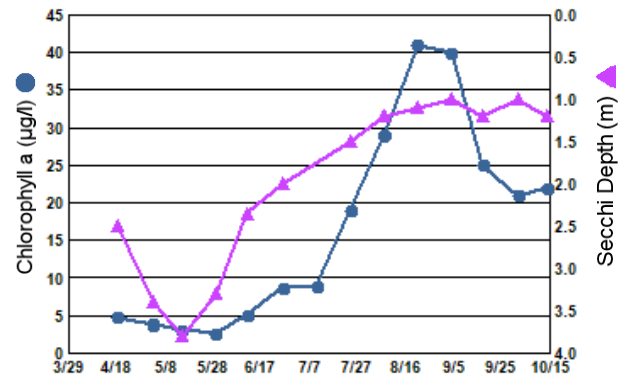
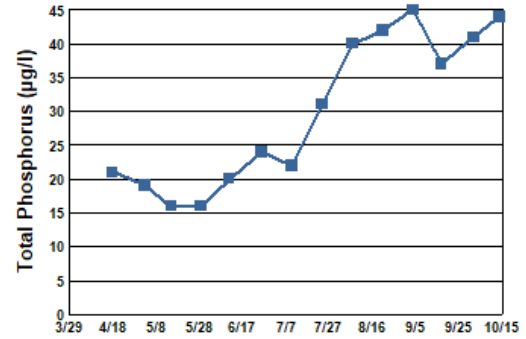
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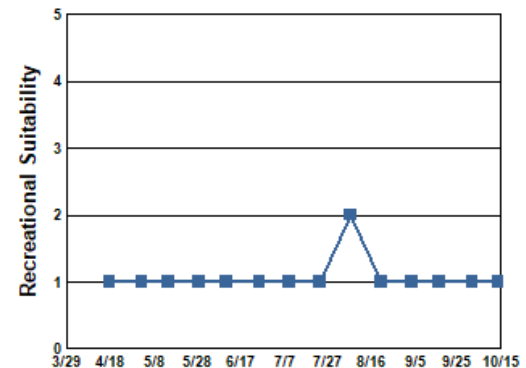
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	10.2		4.8	21	2.5	2	1
05/03/24	12.0		3.8	19	3.4	1	1
05/15/24	18.7		3.1	16	3.8	1	1
05/29/24	19.9		2.6	16	3.3	2	1
06/11/24	21.0		5.1	20	2.4	2	1
06/26/24	23.7		8.7	24	2.0	1	1
07/10/24	28.0		8.9	22	>1.9	2	1
07/24/24	26.1		19	31	1.5	2	1
08/07/24	25.4		29	40	1.2	3	2
08/21/24	24.5		41	42	1.1	4	1
09/04/24	22.0		40	45	1.0	2	1
09/17/24	23.4		25	37	1.2	3	1
10/02/24	19.4		21	41	1.0	2	1
10/14/24	14.2		22	44	1.2	1	1

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	C				C		D	C		B		B
CLA	D				C		C			B	B	C
Secchi	C				C		C	C	C	C	C	C
Lake Grade	C				C		C			B		C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C			C						B	
CLA		B			B						B	
Secchi		C			C						C	
Lake Grade		C			C						B	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	C					C	C	B	B	B
CLA		C	B					C	B	B	A	B
Secchi		C	C			C	C	D	B	C	C	B
Lake Grade		C	C					C	B	B	B	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	B	B	B	C	A	B
CLA	C	B	B	B		B	B	A	B
Secchi	C	B	C	B	B	A	C	B	C
Lake Grade	C	B	C	B		B	C	A	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

George Watch Lake (02–0005) Rice Creek Watershed District

Volunteer: Wargo Nature Center, Eric Vehe, Todd Murawski

George Watch Lake is located in the city of Lino Lakes (Anoka County). The 528-acre lake has a mean and maximum depth of 1.5 m (5 feet) and 2.0 m (6.5 feet). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](#) The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column. The major land uses within the lake's immediate watershed are undeveloped and park land.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2016.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)				
CLA (µg/l)				
Secchi (m)		>		
TKN (mg/l)				
			Lake Grade	

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

There were insufficient data to calculate parameter grades. At least 5 values are needed within the summer-time period (May — September) to calculate a parameter grade. All three parameter grades are required to determine a lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

George Watch Lake

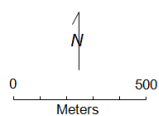
Lino Lakes, Anoka Co.

Lake ID: 20005-00

2.0 Buoy

Bathymetry
UnknownEmergent
Vegetation

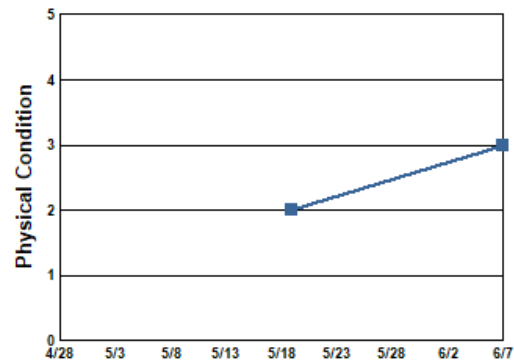
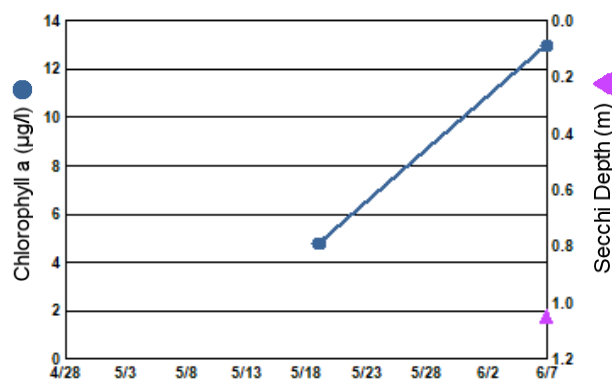
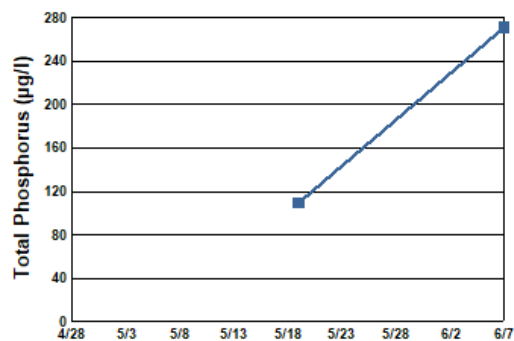
● Sampling site
Contours in meters



2024 Data

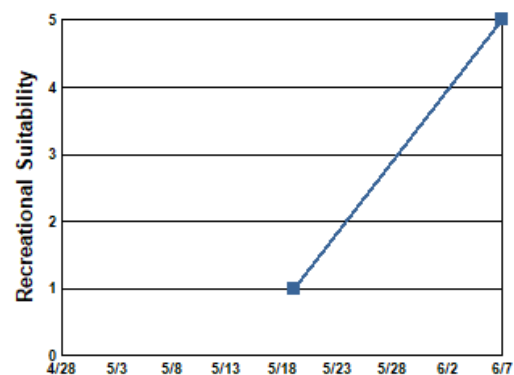
Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/ l)	Secchi (m)	PC	RS
05/19/ 24	20.4		4.8	109	>0.8	2	1
06/07/ 24	21.4		13	270	1.1	3	5

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP		F	F	F		F		F	F	F	F	F
CLA		F	C	B		B		C	B	D	C	F
Secchi		F	D	F		F		F	F	F	D	F
Lake Grade		F	D	D		D		D	D	F	D	F

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP					F	D	F	D	D	F	D	F
CLA					D	C	D	C	C	F	D	C
Secchi					F	F	F	D	F	D	F	D
Lake Grade					F	D	F	D	D	F	D	D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	F	F	F	F	F	D	D	D	F	F	D	D
CLA	D	C	F	D	C	B	C	C	F	F	C	C
Secchi	F	F	F	F	F	F	F	D	F	F		F
Lake Grade	F	D	F	F	D	D	D	D	F	F		D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	F	F	F						
CLA	D	C							
Secchi	F	F	F						
Lake Grade	F	D							

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Haas Lake (70–0078) *Prior Lake — Spring Lake Watershed District*

Volunteer: Thomas Chaklos

Haas Lake is located in the city of Prior Lake (Scott County). It has a surface area of 32 acres. No other morphological data are available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	63	32	99	C
CLA (µg/l))	21	2.7	75	C
Secchi (m)	>0.8	>0.3	>1.0	
TKN (mg/l)				
			Lake Grade	

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The TP and CLA grades of C and C, respectively, are consistent with its historical water quality database. There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. At least 5 values are needed within the summer-time period (May — September) to calculate a parameter grade. A lake grade was not given because all three parameter grades are required to issue a lake grade.

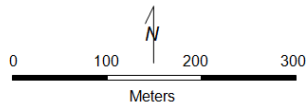
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Haas Lake, Prior Lake, Scott Co.

LAKE ID: 700078-00
WD: Prior Lake-Spring Lake

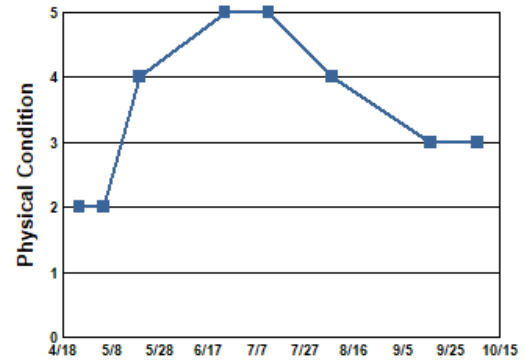
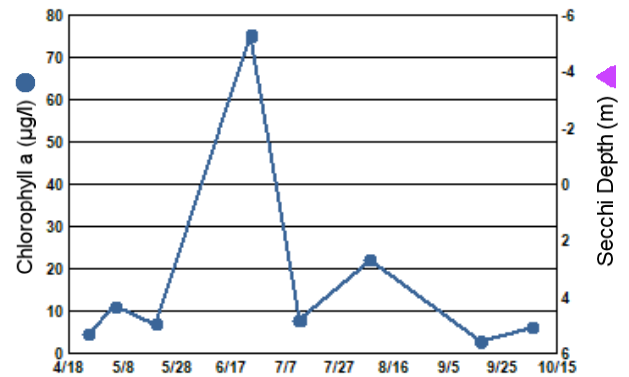
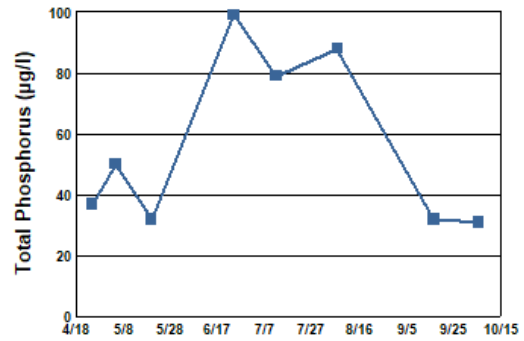
- Sampling site
- Contours in meters



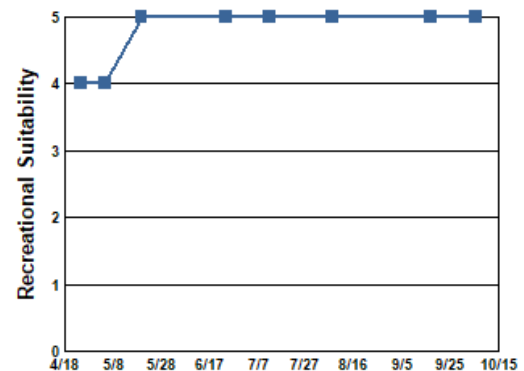
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/25/24	15.7		4.6	37	+1.0	2	4
05/05/24	20.5		11	50	>1.0	2	4
05/20/24	23.2		6.8	32	>1.0	4	5
06/24/24	22.4		75	99	>0.8	5	5
07/12/24	24.9		7.8	79	>0.3	5	5
08/07/24	24.6		22	88	>1.0	4	5
09/17/24	25.4		2.7	32	>1.0	3	5
10/06/24	16.8		6.1	31	>0.8	3	5

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.
> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



- 1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



- 1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	D		C	D	C
CLA	D	A	B	A		A	A	B	C
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Hannan Lake (27–0052) *City of St. Louis Park*

Volunteer: Joshua Claypool

Hannan Lake is located in the city of St. Louis Park (Hennepin County). The lake has a surface area of 29 acres and a maximum depth of about 1.5 m. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	77	51	136	D
CLA (µg/l))	21	3.6	63	C
Secchi (m)	>1.1	0.8	1.4	D
TKN (mg/l)				
			Lake Grade	D

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

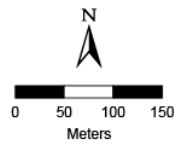
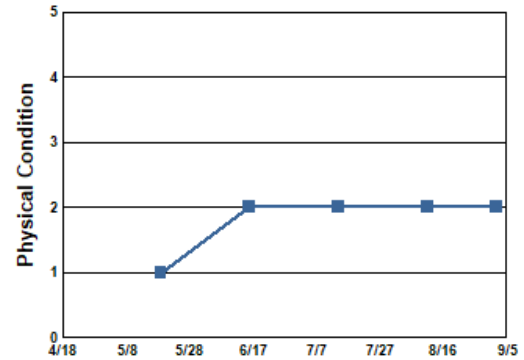
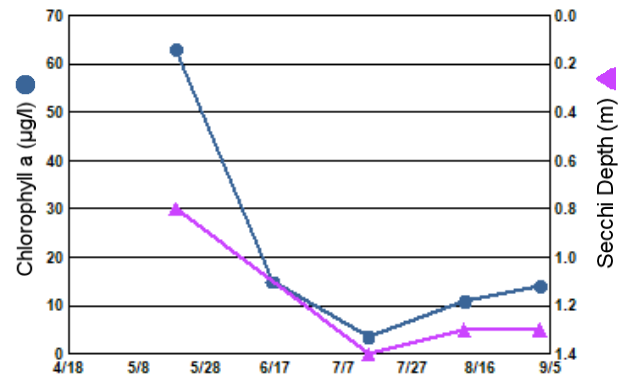
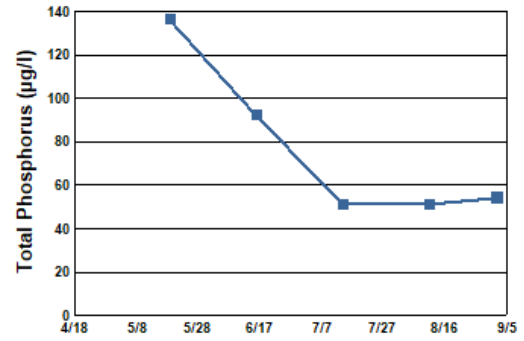
The lake received a lake grade D. Continued monitoring is recommended to build the water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

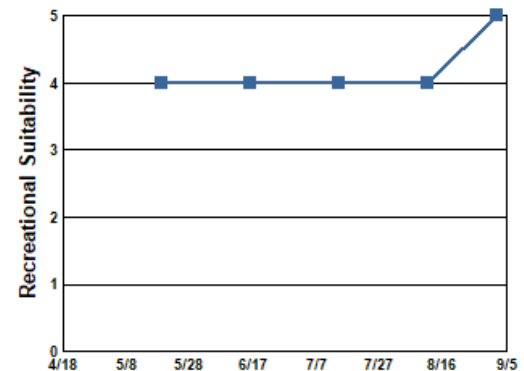
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Hannan Lake St. Louis Park, Hennepin County

Lake ID: 27005200


● Sampling site
contours in meters


1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/19/24	21.7		63	136	0.8	1	4
06/16/24	23.4		15	92	>0.9	2	4
07/14/24	29.9		3.6	51	1.4	2	4
08/11/24	23.5		11	51	1.3	2	4
09/02/24	24.2		14	54	1.3	2	5

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP							C		D
CLA							A		C
Secchi									D
Lake Grade									D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Heifort's Pond (82–0485) *Brown's Creek Watershed District*

Volunteer: Steve Seeman

Heifort's Pond is small pond located in Stillwater Township (Washington County). Few morphological data are available for the pond.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	56	39	68	C
CLA (µg/l))	39	20	61	C
Secchi (m)	0.8	0.5	1.0	F
TKN (mg/l)				
			Lake Grade	D

Note that the lake grades shown in the data summary table above were calculated from monitoring data sets from both the volunteer and Washington Conservation District staff. The mean, minimum, and maximum values shown in the above data summary table and the results in the data table on the following page are specific to the volunteer's monitoring data. The pond received a lake grade of D this year which is consistent with its historical water quality database, which has been varying in the D to F range. Continued monitoring is recommended to continue to build the water quality database.

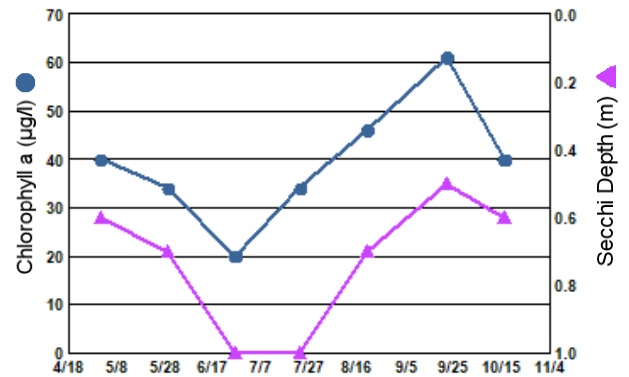
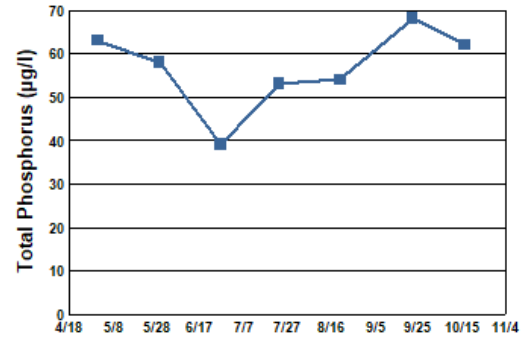
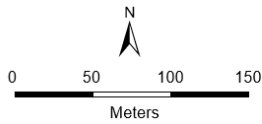
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Heifort's Pond Stillwater, Washington Co.

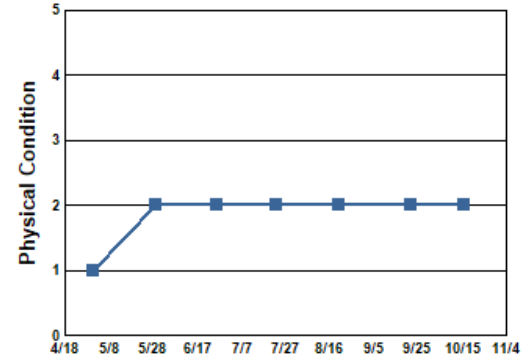
Lake ID: 82048500

- Sampling site
- Contours in meters

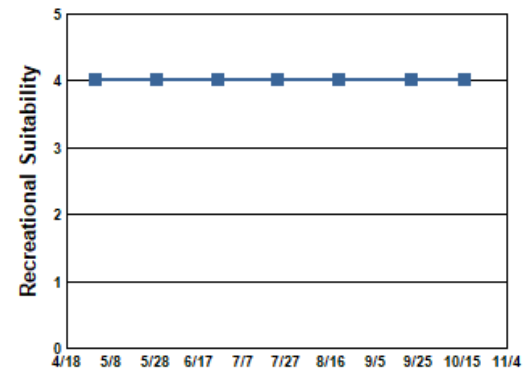


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/01/24	16.0		40	63	0.6	1	4
05/29/24	21.2		34	58	0.7	2	4
06/26/24	26.1		20	39	1.0	2	4
07/23/24	25.9		34	53	1.0	2	4
08/20/24	24.7		46	54	0.7	2	4
09/22/24	21.0		61	68	0.5	2	4
10/16/24	11.9		40	62	0.6	2	4



- 1 = Crystal Clear
- 2 = Some Algae Present
- 3 = Definite Algal Presence
- 4 = High Algal Color
- 5 = Severe Algal Bloom



- 1 = Beautiful
- 2 = Minor Aesthetic Problem
- 3 = Swimming Impaired
- 4 = No Swimming; Boating OK
- 5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		D	D	D	D	D	D	D	C
CLA		F	F	D	D	F	D	D	C
Secchi		F	F	F	F	F	F	F	F
Lake Grade		F	F	D	D	F	D	D	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Heifort's Pond (82–0485) *Brown's Creek Watershed District*

Monitoring Personnel: Washington Conservation District staff

Heifort's Pond is small pond located in Stillwater Township (Washington County). Few morphological data are available for the pond.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	52	29	70	C
CLA (µg/l)	44	13	89	C
Secchi (m)	0.5	0.3	0.9	F
TKN (mg/l)				
			Lake Grade	D

Note that the lake grades shown in the data summary table above were calculated from monitoring data sets from both the volunteer and Washington Conservation District (WCD) staff. The mean, minimum, and maximum values shown in the above data summary table and the results in the data table on the following page are specific to WCD staff monitoring data. The pond received a lake grade of D this year which is consistent with its historical water quality database, which has been varying in the D to F range. Continued monitoring is recommended to continue to build the water quality database.

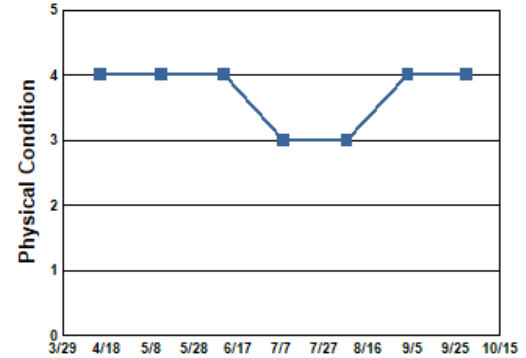
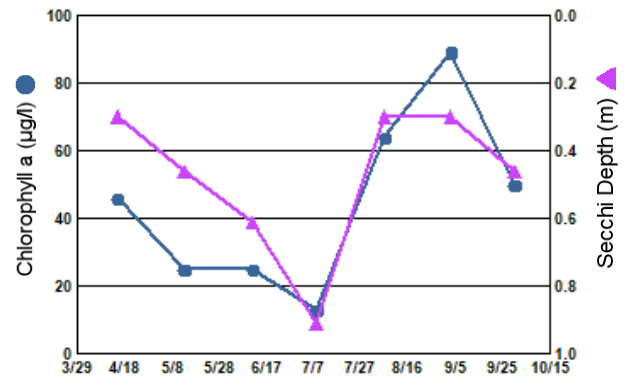
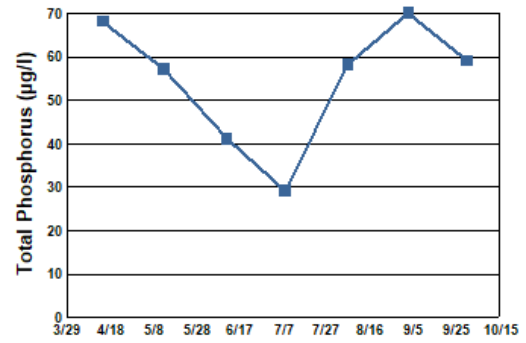
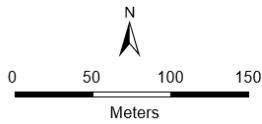
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Heifort's Pond Stillwater, Washington Co.

Lake ID: 82048500

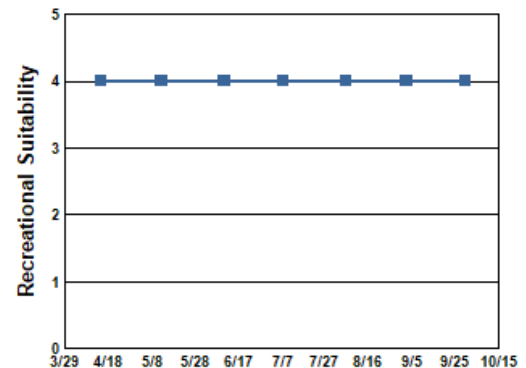
- Sampling site
- Contours in meters



2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/15/24	16.1		46	68	0.3	4	4
05/13/24	21.1		25	57	0.5	4	4
06/11/24	22.4		25	41	0.6	4	4
07/08/24	25.1		13	29	0.9	3	4
08/06/24	23.8		64	58	0.3	3	4
09/03/24	23.0		89	70	0.3	4	4
09/30/24	20.9		50	59	0.5	4	4

- 1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



- 1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		D	D	D	D	D	D	D	C
CLA		F	F	D	D	F	D	D	C
Secchi		F	F	F	F	F	F	F	F
Lake Grade		F	F	D	D	F	D	D	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Hornbeam Lake (19–0047) *City of Sunfish Lake*

Volunteer: Scott Spaeth

Hornbeam Lake is located within the City of Sunfish Lake (Dakota County). It has an area of approximately 22-acres. There are few morphological data available for the lake other than the depth at the sampling point is approximately 3.5 m. The lake is referred officially as Hornbean Lake in the Minnesota Public Waters Inventory, which according to local residents and older reference documents is a typological error. The USGS performed a water quality study on the lake in 1975 and 1976.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

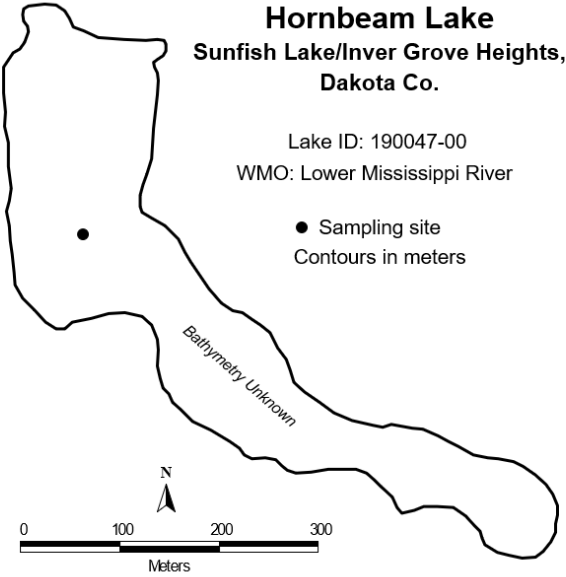
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	34	26	42	C
CLA (µg/l))	6.7	3.3	16	A
Secchi (m)	2.3	2.0	2.6	B
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B, which is consistent with its historical water quality database. The lake varies in the B to C lake grade range.

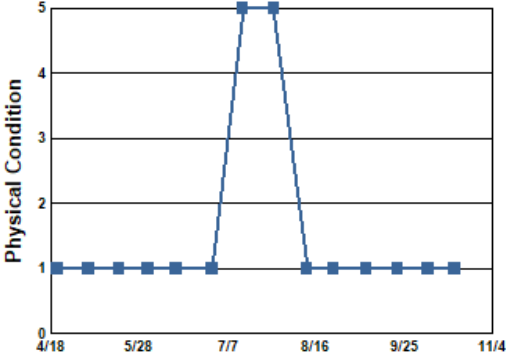
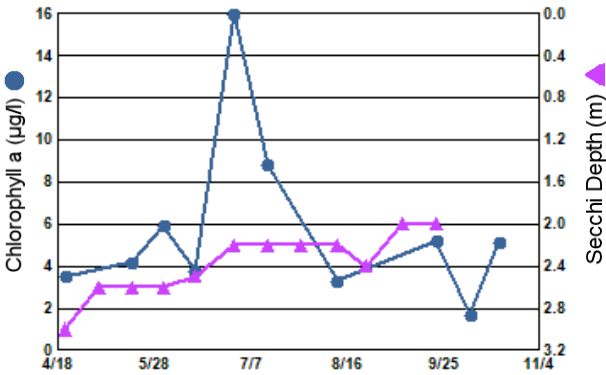
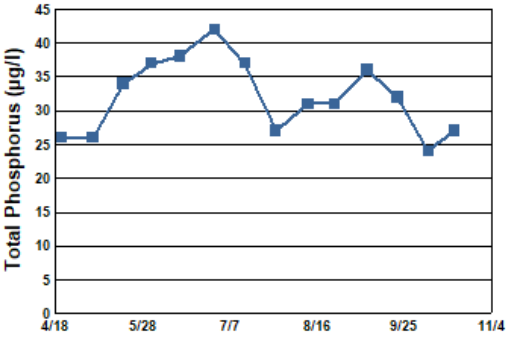
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

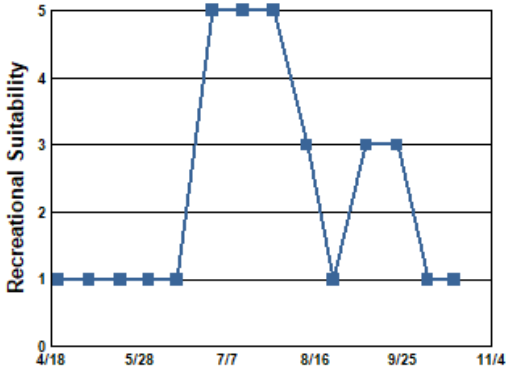


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/ 24	9.9		3.5	26	3.0	1	1
05/05/ 24	16.5			26	2.6	1	1
05/19/ 24	20.3		4.2	34	2.6	1	1
06/01/ 24	20.4		5.9	37	2.6	1	1
06/14/ 24	22.5		3.8	38	2.5	1	1
06/30/ 24	24.5		16	42	2.2	1	5
07/14/ 24	26.6		8.8	37	2.2	5	5
07/28/ 24	29.6			27	2.2	5	5
08/12/ 24	25.1		3.3	31	2.2	1	3
08/24/ 24	24.1			31	2.4	1	1
09/08/ 24	20.4			36	2.0	1	3
09/22/ 24	22.5		5.2	32	2.0	1	3
10/06/ 24	19.5		1.7	24		1	1
10/18/ 24	13.5		5.1	27		1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			C	C	C						C	C
CLA			B	C	A						C	C
Secchi			C	C	B							D
Lake Grade			C	C	B							C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	B	C	B	C	C	C	C
CLA	C	B	A	A	A		B	A	A
Secchi	D	C	B	C	B	B	C	B	B
Lake Grade	C	C	B	B	B		C	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Horseshoe Lake [Sunfish Lake] (19–0051) *City of Sunfish Lake*

Volunteer: John Oakman

Horseshoe Lake is a 16-acre lake located within the City of Sunfish Lake (Dakota County). There is little morphological information available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	33	27	42	C
CLA (µg/l))	4.7	3.3	6.9	A
Secchi (m)	>2.1	>1.9	>2.6	
TKN (mg/l)				
			Lake Grade	

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a TP grade and CLA grade of C and A, respectively, which is consistent with the lake's historical water quality database. There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade.

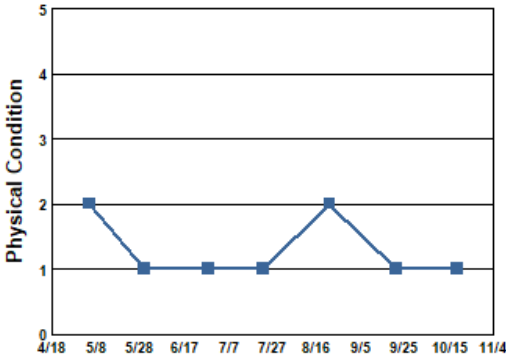
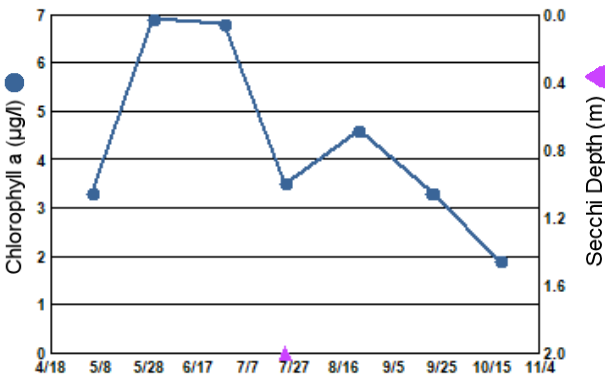
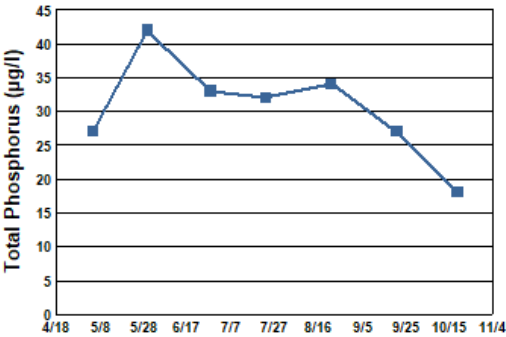
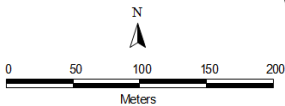
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Horseshoe Lake
Sunfish Lake, Dakota Co.

Lake ID: 190051-00

● Sampling site
Contours in meters

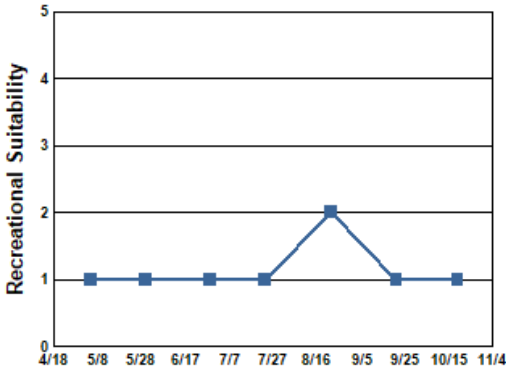


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	19.8		3.3	27	>2.2	2	1
05/30/24	22.7		6.9	42	>1.9	1	1
06/28/24	26.0		6.8	33	>2.1	1	1
07/23/24	25.5		3.5	32	2.0	1	1
08/22/24	24.0		4.6	34	>2.0	2	2
09/21/24	24.1		3.3	27	>2.6	1	1
10/19/24	12.5		1.9	18	>3.0	1	1

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

- 1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
- 4 = High Algal Color
5 = Severe Algal Bloom



- 1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
- 4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			C	C	A	B	C	A	C	B	B	C
CLA			A	A	A	A	A	A	B	A	A	B
Secchi			C	C	C	B	B	A				
Lake Grade			B	B	B	B	B	A				

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	C	B		B	C	B	C	C
CLA	A	A	A		A	A	A	A	A
Secchi	A	A	A		A	A	A	C	
Lake Grade	A	B	A		A	B	A	B	

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Karth Lake (62–0072) *Rice Creek Watershed District*

Volunteer: Andrew Elmquist, Renee Marino, Gary Gerding

Karth Lake is located in the city of Arden Hills. There is little bathymetric information available for this lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

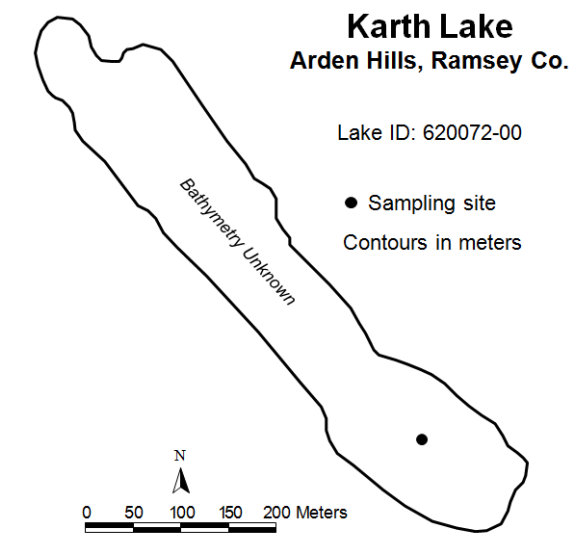
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	30	20	38	B
CLA (µg/l))	8.7	3.6	23	A
Secchi (m)	2.0	1.1	2.8	C
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B this year which is consistent with its water quality database. Recent water quality trends shows the lake typically receiving B lake grades with the occasional C.

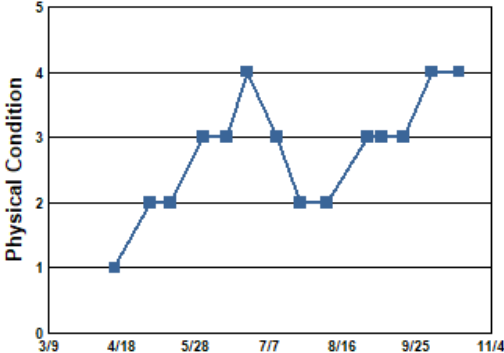
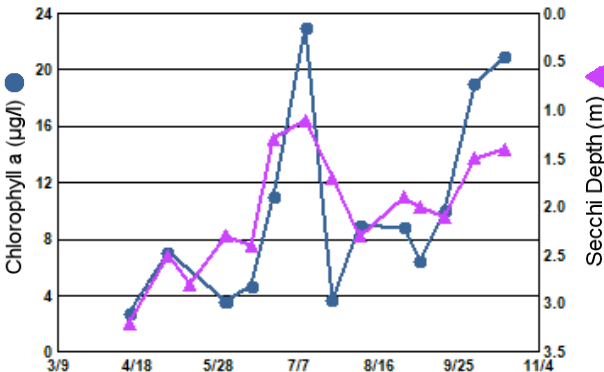
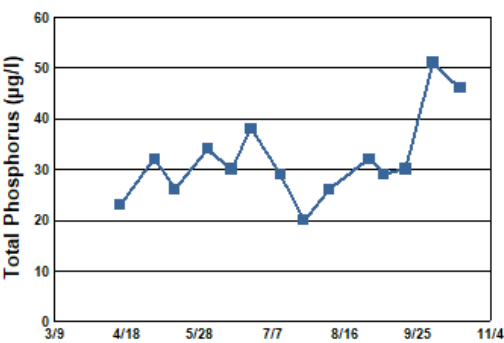
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

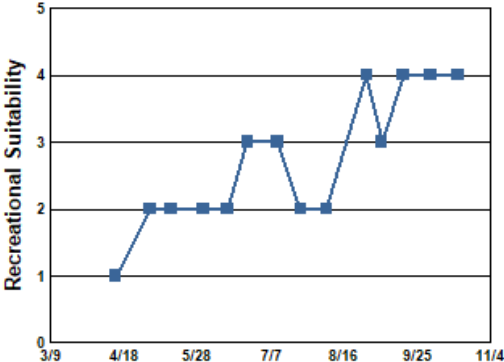


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/14/24	13.5		2.8	23	3.2	1	1
05/03/24	16.3		7.1	32	2.5	2	2
05/14/24	21.0			26	2.8	2	2
06/01/24	22.4		3.6	34	2.3	3	2
06/14/24			4.7	30	2.4	3	2
06/25/24	26.5		11	38	1.3	4	3
07/11/24	27.8		23	29	1.1	3	3
07/24/24	26.5		3.7	20	1.7	2	2
08/07/24	26.6		9.0	26	2.3	2	2
08/29/24	22.5		8.8	32	1.9	3	4
09/06/24	23.0		6.5	29	2.0	3	3
09/18/24	24.0		10	30	2.1	3	4
10/03/24	18.7		19	51	1.5	4	4
10/18/24	12.7		21	46	1.4	4	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP				C	C	C	C	C	C	B	B	B
CLA				C	C	C	C	B	A	A	B	B
Secchi				D	C	D	C	B	C	B	C	C
Lake Grade				C	C	C	C	B	B	B	B	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	B	B	C	C	C	C	B	B
CLA	B	B	A	B	B	B	B	A	A
Secchi	C	B	B	B	C	B	C	B	C
Lake Grade	C	B	B	B	C	B	C	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Keewahtin Lake (82—0080) *Comfort Lake – Forest Lake Watershed District*

Sponsor: Comfort Lake — Forest Lake Watershed District

Monitoring Personnel: Comfort Lake — Forest Lake Watershed District staff

Keewahtin Lake (formerly Sylvan Lake) is a 75-acre lake located in the city of Forest Lake (Washington County).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	11	9	16	A
CLA (µg/l)	2.7	1.7	3.8	
Secchi (m)	4.6	3.6	5.6	A
TKN (mg/l)				
			Lake Grade	

The lake received TP and CLA grades of A this year, which is consistent with its historical water quality database. The historic water quality database indicates that the lake has maintained its high quality over the past 20+ years. There were fewer than 5 available CLA results for the summer-time period so a CLA grade could not be calculated. All three parameter grades are required to calculate a lake grade.

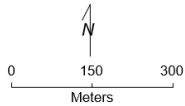
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Keewahtin Lake
Forest Lake/Scandia,
Washington Co.

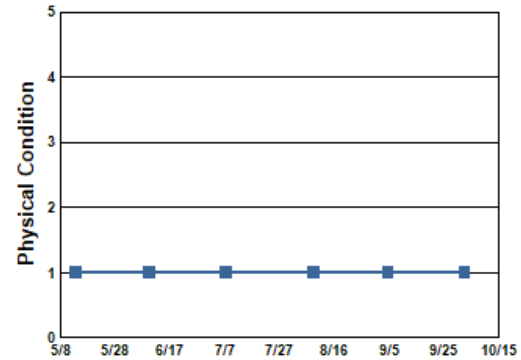
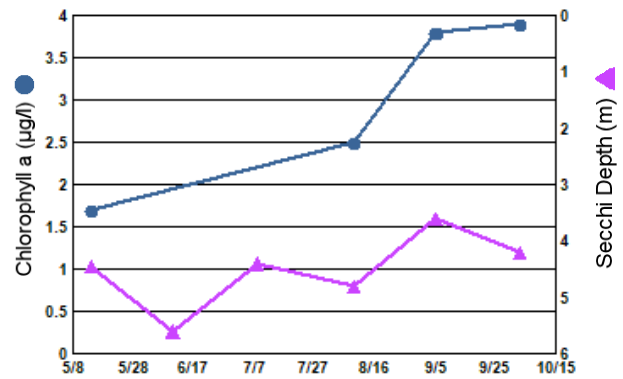
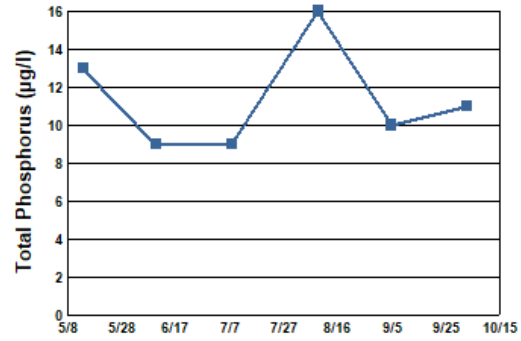
LAKE ID: 820080-00

● Sampling station
Contours in meters

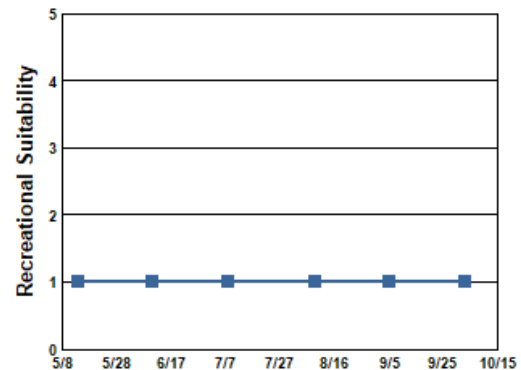


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	19.6		1.7	13	4.5	1	1
06/10/24	22.4			9	5.6	1	1
07/08/24	25.4			9	4.4	1	1
08/09/24	22.9		2.5	16	4.8	1	1
09/05/24	22.0		3.8	10	3.6	1	1
10/03/24	18.7		3.9	11	4.2	1	1



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5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	B	A					C	B	A	A		A
CLA							B	A	A	A		A
Secchi	A	A	A	A	A	A	A	A	A	A	A	A
Lake Grade							B	A	A	A		A

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		A			A		A	A	A	A	A	A
CLA		A			A		A	A	A	A	A	A
Secchi	A	A			A		A	A	A	A	A	A
Lake Grade		A			A		A	A	A	A	A	A

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	A	A		A	A	A	A	A	A	A	A	A
CLA	A	A		A	A	A	A	A	A	A	A	A
Secchi	A	A		A	A	A	A	A	A	A	A	A
Lake Grade	A	A		A	A	A	A	A	A	A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	A	A	A	A	A	A
CLA	A	A	A	A	A	A	A	A	
Secchi	A	A	A	A	A	A	A	A	A
Lake Grade	A	A	A	A	A	A	A	A	

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Keller Lake [Burnsville] (19–0025) *Black Dog Watershed Management Commission*

Volunteer: Randy Koenig

Keller Lake is located in the cities of Apple Valley and Burnsville (Dakota County). The surface area of the lake is 55 acres. It has a maximum depth of 3.0 m (10 feet) and a mean depth of 1.1 m (3.7 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2006.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	40	32	52	C
CLA (µg/l)	17	4.8	25	B
Secchi (m)	>1.2	1.0	1.4	C
TKN (mg/l)				
			Lake Grade	C

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of C which is consistent with its historical water quality database for the past 5 years and an improvement over the D grades received before then.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

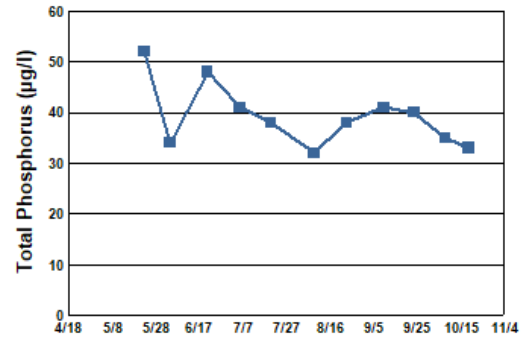
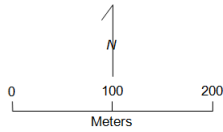
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Keller Lake Burnsville, Dakota Co.

Lake ID: 190025-00

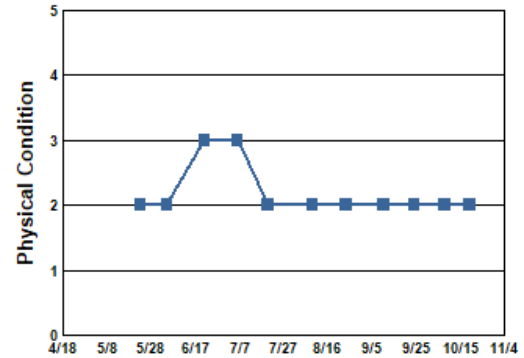
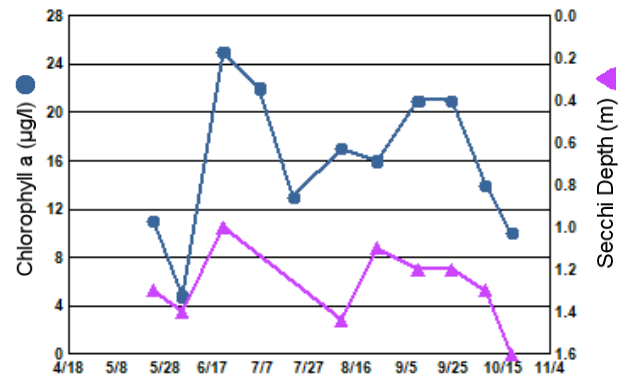
● Sampling site
Contours in meters



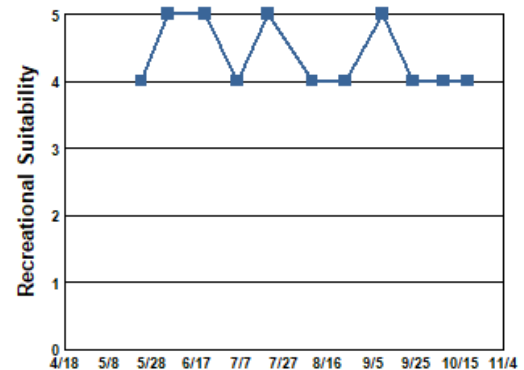
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/23/24	22.5		11	52	1.3	2	4
06/04/24	26.4		4.8	34	1.4	2	5
06/21/24	21.8		25	48	1.0	3	5
07/06/24	24.7		22	41	>1.2	3	4
07/20/24	25.9		13	38	>1.3	2	5
08/09/24	21.2		17	32	1.4	2	4
08/24/24	26.2		16	38	1.1	2	4
09/10/24	22.7		21	41	1.2	2	5
09/24/24	22.2		21	40	1.2	2	4
10/08/24	18.9		14	35	1.3	2	4
10/19/24	16.8		10	33	1.6	2	4

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



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3 = Swimming Impaired
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5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP					D	D	C	D	D	D	C	D
CLA					F	C	A	C	C	C	B	C
Secchi					D	D	C	D	D	D	D	D
Lake Grade					D	D	B	D	D	D	C	D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	D	D	C	D	D	D	D	D	D	D
CLA	B	B	D	B	A	F	D	D	D	D	D	D
Secchi	C	C	D	C	C	D	F	D	F	F	D	F
Lake Grade	C	C	D	C	B	D	D	D	D	D	D	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	C	D	C	C	C	C	B	C
CLA	C	B	C	B	C	B	B	A	B
Secchi	D	D	F	C	D	C	C		C
Lake Grade	D	C	D	C	C	C	C		C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Klawitter Pond (82–0368) *Valley Branch Watershed District*

Monitoring Personnel: Washington Conservation District staff

Klawitter Pond is a 4.5-acre lake located within the City of Lake Elmo (Washington County). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column. The lake's surface area and watershed area of 168 acres translate to a 37:1 watershed-to-lake area ratio. The greater the ratio, the greater the potential stress on the lake from surface runoff.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	113	86	156	D
CLA (µg/l))	48	24	83	C
Secchi (m)	0.6	0.5	0.7	F
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D this year, which is similar to previous years' lake grades.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

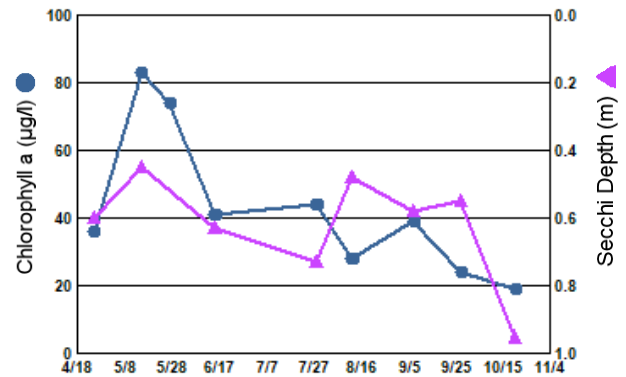
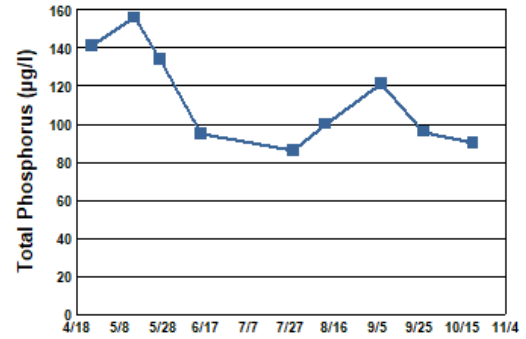
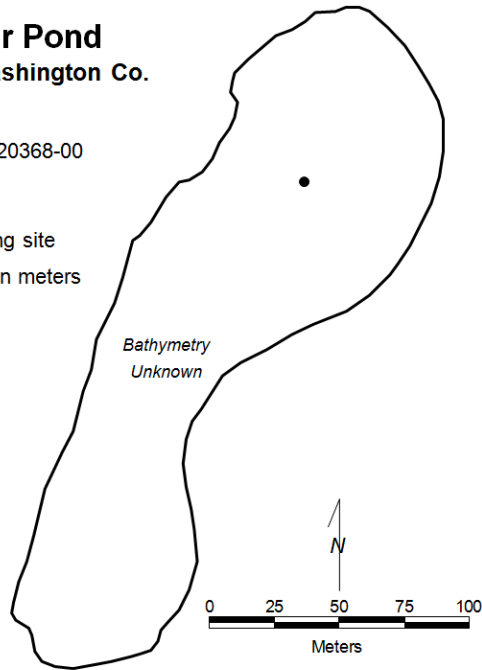
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Klawitter Pond

Lake Elmo, Washington Co.

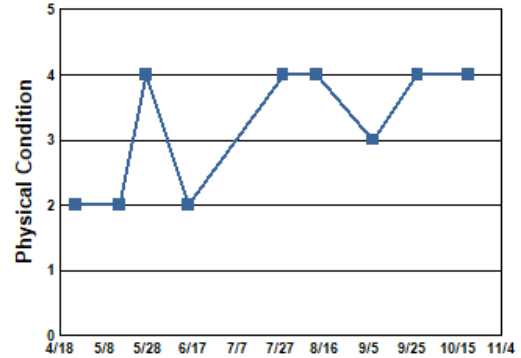
Lake ID: 820368-00

- Sampling site
- Contours in meters

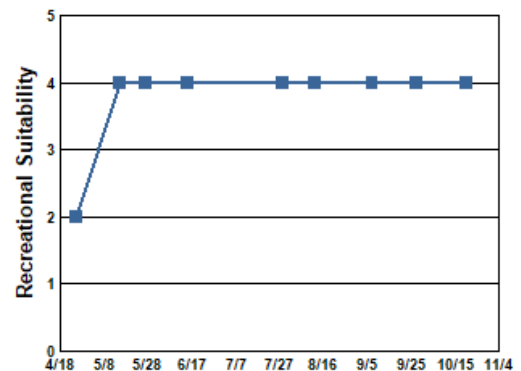


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/25/24	17.3		36	141	0.6	2	2
05/15/24	21.7		83	156	0.5	2	4
05/27/24	18.5		74	134		4	4
06/15/24	23.4		41	95	0.6	2	4
07/28/24	27.8		44	86	0.7	4	4
08/12/24	25.5		28	100	0.5	4	4
09/07/24	24.0		39	121	0.6	3	4
09/27/24	22.3		24	96	0.6	4	4
10/20/24	14.5		19	90	1.0	4	4



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Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP											D	D
CLA											B	C
Secchi											D	F
Lake Grade											C	D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D	D	D	D	D	D	D	D	D	C	D	D
CLA	C	C	C	C	C	D	D	C	C	C	C	D
Secchi	D	D	F	F	F	F	F	D	D	D	D	F
Lake Grade	D	D	D	D	D	D	D	D	D	C	D	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	D	D	D	D		D
CLA	C	C	C	C	C	D	D		C
Secchi	D	D	F	D	F	F	F		F
Lake Grade	D	D	D	D	D	D	D		D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

La Lake (82–0097) *City of Woodbury*

Volunteer: Tim Weber

La Lake is located in the City of Woodbury (Washington County). The lake has a surface area of approximately 35 acres and a maximum depth of 3.5 m (11 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The lake was delisted from the Minnesota impaired waters list for aquatic recreational use (nutrient/eutrophication biological indicators) in 2024.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	71	47	130	D
CLA (µg/l)	34	4.1	130	C
Secchi (m)	0.8	0.3	1.8	D
TKN (mg/l)				
			Lake Grade	D

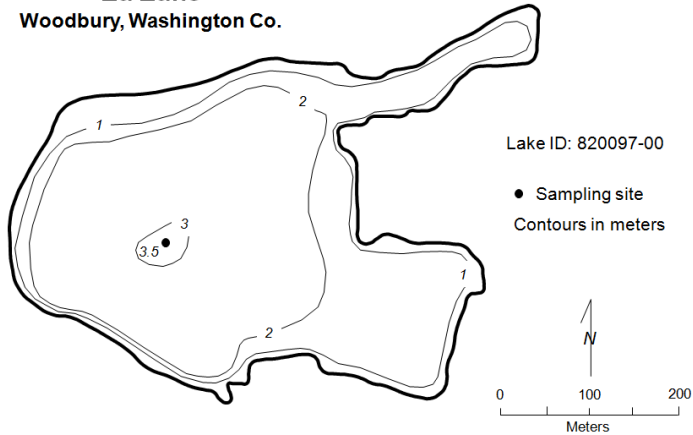
The lake received a lake grade of D, which is the second D grade received since 1994; the other D grade was received in 2007. Water quality for the lake typically has varied in the B to C range. Continued monitoring is suggested to determine if this recent decrease in water quality is an indication of a potential trend.

During each monitoring visit, the lake’s physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake’s data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

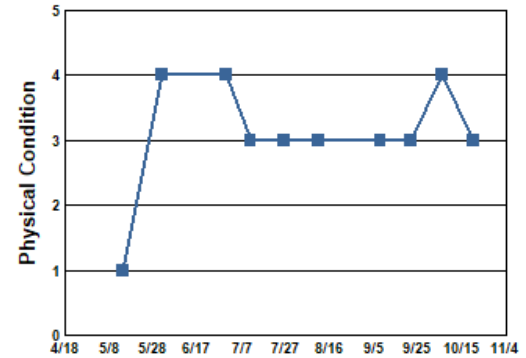
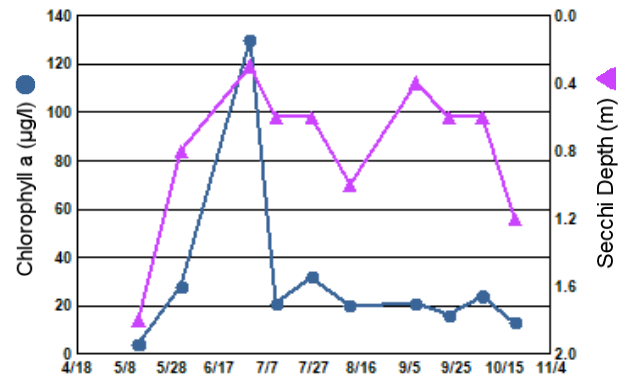
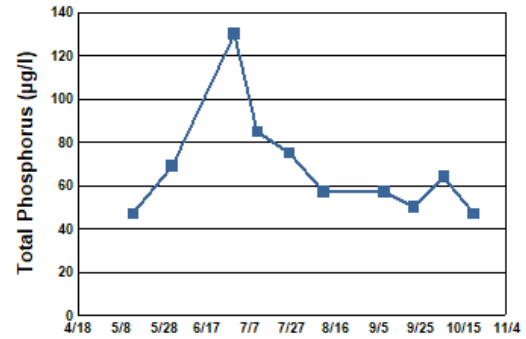
La Lake

Woodbury, Washington Co.

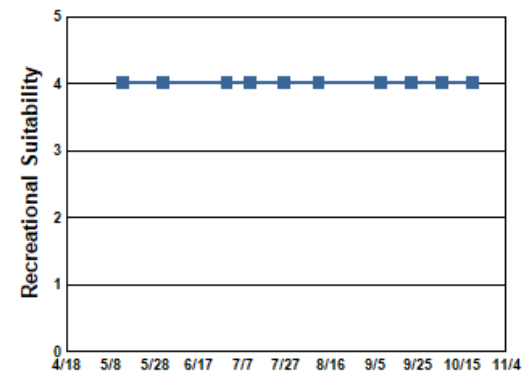


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	20.4		4.1	47	1.8	1	4
06/01/24	22.6		28	69	0.8	4	4
06/30/24	24.6		130	130	0.3	4	4
07/11/24	31.1		21	85	0.6	3	4
07/26/24	26.7		32	75	0.6	3	4
08/11/24	22.9		20	57	1.0	3	4
09/08/24	23.4		21	57	0.4	3	4
09/22/24	22.4		16	50	0.6	3	4
10/06/24	16.7		24	64	0.6	4	4
10/20/24	14.2		13	47	1.2	3	4



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1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C	C	D	D	C	D	D	D	D	C
CLA			B	A	B	C	B	C	C	C	B	C
Secchi			C	B	C	C	B	C	C	C	C	B
Lake Grade			C	B	C	C	B	C	C	C	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	D	D	D	D	D	D	D	C	C	C
CLA		B	C	D	B	C	C	B	C	B	C	B
Secchi		C	C	D	C	C	C	B	C	C		C
Lake Grade		C	C	D	C	C	C	C	C	C		C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	B	C	B	C	C	C	C	D
CLA	B	A	A	A	A	A	A	B	C
Secchi	C	C	C	B	C	C	C	C	D
Lake Grade	C	B	B	B	B	B	B	C	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lac Lavon Lake (19–0446) *Black Dog Watershed Management Commission*

Volunteer: Karen Turner

Lac Lavon is located within the City of Apple Valley (Dakota County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) The lake is an abandoned gravel pit maintained by groundwater (MDNR 1996).

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995 and brittle naiad (*Najas minor*) in 2007.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

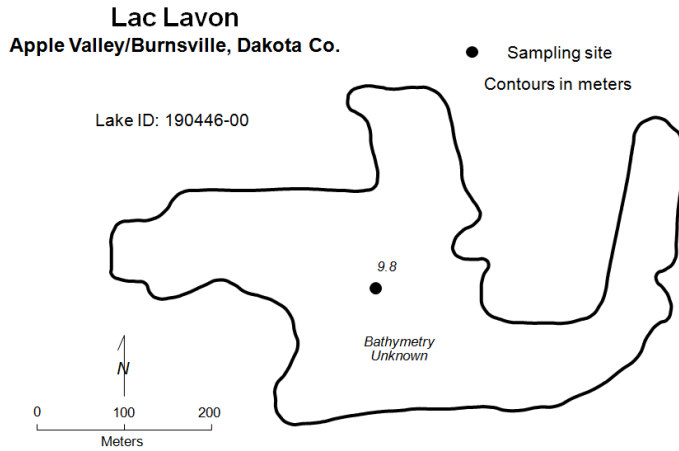
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	13	11	14	A
CLA (µg/l)	3.1	1.1	6.1	A
Secchi (m)	3.4	2.5	4.9	A
TKN (mg/l)				
			Lake Grade	A

The lake continues to receive an A lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

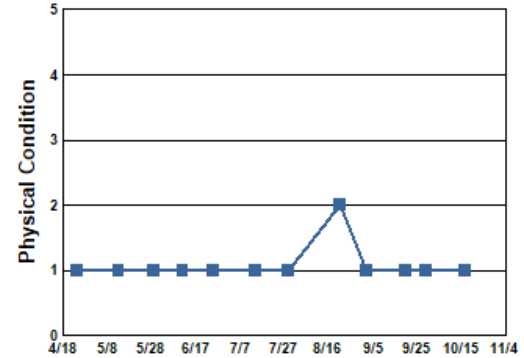
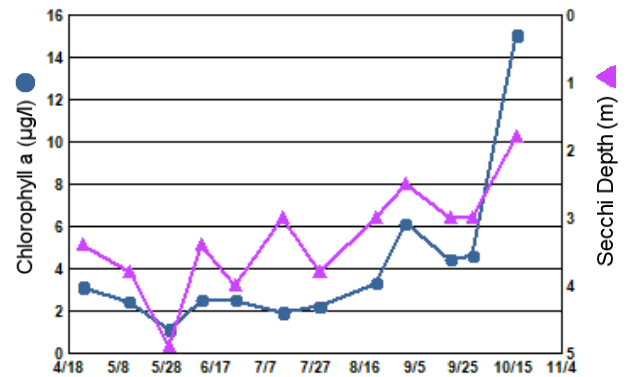
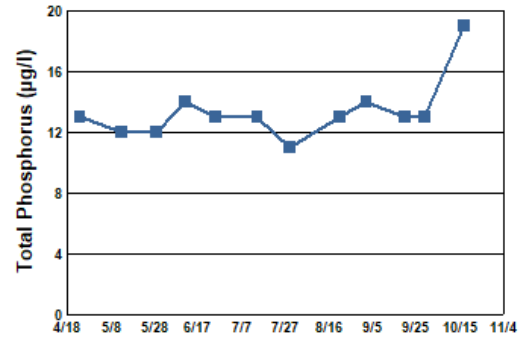
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

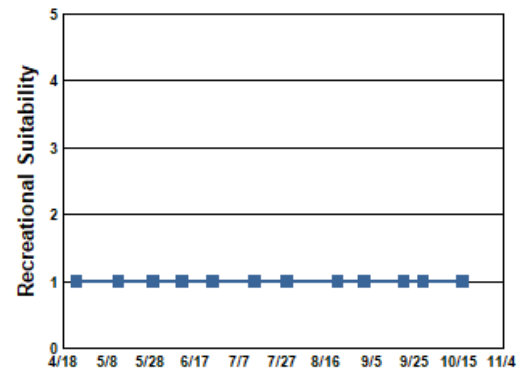


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/24/24	11.9		3.1	13	3.4	1	1
05/13/24	19.6		2.4	12	3.8	1	1
05/29/24	22.0		1.1	12	4.9	1	1
06/11/24	23.3		2.5	14	3.4	1	1
06/25/24	25.8		2.5	13	4.0	1	1
07/14/24	28.4		1.9	13	3.0	1	1
07/29/24	29.9		2.2	11	3.8	1	1
08/21/24	25.4		3.3	13	3.0	2	1
09/02/24	25.0		6.1	14	2.5	1	1
09/20/24	25.0		4.4	13	3.0	1	1
09/29/24	23.8		4.6	13	3.0	1	1
10/17/24	15.9		15	19	1.8	1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi										A	A	A
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP						A	A	A	A	B	A	A
CLA						A	A	A	A	A	A	A
Secchi						A	A	A	A	A	A	A
Lake Grade						A	A	A	A	A	A	A

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	A	A	A	A	C	A	A	C	A	A	A	A
CLA	A	A	A	A	A	A	A	A	A	A	A	A
Secchi	A	A	A	A	A	A	A	A	A	A	A	A
Lake Grade	A	A	A	A	B	A	A	B	A	A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	A	A	A		A	A
CLA	A	A	A	A	A	A		A	A
Secchi	A	A	A	A	A	A		A	A
Lake Grade	A	A	A	A	A	A		A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lamplighter Park Pond (27–0710) *City of St. Louis Park*

Volunteer: Torey Hunkus

Lamplighter Park Pond Lake is located in the city of St. Louis Park (Hennepin County). The lake has a surface area of 8 acres and a maximum depth of 1.5 m. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	128	100	181	D
CLA (µg/l))	88	18	140	F
Secchi (m)	0.4	0.3	0.6	F
TKN (mg/l)				
			Lake Grade	F

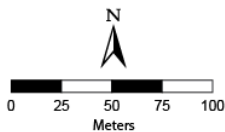
The pond received a lake grade of F this year. Continued monitoring is recommended to build the water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

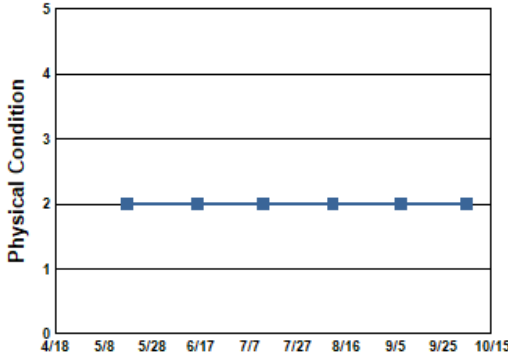
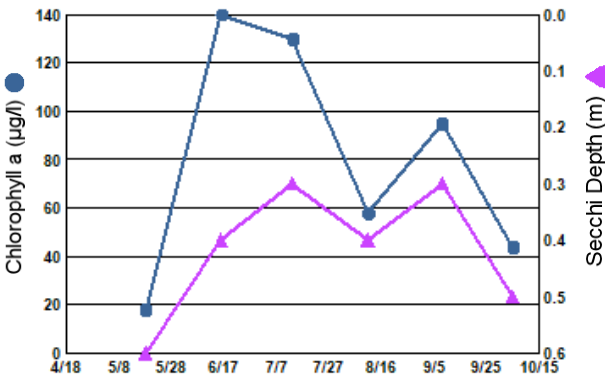
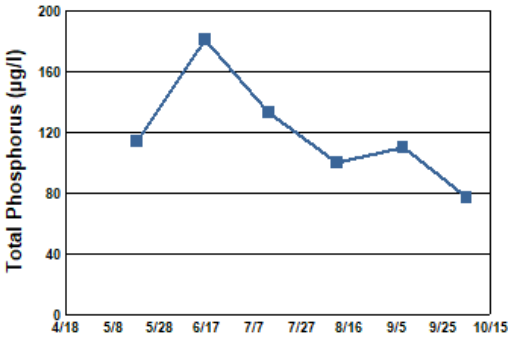
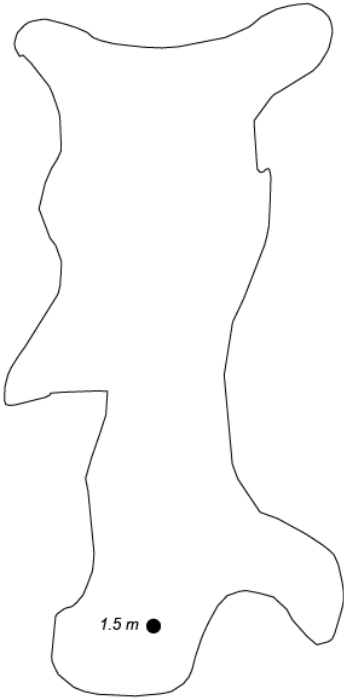
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lamplighter Park Pond
St. Louis Park, Hennepin County

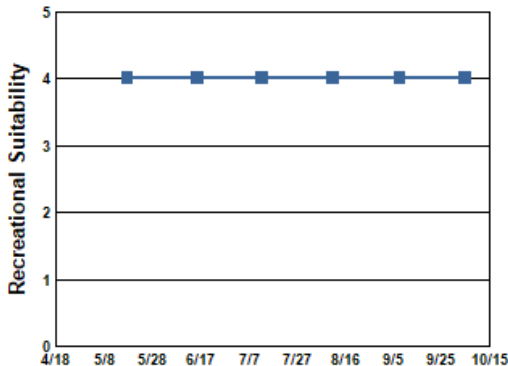
Lake ID: 27071000



● Sampling site
contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/18/24	21.7		18	114	0.6	2	4
06/16/24	20.3		140	181	0.4	2	4
07/13/24			130	133	0.3	2	4
08/11/24	27.0		58	100	0.4	2	4
09/08/24	17.3		95	110	0.3	2	4
10/05/24	4.1		44	77	0.5	2	4

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP							D		D
CLA							D		F
Secchi							F		F
Lake Grade							D		F

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lee Lake (19–0029) *City of Lakeville*

Monitoring Personnel: City of Lakeville staff

Lee Lake is located in Lakeville (Dakota County). The lake has a surface area of 25 acres with a maximum depth of 5.2 m (17 ft). The lake is landlocked with no natural outlet.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	35	26	42	C
CLA (µg/l))	14	4.5	27	B
Secchi (m)	>1.8	1.1	3.0	C
TKN (mg/l)				
			Lake Grade	C

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of C this year. The lake grades have varied from A to C over the past 10 years.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

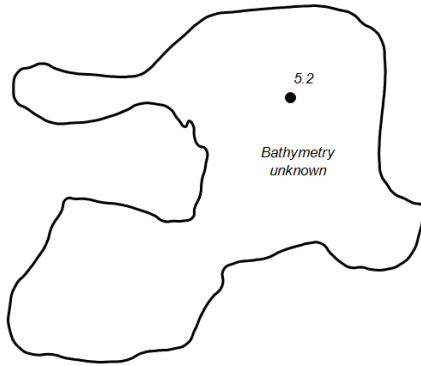
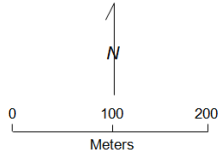
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lee Lake Lakeville, Dakota Co.

Lake ID: 190029-00

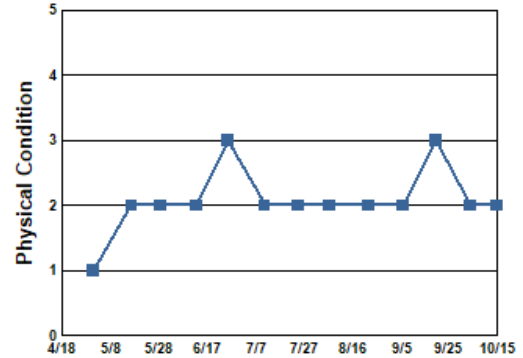
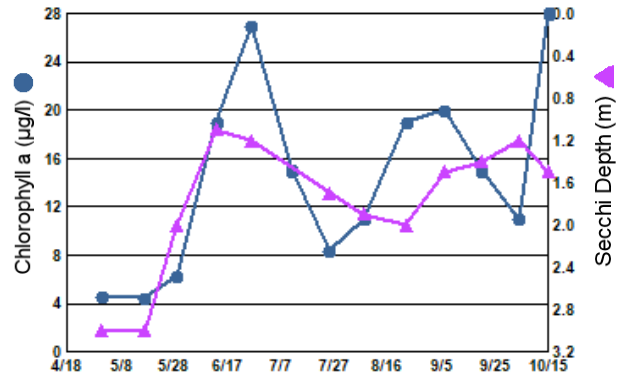
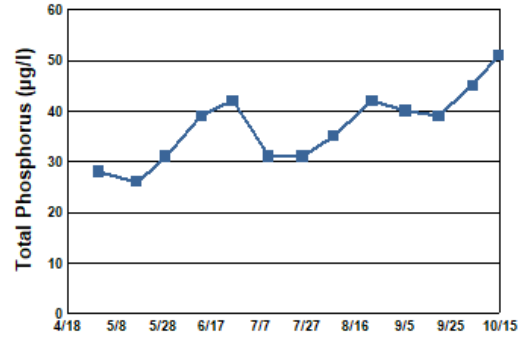
● Sampling site
Contours in meters



2024 Data

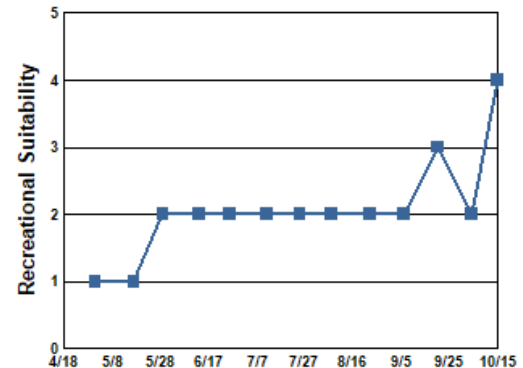
Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/01/24	16.5		4.6	28	3.0	1	1
05/17/24	23.3		4.5	26	3.0	2	1
05/29/24	22.1		6.3	31	2.0	2	2
06/13/24	26.3		19	39	1.1	2	2
06/26/24	28.1		27	42	1.2	3	2
07/11/24	30.8		15	31	>1.2	2	2
07/25/24	27.3		8.4	31	1.7	2	2
08/07/24	25.0		11	35	1.9	2	2
08/23/24	24.9		19	42	2.0	2	2
09/06/24	23.3		20	40	1.5	2	2
09/20/24	25.0		15	39	1.4	3	3
10/04/24	19.7		11	45	1.2	2	2
10/15/24	13.6		28	51	1.5	2	4

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C	C	C	C			D	C	C	C
CLA			C	B	B	B			C	B	B	C
Secchi			C	C	C	C			D	C	C	C
Lake Grade			C	C	C	C			D	C	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	D	D	C	C	A	B	C	C	B	A	C
CLA	C	B	B	C	B	A	A	A	B	A	A	B
Secchi	D	C	C	C	C	A	A	B	C	C		C
Lake Grade	C	C	C	C	C	A	A	B	C	B		C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	B	C	C	C	A	C
CLA	B	B	B	A	B	A	B	A	B
Secchi	C	C	C	B	C	C	C	C	C
Lake Grade	C	C	C	B	C	B	C	B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

LeMay Lake (19–0082) *City of Mendota Heights*

Volunteers: Scott Norling

LeMay Lake is located in the City of Mendota Heights. It has a surface area of 34 acres and an average depth of 1.6 m (5.1 ft). The maximum depth is 4.0 m (13 ft). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

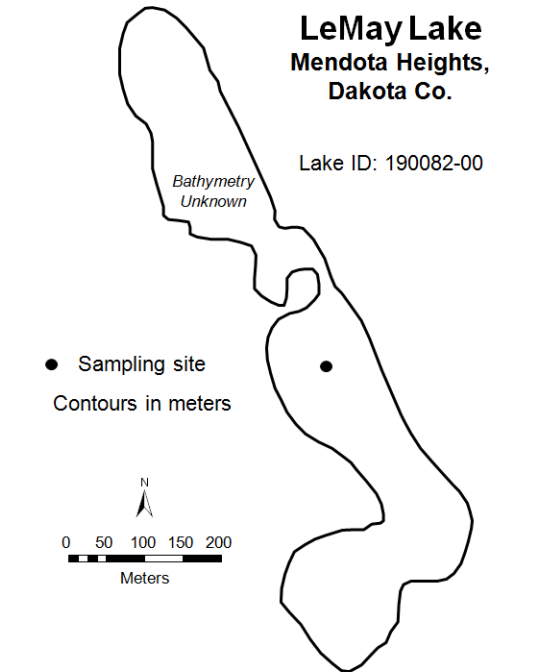
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	34	24	55	C
CLA (µg/l))	8.9	4.8	14	A
Secchi (m)	1.6	1.0	2.3	C
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B this year, which is consistent with its historical water quality database.

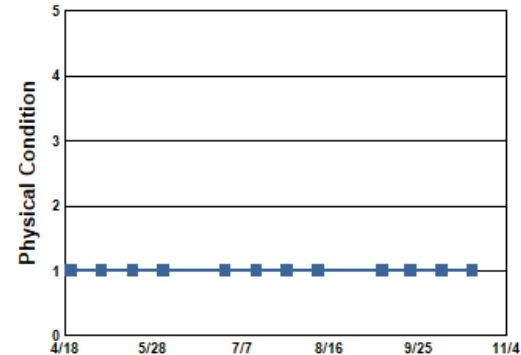
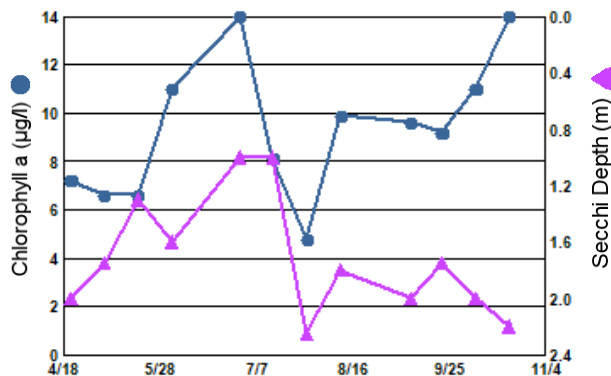
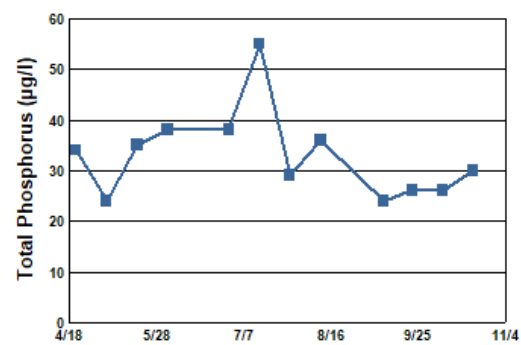
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

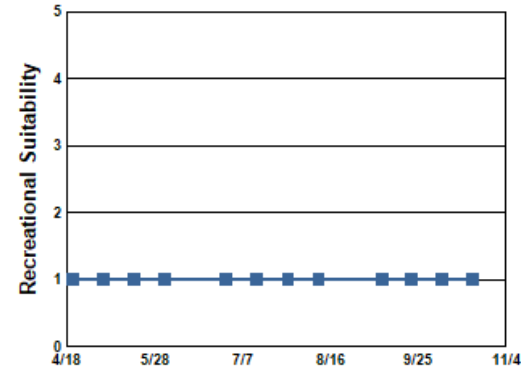


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	12.5		7.2	34	2.0	1	1
05/05/24	16.1		6.6	24	1.8	1	1
05/19/24	24.6		6.6	35	1.3	1	1
06/02/24	23.2		11	38	1.6	1	1
06/30/24	27.2		14	38	1.0	1	1
07/14/24	25.6		8.1	55	1.0	1	1
07/28/24	30.5		4.8	29	2.3	1	1
08/11/24	23.1		9.9	36	1.8	1	1
09/09/24	26.0		9.6	24	2.0	1	1
09/22/24	22.2		9.2	26	1.8	1	1
10/06/24	16.6		11	26	2.0	1	1
10/20/24	16.1		14	30	2.2	1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi							F					
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP				C	B	C	B	C	C	C		
CLA				B	A	A	A	A	A	A		
Secchi				D	C	C	C	C		C		
Lake Grade				C	B	B	B	B		B		

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		C	B	B	B		B	B	C
CLA		A	A	A	A		A	A	A
Secchi		C	C				C	C	C
Lake Grade		B	B				B	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lilly Lake (19–0084) *Lower Mississippi River Watershed Management Organization*

Volunteer: Analiese Miller

Lilly Lake is located in the city of West St. Paul (Dakota County). There are few morphological data available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	179	79	312	F
CLA (µg/l)	84	13	160	F
Secchi (m)	0.7	0.5	1.1	F
TKN (mg/l)				
			Lake Grade	F

The lake received a lake grade of F. Continued monitoring is recommended to continue to build the water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

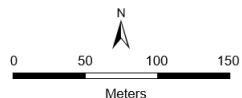
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lilly Lake West St. Paul, Dakota Co.

Lake ID: 19008400

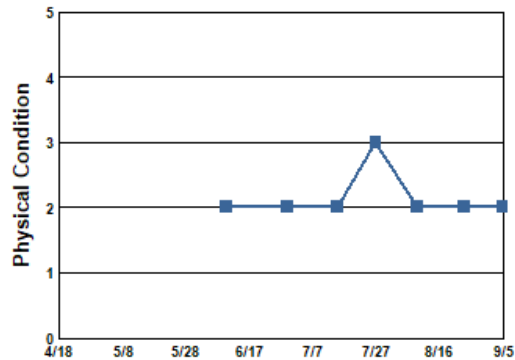
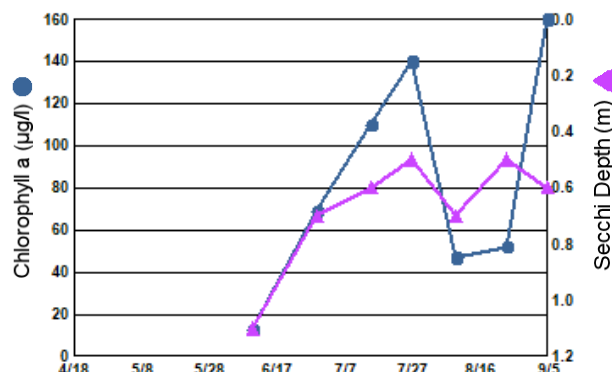
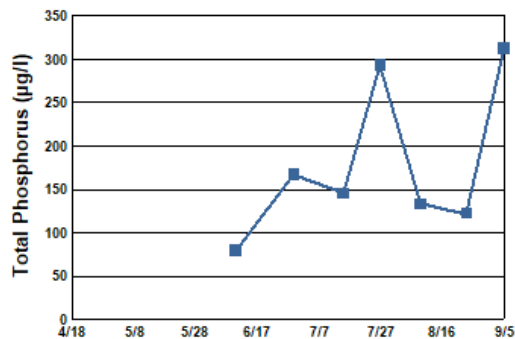
WMO: Lower Mississippi River

- Sampling site
- Contours in meters

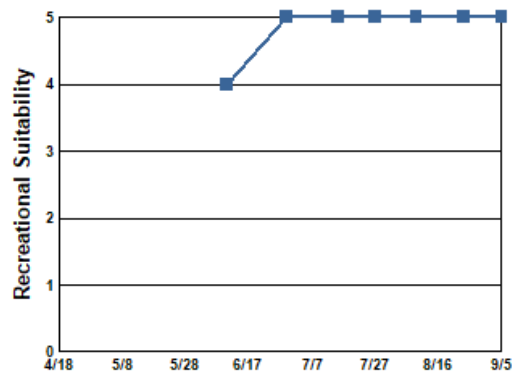


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/ l)	Secchi (m)	PC	RS
06/10/ 24	22.6		13	79	1.1	2	4
06/29/ 24	21.9		69	167	0.7	2	5
07/15/ 24	25.0		110	145	0.6	2	5
07/27/ 24	23.6		140	293	0.5	3	5
08/09/ 24	22.0		47	133	0.7	2	5
08/24/ 24	24.5		52	122	0.5	2	5
09/05/ 24	21.4		160	312	0.6	2	5



- 1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



- 1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									F
CLA									F
Secchi									F
Lake Grade									F

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Little Comfort Lake (13–0054) *Comfort Lake — Forest Lake Watershed District*

Sponsor: Comfort Lake — Forest Lake Watershed District

Monitoring Personnel: Comfort Lake — Forest Lake Watershed District staff

Little Comfort Lake is located near the city of Wyoming (Chisago County). The lake has a surface area of 36 acres and a maximum depth of 17.0 m (56 feet).

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002. The MN DNR designated the lake as being infested with zebra mussels (*Dreissena polymorpha*) in 2017 and Eurasian water milfoil (*Myriophyllum spicatum*) in 2021.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	48	28	79	C
CLA (µg/l)	8.3	3.0	13	A
Secchi (m)	1.7	1.2	2.2	C
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B this year which is consistent with water quality observed in the late 2010s and an improvement compared to more recent years.

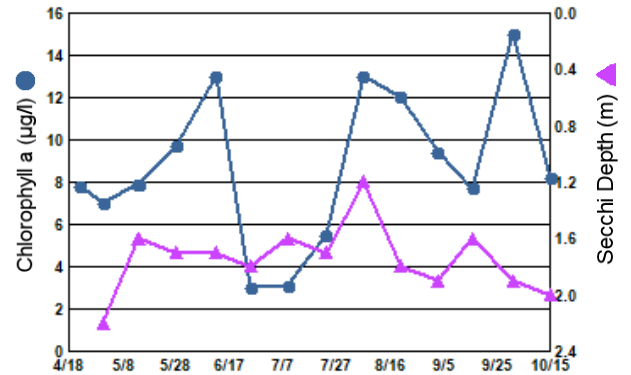
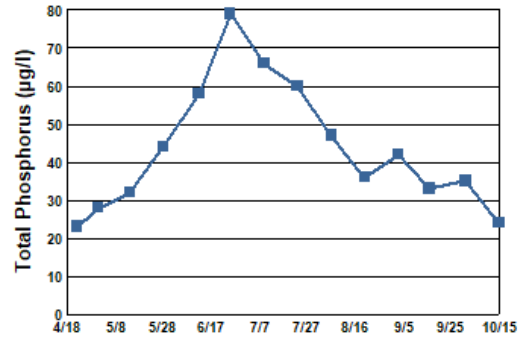
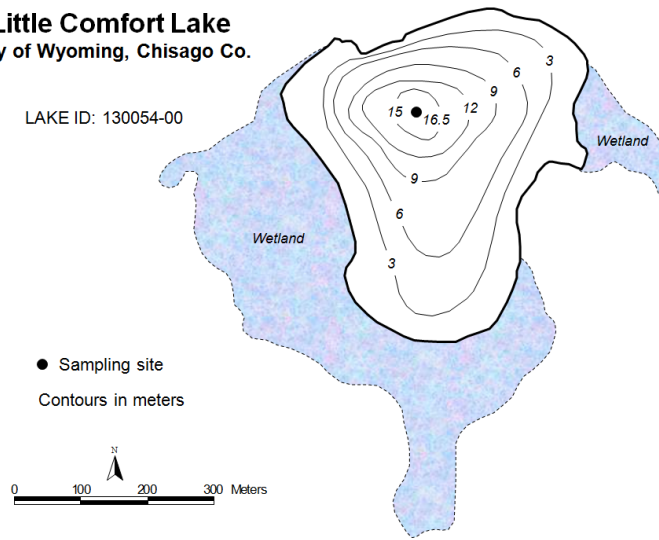
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Little Comfort Lake
City of Wyoming, Chisago Co.

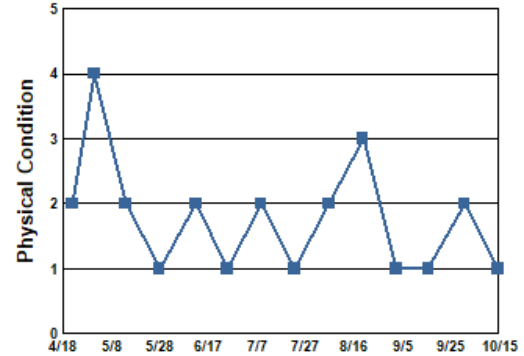
LAKE ID: 130054-00



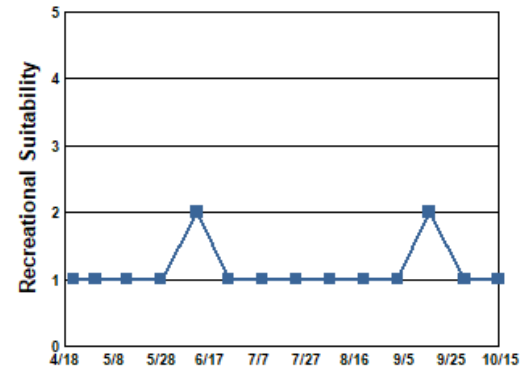
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/22/24	10.4		7.8	23	+1.9	2	1
05/01/24	12.2		7.0	28	2.2	4	1
05/14/24	19.4		7.9	32	1.6	2	1
05/28/24	20.0		9.7	44	1.7	1	1
06/12/24	21.4		13	58	1.7	2	2
06/25/24	26.1		3.0	79	1.8	1	1
07/09/24	26.7		3.1	66	1.6	2	1
07/23/24	24.3		5.5	60	1.7	1	1
08/06/24	24.1		13	47	1.2	2	1
08/20/24	23.6		12	36	1.8	3	1
09/03/24	21.8		9.4	42	1.9	1	1
09/16/24	24.4		7.7	33	1.6	1	2
10/01/24	19.2		15	35	1.9	2	1
10/15/24	13.3		8.2	24	2.0	1	1

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.



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2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C									
CLA			C									
Secchi			C									
Lake Grade			C									

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			D	C	C	A	B	C	C	C	C	C
CLA			C	A	B	A	B	B	B	B	B	C
Secchi			C	C	C	C	C	C	C	C	C	C
Lake Grade			C	B	C	B	B	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C	C	B	B	C
CLA	C	B	C	C		A	A	B	A
Secchi	C	C	C	C	C	B	B	C	C
Lake Grade	C	C	C	C		B	B	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Little Johanna Lake (62–0058) *Rice Creek Watershed District*

Volunteer: Fred Fox, Dave Short

Little Johanna Lake is located on the boundary between the cities of Arden Hills and Roseville (Ramsey County). The lake has a surface area of 18 acres and a maximum depth of 12.0 m (39 feet). The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2004, aquatic consumption (Perfluorooctane Sulfonate (PFOS) in fish tissue) in 2012, and aquatic life (chloride) in 2014.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	60	37	82	C
CLA (µg/l))	16	2.5	36	B
Secchi (m)	1.6	0.8	3.0	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C which is which is consistent with its historical water quality database. The water quality of the lake tends to vary in the B to C range.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

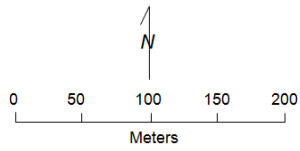
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Little Johanna Lake
Arden Hills/Roseville,
Ramsey Co.

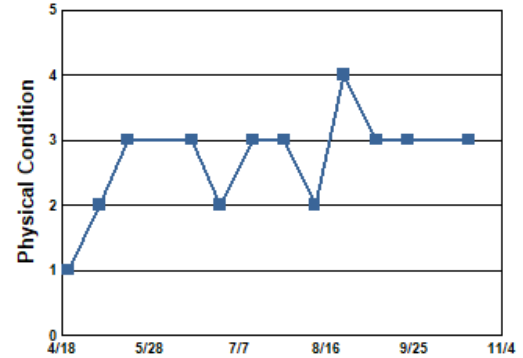
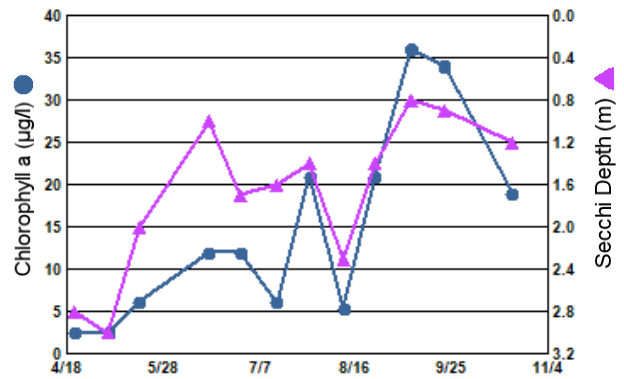
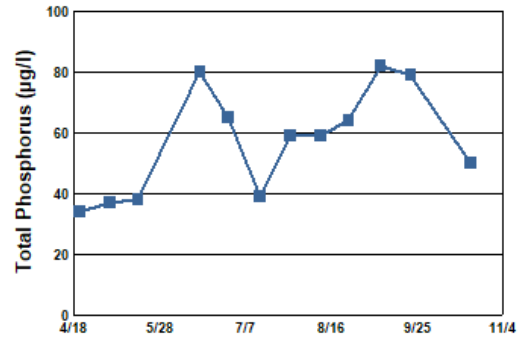
Lake ID: 620058-00

● Sampling site
Contours in meters

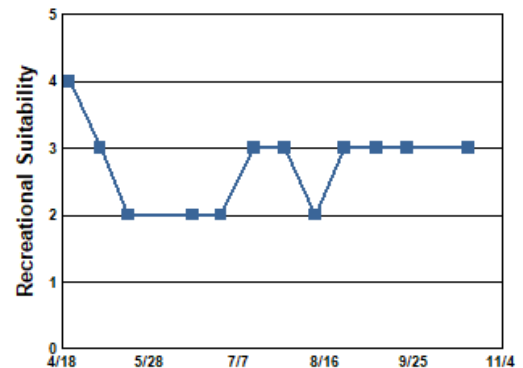


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	12.2		2.5	34	2.8	1	4
05/05/24	18.4		2.5	37	3.0	2	3
05/18/24	21.4		6.2	38	2.0	3	2
06/16/24	20.6		12	80	1.0	3	2
06/29/24	22.4		12	65	1.7	2	2
07/14/24	29.6		6.1	39	1.6	3	3
07/28/24	28.2		21	59	1.4	3	3
08/11/24	24.0		5.4	59	2.3	2	2
08/24/24	24.8		21	64	1.4	4	3
09/08/24	22.4		36	82	0.8	3	3
09/22/24	22.3		34	79	0.9	3	3
10/20/24	14.3		19	50	1.2	3	3



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4 = High Algal Color
5 = Severe Algal Bloom



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3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP										C	D	D
CLA										C	C	C
Secchi										C	C	C
Lake Grade										C	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	D		C	C	C	C	C	C		D
CLA	B	C	C		B	B	C	B	B	B		C
Secchi	C	C	C		C	C	D	C	C	C		C
Lake Grade	C	C	C		C	C	C	C	C	C		C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C	C	C	C	C
CLA	B	A	A	B	B	B	A	B	B
Secchi	C	C	C	C	C	C	C	C	C
Lake Grade	C	B	B	C	C	C	B	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Long Lake [Apple Valley] (19–0022) *City of Apple Valley*

Volunteer: Joan Kettelkamp

Long Lake is located in the City of Apple Valley (Dakota County). It has a surface area of 36 acres and a maximum depth of 1.5 m (5 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

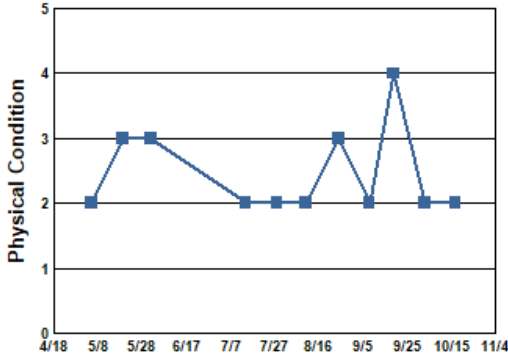
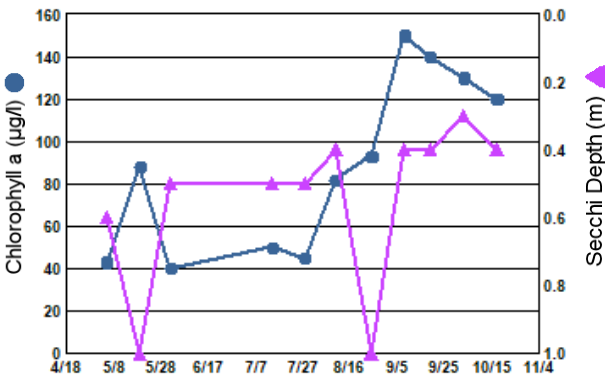
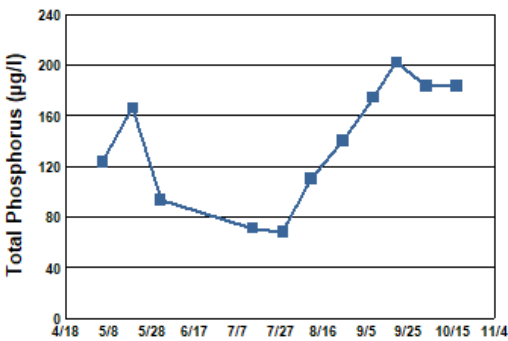
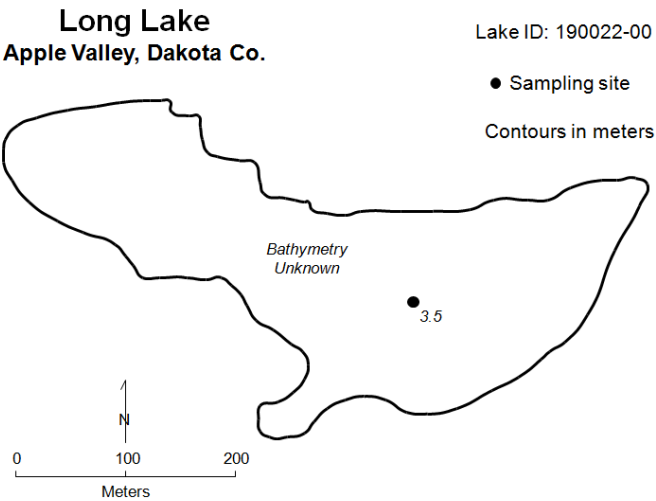
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	127	68	202	D
CLA (µg/l)	81	40	150	F
Secchi (m)	0.6	0.4	1.0	F
TKN (mg/l)				
			Lake Grade	F

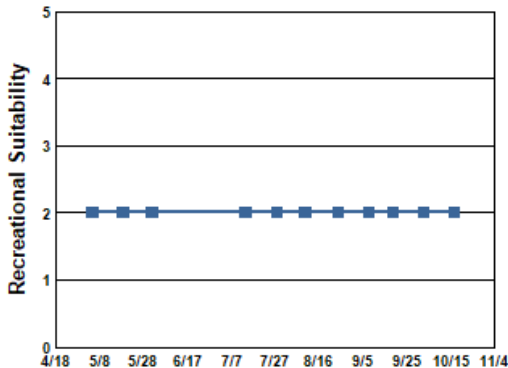
The lake received an F lake grade this year which is consistent with its historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.



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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
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5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	21.7		43	123	0.6	2	2
05/19/24	22.1		88	166	1.0	3	2
06/01/24	22.1		40	93	0.5	3	2
07/14/24	25.0		50	71	0.5	2	2
07/28/24	30.2		45	68	0.5	2	2
08/10/24	21.9		82	110	0.4	2	2
08/25/24	28.1		93	140	1.0	3	2
09/08/24	22.7		150	174	0.4	2	2
09/19/24	26.4		140	202	0.4	4	2
10/03/24	17.8		130	183	0.3	2	2
10/17/24	12.7		120	183	0.4	2	2

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP						D					F	F
CLA						D					F	F
Secchi						F					F	F
Lake Grade						D					F	F

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	F	F	F	F	F	F	F	F	F	F	F	F
CLA	F	F	F	F	F	F	D	F	F	F	F	F
Secchi	F	F	F	F	F	F	F	F	F	F	F	F
Lake Grade	F	F	F	F	F	F	F	F	F	F	F	F

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	F	D	F	D	F	F	F	D	D
CLA	F	F	D	D	F	F	F	F	F
Secchi	F	F	F		F	F	F		F
Lake Grade	F	F	F		F	F	F		F

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Long Lake [Pine Springs] (82–0118) Valley Branch Watershed District

Volunteer: Frank Bastyr

Long Lake is located in Pine Springs Township (Washington County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](https://metro council.org) It has a surface area of 62 acres. The mean and maximum depths of the lake are 3.6 m (12 feet) and 10.4 m (34 feet), respectively. The lake's surface area and watershed area of 2,060 acres translates to a 33:1 watershed-to-lake area ratio. The greater the ratio, the greater the potential stress on the lake from surface runoff.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2006, and zebra mussels (veligers) (*Dreissena polymorpha*) in 2025.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	20	13	25	A
CLA (µg/l)	6.5	1.6	14	A
Secchi (m)	2.6	1.5	3.3	B
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A this year. The lake grades have fluctuated between As and Cs since 2009, according to its historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

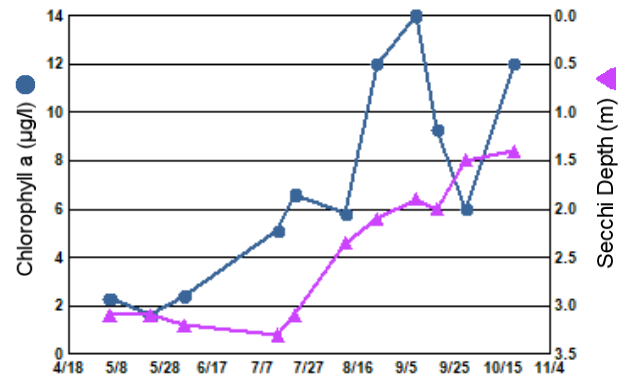
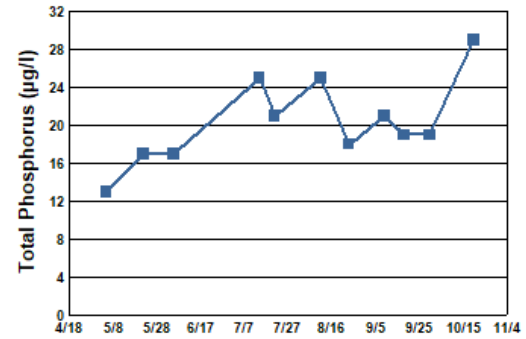
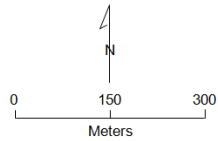
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Long Lake

Pine Springs, Washington Co.

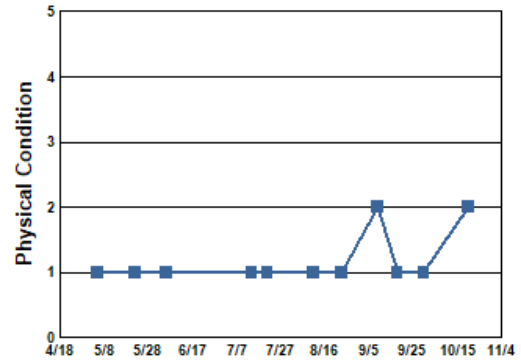
Lake ID: 820118-00

● Sampling station
Contours in meters



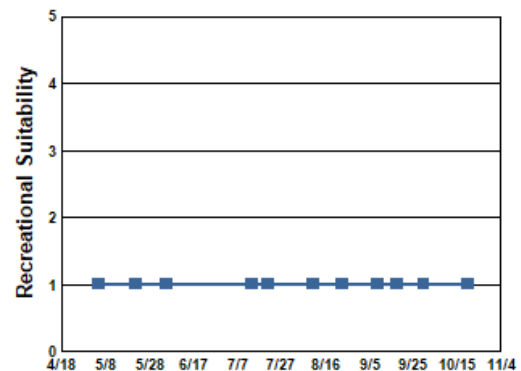
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	18.1		2.3	13	3.1	1	1
05/22/24	18.2		1.6	17	3.1	1	1
06/05/24	22.7		2.4	17	3.2	1	1
07/14/24	25.1		5.1	25	3.3	1	1
07/21/24	26.1		6.6	21	3.1	1	1
08/11/24	29.0		5.8	25	2.4	1	1
08/24/24	24.2		12	18	2.1	1	1
09/09/24	23.4		14	21	1.9	2	1
09/18/24	23.6		9.3	19	2.0	1	1
09/30/24	22.4		6.0	19	1.5	1	1
10/20/24	16.8		12	29	1.4	2	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					C							
CLA					B							
Secchi					C							
Lake Grade					C							

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		B										B
CLA		B										A
Secchi		C										B
Lake Grade		B										B

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	B	B	A		B	B	A	A	A
CLA	B	B	C	A	A	A		A	A	A	A	A
Secchi	C	C	C	B	B	A		B	B	B	C	B
Lake Grade	C	C	C	B	B	A		B	B	A	B	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	B	B	B	A	A	A
CLA	A	A	A	A	B	A	A	A	A
Secchi	A	A	A	A	C	A	B	A	B
Lake Grade	A	A	A	A	B	A	A	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lost Lake (27–0103) *Bassett Creek Watershed Management Commission*

Volunteer: Barrie Froseth

Lost Lake is located in the city of Plymouth (Hennepin County). The lake has a surface area of 22 acres and maximum depth of 1.8 m. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2024.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	71	46	90	D
CLA (µg/l)	5.7	2.3	11	A
Secchi (m)	+1.8	>1.5	+1.9	
TKN (mg/l)				
			Lake Grade	

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of C which better than the D and F grades received during the period of 2017–2022. There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade. The CLA grade was an A which is the best CLA grade the lake has received. This is consistent with the improved water clarity. Continued monitoring is suggested to determine if this improvement in water quality is part of a longer term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

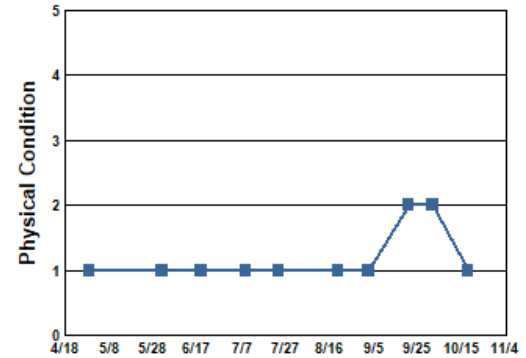
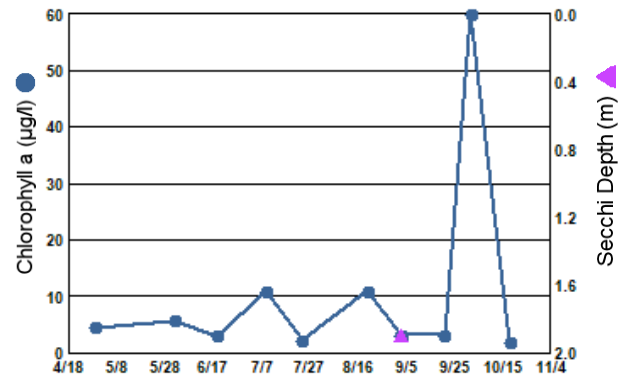
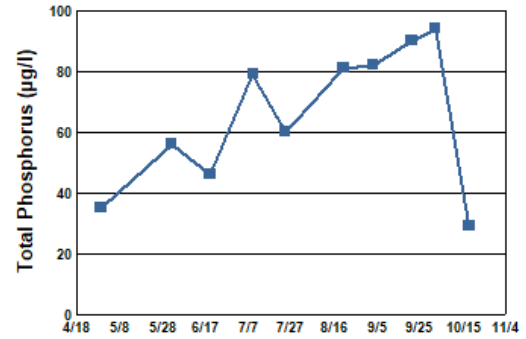
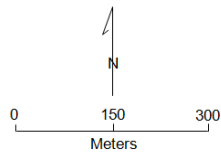
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lost Lake Plymouth, Hennepin Co.

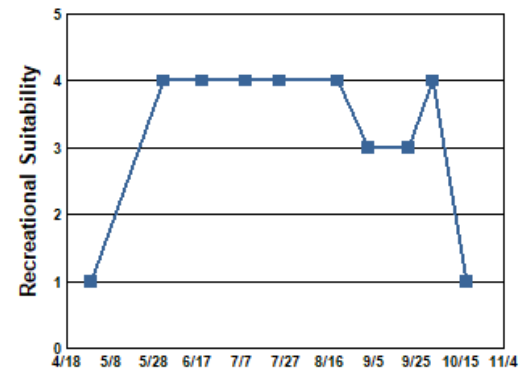
Lake ID: 270103-00

● Sampling site

Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/29/24	11.3		4.6	35	+1.7	1	1
06/01/24	20.1		5.8	56	+1.8	1	4
06/19/24	22.7		3.1	46	+1.9	1	4
07/09/24	26.4		11	79	+1.8	1	4
07/24/24	29.0		2.3	60	+1.8	1	4
08/20/24	25.4		11	81	>1.5	1	4
09/03/24	22.2		3.2	82	1.9	1	3
09/21/24	23.7		3.2	90	+1.8	2	3
10/02/24	18.8		60	94	>1.6	2	4
10/18/24	10.6		2.0	29	>1.2	1	1

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP			F									
CLA			F									
Secchi			F									
Lake Grade			F									

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		F										
CLA		F										
Secchi		F										
Lake Grade		F										

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		D	D	D	D	D	D	C	D
CLA		C	D	D	F	F	C	C	A
Secchi		D	F	D	F	F	D	D	
Lake Grade		D	D	D	F	F	D	C	

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lotus Lake (10–0006) *City of Chanhassen*

Volunteer: Steve Donen

Lotus Lake is located within the City of Chanhassen (Carver County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) It has a surface area of 246 acres. The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 2002, aquatic recreational use (nutrient/eutrophication biological indicators) in 2002, and aquatic life (fish bioassessments) in 2018. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995, brittle naiad (*Najas minor*) in 2017, zebra mussels (*Dreissena polymorpha*) in 2019.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	31	18	43	B
CLA (µg/l))	27	1.7	49	C
Secchi (m)	1.7	0.7	4.4	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C, which is consistent with its historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

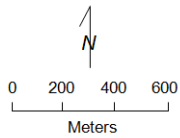
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lotus Lake Chanhassen, Carver Co.

Lake ID: 100006-00

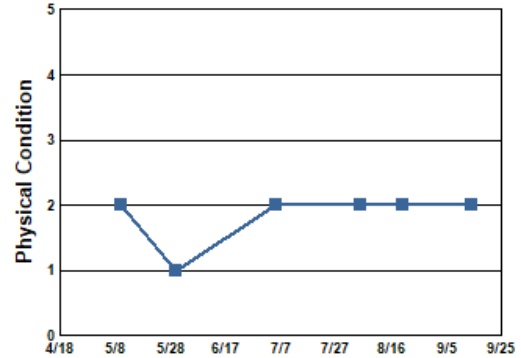
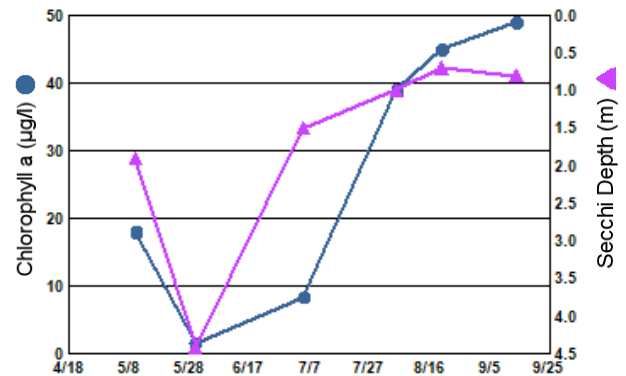
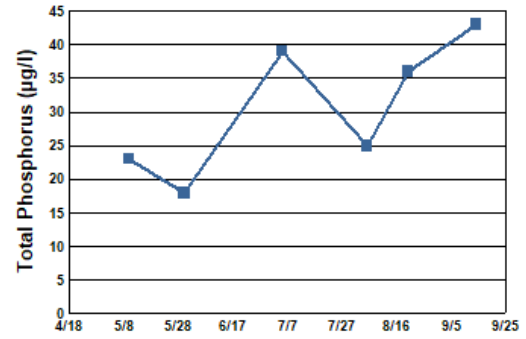
● Sampling site

Contours in meters

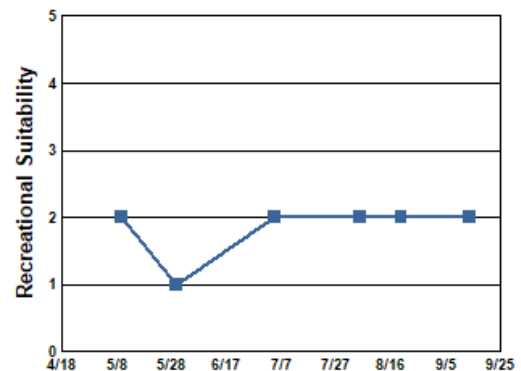


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/10/24	17.6		18	23	1.9	2	2
05/30/24	19.1		1.7	18	4.4	1	1
07/05/24	21.7		8.4	39	1.5	2	2
08/05/24	25.0		39	25	1.0	2	2
08/20/24	24.9		45	36	0.7	2	2
09/14/24	21.6		49	43	0.8	2	2



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP						C						
CLA						C					C	
Secchi	D					C			D	C	C	C
Lake Grade						C						

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP								C	C			D
CLA								C	C			C
Secchi								C	C			D
Lake Grade								C	C			D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	C	C	C	B	C				
CLA	C	C	C	C	C	B	C	C				
Secchi	C	C	C	C	C	C	C	C				
Lake Grade	C	C	C	C	C	C	C	C				

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C			B	C	C	C	B	B
CLA	C			C	C	C	C	B	C
Secchi	C			C	C	C	C	C	C
Lake Grade	C			C	C	C	C	B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Lucy Lake (10–0007) City of Chanhassen

Volunteer: Sharon and Tim McCotter

Lucy Lake is located within the City of Chanhassen (Carver County). It has a surface area of 87 acres and a maximum depth of 6.4 m (21 ft). More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 2002. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2007.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	52	28	71	C
CLA (µg/l)	34	1.4	85	C
Secchi (m)	1.2	0.4	2.4	D
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C which is a return to the poorer water quality observed prior to 2019.

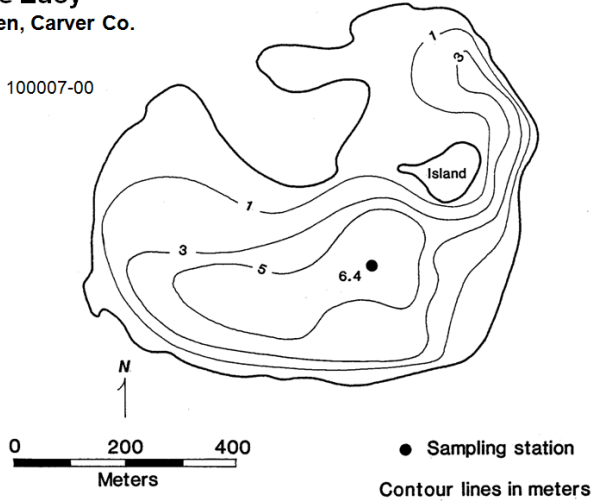
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

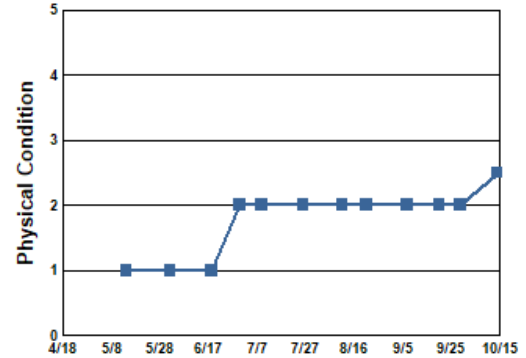
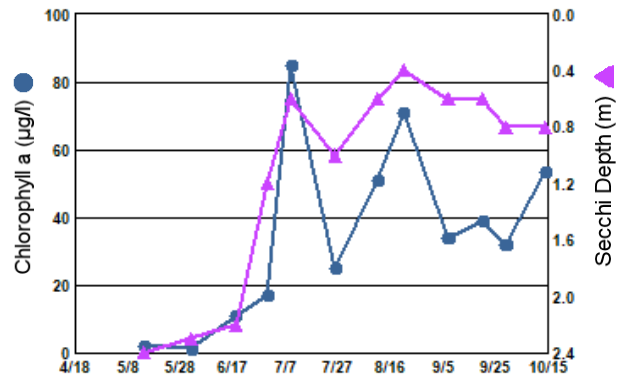
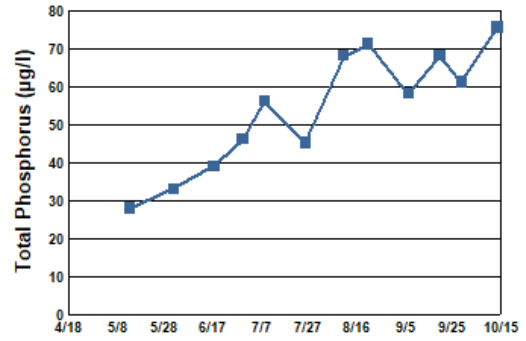
Lake Lucy Chanhassen, Carver Co.

Lake ID: 100007-00

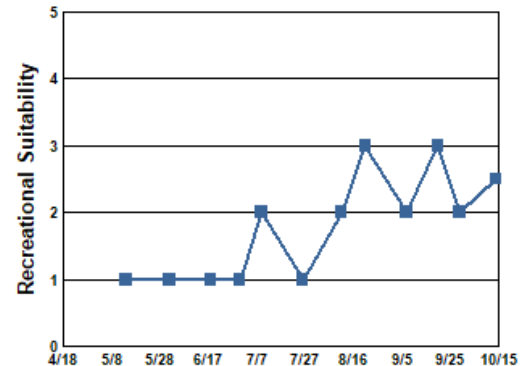


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	16.7		2.3	28	2.4	1	1
06/01/24	21.1		1.4	33	2.3	1	1
06/18/24	21.7		11	39	2.2	1	1
06/30/24	22.2		17	46	1.2	2	1
07/09/24	26.6		85	56	0.6	2	2
07/26/24	24.3		25	45	1.0	2	1
08/11/24	22.9		51	68	0.6	2	2
08/21/24	24.9		71	71	0.4	2	3
09/07/24	22.1		34	58	0.6	2	2
09/20/24	22.7		39	68	0.6	2	3
09/29/24	21.0		32	61	0.8	2	2
10/14/24	14.5		54	76	0.8	3	3



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2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP						C						
CLA						C						
Secchi						C					C	C
Lake Grade						C						

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi	C	C	C	C	C	C	D	C	C	C	C	C
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP						C	C	C	D	C	C	C
CLA						C	C	B	C	C	B	C
Secchi	D	D	C	C	D	C	C	C	C	C	C	D
Lake Grade						C	C	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C		C	A	C
CLA	C	C	C	B	B	A	A	A	C
Secchi	C	C	D	C	C	B	C	B	D
Lake Grade	C	C	C	C	C		B	A	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Marion Lake (19–0026) *City of Lakeville*

Volunteer: Gabrielle Gallagher

Marion Lake is located in the City of Lakeville (Dakota County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) It has a surface area of approximately 560 acres, and has a maximum depth of 6.4 m (21 feet). More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1998 and zebra mussels (*Dreissena polymorpha*) in 2017.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

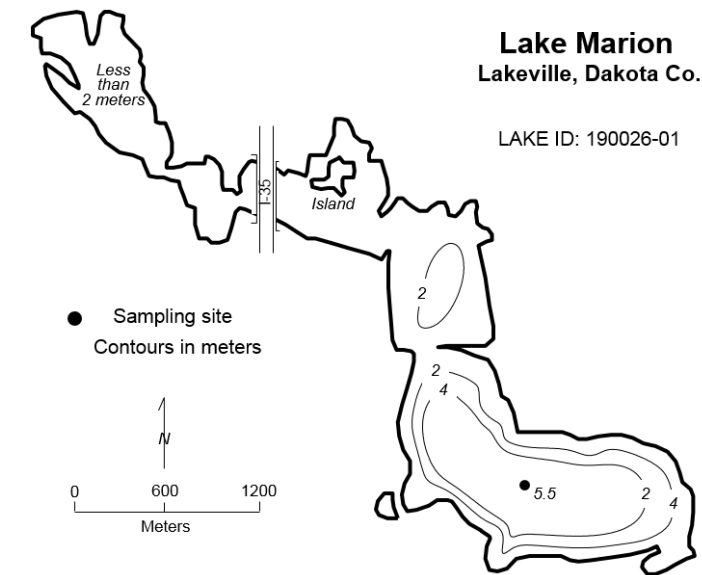
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	23	12	43	B
CLA (µg/l)	8.0	1.7	18	A
Secchi (m)	3.2	1.6	5.4	A
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A. The surface water quality of the lake has varied in the A to B range for the past 10 years according to its historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

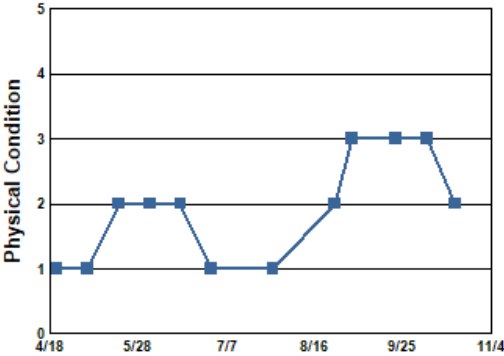
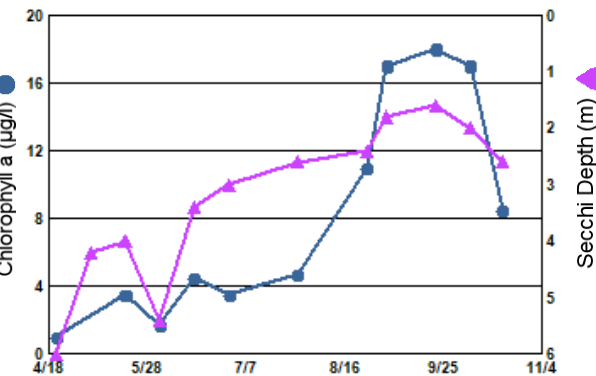
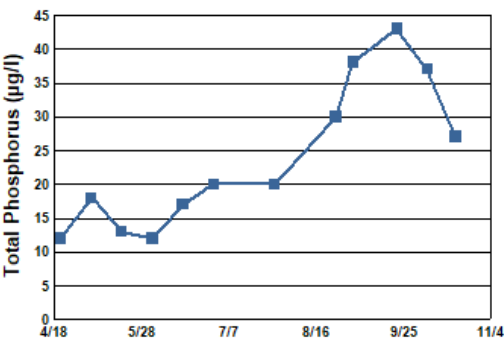
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

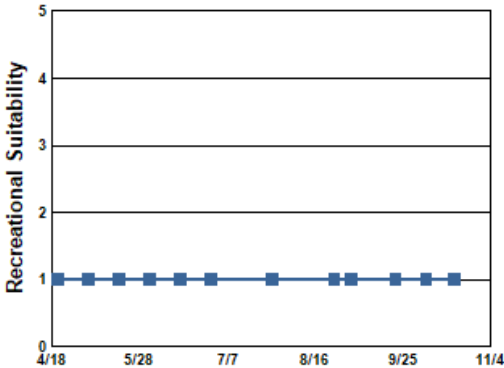


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	10.1		1.0	12	6.0	1	1
05/05/24	15.0			18	4.2	1	1
05/19/24	19.9		3.5	13	4.0	2	1
06/02/24	20.8		1.7	12	5.4	2	1
06/16/24	23.4		4.5	17	3.4	2	1
06/30/24	23.9		3.5	20	3.0	1	1
07/28/24	27.5		4.7	20	2.6	1	1
08/25/24	24.7		11	30	2.4	2	1
09/02/24	23.8		17	38	1.8	3	1
09/22/24	22.1		18	43	1.6	3	1
10/06/24	17.7		17	37	2.0	3	1
10/19/24	13.2		8.5	27	2.6	2	1



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5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
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5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	C	C		C				C		C		
CLA	C	D		C				C		C		
Secchi	C	D		B				C		C	C	C
Lake Grade	C	D		C				C		C		

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			B					B	B	B	C	B
CLA			A					B	A	B	B	C
Secchi			B					C	B	B	C	C
Lake Grade			B					B	B	B	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	C	C	C	C	B	B	A	A	B
CLA	C	C	C	C	C	C	C	B	B	B	A	B
Secchi	C	C	C	C	B	C	C	C	C	C	B	B
Lake Grade	C	C	C	C	C	C	C	B	B	B	A	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	C	A	B	C	B	C	B	B
CLA	B	B	A	B	B	B	B	A	A
Secchi	B	B	B	B	B	B	B	A	A
Lake Grade	B	B	A	B	B	B	B	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Markgrafs Lake (82–0089) *City of Woodbury*

Monitoring Personnel: Washington Conservation District staff

Markgrafs Lake is located within the City of Woodbury (Washington County). It has a surface area of approximately 46 acres, and a maximum depth of 2.4 m (8 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column. The lake has a piped outlet on the southern end. Downstream from the outlet is a valve that can direct the overflow to either Powers or Wilmes lakes.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2006.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	59	52	69	C
CLA (µg/l)	19	4.4	46	B
Secchi (m)	>1.6	1.2	2.0	C
TKN (mg/l)				
			Lake Grade	C

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of C this year which is an improvement in water quality compared to recent years and similar in water quality observed in the mid 1990s and 2000.

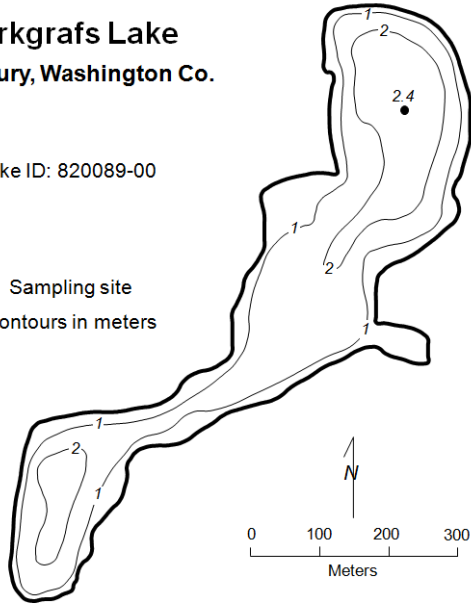
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Markgrafs Lake Woodbury, Washington Co.

Lake ID: 820089-00

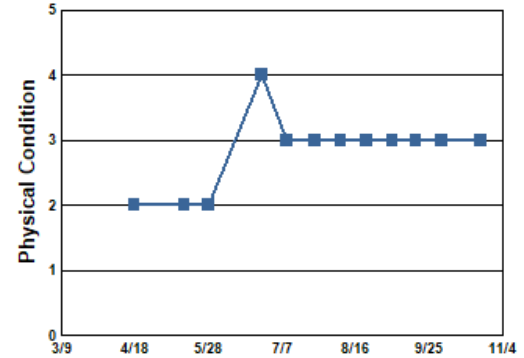
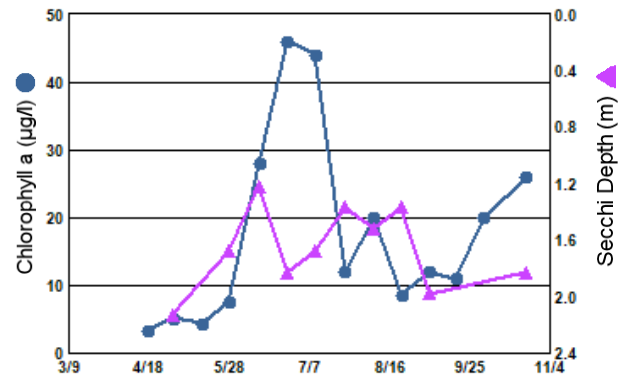
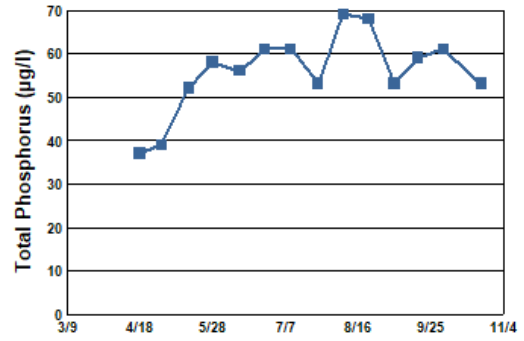
● Sampling site
Contours in meters



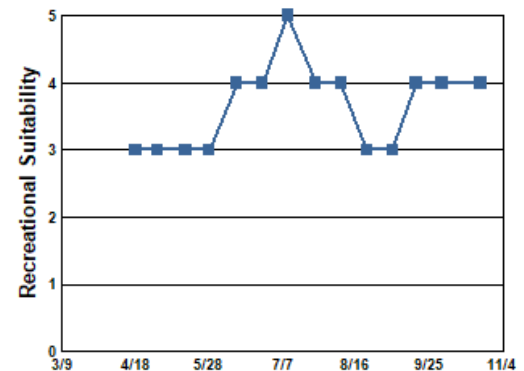
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	11.9		3.4	37	+2.4	2	3
04/30/24	13.4		5.1	39	2.1		3
05/15/24	21.2		4.4	52	>1.8	2	3
05/28/24	20.2		7.5	58	1.7	2	3
06/12/24	21.6		28	56	1.2		4
06/26/24	24.4		46	61	1.8	4	4
07/10/24	25.1		44	61	1.7	3	5
07/25/24	23.7		12	53	1.4	3	4
08/08/24	22.9		20	69	1.5	3	4
08/22/24	23.0		8.6	68	1.4	3	3
09/05/24	22.7		12	53	2.0	3	3
09/18/24	23.7		11	59	>1.4	3	4
10/02/24	18.3		20	61	>1.5	3	4
10/23/24	14.0		26	53	1.8	3	4

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.
> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			D	C	D	D	F	D	D	F	F	D
CLA			C	B	B	C	F	C	C	C	C	C
Secchi			D	C	C	D	F	D	C	D	F	D
Lake Grade			D	C	C	D	F	D	C	D	D	D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D	D	F	D	D	F	F	D	F	D	D	D
CLA	D	C	D	D	D	F	F	D	F	D	C	D
Secchi	F	F	F	F	F	F	F	F	F	F	D	F
Lake Grade	D	D	F	D	D	F	F	D	F	D	D	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	D	D	D	D	C	C
CLA	D	C	C	C	C	D	C	C	B
Secchi	F	F	F	D	D	D	C	C	C
Lake Grade	D	D	D	D	D	D	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

McMahon Lake (70–0050) *Scott Watershed Management Organization*

Volunteer: Bob Grundman

McMahon Lake, also known as Carl's Lake, is located in Spring Lake Township (Scott County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) The lake has a surface area of 110 acres and a maximum depth of 4.5 m (14 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 2012. The MPCA delisted the lake for aquatic recreational use (nutrient/eutrophication biological indicators) in 2018. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2007.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	58	16	108	C
CLA (µg/l)	41	1.7	120	C
Secchi (m)	1.3	0.6	2.9	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year, which is a return to better water quality similar to that observed prior to 2022.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

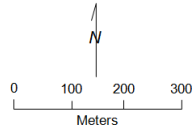
McMahon Lake

Spring Lake Twp.,
Scott Co.

Lake ID: 700050-00

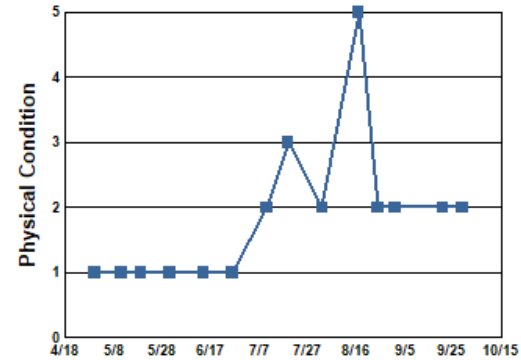
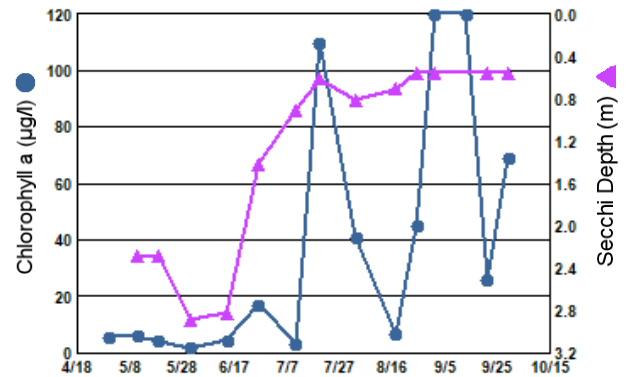
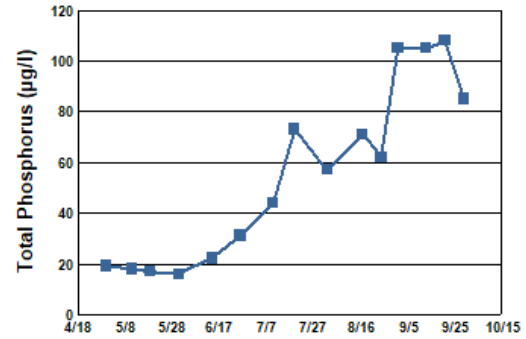
● Sampling site

Contours in meters

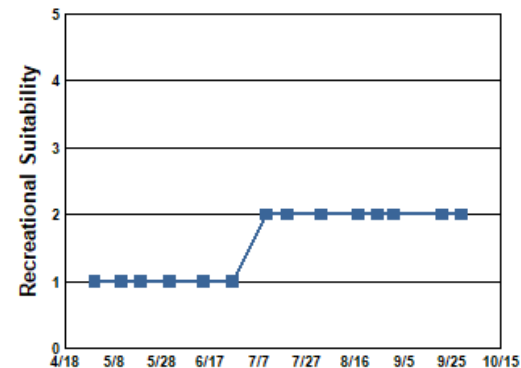


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/30/24	12.8		5.7	19		1	1
05/11/24	18.3		6.0	18	2.3	1	1
05/19/24	20.5		4.2	17	2.3	1	1
05/31/24	21.2		1.7	16	2.9	1	1
06/14/24	25.7		4.5	22	2.8	1	1
06/26/24	23.9		17	31	1.4	1	1
07/10/24	29.4		3.3	44	0.9	2	2
07/19/24	26.7		110	73	0.6	3	2
08/02/24	30.0		41	57	0.8	2	2
08/17/24	25.0		6.7	71	0.7	5	2
08/25/24	30.6		45	62	0.6	2	2
09/01/24	25.6		120	105	0.6	2	2
09/13/24			120	105			
09/21/24	22.0		26	108	0.6	2	2
09/29/24	24.4		69	85	0.6	2	2



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4 = High Algal Color
5 = Severe Algal Bloom



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2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	F				D							
CLA	F				D							
Secchi	C				D							
Lake Grade	D				D							

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP				D			D			D		
CLA				D			D			D		
Secchi				C			D			D		
Lake Grade				D			D			D		

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		D	C	C	D	C	C	D	C	B	C	C
CLA		F	D	C	C	C	B	C	C	C	C	C
Secchi		D	D	D	D	D	C	C	C	C	C	C
Lake Grade		D	D	C	D	C	C	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	D	C	C	C	D	C	C
CLA	C	C	C	D	C	C	D	D	C
Secchi	C	B	C	C	C	C	D	D	C
Lake Grade	C	C	C	C	C	C	D	D	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Medicine Lake [Site 1, Southwest Bay] (27–0104) Bassett Creek Watershed Management Commission

Volunteer: Denny Strunc

Medicine Lake is located mainly in the City of Plymouth (Hennepin County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) The lake has a surface area of 886 acres. The maximum depth of the lake is 14.9 m (49 ft). Approximately 45 percent of the surface area of the lake is littoral zone, which is the shallow 0 – 15 feet depth zone that is typically dominated by aquatic plants.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2004, aquatic consumption (mercury in fish tissue) in 2004, and aquatic life (fish bioassessments) in 2024. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995, zebra mussels (*Dreissena polymorpha*) in 2017, and starry stonewort (*Nitellopsis obtusa*) in 2018.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

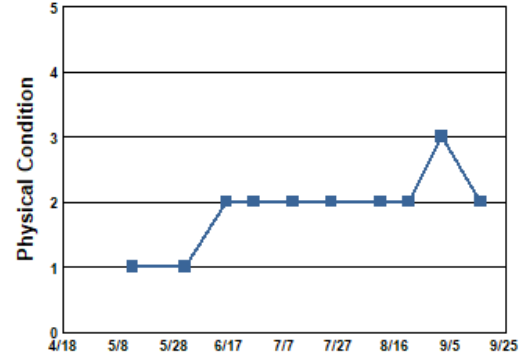
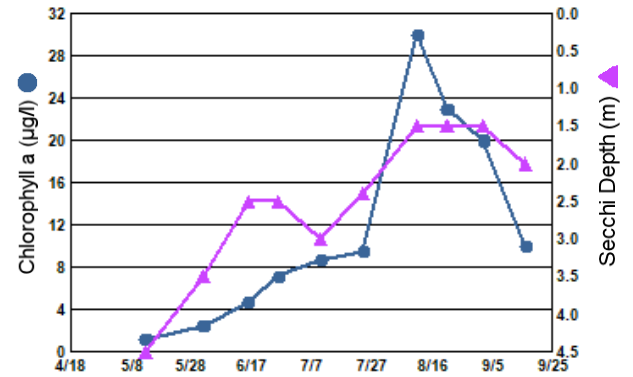
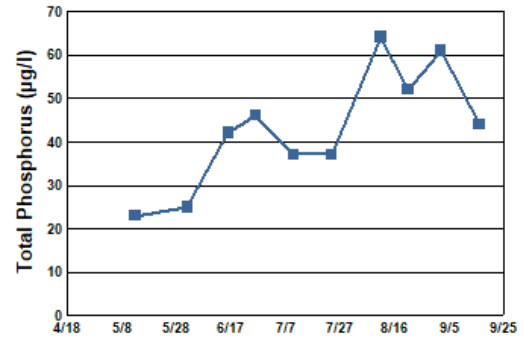
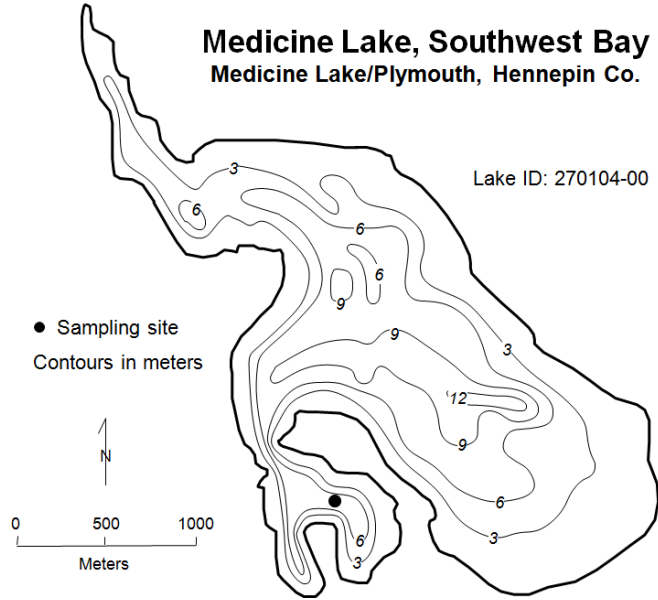
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	43	23	64	C
CLA (µg/l)	12	1.2	30	B
Secchi (m)	2.5	1.5	4.5	B
TKN (mg/l)				
			Lake Grade	B

This lake site received a lake grade of B for the second year in a row which are the best lake grades received for this site according to its historical water quality database. Site 1 has typically received C lake grades. Continued monitoring is recommended to determine if this improvement in water quality continues.

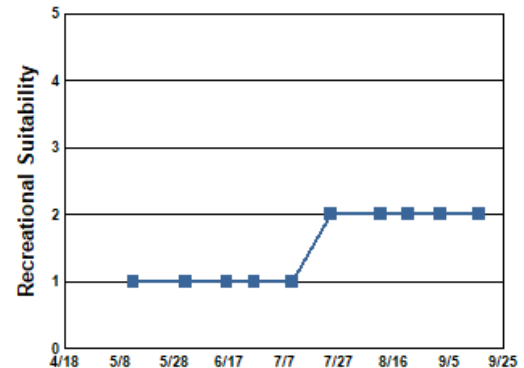
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.



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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
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5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/13/24	17.0		1.2	23	4.5	1	1
06/01/24	19.3		2.5	25	3.5	1	1
06/16/24	22.1		4.7	42	2.5	2	1
06/26/24	23.5		7.2	46	2.5	2	1
07/10/24	26.1		8.7	37	3.0	2	1
07/24/24	26.4		9.5	37	2.4	2	2
08/11/24	22.1		30	64	1.5	2	2
08/21/24	23.8		23	52	1.5	2	2
09/02/24	23.3		20	61	1.5	3	2
09/16/24	22.6		10	44	2.0	2	2

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA				C								
Secchi				C								
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C					C				
CLA												
Secchi			C					C				
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			C		C		C	C	C	C	C	C
CLA							C	C	C	C	C	C
Secchi			C		C		C	C	C	C	C	B
Lake Grade							C	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C	C	C	B	C
CLA	C	C	C	C	C	B	B	B	B
Secchi	C	C	C	C	C	C	B	A	B
Lake Grade	C	C	C	C	C	C	B	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Medicine Lake [Site 2, Main Lake] (27–0104) Bassett Creek Watershed Management Commission

Volunteer: Randy Mikolai

Medicine Lake is located mainly in the City of Plymouth (Hennepin County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) The lake has a surface area of 886 acres. The maximum depth of the lake is 14.9 m (49 ft). Approximately 45 percent of the surface area of the lake is littoral zone, which is the shallow 0 – 15 feet depth zone that is typically dominated by aquatic plants.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2004, aquatic consumption (mercury in fish tissue) in 2004, and aquatic life (fish bioassessments) in 2024. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995, zebra mussels (*Dreissena polymorpha*) in 2017, and starry stonewort (*Nitellopsis obtusa*) in 2018.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

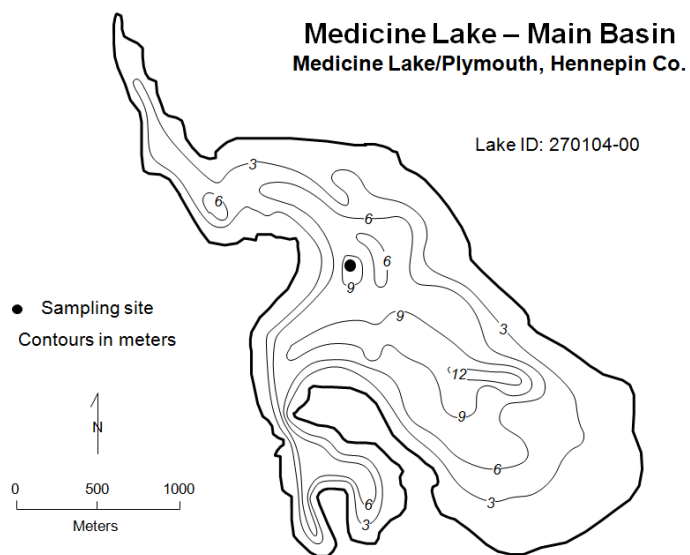
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	41	24	62	C
CLA (µg/l)	11	2.6	23	B
Secchi (m)	2.7	1.7	4.4	B
TKN (mg/l)				
			Lake Grade	B

Site 2 received a lake grade of B this year for the fourth year in a row which is an improvement in water quality compared to the C grades received prior to 2020. Continued monitoring is recommended to determine if this recent improvement in water quality is part of a longer term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

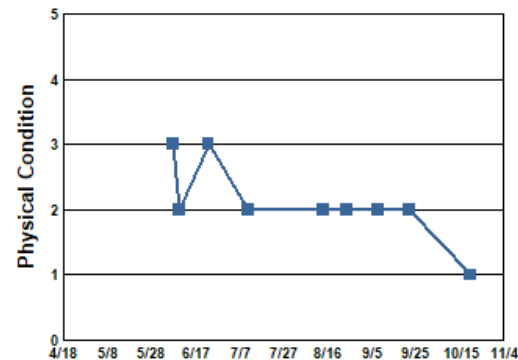
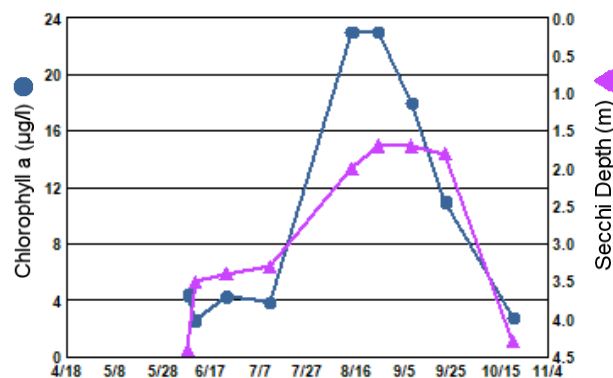
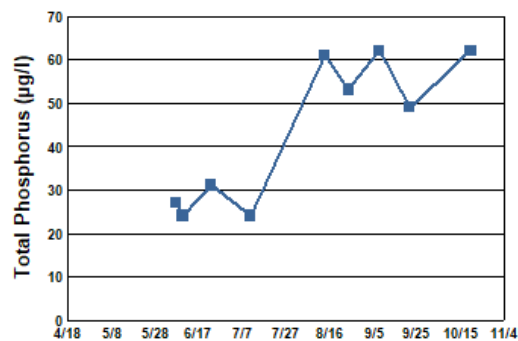
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

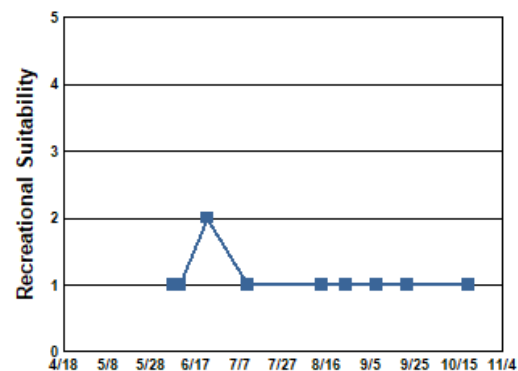


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/07/24	21.2		4.4	27	4.4	3	1
06/10/24	22.0		2.6	24	3.5	2	1
06/23/24	22.5		4.3	31	3.4	3	2
07/11/24	22.4		3.9	24	3.3	2	1
08/14/24	23.0		23	61	2.0	2	1
08/25/24	25.2		23	53	1.7	2	1
09/08/24	21.3		18	62	1.7	2	1
09/22/24	21.8		11	49	1.8	2	1
10/20/24	16.1		2.8	62	4.3	1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP		C		C							C	C
CLA		D		C							D	C
Secchi		C		C							C	C
Lake Grade		C		C							C	C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C	C				C				
CLA												
Secchi			C	C				C				
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C		C	C	C	C	C	C	C	C	C	C
CLA								C	B	C	B	
Secchi	C		C	C	C	C	C	C	C	C	C	B
Lake Grade								C	C	C	C	

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C	C	C	B	C
CLA	C	C	C	C	B	B	B	B	B
Secchi	C	C	C	C	B	B	B	B	B
Lake Grade	C	C	C	C	B	B	B	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Minnetoga Lake (27–0088) *Nine Mile Creek Watershed District*

Volunteer: Holly Birkeland, Sig Birkeland

Lake Minnetoga is located in Minnetonka, Hennepin County. The lake has a surface area of 14.4 acres, and an average depth of 3.9 m. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	39	31	56	C
CLA (µg/l)	10	5.3	17	B
Secchi (m)	1.5	1.2	1.9	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year. The lake grades have varied in the B to C range since 2007.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

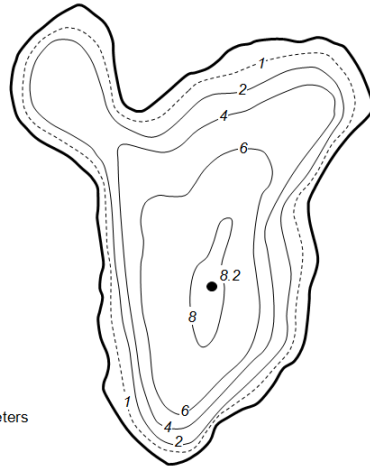
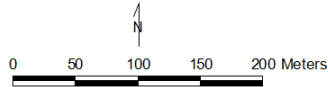
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Lake Minnetoga Minnetonka, Hennepin Co.

Lake ID: 270088-00

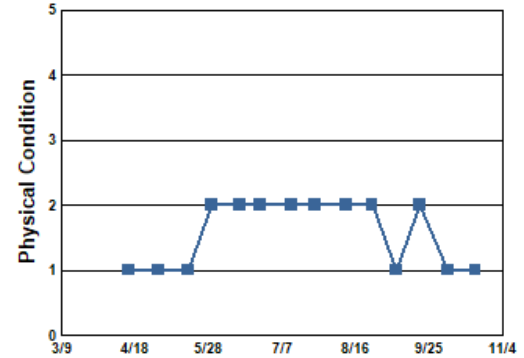
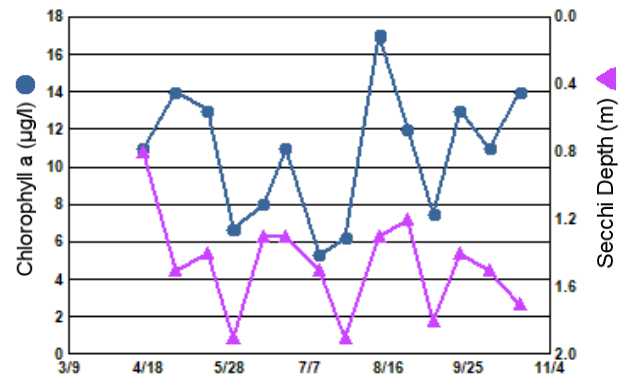
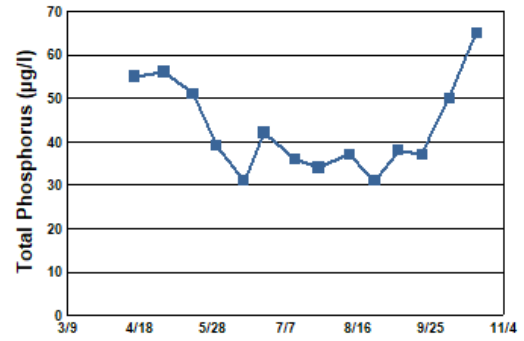
● Sampling site

Contours in meters



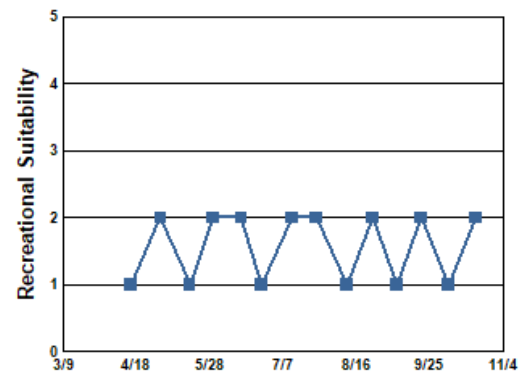
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/15/24	16.1		11	55	0.8	1	1
05/01/24	14.5		14	56	1.5	1	2
05/17/24	21.0		13	51	1.4	1	1
05/30/24	20.2		6.7	39	1.9	2	2
06/14/24	26.1		8.0	31	1.3	2	2
06/25/24			11	42	1.3	2	1
07/12/24	21.3		5.3	36	1.5	2	2
07/25/24	25.6		6.2	34	1.9	2	2
08/11/24	24.1		17	37	1.3	2	1
08/25/24	25.5		12	31	1.2	2	2
09/07/24	21.2		7.5	38	1.8	1	1
09/20/24	23.7		13	37	1.4	2	2
10/05/24	17.5		11	50	1.5	1	1
10/20/24	13.5		14	65	1.7	1	2



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3 = Definite Algal Presence

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5 = Severe Algal Bloom



1 = Beautiful
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Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP				C	B		B	C	B	C	B	B
CLA				C	A		A	B	A	C	B	A
Secchi				C	B		B	C	B	B	C	C
Lake Grade				C	B		B	C	B	C	B	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C	C	C	C	C
CLA	A	A	A	A	A	A	A	A	B
Secchi	C	C	C	C	C	C	B	C	C
Lake Grade	B	B	B	B	B	B	B	B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Minnewashta Lake [Site-1] (10–0009) *City of Chanhassen*

Volunteer: Kevin Zahler

Minnewashta Lake is located in the city of Chanhassen (Carver County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters). It is a relatively large lake with a surface area of 677 acres. The maximum depth of the lake is 21.3 m (70 feet).

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 2004 and aquatic life (fish bioassessments) in 2024. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995 and zebra mussels (*Dreissena polymorpha*) in 2016.

On each sampling day surface samples and near-bottom samples were collected for laboratory analysis of total phosphorus, total dissolved phosphorus, total Kjeldahl nitrogen, chlorophyll, and other parameters. Secchi transparency was measured and depth profiles of dissolved oxygen, temperature, pH, specific conductivity, and turbidity were made during each site visit. The surface data are summarized in tables and figures on the following pages. For depth profile data and near bottom sample results, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	14	11	16	A
CLA (µg/l)	2.8	1.1	5.3	A
Secchi (m)	3.4	2.3	4.5	A
TKN (mg/l)				
			Lake Grade	A

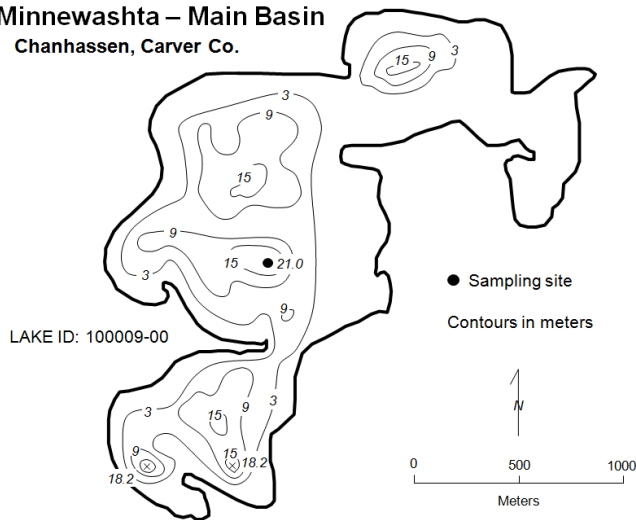
Site 1 received a lake grade of A this year which is consistent with its historical water quality database. Continued monitoring is recommended to continue to build the water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

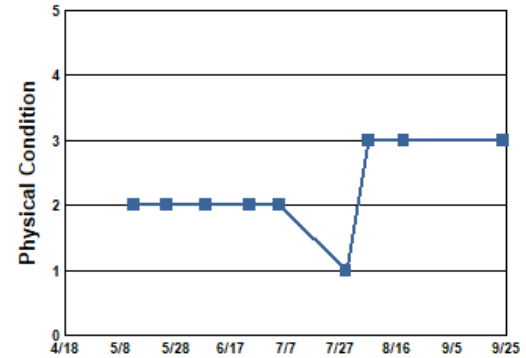
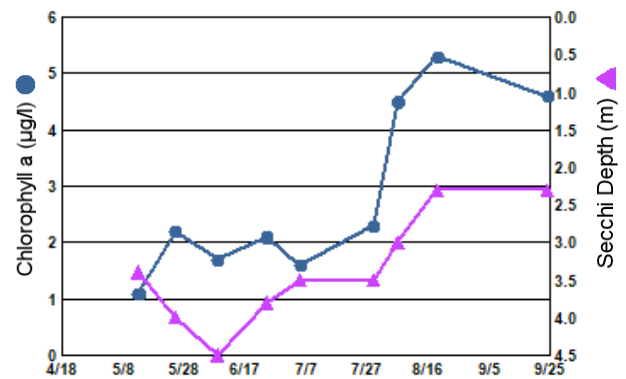
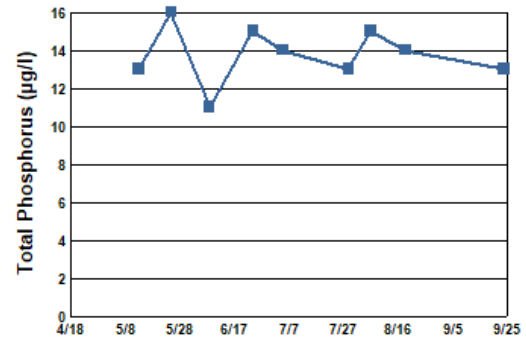
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lake Minnewashta – Main Basin Chanhassen, Carver Co.



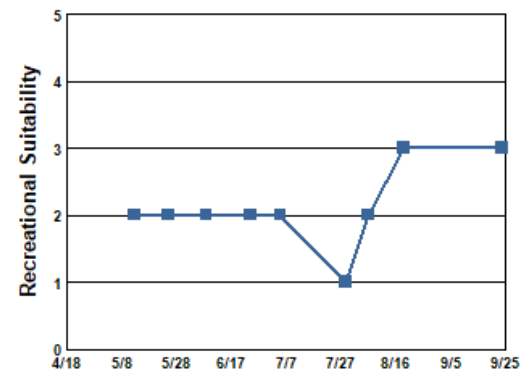
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/13/24	18.3		1.1	13	3.4	2	2
05/25/24	18.9		2.2	16	4.0	2	2
06/08/24	21.0		1.7	11	4.5	2	2
06/24/24	22.5		2.1	15	3.8	2	2
07/05/24	22.8		1.6	14	3.5	2	2
07/29/24	27.2		2.3	13	3.5	1	1
08/06/24	25.0		4.5	15	3.0	3	2
08/19/24	24.8		5.3	14	2.3	3	3
09/24/24	22.0		4.6	13	2.3	3	3



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					A						A	
CLA					A						A	
Secchi					A						A	
Lake Grade					A						A	

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		A				A	A	A			A	A
CLA		A				A	A	A			B	A
Secchi		A				A	A	B			B	B
Lake Grade		A				A	A	A			B	A

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP			A	A	A	A	A		A
CLA			A	A	A	A	A	A	A
Secchi			C	B	B	A	A	A	A
Lake Grade			B	A	A	A	A	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Mitchell Lake (27–0070) City of Eden Prairie

Volunteers: Michelle Rothwell

Mitchell Lake is located in the City of Eden Prairie (Hennepin County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) It has a surface area of 112 acres. The maximum depth of the lake is 5.8 m (19 feet). More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone.

The MPCA delisted the lake from the impaired waters list for aquatic recreational use (nutrient/eutrophication biological indicators) in 2018. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2004 and brittle naiad (*Najas minor*) in 2023.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	54	22	92	C
CLA (µg/l)	34	2.7	90	C
Secchi (m)	1.4	0.6	3.1	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C which is consistent with its historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

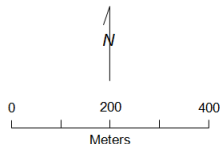
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lake Mitchell
Eden Prairie, Hennepin Co.

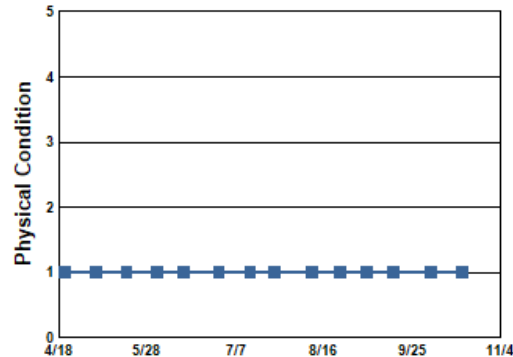
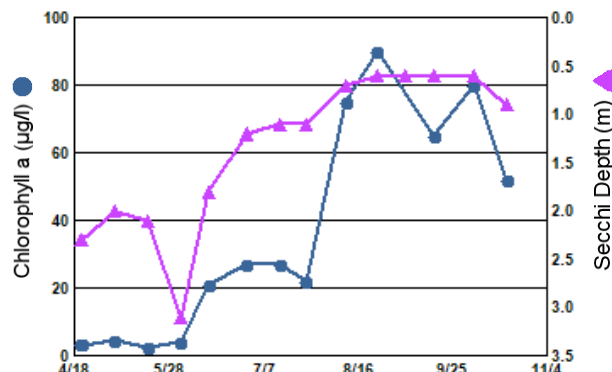
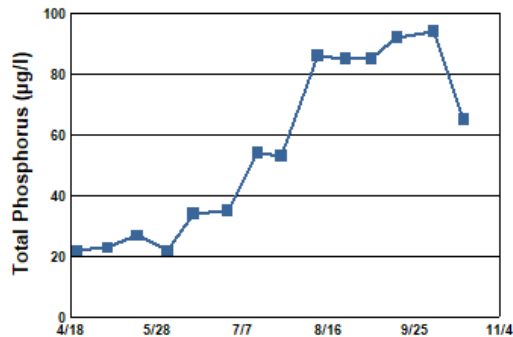
Lake ID: 270070-00

● Sampling site
Contours in meters

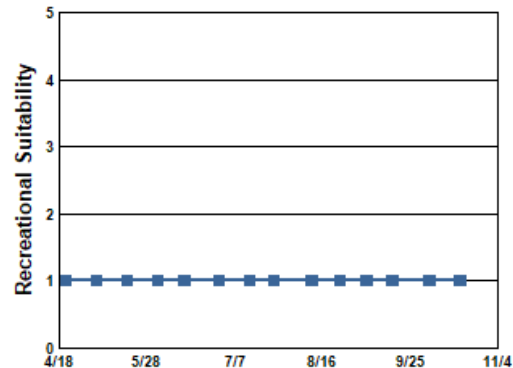


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	10.4		3.4	22	2.3	1	1
05/05/24	16.9		4.6	23	2.0	1	1
05/19/24	21.8		2.7	27	2.1	1	1
06/02/24	21.1		4.0	22	3.1	1	1
06/14/24	24.5		21	34	1.8	1	1
06/30/24	25.7		27	35	1.2	1	1
07/14/24	29.6		27	54	1.1	1	1
07/25/24	27.0		22	53	1.1	1	1
08/11/24	24.5		75	86	0.7	1	1
08/24/24	24.1		90	85	0.6	1	1
09/05/24	22.6			85	0.6	1	1
09/17/24	24.2		65	92	0.6	1	1
10/04/24	17.9		80	94	0.6	1	1
10/18/24	12.2		52	65	0.9	1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												D
CLA												C
Secchi												C
Lake Grade												C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP				C				D	D			D
CLA				C				D	D			D
Secchi				C				D	C			C
Lake Grade				C				D	D			D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	D	D	C	C	C	C	C	C	C	C	C
CLA	C	C	C	C	B	C	C	B	B	B	B	C
Secchi	C	C	D	C	C	C	C	C	C	C	C	C
Lake Grade	C	C	D	C	C	C	C	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C	C	C	C	C
CLA	C	B	C	C	C	B	C	C	C
Secchi	C	B	C	C	C	C	C	D	C
Lake Grade	C	B	C	C	C	C	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Moody Lake (13–0023) *Comfort Lake — Forest Lake Watershed District*

Volunteers: Amy Vislisl

Sponsor: Comfort Lake — Forest Lake Watershed District

Moody Lake is a 35-acre lake located near Chisago City (Chisago County). The lake has a maximum depth of approximately 14.6 m (48 feet). Roughly 63 percent of the lake's surface area is considered littoral zone, which is the shallow 0 – 15 feet depth zone that is typically dominated by aquatic plants.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2008.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	63	22	170	C
CLA (µg/l)	13	2.8	43	B
Secchi (m)	>1.6	0.9	>2.5	C
TKN (mg/l)				
			Lake Grade	C

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a C lake grade which continues the recent improvement in water quality in comparison to the D grades received in the past. Continued monitoring is recommended to determine if this recent improvement in water quality is part of a longer term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

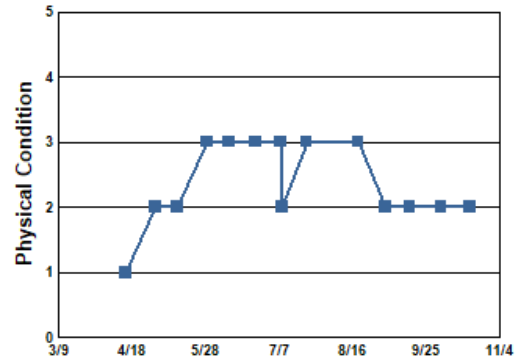
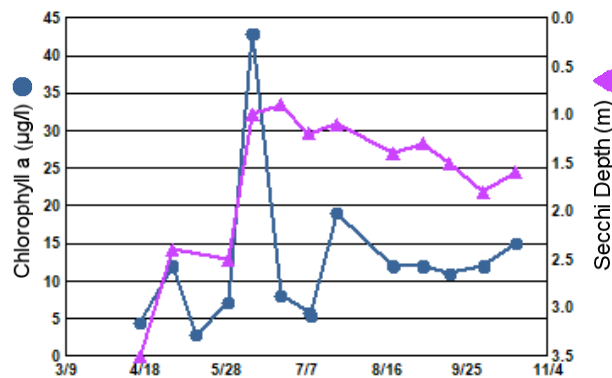
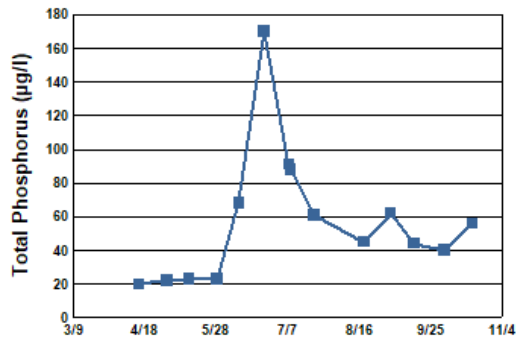
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Moody Lake

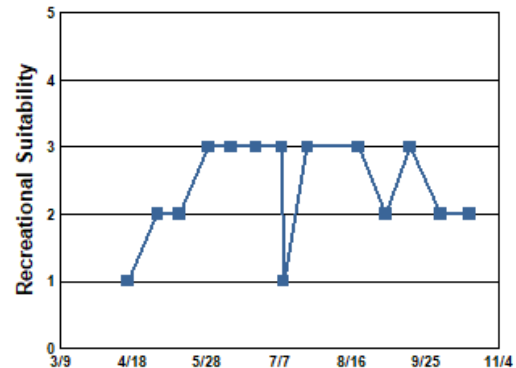
Chisago Lake Twp., Chisago Co.

LAKE ID: 130023-00

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/15/24	12.6		4.5	20	3.5	1	1
05/01/24	13.1		12	22	2.4	2	2
05/13/24	20.9		2.8	23	>2.5	2	2
05/29/24	20.5		7.2	23	2.5	3	3
06/10/24	24.4		43	68	1.0	3	3
06/24/24	24.8		8.1	170	0.9	3	3
07/08/24	25.1		5.9	91	1.2	3	3
07/09/24	26.5		5.3	88	>1.3	2	1
07/22/24	27.6		19	61	1.1	3	3
08/19/24	26.1		12	45	1.4	3	3
09/03/24	21.7		12	62	1.3	2	2
09/16/24	26.0		11	44	1.5	2	3
10/03/24	17.9		12	40	1.8	2	2
10/19/24	12.5		15	56	1.6	2	2

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		D	D				D	D	D	D	D	D
CLA		D	C				D	F	D	C	C	D
Secchi		D	D				D	D	D	D	D	D
Lake Grade		D	D				D	D	D	D	D	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	C	C	C	C	C	C
CLA	C	C	D	C	C	A	C	B	B
Secchi	D	D	D	D	D	B	C	C	C
Lake Grade	D	D	D	C	C	B	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Nielson Lake (82–0055) *Comfort Lake — Forest Lake Watershed District*

Sponsor: Comfort Lake — Forest Lake Watershed District

Monitoring Personnel: Comfort Lake — Forest Lake Watershed District staff

Nielson Lake is located in the city of Scandia (Washington County). There are few morphological data available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	98	81	127	D
CLA (µg/l)	90	47	170	F
Secchi (m)	0.5	0.3	0.7	F
TKN (mg/l)				
			Lake Grade	F

The lake received an F lake grade this year similar to the grades received in the mid 2010s. Continued monitoring is recommended to continue to build the water quality database.

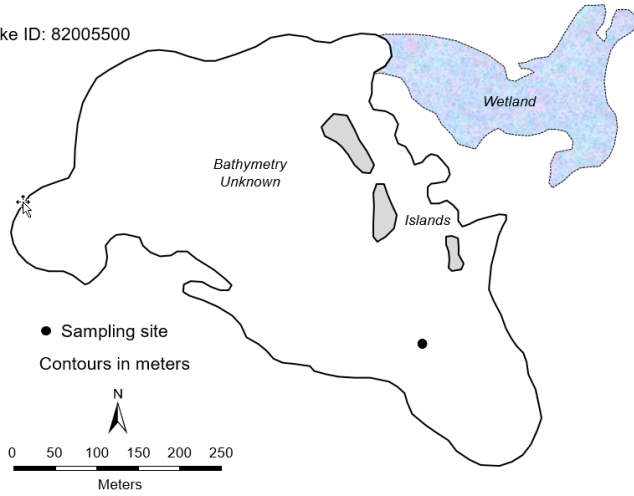
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

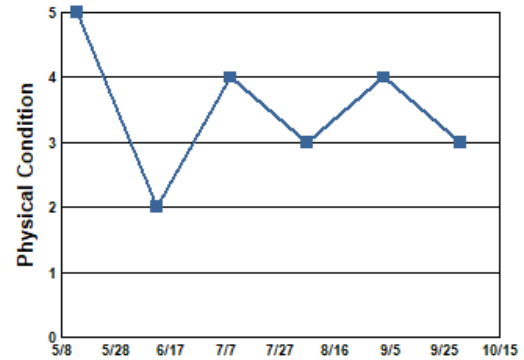
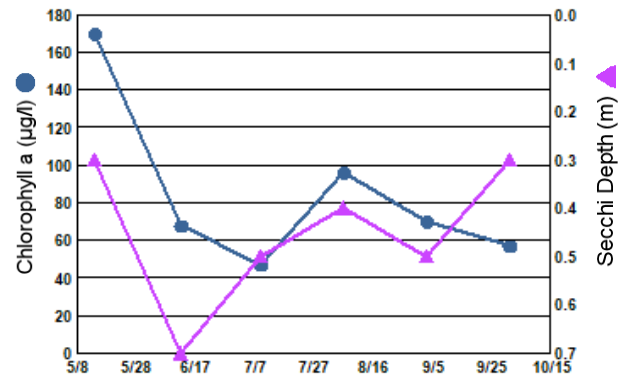
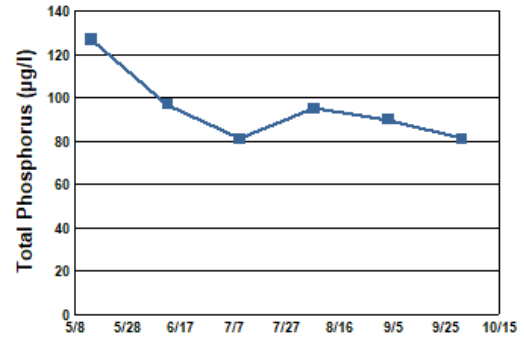
Nielson Lake Scandia, Washington Co.

Lake ID: 82005500

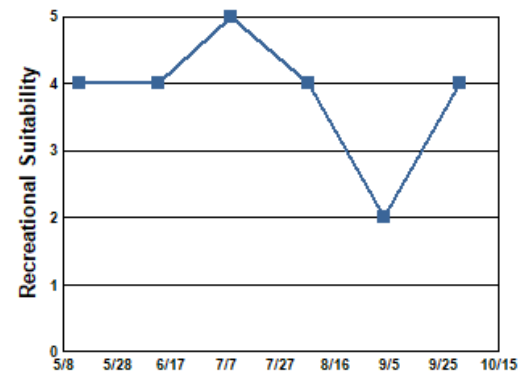


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	19.8		170	127	0.3	5	4
06/12/24	21.8		68	97	0.7	2	4
07/09/24	26.1		47	81	0.5	4	5
08/06/24	24.1		96	95	0.4	3	4
09/03/24	22.7		70	90	0.5	4	2
10/01/24	18.8		57	81	0.3	3	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		D	D						D
CLA		F	F						F
Secchi		F	F						F
Lake Grade		F	F						F

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Northwood Lake (27–0627) Bassett Creek Watershed Management Organization

Volunteer: Keith Bremel

Northwood Lake is a 15-acre lake located within the City of New Hope (Hennepin County). The mean and maximum depths of the lake are 0.8 m (2.5 ft) and 1.5 m (4.9 ft), respectively. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column. The lake's 1,341-acre immediate watershed translates to a large watershed-to-lake area ratio of 89:1. The greater the ratio, the greater the potential stress on the lake from surface runoff.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2004.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

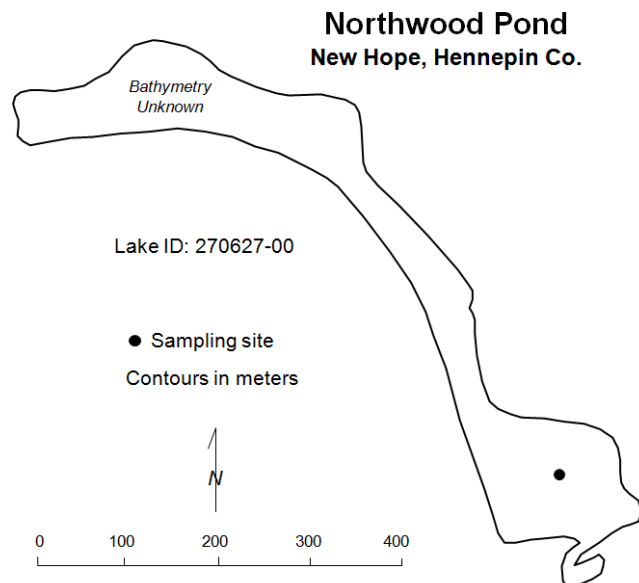
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	115	77	148	D
CLA (µg/l)	47	18	84	C
Secchi (m)	0.7	0.5	0.9	D
TKN (mg/l)				
			Lake Grade	D

The lake received an D lake grade this year. The lake grades for this lake have varied in the D to F range since 2006.

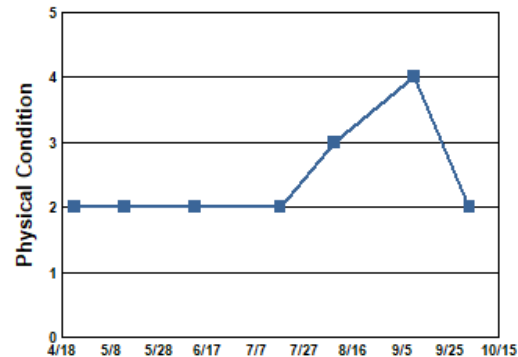
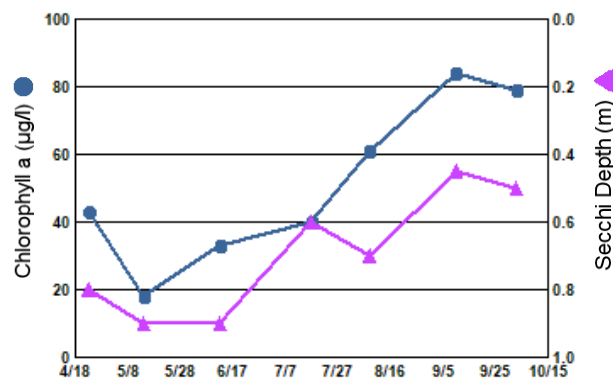
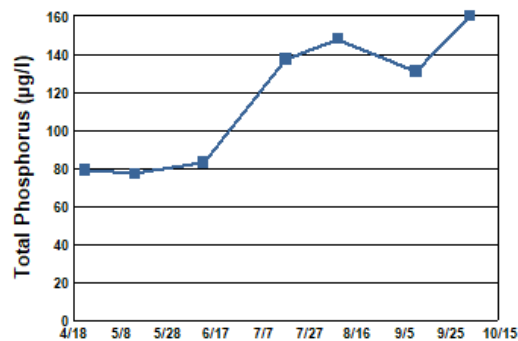
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

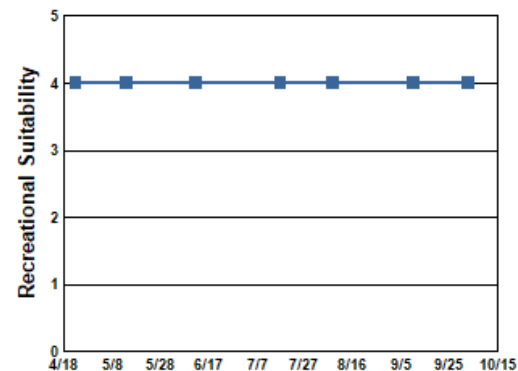


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/23/24	14.2		43	79	0.8	2	4
05/14/24	23.8		18	77	0.9	2	4
06/12/24	23.3		33	83	0.9	2	4
07/17/24	27.9		40	137	0.6	2	4
08/08/24	23.3		61	148	0.7	3	4
09/10/24	22.9		84	131	0.5	4	4
10/03/24	18.3		79	160	0.5	2	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP									F	F	D	F
CLA									B	C	B	C
Secchi									D	D	D	D
Lake Grade									D	D	C	D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D	D	F	F	D	F	D	F	F	F	D	F
CLA	B	B	B	C	C	B	C	C	C	C	A	C
Secchi	D	D	D	D	D	D	D	D	D	D		
Lake Grade	C	C	D	D	D	D	D	D	D	D		

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	F	F	D	F	F	F	F	D
CLA	C	D	D	C	F	F	F	F	C
Secchi	D	D	F		F	F	F	F	D
Lake Grade	D	D	F		F	F	F	F	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

O'Connor Lake (82-0002) *South Washington Watershed District*

Volunteer: Jeff Keene

O'Connor Lake is a 38-acre lake located within Denmark Township (Washington County). There are few known morphological data available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), chlorophyll including chlorophyll-a (CLA), and chloride. Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages. For the chloride data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

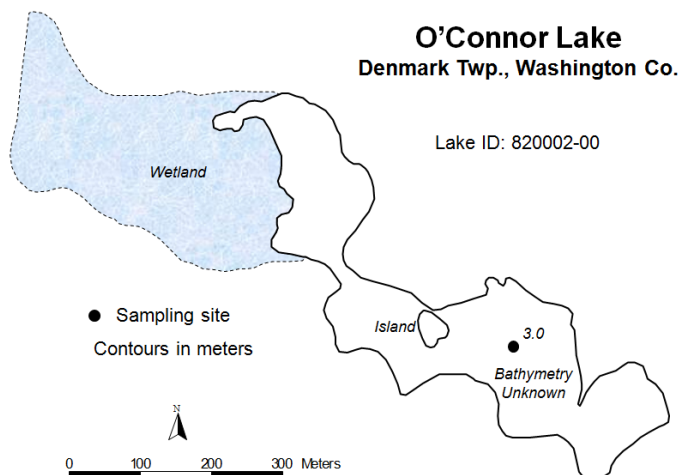
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	29	12	37	B
CLA (µg/l))	14	6.9	20	B
Secchi (m)	+2.1	1.8	+2.9	C
TKN (mg/l)				
			Lake Grade	B

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

The lake received a lake grade of C which is consistent with its historical water quality database. The lake has varied in the B to C range for the past 10 years.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

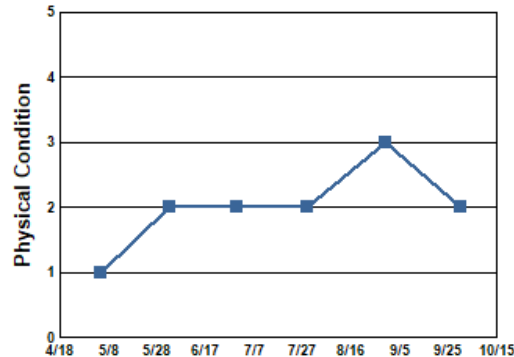
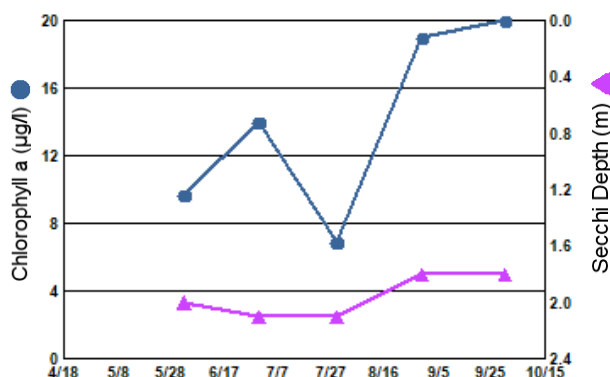
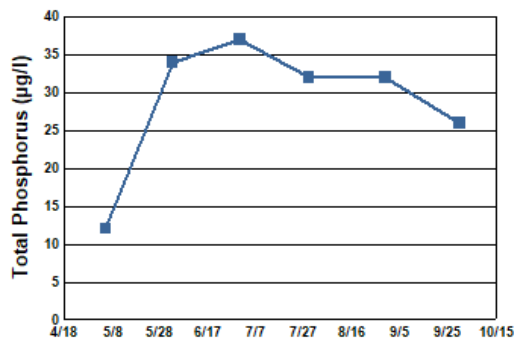
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.



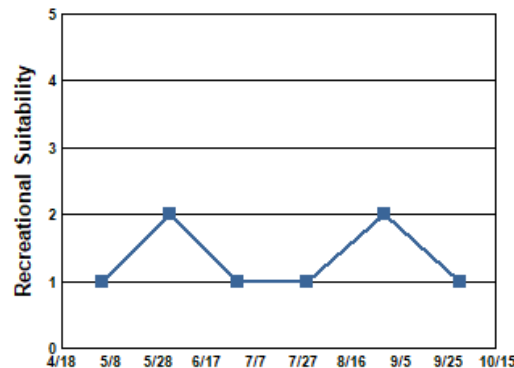
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	17.6			12	+2.9	1	1
06/02/24	20.9		9.7	34	2.0	2	2
06/30/24	23.4		14	37	2.1	2	1
07/29/24	29.6		6.9	32	2.1	2	1
08/30/24	25.3		19	32	1.8	3	2
09/30/24	19.7		20	26	1.8	2	1

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	C	C	C	D	D	B		B	A	C
CLA		B	A	A	B	D	C	A		B	A	C
Secchi		C	C	F	C	D	D	C		C		C
Lake Grade		C	B	C	C	D	D	B		B		C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	C	C			C	C	C	B
CLA	C	B	C			C	C	C	B
Secchi		C	C		C	C		C	C
Lake Grade		C	C			C		C	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

O'Dowd Lake (70–0095) City of Shakopee

Volunteer: Maxine Hughes

O'Dowd Lake is located in both Louisville Township and the City of Shakopee (Scott County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) The lake's surface area is 258 acres and has a maximum depth of 6.7 m (roughly 22 feet). More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998 and aquatic life (fish bioassessments) in 2018. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2002.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	25	14	35	B
CLA (µg/l)	8.8	1.3	18	A
Secchi (m)	2.5	1.1	5.0	B
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B, which is consistent with its historical water quality database. The lake grades tend mostly to be in the C range with the occasional B.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

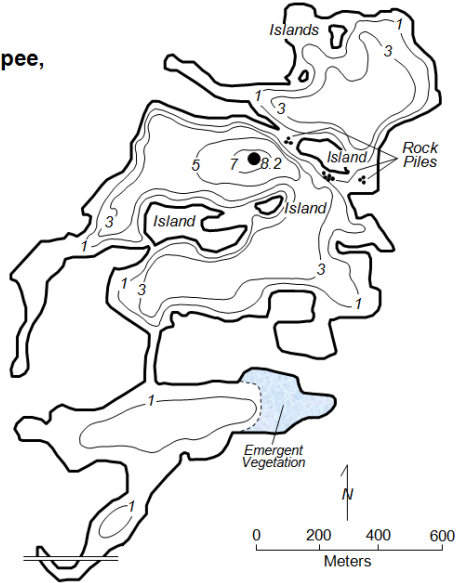
O'Dowd Lake

Louisville Twp./Shakopee,
Scott Co.

LAKE ID: 700095-00

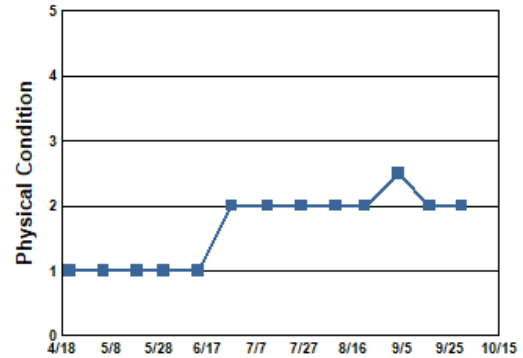
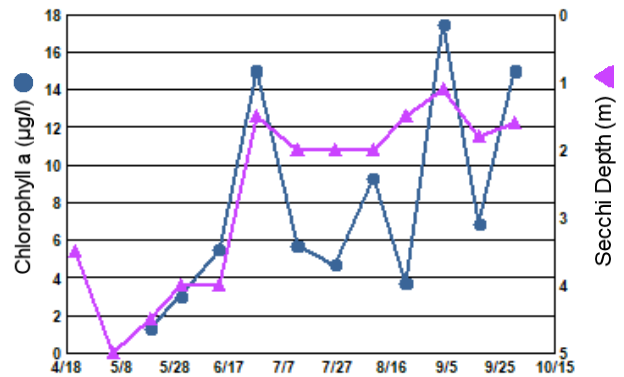
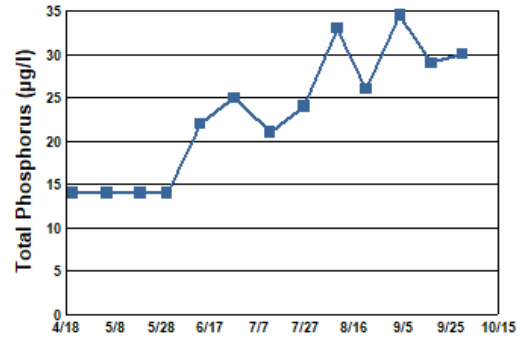
● Sampling site

Contours in meters



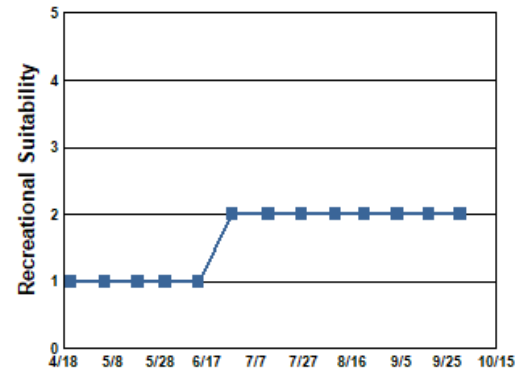
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	12.0			14	3.5	1	1
05/05/24	15.2			14	5.0	1	1
05/19/24			1.3	14	4.5	1	1
05/30/24	20.6		3.0	14	4.0	1	1
06/13/24	22.3		5.5	22	4.0	1	1
06/27/24	25.0		15	25	1.5	2	2
07/12/24	26.0		5.7	21	2.0	2	2
07/26/24	26.0		4.7	24	2.0	2	2
08/09/24	23.5		9.3	33	2.0	2	2
08/21/24	25.0		3.7	26	1.5	2	2
09/04/24	22.6		18	35	1.1	3	2
09/17/24	24.5		6.9	29	1.8	2	2
09/30/24	20.8		15	30	1.6	2	2



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5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					C							
CLA					C							
Secchi					C							
Lake Grade					C							

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C			C			C		D	
CLA			D			C			C		D	
Secchi			C			C			C		C	
Lake Grade			C			C			C		D	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	D	C	C	C	C	C	C	B	A	C
CLA		D	C	D	C	C	C	C	C	C	B	C
Secchi		C	D	C	C	C	C	C	C	C	C	C
Lake Grade		C	D	C	C	C	C	C	C	C	B	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	B	B	B	C	B	B	B	B
CLA	C	C	C	C	C	B	C	B	A
Secchi	C	C	C	C	C	C	C	B	B
Lake Grade	C	C	C	C	C	B	C	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Olson Lake (82–0103) Valley Branch Watershed District

Volunteers: Tom Bucher, Gary Fields

Olson Lake is located in the City of Lake Elmo (Washington County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) The lake has a surface area of 89 acres and a mean and maximum depth of 2.1 (6.9 feet) and 4.5 m (14.8 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2009, and zebra mussels (veligers) (*Dreissena polymorpha*) in 2025.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	15	13	20	A
CLA (µg/l)	3.5	1.0	11	A
Secchi (m)	3.8	1.9	5.1	A
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A this year. This grade is consistent with much of its recent historical water quality database. Also, the historical water quality database indicates that the lake grades have improved since the 1980's. The lake received a lake grade of C in 1984, as well as receiving Secchi grades of C in 1984-1986, and 1988-1990. Lake Grades of B were received in 1991, 1993, and 1995. Between 2000 and 2012, the lake has recorded lake grades varying between A and B. Since 2013 the lake has received A lake grades.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

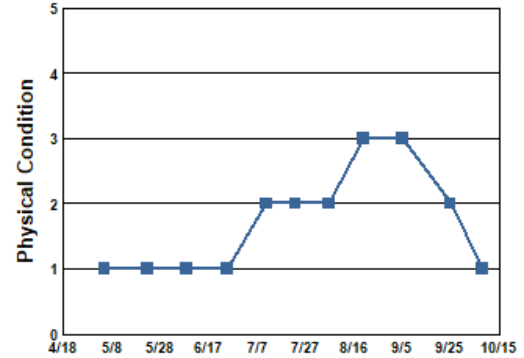
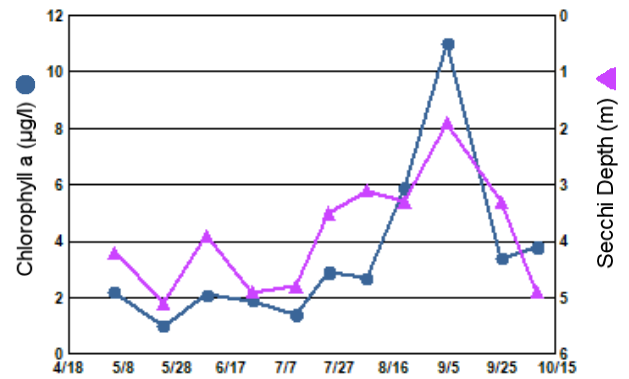
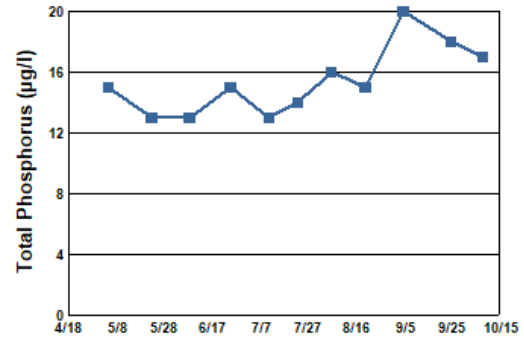
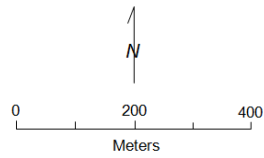
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Lake Olson

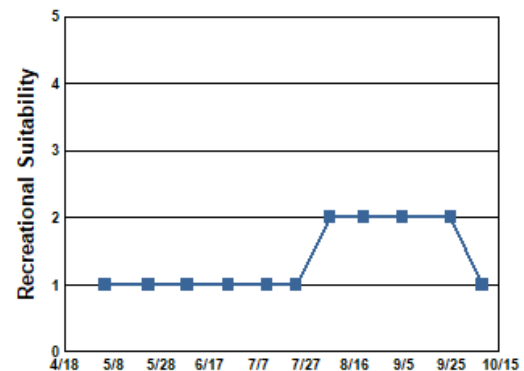
Lake Elmo, Washington Co.

Lake ID: 820103-00

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	15.5		2.2	15	4.2	1	1
05/23/24	22.0		1.0	13	5.1	1	1
06/08/24	22.6		2.1	13	3.9	1	1
06/25/24	26.0		1.9	15	4.9	1	1
07/11/24	26.7		1.4	13	4.8	2	1
07/23/24	27.4		2.9	14	3.5	2	1
08/06/24	26.9		2.7	16	3.1	2	2
08/20/24	27.1		5.9	15	3.3	3	2
09/05/24	23.6		11	20	1.9	3	2
09/25/24	22.2		3.4	18	3.3	2	2
10/08/24	17.6		3.8	17	4.9	1	1

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					C							B
CLA					C							B
Secchi					C	C	C		C	C	C	B
Lake Grade					C							B

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		B		C					A			A
CLA		A		B					A			B
Secchi		B		B					A			A
Lake Grade		B		B					A			A

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	A	B	C	B	A	A	B	A	A	A	A	A
CLA	A	B	B	A	A	A	B	A	B	A	A	A
Secchi	A	B	B	B	A	A	B	A	B	A	A	A
Lake Grade	A	B	B	B	A	A	B	A	B	A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	A	A	B	A	A	A
CLA	A	A	A	A	A	A	A	A	A
Secchi	A	A	A	A	A	A	A	A	A
Lake Grade	A	A	A	A	A	A	A	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Orchard Lake (19–0031) *Black Dog Lake Watershed Management Organization*

Monitoring personnel: City of Lakeville staff

Orchard Lake is located in the City of Lakeville (Dakota County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) It has a surface area of 250 acres. Its maximum and mean depths are 10 m and 3 m respectively.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2017.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	21	17	26	A
CLA (µg/l)	8.3	1.4	18	A
Secchi (m)	2.8	1.5	5.0	B
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A. The overall water quality has improved overall in comparison to years prior dating back to 1980, as given by the shift in lake grades from the C to the A/B range. The has been fluctuating in the A to B range since 2008.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

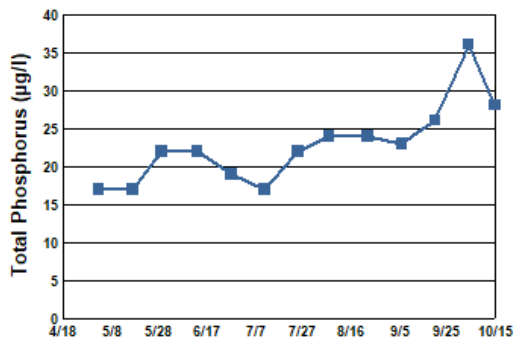
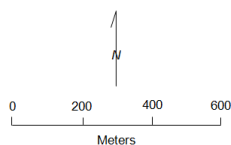
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Orchard Lake
Lakeville, Dakota Co.

LAKE ID: 190031-00

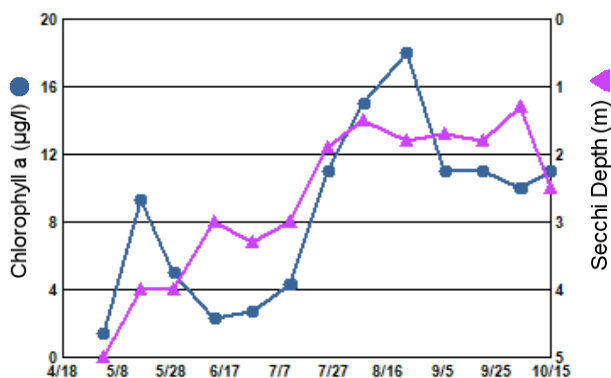
● Sampling site

Contours in meters



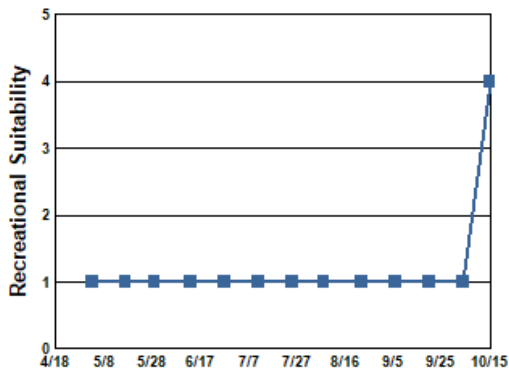
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/03/24	16.1		1.4	17	5.0	1	1
05/17/24	23.1		9.3	17	4.0	1	1
05/29/24	21.1		5.0	22	4.0	2	1
06/13/24	25.1		2.3	22	3.0	1	1
06/27/24	26.8		2.7	19	3.3	2	1
07/11/24	32.0		4.3	17	3.0	2	1
07/25/24	26.7		11	22	1.9	2	1
08/07/24	24.7		15	24	1.5	2	1
08/23/24	24.6		18	24	1.8	1	1
09/06/24	22.6		11	23	1.7	1	1
09/20/24	24.6		11	26	1.8	2	1
10/04/24	19.0		10	36	1.3	2	1
10/15/24	13.1		11	28	2.5	2	4



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2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	C	B		B						B		
CLA	B	B		B						B		
Secchi	C	B		B				C	C	C	D	C
Lake Grade	C	B		B						B		

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C					C	C	C	B		C
CLA		B					C	C	C	B		C
Secchi		C					C	C	C	B		C
Lake Grade		C					C	C	C	B		C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	B	C	C	A	A	B	B	B	A	A	A
CLA	B	B	B	C	B	A	A	A	A	A	A	A
Secchi	B	B	B	C	A	A	A	B	B	A	B	B
Lake Grade	B	B	B	C	A	A	A	B	B	A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	A	A	A	B	A	B	A	A
CLA	A	A	A	A	A	A	A	A	A
Secchi	B	B	B	B	C	B	B	B	B
Lake Grade	B	A	A	A	B	A	B	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Penn Lake (27–0004) *Nine Mile Creek Watershed District*

Volunteer: Lisa McIntire

Penn Lake is located in the City of Bloomington (Hennepin County). It has a maximum depth of 2.1 m (7.0 ft). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2018.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	61	36	140	C
CLA (µg/l)	16	9.2	33	B
Secchi (m)	0.6	0.4	1.1	F
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year, which is the best lake grade the lake has received according to its water quality database. Continued monitoring is suggested to determine if this may be part of a longer term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

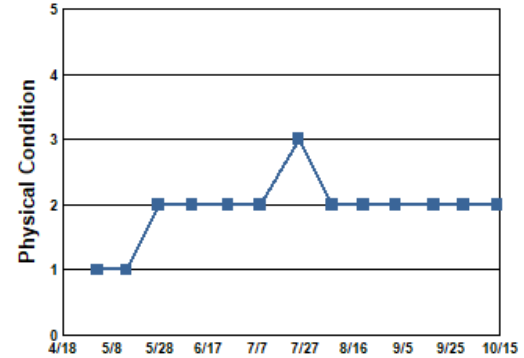
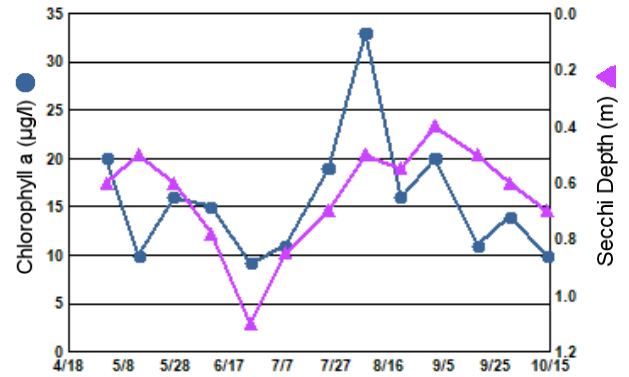
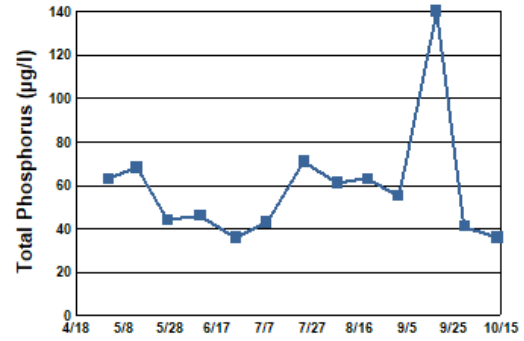
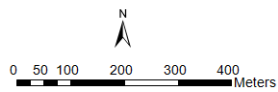
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Penn Lake, Bloomington, Hennepin Co.

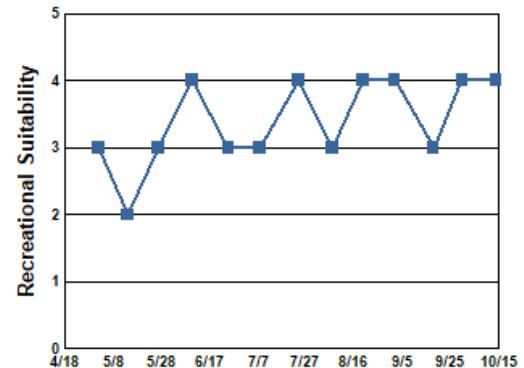
Lake ID: 270004-00

● Sampling site

Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/02/24	14.2		20	63	0.6	1	3
05/14/24	22.9		10	68	0.5	1	2
05/27/24	20.1		16	44	0.6	2	3
06/10/24	24.2		15	46	0.8	2	4
06/25/24	26.8		9.2	36	1.1	2	3
07/08/24	26.1		11	43	0.9	2	3
07/24/24	27.4		19	71	0.7	3	4
08/07/24	23.8		33	61	0.5	2	3
08/20/24	25.3		16	63	0.6	2	4
09/02/24	23.4		20	55	0.4	2	4
09/18/24	24.4		11	140	0.5	2	3
09/30/24	22.9		14	41	0.6	2	4
10/14/24	12.4		10	36	0.7	2	4

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP						F	F	D	F	D	D	D
CLA						F	F		D	D	C	D
Secchi	F					F	F	F	F	D		F
Lake Grade						F	F		F	D		D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	D	D	D	F	F	C
CLA	D	D	D	D	D	D	F	F	B
Secchi	F	F	D	F	F	F	F	F	F
Lake Grade	D	D	D	D	D	D	F	F	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Pine Tree Lake (82–0122) *Rice Creek Watershed District*

Volunteer: Gene Berwald

Pine Tree Lake, located on the eastern edge of the City of Dellwood (Washington County), covers an area of 174 acres. It has a maximum depth of 7.9 m (26 feet), and a mean depth of 3.0 m (10 feet).

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2021.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	18	15	25	A
CLA (µg/l)	4.8	3.1	7.2	A
Secchi (m)	2.8	2.0	4.6	B
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A which is consistent with its historical water quality database. The lake grades for the lake typically varies in the A to B range.

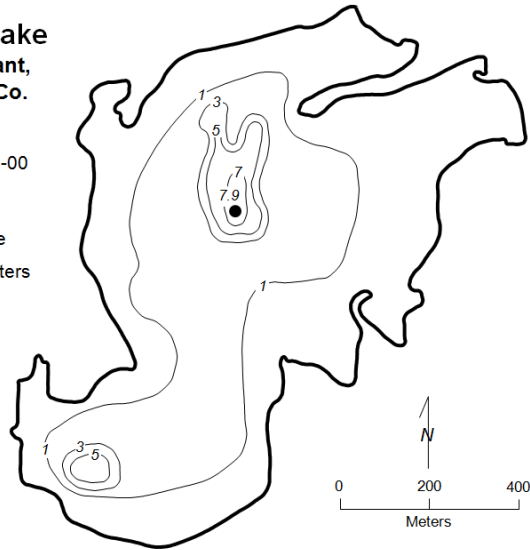
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Pine Tree Lake Dellwood/Grant, Washington Co.

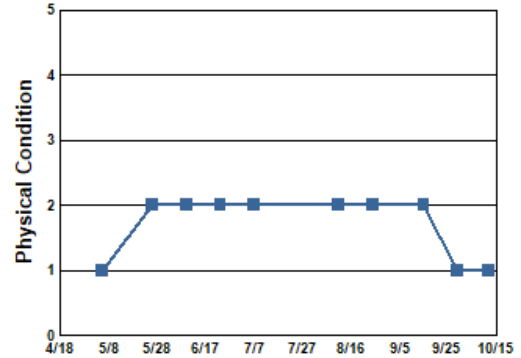
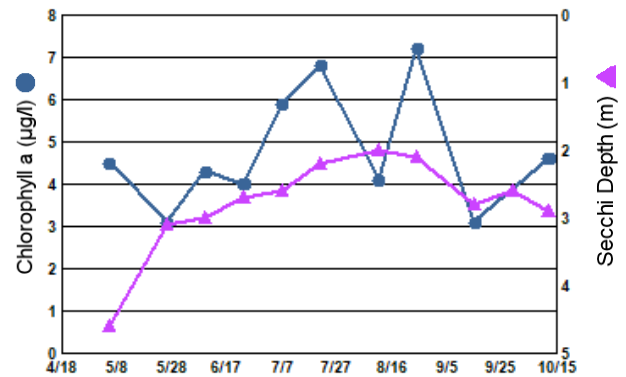
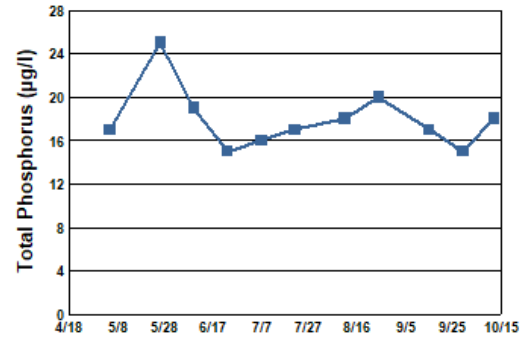
Lake ID: 820122-00

● Sampling site
Contours in meters

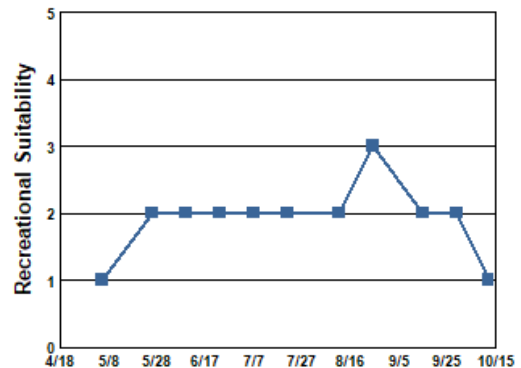


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	17.6		4.5	17	4.6	1	1
05/26/24	19.8		3.1	25	3.1	2	2
06/09/24	22.2		4.3	19	3.0	2	2
06/23/24	24.1		4.0	15	2.7	2	2
07/07/24	25.0		5.9	16	2.6	2	2
07/21/24	27.4		6.8	17	2.2		2
08/11/24	24.2		4.1	18	2.0	2	2
08/25/24	27.0		7.2	20	2.1	2	3
09/15/24	24.5		3.1	17	2.8	2	2
09/29/24	22.3			15	2.6	1	2
10/12/24	15.8		4.6	18	2.9	1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP						C						
CLA						D						
Secchi						D						
Lake Grade						D						

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		B	B	C	C	B	B	B	C	C	C	C
CLA		A	A	C	B	A	B	B	A	A	B	C
Secchi		C	B	C	C	B	C	C	A	B	C	C
Lake Grade		B	B	C	C	B	B	B	B	B	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	B	B	C	B	B	A	A	B	A	A	C	A
CLA	A	B	A	A	B	A	A	A	A	A	A	A
Secchi	B	B	B	B	B	A	A	B	B	B	B	B
Lake Grade	B	B	B	B	B	A	A	B	A	A	B	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	B	B	A	A	A	A
CLA	A	A	A	A	A	A	A		A
Secchi	B	B	B	B	B	B	B	B	B
Lake Grade	A	A	A	B	B	A	A		A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Powers Lake (82–0092) *City of Woodbury*

Monitoring Personnel: Washington Conservation District staff

Powers Lake is located within the city of Woodbury (Washington County). It has a surface area of approximately 57 acres and a maximum depth of 12.5 m (41.0 feet). The lake has no surface outlet.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1998.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

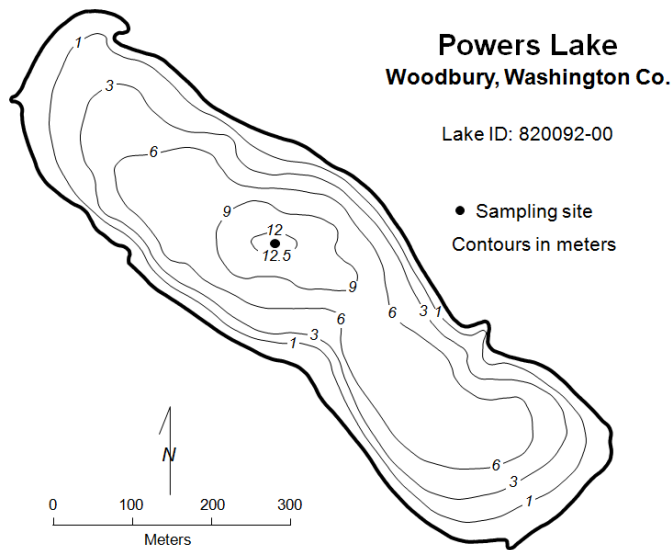
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	32	23	48	B
CLA (µg/l)	14	3.1	36	B
Secchi (m)	2.5	1.4	5.8	B
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B this year which is consistent with its historical water quality database. The lake has varied in the A to C grade range since 1994.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

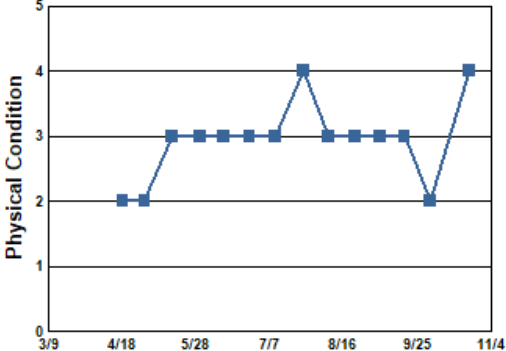
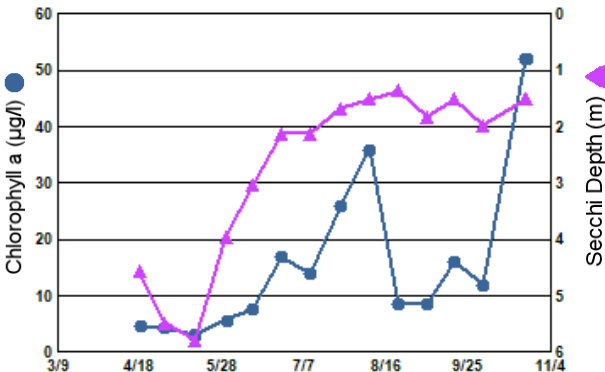
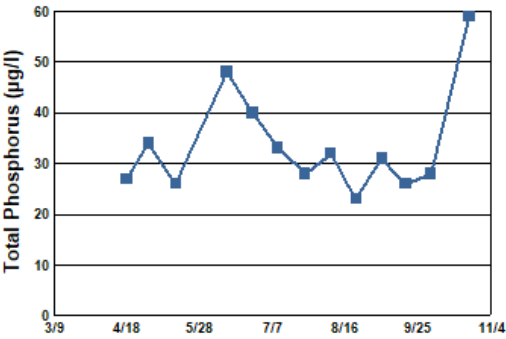
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

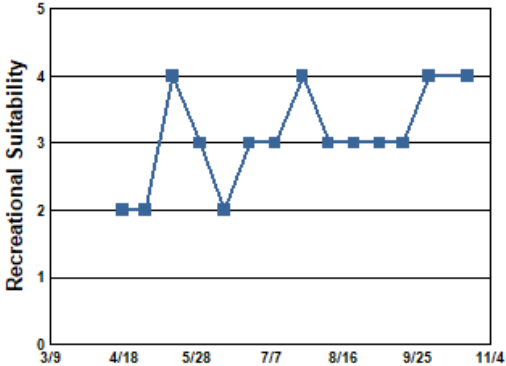


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	10.3		4.7	27	4.6	2	2
04/30/24	11.8		4.4	34	5.5	2	2
05/15/24	19.5		3.1	26	5.8	3	4
05/30/24	20.0		5.7		4.0	3	3
06/12/24	21.8		7.7	48	3.1	3	2
06/26/24	24.0		17	40	2.1	3	3
07/10/24	25.9		14	33	2.1	3	3
07/25/24	25.3		26	28	1.7	4	4
08/08/24	24.5		36	32	1.5	3	3
08/22/24	23.8		8.5	23	1.4	3	3
09/05/24	23.1		8.6	31	1.8	3	3
09/18/24	23.8		16	26	1.5	3	3
10/02/24	19.7		12	28	2.0	2	4
10/23/24	14.0		52	59	1.5	4	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			B	B	A	A	C	A	B	C	B	C
CLA			A	B	A	B	C	B	B	C	C	B
Secchi			A	B	A	C	C	A	B	C	C	B
Lake Grade			A	B	A	B	C	A	B	C	C	B

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	C	B	B	C	C	B	B	B	B
CLA	C	C	C	B	B	C	C	C	A	A	B	B
Secchi	C	C	C	C	B	B	C	B	A	A	B	C
Lake Grade	C	C	C	C	B	B	C	C	A	A	B	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	C	A	B	C	B	B		B
CLA	B	C	A	B	B	B	B	A	B
Secchi	C	C	A	A	B	B	C	B	B
Lake Grade	B	C	A	B	B	B	B	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lake Rebecca (19–0003) City of Hastings

Volunteer: Hastings Environmental Protectors: Walt Popp, Kevin Smith, Dwight Smith, Mark Sanstead, Philip Vieth

Lake Rebecca is located in the city of Hastings (Dakota County), and is in the floodplain of the Mississippi River. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro-council.org\)](https://www.metro-council.org) The lake has a surface area of 58 acres and a maximum depth of 4.6 m. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MN DNR designated the lake as being infested with zebra mussels (*Dreissena polymorpha*) in 2009. The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998, aquatic consumption (Perfluorooctane Sulfonate (PFOS) in fish tissue) in 2022, and aquatic recreational use (nutrient/eutrophication biological indicators) in 2024.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

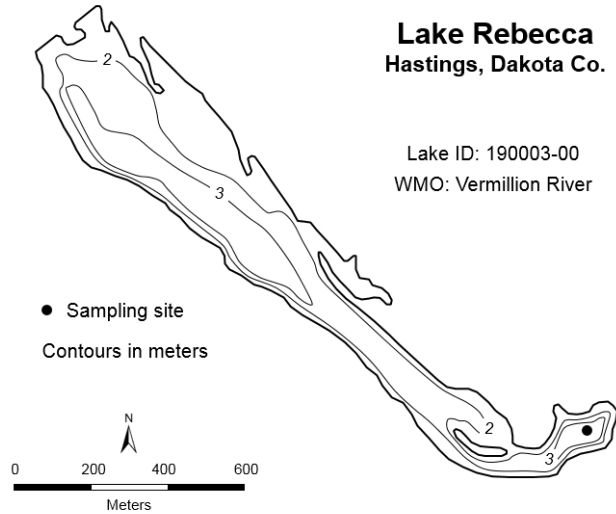
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	120	35	225	D
CLA (µg/l)	67	5.5	170	D
Secchi (m)	1.2	0.4	2.4	C
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D this year which is consistent with its historical water quality database. The water quality of the lake has varied in the D to F range.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

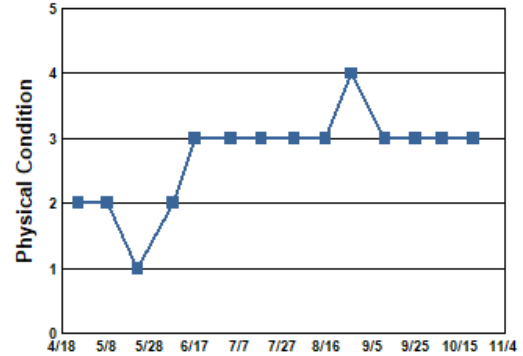
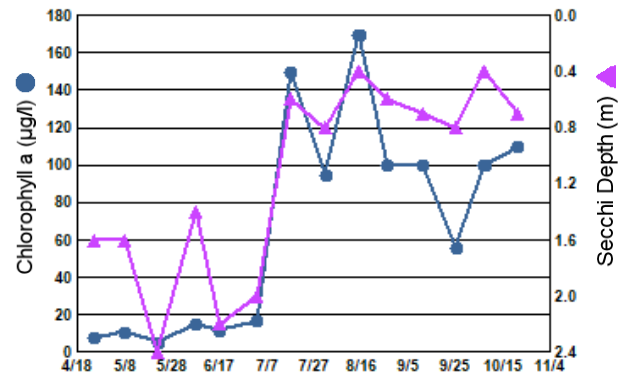
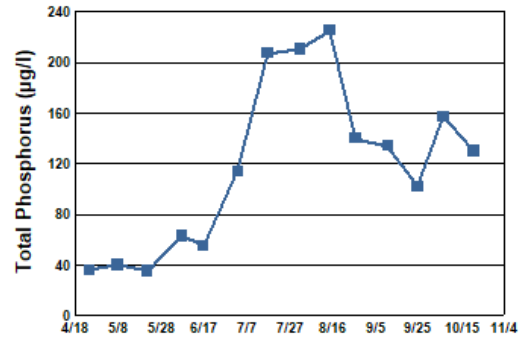
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

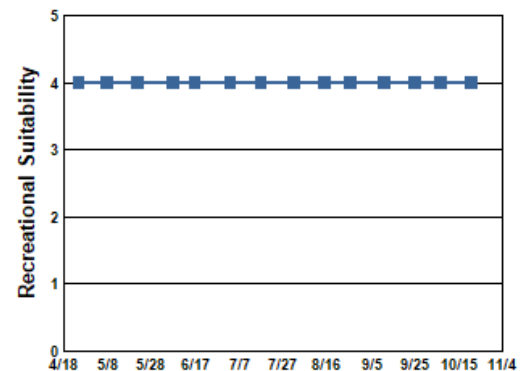


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/25/24	12.6		7.7	36	1.6	2	4
05/08/24	17.0		11	40	1.6	2	4
05/22/24	20.1		5.5	35	2.4	1	4
06/07/24	21.4		15	63	1.4	2	4
06/17/24	23.4		12	55	2.2	3	4
07/03/24	22.1		17	114	2.0	3	4
07/17/24	25.6		150	207	0.6	3	4
08/01/24	26.0		95	210	0.8	3	4
08/15/24	21.7		170	225	0.4	3	4
08/27/24	25.7		100	140	0.6	4	4
09/11/24	20.1		100	134	0.7	3	4
09/25/24	23.7		56	102	0.8	3	4
10/07/24	15.1		100	157	0.4	3	4
10/21/24	14.2		110	130	0.7	3	4



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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												F
CLA												D
Secchi												D
Lake Grade												D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	D	D	D	D	D	D
CLA	D	F	D	D	D	F	F	D	D
Secchi	C	F	D	D	D	F	D	D	C
Lake Grade	D	F	D	D	D	F	D	D	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Red Rock Lake (27–0076) *City of Eden Prairie*

Volunteer: David Wallace

Red Rock Lake is located within the City of Eden Prairie (Hennepin County). The maximum depth of the lake is 4.9 m. More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 2002. The MPCA delisted the lake from the impaired waters list for aquatic recreational use (nutrient/eutrophication biological indicators) in 2016.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

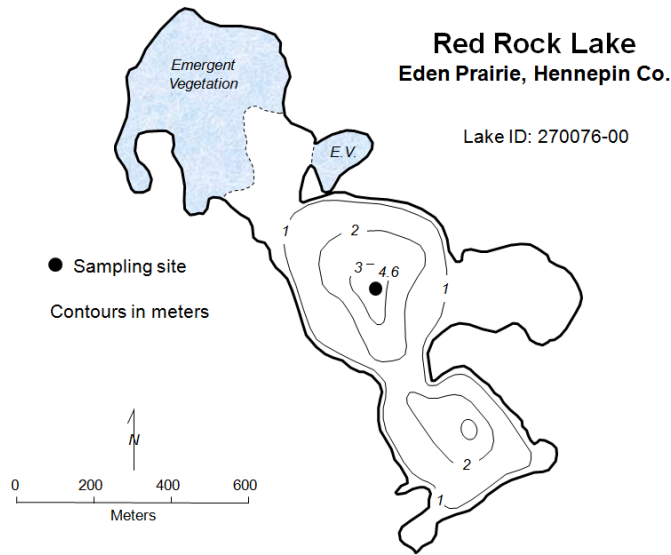
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	64	24	116	C
CLA (µg/l)	45	2.7	120	C
Secchi (m)	1.2	0.5	2.4	D
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year which is consistent with water quality conditions since 2014.

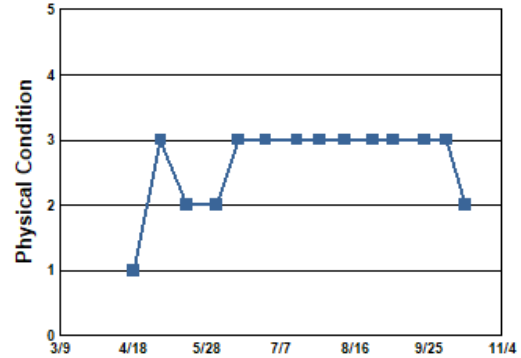
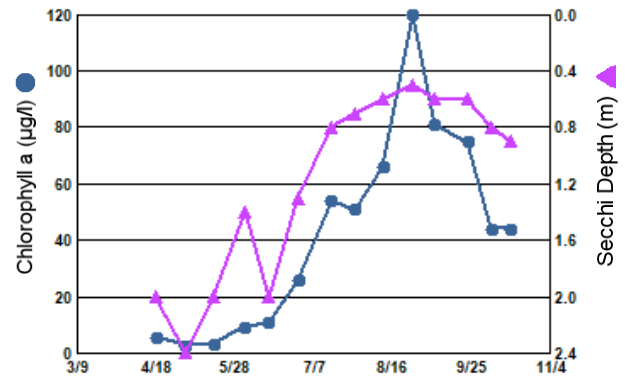
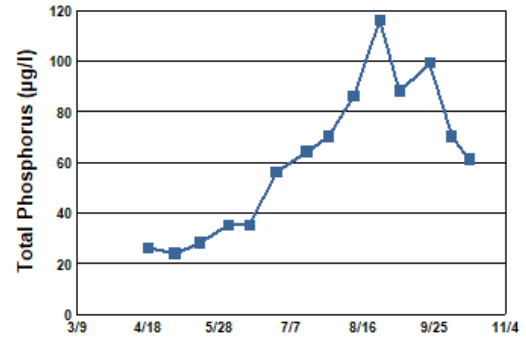
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

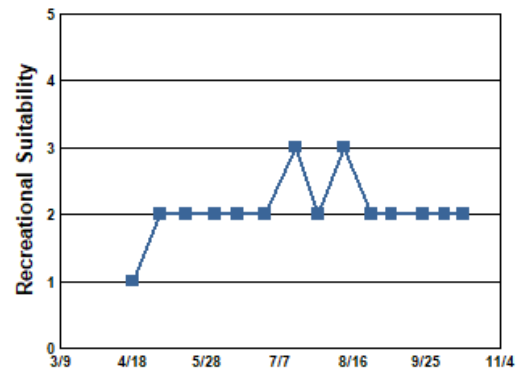
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

**2024 Data**

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	10.9		5.8	26	2.0	1	1
05/03/24	15.7		2.7	24	2.4	3	2
05/17/24	21.4		3.4	28	2.0	2	2
06/02/24	22.7		9.4	35	1.4	2	2
06/14/24	25.3		11	35	2.0	3	2
06/29/24	22.8		26	56	1.3	3	2
07/16/24	27.0		54	64	0.8	3	3
07/28/24	28.3		51	70	0.7	3	2
08/11/24	24.3		66	86	0.6	3	3
08/26/24	26.2		120	116	0.5	3	2
09/06/24	22.4		81	88	0.6	3	2
09/23/24	21.9		75	99	0.6	3	2
10/05/24	18.2		44	70	0.8	3	2
10/15/24	13.4		44	61	0.9	2	2



1 = Crystal Clear 4 = High Algal Color
 2 = Some Algae Present 5 = Severe Algal Bloom
 3 = Definite Algal Presence



1 = Beautiful 4 = No Swimming; Boating OK
 2 = Minor Aesthetic Problem 5 = No Aesthetics Possible
 3 = Swimming Impaired

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP								D	D			D
CLA								D	C			D
Secchi								C	C			C
Lake Grade								C	C			D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D		D								C	C
CLA	D		D								B	C
Secchi	C		D								C	C
Lake Grade	D		D								C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C	C	C	C	C
CLA	C	B	C	C	C	C	C	B	C
Secchi	C	C	C	D	C	C	C	C	D
Lake Grade	C	C	C	C	C	C	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Reshanau Lake (02–0009) *Rice Creek Watershed District*

Volunteer: Lindsay Smith

Reshanau Lake is located in the city of Lino Lakes (Anoka County). The 336-acre lake has a mean and maximum depth of 3.2 m and 4.9 m, respectively. The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2006.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	64	28	118	C
CLA (µg/l)	36	9.2	92	C
Secchi (m)	1.0	0.3	2.1	D
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C which is an improvement over the D grades received just over 10 years ago.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

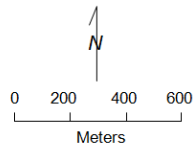
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Reshanau Lake Lino Lakes, Anoka Co.

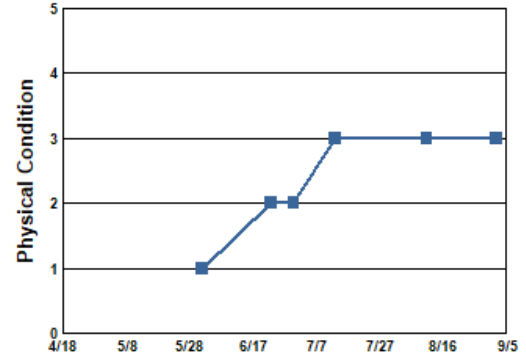
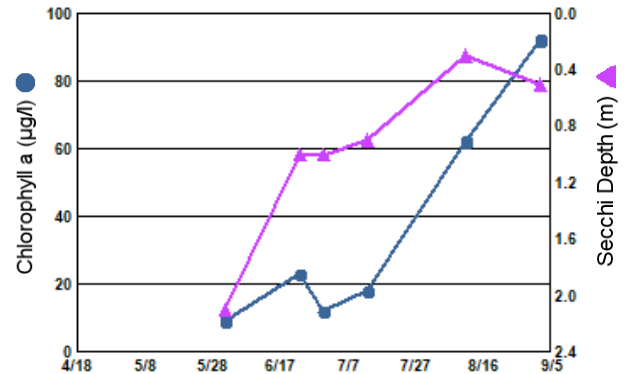
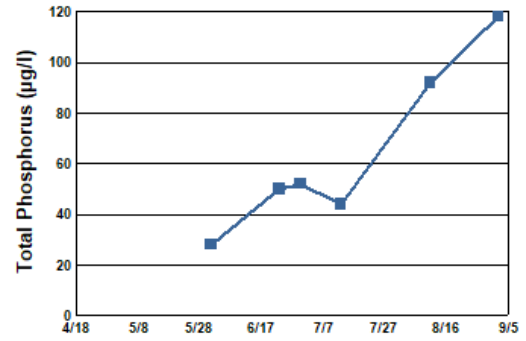
Lake ID: 20009-00

● Sampling site
Contours in meters

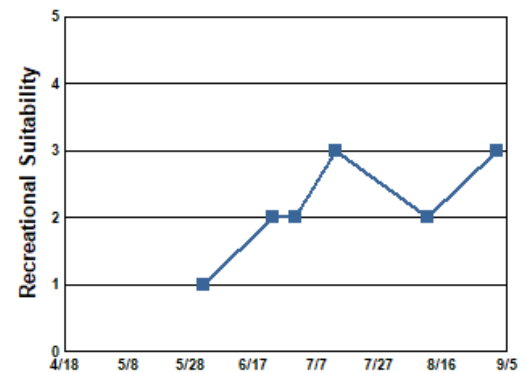


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/01/24	25.6		9.2	28	2.1	1	1
06/23/24	27.2		23	50	1.0	2	2
06/30/24	24.9		12	52	1.0	2	2
07/13/24	28.6		18	44	0.9	3	3
08/11/24	24.7		62	92	0.3	3	2
09/02/24	23.8		92	118	0.5	3	3



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			D	D	D	D	D	D	D	D		
CLA			C	C	D	C	C	D	C	C		
Secchi			F	F	F	F	D	F	F	D		
Lake Grade			D	D	D	D	D	D	D	D		

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									C
CLA									C
Secchi									D
Lake Grade									C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Rest Area Pond (82–0514) *Valley Branch Watershed District*

Monitoring Personnel: Minnesota Department of Transportation staff

Rest Area Pond is a 12.6-acre lake located within West Lakeland Township (Washington County). There are few morphological information for the pond. The pond's surface area and watershed area (17,781 acres) translates to a large 157:1 watershed-to-pond area ratio. The greater the ratio, the greater the potential stress on the lake from surface runoff.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	41	25	82	C
CLA (µg/l))	11	6.2	29	B
Secchi (m)	1.3	0.3	1.9	C
TKN (mg/l)				
			Lake Grade	C

The pond received a lake grade of C which is consistent with its historical water quality database. The pond's water quality has varied in the B to F range for the past 10 years.

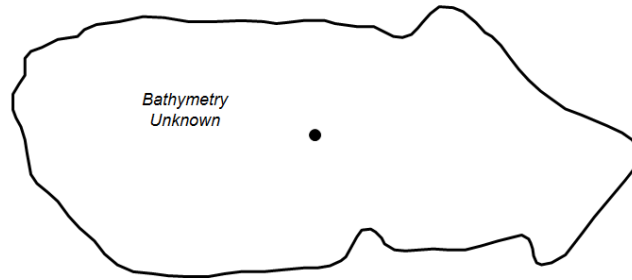
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

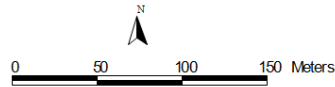
Rest Area Pond

West Lakeland Twp., Washington Co.

Lake ID: 820514-00

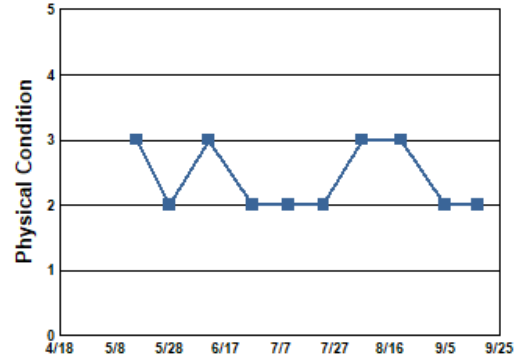
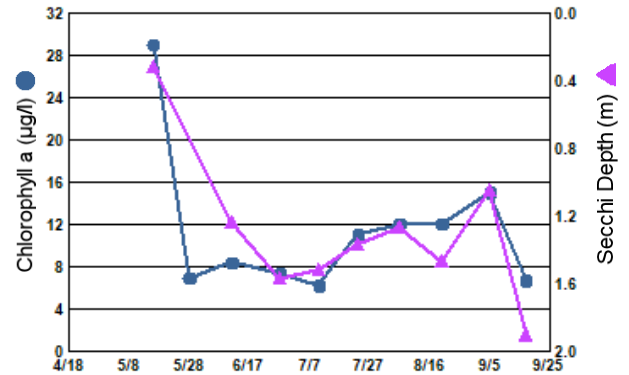
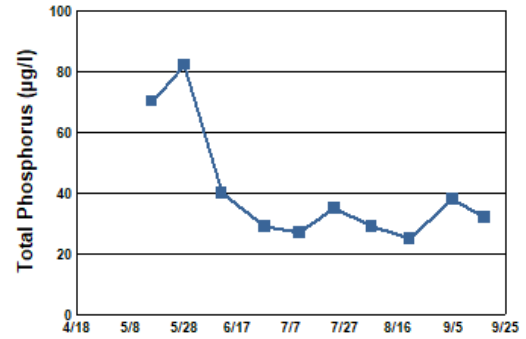


● Sampling site
Contours in meters



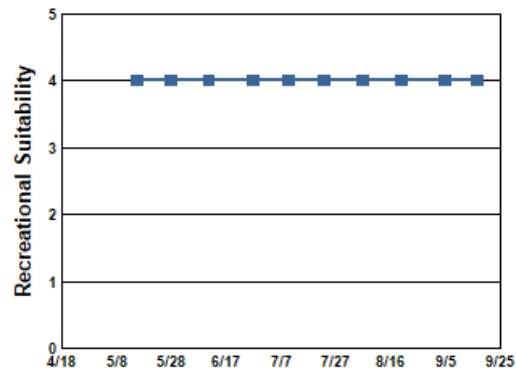
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/16/24	10.0		29	70	0.3	3	4
05/28/24	19.2		6.9	82		2	4
06/11/24	22.2		8.4	40	1.2	3	4
06/27/24	24.9		7.4	29	1.6	2	4
07/10/24	25.5		6.2	27	1.5	2	4
07/23/24	25.8		11	35	1.4	2	4
08/06/24	24.1		12	29	1.3	3	4
08/20/24	24.9		12	25	1.5	3	4
09/05/24	23.4		15	38	1.1	2	4
09/17/24	24.3		6.7	32	1.9	2	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			D	F	F	F	F	D	F	D	C	F
CLA			D	C	F	F	C	B	C	C	B	F
Secchi			D	F	F	F	F	D	D	D	D	F
Lake Grade			D	D	F	F	D	C	D	D	C	F

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	C	D	C	B	D	D	C	C
CLA	C	C	C	B	A	C	C	C	B
Secchi	D	D	D	C	C	D	D		C
Lake Grade	D	C	D	C	B	D	D		C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Riley Lake (10—0002) *City of Chanhassen/City of Eden Prairie*

David Florenzano

Riley Lake is located with the cities of Chanhassen and Eden Prairie (Carver and Hennepin counties). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) The maximum and mean depths are 15.0 m and 6.6 m, respectively. The lake received alum treatments in 2016 and 2020.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002, aquatic consumption (mercury in fish tissue) in 2002, and aquatic life (fish bioassessments) in 2018. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995 and zebra mussels (*Dreissena polymorpha*) in 2018.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

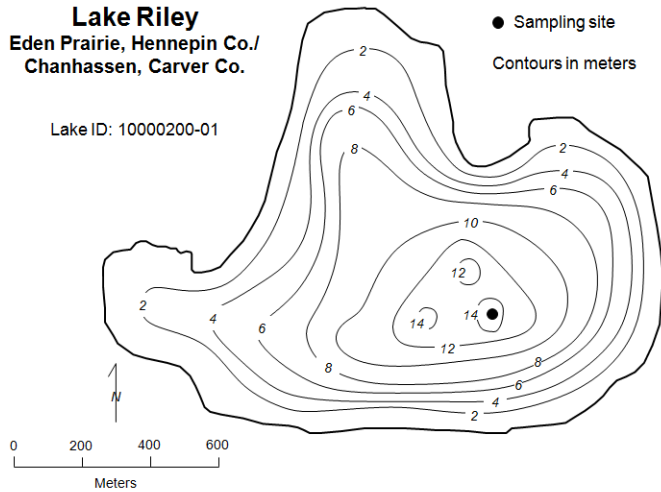
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	17	13	22	A
CLA (µg/l)	7.2	2.7	17	A
Secchi (m)	3.5	2.1	5.5	A
TKN (mg/l)				
			Lake Grade	A

The lake received a lake grade of A this year which continues the string of A lake grades starting in 2019. Water quality has improved with the shift from C to B to A grades over the past decade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

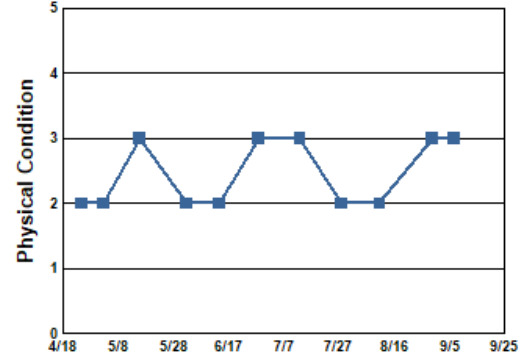
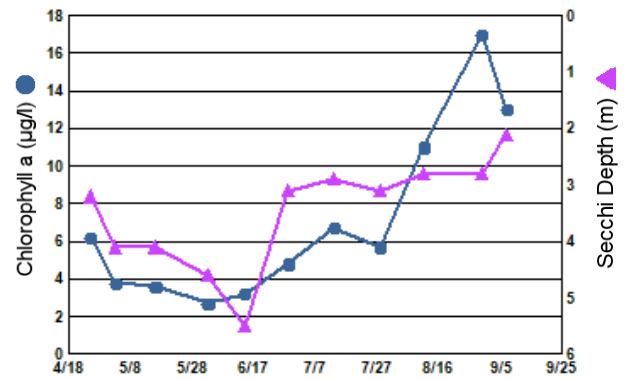
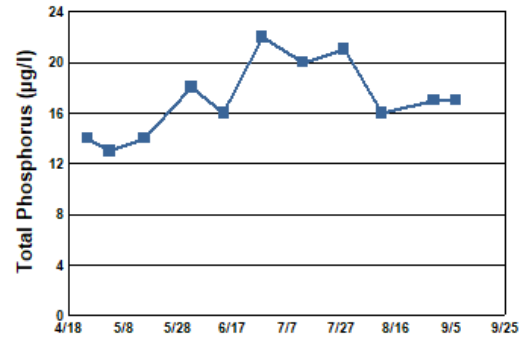
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

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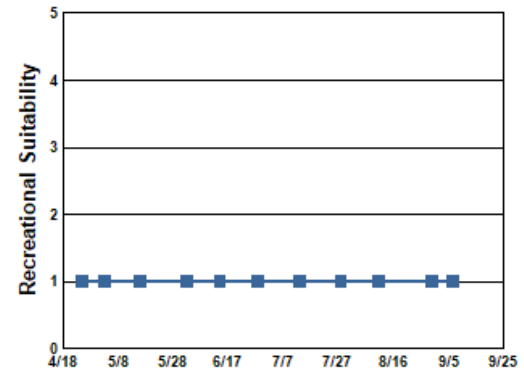


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/25/24	10.0		6.2	14	3.2	2	1
05/03/24	11.7		3.8	13	4.1	2	1
05/16/24	18.9		3.6	14	4.1	3	1
06/02/24	21.1		2.7	18	4.6	2	1
06/14/24	21.1		3.2	16	5.5	2	1
06/28/24	23.3		4.8	22	3.1	3	1
07/13/24	26.1		6.7	20	2.9	3	1
07/28/24	26.7		5.7	21	3.1	2	1
08/11/24	22.2		11	16	2.8	2	1
08/30/24	24.4		17	17	2.8	3	1
09/07/24	23.3		13	17	2.1	3	1



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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP	C	B	C	C	C	C	C	C				C
CLA	C	C	C	C	C	C	C	D			C	C
Secchi	C	C	C	C	C	C	C	C	C		C	C
Lake Grade	C	C	C	C	C	C	C	C				C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C				C			C		C	C
CLA		C				C			C		C	D
Secchi		C				C			C		C	C
Lake Grade		C				C			C		C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	B	C	C	C	C	C	C	C	C
CLA	C	C	B	B	B	B	C	C	C	B	C	C
Secchi	B	C	B	C	C	C	C	B	C	C	C	B
Lake Grade	C	C	B	B	C	C	C	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	C	B	B	A	B	A	A	A
CLA	B	B	A	A	A	A	A	A	A
Secchi	A	B	B	A	A	A	A	A	A
Lake Grade	B	B	B	A	A	A	A	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Rogers Lake (19–0080) *City of Mendota Heights*

Volunteer: David Rossmiller

Rogers Lake lies within the city of Mendota Heights. The lake has a surface area of 94 acres and a maximum depth of 2.4 m (7.9 ft). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	25	22	30	B
CLA (µg/l)	3.5	1.6	5.8	A
Secchi (m)	+2.0	1.2	+2.2	
TKN (mg/l)				
			Lake Grade	

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade. The relatively low CLA concentrations in combination with the observations of moderate to substantial macrophyte growth, indicate that the primary production of the lake is focused on production of aquatic macrophytes rather than algae.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

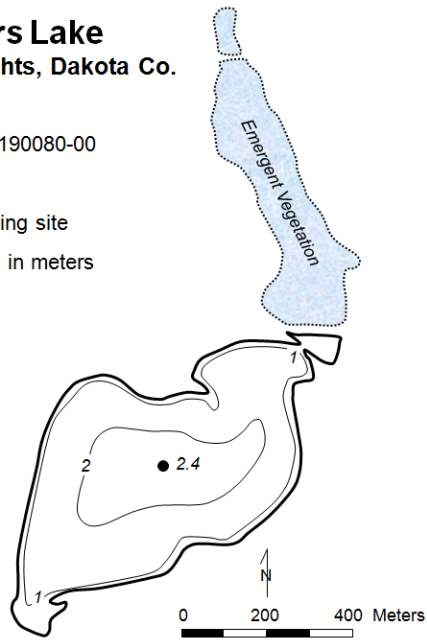
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Rogers Lake Mendota Heights, Dakota Co.

Lake ID: 190080-00

- Sampling site
- Contours in meters

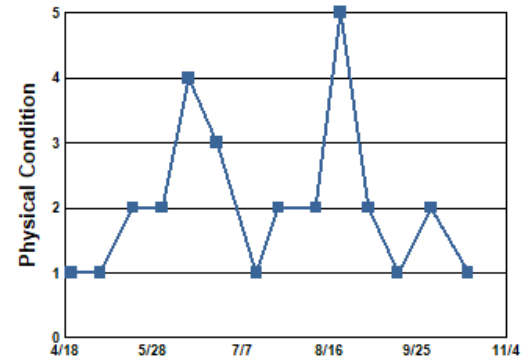
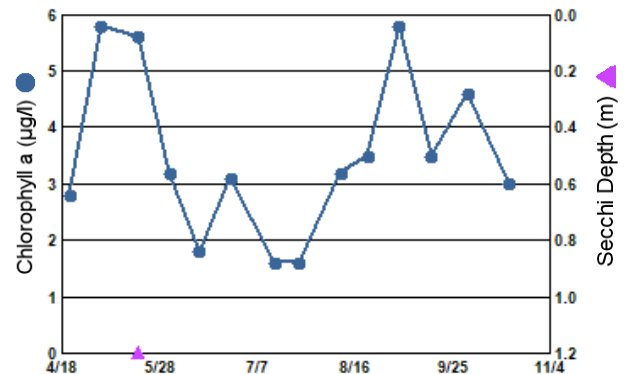
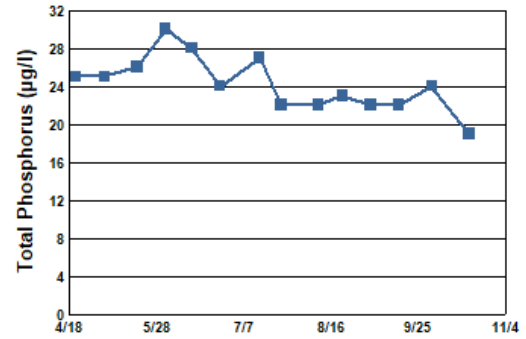


2024 Data

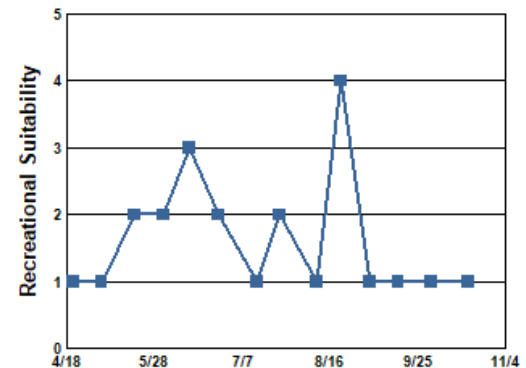
Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	10.8		2.8	25	+2.2	1	1
05/04/24	15.3		5.8	25	+2.2	1	1
05/19/24	18.7		5.6	26	1.2	2	2
06/01/24	23.8		3.2	30	+2.2	2	2
06/13/24	24.3		1.8	28	+2.2	4	3
06/26/24	26.5		3.1	24	+2.1	3	2
07/14/24	29.1		1.6	27	>2.0	1	1
07/24/24	26.5		1.6	22	>2.0	2	2
08/10/24	22.5		3.2	22	>2.0	2	1
08/21/24	24.7		3.5	23	>1.8	5	4
09/03/24	23.3		5.8	22	>1.8	2	1
09/16/24	25.2		3.5	22	>2.0	1	1
10/01/24	19.4		4.6	24	>1.8	2	1
10/18/24	12.5		3.0	19	>1.8	1	1

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



- 1 = Crystal Clear
- 2 = Some Algae Present
- 3 = Definite Algal Presence
- 4 = High Algal Color
- 5 = Severe Algal Bloom



- 1 = Beautiful
- 2 = Minor Aesthetic Problem
- 3 = Swimming Impaired
- 4 = No Swimming; Boating OK
- 5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP				C	B	C	C	C	C	A	A	B
CLA				A	A	A	A	A	A	A	A	A
Secchi				D	C	C	C	C				
Lake Grade				C	B	B	B	B				

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	A		B	C	C	B	B	B
CLA	A	A		A	A	A	A	A	A
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Schmitt Lake (19–0052) *Lower Mississippi River Watershed Management Organization*

Volunteer: Debra James, Steven James

Schmitt Lake is located within the City of Inver Grove Heights (Dakota County). Little bathymetric information is available for this lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	55	44	99	C
CLA (µg/l))	21	6.8	42	C
Secchi (m)	1.1	0.8	1.6	D
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C which is consistent with its historical water quality database. Continued monitoring is recommended to build the water quality database.

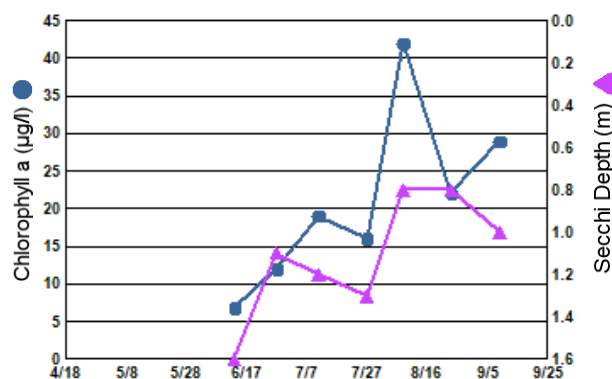
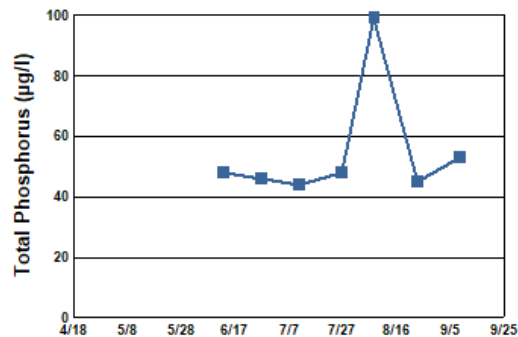
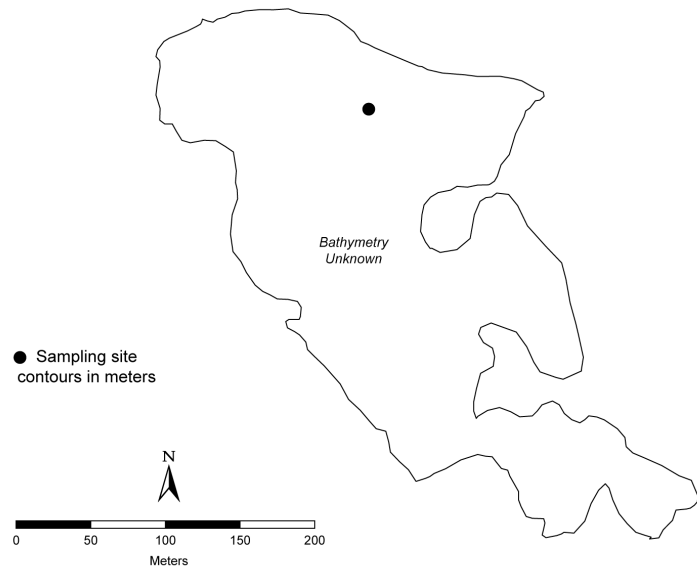
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Schmitt Lake

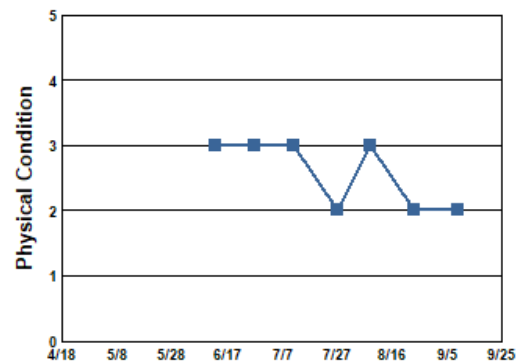
Inver Grove Heights, Dakota County

Lake ID: 19005200

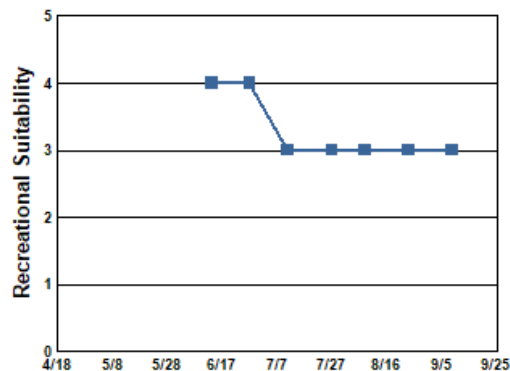


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/13/24	22.7		6.8	48	1.6	3	4
06/27/24	25.3		12	46	1.1	3	4
07/11/24	25.7		19	44	1.2	3	3
07/27/24	25.0		16	48	1.3	2	3
08/08/24	23.0		42	99	0.8	3	3
08/24/24	26.0		22	45	0.8	2	3
09/09/24	23.6		29	53	1.0	2	3



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP					C	C	C	C	C
CLA					B		B	B	C
Secchi					D	D	D	D	D
Lake Grade					C		C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

School Lake (13–0057) *Comfort Lake — Forest Lake Watershed District*

Sponsor: Comfort Lake — Forest Lake Watershed District

Monitoring Personnel: Comfort Lake — Forest Lake Watershed District staff

School Lake is located in Wyoming Township (Chisago County). There are few morphological data available for the lake.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2008.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

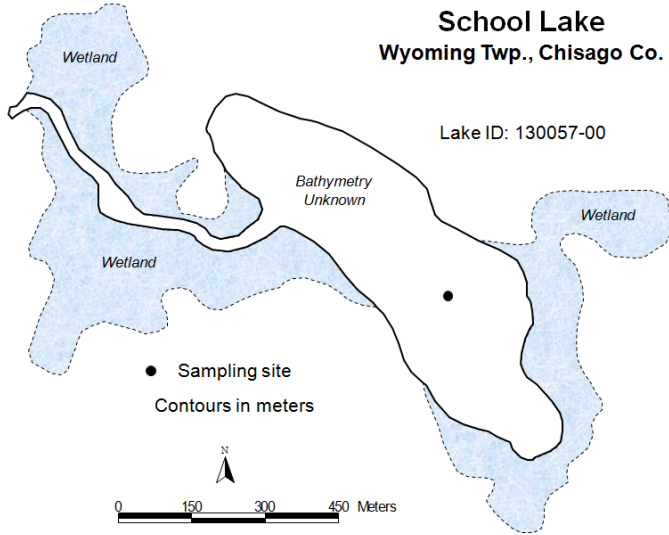
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	61	45	82	C
CLA (µg/l)	11	7.1	16	B
Secchi (m)	1.7	1.4	2.0	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year which is a return to the water quality observed prior to 2022. The CLA grade continues the string of B grades received since 2021.

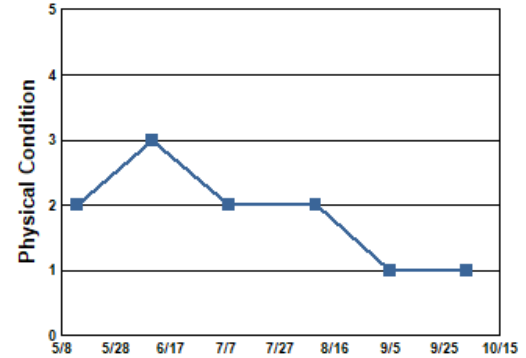
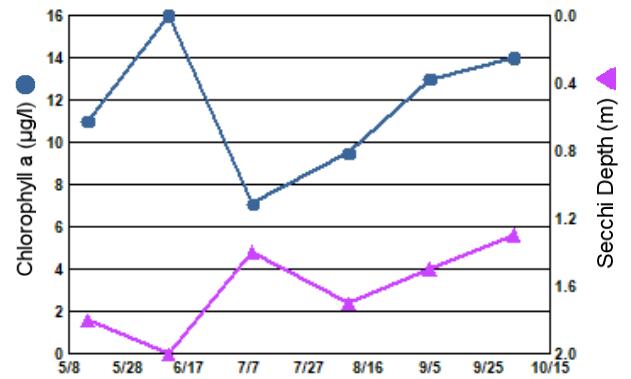
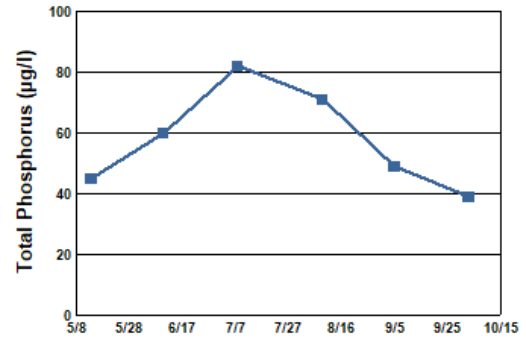
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

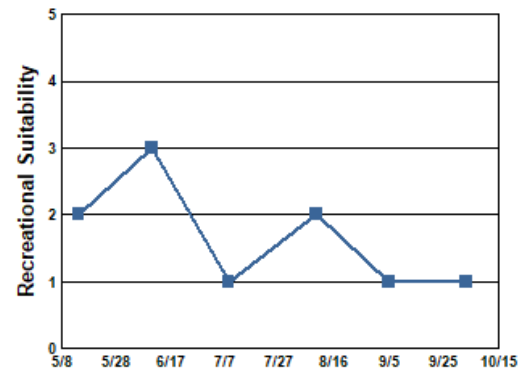


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/14/24	20.2		11	45	1.8	2	2
06/10/24	22.1		16	60	2.0	3	3
07/08/24	26.1		7.1	82	1.4	2	1
08/09/24	21.1		9.5	71	1.7	2	2
09/05/24	22.0		13	49	1.5	1	1
10/03/24	18.5		14	39	1.3	1	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	D	C		C						
CLA		C	C	C		C						
Secchi		C	C	C		C						
Lake Grade		C	C	C		C						

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP		C	C			C	B	B	C
CLA		C	C			B	B	B	B
Secchi		D	D			C	C	C	C
Lake Grade		C	C			C	B	B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Scout Lake (19-0198) *City of Apple Valley*

Volunteer: Dan Stanek

Scout Lake is a small lake located in Apple Valley. Little information is available on the morphology of the lake. The maximum depth of the lake is 2.9 m (9.5 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

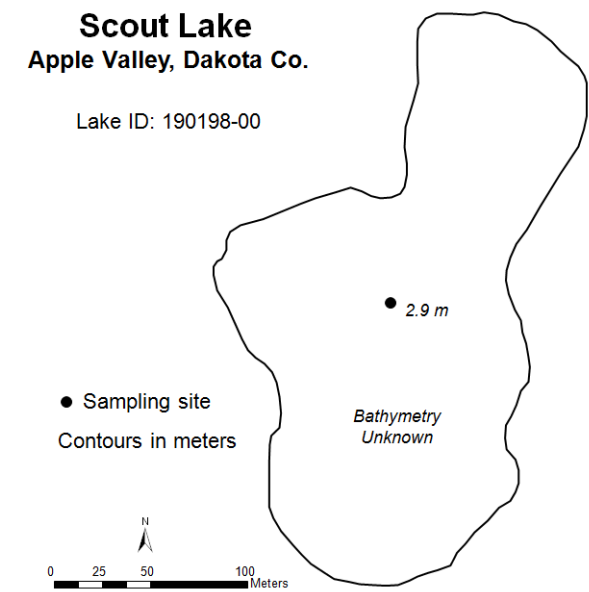
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	68	44	93	D
CLA (µg/l))	46	11	98	C
Secchi (m)	0.9	0.4	1.2	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D. The lake grades have varied between C and F since CAMP monitoring began in 2007.

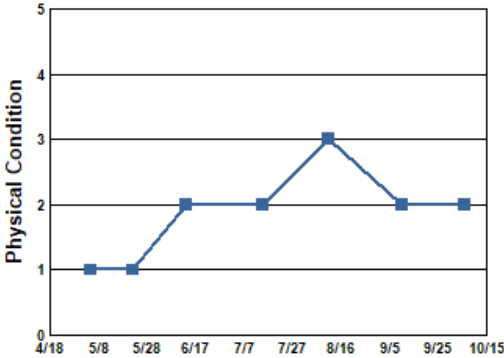
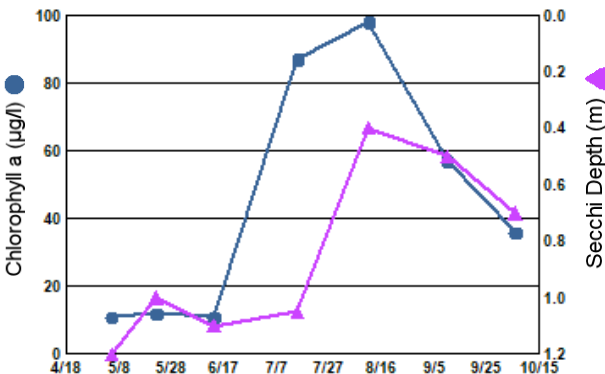
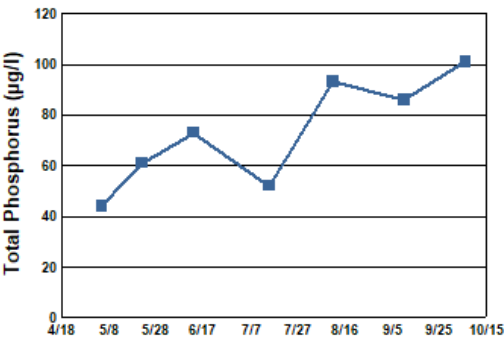
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

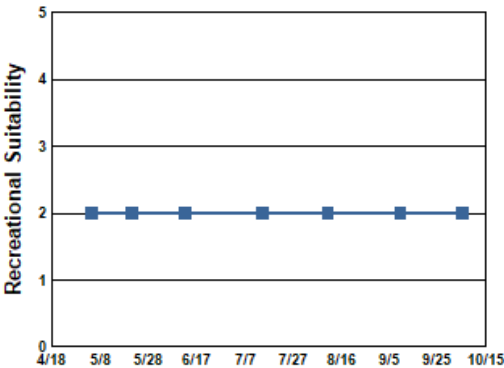


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/05/24	20.5		11	44	1.2	1	2
05/22/24	20.1		12	61	1.0	1	2
06/13/24	22.5		11	73	1.1	2	2
07/15/24	27.3		87	52	1.1	2	2
08/11/24	27.2		98	93	0.4	3	2
09/10/24	22.6		57	86	0.5	2	2
10/06/24	17.0		36	101	0.7	2	2



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP				D	C	D	D	F	D	C	D	D
CLA				C	C	C	D	F	D	C	F	F
Secchi				F	C	D	D	F	F	D	D	F
Lake Grade				D	C	D	D	F	D	C	D	F

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	D	D	D	D	D	D	C	D
CLA	F	F	F	D	F	F	C	B	C
Secchi	F	F	F	F	F	F	D	D	D
Lake Grade	F	F	F	D	F	F	D	C	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Seidls Lake (19-0095) *Lower Mississippi River Watershed Management Organization*

Volunteer: Max Wallin

Seidl Lake is a 14-acre lake located in the City of Inver Grove Heights (Dakota County). The lake receives inflow from five inlets. The maximum depth of the lake is approximately 5.0 m. Few morphological data are available. More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. The lake is defined as a shallow lake because of the dominance of the littoral zone.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	89	48	124	D
CLA (µg/l))	44	6.9	76	C
Secchi (m)	0.9	0.5	1.8	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D which is consistent with its historical water quality database. The lake typically receives lake grades in the B to D range.

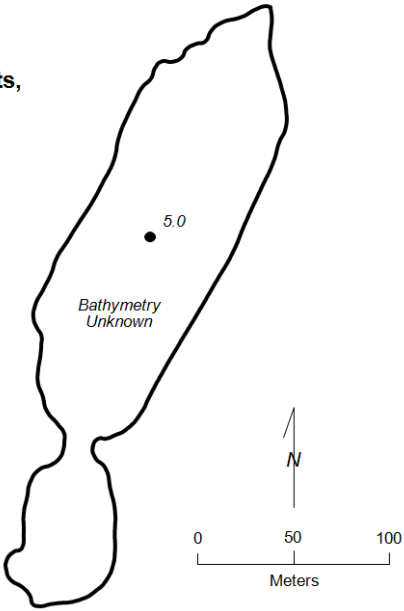
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Seidl Lake
Inver Grove Heights,
Dakota Co.

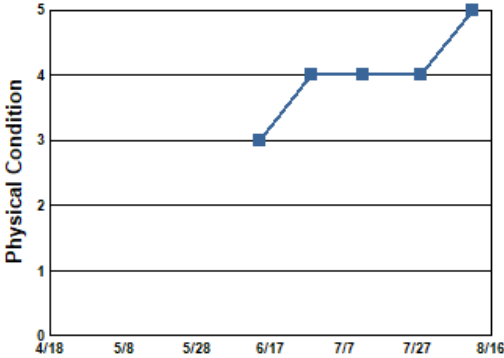
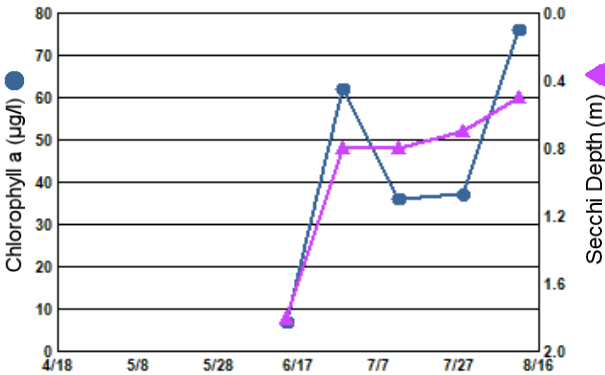
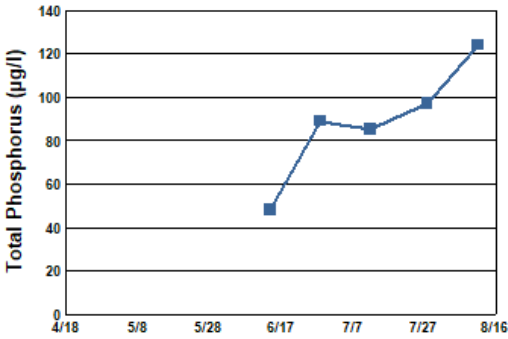
Lake ID: 190095-00

● Sampling site
Contours in meters

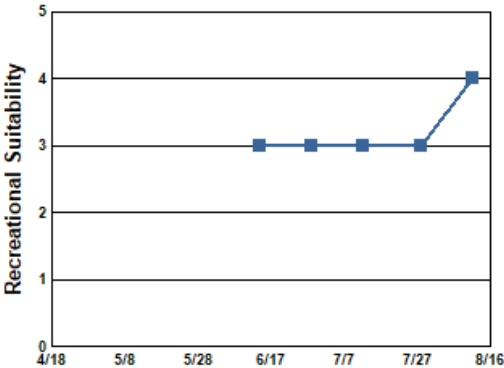


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/14/24	25.2		6.9	48	1.8	3	3
06/28/24	23.9		62	89	0.8	4	3
07/12/24	28.9		36	85	0.8	4	3
07/28/24	30.8		37	97	0.7	4	3
08/11/24	26.6		76	124	0.5	5	4



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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												C
CLA												C
Secchi												D
Lake Grade												C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP				C	C	C	C	D	C	C	D	C
CLA				A	B	B	C	C	C	C	C	B
Secchi		D	D	B	B	C	D	D	C	C	D	D
Lake Grade				B	B	C	C	D	C	C	D	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D	C	D	D			C	D				
CLA	B	C	C	C			C	D				
Secchi	C	D	F	F			D	D			D	
Lake Grade	C	C	D	D			C	D				

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP				C	C	B		C	D
CLA				B	B	A			C
Secchi				C	C	C			D
Lake Grade				C	C	B			D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Shields Lake (82–0162) *Comfort Lake — Forest Lake Watershed District*

Sponsor: Comfort Lake — Forest Lake Watershed District

Monitoring Personnel: Comfort Lake — Forest Lake Watershed District staff

Shields Lake is located in the city of Forest Lake (Washington County). It has a surface area of 27 acres and a maximum depth of 8.2 m.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2006.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	88	33	171	D
CLA (µg/l)	19	1.0	44	B
Secchi (m)	1.6	0.9	2.7	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C in 2024. The TP grade returned to a D grade indicating higher TP concentrations observed prior to 2020. Prior to 2020, TP grades were predominantly F and D grades.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

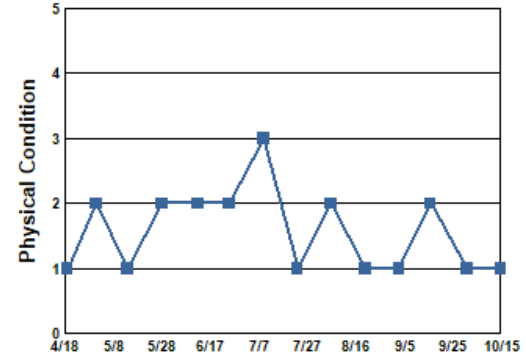
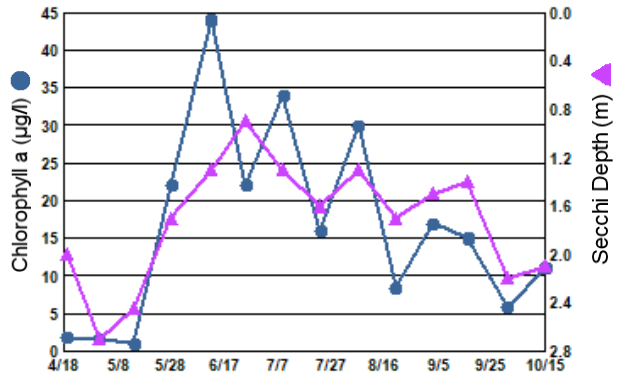
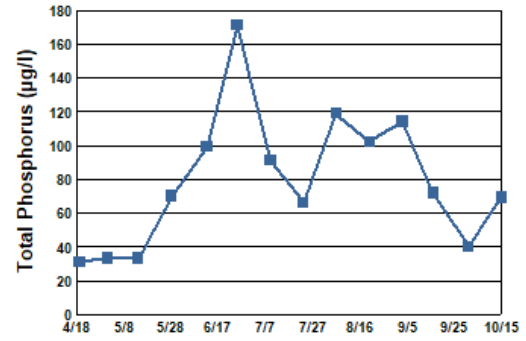
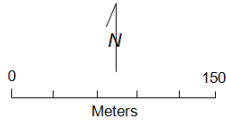
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

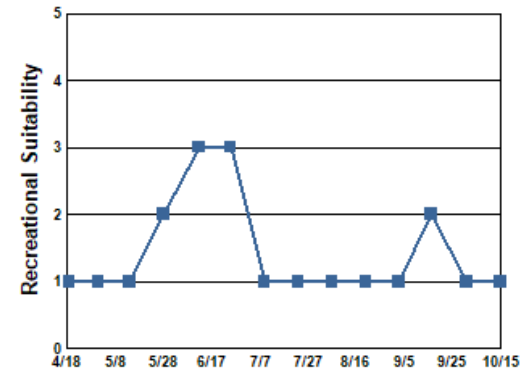
Shields Lake Forest Lake, Washington Co.

Lake ID: 820162-00

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/19/24	10.3		1.8	31	2.0	1	1
05/01/24	13.1		1.6	33	2.7	2	1
05/14/24	19.6		1.0	33	2.5	1	1
05/28/24	19.5		22	70	1.7	2	2
06/12/24	21.8		44	99	1.3	2	3
06/25/24	26.1		22	171	0.9	2	3
07/09/24	25.6		34	91	1.3	3	1
07/23/24	25.1		16	66	1.6	1	1
08/06/24	22.7		30	119	1.3	2	1
08/20/24	23.5		8.4	102	1.7	1	1
09/03/24	21.5		17	114	1.5	1	1
09/16/24	24.1		15	72	1.4	2	2
10/01/24	18.3		5.9	40	2.2	1	1
10/15/24	12.6		11	69	2.1	1	1

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP									F	D		D
CLA									D	D		C
Secchi											F	C
Lake Grade												C

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		F	D	F	F	F	F	F	F	F	F	F
CLA		C	C	C	B	A	C	C	C	C	C	C
Secchi		C	C	B	B	B	C	C	C	C	C	C
Lake Grade		D	C	C	C	C	D	D	D	D	D	D

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	F	F	F	F					F	F	F	F
CLA	C	D	D	C					C	D	C	D
Secchi	C	D	C	C					C	D	D	D
Lake Grade	D	D	D	D					D	D	D	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	F	F	F	D	C	C	B	B	D
CLA	D	D	D	C	C	A	A	B	B
Secchi	D	D	D	D	D	B	C	C	C
Lake Grade	D	D	D	D	C	B	B	B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Simley Lake (19–0037) City of Inver Grove Heights

Volunteer: Dawn Gaetke, Steve Gebauer

Simley Lake is located in the city of Inver Grove Heights (Dakota County). It is small lake at a surface area of 14 acres. The maximum depth is 5.2 m. The lake does not maintain a thermocline, which is a temperature gradient caused by changing water temperature through the water column.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2025.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

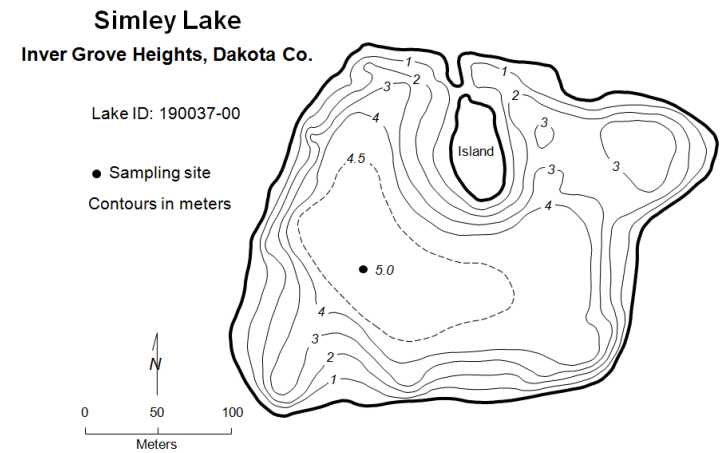
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	38	28	50	C
CLA (µg/l)	19	5.9	38	B
Secchi (m)	1.4	1.0	2.2	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C which is consistent with its historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

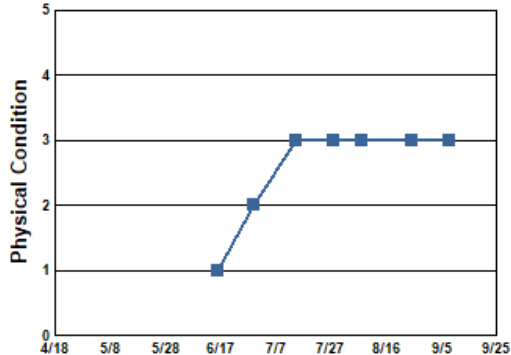
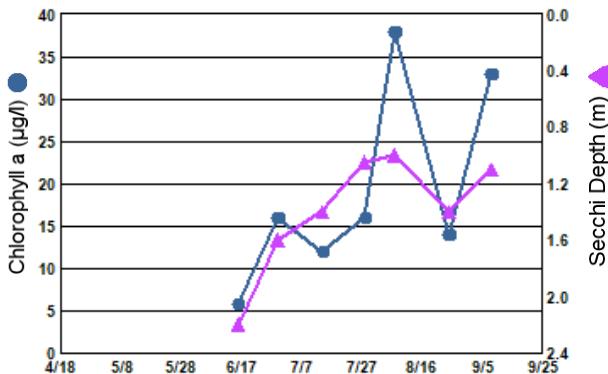
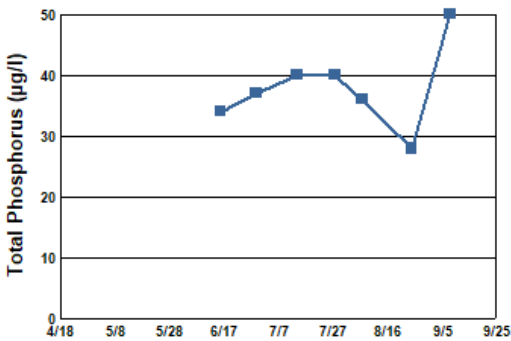
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

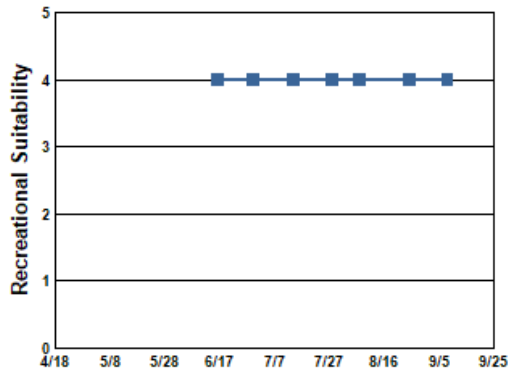


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/16/24	22.0		5.9	34	2.2	1	4
06/29/24	23.8		16	37	1.6	2	4
07/14/24	27.8		12	40	1.4	3	4
07/28/24	27.0		16	40	1.1	3	4
08/07/24	25.1		38	36	1.0	3	4
08/25/24	24.8		14	28	1.4	3	4
09/08/24	22.4		33	50	1.1	3	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C		C	C	C	C	C	C	C	C	
CLA		C		B	A	A	A	C	B	C	C	
Secchi		C		C	C	C	C	D	D	C	C	
Lake Grade		C		C	B	B	B	C	C	C	C	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP									C	C		
CLA									C	B		
Secchi									C	C		
Lake Grade									C	C		

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP								A	C
CLA								B	B
Secchi								C	C
Lake Grade								B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Smetana Lake (27–0073) *Nine Mile Creek Watershed District*

Volunteer: Jana Kramer

Smetana Lake is located in the city of Eden Prairie (Hennepin County). It has a surface area 48 acres and a maximum depth of 3.7 m. The lake is shallow and therefore does not maintain a thermocline, which is a density gradient caused by varying temperature throughout the water column.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue). The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

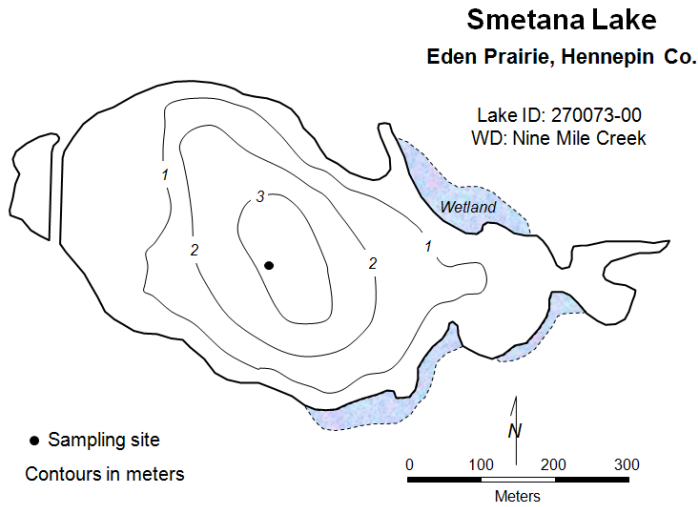
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	36	27	46	C
CLA (µg/l)	7.9	1.9	18	A
Secchi (m)	1.8	1.4	2.1	C
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B. Continued monitoring is suggested to build the lake's water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

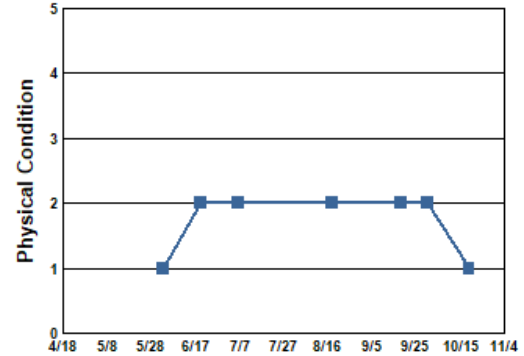
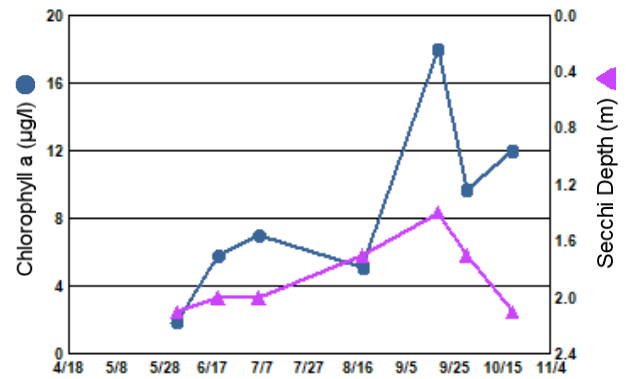
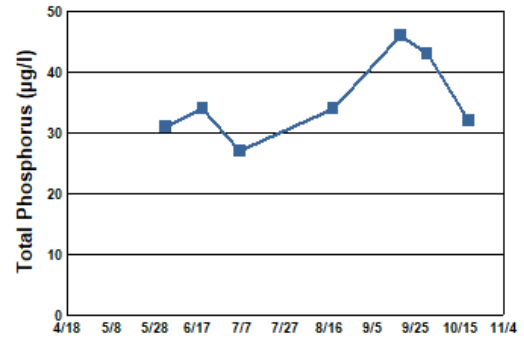
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

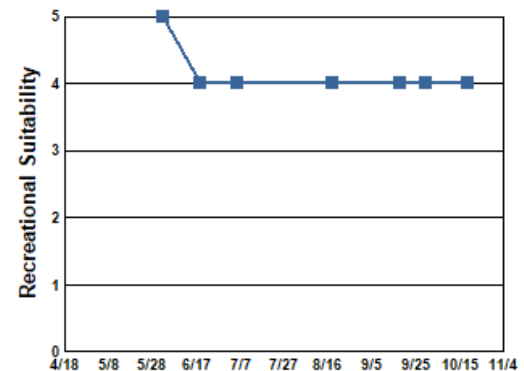


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/02/24	21.8		1.9	31	2.1	1	5
06/19/24	23.1		5.8	34	2.0	2	4
07/06/24	25.2		7.0	27	2.0	2	4
08/18/24			5.1	34	1.7	2	4
09/18/24			18	46	1.4	2	4
09/30/24			9.7	43	1.7	2	4
10/19/24			12	32	2.1	1	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP										C		
CLA										A		
Secchi										C		
Lake Grade										B		

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP								B	C
CLA								A	A
Secchi								C	C
Lake Grade								B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lake St. Croix [Bayport Pool - Site 1N] (82–0001) Metropolitan Council Environmental Services

Volunteer: Jim and Roberta Harper

Lake St. Croix is a natural impoundment of the St. Croix River. It is located along the border with Wisconsin and borders many communities in Minnesota and Wisconsin. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) It has a surface area of 8,393 acres and a maximum depth of 23.7 m. The original site 1 was in the area of the construction of the new bridge spanning St. Croix Lake. Site 1N was established in 2012 as a replacement for site 1. Site 1N is just upstream of site 1.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998, aquatic consumption (PCBs in fish tissue) in 2006, aquatic consumption (Perfluorooctane Sulfonate (PFOS) in fish tissue) in 2022, and aquatic recreational use (nutrient/eutrophication biological indicators) in 2008. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995, zebra mussels (*Dreissena polymorpha*) in 2001, bighead carp (*Hypophthalmichthys nobilis*) (2012), silver carp (*Hypophthalmichthys molitrix*) (2012), and grass carp (*Ctenopharyngodon idella*) (2015).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	72	57	85	D
CLA (µg/l)	30	10	61	C
Secchi (m)	1.0	0.8	1.2	D
TKN (mg/l)				
			Lake Grade	D

Site 1N received a lake grade of D in 2024, which is worst lake grade received for Site 1N going back to 2012. Continued monitoring is suggested to determine if this may be the start of a long term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

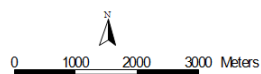
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lake St. Croix, Bayport Pool, Site 1N Minnesota/Wisconsin

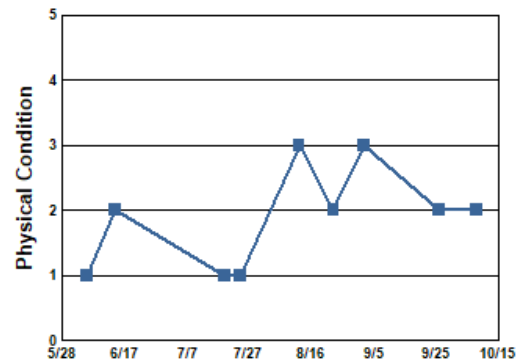
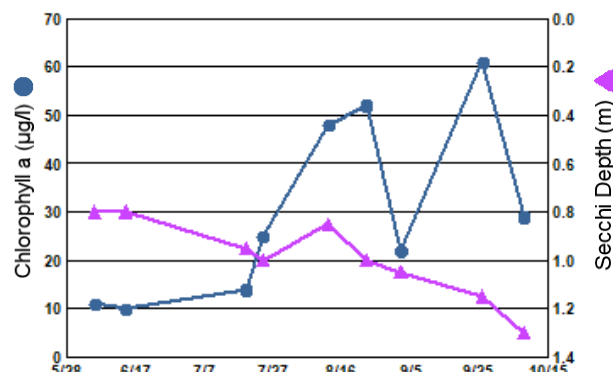
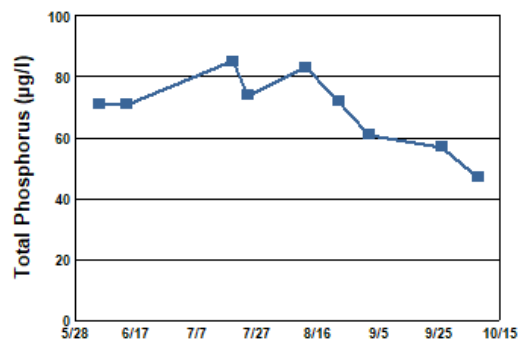
Lake ID: 820001-00

● Sampling site
Contours in meters

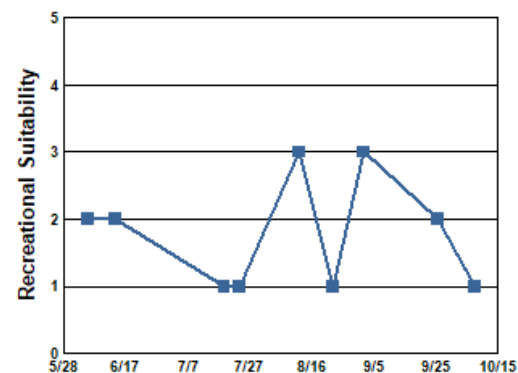


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/05/24	22.6		11	71	0.8	1	2
06/14/24	22.6		10	71	0.8	2	2
07/19/24	26.3		14	85	1.0	1	1
07/24/24	25.9		25	74	1.0	1	1
08/12/24	23.9		48	83	0.9	3	3
08/23/24	24.2		52	72	1.0	2	1
09/02/24	22.4		22	61	1.1	3	3
09/26/24	22.6		61	57	1.2	2	2
10/08/24	16.5		29	47	1.3	2	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP									C	C	C	C
CLA									C	B	C	B
Secchi									D	C	D	
Lake Grade									C	C	C	

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP			C	C	C	C	C	C	D
CLA			C	C	C	C	C	C	C
Secchi			D	C	D	C	D	C	D
Lake Grade			C	C	C	C	C	C	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lake St. Croix [Bayport Pool-Site 2] (82–0001) Metropolitan Council Environmental Services

Volunteer: Jim and Roberta Harper

Lake St. Croix is a natural impoundment of the St. Croix River. It is located along the border with Wisconsin and borders many communities in Minnesota and Wisconsin. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metro council.org\)](https://metro council.org/priority-waters)

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998, aquatic consumption (PCBs in fish tissue) in 2006, aquatic consumption (Perfluorooctane Sulfonate (PFOS) in fish tissue) in 2022, and aquatic recreational use (nutrient/eutrophication biological indicators) in 2008. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995, zebra mussels (*Dreissena polymorpha*) in 2001, bighead carp (*Hypophthalmichthys nobilis*) (2012), silver carp (*Hypophthalmichthys molitrix*) (2012), and grass carp (*Ctenopharyngodon idella*) (2015).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	66	44	87	C
CLA (µg/l)	25	10	44	C
Secchi (m)	1.1	0.8	1.5	D
TKN (mg/l)				
			Lake Grade	C

Site 2 received a lake grade of C which is consistent with its historical water quality database. However, the Secchi grade degraded to a D, which is a return to lower water clarity last observed in 2015 and earlier.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

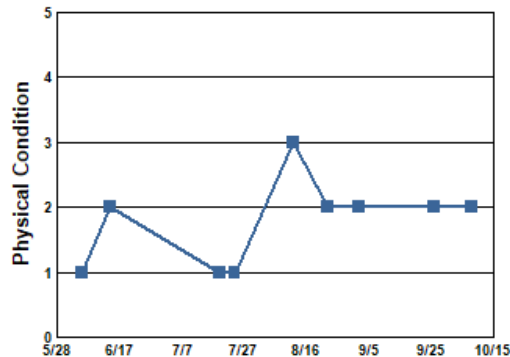
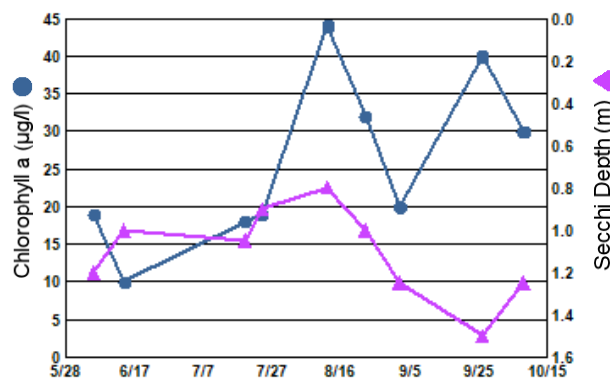
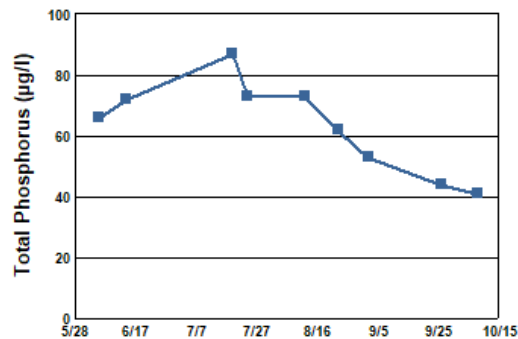
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

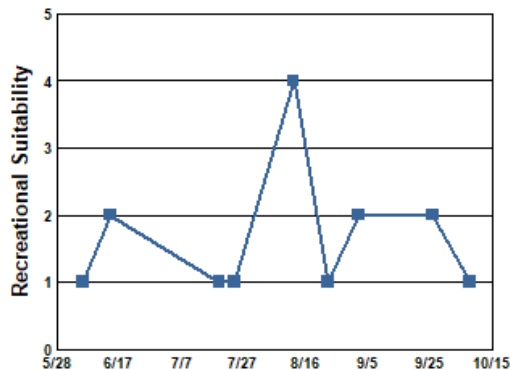
Lake St. Croix, Bayport Pool, Site 2 Minnesota/Wisconsin

Lake ID: 820001-00

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/05/24	22.9		19	66	1.2	1	1
06/14/24	22.4		10	72	1.0	2	2
07/19/24	26.2		18	87	1.1	1	1
07/24/24	28.5		19	73	0.9	1	1
08/12/24	25.5		44	73	0.8	3	4
08/23/24	27.6		32	62	1.0	2	1
09/02/24	23.5		20	53	1.3	2	2
09/26/24	22.6		40	44	1.5	2	2
10/08/24	17.7		30	41	1.3	2	1

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP											D	
CLA											C	
Secchi											D	
Lake Grade											D	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	C	C	C	C	C	C	C	C	C	C
CLA		C	C	C	B	C	B	B	C	B	C	B
Secchi		C	C	C	C	C	D	D	D	D	D	D
Lake Grade		C	C	C	C	C	C	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP			C	C	C	C	C		C
CLA			C	B	C	C	C	B	C
Secchi			C	C	C	C	C	C	D
Lake Grade			C	C	C	C	C		C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lake St. Croix [Troy Beach Pool-Site 4] (82–0001) Metropolitan Council Environmental Services

Volunteer: Jim and Roberta Harper

Lake St. Croix is a natural impoundment of the St. Croix River. It is located along the border with Wisconsin and borders many communities in Minnesota and Wisconsin. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](#) It has a surface area of 8,393 acres and a maximum depth of 23.7 m.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998, aquatic consumption (PCBs in fish tissue) in 2006, aquatic consumption (Perfluorooctane Sulfonate (PFOS) in fish tissue) in 2022, and aquatic recreational use (nutrient/eutrophication biological indicators) in 2008. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995, zebra mussels (*Dreissena polymorpha*) in 2001, bighead carp (*Hypophthalmichthys nobilis*) (2012), silver carp (*Hypophthalmichthys molitrix*) (2012), and grass carp (*Ctenopharyngodon idella*) (2015).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)				
CLA (µg/l)				
Secchi (m)				
TKN (mg/l)				
			Lake Grade	

There were less than 5 monitoring events during the summer-time period (May — September). At least 5 monitoring events are required during the summer-time period to determine a parameter grade. A lake grade was not given because all three parameter grades are required to issue a lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

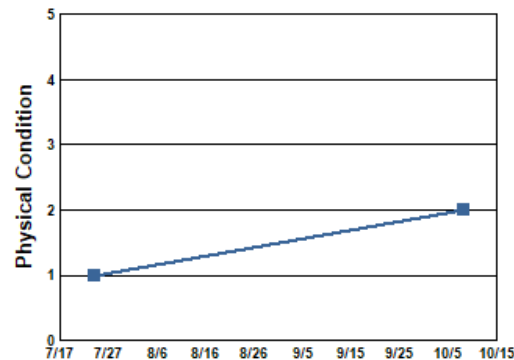
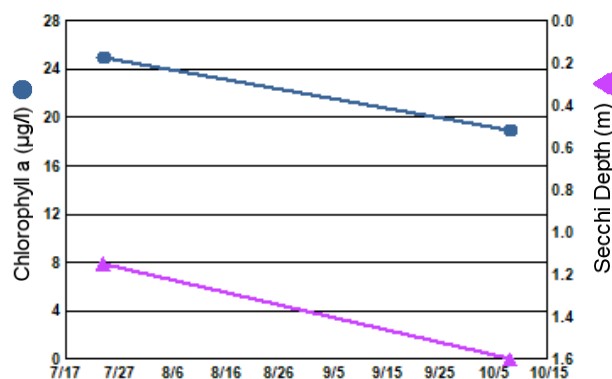
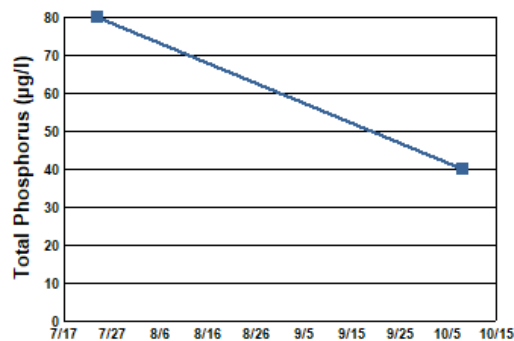
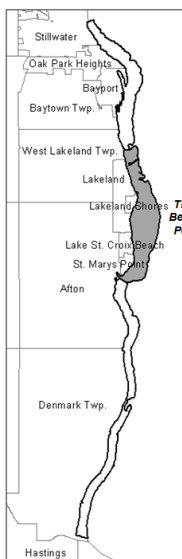
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

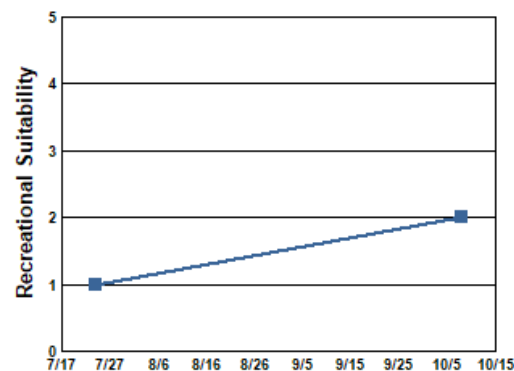
Lake St. Croix, Troy Beach Pool, Site 4 Minnesota/Wisconsin

Lake ID: 820001-00

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
07/24/24	26.2		25	80	1.2	1	1
10/08/24	19.3		19	40	1.6	2	2

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP											D	
CLA											C	
Secchi											D	
Lake Grade											D	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	C	C	C	B	C	C	C	C		C
CLA		B	B	C	B	C	B	B	B	C		B
Secchi		C	C	C	C	C	C	C	C	C		C
Lake Grade		C	C	C	C	C	C	C	C	C		C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP			C			C			
CLA			C			C			
Secchi			D			C			
Lake Grade			C			C			

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lake St. Croix [Black Bass Pool-Site 6] (82–0001) Metropolitan Council Environmental Services

Volunteer: Jim Harper, Roberta Harper

Lake St. Croix is a natural impoundment of the St. Croix River. It is located along the border with Wisconsin and borders many communities in Minnesota and Wisconsin. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) It has a surface area of 8,393 acres and a maximum depth of 23.7 m.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998, aquatic consumption (PCBs in fish tissue) in 2006, aquatic consumption (Perfluorooctane Sulfonate (PFOS) in fish tissue) in 2022, and aquatic recreational use (nutrient/eutrophication biological indicators) in 2008. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995, zebra mussels (*Dreissena polymorpha*) in 2001, bighead carp (*Hypophthalmichthys nobilis*) (2012), silver carp (*Hypophthalmichthys molitrix*) (2012), and grass carp (*Ctenopharyngodon idella*) (2015).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	48	32	68	C
CLA (µg/l)	14	7.3	23	B
Secchi (m)	1.6	1.4	1.9	C
TKN (mg/l)				
			Lake Grade	C

Site 6 received a lake grade of C in 2024 which is consistent with its historical water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

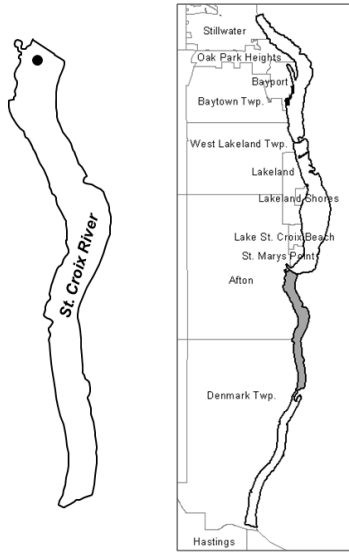
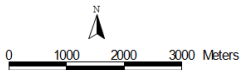
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lake St. Croix, Black Bass Pool, Site 6 Minnesota/Wisconsin

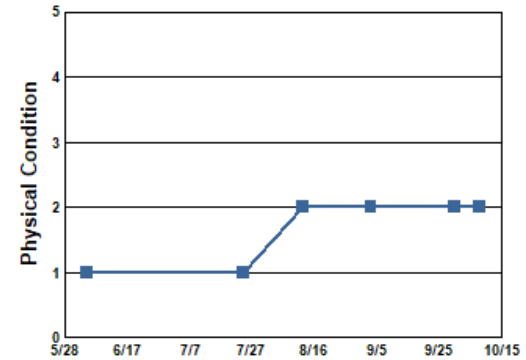
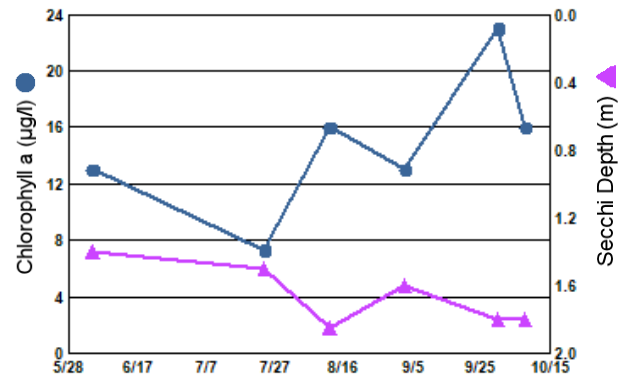
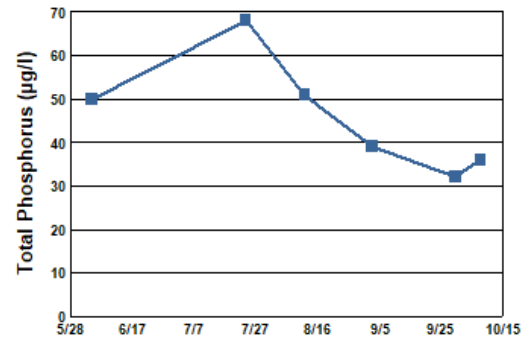
Lake ID: 820001-00

● Sampling site
Contours in meters

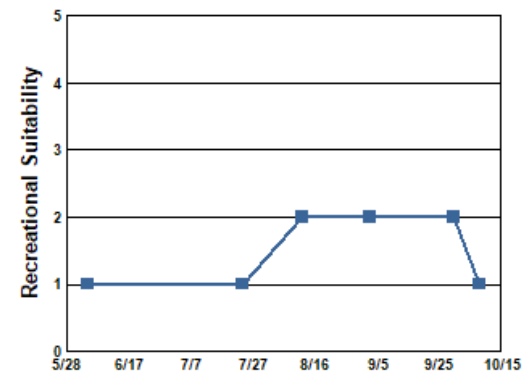


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/04/24	20.8		13	50	1.4	1	1
07/24/24	25.9		7.3	68	1.5	1	1
08/12/24	26.2		16	51	1.9	2	2
09/03/24	23.2		13	39	1.6	2	2
09/30/24	22.0		23	32	1.8	2	2
10/08/24	19.9		16	36	1.8	2	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP											C	
CLA											C	
Secchi											C	
Lake Grade											C	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	C	C	C	A	C	C	C	C	C	C
CLA		B	B	C	B	B	B	B	B	B	B	B
Secchi		C	C	C	C	C	C	C	C	C	C	C
Lake Grade		C	C	C	C	B	C	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP			C	C	C	B	C		C
CLA			B	B	B	B	C		B
Secchi			C	C	C	B	C		C
Lake Grade			C	C	C	B	C		C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Lake St. Croix [Kinnickinnic Pool-Site-7] (82-0001) Metropolitan Council Environmental Services

Volunteer: Carpenter Nature Center (volunteer coordinator: Alan Maloney)

Lake St. Croix is a natural impoundment of the St. Croix River. It is located along the border with Wisconsin and borders many communities in Minnesota and Wisconsin. The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocouncil.org\)](https://www.metrocouncil.org/prioritywaters/) It has a surface area of 8,393 acres and a maximum depth of 23.7 m.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998, aquatic consumption (PCBs in fish tissue) in 2006, aquatic consumption (Perfluorooctane Sulfonate (PFOS) in fish tissue) in 2022, and aquatic recreational use (nutrient/eutrophication biological indicators) in 2008. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1995, zebra mussels (*Dreissena polymorpha*) in 2001, bighead carp (*Hypophthalmichthys nobilis*) (2012), silver carp (*Hypophthalmichthys molitrix*) (2012), and grass carp (*Ctenopharyngodon idella*) (2015).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	59	36	109	C
CLA (µg/l)	22	2.5	99	C
Secchi (m)	1.4	0.3	1.9	C
TKN (mg/l)				
			Lake Grade	C

Site 7 received a lake grade of C in 2024 which is consistent with its historical water quality database. This site's lake grades have varied in the B to C range for the past 20 years.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

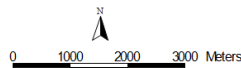
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lake St. Croix, Kinnickinnic Pool, Site 7 Minnesota/Wisconsin

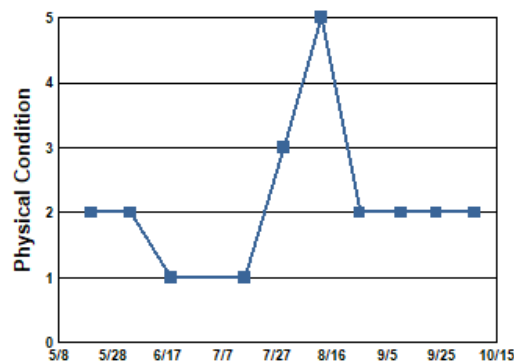
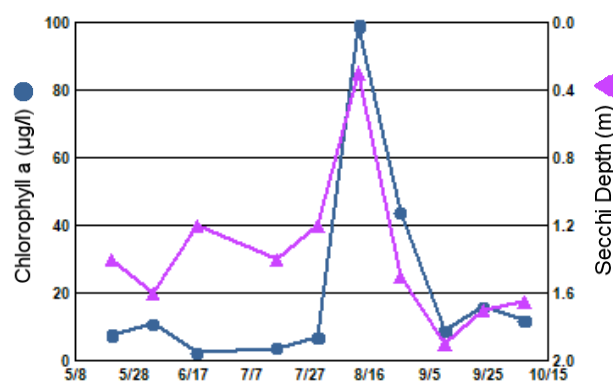
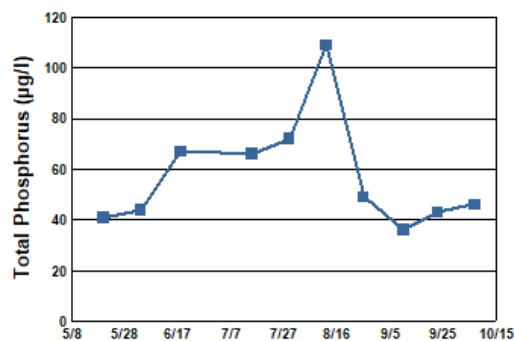
Lake ID: 820001-00

● Sampling site
Contours in meters

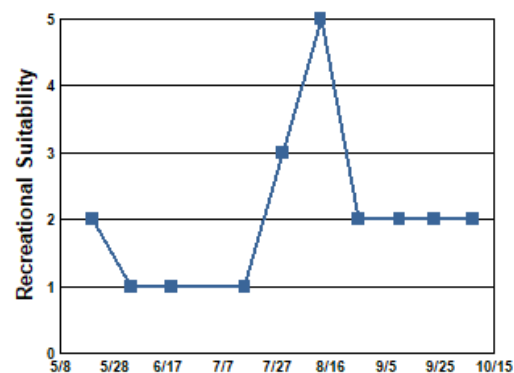


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/20/24	21.9		7.7	41	1.4	2	2
06/03/24	19.9		11	44	1.6	2	1
06/18/24	21.1		2.5	67	1.2	1	1
07/15/24	25.3		3.8	66	1.4	1	1
07/29/24	29.7		7.1	72	1.2	3	3
08/12/24	28.3		99	109	0.3	5	5
08/26/24	30.5		44	49	1.5	2	2
09/10/24	22.4		9.1	36	1.9	2	2
09/23/24	23.8		16	43	1.7	2	2
10/07/24	20.3		12	46	1.7	2	2



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		B	B	B	C	A	C		C	C	C	C
CLA		B	B	B	B	B	B	A	B	C	C	B
Secchi		C	C	C	C	C	C	C	C	C	C	C
Lake Grade		B	B	B	C	B	C		C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP			C	B	C	B	C		C
CLA			B	B	B	B	C	B	C
Secchi			C	C	C	B	C	B	C
Lake Grade			C	B	C	B	C	B	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

St. Joe Lake (10–0011) *City of Chanhassen*

Volunteer: Wendy Mizutani, Nathan Kirt

St. Joe Lake is a 14-acre lake located within the City of Chanhassen (Carver County). It has a maximum depth of 15.9 m (52 ft).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	24	15	41	B
CLA (µg/l))	5.9	1.2	13	A
Secchi (m)	2.4	1.5	4.3	B
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B. The lake typically ranges in the A to B range.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

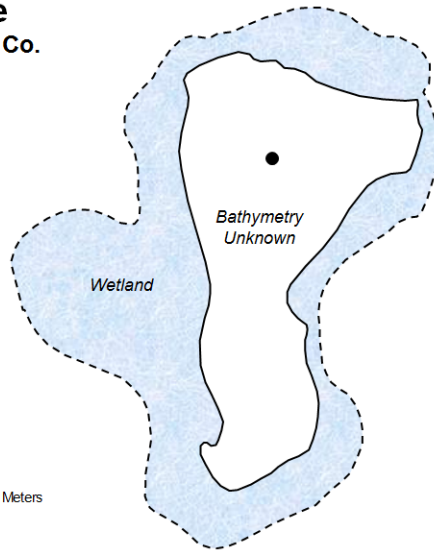
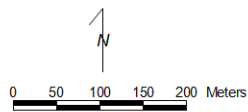
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

St. Joe's Lake Chanhassen, Carver Co.

LAKE ID: 100011-00

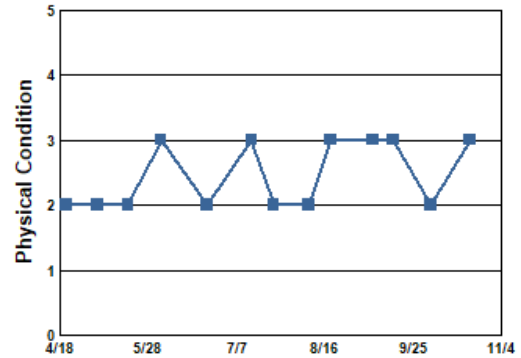
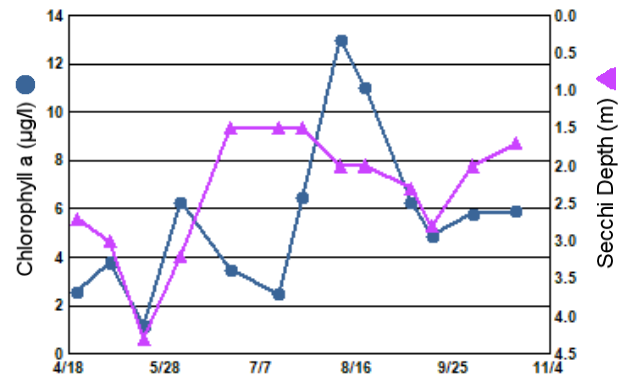
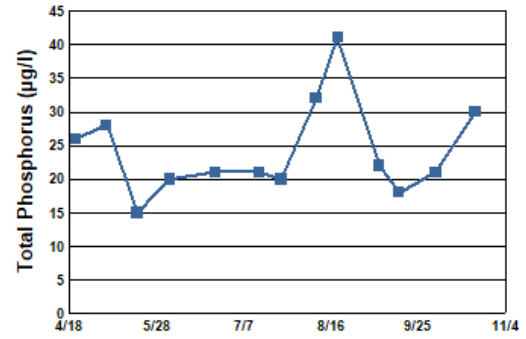
● Sampling site

Contours in meters



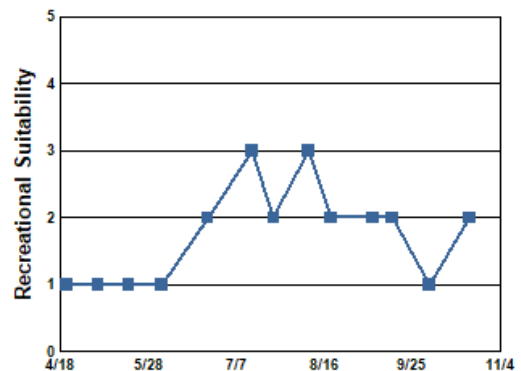
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	10.1		2.6	26	2.7	2	1
05/05/24	18.0		3.8	28	3.0	2	1
05/19/24	21.0		1.2	15	4.3	2	1
06/03/24	24.7		6.3	20	3.2	3	1
06/24/24	27.2		3.5	21	1.5	2	2
07/14/24	31.0		2.5	21	1.5	3	3
07/24/24	25.2		6.5	20	1.5	2	2
08/09/24	22.8		13	32	2.0	2	3
08/19/24	26.9		11	41	2.0	3	2
09/07/24	22.7		6.3	22	2.3	3	2
09/16/24	24.8		4.9	18	2.8	3	2
10/03/24	18.5		5.8	21	2.0	2	1
10/21/24	15.1		5.9	30	1.7	3	2



1 = Crystal Clear
2 = Some Algae Present
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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi			C		B							
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	A	A	C	A	A	C	A	A	A		A	A
CLA	A	A	A	A	A	A	A	A	A		A	A
Secchi	B	A	B	A	B	A	B	B	B		B	B
Lake Grade	A	A	B	A	A	B	A	A	A		A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	A	A	A	A	B	A		B
CLA	A	A	A	A	A	A	A		A
Secchi	B	B	C	B		A	B		B
Lake Grade	B	A	B	A		A	A		B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Sunfish Lake (19–0050) *City of Sunfish Lake*

Volunteer: James Stowell

Sunfish Lake is located in the City of Sunfish Lake (Dakota County). The lake has a surface area of 49 acres and a maximum depth of 9.8 m (32 ft).

The MPCA delisted the lake from the impaired waters list for aquatic recreational use (nutrient/eutrophication biological indicators) in 2022.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

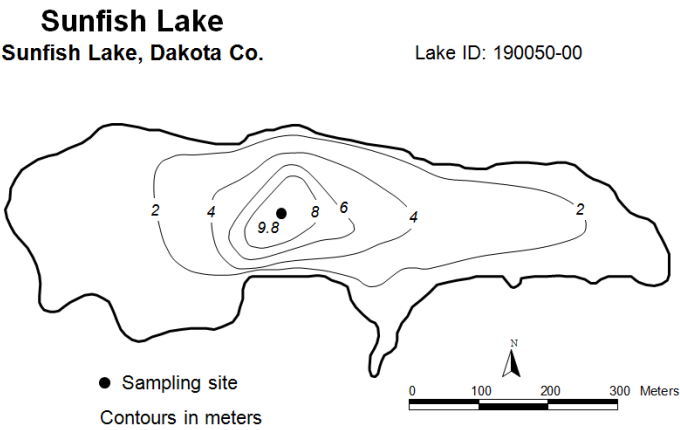
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	17	12	21	A
CLA (µg/l)	4.5	1.6	8.3	A
Secchi (m)	3.1	1.8	4.6	A
TKN (mg/l)				
			Lake Grade	A

The lake continues to receive an A lake grade. The rapid improvement in water quality from C grades to A grades is attributed to the alum treatments that the lake received in 2017. Continued monitoring is recommended to monitor the lake's response to the alum treatments.

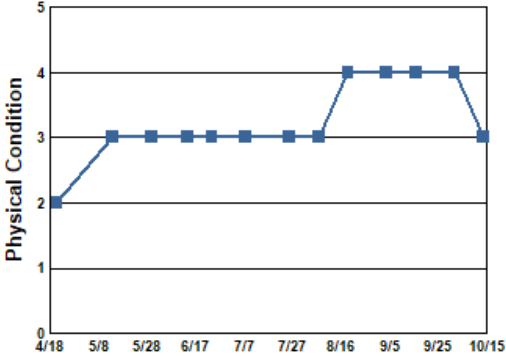
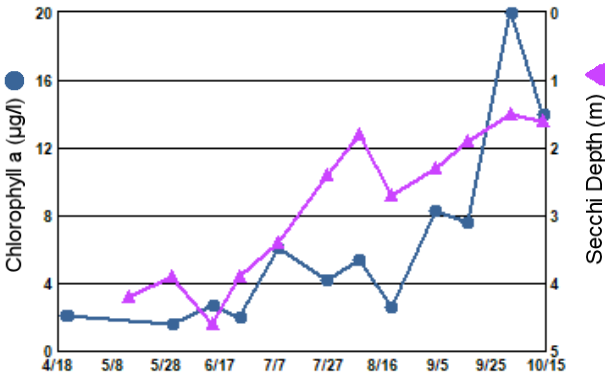
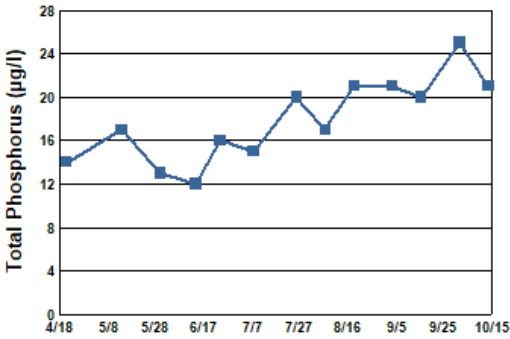
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

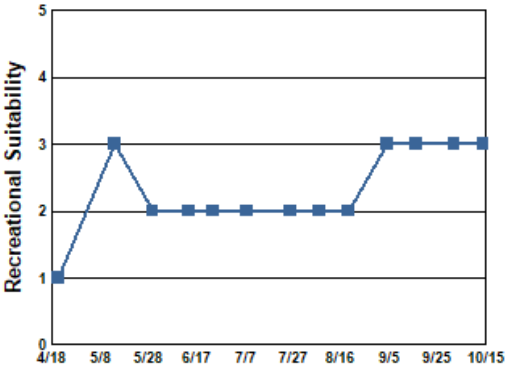


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	9.1		2.1	14		2	1
05/14/24	15.9			17	4.2	3	3
05/30/24	20.1		1.6	13	3.9	3	2
06/14/24	22.5		2.7	12	4.6	3	2
06/24/24	23.5		2.0	16	3.9	3	2
07/08/24	25.4		6.1	15	3.4	3	2
07/26/24	25.8		4.2	20	2.4	3	2
08/07/24	25.9		5.4	17	1.8	3	2
08/19/24	25.1		2.6	21	2.7	4	2
09/04/24	23.4		8.3	21	2.3	4	3
09/16/24	24.8		7.6	20	1.9	4	3
10/02/24	18.6		20	25	1.5	4	3
10/14/24	14.3		14	21	1.6	3	3



1 = Crystal Clear
2 = Some Algae Present
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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi					C	C	C					C
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			C	C	C	B	C	B	C	B	B	C
CLA			C	C	C	B	C	B	B	C	C	C
Secchi			D	C	C	B	B	A	B	C	C	B
Lake Grade			C	C	C	B	C	B	B	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	A	A	A	A	A	A		A
CLA	C	A	A	A	A	A	A		A
Secchi	C	A	B	A	A	A	A	A	A
Lake Grade	C	A	A	A	A	A	A		A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Sunset Lake (82-0153) *Rice Creek Watershed District*

Volunteers: Diane Coderre, Bob Coderre

Sunset Lake is located in the southern portion of the City of Hugo (Washington County). It has a surface area of 124 acres and a maximum depth of 5.2 m (17 ft). More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2001.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	17	12	21	A
CLA (µg/l)	3.2	1.1	4.2	A
Secchi (m)	+3.1	>2.7	+3.9	A
TKN (mg/l)				
			Lake Grade	A

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a lake grade of A. According to the historical water quality database, the water quality of the lake has improved over the past +30 years, as demonstrated by the shift from mostly C lake grades received in the period 1984 - 1999 to A lake grades. Water clarity has improved over this same time period as well. Secchi grades in the 1980s were in the C to D range but have improved to the A range.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

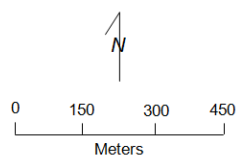
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Sunset Lake

Hugo, Washington Co.

Lake ID: 820153-00

● Sampling site
Contours in meters

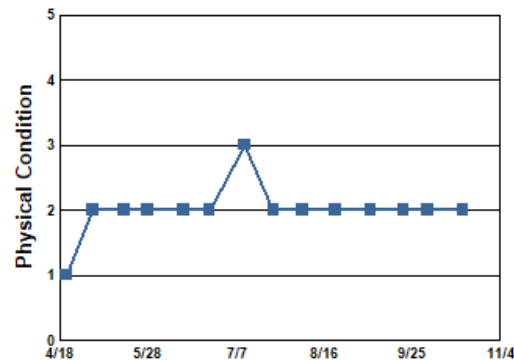
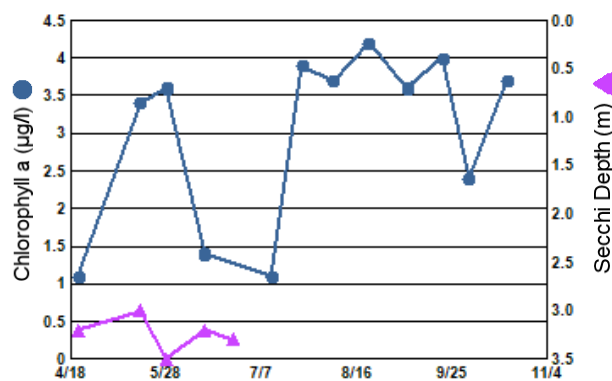
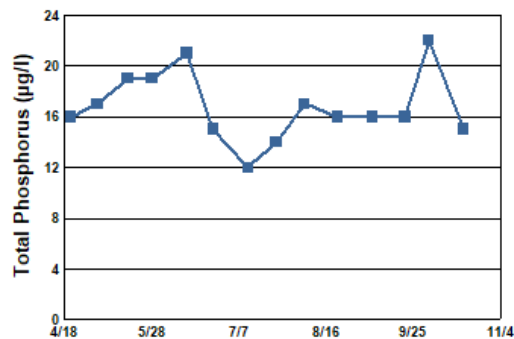


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	10.8		1.1	16	3.2	1	1
05/03/24	15.0			17	+3.9	2	1
05/17/24	20.9		3.4	19	3.0	2	1
05/28/24	19.6		3.6	19	3.5	2	2
06/13/24	23.8		1.4	21	3.2	2	2
06/25/24	26.2			15	3.3	2	2
07/11/24	29.8		1.1	12	>3.2	3	2
07/24/24	27.3		3.9	14	>2.8	2	2
08/06/24	26.2		3.7	17	>2.7	2	2
08/21/24	25.6		4.2	16	>2.8	2	2
09/06/24	22.3		3.6	16	>2.7	2	2
09/21/24	24.1		4.0	16	>3.0	2	2
10/02/24	19.3		2.4	22	>3.3	2	2
10/18/24	12.6		3.7	15	>4.0	2	2

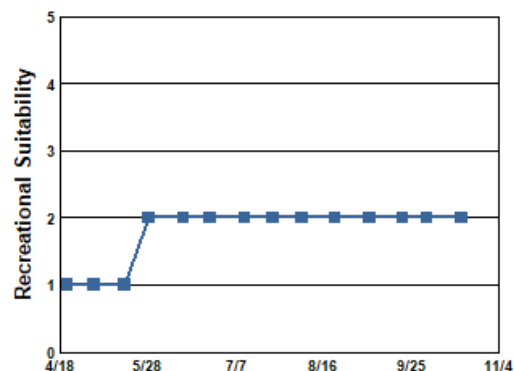
+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					D							
CLA					C							
Secchi					C	D	C	D	D	C	C	
Lake Grade					C							

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C	B	C	C	C	C	C	B	A	A	A
CLA		B	B	B	C	C	B	B	A	A	A	A
Secchi		C	B	C	B	C	C	C	B	A	A	A
Lake Grade		C	B	C	C	C	C	C	B	A	A	A

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	A	A	A	A	A	A	A	B	B	A	A	A
CLA	A	A	A	A	A	A	A	A	A	A	A	A
Secchi	A	A	A	B	A	B		B	A	B	A	A
Lake Grade	A	A	A	A	A	A		B	A	A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	A	A	A	A	A	B	A	A	A
CLA	A	A	A	A	A	A	A	A	A
Secchi	A	A	A	A	B	A	A	A	A
Lake Grade	A	A	A	A	A	A	A	A	A

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Sunset Pond (19–0451) City of Burnsville

Volunteer: Paul Below

Sunset Pond, a 60-acre man-made lake, is located in the City of Burnsville (Dakota County). The pond has a normal maximum depth of 3.7m (12 ft). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column. The pond collects drainage from a portion of the cities of Burnsville's and Savage's storm water conveyance systems, including outflow from Crystal and Earley lakes. Because the lake was created to detain storm water, the pond can experience extreme bounce in its water level during runoff conditions.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2004.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	49	30	74	C
CLA (µg/l)	9.5	1.6	40	A
Secchi (m)	+1.5	1.0	3.5	
TKN (mg/l)				
			Lake Grade	

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

The lake received TP and CLA grades of C and A respectively. Both of these grades are consistent with its historical water quality database. There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade. The relatively low CLA concentrations in combination with the observations of moderate to substantial macrophyte growth, indicate that the primary production of the lake is focused on production of aquatic macrophytes rather than algae.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

T

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

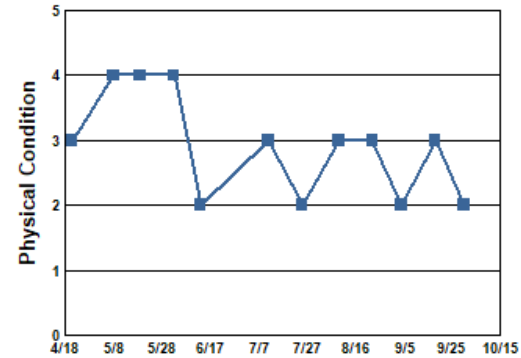
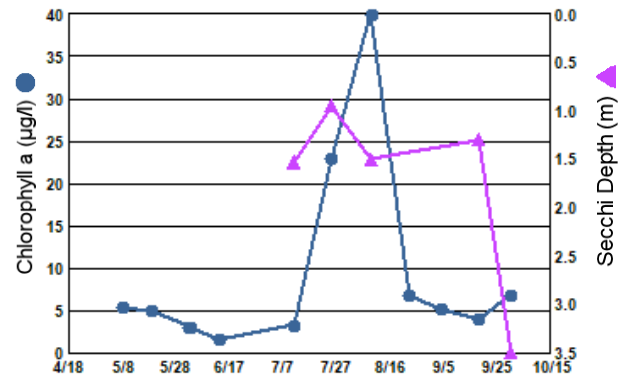
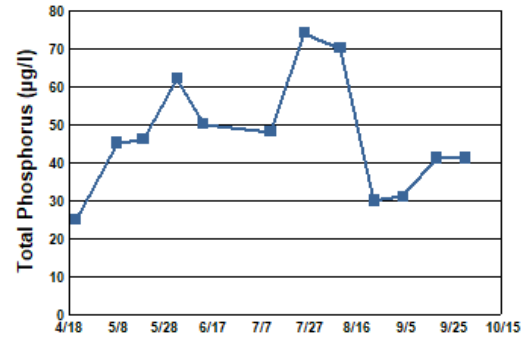
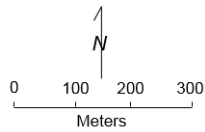
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Sunset Pond

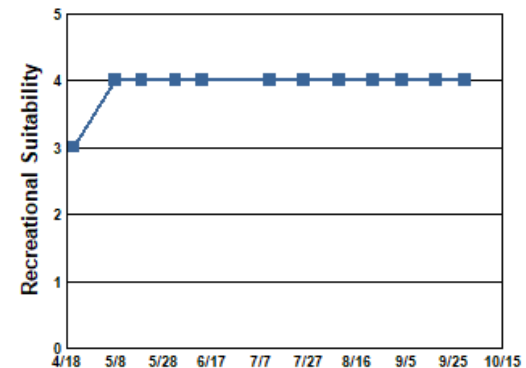
Burnsville, Dakota Co.

Lake ID: 190451-00
WMO: Black Dog Lake

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	11.2			25	>1.3	3	3
05/08/24	22.8		5.4	45	>1.0	4	4
05/19/24	21.1		5.0	46	>1.3	4	4
06/02/24	24.7		3.1	62	>1.3	4	4
06/13/24	21.4		1.6	50	>1.5	2	4
07/11/24	30.8		3.3	48	1.5	3	4
07/25/24	26.1		23	74	1.0	2	4
08/09/24	22.2		40	70	1.5	3	4
08/23/24	20.8		6.8	30	>1.6	3	4
09/04/24	19.7		5.2	31	+1.0	2	4
09/18/24	22.8		4.0	41	1.3	3	4
09/30/24	19.8		6.9	41	3.5	2	4

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C	C	C	C	C		C	C	C	D
CLA			A	B	B	B	A		A	A	A	B
Secchi			C	C	C	C	C		C	B	B	C
Lake Grade			B	C	C	C	B		B	B	B	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	D		D	C	C	C	C	C	C	C	C	C
CLA	A		B	A	A	A	A	A	A	A	A	B
Secchi	B		C	C	C	C	C	C	C	C	B	
Lake Grade	B		C	B	B	B	B	B	B	B	B	

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C		C	D	C	C
CLA	B	A	B	A		A	A	A	A
Secchi		B							
Lake Grade		B							

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Susan Lake (10–0013) City of Chanhassen

Monitoring Personnel: City of Chanhassen staff

Susan Lake is located in the City of Chanhassen (Carver County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) More than 80 percent of the surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation.

The MPCA listed the lake as impaired with respect to aquatic consumption (mercury in fish tissue) in 1998 and aquatic recreational use (nutrient/eutrophication biological indicators) in 2010. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2005 and brittle naiad (*Najas minor*) in 2019.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

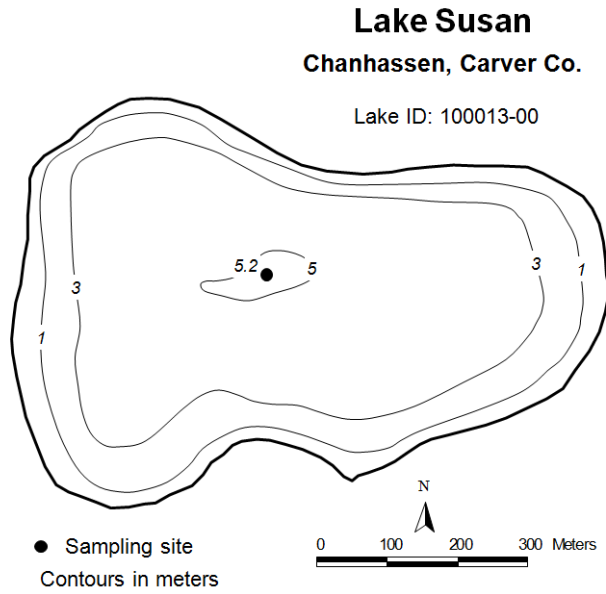
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	59	32	87	C
CLA (µg/l)	29	11	80	C
Secchi (m)	1.2	0.6	1.9	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year which is consistent with its historical water quality database. The water quality of the lake has varied in the C to D range with C grades more common.

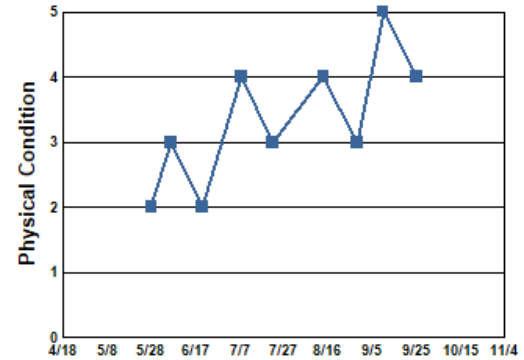
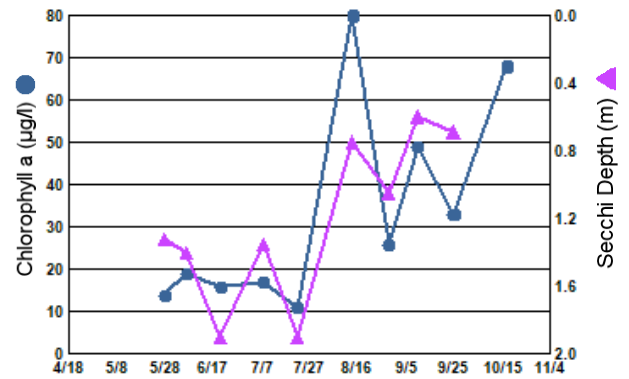
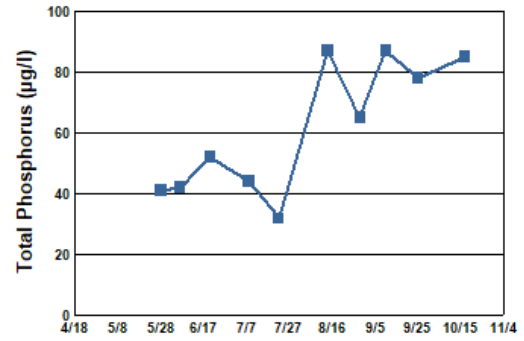
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

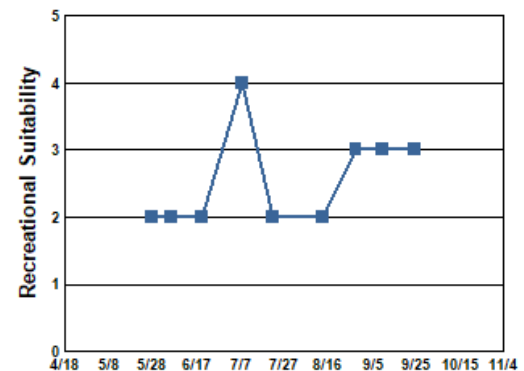
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

**2024 Data**

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/28/24	20.7		14	41	1.3	2	2
06/06/24	21.9		19	42	1.4	3	2
06/20/24	22.0		16	52	1.9	2	2
07/08/24	25.1		17	44	1.4	4	4
07/22/24	28.0		11	32	1.9	3	2
08/14/24	24.6		80	87	0.8	4	2
08/29/24	24.6		26	65	1.1	3	3
09/10/24	22.6		49	87	0.6	5	3
09/25/24	22.2		33	78	0.7	4	3
10/17/24			68	85			



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4 = High Algal Color
5 = Severe Algal Bloom



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3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			D	C	F	D	C	C	D	C	C	
CLA			C	C	D	C	C	C	C	C	C	
Secchi			C	C	D	C	C	C	D	C	C	
Lake Grade			C	C	D	C	C	C	D	C	C	

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	D		C		C	C	C	C
CLA	D	D		C		C	C	C	C
Secchi	C	D		C		C	C	D	C
Lake Grade	C	D		C		C	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Swamp Lake (70–0111) *Prior Lake — Spring Lake Watershed District*

Monitoring Personnel: Prior Lake — Spring Lake Watershed District staff

Swamp Lake is located in Sand Creek Township (Scott County). It has a surface area of about 40 acres.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	109	52	186	D
CLA (µg/l))	29	5.5	49	C
Secchi (m)	>0.7	>0.6	>0.7	
TKN (mg/l)				
			Lake Grade	

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

This was the first year the lake was enrolled in the CAMP. There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade. Continued monitoring is recommended to build the water quality database.

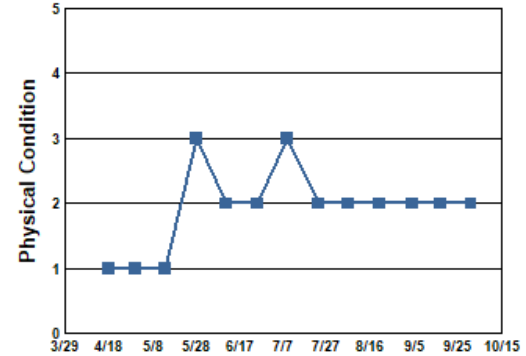
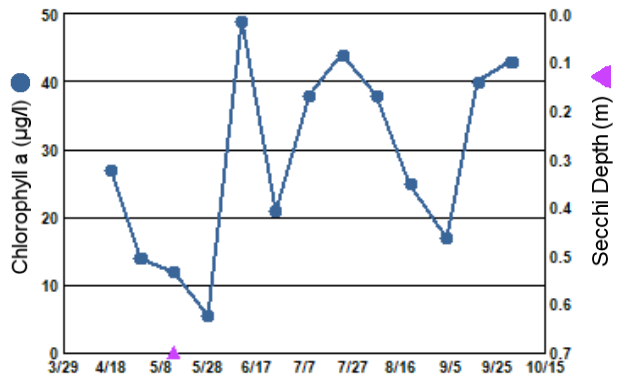
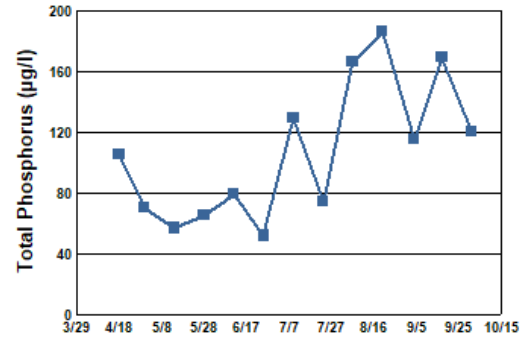
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

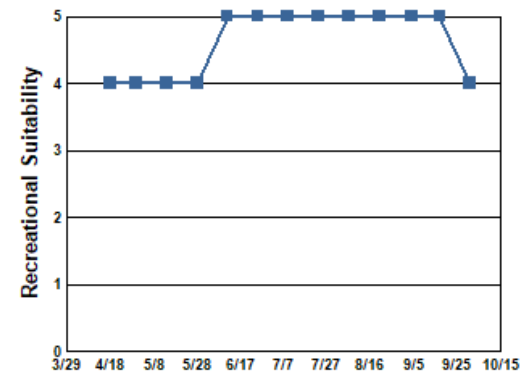
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/18/24	10.3		27	105		1	4
04/30/24	11.4		14	70	+1.0	1	4
05/14/24	19.8		12	57	0.7	1	4
05/28/24	18.4		5.5	65	>0.7	3	4
06/11/24	19.9		49	79	>0.7	2	5
06/25/24	23.2		21	52	>0.6	2	5
07/09/24	21.9		38	129		3	5
07/23/24	21.5		44	74		2	5
08/06/24	20.0		38	166		2	5
08/20/24	20.1		25	186		2	5
09/04/24	18.5		17	115		2	5
09/17/24	20.7		40	169		2	5
10/01/24	14.6		43	120		2	4

+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.
> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



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2 = Some Algae Present
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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
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5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									D
CLA									C
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Sweeney Lake [Site-1, South Site] (27-0035–01) Bassett Creek Watershed Management Commission

Volunteer: Jane McDonald Black, Shanna Hanson

Sweeney Lake is located in the City of Golden Valley (Hennepin County). The lake has a surface area of 66 acres and mean and maximum depths of 3.6 m (12 ft) and 8.0 m (26 ft), respectively. The lake's surface area and a watershed area of 2,400 acres give a large watershed-to-lake area ratio of 36:1. The greater the ratio, the greater the potential stress on the lake from surface runoff. The Sweeney Lake branch of Bassett Creek flows into the lake on the south end and discharges at the north end over a dam. Sweeney Lake is connected to Twin Lake during periods of high water levels by a channel. The surface elevations of the two lakes are about the same.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2004 and aquatic life (chloride) in 2014. The impairment for aquatic recreational use (nutrient/eutrophication biological indicators) was removed from the impaired waters list (delisted) in 2024.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	25	22	28	
CLA (µg/l)	7.4	4.5	11	
Secchi (m)	1.8	1.3	2.5	
TKN (mg/l)				
			Lake Grade	

There were less than 5 monitoring events during the summer-time period (May — September). At least 5 monitoring events are required during the summer-time period to determine parameter grades and a lake grade. A lake grade was not given because all three parameter grades are required to issue a lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

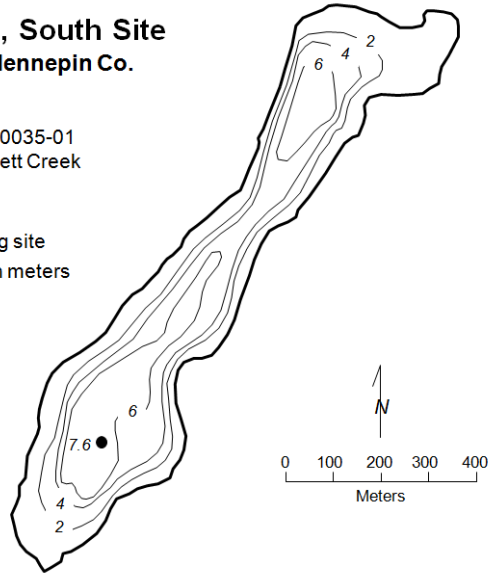
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Sweeney Lake, South Site Golden Valley, Hennepin Co.

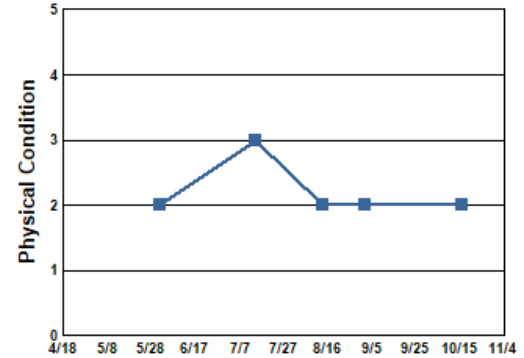
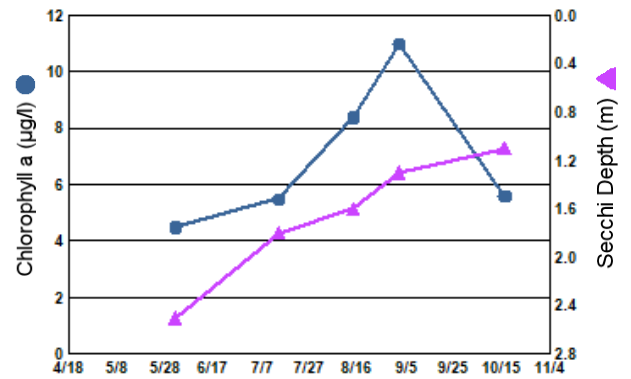
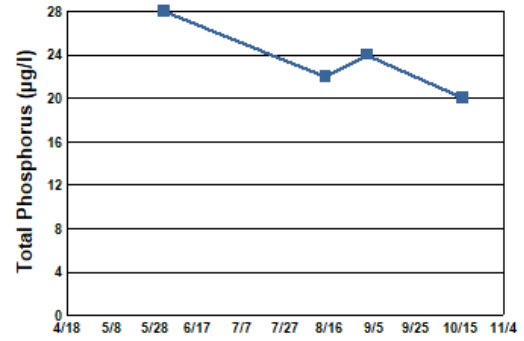
Lake ID: 270035-01
WMO: Bassett Creek

● Sampling site
Contours in meters

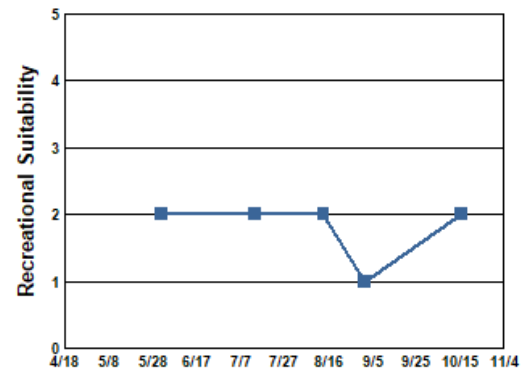


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/01/24	20.6		4.5	28	2.5	2	2
07/14/24	28.9		5.5		1.8	3	2
08/14/24	24.3		8.4	22	1.6	2	2
09/02/24	23.9		11	24	1.3	2	1
10/16/24	14.5		5.6	20	1.1	2	2



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2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP									C	C	C	C
CLA									C	B	B	B
Secchi									D	C	C	C
Lake Grade									C	C	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	D	C	C	C	C	C	C	C	C	C
CLA	B	C	C	B	B	C	B	B	B	B	C	C
Secchi	C	C	D	D	C	C	C	C	D	D	C	C
Lake Grade	C	C	D	C	C	C	C	C	C	C	C	C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C		B					
CLA	C	B		A					
Secchi	C	C		C	C				
Lake Grade	C	C		B					

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Sweeney Lake [Site-2, North Site] (27-0035–01) Bassett Creek Watershed Management Commission

Volunteer: Amy Baudler

Sweeney Lake is located in the City of Golden Valley (Hennepin County). The lake has a surface area of 66 acres and mean and maximum depths of 3.6 m (12 ft) and 8.0 m (26 ft), respectively. The lake's surface area and a watershed area of 2,400 acres give a large watershed-to-lake area ratio of 36:1. The greater the ratio, the greater the potential stress on the lake from surface runoff. The Sweeney Lake branch of Bassett Creek flows into the lake on the south end and discharges at the north end over a dam. Sweeney Lake is connected to Twin Lake during periods of high water levels by a channel. The surface elevations of the two lakes are about the same.

The MPCA listed the lake as impaired with respect to aquatic life (chloride) in 2014. The MPCA delisted the lake from the impaired waters list for aquatic recreational use (nutrient/eutrophication biological indicators) in 2024.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	21	19	22	
CLA (µg/l)	6.3	3.4	9.0	
Secchi (m)	1.7	1.3	2.7	
TKN (mg/l)				
			Lake Grade	

There was an insufficient quantity of monitoring events to calculate parameter grades. At least 5 monitoring events are needed during the summer-time period (May — September) to calculate a parameter grade and a lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

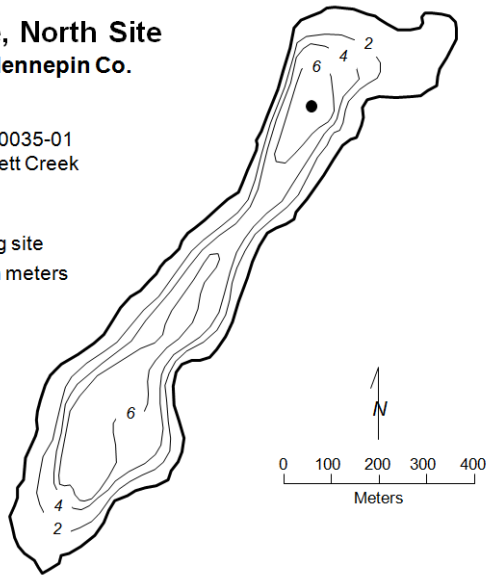
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Sweeney Lake, North Site Golden Valley, Hennepin Co.

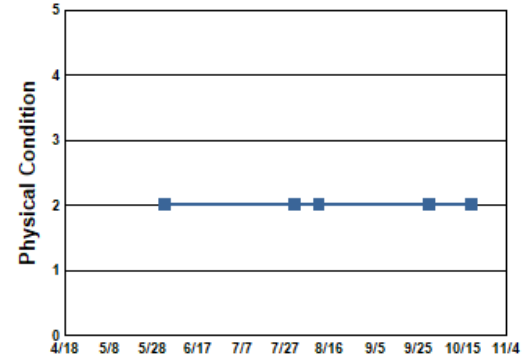
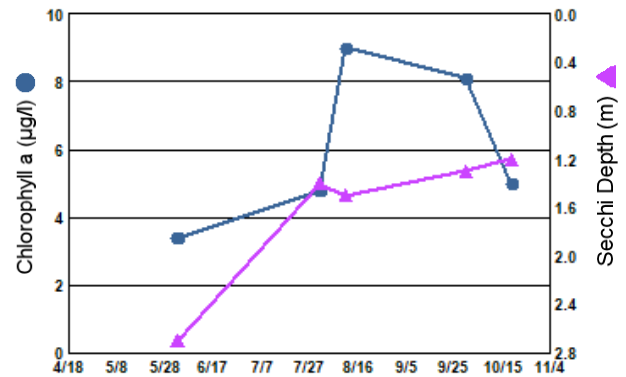
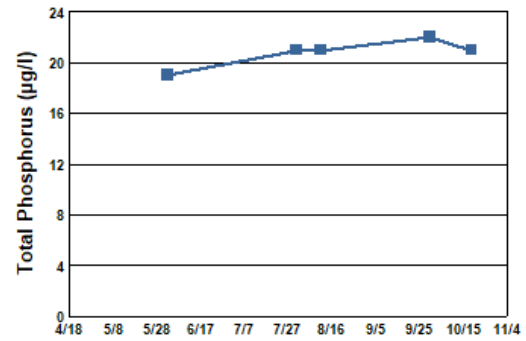
Lake ID: 270035-01
WMO: Bassett Creek

● Sampling site
Contours in meters

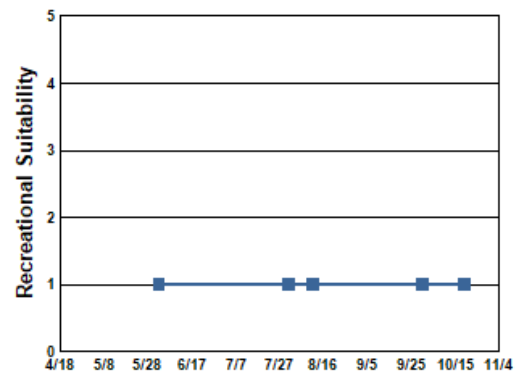


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/02/24	22.8		3.4	19	2.7	2	1
07/31/24			4.8	21	1.4	2	1
08/11/24			9.0	21	1.5	2	1
09/30/24			8.1	22	1.3	2	1
10/19/24			5.0	21	1.2	2	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP									C	C		
CLA									C	C		
Secchi									D	C		
Lake Grade									C	C		

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP							C					
CLA							C	B				
Secchi							C	D				
Lake Grade							C					

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP			C	B	B	A			
CLA		B	B	B	A	A			
Secchi		C	C	C	C	C			
Lake Grade			C	B	B	B			

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Teal Lake (27–0275) *Elm Creek Watershed Management Commission*

Volunteer: Katie Turpin-Nagel

Teal Lake is located in the city of Maple Grove (Anoka County). There are little bathymetric information available for the lake.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	86	60	144	D
CLA (µg/l))	43	11	99	C
Secchi (m)	0.9	0.5	1.1	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D this year which indicates worsening water quality compared to the last CAMP monitoring year in 2020 (lake grade of C).

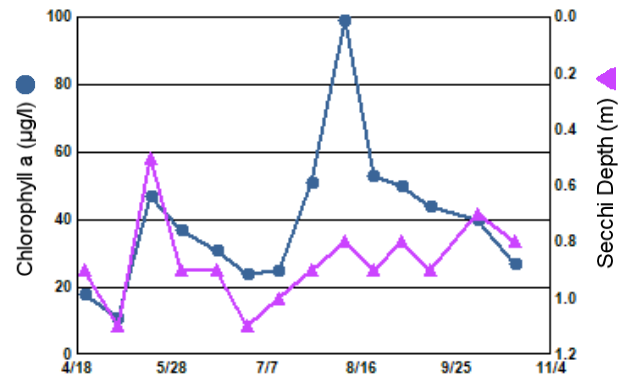
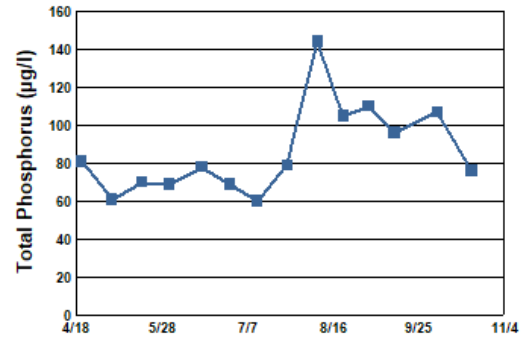
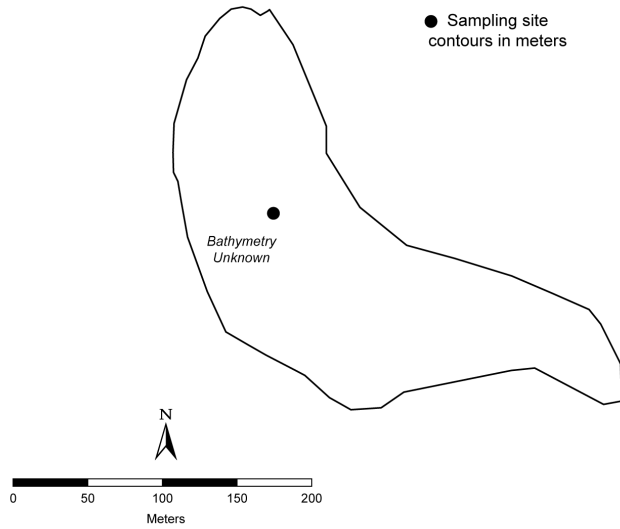
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Teal Lake

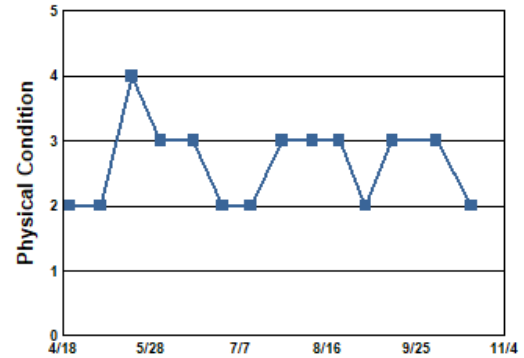
Maple Grove, Hennepin County

Lake ID: 27027500

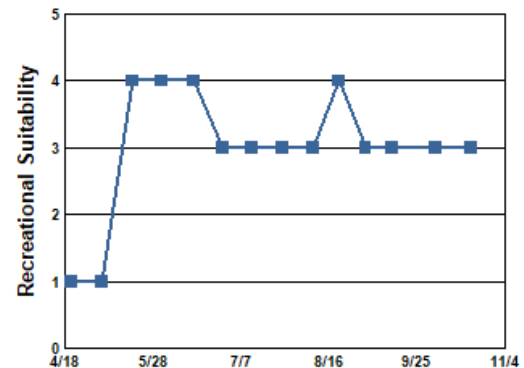


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/21/24	12.2		18	81	0.9	2	1
05/05/24	16.8		11	61	1.1	2	1
05/19/24	21.1		47	70	0.5	4	4
06/01/24	20.9		37	69	0.9	3	4
06/16/24	23.6		31	78	0.9	3	4
06/29/24	23.5		24	69	1.1	2	3
07/12/24	29.0		25	60	1.0	2	3
07/26/24	27.5		51	79	0.9	3	3
08/09/24	22.6		99	144	0.8	3	3
08/21/24	25.2		53	105	0.9	3	4
09/02/24	24.0		50	110	0.8	2	3
09/14/24	23.1		44	96	0.9	3	3
10/04/24	18.4		40	107	0.7	3	3
10/20/24	15.0		27	76	0.8	2	3



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4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP					D				D
CLA					C				C
Secchi					C				D
Lake Grade					C				D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Thole Lake (70–0120) Scott Watershed Management Organization

Volunteer: Mark Vierling

Thole Lake is located in the Louisville Township (Scott County). The entire lake is considered littoral zone, which is the shallow 0 – 15 feet depth zone that is typically dominated by aquatic plants. Since the lake is relatively shallow, it does not maintain a thermocline, which is a density gradient caused by changing water temperatures throughout the water column. The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002 and aquatic consumption (mercury in fish tissue) in 2008. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2002.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

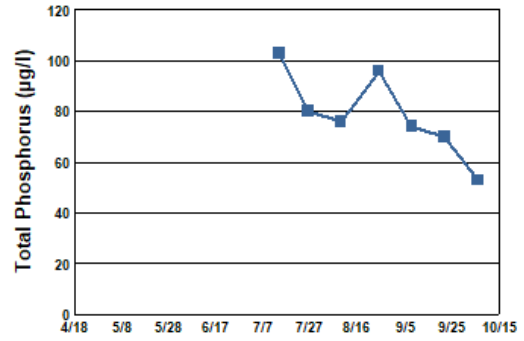
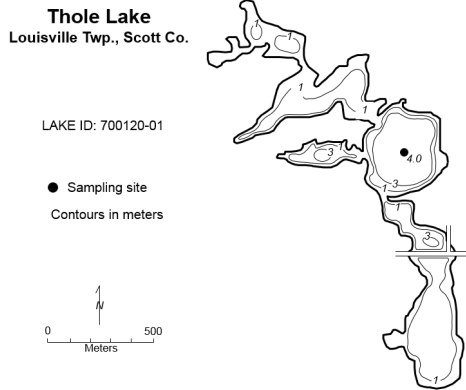
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	83	70	103	D
CLA (µg/l))	39	21	59	C
Secchi (m)	0.7	0.5	0.9	D
TKN (mg/l)				
			Lake Grade	D

The lake received a lake grade of D in 2024. This is the lowest lake grade received since 2016. The lake has been typically receiving C grades. However 2024 saw a lack of monitoring data in the spring and early summer (April — June) so this may have skewed the summertime mean to reflect more eutrophic conditions typical of late summer, which would have skewed the lake grade into the D range.

Throughout the monitoring period, METC staff ranked the lake's physical condition and recreational suitability on a 1-to-5 scale. These user perception rankings are shown on the following page.

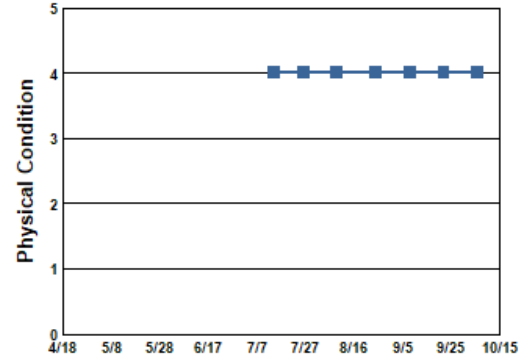
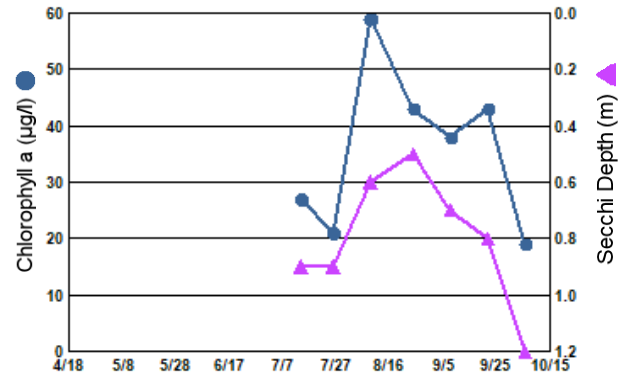
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

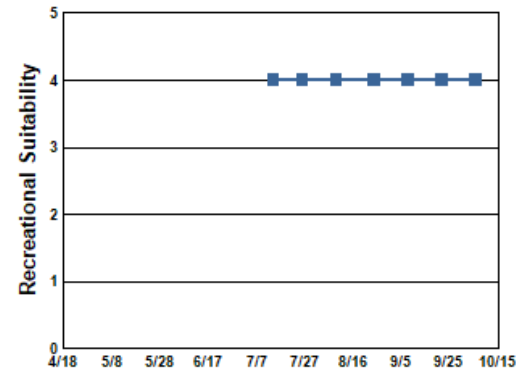


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
07/14/24	27.9		27	103	0.9	4	4
07/26/24	28.2		21	80	0.9	4	4
08/09/24	24.5		59	76	0.6	4	4
08/25/24	26.6		43	96	0.5	4	4
09/08/24	24.6		38	74	0.7	4	4
09/22/24	23.6		43	70	0.8	4	4
10/06/24	16.7		19	53	1.2	4	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP					D							
CLA					D							
Secchi					D							
Lake Grade					D							

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			F			D			D		D	
CLA			D			C			D		D	
Secchi			D			C			C		D	
Lake Grade			D			C			D		D	

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		D	D					D				C
CLA		F	D					C				D
Secchi		C	D					C				C
Lake Grade		D	D					C				C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	C	C	C	D	D	D	C	D
CLA	D	C	D	C	C	C	C	A	C
Secchi	D	C	C	C	C	C	C	C	D
Lake Grade	D	C	C	C	C	C	C	B	D

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Thompson Lake (19–0048) Lower Mississippi River Watershed Management Organization

Volunteer: Analiese Miller

Thompson Lake is located in the city of West St. Paul (Dakota County). It is a small 8 acre lake with a maximum depth of 2.4 m.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) and aquatic life (chloride) in 2014. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2021.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	55	37	72	C
CLA (µg/l)	31	14	45	C
Secchi (m)	1.1	0.9	1.3	D
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year which is consistent with its historical water quality database. Continued monitoring is recommended to build the water quality database.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Thompson Lake

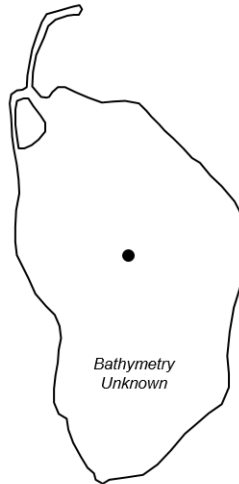
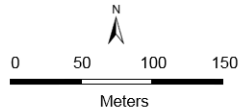
West St. Paul, Dakota Co.

Lake ID: 190048-00

WMO: Lower Mississippi River

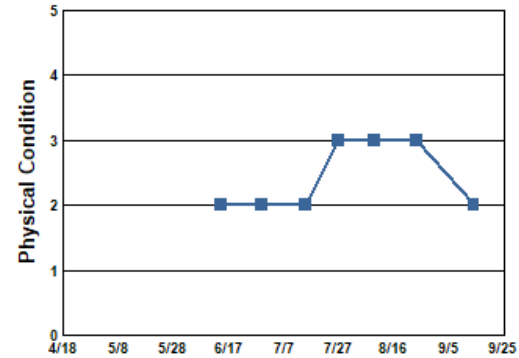
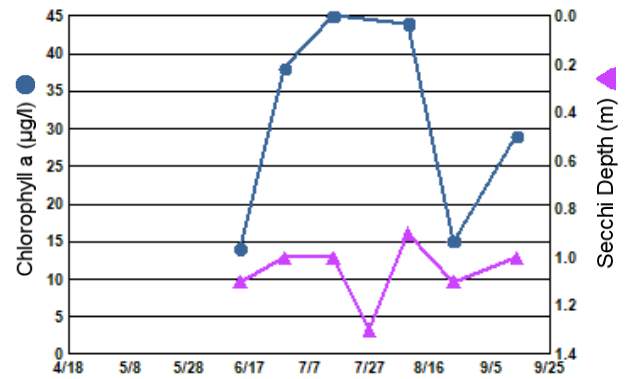
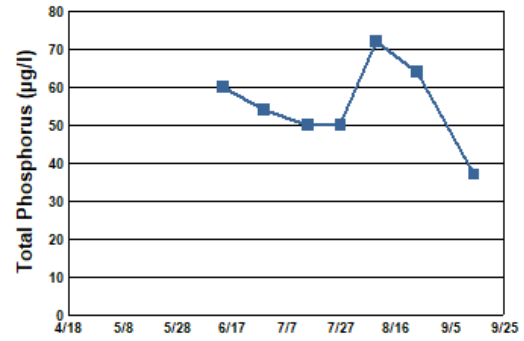
● Sampling site

Contours in meters



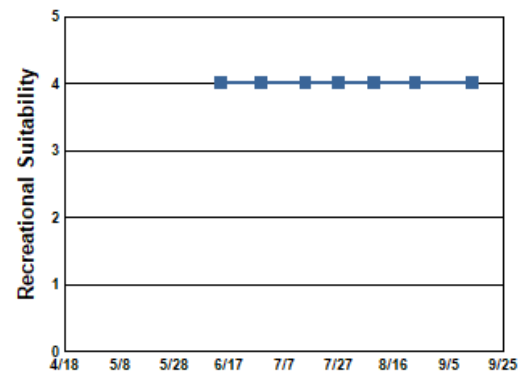
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/ l)	Secchi (m)	PC	RS
06/14/ 24	27.4		14	60	1.1	2	4
06/29/ 24	23.4		38	54	1.0	2	4
07/15/ 24	27.7		45	50	1.0	2	4
07/27/ 24	28.2			50	1.3	3	4
08/09/ 24	22.5		44	72	0.9	3	4
08/24/ 24	27.3		15	64	1.1	3	4
09/14/ 24	23.8		29	37	1.0	2	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
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4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	D	C	C	C	D	C	C	C
CLA	B	B	B	B	B	B	C	B	C
Secchi	D	C	C	C	D	C	D	C	D
Lake Grade	C	C	C	C	C	C	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Twin Lake [Burnsville] (19–0028) *City of Burnsville*

Volunteer: Bernie DeMaster

Twin Lake is an 11-acre lake located in the City of Burnsville (Dakota County). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Few morphological data are available for the lake.

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 1997.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

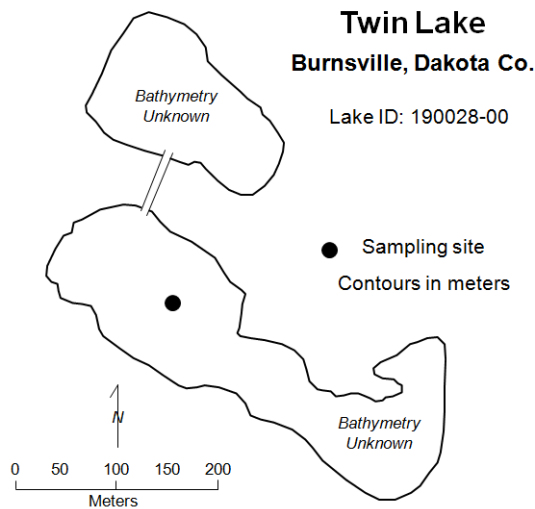
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	25	20	30	B
CLA (µg/l)	5.8	2.1	11	A
Secchi (m)	1.7	1.2	2.4	C
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B this year. The water quality of this lake has varied in the B to C range since 1999 but has maintained a B grade for the past 10 years.

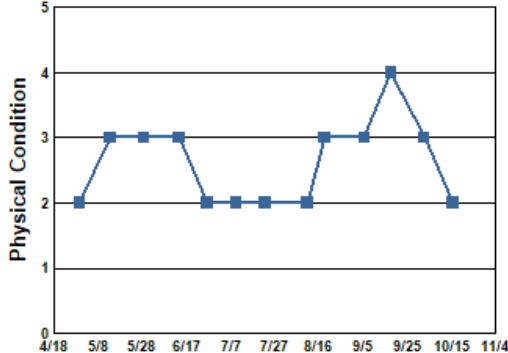
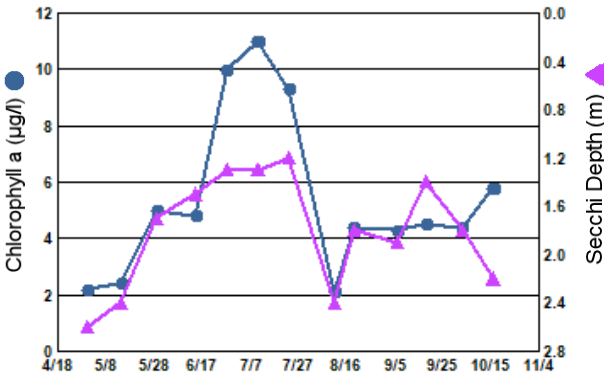
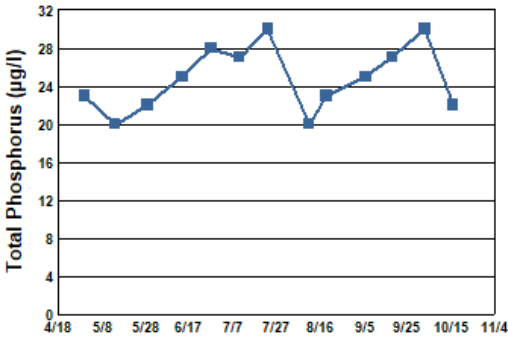
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

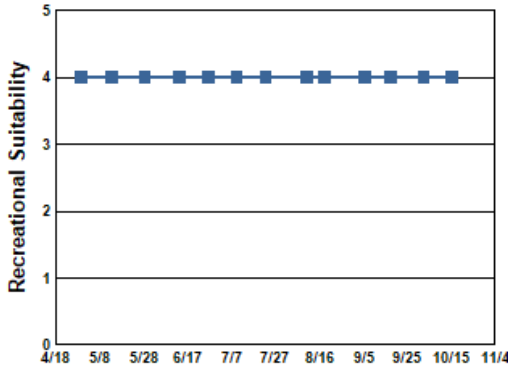


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/30/24	12.2		2.2	23	2.6	2	4
05/14/24	22.2		2.4	20	2.4	3	4
05/29/24	21.5		5.0	22	1.7	3	4
06/14/24	26.3		4.8	25	1.5	3	4
06/27/24	24.5		10	28	1.3	2	4
07/10/24	25.0		11	27	1.3	2	4
07/23/24	24.4		9.3	30	1.2	2	4
08/11/24	20.6		2.1	20	2.4	2	4
08/19/24	24.1		4.4	23	1.8	3	4
09/06/24	21.4		4.3	25	1.9	3	4
09/18/24	24.8		4.5	27	1.4	4	4
10/03/24	16.2		4.4	30	1.8	3	4
10/16/24	10.3		5.8	22	2.2	2	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP								D		C	C	C
CLA								B		A	A	A
Secchi								D		C	C	C
Lake Grade								C		B	B	B

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP		C	D	C	C	C	C	B	B	B	A	A
CLA		A	C	A	B	B	C	A	A	A	A	A
Secchi		C	C	C	C	C	C	B		C		C
Lake Grade		B	C	B	C	C	C	B		B		B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	A	B	B	C	C	C	C	B
CLA	A	A	A	A	A	A	A	A	A
Secchi	C	C	C	C	C	C	C	C	C
Lake Grade	B	B	B	B	B	B	B	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Twin Lake [Golden Valley] (27–0035–02) Bassett Creek Watershed Management Commission

Volunteer: Jennell Bilek

Twin Lake is located in the City of Golden Valley (Hennepin County). The surface area of the lake is 19 acres. Approximately 42 percent of the surface is considered littoral zone which is the 0-15 feet depth zone of aquatic plant dominance. The lake has a maximum depth of approximately 17 m (56 ft).

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	14	13	16	
CLA (µg/l)	5.3	2.9	9.2	
Secchi (m)	2.1	1.7	2.8	
TKN (mg/l)				
			Lake Grade	

There was an insufficient quantity Secchi data to calculate its parameter grade. At least 5 results are needed during the summer-time period (May — September) to calculate a parameter grade and a lake grade.

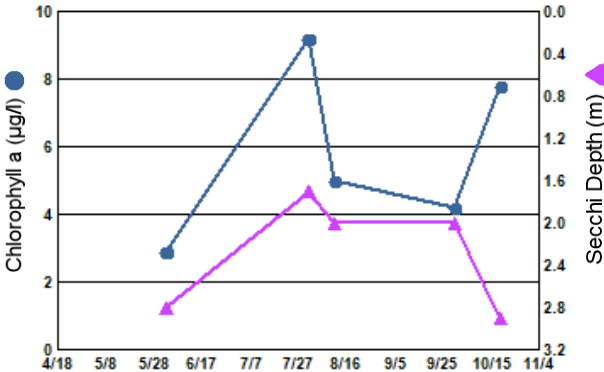
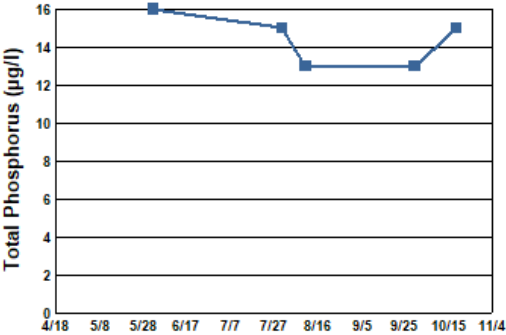
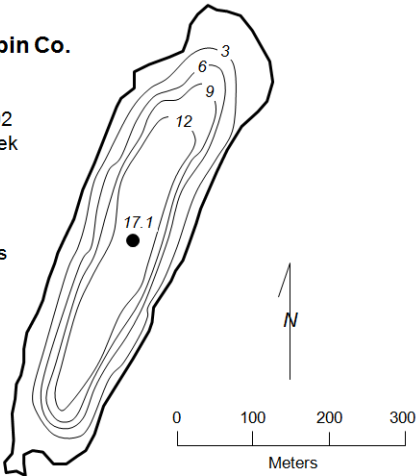
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Twin Lake
Golden Valley, Hennepin Co.

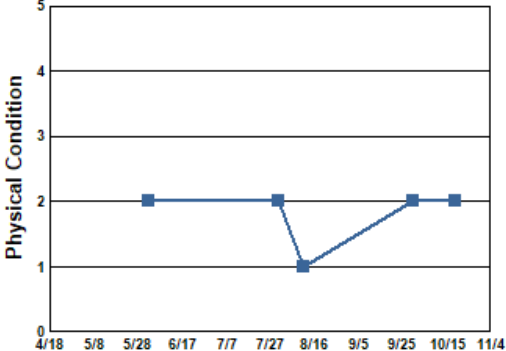
Lake ID: 270035-02
WMO: Bassett Creek

● Sampling site
Contours in meters

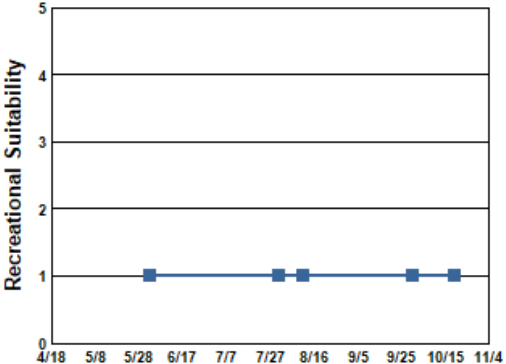


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
06/02/24	22.7		2.9	16	2.8	2	1
07/31/24			9.2	15	1.7	2	1
08/11/24			5.0	13	2.0	1	1
09/30/24			4.2	13	2.0	2	1
10/19/24			7.8	15	2.9	2	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP							A			A	A	A
CLA							A	A		B	A	A
Secchi							A	B		A	A	A
Lake Grade							A			A	A	A

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B	A	B	A	A	A		A	
CLA	A	A	A	A	A	A		A	
Secchi	A	A	A	A	B	A			
Lake Grade	A	A	A	A	A	A			

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Valentine Lake (62–0071)*Rice Creek Watershed District*

Volunteer: Bob Kistler

Valentine Lake is located in the city of Arden Hills (Ramsey County). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column. The lake is defined as a shallow lake because of the dominance of the littoral zone.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2002 and aquatic life (chloride) in 2014.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

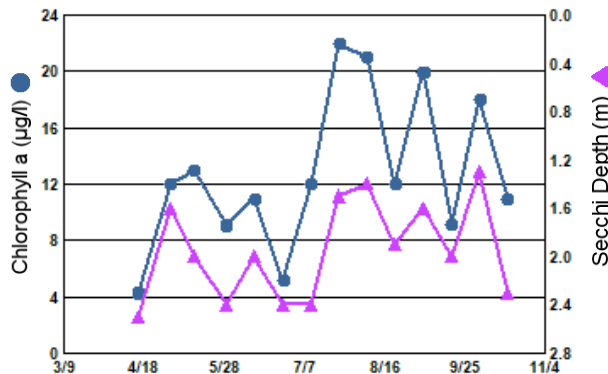
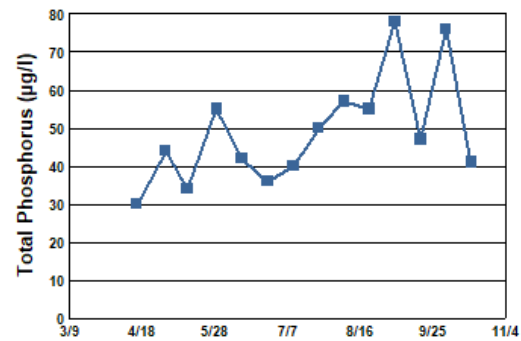
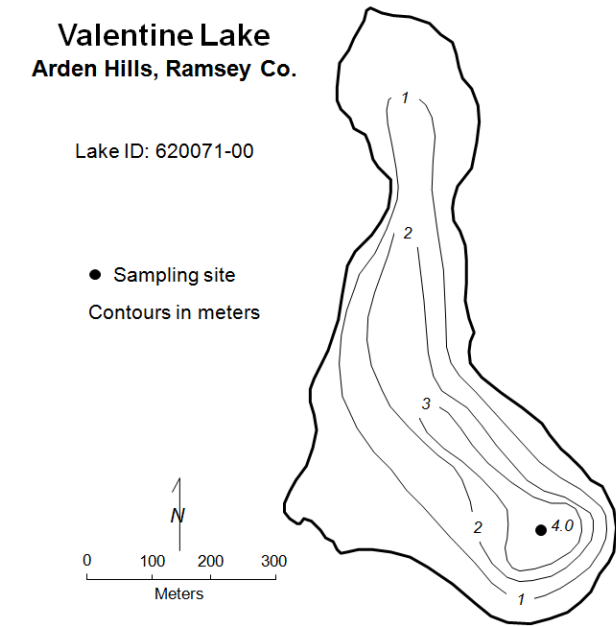
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	49	34	78	C
CLA (µg/l)	13	5.2	22	B
Secchi (m)	1.9	1.4	2.4	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C again this year, which is consistent with its historical water quality database and an improvement over the D grades received in the period 2018–2020. Continued monitoring is recommended to determine if this recent improvement in water quality is part of a longer term trend.

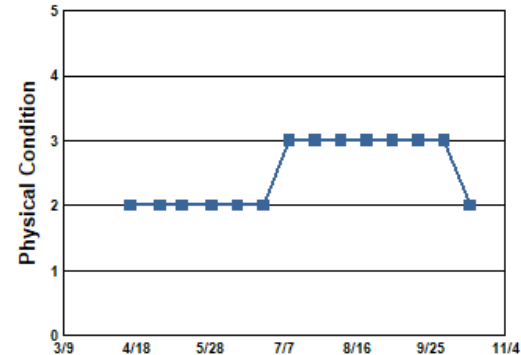
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

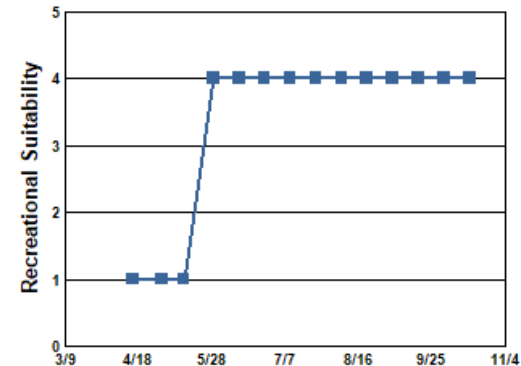


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/15/24	14.9		4.3	30	2.5	2	1
05/01/24	12.2		12	44	1.6	2	1
05/13/24	19.9		13	34	2.0	2	1
05/29/24	19.4		9.1	55	2.4	2	4
06/12/24	21.7		11	42	2.0	2	4
06/26/24	24.0		5.2	36	2.4	2	4
07/10/24	24.9		12	40	2.4	3	4
07/24/24	24.7		22	50	1.5	3	4
08/07/24	23.0		21	57	1.4	3	4
08/21/24	23.1		12	55	1.9	3	4
09/04/24	21.7		20	78	1.6	3	4
09/18/24	23.3		9.2	47	2.0	3	4
10/02/24	18.7		18	76	1.3	3	4
10/16/24	11.7		11	41	2.3	2	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP										C	C	C
CLA										B	B	C
Secchi										C	C	D
Lake Grade										C	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	C	D	C							
CLA	C	C	B	C	B							
Secchi	C	C	C	C	C							
Lake Grade	C	C	C	C	C							

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP			D	D	D	C	C	C	C
CLA			C	C	C	B	B	B	B
Secchi			D	D	D	C	C	C	C
Lake Grade			D	D	D	C	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Valley Lake (19–0348) City of Lakeville

Monitoring Personnel: City of Lakeville staff

Valley Lake is located in the city of Lakeville (Dakota County). The lake has a surface area of 8 acres and a maximum depth of 3.2 m (10 ft).

The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2006.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	52	34	72	C
CLA (µg/l)	23	9.7	61	C
Secchi (m)	1.1	0.9	1.6	D
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year. The lake grades have typically varied in the range of B to D.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

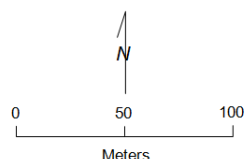
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Valley Lake

Lakeville, Dakota Co.

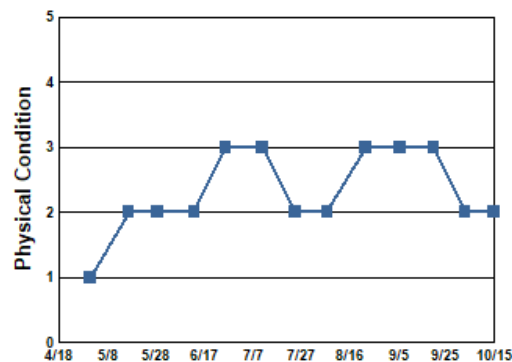
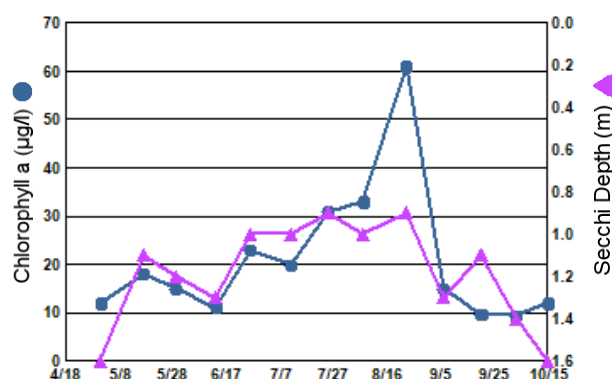
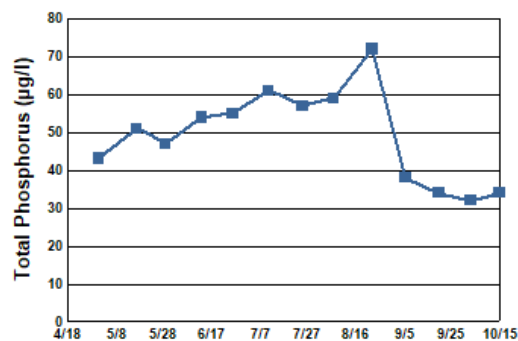
Lake ID: 190348-00

● Sampling site
Contours in meters



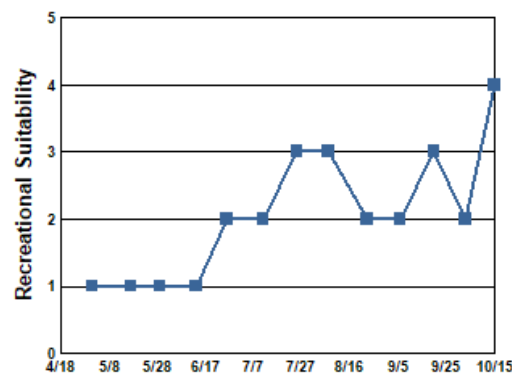
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/01/24	15.0		12	43	1.6	1	1
05/17/24	22.9		18	51	1.1	2	1
05/29/24	23.6		15	47	1.2	2	1
06/13/24	24.7		11	54	1.3	2	1
06/26/24	27.8		23	55	1.0	3	2
07/11/24	30.7		20	61	1.0	3	2
07/25/24	27.0		31	57	0.9	2	3
08/07/24	24.9		33	59	1.0	2	3
08/23/24	22.8		61	72	0.9	3	2
09/06/24	21.9		15	38	1.3	3	2
09/20/24	24.5		9.7	34	1.1	3	3
10/03/24	18.5		9.5	32	1.4	2	2
10/15/24	12.4		12	34	1.6	2	4



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP				D	D	C			C	C	C	C
CLA				C	C	C		C	B	A	A	B
Secchi				D	D	D		D	C	C	B	B
Lake Grade				D	D	C			C	B	B	B

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	D	D	C	C	D	D	D	F	D	D
CLA	C	C	D	C	C	A	D	C	C	F	C	D
Secchi	C	C	D	C	C	B	C	C	C	D	C	F
Lake Grade	C	C	D	C	C	B	D	C	C	F	C	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	D	D	D	C	C	C	C
CLA	C	B	D	D	C	C	C	C	C
Secchi	C	C	F	F	D	C	D	D	D
Lake Grade	C	C	D	D	D	C	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Victoria Lake (27–0051) *City of St. Louis Park*

Volunteer: Sylvie Hyman

Victoria Lake is located in the City of St. Louis Park (Hennepin County). It has a surface area of about 8 acres.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

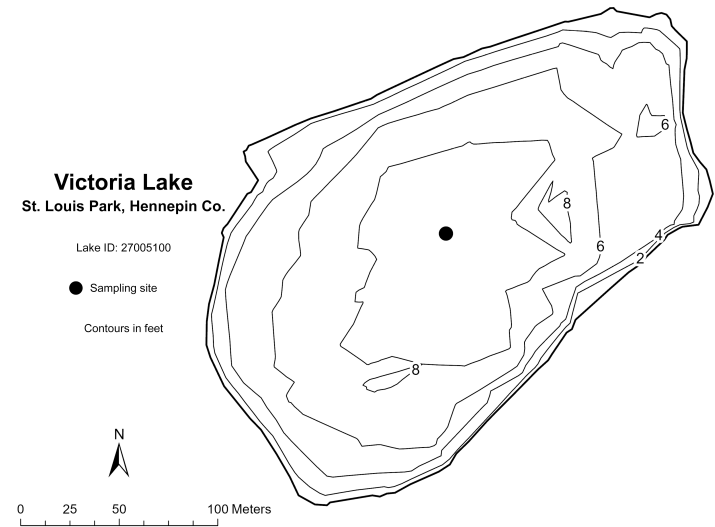
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)				
CLA (µg/l))				
Secchi (m)				
TKN (mg/l)				
			Lake Grade	

There were less than 5 monitoring events during the summer-time period (May — September). At least 5 monitoring events are required during the summer-time period to determine a parameter grade. At least 5 values are needed within the summer-time period (May — September) to calculate a parameter grade. A lake grade was not given because all three parameter grades are required to issue a lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

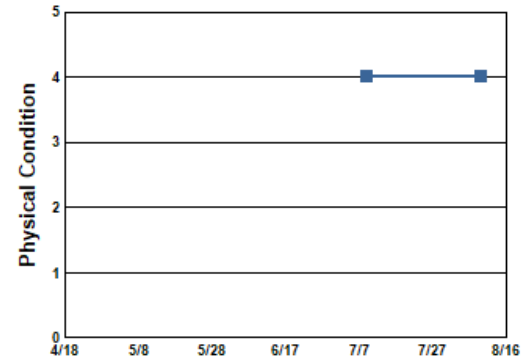
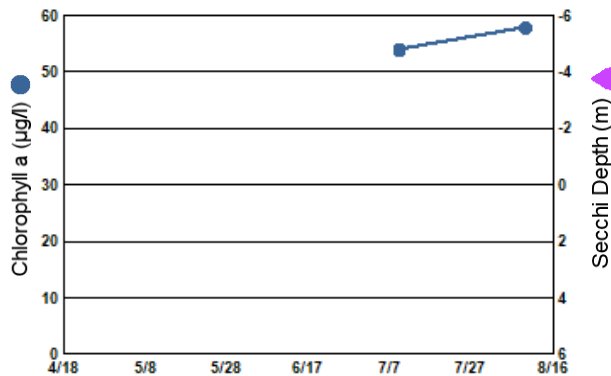
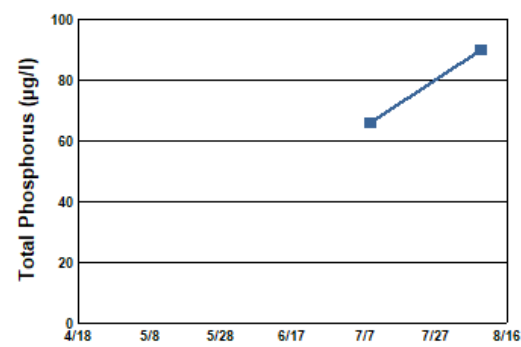
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.



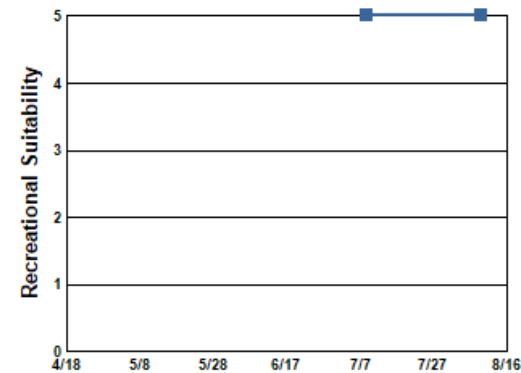
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
07/09/24	24.2		54	66	>0.5	4	5
08/09/24	20.0		58	90	>0.2	4	5

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									
CLA									
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQUIS database(s)

Westwood Lake (27–0711) Bassett Creek Watershed Management Organization

Volunteers: RJ Twiford

Westwood Lake is located in the city of St. Louis Park (Hennepin County). The lake is considered a Priority Water by the Metropolitan Council. [Priority Waters List - Metropolitan Council \(metrocity.org\)](https://metrocity.org/priority-waters) The lake has a surface area of 41 acres and a maximum depth of 2.0 m (6.6 ft). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	31	22	39	B
CLA (µg/l)	11	3.1	20	B
Secchi (m)	>1.8	>1.5	>1.9	
TKN (mg/l)				
			Lake Grade	

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

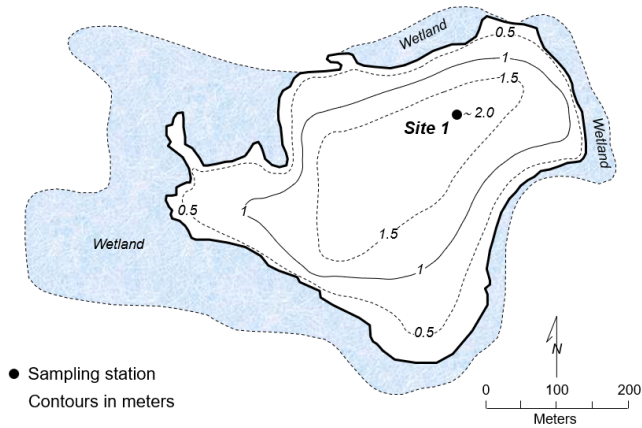
There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade. The lake received a TP grade of B which is consistent with its historical water quality database. The TP grades have fluctuated in the A to C range for the past decade. The relatively low CLA concentrations in combination with the observations of moderate to substantial macrophyte growth, indicate that the primary production of the lake is focused on production of aquatic macrophytes rather than algae.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

Lake ID: 270711-00
WMO: Bassett Creek

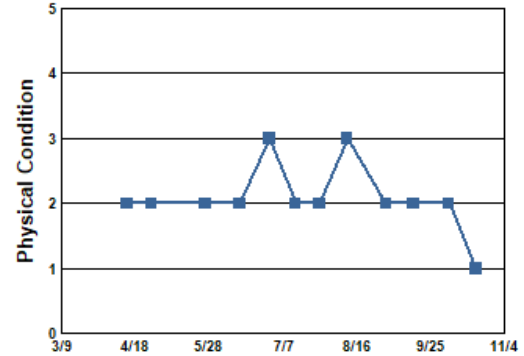
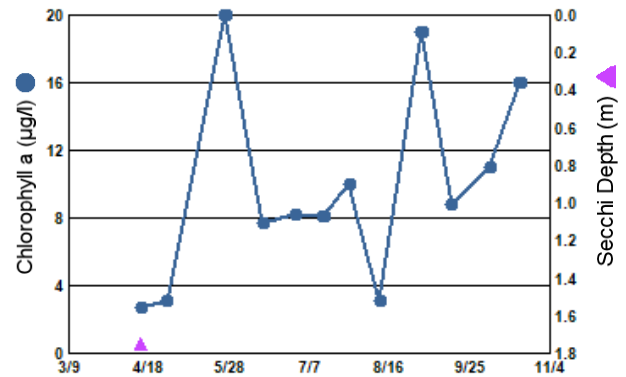
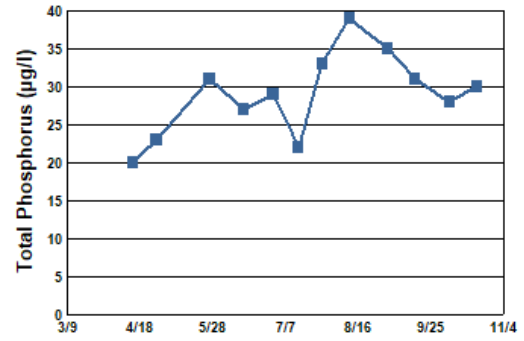
Westwood Lake, Site 1 St. Louis Park, Hennepin Co.



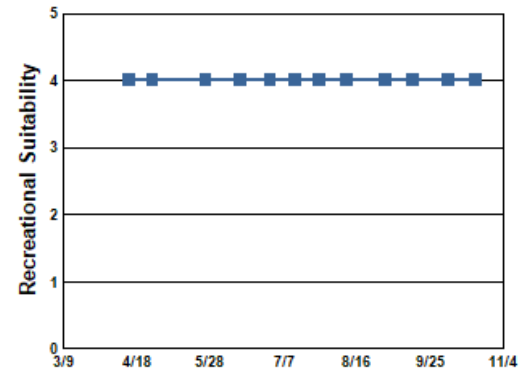
2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/14/24	14.8		2.7	20	1.8	2	4
04/27/24	12.5		3.1	23	>1.8	2	4
05/26/24	19.4		20	31	>1.9	2	4
06/14/24	24.0		7.7	27	>1.7	2	4
06/30/24	25.6		8.2	29	>1.8	3	4
07/14/24	29.5		8.1	22	>1.9	2	4
07/27/24	25.9		10	33	>1.7	2	4
08/11/24	19.2		3.1	39	>1.9	3	4
09/01/24	22.7		19	35	>1.5	2	4
09/16/24	24.4		8.8	31	>1.7	2	4
10/05/24	17.9		11	28	>1.6	2	4
10/20/24	12.3		16	30	>1.5	1	4

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP			F									
CLA			C									
Secchi			D									
Lake Grade			D									

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP		C							B	B	C	C
CLA		C							B	C	B	A
Secchi		C							C	C	C	C
Lake Grade		C							B	C	C	B

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	D	D	C	B	C	A	C	D	C	B	A
CLA	A	C	B	B	A	B	A	A	A	A	A	A
Secchi	C	C	C	C	D	D	C	D	C			
Lake Grade	B	C	C	C	B	C	B	C	C			

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	B		A	B	C		C	A	B
CLA	A		A	A	A		A		B
Secchi									
Lake Grade									

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

White Rock Lake (82–0072) Rice Creek Watershed District

Volunteer: David Bluhm

White Rock Lake is a 65-acre lake located in Washington County. There are few other morphological data for the lake.

The MPCA delisted the lake from the impaired waters list for aquatic recreational use (nutrient/eutrophication biological indicators) in 2024.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	20	15	26	A
CLA (µg/l)	3.1	1.6	7.7	A
Secchi (m)	>2.4	>2.0	>3.0	
TKN (mg/l)				
			Lake Grade	

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.

The lake received a TP and CLA grades of A. The year 2024 was the first year that the lake attained an A grade for TP. Water quality continues to improve as compared to the C and D grades received in the past. Water quality in recent years appears to be improving compared to water quality observed in the mid to late 2000's. There was an insufficient quantity of valid Secchi transparency measurements to determine a Secchi grade. An invalid measurement occurred if the Secchi disk was either visible on the lake bottom or the disk's visibility was blocked by aquatic vegetation. In both of these situations the water clarity would have been greater than that indicated by the measurement. A lake grade was not given because all three parameter grades are required to issue a lake grade.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

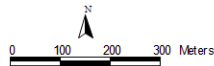
White Rock Lake, New Scandia Twp., Washington Co.

Lake ID: 820072-00

WD: Rice Creek

Volunteer: David Bluhm

- Sampling station
- Contours in meters

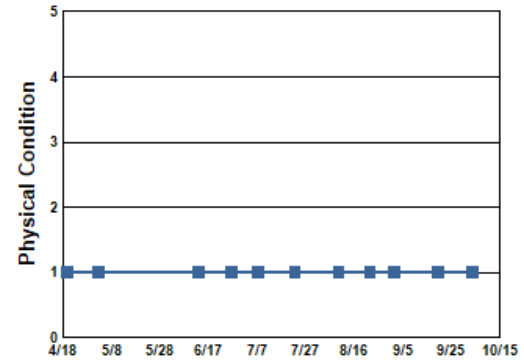
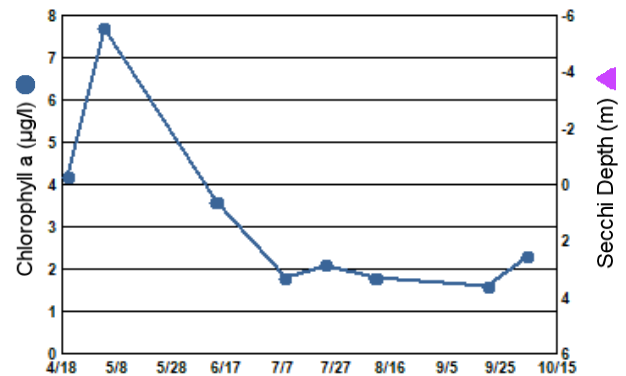
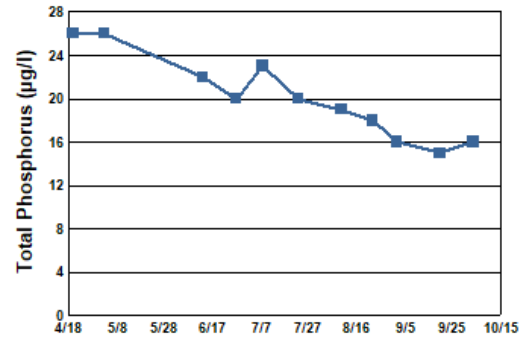


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/20/24	8.2		4.2	26	+3.0	1	1
05/03/24	14.3		7.7	26	>2.5	1	1
06/13/24	23.1		3.6	22	>2.0	1	1
06/27/24	25.0			20	>2.3	1	1
07/08/24	25.6		1.8	23	>2.3	1	1
07/23/24	26.1		2.1	20	>2.4	1	1
08/10/24	23.4		1.8	19	>2.2	1	1
08/23/24	24.1			18	>2.0	1	1
09/02/24	23.6			16	>3.0	1	1
09/20/24	24.5		1.6	15	>2.5	1	1
10/04/24	18.2		2.3	16	>2.5	1	1

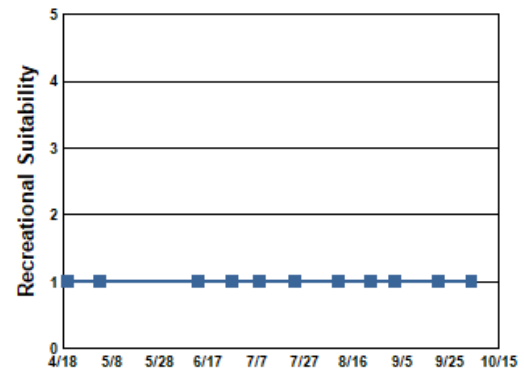
+ indicates that the Secchi disk was visible on the bottom of the lake at the depth indicated.

> indicates that the visibility of the Secchi disk was blocked by aquatic vegetation at the depth indicated.



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence

4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired

4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP			D	D	D	D	C	C	D	C	C	C
CLA			C	C	C	C	C	C	C	B	A	C
Secchi			F	F	D	D	D	C	C	C		C
Lake Grade			D	D	D	D	C	C	C	C		C

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	D	C	C	C	B	C	B	B	A
CLA	C	B	C	B	B	A	A	A	A
Secchi	C	C	C	C	C	A	B		
Lake Grade	C	C	C	C	B	B	B		

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Wilmes Lake (82–0090) *City of Woodbury*

Monitoring Personnel: Washington Conservation District staff

Wilmes Lake is located in the city of Woodbury (Washington County). The lake has a surface area of 41 acres and a maximum depth of 5.5 m (18 feet). The lake has a watershed area of 2,247 acres which gives a large watershed-to-lake area ratio of 55:1. The greater the ratio, the greater the potential stress on the lake from surface runoff.

The MPCA listed the lake as impaired with respect to aquatic recreational use (nutrient/eutrophication biological indicators) in 2006. The MN DNR designated the lake as being infested with Eurasian water milfoil (*Myriophyllum spicatum*) in 2007.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency was measured during each site visit. Depth profiles of dissolved oxygen and temperature were also made. The resulting surface data are summarized in tables and figures on the following pages. For depth profile data, please refer to the METC's EIMS system at <https://eims.metc.state.mn.us>.

2024 Data summer (May - September) data summary

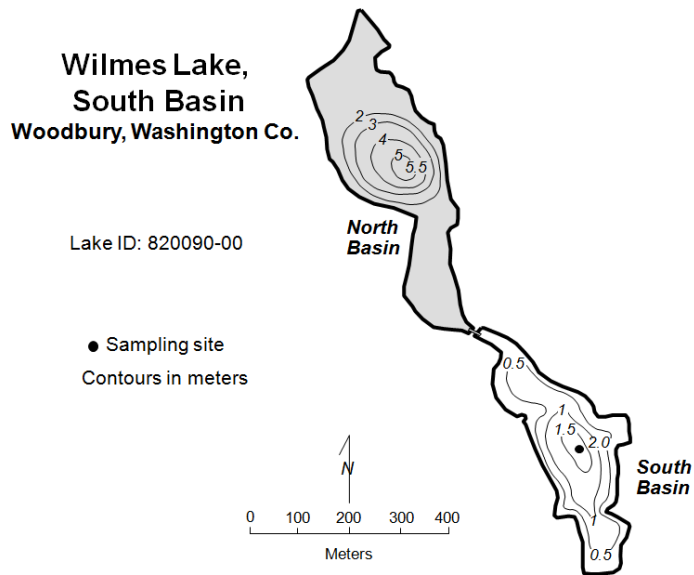
Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	67	43	86	C
CLA (µg/l)	31	4.3	65	C
Secchi (m)	1.3	0.9	2.4	C
TKN (mg/l)				
			Lake Grade	C

The lake received a lake grade of C this year. The water quality of the lake varies between a lake grade of C and D, with C's dominating since 2006.

The 1994 and 1995 CAMP monitoring was performed in the northern basin of Wilmes Lake.

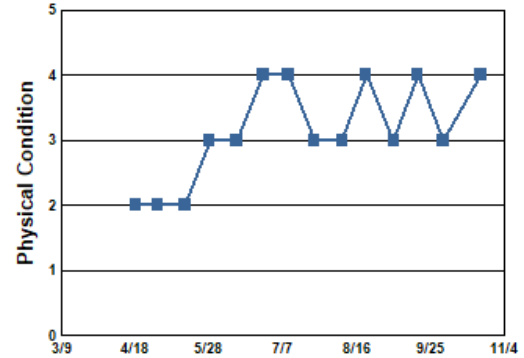
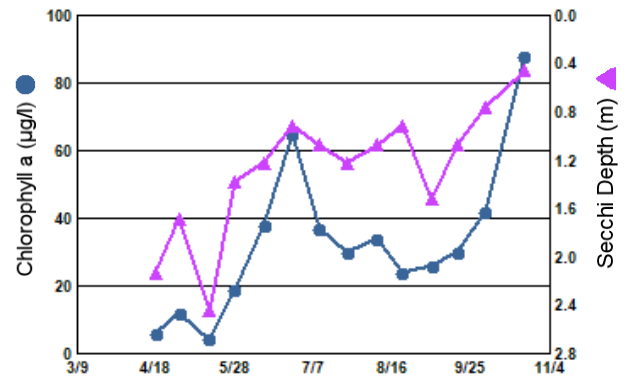
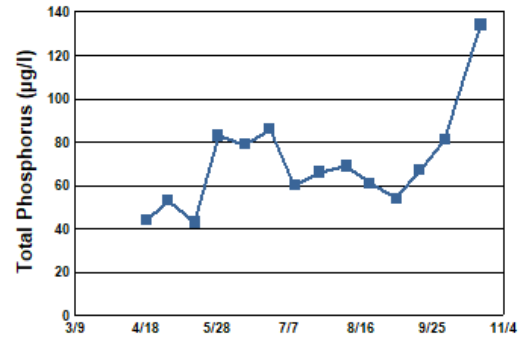
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

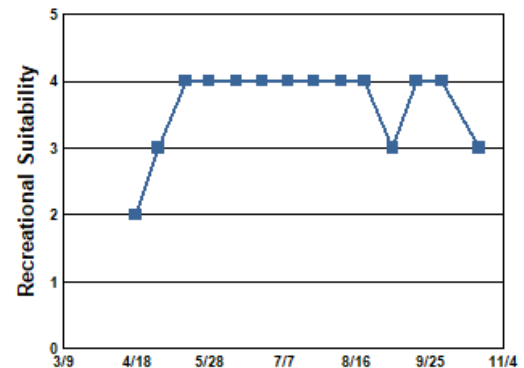


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/ l)	Secchi (m)	PC	RS
04/18/ 24	11.8		5.9	44	2.1	2	2
04/30/ 24	12.2		12	53	1.7	2	3
05/15/ 24	19.9		4.3	43	2.4	2	4
05/28/ 24	19.6		19	83	1.4	3	4
06/12/ 24	21.3		38	79	1.2	3	4
06/26/ 24	24.2		65	86	0.9	4	4
07/10/ 24	25.1		37	60	1.1	4	4
07/24/ 24	26.6		30	66	1.2	3	4
08/08/ 24	23.0		34	69	1.1	3	4
08/21/ 24	24.4		24	61	0.9	4	4
09/05/ 24	22.4		26	54	1.5	3	3
09/18/ 24	23.4		30	67	1.1	4	4
10/02/ 24	18.4		42	81	0.8	3	4
10/22/ 24	15.1		88	134	0.5	4	3



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP			C	D	D	D	D	D	D	D	D	D
CLA			B	B	C	C	C	C	C	C	D	C
Secchi			B	C	C	D	D	C	C	D	D	C
Lake Grade			B	C	C	D	D	C	C	D	D	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	D	D	D	C	C	D	C	D	C	C	D
CLA	C	C	C	C	C	C	C	B	C	C	C	C
Secchi	C	D	C	C	D	C	C	C	C	D	D	F
Lake Grade	C	D	C	C	C	C	C	C	C	C	C	D

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	C	C	C	C	C	C
CLA	C	C	B	B	C	C	C	B	C
Secchi	C	D	C	C	C	C	C	C	C
Lake Grade	C	C	C	C	C	C	C	C	C

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Wolfe Park Lake (27–0664) *City of St. Louis Park*

Volunteer: Jason Selby

Wolfe Park Lake is located in the city of St. Louis Park (Hennepin County). It has a surface area of about 3 acres.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

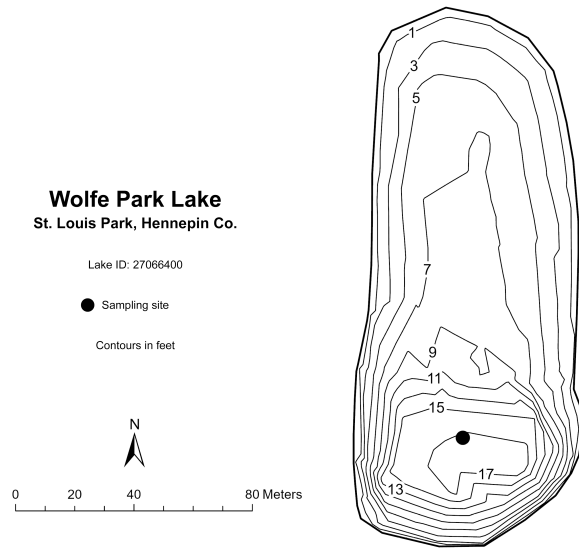
2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	58	46	64	C
CLA (µg/l))	8.9	8.0	9.7	A
Secchi (m)	1.9	1.7	2.2	C
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B. This was the first year the lake was enrolled in the CAMP.

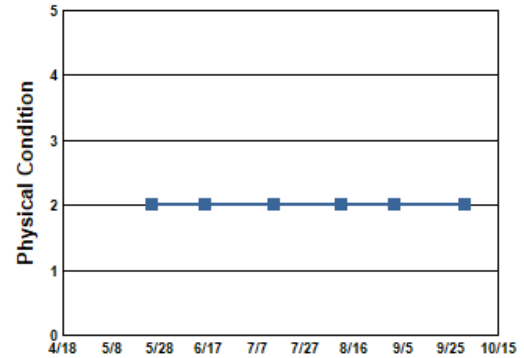
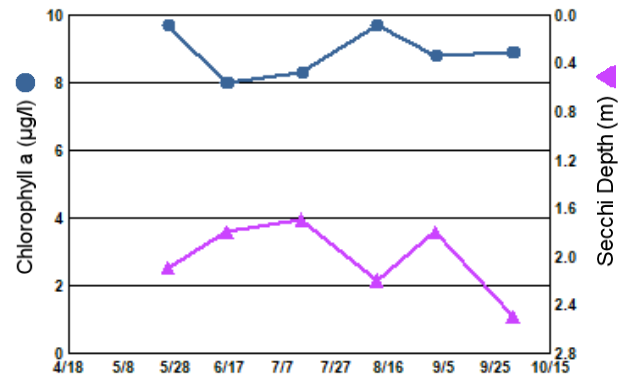
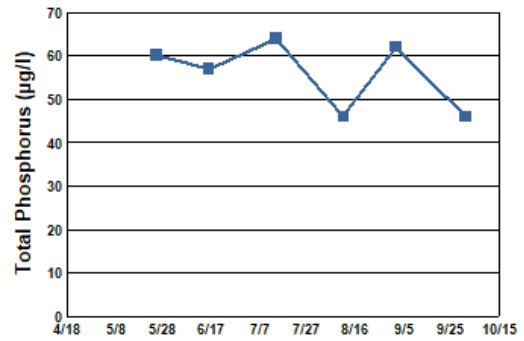
During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

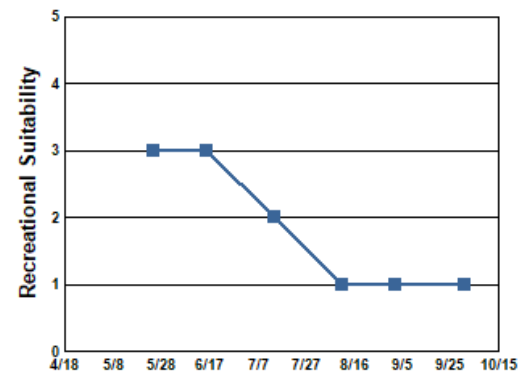


2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
05/25/24	21.4		9.7	60	2.1	2	3
06/16/24	24.4		8.0	57	1.8	2	3
07/14/24	28.6		8.3	64	1.7	2	2
08/11/24	21.8		9.7	46	2.2	2	1
09/02/24	25.2		8.8	62	1.8	2	1
10/01/24	20.3		8.9	46	2.5	2	1



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP												
CLA												
Secchi												
Lake Grade												

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP												
CLA												
Secchi												
Lake Grade												

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP									C
CLA									A
Secchi									C
Lake Grade									B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

Wood Lake (19–0024) *City of Burnsville*

Volunteer: Lindsey Larscheid, City of Burnsville staff

Wood Lake is located in the city of Burnsville (Dakota County). The lake has a surface area of 9 acres. The maximum depth of the lake is 4.5 m (14.8 feet). The entire surface area is considered littoral zone, which is the 0 — 15 feet depth zone typically dominated by aquatic vegetation. Since the lake is relatively shallow, it does not permanently stratify and maintain a thermocline which is a density gradient caused by changing water temperatures throughout portions of the water column.

On each sampling day surface samples were collected for laboratory analysis of total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll including chlorophyll-a (CLA). Secchi transparency and surface temperature were measured during each monitoring visit. The resulting data are summarized in tables and figures on the following pages.

2024 Data summer (May - September) data summary

Parameter	Mean	Minimum	Maximum	Grade
TP (µg/l)	20	15	28	A
CLA (µg/l))	6.4	3.3	12	A
Secchi (m)	2.1	1.3	3.0	C
TKN (mg/l)				
			Lake Grade	B

The lake received a lake grade of B. Prior to 2019 the lake received lake grades of C with the occasional B. Recent water quality appears to be improving, particularly with the transition of TP grades from C to A starting in 2018. Continued monitoring is recommended to determine if this recent improvement in water quality is part of a longer term trend.

During each monitoring visit, the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

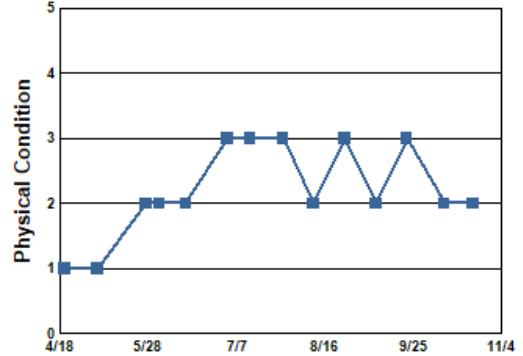
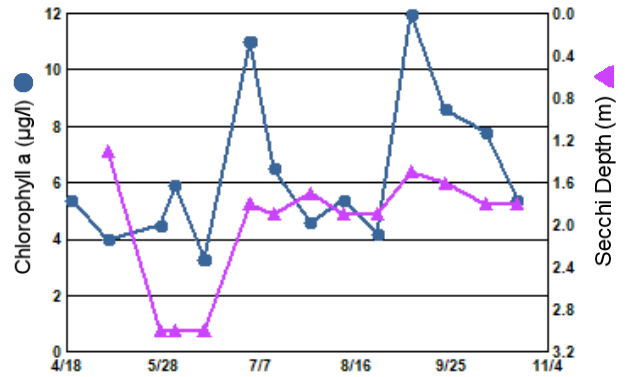
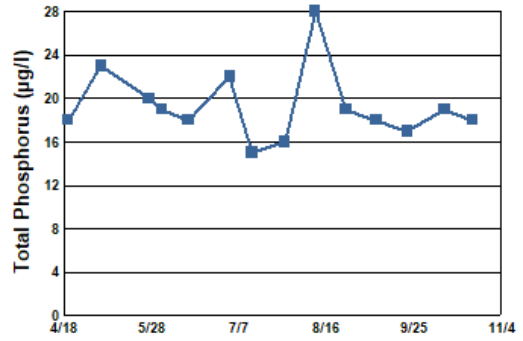
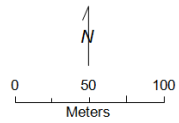
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or brian.johnson@metc.state.mn.us.

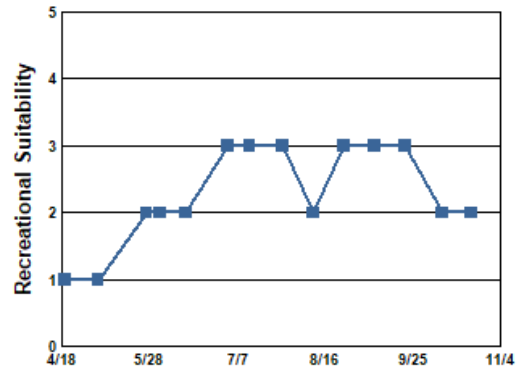
Wood Lake
Burnsville, Dakota Co.

Lake ID: 190024-00

● Sampling site
Contours in meters



1 = Crystal Clear
2 = Some Algae Present
3 = Definite Algal Presence
4 = High Algal Color
5 = Severe Algal Bloom



1 = Beautiful
2 = Minor Aesthetic Problem
3 = Swimming Impaired
4 = No Swimming; Boating OK
5 = No Aesthetics Possible

2024 Data

Date	SURF TEMP (°C)	SURF DO (mg/L)	CLA (µg/l)	SURF TP (µg/l)	Secchi (m)	PC	RS
04/20/24	10.5		5.4	18		1	1
05/05/24	20.7		4.0	23	1.3	1	1
05/27/24	18.6		4.5	20	3.0	2	2
06/02/24	22.2		5.9	19	3.0	2	2
06/14/24	28.8		3.3	18	3.0	2	2
07/03/24	28.4		11	22	1.8	3	3
07/13/24	27.0		6.5	15	1.9	3	3
07/28/24	30.3		4.6	16	1.7	3	3
08/11/24	24.8		5.4	28	1.9	2	2
08/25/24	27.0		4.2	19	1.9	3	3
09/08/24	21.4		12	18	1.5	2	3
09/22/24	22.7		8.6	17	1.6	3	3
10/09/24	17.7		7.8	19	1.8	2	2
10/22/24	16.3		5.4	18	1.8	2	2

Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
TP												
CLA												
Secchi												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TP					C	C	B	C	C	C	C	C
CLA					B	B	B	B	B	C	C	B
Secchi					C	C	C	C	C	C	C	C
Lake Grade					C	C	B	C	C	C	C	C

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TP	C	C	D	C	C	C	C	C	D	C	C	C
CLA	B	C	C	B	B	B	C	A	C	A	B	B
Secchi	C	C	C	C	C	C	B	C	D	C	C	B
Lake Grade	C	C	C	C	C	C	C	B	D	B	C	B

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
TP	C	C	C	A	A	A	A	A	A
CLA	C	D	C	B	A	A	A	A	A
Secchi	C	C	D	C	B	B	B	C	C
Lake Grade	C	C	C	B	A	A	A	B	B

Source: Metropolitan Council, EPA STORET, and/or MPCA EQuIS database(s)

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Appendix A

Lakes Sampled by Metropolitan Council Staff and the CAMP, 1980 - 2024. Numbers indicate monitoring events per year. A "v" indicates monitoring performed through CAMP.

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Acorn Lake	82010200	1																											v14		v 6	v 6	v 7						v 7	v 7	v 6	v 7	v 6	v 7	v 7	v 7	v 7
Alimagnet Lake	19002100	1																v 12	v10	v10	v10	v10	v10	v8	v9	v12	v10	v10	v8	v10	v 12	v 10	v 13	v 12	v 11	v 10	v 12	v 12	v 11	v 13	v 9	v 13	v 11	v 16	v 13	v 13	v 12
Alice Lake	82028700	1																																		v 12	v 14	v 14	v 11		v 13			v 7			
Anderson Pond	19009400	1																															v 12	v 9	v 3		v 6										
Ann Lake	10001200	1						5				13													13											6											
Ardmore Lake	27015300	1																												v4	v 11	v 14	v 12													v 11	
Armstrong Lake	82011602	1																			v15	v10	v13	v14	v15	v14	v14	v14	v7	v7	v 7	v 14	v 7	v 7	v 7	v 5	v 8	v 7	v 7	v 6	v 7	v 6	v 5	v 4	v 3	v 4	
Assumption Lake	10006300	1																				v1																									
Auburn Lake	10004401	1				10			17	18				12			13																														
Auburn Lake	10004402	1				10																																									
Aue Lake	10002800	1																				v1																									
Augusta Lake	19008100	1																																				v 7	v 4	v 6	v 14	v 13	v 14			v 7	
Bald Eagle Lake	62000200	1	4	5		5																				13	13																				
Bald Eagle Lake	62000200	2																								13	13																				
Bailey Lake	82045600	1																																					v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14	
Baldwin Lake	2001300	1																																v 2													
Barker Lake	82007600	1																					v5	v5	v7	v7	v7	v7	v7	v7	v 7	v 7							v 15	v 12	v 13	v 6					

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Barnes Lake	10010900	1																				v1																											
Bass Lake	27001500	1																							v12			v12	v2																				
Bass Lake	27009800	1	4														v16			v15		v15		v13		v9		v15		v14		v 12		v 14				v 12		v 13					v 10		v 10		
Bass Lake	82003500	1																					v14	v5	v7	v7	v7	v7	v7	v7	v7	v7			v 7	v 12	v 12			v 14	v 12	v 13				v 7			
Bass Lake	82012300	1																											v7	v8	v 7	v 7	v 14	v 14	v 14	v 12	v 12	v 14	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14		
Bass Lake	82012400	1																											v7	v7	v 7	v 7	v 14	v 14	v 14	v 12	v 12	v 15	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14		
Battle Creek Lake	82009100	1															v14	v13	v11	v13																9													
Bavaria Lake	10001900	1				5			17	18							13		v11	v12	v15	v12	v14	v14	v14	v19	v16	v18	v16	v14	v 14	v 14	v 15	v 15	v 14	v 14	v 13	v 14	v 14	v 14	v 13								
Bay Pond	82001100	1																											v14	v14	v 11	v 7	v 7		v 6	v 7	v 6					v 7				v 7			
Benton Lake	10006900	1																				v13	v14	v14		v15		v14		v13	v 14	v 14	v 14	v 14	v 14	v 14	v 13	v 12	v 13	v 14	v 12	v 12							
Benz Lake	82012000	1																			v8							v14	v14	v14	v 14	v 14	v 14	v 15	v 14	v 12	v 12	v 15	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14		
Berliner Lake	10010300	1																				v1																											
Beutel Pond	82039900	1																													v 7	v 5	v 3								v 6			v 7			v 7		
Big Carnelian Lake	82004900	1					5					13					13			13			v14	v7	v14	v14	v14	v14	v7	v7	v 6	v 7	v 7		v 6	v 12	v 12	v 14	v 14	v 11	v 12	v 13	v 13	v 14	v 13	v 14	v 14		
Big Comfort Lake	13005300	1																		v3			v14	v14	v14	v14	v14	v13	v14	v14	v 14	v 13	v 14	v 13	v 14	v 22	v 22	v 26	v 27	v 27	v 18	v 8	v 14	v 14	v 12	v 13	v 15		
Big Marine Lake	82005204	1	4	5			5					13					13			13			v14	v7	v14	v14	v14	v14	v7	v7	v 7	v 7	4 & v 7	12		v 12	v 12		v 14	v 14	v 14	v 12	v 13	v 13	v 14	v 13	v 14		
Big Marine Lake	82005204	2																																4	11														
Big Woods Lake	10024900	1																																			v 12	v 14	v 13	v 13	v 12								
Birch Lake	13004200	1																											v10	v7	v7										v 14	v 12		v 8	v 14				

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Birch Lake	62002400	1	2																									v14																			
Birger Pond	19022400	1																																										v 14	v 14	v 14	
Blue Lake	70008800	1																																												7	
Blue Lake	70008800	2																																												7	
Bluebill Bay Lake	19044900	1																		v8																											
Bone Lake	82005400	1					5					13				v7		v14		v14	v14	v14		v14	v14	v14	v14	v14	13	v10	v 15	v 12	v 11	v 15	v 13	v 25	v 22	v 26	v 27	v 27	v 19	v 19	v 8	v 13	v 11	v 13	v 16
Brand Lake	10011000	1																				v1																									
Braunworth Lake	10010700	1																				v1																									
Brewers Pond	82002200	1																																													
Brick Pond	82030800	1																													v 7	v 6	v 7	v 7	v 6	v 6											
Brickyard Clayhole Lake	10022500	1																							v14	v13	v14	v14	v14	v13	v 14	v 15	v 14	v 14	v 14	v 13	v 13	v 13	v 13	v 13	v 12						
Bryant Lake	27006700	1	2	5	16		5					13	13	12																					v 2												
Buck Lake	70006500	1																																			v 13	v 13	v 14	v 14	v 13	v 13	v 10	v 14	v 13	v 13	v 13
Burandt Lake	10008400	1																				v7	v13	v9			v18	v22				v 4	v 14	v 14	v 14	v 13	v 12	v 14	v 11	v 9	v 8						
Bush Lake	27004700	1					5									13	13					13		13			13		v13	v15	v 13	v 13	v 13	v 12	v 13	v 12	v 12	v 14	v 14	v 13	v 13	v 13	v 10	v 14	v 13	v 13	v 14
Byllesby Lake	19000600	1															v14	v14	v13																												
Byllesby Lake	19000600	2																																		12	11			13	11	12			13		
Byllesby Lake	19000600	3																																		12	11			13	10	11			11		
Byllesby Lake	19000600	4																																					8	9	10				9		

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Bde Maka Ska	27003100	1		5			5																																										
Campbell Lake	10012700	1																				v2	v14		v10			v14	v14																				
Capaul Pond	82036500	1																												v 7	v 3	v 7							v 6			v 6			v 7				
Capaul Pond	82036500	2																												v 7	v 1								v 6			v 6			v 7				
Carol Lake	82001700	1																					v5	v5	v7	v7	v7	v7	v7	v7	v 7	v 6			v 5	v 10			v 14	v 14	v 11			v 6			v 7		
Carver Lake	82016600	1									20					v15	v15	v16	v9																														
Cates Lake	70001800	1																							v14	v13	v15	v13	v14	v13	v 12	v 13	v 13	v 12	v 9	v 11				v 10	v 11	v 13	v 10	v 14	v 11	v 12	v 14		
Cavanaugh Lake	27011000	1																																															
Cedar Island Lake	27011900	1																v13						v13		v11			v9			v 11																v 9	
Cedar Lake	27003900	1					5																																										
Cedar Lake	70009100	1	4	5			5						13			14					13			13				13	v14	v14	v 14	v 14	v 14	v 14	v 14	v 14	v 12	v 10	v 13	v 13	v 13	v 9	v 11	v 11	v 13	v 10	v 8	v 12	
Cedar Lake	70009100	2																																	v 11	v 13	v 10	v 13	v 11	v 12	v 11								
Cenaiko Lake	2065400	1																		v12	v11	v13	v11	v13	v12	v12	v14	v14	v14	v12	v 13	v 13	v 13	v 13	v 14														
Centerville Lake	2000600	1	4	5		5																	13	13/ v4	v1	13	13					2																	
Charley Lake	62006200	1						5																																									
Christmas Lake	27013700	1	4	5				5												13	13	13			13	13							1	4	4	2									12				
Chub Lake	19002000	1	2														v14	v14	v11														10	10						10				10					
Clear Lake	82004500	1																												v 14	v 14	v 7	v 8	v 7	v 7	v 12	v 14				v 12	v 13	v 6	v 7	v 7	v 13	v 12		
Clear Lake	82009900	1																													v 4										v 7				v 7				

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Clear Lake	82009900	2																													v 6													v 7				
Clear Lake	82016300	1	4				5						13			v11	v12	v12	v11	v10	v11	v10	v9	v12	v12	v12	v6		13		3																	
Cleary Lake	70002200	1					5																																									
Cloverdale Lake	82000900	1																						v10	v10	v11	v13	v12	v11	v10	v9	v11	v10	v9	v9	v8			v7			v7		v7	v7		v7	
Cobblecrest Lake	27005300	1																							v4		v14	v16	v13	v13	v13	v10	v9	v6	v4	v7	v4	v7	v4	v4	v2	v5	v3	v3	v5			v1
Cobblestone Lake	19045600	1																										v14	v14	v12	v14	v13	v14	v14	v14	v13	v12	v10	v5	v5	v14	v10	v10	v8	v4			v3
Cody Lake	66006100	1																												v3																		
Colby Lake	82009400	1															v13	v14	v13	v13	v12	v12	v9	v10	v10	v10	v10	v6	v7	v7	v9	v3	v9	v14	v14	v13	v12	v14	v14	v14	v12	v13	v12	v14	v13	v13	v14	
Coon Lake	2004200	1	4				5										13			13											2																	
Cornelia Lake	27002800	1																								v7		v11	v14	v14	v13	v14				v5	v6	v7										
Courthouse Lake	10000500	1																	v2	v14	v13	v13	v14	v14	v14	v14	v14	v14	v13	v13	v14	v14	v14	v14	v14	v14	v13	v13	v13	v13	v13	v12						
Cowley Lake	27016900	1																	v12										v10	v1		v4	v6					v6										
Crane Lake	27073400	1															v9																			v12												
Crooked Lake	2008400	1				5							13				v15	v15	v14	v14	v12	v14	v14																									
Crystal Lake	19002700	1	2			5							13				13	13	13	13	13	v12	v10	v14	v15	v15	v15	v16	v14	v14	v14	v14	1 & v14	4 & v14	4 & v14	2 & v13	v13	v15	v15	v14	v13	v16	v13	v13	v13	v12	v13	
Crystal Lake	27003400	1								17	19	19					v15			v11				v8				v7			v7			v8			v5		v10									
Crystal Lake	70006100	1																		v12		v11																					v6	v2	v7	v7	v8	
Cynthia Lake	70005200	1	2																																													
Dan Patch Lake	70001600	1																		v15																												

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
Dean Lake	70007400	1																							v7	v7	v6	v7	v8	v9	v10	v12	v8	v3																	
Deeg Lake	19011700	1																						v12																											
Deep Lake	62001800	1						5																																											
Demontreville Lake	82010100	1	4				5							12		v15		14					13			13	v14	v7	v7	v11	v20	v12	v14	v20	v14	v12	v14	v14	v16	v15	v12	v10	v9	v12	v10	v18	v12				
Diamond Lake	27012500	1	2														v13										13																								
Dickman Lake	19004600	1																																								v12	v2	v9	v6	v7					
Downs Lake	82011000	1																				v14		v9	v9	v6	v7	v9	v7	v5	v2	v9	v1			v7	v7	v6	v7	v7	v7	v6	v7	v6	v7	v7	v7	v7			
Dubay Lake	27012900	1																																			v14	v8	v1												
Duck Lake	27006900	1																																				v8	v12	v9	v11	v12	v12	v10	v11	v12	v13	v13			
Dutch Lake	27018100	1					5																																						13						
Eagle Lake	10012100	1	4	5				5											12		v15	v14	v14	v12	v14	v14	13	v14	v14	v13	v13	v14	v14	v14	v14	v13	v13	v15	v13	v13	v11										
Eagle Lake	27011101	1	4			5			17	18				11		v15			v14	v14	v14		v6		v4			v6				v6														v10				v7	
Eagle Point Lake	82010900	1				2											v14												v5	v2	v2	v2		v7	v6	v7	v6	v7	v7	v7	v6	v7	v6	v7	v7	v7	v7	v7	v7		
Earley Lake	19003300	1															v10	v11	v9	v10	v10	v9	v8	v6	v10	v9	v6	v7	v9	v12	v9	v10	v11	v8	v12	v13	v14	v14	v14	v14	v13	v14	v11	v14	v13	v14	v14	v14			
East Boot Lake	82003400	1																						v14	v14	v14	v14	v14	v14	v7	v7	v7	v7	v7	v7	v7	v7	v12	v12	v15		v14	v12	v13		v7			v7		
East Lake	19034900	1																											v13	v6	v14	v13		v14	v11	v13	v11	v12	v12	v13	v11	v11	v13	v12	v12	v11	v13	v13			
East Twin Lake	2013300	1	2	5		5							13					13			13												3	6																	
Echo Lake	82013500	1																											v10	v8	v4		v7		v7	v7	v6	v7	v7	v7	v6	v7	v6	v7	v7	v7	v7	v7			
Edina Lake	27002900	1																									v10	v10																							

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Edith Lake	82000400	1																										v6	v12	v12	v15	v17		v15	v15	v16	v14	v11	v5	v6	v9	v12	v7	v13	v10	v11	v13	
Egg Lake	82014700	1																						v3																								
Elmo Lake	82010600	1	4	5	16		5				19			12			v11											v9	v8	v8	v18	v9	v19	v9	v9	v6	v6	v6	v11	v10	v4		v7	12	v7		v7	
Elwell Lake	82007900	1																																							v13			v6	v8			
Empire Lake	19034200	1																																										9				
Fahlstrom Pond	82000500	1																													v3	v8	v4									v7			v7			
Fahlstrom Pond	82000500	2																													v5	v5	v5									v7			v7			
Farquhar Lake	19002300	1	4														v15	v16	v14	v15		v15	v13	v11	v13	v14	v14	v15	v13	v13	v13	v14	v14	v14	v14	v13	v14	v14	v14	v14	v13	v14	v10	v15	v13	v14	v14	
Fireman's Clayhole Lake	10022600	1																						v12	v14	v14	v14	v14	v13	v13	v14	v14	v14	v14	v14	v14	v13	v13		v13	v13	v12						
Fish Lake	2006500	1																																														
Fish Lake	19005700	1										13																																				
Fish Lake	27011800	1	4	5	16			5					13																																			
Fish Lake	70006900	1	4				5						13					13		v2	v13	v8	v12	v9	v14	v13	v11	v13	v11	v13	v11	v12	v11	v10	v14	v13							v9	v14	v10	v11		
Fish Lake	82006400	1																					v5	v14	v7	v7	v7	v7	v7	v7	v7	v8	v7	v7			v14	v14	v14		v13	v6	v7	v7	v7	v7		
Fish Lake	82009300	1																															v14	v14	v14	v12	v12	v14	v14	v14	v12	v13	v12	v13	v13	v13	v13	v14
Fish Lake	82013700	1																								v5	v5	v4							v13	v14	v4		v15	v14		v12		v12		v13		v14
Fisher Lake	70008700	1																																													9	
Fisher Lake	70008700	2																																													9	
Forest Lake	82015900	1					5						13			v7			v12	v14	v15	v14	v14	v14	v14	v14	v14	13	v14	v14	v14	v14	v14	v13	v15	v24	v26	v28	v28	v28	v20	v19	v11	v14	v12	v14	v14	

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
Forest Lake	82015900	2					5						13			v7			v12						13			13	13			v 11		v 12	v 14	v 24	v 25	v 25	v 27	v 27	v 19	v 18	v 8	v 13	v 11	v 13	v 14			
Forest Lake	82015900	3	4				5						13			v7			v12						13			13	13			v 8	v 8	v 7	v 16	v 20	v 24	v 28	v 30	v 27	v 18	v 19	v 6	v 14	v 12	v 14	v 14			
Forest Lake	82015900	4																																			v 9	v 11	v 5											
Fourth Lake	13002200	1																																		v 10	v 14				v 12									
French Lake	27012700	1																						v11	v10	v7	v7																							
Friedrich's Pond	82010800	1																											v13	v14	v 11	v 1								v 6			v 7			v 7				
Gables Lake	82008200	1																			v8	v5																												
Gaystock Lake	10003100	1																				v2	v14	v14				v14	v14																					
George Lake	2009100	1	4	5	16		5					13					13				13											v 14																		
George Watch Lake	2000500	1																	v14	v12	v11	v11	v6	v7	v8	v9	v10	v12	v7	v8	v 12	v 14	v 14	v 14	v 12	v 8	v 9	v 11	v 12	v 9	v 6		v 3	v 2	v 2	v 2	v 2			
German Lake	82005600	1																							v7	v7	v7	v7	v7	v7	v7	v 7	v 7			v 7		v 12	v 14	v 14	v 9		v 13			v 7				
Gervais Lake	62000700	1						5																													11													
Glen Lake	27009300	1																											v13	v7	v 4																			
Goetschel Lake	82031300	1																							v11	v9	v4	v15	v9	v5	v 7	v 7	v 7	v 7								v 7			v 7			v 7		
Goggins Lake	82007700	1																				v13	v14	v14	v14	v14	v14	v14	v14	v14	v14	v 14	v 14	v 14	v 14	v 14	v 14	v 15	v 14	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14		
Golden Lake	2004500	1	2										12			14			v13	v11	v15	v13	v13	v12	v11	v11	v10	v11	v11	v10	v 9	v 13	v 12																	
Goose Lake	10008900	1																v9	v7	v15	v15	v14	v11	v14	v14	v14	v14	v14	v14	v13	v 14	v 14	v 14	v 14	v 14	v 14	v 13	v 13	v 14	v 13	v 13	v 11								
Goose Lake	19036000	1																v13	v13																															
Goose Lake	82005900	1															v15	v15	v13	v13	v15						v7	v7	v7	v7	v 14	v 7	v 7	v 7	v 7	v 7	v 7	v 7	v 12	v 12	v 14	v 14	v 14	v 12	v 13	v 13	v 15	v 13	v 7	v 7

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Goose Lake	82011301	1																													v 7	v 7	v 7		v 7	v 7	v 6	v 7	v 7	v 7	v 6	v 7	v 6	v 7	v 7	v 7	v 7	
Goose Lake	82011302	2																													v 7	v 7	v 7		v 7	v 7	v 6	v 7	v 7	v 7	v 6	v 7	v 6	v 7	v 7	v 7	v 7	
Grace Lake	10021800	1																							v11	v14	v14		v14		v 14	v 14	v 14	v 14	v 14	v 14	v 12	v 14	v 13	v 13	v 12							
Grass Lake	27068100	1																		v12																												
Gun Club Lake	19007800	1																																												6		
Haas Lake	70007800	1																																		v 4	v 4	v 5	v 8	v 11	v 11	v 8	v 7	v 8	v 8	v 11	v 8	
Hafften Lake	27019900	1																					13	13			13	v15	v13				v 13			v 12	v 8		v 15	v 11	v 12	v 4	v 10		v 12			
Ham Lake	2005300	1					5										v15	v13		v13	v9	v14																						12				
Hannan Lake	27005200	1																																											v 7	v 2	v 5	
Harriet Lake	27001600	1					5																																									
Hart Lake	2008100	1																									v6	v4	v8																			
Harvey Lake	27067000	1																									v10																					
Haughey Lake	27018700	1																							v4																							
Hawkes Lake	27005600	1																																				v 15	v 13	v 10	v 9	v 3						
Hay Lake	82006500	1																			v14	v13	v14	v14	v4	v7	v7	v7	v7	v7	v 14	v 7	v 7	v 7		v 12	v 12	v 14	v 14	v 14	v 12	v 13	v 6	v 7	v 7	v 7	v 7	
Hazeltine Lake	10001400	1																				v1	v14	v14				v14	v14			v 14	v 14	v 14	v 14	v 13	v 12	v 14	v 13	v 12	v 12							
Heifort's Pond	82048500	1																																						v 7	v 6	v 12	v 12	v 14	v 13	v 13	v 14	
Heims Lake	13005600	1																														v 10					v 12	v 14								v 2		
Henry Lake	27017500	1																	v10										v11	v11	v6	v 7	v 7	v 5	v 10													

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Herber Pond	82001501	1																									v14	v14	v7	v7																		
Hidden Lake	27069300	1																																v9														
Highland Lake	2007900	1																				v13	v11	v13	v12	v12	v14	v14	v14	v12																		
Holland Lake	19006500	1				10	16	15			20					13						13											1	4	4	2												
Hornbeam Lake	19004700	1																											v11	v8	v7	v5	v2				v11	v14	v14	v14	v7	v7	v6	v7	v7	v7	v7	v14
Horseshoe Lake	19003200	1																v11	v10												v1									v1								
Horseshoe Lake	19005100	1																											v11	v11	v8	v14	v13	v10	v11	v11	v13	v12	v14	v14	v6	v6	v6	v7	v7	v6	v7	
Horseshoe Lake	82007400	1																				v1																										
Horseshoe Lake	82007400	2																														v8																
Horseshoe Lake	82007400	3																														v7	v7	v7	v7	v7	v6	v7	v7	v8	v6	v7	v6	v7	v7	v7	v7	
Hydes Lake	10008800	1						5					12		13			12			v11	v4	v9	v14	v15	v14	v14	v14	v14	v13	v13	v14	v14	v14	v14	v13	v13	v14	v13	v12	v11							
Independence Lake	27017600	1	4	5		5							13			v14	v15																															
Isabelle Lake	19000400	1															v14																															
Island Lake	2002200	1				7																					v12	v14	v14	v14	v13	v13	v14	v14	v14	v14												
Island Lake	2002200	2																																													12	
Jackson WMA	82030500	1																																v14	v14	v14	v13	v12	v14	v14	v14	v12	v13	v12	v14	v14	v13	v14
Jane Lake	82010400	1					5		17	18			12			v12						13					v15	v13	v10	v12	v16	v11	v9	v9	v5	v4	v3	v14	v8	12	v12	v9	v9	v12	v10		13	
Jellums Lake	82005202	1																					v14	v14	v12	v14	v14	v14	v14	v7	v7	v7	v7	v7	v7	v7			v14	v14	v14		v13	v6	v7	v7	v7	v7
Jellums Lake	82005202	2																																														

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
Johanna Lake	62007800	1		5				5				13																																						
Jonathan Lake	10021700	1																							v13				v14		v14	v14	v14	v14	v14	v13	v12	v14	v13	v13	v12									
Josephine Lake	62005700	1						5				13																																						
Jubert Lake	27016500	1																					v11													v5	v1	v1	v1											
July Lake	82031800	1																											v7	v7	v7	v5		v14	v14	v13	v12	v15	v14	v7	v6	v7	v7	v7	v7	v7	v7			
Karth Lake	62007200	1																												v11	v13	v14	v14	v13	v14	v13	v14	v13	v13	v14	v12	v12	v10	v14	v13	v14	v14			
Keller Lake	19002500	1																	13	13	v13	v15	v14	v12	v13	v15	v15	v14	\14	v12	v8	v12	v14	v13	v14	v13	v14	v12	v13	v7	v10	v11	v10	v12	v12	v10	v11			
Keller Lake	62001000	1						5																																										
Kingsley Lake	19003000	1														5		v11	v10	v9			v14	v14	v15	v14	v15	v16	v14	v14	v13	v14	v14	v12	v13	v11	v12	v13	v13	v11	v11	v12		v12	v11					
Kismet Lake	82033400	1																			v14	v13	v14	v14	v14	v14	v14	v13	v14	v14	v14	v14	v14	v14	v14	v12	v12	v15	v14	v14	v12	v13	v12	v14	v13	v12	v14	v13	v13	v14
Klawitter Pond	82036800	1																								v13	v13	v14	v13	v12	v12	v13	v14	v11	v12	v13	v11	v10	v12	v13	v14	v13	v12	v11	v14	v7	v4	v12		
Kohlman Lake	62000600	1						5																																										
Kramer Pond	82011700	1																													v7	v7	v7		v7	v7	v6							v6			v7	v1		
La Lake	82009700	1															v13	v11	v13	v11	v10	v10	v8	v6	v5	v6	v3	v13	v12	v14	v11	v12	v10	v10	v11	v10	v9	v11	v10	v12	v12	v9	v6	v10	v9	v11	v10			
Lac Lavon Lake	19044600	1																		v11	v10	v10	v9	v2	v7	v12	v12	v12	v12	v13	v12	v14	v13	v13	v14	v13	v13	v12	v13	v12	v12	v11	v8	v11	v4	v12	v12			
Laddie Lake	2007200	1	4														v13	v14	v12					v13	v13	v14	v10																							
Lake Forest	82018700	1																													v12	v11																		
Lake of the Isles	27004000	1					5																																											
Lake Minnetonka	27013302	1	4	5																																														

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Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
Little Johanna Lake	62005800	1																						v12	v16	v15	v8	v6	v3		v 14	v 13	v 12	v 10	v 14	v 11		v 12	v 11	v 12	v 11	v 13	v 9	v 14	v 13	v 13	v 12			
Little Long Lake	27017901	1	4				5						13								13			13		13				v11	v2		v 13	v 14		10														
Litter Prior Lake	70016900	1																																								v 9	v 14	v 14	v 13					
Lochness Lake	2058500	1																													v12	v 11	v 13	v 10	v 7	v 11	v 9	v 10	v 11	v 11	v 10	v 8	v 7							
Lone Lake	27009400	1																															v 15	v 13	v 11															
Long Lake	10001600	1																				v2		v13		v5																								
Long Lake	19002200	1																			v16				v11	v13	v12	v15	v14	v13	v 14	v 13	v 14	v 14	v 13	v 11	v 14	v 14	v 15	v 14	v 9	v 14	v 11	v 14	v 12	v 11	v 11			
Long Lake	27016000	1					5																																											
Long Lake	62006700	1						5																																										
Long Lake	62006700	1						5																																										
Long Lake	82002100	1																v14	v7		v14	v13	v14	v14	v14	v14	v14	v14	v14	v14	v 14	v 14	v 14	v 14	v 14	v 14	v 13	v 12	v 14	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 10	v 14		
Long Lake	82002100	2																															v 4	v 4	v 4	v 4	v 4	v 4	v 4											
Long Lake	82002100	3																															v 4	v 4	v 4	v 4	v 4	v 4	v 4											
Long Lake	82003000	1															v14	v14	v14	v13	v14		v14	v14	v14	v14	v14	v7	v7	v7	v7	v7	v7	v7	v7	v7		v 12	v 12	v 14				v 12	v 13	v 6	v 7	v 7	v 7	v 7
Long Lake	82006800	1																						v5	v14	v7	v7	v7	v7	v7	v7	v8	v 6	v 7	v 7				v 15	v 15	v 14		v 13	v 6	v 7	v 7	v 7	v 7		
Long Lake	82011800	1															v14										13	v15	v14	v14	v14	v 14	v 14		v 21	v 14	v 13	v 14	v 14	v 16	v 14	v 13	v 12	v 10	v 10	v 12	v 11	v 14		
Long Lake	82013000	1																									v11	v9	v12	v10	v10	v 10	v 10	v 10	v 9	v 9	v 8	v 10	v 10	v 8	v 9	v 9	v 9	v 8	v 3	v 7	v 7			
Loon Lake	82001502	1								2	18													v14	v14	v7	v7	v7	v7	v7	v7	v 14	v 7	v 12	v 1	v 5					v 13	v 14	v 12		v 6					
Lost Lake	27010300	1															v13																				v 3	v 4	v 5	v 2	v 6	v 12	v 14	v 10	v 12	v 12	v 12	v 10		

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Lost Lake	82013401	1																											v13	v13	v 11												v 14		v 14	v 14		
Lost Lake	82013402	2																																										v 13	v 11	v 14		
Lotus Lake	10000600	1						5					13									13	13			v5	v10	v8	v11	v9	v 11	v 10	v 11	v 8	v 2			v 3	v 7	v 4	v 1	v 7	v 7	v 10	v 6	v 9	v 6	
Louise Lake	82002500	1																					v5	v5	v7	v7	v7	v7	v7	v7	v 14	v 7	v 7	v 7				v 14	v 14	v 12		v 6						
Lucy Lake	10000700	1						5																								v 13	v 12	v 13	v 12	v 10	v 10	v 13	v 11	v 9	v 7	v 9	v 7	v 5	v 9	v 9	v 13	
Lynch Lake	82004200	1																												v7	v 14	v 13	v 14	v 14	v 14	v 13	v 12	v 15	v 14	v 7	v 6	v 7	v 7	v 7	v 7	v 7	v 7	
Lynch Lake	82004200	2																															v 14	v 14	v 14	v 12	v 12	v 15	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14	
MacDonald Lake	82006200	1																									v14	v14	v7	v7																		
Magda Lake	27006500	1																				v14	v13			v11			v12			v 9			v 13			v 12					v 10					
Maple Marsh Lake	82003800	1																					v5	v5	v7	v7	v7	v7	v7	v7														v 13	v 13			
Marcott (Rosenberg) Lake	19004100	1																v15	v13	v10	v10	v12	v10	v6	v5										v 7	v 7												
Marcott (Ohmans) Lake	19004200	1																																		v 7	v 7											
Marcott (Ohmans) Lake	19004200	2																																		v 6	v 7											
Marcott Lake	19026300	1																	v15																													
Maria Lake	10005800	1																					v2	v14	v14				v13							5						12						
Marion Lake	19002601	1	2	5		5						13					v15					v15	v14	v13	v14	v14	v15	v16	v15	v14	v 13	v 14	v 14	v 13	v 14	v 14	v 14	v 14	v 12	v 11	v 12	v 10	v 7	v 12	v 13	v 12		
Markgraf Lake	82008900	1															v15	v11	v12	v10	v15	v10	v10	v9	v13	v14	v14	v14	v15	v14	v 14	v 13	v 14	v 13	v 11	v 13	v 12	v 14	v 14	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14
Markley Lake	70002100	1																																														
Marsh Lake	10005400	1																					v1																									

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Marshan Lake	2000700	1																	v10	v13	v10	v9	v8	v7																									
Martin Lake	2003400	1				7															13										v 13																		
Masterman Lake	82012600	1																											v14	v14	v 14	v 14	v 14	v 14	v 14	v 14	v 12	v 12	v 15	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14	
Mays Lake	82003300	1																														v 14	v 14	v 7	v 8	v 7	v 7	v 12	v 14			v 12	v 13	v 6	v 7	v 7	v 13	v 12	
McCarrons Lake	62005400	1					12	20	17	18	19	13	13	12		14	13	16	13			18	13	13	13		13	13																					
McDonald Lake	82001000	1																				v11		v14	v9	v12	v12	v14	v10	v9	v 15	v 7		v 8	v 7	v 7	v 6	v 7	v 7	v 7	v 6	v 7	v 6	v 7	v 7	v 7	v 7		
McDonough Lake	19007600	1						5														13																											
McKnight Lake	10021600	1																											v14		v 14	v 14	v 14	v 14	v 14	v 13	v 13	v 12	v 14	v 13	v 13	v 12							
McKusick Lake	82002000	1															v14	v14	v14	v14	v14	v13	v14	v14	v14	v14	v14	v14	v14	v14	v 15	v 14	v 14	v 14	v 14	v 14	v 12	v 12	v 14	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14	
McMahon Lake	70005000	1	2				5											13			13			13				13	v14	v10	v 11	v 10	v 11	v 9	v 9	v 10	v 10	v 12	v 11	v 8	v 10	v 10	v 10	v 10	v 9	v 10	v 15		
Meadow Lake	27005700	1																	v12			v12			v9			v10			v 14			v 13			v 11					v 3	v 6	v 4		v 2			
Medicine Lake	27010400	2		5		10							13	12																				v 10	v 12	v 9	v 7	v 6	v 15	v 14	v 13	v 7	v 8	v 10	v 10	v 10	v 9		
Medicine Lake	27010400	1	4			9																												v 13	v 15	v 14	v 14	v 14	v 15	v 14	v 14	v 13	v 13	v 8	v 11	v 11	v 9	v 10	
Medina Lake	27014600	1																																		v 7													
Mergens Pond	82048200	1																					v10				v3	v2	v6				v 6	v 1						v 6			v 6				v 7		
Meuwissen Lake	10007000	1																				v1										v 11							v 13	v 12	v 12								
Miller Lake	10002900	1																	v6	v13		v12	v14	v13	v13	v14	v14	v14	v12	v13	v 14	v 14	v 13	v 14	v 14														
Minnetoga Lake	27008800	1																												v14	v 12		v 14		v 14	v 13	v 13	v 9	v 11	v 12	v 14	v 14	v 13	v 13	v 11	v 14	v 13	v 14	v 14
Minnewashta Lake	10000900	1					5						13			13					13	13	13			13	13														v 9	v 11	v 10	v 12	v 11	14			

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
Minnewashta Lake	10000900	2																															v 13	v 11	v 12	v 10	v 8	v 4	v 7	v 10	v 2					14					
Minnewashta Lake	10000900	3																																																	
Mitchell Lake	27007000	1																13				13	13			13	v14	v14	v14	v13	v 13	v 14	v 13	v 13	v 11	v 12	v 13	v 14	v 14	v 13	v 12	v 11	v 11	v 7	v 12	v 10	v 14				
Moody Lake	13002300	1																											v14	v14	v14			v 12	v 10	v 10	v 22	v 26	v 26	v 26	v 28	v 18	v 4	v 10	v 15	v 13	v 16	v 14			
Mooney Lake	27013400	1															v14	v10																																	
Moore Lake	2007502	1																				v14																													
Mud Lake	82002602	1																					v5	v5	v7	v7	v7	v7	v7	v7			v 14	v 7						v 14	v 12	v 13	v 6								
Myers Lake	10006800	1																				v1																													
Nielson Lake	82005500	1																																														v 6			
Nokomis Lake	27001900	1	4				5																																												
Normandale Lake	27104500	1																											v5	v3		v 11	v 13	v 9	v 14																
North School Section Lake	82014900	1																																																	
North Twin Lake	82001800	1																					v5	v5	v7	v7	v7	v7	v7	v7	v7	v7	v7			v 7	v 12			v 14	v 14	v 12		v 6				v 7			
Northwood Lake	27062700	1																						v12	v10	v13	v12	v12	v10	v10	v10	v 9	v 11	v 11	v 12	v 11	v 11	v 12	v 12	v 10	v 12	v 11	v 10	v 10	v 5	v 7	v 7	v 7			
Oak Lake	10009300	1																				v2		v14	v13	v12	v14	v14	v14		v 15																				
Oak Lake	10009300	2																												v10																					
Oak Lake	10009300	3																												v10																					
O'Connor Lake	82000200	1																												v8	v15	v12	v 15	v 10	v 9	v 7	v 6	v 6	v 6	v 6	v 6	v 6	v 6	v 5	v 4	v 6	v 6	v 6	v 6		
O'dowd Lake	70009500	1					5										13			13			13		13				13	v12	v13	v 14	v 14	v 14	v 14	v 14	v 14	v 13	v 14	v 13	v 13	v 14	v 12	v 14	v 11	v 12	v 12	v 12	v 14		

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Olson Lake	82010300	1												12		v15		14					13			13	v14	v7	v7	v11	v19	v13	v12	v18	v13	v11	v11	v12	v14	v14	v13	v11	v9	v12	v10	v11	v12
Oneka Lake	82014000	1																				v13	v11	v11	v9	v6	v5						v13	v10	v10		v4	v4	v6	v8	v7	v5	v4			12	
Orchard Lake	19003100	1	4	5		5						13				13					13	v15	v13	v13		v14	v14	v14	v14	v14	v12	v14	v13	v13	v13	v13	v12	v12	v14	v13	v11	v15	v11	v13	v14	v11	v13
Otter Lake	2000300	1	2			5																																									
Owasso Lake	62005600	1	4			5																																									
Ox Yoke Lake	27017800	1																													v1																
Pamela Lake	27067500	1																									v10																				
Parkers Lake	27010700	1	4										13					13				13	v12		v14	v15	v15	v15	v14	v14	v13	v14	v13		v10			v16	v15	v14	v10	v13	v11	v10	v5	v1	
Parley Lake	10004200	1					5			17	18			12					12			13		13		13			13																		
Pat Lake	82012500	1																											v7	v7	v8	v7	v14	v14	v14	v12	v12	v15	v14	v7	v6	v7	v7	v7	v7	v7	v7
Patterson Lake	10008600	1																				v2																									
Peltier Lake	2000400	1				5											v14	v16	v15	v14	v14	v13	v13	v14	v13	v17	v15	v15	v16	v17	v16																
Penn Lake	27000400	1																														v14	v14	v12	v14	v13	v13	v11	v12	v14	v13	v12	v11	v14	v15	v14	v13
Pepin Lake	40002800	1																												v13																	
Peter Lake	27014702	1																														v13	v6	v2													
Phalen Lake	62001300	1	4	5				5																																							
Pickerel Lake	2013000	1	2															13															6	7							11	12			12		
Pickerel Lake	19007900	1																																			v7	v7	v5	v6	v3		v2				
Pierson Lake	10005300	1	2	5		5						13						13						13	13	13			13																12		

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
Pike Lake	27011102	1																	v14	v15	v13		v13							v4		v 8		v 10									v 14							
Pike Lake	62006900	1																				v14	v10	v14	v14	v14	v15	v15	v11	v14	v 13																			
Pike Lake	70007600	1																		v9		v10	v9	v9	v11	v15	v15	v13																						
Pike Lake	70007600	2																						v11																										
Pine Tree Lake	82012200	1						5								v14	v14	v16	v14	v15	v15	v13	v14	v9	v12	v7	v8	v12	v10	v9	v 7	v 12	v 8	v 12	v 12	v 11	v 10	v 12	v 12	v 10	v 10	v 11	v 7	v 10	v 11	v 7	v 11			
Plaisted Lake	82014800	1																													v 7	v 8	v 14	v 14	v 14	v 13	v 12	v 15	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14			
Pleasant Lake	62004600	1						5																																										
Pleasant Lake	70009800	1														13																	5							12		12								
Pomerleau Lake	27010000	1																	v9			v10		v6		v3																								
Powers Lake	82009200	1															v12	v13	v13	v12	v9	v10	v8	v5	v7	v14	v14	v14	v14	v14	v 14	v 14	v 14	v 14	v 14	v 14	v 14	v 14	v 14	v 15	v 12	v 13	v 12	v 14	v 13	v 13	v 14			
Priebe Lake	62003600	1																													v 13	v 10	v 9	v 7	v 8															
Prior Lake - Lower	70002600	1					5						13						13	v15	v14	v13	v9	v14	v16	v13	v12	v12	v12	v12	v 12	v 14	v 14	v 12	v 14	v 6														
Prior Lake - Lower	70002600	2																			v14	v13	v9	v14	v15										v 5	v 9	v 13	v 13	v 11	v 8	v 9	v 11	v 13	v 11	v 9					
Prior Lake - Upper	70007200	1	4	5			5						13						13	v15	v14	v13	v9	v14	v12	v13	v10	v9	v9	v5	v 11	v 14	v 14	v 13	v 11	v 9														
Prior Lake - Upper	70007200	2																							v12																									
Quarry	70034300	1																																														12		
Raven Lake	19036900	1																	v13	v6	v8																													
Rebecca Lake	19000300	1																																				v 12	v 15	v 9	v 14	v 12	v 10	v 14	v 13	v 13	v 14			
Rebecca Lake	27019200	1				10	12	12																																										

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Red Rock Lake	27007600	1																				12	13			13	13		13					v 2			v 12	v 12	v 9	v 14	v 13	v 14	v 12	v 13	v 15	v 13	v 14		
Regional Park Lake	82008700	1																			v12	v14	v12	v13	v14	v15	v15	v14	v7	v7	v 7	v 7	v 7	v 7	v 7	v 7	v 7	v 6	v 7	v 10	v 6	v 6	v 7	v 6	v 7	v 7	v 7	v 7	
Reid Park Pond	82046000	1																																									v 7						
Reitz Lake	10005200	1						5						12		13						v15	v13	v7	v13	v14	v14	15	v14	v14	v 11	v 11	v 12	v 11	v 14	v 12	v 12	v 13	v 12	v 14	v 13								
Reshanau Lake	2000900	1	2																			v7	v1	v6					v13	v9	v 7	v 9	v 11	v 10	v 10	v 7	v 2										v 6		
Rest Area Pond	82051400	1																											v13	v10	v 13	v 12	v 10	v 9	v 14	v 12	v 14	v 14	v 15	v 14	v 11	v 9	v 6	v 10	v 9	v 10	v 10		
Rice Lake	10007800	1	2																			v1															7					12		12					
Rice Lake	27011600	1																												v10	v 10	v 12	v 14	v 12															
Rice Lake	70002500	1																																												9			
Rice Lake	70002500	2																																												9			
Riley Lake	10000200	1	2	5	16			5	17	18			13	12		13				13			13		13	v14	v15	v14	v10	v15	v 12	v 14	v 13	4 & v 11	4 & v 14	2 & v 11	v 11	v 14	v 12	v 14	v 8	v 12	v 10	v 11	v 10	v 12	v 11		
Rogers Lake	19008000	1																												v12	v 9	v 11	v 11	v 9	v 11	v 9	v 9	v 11	v 10	v 10	v 4	v 15	v 10	v 14	v 13	v 14	v 14		
Rose Lake	27009200	1																											v14	v13	v 13																		
Rose Lake	82011200	1																													v 7	v 7	v 7								v 6			v 7			v 7		
Rose Lake	82011200	2																													v 7	v 7	v 7								v 6			v 7			v 7		
Rutz Lake	10008000	1																				v1	v14	v14	v14				v14	v7	v 5	v 8	v 5	v 7															
Ryan Lake	27005800	1																	v14		v5		v9		v4	v6					v 13		v 10		v 4								v 10				v 8		
Sanborn Lake	40002700	1																													v2																		
Sand Lake	82006700	1															v7	v14	v14	v13						v14	v7	v7	v7	v7	v7	v 14	v 7	v 7	v 7			v 12	v 12	v 14	v 14	v 14	v 12	v 13	v 6	v 7	v 7	v 7	v 7

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
Sarah Lake	27019100	1	4			5																																													
Scheuble Lake	10008500	1																				v1																													
Schmidt Lake	27010200	1																v14			v12		v12	v9			v14	v9		v9				v9										v14			v6				
Schmitt Lake	19005200	1																																											v10	v7	v7	v7	v7		
School Lake	13005700	1																										v14	v7	v7		v6									v14	v12		v5	v14	v6	v8	v6			
Schroeder Pond	82030100	1																										v14	v14	v7	v7																				
Schultz Lake	19007500	1					5	5															13																												
Schutz Lake	10001800	1					5																	v6	v10	v6	v8	v9	v11																						
Scout Lake	19019800	1																													v14	v14	v14	v14	v14	v14	v14	v14	v14	v14	v14	v14	v12	v14	v11	v14	v13	v10	v7		
Sea Lake	82005300	1																														v12	v7							v14	v14										
Second Lake	13002500	1																																																	
Seidl Lake	19009500	1																	v15	v14	v14	v15	v16	v14	v14	v15	v8	v14	v14	v14	v8	v4	v2	v12	v9	v3		v6							v6	v6	v6	v4	v6	v5	
Shady Oak Lake	27008902	1																															v12	v11																	
Shavers Lake	27008600	1																											v14	v13																					
Shavers Lake	27008600	2																												v6																					
Shields Lake	82016200	1																																																	
Silver Lake	62000100	1																																																	
Silver Lake	82001600	1																																																	
Simley Lake	19003700	1																																																	

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
Smetana Lake	27007300	1																																	v 10										v 11	v 7								
Snail Lake	62007300	1	4					5																																														
Snelling Lake	27000100	1																																												8								
South Oak Lake	27066100	1																							v12	v15			v9	v8	v 5	v 7	v 13	v 14	v 12	v 10	v 13	v 10	v 9	v 5	v 6	v 2	v 6											
South Rice Lake	27064500	1																					v9	v14	v15	v14	v14	v15	v14	v12	v 6																							
South School Section Lake	82015100	1																v14	v7		v14							v14	v14	v14	v 14	v 14	v 14	v 14	v 14	v 14	v 13	v 12	v 15	v 14	v 14	v 12	v 13	v 13	v 14	v 13	v 13	v 14						
South Twin Lake	82001900	1																					v5	v5	v7	v7	v7	v7	v7	v7	v7	v7	v7	v7					v 14	v 14	v 12		v 6	v 7	v 7	v 7	v 7							
Spring Lake	2007100	1																						v11																														
Spring Lake	19000501	2																																			1																	
Spring Lake	70005400	1	4	5	16		5						13						13	v12			v6	v11	v13	v14	v14	v13	v9	v8	v 5	v 10	v 15	v 8	v 8	v 10																		
Square Lake	82004600	1	4	5	16	6	7	7				13					v11	v14	v14	v13	v14	19	v14	v14	v15	v14	v14	v14	v14	v14	v14	v 7	v 7	v 14	v 14	v 14	v 12	v 12	v 12	v 14	v 14	v 12	v 13	v 13	v 14	v 13	v 13	v 14						
St. Croix Lake	82000100	1																											v2					v 12	v 11	v 3																		
St. Croix Lake	82000100	8																																		v 11	v 12	v 8	v 5	v 6	v 8	v 8	v 5	v 9	v 9	v 10	v 7	v 9						
St. Croix Lake	82000100	2																																			v 11	v 12	v 13	v 9	v 6	v 5	v 9	v 8	v 6	v 12	v 12	v 10	v 7	v 9				
St. Croix Lake	82000100	3																											v11	v9	v9	v 10		v 12	v 15	v 16	v 13	v 12	v 4	v 5	v 8	v 5	v 1											
St. Croix Lake	82000100	4																																	v 6	v 6	v 6	v 7	v 4	v 5	v 5	v 8	v 5	v 2		v 7	v 4	v 3	v 2					
St. Croix Lake	82000100	5																											v8	v10	v7	v 8		v 15	v 10	v 6	v 6	v 4	v 5	v 5	v 5	v 10	v 10											
St. Croix Lake	82000100	6																											v11	v10	v10	v 9		v 16	v 16	v 16	v 17	v 15	v 16	v 17	v 16	v 14	v 15	v 16	v 8	v 8	v 4	v 6						
St. Croix Lake	82000100	7																																	v 8	v 8	v10	v 5		v 13	v 6	v 12	v 11	v 7	v 11	v 3	v 8	v 8	v 8	v 9	v 9	v 7	v 8	v 10

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
St. Joe Lake	10001100	1																									v17	v8	v9	v9	v9	v5	v7	v9	v7	v3	v7	v8	v11	v9	v9	v9	v9	v11	v8	v4	v13			
Staples Lake	82002800	1																					v14	v5	v7	v7	v7	v7	v7	v7	v7				v12	v12	v14				v12	v13	v6							
Staring Lake	27007800	1	4					5										13				13		13			13		13																					
Stieger Lake	10004500	1					12					13						13																																
Success Lake	27063400	1																	v10							v11			v11		v10			v14			v12					v9								
Sucker Lake	62002800	1						5																																										
Sullivan Lake	2008000	1															v14	v14	v15		v15	v14	v13	v11	v11	v12	v12																							
Sunfish Lake	19005000	1																											v13	v13	v13	v14	1 & v15	4 & v14	4 & v13	2 & v13	v13	v14	v13	v14	v7	v7	v8	v7	v7	v8	v13			
Sunfish Lake	82010700	1																					v10					v13	v11		v7			v7	v7	v7	v6	v7	v7	v7	v6	v7	v6	v7	v7	v7	v7			
Sunnybrook Lake	82013300	1																					v14		v13	v10	v12	v10	v16	v14	v14	v14	v14	v13	v14	v14		v6	v7	v7	v7	v6	v7	v6	v7	v7	v7	v7		
Sunset Lake	82015300	1					5										v14	v14	v12	v13	v16	v12	v10	v13	v13	v18	v20	v15	v17	v12	v10	v9	v7	v8	v10	v8	v7	v8	v8	v8	v13	v10	v13	v9	v14	v13	v13	v14		
Sunset Pond	19045100	1																v14	v14	v14	v12	v10		v13	v11	v10	v12	v11		v14	v14	v14	v14	v14	v14	v14	v14	v12	v13	v14	v13	v13	v11	v11	v4	v16	v13	v9	v12	
Susan Lake	10001300	1																												v7	v11	v12	v13	v14	v13	v14	v13	v13	v3	v8	v8			v7	v4	v6	v6	v5	v10	
Sutton Lake	70009400	1																																											v7	v5				
Swan Lake	10008200	1																																																
Swede Lake	10009500	1	2																13						13	v14	v16	v13	v14	v14	v13	v14	v14	v14	v14	v14	v13	v14	v12	v14	v12	v10								
Sweeney Lake	27003501	1																							v11	v9	v14	v13	v14	v11	v10	v15	v12	v13	v14	v12	v9	v9	v14	v5	v10	v15	v4	v5	v5	v1				v5
Sweeney Lake	27003501	2																							v11	v9								v10	v9						v6	v9	v10	v6	v11	v5	v5	v5		
Sylvan Lake	27017100	1																													v10					v14	v13	v10												

Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Keewahtin Lake	82008000	1														v7			v14		v15	v14	v14	v14	v14	v14	v14	v14		v11	v9	v9	v9	v11	v12	v23	v20	v24	v22	v22	v7	v21	v10	v11	v6	v8	v6		
Tamarack Lake	10001000	1																						v10	v11	v12	v11	v11	v13	v14	v11	v13																	
Tanners Lake	82011500	1	2								20					v14	v13	v12	v14																														
Teal Lake	27027500	1																																							v11				v14				
Terrapin Lake	82003100	1																									v7	v7	v7	v7	v7	v7	v7	v7	v8	v7	v7	v12	v14			v11	v13	v6	v7	v7	v7	v3	
Third Lake	13002400	1																																								v13			v6	v8			
Thole Lake	70012001	1					5										13			13			13		13			13	v14			2	7	9				v13	v13	v12	v11	v12	v9	v12	v10	v8	v7		
Thomas Lake	19006700	1	2																																														
Thompson Lake	19004800	1																																					v7	v7	v7	v7	v7	v7	v7	v7			
Tiger Lake	10010800	1																				v1																											
Turtle Lake	62006100	1	4	5		5																																											
Turtle Lake	82003600	1																					v5	v5	v7	v7	v7	v7	v7	v7	v7	v7	v7		v7	v12	v12			v14	v12	v13	v6						
Twin Lake	19002800	1																				v6		v13	v11	v6	v2	v11	v8	v8	v14	v14	v13	v14	v13	v13	v14	v14	v12	v14	v12	v12	v11	v13	v12	v13	v13		
Twin Lake	27003502	1																																v9	v9			v8	v8	v11	v10	v10	v8	v9	v9	v11	v4	v5	v5
Twin Lake	27004201	1												12		v14			11		v15		v11		v13		v14		v13		v12		v12										v4		v4				
Twin Lake	27004202	1						5						12					13	v11		v13	13			v13		v8			v13		v13				v3		v10							v12			
Twin Lake	27004203	1												12		v14			13		v5		13			v13		v8					v9				v5						v7			v2			
Twin Lake	27065600	1																								v12	v14	v14	v11	v14	v10	v10	v11	v13	v11	v14	v13	v13	v6	v15	v8	v4	v9	v2	v6				
Twin Lake	82004800	1																		v13	v13										v14	v7	v7	v7	v6	v12	v12	v14				v12	v13		v7			v7	

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Lake	DNR ID	Site	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
White Rock Lake	82007200	1																											v11	v14	v 13	v 15	v 14	v 15	v 14	v 13	v 13	v 14	v 13	v 14	v 12	v 13	v 9	v 13	v 13	v 14	v 11		
Wilmes Lake	82009002	1															v14	v15	v14	v15	v15	v14	v13	v13	v10	v12	v12	v10	v12	v11	v 11	v 11	v 11	v 11	v 13	v 13	v 12	v 15	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14		
Windsor Lake	27008200	1																									v12	v14																					
Wing Lake	27009100	1																											v14	v14	v 12	v 9	v 14	v 11	v 9	v 9	v 11	v 12	v 11	v 11	v 11	v 9	v 10		v 8	v 2			
Winkler Lake	10006600	1																				v8	v6	v6		v13		v14		v13	v 13		v 13	v 13															
Wolfe Park Lake	27066400	1																																													v 6		
Wolsfeld Lake	27015700	1	4																																														
Wood Lake	19002400	1																	v10	v14	v15	v15	v14	v13	v14	v14	v14	v14	v13	v13	v 12	v 9	v 13	v 12	v 13	v 12	v 10	v 6	v 7	v 10	v 10	v 12	v 9	v 11	v 12	v 11	v 14		
Woodpile Lake	82013200	1																												v7	v7	v 15	v 14	v 14	v 14	v 14	v 14	v 12	v 12	v 14	v 14	v 14	v 12	v 13	v 12	v 14	v 13	v 13	v 14
Young America Lake	10010500	1																				v1																											
Zumbra Lake	10004100	1					5						13												13																								

Appendix B

Lake Characteristics

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Acorn Lake	82010200		44	296	6.7	3.0	0.7	101.0239-99999999-99	100	Y	N
Alice Lake	82028700		28	2,806	100.2	2.7			100	Y	Y
Alimagnet Lake	19002100		109	1,094	10.0	3.0	1.5	545	100	Y	
Anderson Pond	19009400		2								
Ann Lake	10001200		116	1,247	10.8	13.7			41		Y
Ardmore Lake	27015300		10.1			6.1	2.4	78	89	Y	N
Armstrong Lake	82011602		39			1.5	1.0	128	100	Y	N
Auburn Lake	10004400		287	8,027	28.0	25.6			56		Y
Augusta Lake	19008100		38			10.1			56		Y
Bailey Lake	82045600		51								
Baldwin Lake	2001300		220			1.5			100	Y	N
Barker Lake	82007600		45	823	18.3	9.0	4.4	648			N
Bass Lake	27001500	St. Louis Park	95								
Bass Lake	27009800	Plymouth	194	3,100	16.0	9.4	3.1	1,979	82	Y	N
Bass Lake	82003500	May Township	81			4.3			100	Y	N
Bass Lake	82012300	Grant Township	47						100		N
Bass Lake	82012400	Grant Township	23.5						100		N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Battle Creek Lake	82009100		105	4,264	40.6	4.6			100	Y	Y
Bavaria Lake	10001900		200	711	3.6	18.3	5.6	3,674	40		Y
Bay Pond	82001100		10.199999-999999999	849	83.2	1.1				Y	
Benton Lake	10006900		115	322	2.8	2.0			100	Y	N
Benz Lake	82012000		36			2.7			100	Y	N
Beutel Pond	82039900		1.3			1.1				Y	
Big Carnelian Lake	82004900		455	1,900	4.2	20.0	9.8	14,560	28		Y
Big Comfort Lake	13005300		219			14.3			41		Y
Big Marine Lake	82005200		1,706	2,659	1.6	15.2	7.6	42,527	67		Y
Big Woods Lake	10024900		33	1,421	43.1	2.5				Y	N
Birch Lake	13004200		65								
Birger Pond	19022400		22	137	6.2						N
Blue Lake	70008800		154.4						100	Y	N
Bone Lake	82005400		212	5,177	24.4	9.8	3.7	2,820	59		Y
Brewer's Pond	82002200		13.3			5.0			>80	Y	N
Brick Pond	82030800		10.6			1.5				Y	
Brickyard Clayhole Lake	10022500		17			13.1			35		N
Bryant Lake	27006700		176			13.7			36		Y
Buck Lake	70006500		65	3,925	60.4						N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Burandt Lake	10008400		96			7.3			70		N
Bush Lake	27004700		172			8.5			64		Y
Byllesby Lake	19000600		1,368.5	733,166	535.7	15.2			71		Y
Campbell Lake	10012700		72			2.0			100	Y	N
Carol Lake	82001700		63	375	6.0	1.8	0.9	186	100	Y	N
Cates Lake	70001800		27			4.0			100	Y	N
Cavanaugh Lake	27011000		13.5								N
Cedar Island Lake	27011900		80	800	10.0	2.1	1.4	368	100	Y	N
Cedar Lake	70009100		742	11,104	15.0	4.7	2.1	5,194	100	Y	Y
Cenaiko Lake	2065400		29			9.1			40		N
Centerville Lake	2000600		473	1,640	3.5	5.8			58		Y
Christmas Lake	27013700		268	741	2.8	26.5			29		Y
Clear Lake	82004500		31			8.2			94	Y	N
Clear Lake	82009900		24.1								N
Clear Lake	82016300		400			8.5	3.7	4,800	67		Y
Cloverdale Lake	82000900		45	819	18.2	8.5	3.0	450	86	Y	N
Cobblecrest Lake	27005300		10								N
Cobblestone Lake	19045600		37			6.0					
Cody Lake	66006100		256			3.7	2.4	78		Y	

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Colby Lake	82009400		71	8,088	113.9	3.4			100	Y	N
Cornelia Lake	27002800		52			2.0				Y	N
Courthouse Lake	10000500		10			17.4			30		N
Cowley Lake	27016900		44.4								
Crane Lake	27073400		43.8			1.5			100	Y	N
Crystal Lake	19002700	Burnsville	292	2,001	6.9	11.3	3.1	2,920	72		Y
Crystal Lake	27003400	Robbinsdale	76	1,272	16.7	10.4	3.7	917	68		Y
Crystal Lake	70006100	Prior Lake	31.4			7.9			91.0828025-47770711	Y	N
Dean Lake	70007400		128						100		N
DeMontreville Lake	82010100		160	1,108	6.9	7.3	2.4	1,280	90	Y	Y
Dickman Lake	19004600		23								N
Downs Lake	82011000		35	2,400	68.6	2.1	1.5	175	100	Y	N
Dubay Lake	27012900		16.600000-000000001								N
Duck Lake	27006900		45.6	199.8	4.4	2.6			100	Y	Y
Dutch Lake	27018100		172.7			13.7			48.1997677-11962835		Y
Eagle Lake	10012100	Carver	186	1,050	5.6	4.3	2.5	1,500	100	Y	Y
Eagle Lake	27011101	Maple Grove	291	3,220	11.1	10.4	3.8	3,667	68		Y
Eagle Point Lake	82010900		120	11,502	95.9	1.8	1.0	360	100	Y	N
Earley Lake	19003300		29	1,629	56.2						N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
East Boot Lake	82003400		47	93	2.0	8.2	0.9	282	84	Y	Y
East Lake	19034900		40								
Echo Lake	82013500		41	194	4.7	1.8	0.8	107	100	Y	N
Edina Lake	27002900		23.9			1.0			100	Y	N
Edith Lake	82000400		81	1,576	19.5	13.0					
Elmo Lake	82010600		284	1,191	4.2	41.7			22		Y
Elwell Lake	82007900		18	229	12.7	2.1				Y	N
Empire Lake	19034200		30	3,536	117.9	1.5			100	Y	Y
Farquar Lake	19002300		63	353	5.6	3.0	1.4	290	100	Y	N
Fireman's Clayhole Lake	10022600		8			7.0			88	Y	
Fish Lake	2006500		334	1,619	4.8	4.4	0.9	1,000	100	Y	Y
Fish Lake	70006900	Scott	171	660	3.9	8.5	4.4	2,468	43		Y
Fish Lake	82006400	Scandia	72	683	9.5	3.0	1.5	360	100	Y	N
Fish Lake	82009300	Woodbury	5.2								
Fish Lake	82013700	Grant Township	21			10.4			67		
Fisher Lake	70008700		259.3						100	Y	N
Forest Lake	82015900		2,249	4,285	1.9	11.5	3.4	24,986	68		Y
Fourth Lake	13002200		33.299999-999999997	1,918	57.6	2.0			100	Y	N
French Lake	27012700		352	870	2.5	1.0				Y	Y

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Friedrich's Pond	82010800		14.5	360	24.8						
Gaystock Lake	10003100		105			5.0			100	Y	N
George Lake	2009100		488			9.8			80	Y	
George Watch Lake	2000500		528			2.0	1.5	2,587	100	Y	Y
German Lake	82005600		109								
Glen Lake	27009300		98			7.6			91	Y	N
Goetschel Lake	82031300		22	2,812	127.8	4.2	1.2	88	100	Y	N
Goggins Lake	82007700		11						100		N
Golden Lake	2004500		57	7,680	134.7	7.3	2.5	463	90	Y	Y
Goose Lake	10008900	Waconia	407	1,100	2.7	3.0	1.5	2,035	100	Y	
Goose Lake	82005900	Scandia	83			7.6	2.4	664	55		Y
Grace Lake	10021800		22			6.7			79		
Gun Club Lake	19007800		533.4						100	Y	Y
Haas Lake	70007800		32.200000-000000003								N
Hafften Lake	27019900		43						60		Y
Ham Lake	2005300		154.6	853	5.5	6.7	1.8	927.6	76.3906856-40362221		Y
Hannan	27005200		29	764	26.3	1.5			100	Y	Y
Hart Lake	2008100		8						100		N
Harvey Lake	27067000		5.9			0.7			100	Y	N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Hawkes	27005600		6.7								
Hay Lake	82006500		33								N
Hazeltine Lake	10001400		236			2.0			100	Y	N
Heifort's Pond	82048500		11.2								
Heims Lake	13005600		81								
Henry Lake	10017500		77			1.5			100	Y	N
Herber's Pond	82001501	part of Loon Lake				2.0			100	Y	N
Hidden Lake	27069300		9			8.5			56		N
Highland Lake	2007900		22			1.0			100	Y	N
Holland Lake	19006500		38			18.8			59		Y
Hornbean Lake	19004700		22								N
Horseshoe Lake	19005100		16								N
Horseshoe Lake	82007400	West Lakeland Twp.	53			3.4				Y	
Hydes Lake	10008800		215	430	2.0	5.5	3.0	2,150	88	Y	Y
Island Lake	2002200		67			6.7			87	Y	N
Jackson WMA	82030500		14.3								
Jane Lake	82010400		155	1,402	9.0	12.0	3.7	1,860	72		Y
Jellum's Lake	82005202		72	333	4.6	4.9	2.4	569	100	Y	N
Jonathon Lake	10021700		24.2								N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Jubert Lake	27016500		93			12.5			53		N
July Lake	82031800		14.3								N
Karth Lake	62007200		17								
Keewahtin Lake	82008000		75	303	4.0	10.3	1.7	420	67		N
Keller Lake	19002500	Burnsville	51	1,387	27.2	3.0	1.8	300	100	Y	N
Kingsley Lake	19003000		44	193	4.4	4.0			100	Y	N
Kismet Lake	82033300		39.799999-999999997								N
Klawitter Lake	82036800		4.5	168	37.3				100		
Kramer Lake	82011700		13								
La Lake	82009700		35			3.5			100	Y	N
Lac Lavon	19044600		55	306	5.6	9.8			47		N
Lake of the Isles	27004000		114			9.5			79		Y
Lamplighter Park Pond	27071000		7.9	129	16.3	1.5	0.8	24.84800-27548209-36	100	Y	Y
Langton Lake	62004900		30	257	8.6	1.5	1.2	120	100	Y	
Laura Lake	27012300		33.4	312	9.3	2.9			100	Y	N
Lee Lake	19002900		25	324	13.0	5.2			100	Y	N
Legion Pond	82046200		16	224	14.0						
LeMay Lake	27008500		34			4.0	1.6	173		Y	
Lendt Lake	13010300		57.3	456.2	8.0	2.5			100	Y	N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Levander Pond	19008800		2.5								
Libbs Lake	27008500		23			2.1			100	Y	N
Lilly Lake	19008400		7								N
Lily Lake	82002300		52			17.4			73		Y
Linwood Lake	2002600		572.1	7,122	12.4	12.8	3.4	6,293.1	83	Y	Y
Little Carnelian Lake	82001400		162	565	3.5	21.3	10.7	5,686			N
Little Comfort Lake	13005400		36			17.0			44		N
Little Johanna Lake	62005800		35			12.0			67		N
Little Long Lake	27017900		108			23.2			49		Y
Little Prior Lake	70016900		14.2			1.8			85.9154929-5774648	Y	N
Little Prior Lake	70016900		14.2			2.9			85.9154929-5774648	Y	N
Lochness Lake	2058400		5.3			4.9					
Lone Lake	27009400		22			8.2			18		Y
Long Lake	19002200	Appley Valley	36			1.5			100	Y	N
Long Lake	82002100	Stillwater	71			6.7			96	Y	N
Long Lake	82003000	May Township	88			3.7			100	Y	Y
Long Lake	82006800	Scandia	35	381	10.9	2.1	1.1	126	100	Y	N
Long Lake	82011800	Pine Springs	62	2,060	33.2	10.4	3.6	744	55		N
Long Lake	82013000	Mahtomedi	48			7.7			92	Y	N

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Loon Lake	82001502		64	407	6.4	4.9	2.4	206	100	Y	N
Lost Lake	27010300	Plymouth	22			1.8			100	Y	N
Lost Lake	82013400	Mahtomedi	32.299999-999999997			7.9			34		Y
Lotus Lake	10000600		246	1,033	4.2	8.8	4.3	3,500	74		Y
Louise Lake	82002500		48	616	12.8	3.7	1.8	283	100	Y	N
Lower Prior Lake	70002600		827	19,560	23.7	18.3	4.1	11,120	46		Y
Lucy Lake	10000700		87			6.4			99	Y	N
Lynch Lake	82004200		43								
MacDonald Pond	82006200		12			2.7			100	Y	N
Magda Lake	27006500		15								
Maple Marsh Lake	82003800		38	148	3.9	3.4	1.7	212	100	Y	N
Marcott Lake (Ohmans Lake)	19004200		34			10.1					N
Marcott Lake (Rosenberg Lake)	19004100		20			8.2			90	Y	N
Maria Lake	10005800		169			1.0			100	Y	Y
Marion Lake	19002600		560			6.4			81	Y	Y
Markgrafs Lake	82008900		46	413	9.0	2.4			100	Y	N
Markley Lake	70002100		27			3.7			100	Y	N
Masterman Lake	82012600		45								
McDonald Lake	82001000		54	1,051	19.5	3.7	1.8	324	100	Y	N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
McKnight Lake	10021600		29.7								N
McKusick Lake	82002000		46			4.7			100	Y	N
McMahon Lake	70005000		110			4.5			100	Y	Y
Meadow Lake	27005700		11	121	11.0	1.2			100	Y	N
Medicine Lake	27010400		886			14.9			45		Y
Medina Lake	27014600		28						100		N
Mergen's Pond	82048200		12	1,383	115.3	1.3			100	Y	N
Miller Lake	10002900		145	16,701	115.2	4.3	3.1	1,479	100	Y	N
Minnetoga Lake	27008800		14.4			8.2	3.9	183			
Minnewashta Lake	10000900		677			21.3			55		Y
Mitchell Lake	27007000		112			5.8			97	Y	Y
Moody Lake	13002300		35			14.6			63		N
Mud Lake	82002602		62	899	14.5	2.1	1.1	224	100	Y	N
Nielson Lake	82005500		50.4								N
Normandale Lake	21104500		103			3.7			100	Y	
North School Section Lake	82014900		105								N
North Twin Lake	82001800		69	187	2.7	1.8	0.9	207	100	Y	N
Northwood Lake	27062700		15	1,341	89.4	1.5	0.8	41	100	Y	N
O'Connor Lake	82000200		38								N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
O'Dowd Lake	70009500		258			6.7			91	Y	Y
Oak Lake	10009300		339			3.4			100	Y	N
Olson Lake	82010300		89	200	2.2	4.5	2.1	623	100	Y	Y
Oneka Lake	82014000		381			2.1	1.2	1,524	100	Y	N
Orchard Lake	19003100		250	2,012	8.0	10.0	3.0	2,500	75		Y
Pamela Lake	27067500		18			1.5			100	Y	N
Parkers Lake	27010700		97	950	9.8	11.3	3.7	1,164	70		Y
Pat Lake	82012500		13								
Peltier Lake	2000400		174	68,082	391.3	4.9	2.1	3,255	100	Y	Y
Penn Lake	27000400		31			2.1			100	Y	Y
Pepin Lake	40002800		326			3.4	1.1	1,150		Y	Y
Peter Lake	27014700		46			20.7			35		N
Pickerel Lake	2013000	Nowthen	246	616	2.5	1.5	1.5	369	100	Y	Y
Pickerel Lake	19007900	Lilydale	114			3.4			100	Y	Y
Piersons Lake	10005300		266.89999-999999998	1,178	4.4	12.2			44.5859872-61146499		Y
Pike Lake	27011102	Maple Grove	59	919	15.6	6.7	2.0	395	95	Y	Y
Pike Lake	62006900	New Brighton	35			4.9	2.1	252	100	Y	N
Pike Lake	70007600	Prior Lake	57	1,991	34.9	2.7			100	Y	N
Pine Tree Lake	82012200		174			7.9	3.0	1,740	91	Y	N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Pleasant Lake	70009800		300			1.5			100	Y	Y
Pomerleau Lake	27010000		27			7.9	2.7	243	73		N
Powers Lake	82009200		57	1,238	21.7	12.5			57		N
Priebe Lake	62003600		5.7			1.5			100	Y	N
Quarry Lake	70034300		70.099999-999999994			15.2	8.6	1,976.819-99999999-97	17.1184022-82453641	N	Y
Rebecca	19000300	Hastings	58			4.6			100	Y	Y
Red Rock Lake	27007600		96.9			4.9			94	Y	Y
Regional Park Lake	82008700		16	600	37.5	5.8			100	Y	N
Reid Park Pond	82046000		4.2	80	19.0	3.0			100	Y	N
Reitz Lake	10005200		79	3,711	47.0	11.0	4.0	1,027	58		Y
Reshnanau Lake	2000900		330								N
Rest Area Pond	82051400		12.6	17,781	1,411.2						
Rice Lake	10007800		354	8,534	24.1	1.5			100	Y	Y
Rice Lake	27011600		252			3.4	1.9	1,570		Y	Y
Rice Lake	70002500	Savage	115.8							Y	Limited
Riley Lake	10000200		297	4,796	16.1	15.0	6.6	6,429	34		Y
Rogers Lake	19008000		94			2.4	1.3	393		Y	Y
Rose Lake	27009200		17								
Ryan Lake	27005800		20	5,510	275.5	10.7	64.8	312	56		N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Sanborn Lake	40002700		295			1.2	0.9			Y	Y
Sand Lake	82006700		46			5.5	2.4	368	91	Y	N
Schmidt Lake	27010200		37	190	5.1	9.1	1.5	207	92	Y	N
Schmitt Lake	19005200		56								N
School Lake	13005700		48								
Schroeder Pond	82030100		47			3.0			100	Y	N
Schutz Lake	10001800		105	943	9.0	15.0	6.0	2,100	27		N
Scout Lake	19019800		8.6999999-999999993			2.9				Y	N
Second Lake	13002500		86								N
Seidl's Lake	19009500		14	415	29.6	5.0			100	Y	N
Shady Oak Lake	27008900		85			10.7			66		Y
Shaver Lake	27008600		11								N
Shields Lake	82016200		27			8.2			74		N
Silver Lake	62000100		72			5.5			99	Y	Y
Silver Lake	82001600		98	455	4.6	3.4	1.7	549	100	Y	N
Simley Lake	19003700		14			5.2					Y
Smetana Lake	27007300		48.2			3.7			90	Y	N
Snelling	27000100		102.6			2.4			100	Y	Y
South Oak Lake	27066100		90.6								Y

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
South Rice Lake	27064500		11.2	63	5.6	2.5	0.5	5.4	100	Y	N
South School Section Lake	82015100		125			8.0			41		
South Twin Lake	82001900		54	63	1.2	4.0	2.0	356	100	Y	N
Spring Lake	19000501	Nininger Township	1,839	23,780,000	12,930.94072865-6878	5.2			100	Y	Y
Spring Lake	70005400	Prior Lake	630	13,500	21.4	11.3	5.6	11,500	50		Y
Square Lake	82004600		193	782	4.1	20.7	9.0	5,694	65		Y
St. Croix Lake	82000100		8,600	4,918,790	572.0	23.8					Y
St. Joe Lake	10001100		14			15.9			46		Y
Staples Lake	82002800		24	127	5.3	4.3	2.1	165	100	Y	N
Success Lake	27063400		7.7								
Sunfish Lake	19005000		49			9.8					N
Sunfish Lake	82010700		50	526	10.5						N
Sunnybrook Lake	82013300		16	630	39.4	6.1	2.0	104			N
Sunset Lake	82015300		124			5.2			100	Y	N
Sunset Pond	19045100		60			3.7			100	Y	N
Susan Lake	10001300		93			5.2			81	Y	Y
Sutton Lake	70009400		72								N
Swede Lake	10009500		376			4.0			100	Y	Y
Sweeney Lake	27003501		66	2,400	36.4	8.0	3.6	790	52		N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Sylvan Lake	27017100		134			4.0			100	Y	N
Tamarack Lake	10001000		24			20.0			41		N
Teal Lake	27027500		8.9								N
Terrapin Lake	82003100		86			4.6			100	Y	N
Third Lake	13002400		61.9	196.8	3.2	2.5			100	Y	N
Thole Lake	70012000		105			3.7			100	Y	Y
Thompson Lake	19004800		8.1			2.4			88	Y	Y
Turtle Lake	82003600		44	699	15.9	2.4	1.2	172	100	Y	N
Twin Lake	19002800	Burnsville	11						100		
Twin Lake	27003502	Golden Valley	19			17.0			42		N
Twin Lake	27065600	St. Louis Park	12.4								N
Twin Lake	82015700	Forest Lake	20	654	32.7	2.1				Y	N
Twin Lake, lower	27004200	Robbinsdale	35.6	5,322	149.5	6.7	2.3	340	83	Y	Y
Twin Lake, middle	27004200	Crystal	56.9	4,053	71.2	13.4	4.9	918	57		Y
Twin Lake, upper	27004200	Brooklyn Park	120.3	3,657	30.4	2.4	0.9	397	100	Y	N
Upper Prior Lake	70007200		340	16,460	48.4	15.2	3.1	3,460	93	Y	Y
Valentine Lake	62007100		60	2,237	37.3	4.0	1.5	300	100	Y	
Valley Lake	19034800		8	117	14.6	3.2			100	Y	N
Victoria Lake	27005100		7.8			2.4			100	Y	N

Lake	DNR ID	Location	Surface Area (ac)	Watershed Area (ac)	Watershed to Surface Area Ratio	Max Depth (m)	Mean Depth (m)	Volume (ac-ft)	% Littoral	Shallow Lake	Public Access
Virginia Lake	10001500		110	772	7.0	10.4	3.3	1,210	88	Y	Y
Waconia Lake	10005900		3,000	7,880	2.6	11.3	4.0	38,632	53		Y
Weber Lake	82011900		7.5	1.4	0.2	1.5			100	Y	N
West Boot Lake	82004400		110	209	1.9	11.9	5.9	2,090	56		Y
West Lakeland Storage Site	82048800		27	1,139	42.2	5.8					N
West Lakeland Storage Site	NA					4.6					N
Westwood Lake	27071100		41			2.0			100	Y	N
White Rock Lake	82007200		65								
Wilmes Lake	82009000		41	2,247	54.8	5.5					Y
Windsor Lake	27008200		14								N
Wing Lake	27009100		11								
Winkler Lake	10006600		129	2,758	21.4						
Wolfe Park Lake	27066400		3.2			7.6			93.75	Y	
Wood Lake	19002400		9	157	17.4	4.5			100	Y	N
Woodpile Lake	82013200		19								
Zumbra-Sunny	10004100		277			17.7	4.3	3,907	33		Y

Appendix C

Sponsor	LAKE	DNR ID	Volunteer / Organization Staff
Apple Valley, City of	Cobblestone Lake	19045600	Jeff Sluiter
Apple Valley, City of	Farquar Lake	19002300	Jeff Christianson
Apple Valley, City of	Long Lake	19002200	Joan Kettelkamp
Apple Valley, City of	Scout Lake	19019800	Dan Stanek
Basset Creek WMO	Lost Lake	27010300	Barrie Froseth
Basset Creek WMO	Medicine Lake	27010400	Denny Strunc
Basset Creek WMO	Medicine Lake	27010400	Randy Mikolai
Basset Creek WMO	Northwood Lake	27062700	Keith Bremel
Basset Creek WMO	Sweeney Lake	27003501	Jane McDonald Black
Basset Creek WMO	Sweeney Lake	27003501	Amy Baudler
Basset Creek WMO	Twin Lake	27003502	Jennell Bilek
Basset Creek WMO	Westwood Lake	27071100	RJ Twiford
Black Dog WMO	Crystal Lake	19002700	Mike Yung
Black Dog WMO	Keller Lake	19002500	Randy Koenig
Black Dog WMO	Lac Lavon Lake	19044600	Karen Turner
Black Dog WMO	Orchard Lake	19003100	Lakeville staff
Burnsville, City of	Alimagnet Lake	19002100	David DeKraker
Burnsville, City of	Earley Lake	19003300	Nancy Norlen, Jim Norlen
Burnsville, City of	Sunset Pond	19045100	Paul Below
Burnsville, City of	Twin Lake	19002800	Bernie DeMaster
Burnsville, City of	Wood Lake	19002400	Lindsey Larscheid, Burnsville staff
Chanhassen, City of	Lotus Lake	10000600	Steve Donen
Chanhassen, City of	Lucy Lake	10000700	Tim McCotter, Sharon McCotter
Chanhassen, City of	Minnewashta Lake	10000900	Kevin Zahler
Chanhassen, City of	Riley Lake	10000200	David Florenzano
Chanhassen, City of	St. Joe Lake	10001100	Wendy Mizutani, Nathan Kirt
Chanhassen, City of	Susan Lake	10001300	Chanhassen staff
Comfort Lake - Forest Lake WD	Bone Lake	82005400	Tom Furey
Comfort Lake - Forest Lake WD	Comfort Lake	13005300	Wally Ostlie
Comfort Lake - Forest Lake WD	Forest Lake	82015900	Steve Schmaltz
Comfort Lake - Forest Lake WD	Forest Lake	82015900	Doug Joens

Sponsor	LAKE	DNR ID	Volunteer / Organization Staff
Comfort Lake - Forest Lake WD	Forest Lake	82015900	CLFLWD staff
Comfort Lake - Forest Lake WD	Keewahtin Lake	82008000	CLFLWD staff
Comfort Lake - Forest Lake WD	Little Comfort Lake	13005400	CLFLWD staff
Comfort Lake - Forest Lake WD	Moody Lake	13002300	Amy Vislisl
Comfort Lake - Forest Lake WD	School Lake	13005700	CLFLWD staff
Comfort Lake - Forest Lake WD	Lake Nielson	82005500	CLFLWD staff
Comfort Lake - Forest Lake WD	Shields Lake	82016200	CLFLWD staff
Eden Prairie, City of	Duck Lake	27006900	Eric Campbell, Deb Campbell
Eden Prairie, City of	Mitchell Lake	27007000	Michelle Rothwell
Eden Prairie, City of	Red Rock Lake	27007600	Dave Wallace
Elm Creek WMC	Teal Lake	27027500	Katie Turpin-Nagel
Hastings, City of	Rebecca Lake	19000300	Walt Popp, Kevin Smith, Dwight Smith, Mark Sanstead, Philip Vieth, Hastings Environmental Protectors
Lakeville, City of	East Lake	19034900	Lakeville staff
Lakeville, City of	Lee Lake	19002900	Lakeville staff
Lakeville, City of	Marion Lake	19002601	Gabrielle Gallagher
Lakeville, City of	Valley Lake	19034800	Lakeville staff
Lower Mississippi River WMO	Augusta Lake	19008100	Collin Rust
Lower Mississippi River WMO	Dickman Lake	19004600	Lisa Povolny
Lower Mississippi River WMO	Lilly Lake	19008400	Analiese Miller
Lower Mississippi River WMO	Schmitt Lake	19005200	Deb James, Steven James
Lower Mississippi River WMO	Seidl Lake	19009500	Max Wallin
Lower Mississippi River WMO	Simley Lake	19003700	Steve Gebauer, Dawn Gaetke
Lower Mississippi River WMO	Thompson Lake	19004800	Analiese Miller
Metropolitan Council	St. Croix Lake Site 1N	82000100	Jim Harper, Roberta Harper
Metropolitan Council	St. Croix Lake Site 2	82000100	Jim Harper, Roberta Harper
Metropolitan Council	St. Croix Lake Site 4	82000100	Jim Harper, Roberta Harper
Metropolitan Council	St. Croix Lake Site 6	82000100	Jim Harper, Roberta Harper

Sponsor	LAKE	DNR ID	Volunteer / Organization Staff
Metropolitan Council	St. Croix Lake 7	82000100	Alan Maloney, Carpenter Nature Center
Mendota Heights, City of	Lemay Lake	19008200	Scott Norling
Mendota Heights, City of	Rogers Lake	19008000	David Rossmiller
Nine Mile Creek WD	Bush Lake	27004700	Paul Erdmann, Elizabeth Erdmann
Nine Mile Creek WD	Minnetoga Lake	27008800	Holly Birkeland, Sig Birkeland
Nine Mile Creek WD	Penn Lake	27000400	Lisa McIntire
Nine Mile Creek WD	Smetana Lake	27007300	Jana Kramer
Pioneer-Sarah Creek WMC	Ardmore Lake	27015300	Joel Settles
Prior Lake Spring Lake WD	Buck Lake	70006500	Steve Beckey
Prior Lake Spring Lake WD	Cates Lake	70001800	Paula Thomsen
Prior Lake Spring Lake WD	Crystal Lake	70006100	Scott Thulien
Prior Lake Spring Lake WD	Haas Lake	70007800	Thomas Chaklos
Prior Lake Spring Lake WD	Swamp Lake	70011100	PLSLWD staff
Rice Creek WD	George Watch Lake	2000500	Eric Vehe, Todd Murawski, Wargo Nature Center
Rice Creek WD	Karth Lake	62007200	Andrew Elmquist, Renee Marino, Gary Gerding
Rice Creek WD	Reshanau Lake	2000900	Lindsay Smith
Rice Creek WD	Little Johanna Lake	62005800	Fred Fox, Dave Short
Rice Creek WD	Pine Tree Lake	82012200	Gene Berwald
Rice Creek WD	Sunset Lake	82015300	Diane Coderre, Bob Coderre
Rice Creek WD	Valentine Lake	62007100	Bob Kistler
Rice Creek WD	White Rock Lake	82007200	David Bluhm
Rosemount, City of	Birger Pond	19022400	Pamela Carlson
Saint Louis Park, City of	Cobblecrest Lake	27005300	Dan Zierath
Saint Louis Park, City of	Lamplighter Park Pond	27071000	Torey Hunkus
Saint Louis Park, City of	Wolfe Park Lake	27066400	Jason Selby
Saint Louis Park, City of	Hannan Lake	27005200	Joshua Claypool
Saint Louis Park, City of	Victoria Lake	27005100	Sylvie Hyman
Scott County	Cedar Lake	70009100	Ted Schnaare, John Tuschner
Scott County	McMahon Lake	70005000	Bob Grundman
Scott County	Thole Lake	70012001	Mark Vierling
Shakopee, City of	O'Dowd Lake	70009500	Maxine Hughes
Shingle Creek WMC	Cedar Island Lake	27011900	Steve Lane

Sponsor	LAKE	DNR ID	Volunteer / Organization Staff
Shingle Creek WMC	Bass Lake	27009800	Rick Budde
Shingle Creek WMC	Eagle Lake	27011101	Patrice Carlson
Sunfish Lake, City of	Hornbeam Lake	19004700	Scott Spaeth
Sunfish Lake, City of	Horseshoe Lake	19005100	John Oakman
Sunfish Lake, City of	Sunfish Lake	19005000	James Stowell
Valley Branch WD	DeMontreville Lake	82010100	Tom Bucher, Gary Fields
Valley Branch WD	Edith Lake	82000400	Joseph Reithmeyer, Joel Jensen
Valley Branch WD	Klawitter Pond	82036800	Pat Barrett, Bonnie Juran
Valley Branch WD	Long Lake	82011800	Frank Bastyr
Valley Branch WD	Olson Lake	82010300	Tom Bucher, Gary Fields
Valley Branch WD	Rest Area Pond	82051400	MnDOT staff
Woodbury, City of	Colby Lake	82009400	WCD staff
Woodbury, City of	Fish Lake	82009300	WCD staff
Woodbury, City of	La Lake	82009700	Tim Weber
Woodbury, City of	Markgrafs Lake	82008900	WCD staff
Woodbury, City of	Powers Lake	82009200	WCD staff
Woodbury, City of	Wilmes Lake	82009002	WCD staff
The following lakes are sponsored through a watershed district (WD) or watershed management organization (WMO) in partnership with the Washington Conservation District.			
Brown's Creek WD	Bass Lake	82012300	WCD staff
Brown's Creek WD	Bass Lake	82012400	WCD staff
Brown's Creek WD	Benz Lake	82012000	WCD staff
Brown's Creek WD	Brewer's Pond	82002200	Karen Richtman, Paul Richtman, WCD staff
Brown's Creek WD	Goggins Lake	82007700	WCD staff
Brown's Creek WD	Heifort's Pond	82048500	Steve Seeman, WCD staff
Brown's Creek WD	Jackson WMA	82030500	WCD staff
Brown's Creek WD	July Lake	82031800	WCD staff
Brown's Creek WD	Kismet Lake	82033400	WCD staff
Brown's Creek WD	Long Lake	82002100	WCD staff
Brown's Creek WD	Lynch Lake	82004200	WCD staff
Brown's Creek WD	Lynch Lake	82004200	WCD staff
Brown's Creek WD	Masterman Lake	82012600	WCD staff
Brown's Creek WD	North School Section Lake	82014900	WCD staff
Brown's Creek WD	Pat Lake	82012500	WCD staff
Brown's Creek WD	Plaisted Lake	82014800	WCD staff
Brown's Creek WD	South School Section Lake	82015100	WCD staff

Sponsor	LAKE	DNR ID	Volunteer / Organization Staff
Brown's Creek WD	Woodpile Lake	82013200	WCD staff
Carnelian-Marine-St. Croix WD	Big Carnelian Lake	82004900	WCD staff
Carnelian-Marine-St. Croix WD	Big Marine Lake	82005204	WCD staff
Carnelian-Marine-St. Croix WD	Clear Lake	82004500	WCD staff
Carnelian-Marine-St. Croix WD	East Boot Lake	82003400	WCD staff
Carnelian-Marine-St. Croix WD	Fish Lake	82006400	WCD staff
Carnelian-Marine-St. Croix WD	Goose Lake	82005900	WCD staff
Carnelian-Marine-St. Croix WD	Hay Lake	82006500	WCD staff
Carnelian-Marine-St. Croix WD	Jellums Lake	82005202	WCD staff
Carnelian-Marine-St. Croix WD	Little Carnelian Lake	82001400	WCD staff
Carnelian-Marine-St. Croix WD	Long Lake	82003000	WCD staff
Carnelian-Marine-St. Croix WD	Long Lake	82006800	WCD staff
Carnelian-Marine-St. Croix WD	Mays Lake	82003300	WCD staff
Carnelian-Marine-St. Croix WD	Sand Lake	82006700	WCD staff
Carnelian-Marine-St. Croix WD	South Twin Lake	82001900	WCD staff
Carnelian-Marine-St. Croix WD	Square Lake	82004600	WCD staff
Carnelian-Marine-St. Croix WD	Terrapin Lake	82003100	WCD staff
Carnelian-Marine-St. Croix WD	Twin Lake	82004800	WCD staff
Carnelian-Marine-St. Croix WD	West Boot Lake	82004400	WCD staff
Middle St. Croix WMO	Lily Lake	82002300	WCD staff
Middle St. Croix WMO	McKusick Lake	82002000	WCD staff
Rice Creek WD	Fish Lake	82013700	WCD staff
Rice Creek WD	Lost Lake	82013401	WCD staff
Rice Creek WD	Lost Lake	82013402	WCD staff
South Washington WD	Armstrong Lake	82011602	WCD staff
South Washington WD	Bailey Lake	82045600	WCD staff
South Washington WD	O'Connors Lake	82000200	Jeff Keene

Sponsor	LAKE	DNR ID	Volunteer / Organization Staff
South Washington WD	Regional Park Lake	82008700	WCD staff
Valley Branch WD	Acorn Lake	82010200	WCD staff
Valley Branch WD	Beutel Pond	82039900	WCD staff
Valley Branch WD	Cloverdale Lake	82000900	WCD staff
Valley Branch WD	DeMontreville Lake	82010100	WCD staff
Valley Branch WD	Downs Lake	82011000	WCD staff
Valley Branch WD	Eagle Point Lake	82010900	WCD staff
Valley Branch WD	Echo Lake	82013500	WCD staff
Valley Branch WD	Edith Lake	82000400	WCD staff
Valley Branch WD	Elmo Lake	82010600	WCD staff
Valley Branch WD	Friedrich's Pond	82010800	WCD staff
Valley Branch WD	Goetschel Lake	82031300	WCD staff
Valley Branch WD	Goose Lake	82011301	WCD staff
Valley Branch WD	Goose Lake	82011302	WCD staff
Valley Branch WD	Horseshoe Lake	82007400	WCD staff
Valley Branch WD	Klawitter Pond	82036800	WCD staff
Valley Branch WD	West Lakeland Storage Site	99001184	WCD staff
Valley Branch WD	Long Lake	82011800	WCD staff
Valley Branch WD	McDonald Lake	82001000	WCD staff
Valley Branch WD	Olson Lake	82010300	WCD staff
Valley Branch WD	Rose Lake	82011200	WCD staff
Valley Branch WD	Rose Lake	82011200	WCD staff
Valley Branch WD	Sunfish Lake	82010700	WCD staff
Valley Branch WD	Sunnybrook Lake	82013300	WCD staff