

Lake Name: Side
DOW Number: 69-0933-00

Survey Type: Targeted Survey
Survey ID Date: 07/10/2023

TARGETED SURVEY
Electrofishing
Gill Netting
Water Quality Measurement

Lake Identification

Alternate Lake Name: N/A
Primary Lake Class ID: 5

DNR Sounding Map Number: B0426
Alternate Lake Class ID: N/A

Lake Location

Primary County: St. Louis

Nearest Town: Chisholm

Legal Descriptions

Lake Center: Township - 60N Range - 21W Section - 20
PLS Section Lake Center: 6002120

All Legal Descriptions:

St. Louis County: Township - 60N Range - 21W Sections - 16, 17, 20, 21

Area Office

Area Name: Grand Rapids
Region Name: Northeast

ORG Code: F216
Region Number: 2

Lake Access

(Information based on Standard Survey dated 06/27/2016)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	A State owned public access is located within McCarthy Beach State Park.

Lake Characteristics

Lake Area (planimetered acres): 372.00
GIS Lake Area (acres): 368.22
DOW Lake Area (acres): 375.00
Littoral Area (acres): 153.00
Area in MN (acres): 368.22
Maximum Depth (feet): 32.0
Mean Depth (feet): N/A

GIS Shoreline Length (miles): 3.95
Maximum Fetch (miles): 1.00
Fetch Orientation (degrees): 45
USGS Quad Map Number: H17a
USGS Quad 24K GIS Index: 1434

Watershed Characteristics

Major Watershed

Name: Little Fork River
 Watershed Number: 76
 Watershed size (acres): 1,198,291

Minor Watershed

Name: Sturgeon R
 Watershed Number: 62
 Watershed size (acres): 26,568

Surveys and Investigations

Initial Survey: 07/19/1955.
 Re-Survey: 07/05/1983, 07/03/1973.
 Population Assessment: 07/13/2009, 07/15/2002, 07/05/1995, 07/25/1989, 08/09/1978.
 Standard Survey: 06/27/2016.
 Targeted Survey: 07/10/2023.

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/27/2016	Normal	-7.50	Above or below Benchmark
	07/13/2009	Normal	-8.80	Above or below Benchmark
BM - 2	07/13/2009	Normal	-4.80	Above or below Benchmark
GA - 1	07/13/2009	Normal	3.68	Direct Gauge Reading

Water Level History - Station Summary

Station ID	Minimum Level		Maximum Level		Range (feet)	Average Level (feet)	Reading Type (and number of readings)
	Feet	Date	Feet	Date			
BM - 1	-8.80	07/13/2009	-7.50	06/27/2016	1.30	-8.15	Above or below Benchmark (2)
BM - 2	-4.80	07/13/2009	-4.80	07/13/2009	0.00	-4.80	Above or below Benchmark (1)
GA - 1	3.68	07/13/2009	3.68	07/13/2009	0.00	3.68	Direct Gauge Reading (1)

Dissolved Oxygen and Temperature Profile of Lake Water

Station ID	Sampling Date	Bottom Depth (Feet)	Sample Depth (Feet)	Water Temperature (°F)	Dissolved Oxygen (ppm)
WQ - 1	07/10/2023	29.0	Surface	71.1	9.4
			3.0	71.1	9.4
			6.0	71.1	9.4
			9.0	71.1	9.3
			12.0	70.9	9.1
			13.0	70.2	9.1
			14.0	68.4	9.4
			15.0	57.7	10.1
			16.0	55.0	9.4
			17.0	52.5	8.4
			18.0	50.4	6.9
			19.0	47.1	4.4
			20.0	45.9	2.7
			21.0	45.1	1.5
			24.0	43.9	0.8
27.0	43.3	0.5			

Field Measurements of Water Quality

Station ID	Sampling Date	Sample Depth (Feet)	Secchi Depth (Feet)	Field pH	Alkalinity (ppm)	Water Color	Color Cause
WQ - 1	07/10/2023	Surface	10.0	N/A	N/A	Brown Grn	N/A

Net Catch Summary by Numbers for GN

Standard gill net sets

Number of Sets: 9
First Set Date: 07/10/2023
Last Lift Date: 07/13/2023
Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 5 ¹		
				25%	50%	75%
BLC	Black Crappie	3	0.33	0.40	1.50	3.33
BLG	Bluegill	2	0.22	N/A	N/A	N/A
NOP	Northern Pike	44	4.89	1.77	3.18	5.50
SLR	Silver Redhorse	5	0.56	N/A	N/A	N/A
TLC	Tullibee (Cisco)	52	5.78	1.40	5.60	13.05
WAE	Walleye	5	0.56	2.00	5.00	9.67
WTS	White Sucker	18	2.00	2.33	4.75	8.69
Total Fish/Set:			14.33	¹ Quartiles for Number Per Set		

Net Catch Summary by Weight for GN

Standard gill net sets

Abbr	Species	Total Weight (Pounds)	Pounds Per Set	Mean Weight ²	Quartiles for Lake Class 5 ¹		
					25%	50%	75%
BLC	Black Crappie	1.44	0.16	0.48	0.20	0.30	0.50
BLG	Bluegill	0.11	0.01	0.06	N/A	N/A	N/A
NOP	Northern Pike	112.49	12.50	2.56	1.85	2.61	3.70
SLR	Silver Redhorse	15.38	1.71	3.08	N/A	N/A	N/A
TLC	Tullibee (Cisco)	62.47	6.94	1.20	0.33	0.52	1.01
WAE	Walleye	20.07	2.23	4.01	0.82	1.27	2.01
WTS	White Sucker	40.58	4.51	2.25	1.50	1.86	2.23
Total Pounds Fish/Set:			28.06	¹ Quartiles for Mean Weight			

² Mean Weights are based on measured fish counts only.

Electrofishing Catch Summary for EF

Standard electrofishing

Number of Stations: 4
 Total run-time for all stations: 25:20:00
 Total on-time for all stations: 01:20:00
 First Sampling Date: 06/15/2023
 Last Sampling Date: 06/16/2023
 Daylight Sampling: No
 Target Species: N/A

Abbr	Species	Summary By Numbers			Summary By Weight (pounds)			
		Total Number	Number per Hour Run-Time	On-Time	Total Weight	Lbs per Hour Run-Time	On-Time	Mean Weight
LMB	Largemouth Bass	48	1.89	36.00	57.94	2.29	43.45	1.21

Length Frequency Distribution for GN (for fish < 36.00 inches)

Standard gill net sets

(Field work conducted between 07/10/2023 and 07/13/2023)

	<u>BLC</u>	<u>BLG</u>	<u>NOP</u>	<u>SLR</u>	<u>TLC</u>	<u>WAE</u>	<u>WTS</u>
< 3.00	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-
3.50 - 3.99	-	1	-	-	-	-	-
4.00 - 4.49	-	-	-	-	-	-	-
4.50 - 4.99	1	1	-	-	-	-	-
5.00 - 5.49	-	-	-	-	-	-	-
5.50 - 5.99	-	-	-	-	-	-	-
6.00 - 6.49	-	-	-	-	-	-	-
6.50 - 6.99	-	-	-	-	-	-	-
7.00 - 7.49	-	-	-	-	-	-	-
7.50 - 7.99	-	-	-	-	-	-	-
8.00 - 8.49	-	-	-	-	1	-	-
8.50 - 8.99	-	-	-	-	1	-	-
9.00 - 9.49	-	-	-	-	-	-	-
9.50 - 9.99	-	-	-	-	-	-	-
10.00 - 10.49	-	-	-	-	-	-	-
10.50 - 10.99	1	-	-	-	2	-	-
11.00 - 11.49	1	-	-	-	1	-	-
11.50 - 11.99	-	-	-	-	6	-	-
12.00 - 12.99	-	-	-	-	6	-	-
13.00 - 13.99	-	-	-	-	6	-	-
14.00 - 14.99	-	-	-	-	4	-	-
15.00 - 15.99	-	-	-	-	12	-	3
16.00 - 16.99	-	-	-	-	12	-	5
17.00 - 17.99	-	-	3	-	1	-	5
18.00 - 18.99	-	-	1	3	-	-	2
19.00 - 19.99	-	-	11	1	-	1	3
20.00 - 20.99	-	-	7	1	-	1	-
21.00 - 21.99	-	-	6	-	-	-	-
22.00 - 22.99	-	-	4	-	-	-	-
23.00 - 23.99	-	-	2	-	-	2	-
24.00 - 24.99	-	-	1	-	-	-	-
25.00 - 25.99	-	-	1	-	-	-	-
26.00 - 26.99	-	-	1	-	-	-	-
27.00 - 27.99	-	-	3	-	-	1	-
28.00 - 28.99	-	-	1	-	-	-	-
29.00 - 29.99	-	-	-	-	-	-	-
30.00 - 30.99	-	-	-	-	-	-	-
31.00 - 31.99	-	-	-	-	-	-	-
32.00 - 32.99	-	-	-	-	-	-	-
33.00 - 33.99	-	-	1	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-
35.00 - 35.99	-	-	1	-	-	-	-
= > 36.00	-	-	1	-	-	-	-

	<u>BLC</u>	<u>BLG</u>	<u>NOP</u>	<u>SLR</u>	<u>TLC</u>	<u>WAE</u>	<u>WTS</u>
Total	3	2	44	5	52	5	18
Min. Length	4.72	3.62	17.80	18.58	8.31	19.53	15.35
Max. Length	11.26	4.96	36.61	20.00	17.40	27.40	19.45
Mean Length	8.87	4.29	22.43	19.12	14.14	22.86	17.33
# Measured	3	2	44	5	52	5	18
No Lengths for	0	0	0	0	0	0	0

Note: Unless all fish were measured in the catch, totals shown for some length-frequency distributions may differ from the total number of fish in the catch, due to rounding of fractions used in the estimation of length frequency from a subsample of measured fish.

Length Frequency Distribution for GN (for fish \geq 36.00 inches)

Standard gill net sets

(Field work conducted between 07/10/2023 and 07/13/2023)

	<u>BLC</u>	<u>BLG</u>	<u>NOP</u>	<u>SLR</u>	<u>TLC</u>	<u>WAE</u>	<u>WTS</u>
< 36.00	3	2	43	5	52	5	18
36.00 - 36.99	-	-	1	-	-	-	-
37.00 - 37.99	-	-	-	-	-	-	-
38.00 - 38.99	-	-	-	-	-	-	-
39.00 - 39.99	-	-	-	-	-	-	-
40.00 - 40.99	-	-	-	-	-	-	-
41.00 - 41.99	-	-	-	-	-	-	-
42.00 - 42.99	-	-	-	-	-	-	-
43.00 - 43.99	-	-	-	-	-	-	-
44.00 - 44.99	-	-	-	-	-	-	-
45.00 - 45.99	-	-	-	-	-	-	-
46.00 - 46.99	-	-	-	-	-	-	-
47.00 - 47.99	-	-	-	-	-	-	-
48.00 - 48.99	-	-	-	-	-	-	-
49.00 - 49.99	-	-	-	-	-	-	-
50.00 - 50.99	-	-	-	-	-	-	-
51.00 - 51.99	-	-	-	-	-	-	-
52.00 - 52.99	-	-	-	-	-	-	-
53.00 - 53.99	-	-	-	-	-	-	-
54.00 - 54.99	-	-	-	-	-	-	-
55.00 - 55.99	-	-	-	-	-	-	-
56.00 - 56.99	-	-	-	-	-	-	-
57.00 - 57.99	-	-	-	-	-	-	-
58.00 - 58.99	-	-	-	-	-	-	-
59.00 - 59.99	-	-	-	-	-	-	-
60.00 - 60.99	-	-	-	-	-	-	-
61.00 - 61.99	-	-	-	-	-	-	-
62.00 - 62.99	-	-	-	-	-	-	-
63.00 - 63.99	-	-	-	-	-	-	-
64.00 - 64.99	-	-	-	-	-	-	-
65.00 - 65.99	-	-	-	-	-	-	-
66.00 - 66.99	-	-	-	-	-	-	-
67.00 - 67.99	-	-	-	-	-	-	-
68.00 - 68.99	-	-	-	-	-	-	-
69.00 - 69.99	-	-	-	-	-	-	-
70.00 - 70.99	-	-	-	-	-	-	-
71.00 - 71.99	-	-	-	-	-	-	-
72.00 - 72.99	-	-	-	-	-	-	-
73.00 - 73.99	-	-	-	-	-	-	-
74.00 - 74.99	-	-	-	-	-	-	-
75.00 - 75.99	-	-	-	-	-	-	-
76.00 - 76.99	-	-	-	-	-	-	-
77.00 - 77.99	-	-	-	-	-	-	-
= > 78.00	-	-	-	-	-	-	-

	<u>BLC</u>	<u>BLG</u>	<u>NOP</u>	<u>SLR</u>	<u>TLC</u>	<u>WAE</u>	<u>WTS</u>
Total	3	2	44	5	52	5	18
Min. Length	4.72	3.62	17.80	18.58	8.31	19.53	15.35
Max. Length	11.26	4.96	36.61	20.00	17.40	27.40	19.45
Mean Length	8.87	4.29	22.43	19.12	14.14	22.86	17.33
# Measured	3	2	44	5	52	5	18
No Lengths for	0	0	0	0	0	0	0

Note: Unless all fish were measured in the catch, totals shown for some length-frequency distributions may differ from the total number of fish in the catch, due to rounding of fractions used in the estimation of length frequency from a subsample of measured fish.

Length Frequency Distribution for EF

Standard electrofishing

(Field work conducted between 06/15/2023 and 06/16/2023)

	<u>LMB</u>
< 3.00	-
3.00 - 3.49	-
3.50 - 3.99	-
4.00 - 4.49	-
4.50 - 4.99	-
5.00 - 5.49	-
5.50 - 5.99	1
6.00 - 6.49	1
6.50 - 6.99	2
7.00 - 7.49	3
7.50 - 7.99	-
8.00 - 8.49	1
8.50 - 8.99	2
9.00 - 9.49	5
9.50 - 9.99	6
10.00 - 10.49	1
10.50 - 10.99	-
11.00 - 11.49	-
11.50 - 11.99	3
12.00 - 12.99	1
13.00 - 13.99	6
14.00 - 14.99	6
15.00 - 15.99	4
16.00 - 16.99	4
17.00 - 17.99	2
18.00 - 18.99	-
19.00 - 19.99	-
20.00 - 20.99	-
21.00 - 21.99	-
22.00 - 22.99	-
23.00 - 23.99	-
24.00 - 24.99	-
25.00 - 25.99	-
26.00 - 26.99	-
27.00 - 27.99	-
28.00 - 28.99	-
29.00 - 29.99	-
30.00 - 30.99	-
31.00 - 31.99	-
32.00 - 32.99	-
33.00 - 33.99	-
34.00 - 34.99	-
35.00 - 35.99	-
= > 36.00	-

	<u>LMB</u>
Total	48
Min. Length	5.51
Max. Length	17.40
Mean Length	11.80
# Measured	48
No Lengths for	0

Note: Unless all fish were measured in the catch, totals shown for some length-frequency distributions may differ from the total number of fish in the catch, due to rounding of fractions used in the estimation of length frequency from a subsample of measured fish.

Survey Crew Notes

Bass electrofishing crew: Matt Ward and intern Dylan.

Lake survey: Kris Koski, Dan Schermerhorn, Dave Weitzel, Greg Berg, Matt Ward.

Field Notes - General Field

Lake survey: Cooler than normal weather to start the week; clear skies with moderate northwest winds. High temperatures near 70 and overnight lows in the 40s. Warmer temperatures occurred later in the week with calm winds.

The campground was nearly full but only a couple boats fishing each day.

Several Northern Pike had Bluegill in their stomachs and one had a small Yellow Perch.

Status Of The Fishery

Side Lake is a moderately-sized (372 acre) lake located on the Sturgeon Chain of Lakes, near Side Lake, Minnesota. Side Lake has relatively clear water, moderate fertility, and low alkalinity. These characteristics result in good water quality but limit fish production. The lake includes shoreline within McCarthy Beach State Park. Although the shoreline is in a natural state within the State Park, most of the remaining shoreline is heavily developed. There is a public access located in the State Park.

Side Lake has a long management history that includes multiple surveys and stockings. The fisheries lake management plan was last revised in 2017. The lake is well suited for Northern Pike and Bluegill, and these are considered the primary management species. Walleye are a secondary management species. The goals of the LMP are to maintain a Walleye gill net catch of 2.0/per net and maintain a Northern Pike gill net catch rate below 5.5 per net. A survey using gill nets only was conducted in early July of 2023 to assess the status of the 2017 and 2019 Walleye fingerling stocking. The survey will also provide catch information on other management species. This survey consisted of 9 gill nets set at standard locations around the lake.

Side Lake has typically produced a small Walleye population resulting from limited natural reproduction and stocking. The 2023 catch rate remained low despite recent fingerling stocking attempts and was below the goal. Given the limitations of water chemistry and fish community structure, it does not appear that stocking efforts can result in a sustainable increase in Walleye numbers. Side Lake typically produces quality-sized Walleye. In 2023, sampled Walleye ranged from 19.5 to 27.4 inches and the lack of smaller fish suggests poor juvenile survival in recent years. Lakes with similar habitats do not typically produce large numbers of Yellow Perch and perch catches from Side Lake have been low. No perch were captured in 2023. Perch are an important prey fish and are often associated with quality pike and Walleye fisheries. A lack of perch further suggests that Walleye are not well suited for Side Lake.

Side Lake has a long history of supporting Tullibee (cisco) and Tullibee were the most common fish captured in the gill nets in 2023. The 2023 catch was typical for lakes with similar habitats and average for Side Lake. Captured Tullibee ranged from 8.3 to 17.4 inches and averaged 14.1 inches. Fall sport netting of Tullibee is allowed on Side Lake. Aside from providing an opportunity for sport netters, Tullibee are beneficial to gamefish populations by providing an important prey species and are often associated with production of large Northern Pike.

Northern Pike have been abundant in Side Lake and but were captured in moderate numbers in 2023. The catch was typical compared to lakes with similar habitats, but below average for Side Lake. Average size and growth are typically poor when Northern Pike occur in high numbers, so lower numbers are desirable. Size quality was good as pike ranged from 17.8 to 36.6 inches and averaged 22.4 inches. Good pike fishing opportunities appear to exist.

Largemouth Bass appear to be an important component of the fish community and were sampled with night boat electrofishing in moderate numbers. This was the first time Side Lake had been sampled by electrofishing. Size structure was moderate as sampled bass ranged from 5.5 to 17.4 inches and averaged 11.8 inches. Good bass angling opportunities appear to exist given the number and size distribution.

Approval Dates And Notices

Date Approved By Grand Rapids Area Fisheries Supervisor: _____

Date Approved By Northeast Region Fisheries Manager: _____

This DRAFT VERSION of the Lake Survey Report contains preliminary data (as of 09/07/2023), and is therefore subject to change at any time.



Minnesota Department of Natural Resources



By accepting the data in this report, the user agrees the data will be used for personal benefit and not for profit. Any other uses or publication of the data needs the consent of the Department. The Minnesota Department of Natural Resources assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on the data.

(This page is intentionally blank)

(This page is intentionally blank)

REPORT OVERVIEW - FOR OFFICE USE ONLY

(This page is not part of the Lake Survey Report and should be discarded)

Lake Name: Side

Survey Type: Targeted Survey

DOW Number: 69-0933-00

Survey ID Date: 07/10/2023

Electrofishing, Gill Netting, Water Quality Measurement

Survey Status: Field Work Complete

The following 23 (of 34) report components are not included in this Lake Survey Report:

1. Current Water Level
2. Benchmark And Gauge Descriptions / Locations
3. Water Level History¹
4. Lake Inlets
5. Additional Inlet Information
6. Lake Outlets
7. Additional Outlet Information
8. Water Control Structure (Dam)
9. Surrounding Watershed Characteristics, Shoreline Characteristics, and Riparian Landscape Observations²
10. Resorts And Campgrounds
11. Fish Spawning Conditions
12. Erosion And Pollution
13. Fish Diseases And Parasites
14. Aquatic Vegetation And Shoalwater Substrates
15. Water Quality (Winter Observations) (added to revision 01/21/2010)
16. Laboratory Analysis Of Water Chemistry
17. Zooplankton Sampling (added to revision 20221130)
18. Catch Summary (Pre-1993 Format) (added to revision 20201001)
19. Length At Capture With Last Incremental Length*
20. Back-Calculated Lengths
21. Age Class Frequency Distributions
22. Other Species (added to revision 03/24/2009)
23. Survey Attachments (added to revision 20150622)

¹ Water Level History report: This data has not yet been migrated into the Fisheries LSM database. On 01/08/2009, two additional Water Level History report components (Readings and Station Summary) were added.

² Effective 03/25/2014, the Surrounding Watershed Characteristics, Shoreline Characteristics, and Riparian Landscape Observations report component was modified to be included in the Lake Survey report if it did not include any Watershed and Shoreline characteristics and only consisted of Riparian Landscape Observations.

* Length At Capture With Last Incremental Length report: The following criteria must be met for a report to be generated:

1. The fish species must have an assigned body scale constant.
2. Fish must have an "official" age assigned.
3. Fish must have a digitized measurement marked for back calculation use.

Note: The data source for Length and Age Class Frequency Distribution tables is updated twice daily - once at noon and once overnight. Any changes to the data made before noon on 09/07/2023 may not be reflected in the Distribution tables until after 12:30 pm on 09/07/2023.

FOR OFFICE USE ONLY: As of revision 20150622, this page is automatically suppressed on signed versions of this report (area supervisor, region manager, research biologist, research supervisor, program staff, or program manager signed).