

Lake Name: Buffalo  
DOW Number: 51-0018-00

Survey Type: Targeted Survey  
Survey ID Date: 05/15/2023

**TARGETED SURVEY**  
**Electrofishing**

**Lake Identification**

Alternate Lake Name: N/A  
Primary Lake Class ID: 43

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

**Lake Location**

Primary County: Murray

Nearest Town: Dovray

**Legal Descriptions**

Lake Center: Township - 107N Range - 39W Section - 18  
PLS Section Lake Center: 10703918

**All Legal Descriptions:**

Murray County: Township - 107N Range - 39W Sections - 7, 18  
Township - 107N Range - 40W Section - 13

**Area Office**

Area Name: Windom  
Region Name: Southern

ORG Code: F418  
Region Number: 4

**Lake Access**

(Information based on Initial Survey dated 06/28/1993)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	T107N; 40W; S13. Access was purchased by Trails and Waterways in 1992. Located on Southwest side of the lake.

**Lake Characteristics**

Lake Area (planimetered acres):	124.00	GIS Shoreline Length (miles):	1.63
GIS Lake Area (acres):	126.90	Maximum Fetch (miles):	0.58
DOW Lake Area (acres):	124.00	Fetch Orientation (degrees):	90
Littoral Area (acres):	126.90	USGS Quad Map Number:	V07d
Area in MN (acres):	126.90	USGS Quad 24K GIS Index:	4314
Maximum Depth (feet):	8.5		
Mean Depth (feet):	N/A		

**Watershed Characteristics**

**Major Watershed**

Name: Des Moines-Headwaters  
 Watershed Number: 51  
 Watershed size (acres): 798,595

**Minor Watershed**

Name: unknown DNR Minor Wshd  
 Watershed Number: 80  
 Watershed size (acres): 9,204

**Surveys and Investigations**

**Initial Survey:** 06/28/1993.  
**Re-Survey:** 06/30/2003.  
**Population Assessment:** 06/29/2009, 06/22/1998.  
**Winter Kill Assessment:** 04/20/2010.  
**Dissolved Oxygen Check:** 02/16/2016, 02/18/2015, 12/31/2013, 01/02/2013, 01/11/2012, 12/28/2010, 01/04/2010.  
**Standard Survey:** 06/14/2021, 06/29/2015.  
**Targeted Survey:** 05/15/2023, 06/17/2021, 02/05/2020, 01/18/2018, 06/29/2015.

**Water Level History - Readings**

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/29/2015	N/A	N/A	Not Found
	07/01/2009	High	N/A	Above or below Benchmark

**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	N/A	N/A	N/A	N/A	N/A	N/A	Above or below Benchmark (0)
BM - 1	N/A	N/A	N/A	N/A	N/A	N/A	Not Found - 06/29/2015 (0)

**Natural Reproduction Catch Summary for SEF**

**Special sampling, electrofishing**

**Number of Stations:** 2  
**Total run-time for all stations:** 00:30:00  
**Total on-time for all stations:** 00:30:00  
**First Sampling Date:** 05/15/2023  
**Last Sampling Date:** 05/15/2023  
**Daylight Sampling:** No  
**Target Species:** N/A

Abbr	Species	Age	Total Number	Number Measured	Mean Length (inches)	Length Range (inches)		Catch Rates (number per hour)	
						Min	Max	Run-Time	On-Time
BLB	Black Bullhead	All	425	30	6.63	4.57	9.06	850.00	850.00
FHM	Fathead Minnow	All	501	1	2.17	2.17	2.17	1002.00	1002.00
YEP	Yellow Perch	All	22	14	5.54	3.78	8.07	44.00	44.00

**Length Frequency Distribution for SEF**

**Special sampling, electrofishing**

(Field work conducted on 05/15/2023)

	<u>BLB</u>	<u>FHM</u>	<u>YEP</u>
< 3.00	-	1	-
3.00 - 3.49	-	-	-
3.50 - 3.99	-	-	1
4.00 - 4.49	-	-	8
4.50 - 4.99	13	-	-
5.00 - 5.49	27	-	-
5.50 - 5.99	40	-	3
6.00 - 6.49	106	-	5
6.50 - 6.99	80	-	2
7.00 - 7.49	53	-	-
7.50 - 7.99	27	-	1
8.00 - 8.49	27	-	2
8.50 - 8.99	13	-	-
9.00 - 9.49	13	-	-
9.50 - 9.99	-	-	-
10.00 - 10.49	-	-	-
10.50 - 10.99	-	-	-
11.00 - 11.49	-	-	-
11.50 - 11.99	-	-	-
12.00 - 12.99	-	-	-
13.00 - 13.99	-	-	-
14.00 - 14.99	-	-	-
15.00 - 15.99	-	-	-
16.00 - 16.99	-	-	-
17.00 - 17.99	-	-	-
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>BLB</u>	<u>FHM</u>	<u>YEP</u>
Total	399	1	22
Min. Length	4.57	2.17	3.78
Max. Length	9.06	2.17	8.07
Mean Length	6.63	2.17	5.54
# Measured	30	1	14
No Lengths for	395	500	8

**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.

**Approval Dates And Notices**

Date Approved By Windom Area Fisheries Supervisor: \_\_\_\_\_

Date Approved By Southern Region Fisheries Manager: \_\_\_\_\_

**This DRAFT VERSION of the Lake Survey Report contains preliminary data (as of 06/01/2023), and is therefore subject to change at any time.**



Minnesota Department of Natural Resources



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Lake Survey Report revision: 20230207-RJE. Data Date: 06/01/2023 at 1:36 pm .

## REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: Buffalo  
DOW Number: 51-0018-00

Survey Type: Targeted Survey  
Survey ID Date: 05/15/2023

### Electrofishing

Survey Status: Field Work Complete

The following 26 (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 History<sup>1</sup>
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 Observations<sup>2</sup>
10. Resorts And Campgrounds
11. Fish Spawning Conditions
12. Erosion And Pollution
13. Fish Diseases And Parasites
14. Aquatic Vegetation And Shoalwater Substrates
15. Dissolved Oxygen And Temperature Profile Of Lake Water
16. Field Measurements Of Water Quality
17. Water Quality (Winter Observations) (added to revision 01/21/2010)
18. Laboratory Analysis Of Water Chemistry
19. Zooplankton Sampling (added to revision 20221130)
20. Catch Summary (Pre-1993 Format) (added to revision 20201001)
21. Length At Capture With Last Incremental Length\*
22. Back-Calculated Lengths
23. Age Class Frequency Distributions
24. Other Species (added to revision 03/24/2009)
25. Status Of Fishery And Field Notes
26. Survey Attachments (added to revision 20150622)

<sup>1</sup> 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.

<sup>2</sup> 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 after noon on 06/01/2023 may not be reflected in the Distribution tables until 06/02/2023.**

**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).

Fisheries Lake ID = 3427, Survey ID = 20822313542292000

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