

## **Fisheries Management**

## LAKE SURVEY REPORT

#### **DRAFT VERSION**

PRELIMINARY DATA (AS OF 06/01/2023)

Lake Name: Summit Survey Type: Targeted Survey

DOW Number: 51-0068-00 Survey ID Date: 05/17/2023

TARGETED SURVEY
Electrofishing

Lake Identification

Alternate Lake Name: N/A DNR Sounding Map Number: C0475
Primary Lake Class ID: 40 Alternate Lake Class ID: N/A

**Lake Location** 

Primary County: Murray Nearest Town: Hadley

**Legal Descriptions** 

Lake Center: Township - 106N Range - 42W Section - 11

PLS Section Lake Center: 10604211

**All Legal Descriptions:** 

Murray County: Township - 106N Range - 42W Section - 11

**Area Office** 

Area Name: Windom ORG Code: F418
Region Name: Southern Region Number: 4

**Lake Access** 

(Information based on Re-Survey dated 06/02/2008)

Station ID Ownership Public Use Type Location / Comments

(Data excludes records where public use is not designated or is designated "No Public Use")

**Lake Characteristics** 

Lake Area (planimetered acres): 77.00 GIS Shoreline Length (miles): 1.49

GIS Lake Area (acres): 78.30 Maximum Fetch (miles): 0.50

DOW Lake Area (acres): 80.00 Fetch Orientation (degrees): 292

Littoral Area (acres): 76.86 USGS Quad Map Number: W06a

Area in MN (acres): 78.30 USGS Quad 24K GIS Index: 4412

Maximum Depth (feet): 7.0 Mean Depth (feet): N/A

**Watershed Characteristics** 

Major Watershed Minor Watershed

Name: Des Moines-Headwaters Name: unknown DNR Minor Wshd

Watershed Number: 51 Watershed Number: 70

Watershed size (acres): 798,595 Watershed size (acres): 7,061



## LAKE SURVEY REPORT TARGETED SURVEY DATED 05/17/2023 FOR DOW NUMBER 51-0068-00

#### **Surveys and Investigations**

Re-Survey: 06/02/2008, 06/10/1996.

Population Assessment: 06/04/2012, 05/24/2004, 05/30/2000, 06/09/1992, 08/11/1987.

Special Assessment: 04/23/2001. Standard Survey: 06/06/2016. Targeted Survey: 02/06/2020.

#### Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/06/2016 06/07/2012	Normal N/A	-0.50 -0.60	Above or below Benchmark Above or below Benchmark

### **Water Level History - Station Summary**

	Minimum Level		Maximum Level		Range Average		Reading Type	
Station ID	Feet	Date	Feet	Date	(feet)	Level (feet)	(and number of readings)	
BM - 1	-0.60	06/07/2012	-0.50	06/06/2016	0.10	-0.55	Above or below Benchmark (2)	

### Electrofishing Catch Summary for EF

#### Standard electrofishing

Number of Stations: 1

**Total run-time for all stations:** 00:30:00 **Total on-time for all stations:** 00:30:00

First Sampling Date: 05/17/2023 Last Sampling Date: 05/17/2023 Daylight Sampling: Yes Target Species: N/A

		Sumi	Summary By Numbers		Su	mmary By We	eight (pounds)	)
		Total	Number p	per Hour	Total	Lbs pe	r Hour	Mean
Abbr	Species	Number	Run-Time	On-Time	Weight	Run-Time	On-Time	Weight
BLB	Black Bullhead	16	32.00	32.00	12.13	24.26	24.26	0.76
NOP	Northern Pike	14	28.00	28.00	26.00	52.00	52.00	1.86
YEP	Yellow Perch	27	54.00	54.00	1.94	3.87	3.87	0.07

# LAKE SURVEY REPORT TARGETED SURVEY DATED 05/17/2023 FOR DOW NUMBER 51-0068-00

## Length Frequency Distribution for EF

### Standard electrofishing

(Field work conducted on 05/17/2023)

	BLB	<u>NOP</u>	<u>YEP</u>
< 3.00	-	-	-
3.00 - 3.49	-	-	-
3.50 - 3.99	-	-	2
4.00 - 4.49	-	-	1
4.50 - 4.99	-	-	-
5.00 - 5.49	-	-	9
5.50 - 5.99	-	-	13
6.00 - 6.49	-	-	2
6.50 - 6.99	-	-	-
7.00 - 7.49	-	-	-
7.50 - 7.99	-	-	-
8.00 - 8.49	-	-	-
8.50 - 8.99	-	-	-
9.00 - 9.49	-	-	-
9.50 - 9.99	-	-	-
10.00 - 10.49	3	-	-
10.50 - 10.99	5	-	-
11.00 - 11.49	6	-	-
11.50 - 11.99	2	-	-
12.00 - 12.99	-	-	-
13.00 - 13.99	-	-	_
14.00 - 14.99	_	_	_
15.00 - 15.99	-	1	_
16.00 - 16.99	_	_	_
17.00 - 17.99	_	4	_
18.00 - 18.99	_	3	_
19.00 - 19.99	_	1	_
20.00 - 20.99	_	-	_
21.00 - 21.99	_	_	_
22.00 - 22.99	_	_	_
23.00 - 23.99	_	1	_
24.00 - 24.99		1	
25.00 - 25.99	_		_
26.00 - 26.99			
27.00 <b>-</b> 27.99	-	_	_
	-	- 1	-
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	-	-	
	BLB	NOP	<u>YEP</u>

	BLB	NOP	<u>YEP</u>
Total	16	12	27
Min. Length	10.00	15.20	3.58
Max. Length	11.89	28.19	6.38
Mean Length	11.04	19.97	5.43
# Measured	16	10	27
No Lengths for	0	4	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.



## LAKE SURVEY REPORT TARGETED SURVEY DATED 05/17/2023 FOR DOW NUMBER 51-0068-00

**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.



FISHERIES

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.

#### REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: Summit Survey Type: Targeted Survey

DOW Number: 51-0068-00 Survey ID Date: 05/17/2023

#### **Electrofishing**

Survey Status: Proposed

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 History1
- 4. Lake Inlets
- 5. Additional Inlet Information
- 6. Lake Outlets
- 7. Additional Outlet Information
- 8. Water Control Structure (Dam)
- 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 Measusrements 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 = 3934, Survey ID = 20812313740642000