# DEPARTMENT OF NATURAL RESOURCES

# Fisheries Management

# LAKE SURVEY REPORT

DRAFT VERSION

PRELIMINARY DATA (AS OF 06/01/2023)

#### Lake Name: Fox

DOW Number: 51-0043-00

# Survey Type: Targeted Survey

Survey ID Date: 05/15/2023

#### **TARGETED SURVEY** Electrofishing Lake Identification Alternate Lake Name: N/A DNR Sounding Map Number: N/A Alternate Lake Class ID: N/A Primary Lake Class ID: 43 Lake Location Primary County: Murray Nearest Town: Currie Legal Descriptions Lake Center: Township - 108N Range - 40W Section - 28 PLS Section Lake Center: 10804028 All Legal Descriptions: Murray County: Township - 108N Range - 40W Sections - 21, 22, 27, 28 Area Office Area Name: Windom ORG Code: F418 Region Name: Southern Region Number: 4 Lake Access (Information based on Population Assessment dated 07/08/1996) Station ID Ownership Public Use Type Location / Comments AC - 1 Open to Public use DNR Concrete STATE OWNED ACCESS ON SOUTHWEST SIDE OF LAKE. Lake Characteristics Lake Area (planimetered acres): 174.00 GIS Shoreline Length (miles): 2.74 GIS Lake Area (acres): 172.12 Maximum Fetch (miles): 1.00 DOW Lake Area (acres): 174.00 Fetch Orientation (degrees): 67 Littoral Area (acres): 183.30 USGS Quad Map Number: V07b USGS Quad 24K GIS Index: 4213 Area in MN (acres): 172.12 Maximum Depth (feet): 8.5 Mean Depth (feet): N/A Watershed Characteristics **Major Watershed Minor Watershed** Name: L Shetek Name: Des Moines-Headwaters Watershed Number: 51 Watershed Number: 78 798,595 21,416 Watershed size (acres): Watershed size (acres):

Lake Survey Report revision: 20230207-RJE. Data Date: 06/01/2023 at 1:38 pm.

#### LAKE SURVEY REPORT TARGETED SURVEY DATED 05/15/2023 FOR DOW NUMBER 51-0043-00

## Surveys and Investigations

Re-Survey:	07/08/2002.
Population Assessment:	07/07/2014, 07/08/1996.
Special Assessment:	07/07/2014.
Dissolved Oxygen Check:	02/16/2016, 02/18/2015, 12/31/2013, 01/02/2013, 01/11/2012, 12/28/2010.
Standard Survey:	07/06/2020.
Targeted Survey:	<u>05/15/2023</u> , 02/05/2020, 02/14/2018, 01/18/2018.

## Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/09/2014	High	-6.80	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	-6.80	07/09/2014	-6.80	07/09/2014	0.00	-6.80	Above or below Benchmark (1)	

# Natural Reproduction Catch Summary for <u>SEF</u>

## Special sampling, electrofishing

Number of Stations:	1
Total run-time for all stations:	00:15:00
Total on-time for all stations:	00:15:00
First Sampling Date:	05/15/2023
Last Sampling Date:	05/15/2023
Daylight Sampling:	Yes
Target Species:	N/A

			Total	Number	Mean Length	Length Range (inches)		Catch Rates (number per hour)	
Abbr	Species	Age	Number	Measured	(inches)	Min	Max	Run-Time	On-Time
BIB	Bigmouth Buffalo	All	5	0	N/A	N/A	N/A	20.00	20.00
BLB	Black Bullhead	All	2	2	12.19	12.09	12.28	8.00	8.00
BLC	Black Crappie	All	17	17	10.92	9.80	11.85	68.00	68.00
CCF	Channel Catfish	All	5	5	21.96	20.71	23.03	20.00	20.00
CAP	Common Carp	All	3	0	N/A	N/A	N/A	12.00	12.00
FHM	Fathead Minnow	All	799	0	N/A	N/A	N/A	3196.00	3196.00
SFS	Spotfin Shiner	All	1	1	2.72	2.72	2.72	4.00	4.00
WAE	Walleye	All	1	1	9.57	9.57	9.57	4.00	4.00
YEP	Yellow Perch	All	1	1	3.82	3.82	3.82	4.00	4.00

## Length Frequency Distribution for SEF

#### Special sampling, electrofishing

(Field work conducted on 05/15/2023)

	<u>BLB</u>	<u>BLC</u>	<u>CCF</u>	<u>SFS</u>	WAE	<u>YEP</u>
< 3.00	-	-	-	1	-	-
3.00 - 3.49	-	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-	1
4.00 - 4.49	-	-	-	-	-	-
4.50 - 4.99	-	-	-	-	-	-
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	-	-	-	-	-	-
8.50 - 8.99	-	-	-	-	-	-
9.00 - 9.49	-	-	-	-	-	-
9.50 - 9.99	-	1	-	-	1	-
10.00 - 10.49	_	2	_	_		_
	-	7	-	_	-	-
10.50 - 10.99	-	5	-	-	-	-
11.00 - 11.49	-	2	-	-	-	-
11.50 - 11.99	-	_	-	-	-	-
12.00 - 12.99	2	-	-	-	-	-
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	-	-	1	-	-	-
21.00 - 21.99	-	-	1	-	-	-
22.00 - 22.99	-	-	2	-	-	-
23.00 - 23.99	-	-	1	-	-	-
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	-	-	-	-	-	-
	BLB	BLC	CCF	SFS	WAE	YEP
Total	2	17	5	1	1	1
Min. Length	12.09	9.80	20.71	2.72	9.57	3.82
Max. Length	12.28	11.85	23.03	2.72	9.57	3.82
-	12.20		23.03		9.57	
Mean Length		10.92		2.72		3.82
# Measured	2	17	5	1	1	1
No Lengths for	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.

**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



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.

Lake Survey Report revision: 20230207-RJE. Data Date: 06/01/2023 at 1:38 pm.

# **REPORT OVERVIEW - FOR OFFICE USE ONLY**

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

# Lake Name: Fox

# DOW Number: 51-0043-00

# 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 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 = 3755, Survey ID = 20822313538722000