# DEPARTMENT OF NATURAL RESOURCES

# **Fisheries Management**

# LAKE SURVEY REPORT

DRAFT VERSION

PRELIMINARY DATA (AS OF 06/14/2023)

#### Lake Name: Clear

DOW Number: 32-0022-00

#### Survey Type: Standard Survey

Survey ID Date: 06/05/2023

#### Lake Identification Alternate Lake Name: N/A DNR Sounding Map Number: C2550 Alternate Lake Class ID: N/A Primary Lake Class ID: 43 Lake Location Primary County: Jackson Nearest Town: Jackson Legal Descriptions Lake Center: Township - 102N Range - 35W Section - 19 PLS Section Lake Center: 10203519 All Legal Descriptions: Jackson County: Township - 102N Sections - 18, 19, 20 Range - 35W Township - 102N Range - 36W Section - 24 Area Office

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

#### Lake Access

(Information based on Re-Survey dated 07/13/1993)

Station ID	Ownership	Public Use	Туре	Location / Comments
AC - 1	AC - 1 DNR Open to Pu		Concrete	State owned access in S.18 on N side.
	(Data exc	udes records where public use i	s not designated	or is designated "No Public Use")
Lake Characte	eristics			
Lake Are	a (planimetered acres):	415.00	GIS	Shoreline Length (miles): 3.81
	GIS Lake Area (acres):	434.16		Maximum Fetch (miles): 1.31
D	OW Lake Area (acres)	415.00	Fe	tch Orientation (degrees): 90
	Littoral Area (acres)	434.16	ι	JSGS Quad Map Number: X09a
	Area in MN (acres)	434.16	US	GS Quad 24K GIS Index: 4618
	Maximum Depth (feet)	9.0		
	Mean Depth (feet)	N/A		
Watershed Ch	aracteristics			
Major Waters	shed		Minor W	atershed
Name: Little	e Sioux River		Name:	Jud Ditch #8
Watershed N	umber: 84		Watershe	ed Number: 24
Watershed si	ze (acres): 205,753		Watershe	ed size (acres): 8,202



LAKE SURVEY REPORT STANDARD SURVEY DATED 06/05/2023 FOR DOW NUMBER 32-0022-00

### Surveys and Investigations

Re-Survey:	07/09/2001, 07/13/1993, 07/27/1987, 07/28/1982.
Population Assessment:	06/06/2011, 06/08/2009, 07/09/2007, 07/05/2005, 07/07/2003, 07/12/1999, 07/14/1997,
	08/02/1990.
Special Assessment:	10/07/2005, 10/10/2004, 04/13/2004, 10/02/2000, 09/17/1998, 10/16/1997, 10/01/1996.
Creel Survey:	05/01/1990.
Dissolved Oxygen Check:	02/10/2016, 02/25/2015, 01/02/2014, 02/07/2013, 01/04/2013, 02/17/2012, 01/26/2012,
	12/28/2010, 01/04/2010.
Natural Reproduction Check:	09/16/2010, 09/15/2008, 10/03/2006.
Research Survey:	04/15/1991, 09/28/1990, 05/30/1990.
External Management Survey:	06/28/2007.
Standard Survey:	<u>06/05/2023,</u> 06/03/2019, 06/01/2015.
Targeted Survey:	06/28/2021, 10/15/2020, 02/04/2020, 10/16/2019, 07/01/2019, 01/10/2019, 11/01/2018,
	01/19/2018, 09/06/2017, 09/29/2016.

#### Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/01/2015	N/A	N/A	Not Found
	06/06/2011	High	N/A	Above or below Benchmark
	06/11/2009	High	-4.30	Above or below Benchmark

### Water Level History - Station Summary

	Minimum Level		Minimum Level Maximum Level		Range	Average	Reading Type	
Station ID	Feet	Date	Feet	Date	(feet)	Level (feet)	(and number of readings)	
BM - 1	-4.30	06/11/2009	-4.30	06/11/2009	0.00	-4.30	Above or below Benchmark (1)	
BM - 1	N/A	N/A	N/A	N/A	N/A	N/A	Not Found - 06/01/2015 (0)	

#### **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	06/05/2023 10.0 S		Surface	75.0	8.0
			2.0	74.8	7.0
			4.0	74.7	6.7
			6.0	74.5	6.6
			8.0	74.1	6.0
			10.0	73.0	2.4

### Field Measurements of Water Quality

	Sampling	Sample	Secchi Depth	Field	Alkalinity		
Station ID	Date	Depth (Feet)	(Feet)	рН	(ppm)	Water Color	Color Cause
WQ - 1	06/05/2023	Surface	3.5	7.93	220	Green	Algae

#### Net Catch Summary by Numbers for GN

#### Standard gill net sets

Number of Sets:	3
First Set Date:	06/05/2023
Last Lift Date:	06/08/2023
Target Species:	N/A

				Quartiles	o for Lake Clas	s 43¹
Abbr	Species	Total Fish	Number Per Set	25%	50%	75%
BIB	Bigmouth Buffalo	6	2.00	0.75	2.58	6.96
CCF	Channel Catfish	14	4.67	N/A	N/A	N/A
CAP	Common Carp	6	2.00	1.00	3.33	13.75
FRD	Freshwater Drum	55	18.33	0.50	2.56	8.33
NOP	Northern Pike	23	7.67	1.08	3.00	8.00
WAE	Walleye	5	1.67	2.28	6.83	18.06
YLB	Yellow Bass	31	10.33	N/A	N/A	N/A
		 Total Fish/Set:	46.67	<sup>1</sup> Quartile	s for Number Pe	r Set

### Net Catch Summary by Weight for GN

#### Standard gill net sets

		Total Weight	Pounds	Mean	Quartiles for Lake Class 43 <sup>1</sup>		
Abbr	Species	(Pounds)	Per Set	Weight <sup>2</sup>	25%	50%	75%
BIB	Bigmouth Buffalo	57.37	19.12	10.12	N/A	N/A	N/A
CCF	Channel Catfish	42.05	14.02	3.00	N/A	N/A	N/A
CAP	Common Carp	40.17	13.39	6.66	0.81	1.98	3.70
FRD	Freshwater Drum	92.38	30.79	1.69	0.40	0.82	1.67
NOP	Northern Pike	58.68	19.56	2.52	1.82	2.50	3.35
WAE	Walleye	15.99	5.33	3.20	1.01	1.53	2.30
YLB	Yellow Bass	9.41	3.14	0.29	N/A	N/A	N/A
		– Total Pounds Fish/Set:	105.35		<sup>1</sup> Quarti	les for Mean Wei	ght

<sup>2</sup> Mean Weights are based on measured fish counts only.

#### Net Catch Summary by Numbers for TN

#### Standard 3/4-in mesh, double frame trap net sets

 Number of Sets:
 9

 First Set Date:
 06/05/2023

 Last Lift Date:
 06/08/2023

 Target Species:
 N/A

				Quartiles	s for Lake Clas	s 43¹
Abbr	Species	Total Fish	Number Per Set	25%	50%	75%
BIB	Bigmouth Buffalo	3	0.33	0.17	0.38	1.04
BLB	Black Bullhead	1	0.11	11.50	42.00	132.61
BLC	Black Crappie	7	0.78	1.17	4.88	20.50
BLG	Bluegill	4	0.44	1.17	3.89	20.00
CCF	Channel Catfish	9	1.00	N/A	N/A	N/A
CAP	Common Carp	3	0.33	1.00	2.44	5.51
FRD	Freshwater Drum	4	0.44	0.23	0.92	3.25
NOP	Northern Pike	3	0.33	N/A	N/A	N/A
WAE	Walleye	4	0.44	0.50	1.33	2.95
YEB	Yellow Bullhead	1	0.11	0.50	1.13	2.50
		Total Fish/Set:	4.33	<sup>1</sup> Quartile	s for Number Pe	r Set

#### Net Catch Summary by Weight for TN

#### Standard 3/4-in mesh, double frame trap net sets

		Total Weight	Pounds	Mean	Quartiles	o for Lake Clas	s 43¹
Abbr	Species	(Pounds)	Per Set	Weight <sup>2</sup>	25%	50%	75%
BIB	Bigmouth Buffalo	25.98	2.89	8.66	2.56	3.75	5.83
BLB	Black Bullhead	0.80	0.09	0.80	0.18	0.28	0.40
BLC	Black Crappie	7.40	0.82	1.06	0.22	0.34	0.50
BLG	Bluegill	1.49	0.17	0.37	0.13	0.24	0.39
CCF	Channel Catfish	48.84	5.43	5.43	N/A	N/A	N/A
CAP	Common Carp	20.07	2.23	6.69	1.42	2.92	4.58
FRD	Freshwater Drum	5.38	0.60	1.35	0.28	0.60	0.95
NOP	Northern Pike	8.07	0.90	2.69	N/A	N/A	N/A
WAE	Walleye	12.84	1.43	3.21	0.82	1.44	2.28
YEB	Yellow Bullhead	0.88	0.10	0.88	0.31	0.48	0.67
		– Total Pounds Fish/Set:	14.64		<sup>1</sup> Quarti	les for Mean Wei	ght

<sup>2</sup> Mean Weights are based on measured fish counts only.

#### Length Frequency Distribution for GN

#### Standard gill net sets

(Field work conducted between 06/05/2023 and 06/08/2023)

,						,	
	BIB	CAP	<u>CCF</u>	FRD	NOP	WAE	<u>YLB</u>
< 3.00	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-	-
4.00 - 4.49	-	-	-	-	-	-	-
4.50 - 4.99	-	-	-	-	-	-	3
5.00 - 5.49	-	-	-	3	-	-	-
5.50 - 5.99	-	-	-	-	-	-	-
6.00 - 6.49	-	-	-	-	-	-	-
6.50 - 6.99	-	-	-	-	-	-	-
7.00 - 7.49	-	-	-	-	-	-	1
7.50 - 7.99	-	-	-	-	-	-	4
8.00 - 8.49	-	-	-	-	-	-	2
8.50 - 8.99	-	-	-	-	-	-	-
9.00 - 9.49	-	-	-	-	-	-	1
9.50 - 9.99	-	-	-	-	-	-	15
10.00 - 10.49	-	-	-	-	-	-	3
10.50 - 10.99	-	-	-	-	-	-	1
11.00 - 11.49	-	-	-	-	-	-	-
11.50 - 11.99	-	-	-	_	-	-	-
12.00 - 12.99	-	-	-	_	-	-	-
13.00 - 13.99	-	-	2	_	-	-	-
14.00 - 14.99	_	-	2	6	-	-	-
15.00 - 15.99	_	_	-	22	_	_	_
16.00 - 16.99	_	_	_	17	_	_	_
17.00 - 17.99			_	7	_		
18.00 - 18.99			-	1	-	- 1	_
19.00 - 19.99	- 1	-	- 1	-	3	1	-
20.00 - 20.99	-	-	2	-	2	2	-
	-	- 1	2	-	5	-	-
21.00 - 21.99	-	2	1	-	5	-	-
22.00 - 22.99	-	2	1	-	2	- 1	-
23.00 - 23.99	-		1	-	2 4	1	-
24.00 - 24.99	-	-	1	-	4	-	-
25.00 - 25.99	2	-	1	-		-	-
26.00 - 26.99	-	3	-	-	-	-	-
27.00 - 27.99	-	-	-	-	-	-	-
28.00 - 28.99	-	-	-	-	-	-	-
29.00 - 29.99	-	-	-	-	-	-	-
30.00 - 30.99	2	-	-	-	-	-	-
31.00 - 31.99	-	-	-	-	-	-	-
32.00 - 32.99	-	-	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-
	BIB	CAP	CCF	FRD	NOP	WAE	YLB
Total	5	7	14	56	23	5	30
Min. Length	19.17	21.85	13.43	5.16	19.13	18.27	4.65
Max. Length	30.71	26.46	25.83	18.07	25.63	23.19	10.67
Mean Length	25.24	24.28	19.85	15.64	22.26	20.17	8.82
# Measured	2 <u>5</u> .24 4	24.20 5	13.05	52	22.20	20.17	29
	4	5 1	0		1		
No Lengths for	2	Ĩ	U	3		0	2

**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 TN

#### Standard 3/4-in mesh, double frame trap net sets

(Field work conducted between 06/05/2023 and 06/08/2023)

	BIB	<u>BLB</u>	BLC	<u>BLG</u>	CAP	CCF	FRD	NOP	WAE	<u>YEB</u>
< 3.00	-	-	-	-	-	-	-	-	-	-
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	-	-	-	1	-	-	-	-	-	-
6.00 - 6.49	-	-	-	-	-	-	-	-	-	-
6.50 - 6.99	-	-	-	-	-	-	-	-	-	-
7.00 - 7.49	-	-	_	-	-	-	_	-	-	-
7.50 - 7.99	-	-	_	-	-	-	_	-	-	_
8.00 - 8.49	_	_	_	-	_	-	_	-	-	_
8.50 - 8.99	_	_	_	2	_	_	_	_	_	_
				-						
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	-	-	-	-	-	-	1	-	-	-
12.00 - 12.99	-	-	3	-	-	-	-	-	-	-
13.00 - 13.99	-	-	1	-	-	-	-	-	1	-
14.00 - 14.99	-	-	-	-	-	-	1	-	-	-
15.00 - 15.99	-	-	-	-	-	-	1	-	-	-
16.00 - 16.99	-	-	-	-	-	-	1	-	-	-
17.00 - 17.99	-	-	-	-	-	-	-	-	-	-
18.00 - 18.99	-	-	-	-	-	1	-	-	-	-
19.00 - 19.99	-	-	-	-	-	-	-	-	1	-
20.00 - 20.99	1	-	-	-	-	-	-	-	-	-
21.00 - 21.99	-	-	-	-	-	-	-	-	1	-
22.00 - 22.99	-	-	-	-	1	1	-	1	-	-
23.00 - 23.99	-	-	-	-	-	1	-	1	-	-
24.00 - 24.99	1	-	-	-	-	3	-	1	1	-
25.00 - 25.99	-	-	-	-	1	-	-	-	-	-
26.00 - 26.99	-	-	-	-	-	1	-	-	-	-
27.00 - 27.99	1	-	-	-	1	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	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-
	BIB	BLB	BLC	BLG	CAP	CCF	FRD	NOP	WAE	YEB
Total	3	1	7	4	3	9	4	3	4	1
Min. Length	20.39	11.26	10.87	3.62	22.17	18.94	11.89	22.13	13.62	11.46
Max. Length	27.60	11.26	13.54	8.90	27.20	28.43	16.65	24.13	24.65	11.46
Mean Length	24.11	11.26	12.06	6.82	24.87	24.44	14.64	23.11	19.72	11.46
# Measured	3	1	7	4	3	9	4	3	4	1
No Lengths for	0	0	0	0	0	0	0	0	0	0
<u> </u>	-	-	-	-	-	-	-	-	-	-

**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.



### **Other Species**

Gear Type (1)	Other Species (Gender) (2)	Total Num	Number Measured	Length (inches) Min - Mean - Max	Number Weighed	Weight (pounds) Min - Mean - Max
TN	Painted Turtle	5	0	N/A	0	N/A
	Snapping Turtle	2	2	14.02 - 14.26 - 14.49	0	N/A

(1) Key to sampling gear abbreviations: TN = Standard 3/4-in mesh, double frame trap net sets

(2) Gender: If identified and reported.

**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 06/14/2023), 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: 06/14/2023 at 1:39 pm.

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

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

#### Lake Name: Clear

#### DOW Number: 32-0022-00

# Survey Type: Standard Survey Survey ID Date: 06/05/2023

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 Gaug<mark>e</mark> Descriptions / Locations
- 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. 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. Status Of Fishery And Field Notes
- 23. 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 06/14/2023 may not be reflected in the Distribution tables until 06/15/2023.

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