

# LAKE SURVEY REPORT

### **DRAFT VERSION**

PRELIMINARY DATA (AS OF 08/25/2023)

Lake Name: Clam Survey Type: Standard Survey

DOW Number: 46-0111-00 Survey ID Date: 08/21/2023

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: Martin Nearest Town: Trimont

**Legal Descriptions** 

Lake Center: Township - 103N Range - 32W Section - 15

PLS Section Lake Center: 10303215

All Legal Descriptions:

Martin County: Township - 103N Range - 32W Sections - 9, 10, 15, 16

**Area Office** 

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

**Lake Access** 

(Information based on Re-Survey dated 08/09/1999)

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): 74.00 GIS Shoreline Length (miles): 1.49

GIS Lake Area (acres): 71.13 Maximum Fetch (miles): 1.00

DOW Lake Area (acres): 72.00 Fetch Orientation (degrees): 45

Littoral Area (acres): 71.13 USGS Quad Map Number: X11b

Area in MN (acres): 71.13 USGS Quad 24K GIS Index: 4621

Maximum Depth (feet): 8.0 Mean Depth (feet): N/A

Watershed Characteristics

Major Watershed Minor Watershed

Name: Blue Earth River Name: Elm Cr

Watershed Number: 30 Watershed Number: 76

Watershed size (acres): 777,240 Watershed size (acres): 30,240



# **Surveys and Investigations**

Initial Survey: 08/08/1991.

Re-Survey: 08/09/1999.

Population Assessment: 04/08/1986.

Winter Kill Assessment: 04/22/2010, 05/06/2009.

External Management Survey: 02/03/2020.

**Standard Survey:** <u>08/21/2023</u>, 08/21/2017.

**Targeted Survey:** 01/10/2019.

### **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	08/21/2023	5.0	Surface	75.0	10.6
			1.0	75.0	10.8
			2.0	75.0	10.7
			3.0	75.0	10.6
			4.0	74.8	9.5
			5.0	74.1	4.8

### **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	08/21/2023	Surface	0.8	8.42	180	Green	Algae

# Net Catch Summary by Numbers for **GN**

### Standard gill net sets

Number of Sets: 1

First Set Date: 08/21/2023 Last Lift Date: 08/22/2023 Target Species: N/A

				Quartiles	for Lake Cla	ss 43¹
Abbr	Species	Total Fish	Number Per Set	25%	50%	75%
BLB	Black Bullhead	87	87.00	30.34	75.58	150.62
CAP	Common Carp	3	3.00	1.00	3.33	13.75
NOP	Northern Pike	2	2.00	1.08	3.00	8.00
		Total Fish/Set:	92.00	<sup>1</sup> Quartiles for Number Per Set		er Set

# Net Catch Summary by Weight for GN

### Standard gill net sets

		Total Weight	Pounds	Mean	Quartiles	for Lake Cla	ss 43¹
Abbr	Species	(Pounds)	Per Set	Weight <sup>2</sup>	25%	50%	75%
BLB	Black Bullhead	7.51	7.51	0.09	0.17	0.26	0.39
CAP	Common Carp	3.94	3.94	1.31	0.81	1.98	3.70
NOP	Northern Pike	3.31	3.31	1.65	1.82	2.50	3.35
		Total Pounds Fish/Set:	14.76		¹ Quartil	es for Mean We	eight

<sup>&</sup>lt;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: 8

First Set Date: 08/21/2023 Last Lift Date: 08/24/2023 Target Species: N/A

				Quartiles	for Lake Cla	ss 43¹
Abbr	Species	Total Fish	Number Per Set	25%	50%	75%
BIB	Bigmouth Buffalo	5	0.63	0.17	0.38	1.04
BLB	Black Bullhead	3,120	390.00	11.50	42.00	132.61
CAP	Common Carp	5	0.63	1.00	2.44	5.51
NOP	Northern Pike	19	2.38	N/A	N/A	N/A
YEB	Yellow Bullhead	3	0.38	0.50	1.13	2.50
		Total Fish/Set:	394.00	¹ Quartile	s for Number P	er Set

# Net Catch Summary by Weight for TN

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

		Total Weight	Pounds	Mean	Quartiles	for Lake Cla	ss 43¹
Abbr	Species	(Pounds)	Per Set	Weight <sup>2</sup>	25%	50%	75%
BIB	Bigmouth Buffalo	27.95	3.49	5.59	2.56	3.75	5.83
BLB	Black Bullhead	0.00	0.00	N/A	0.18	0.28	0.40
CAP	Common Carp	7.33	0.92	1.47	1.42	2.92	4.58
NOP	Northern Pike	34.51	4.31	1.82	N/A	N/A	N/A
YEB	Yellow Bullhead	1.73	0.22	0.58	0.31	0.48	0.67
		Total Pounds Fish/Set:	8.94		¹ Quartil	es for Mean We	eight

<sup>&</sup>lt;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 08/21/2023 and 08/22/2023)

(I ICIG WOLK	BLB	CAP	YCAP	NOP
< 3.00		<u></u>		-
3.00 - 3.49	_	_	-	_
3.50 - 3.99	-	-	-	_
4.00 - 4.49	-	-	-	_
4.50 - 4.99	1	-	1	-
5.00 - 5.49	41	-	-	-
5.50 - 5.99	45	-	-	-
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	-	-	-	-
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	-	2	-	-
17.00 - 17.99	-	-	-	- 1
18.00 - 18.99	-	-	-	I
19.00 - 19.99	-	-	-	-
20.00 - 20.99	-	_	-	_
21.00 - 21.99	-	_	-	1
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	-	-	_	_
	BLB	CAP	YCAP	NOP

<u>OP</u>
2
.43
.09
.26
2
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 TN

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

(Field work conducted between 08/21/2023 and 08/24/2023)

(i leid work c	BIB	CAP	NOP	YEB
< 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	-	-	-	-
6.00 - 6.49	-	-	-	-
6.50 - 6.99	-	-	-	-
7.00 - 7.49	-	-	-	1
7.50 - 7.99	-	-	-	-
8.00 - 8.49	-	-	-	-
8.50 - 8.99	-	-	-	-
9.00 - 9.49	-	-	-	-
9.50 - 9.99	-	-	-	1
10.00 - 10.49	-	-	-	-
10.50 - 10.99	-	-	-	-
11.00 - 11.49	-	-	-	-
11.50 - 11.99	-	-	-	-
12.00 - 12.99	-	-	-	1
13.00 - 13.99	-	1	-	-
14.00 - 14.99	-	1	-	-
15.00 - 15.99	-	2	-	-
16.00 - 16.99	1	- 1	-	-
17.00 - 17.99	-	'	1	-
18.00 - 18.99	-	-	5	-
19.00 - 19.99	_	_	9	-
20.00 - 20.99 21.00 - 21.99	_	_	2	_
22.00 - 22.99	3		_	_
23.00 - 23.99	1		1	_
24.00 - 24.99		_	1	_
25.00 - 25.99	_	_	<u>.</u>	_
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	-	-	-	-
	BIB	CAP	NOP	YEB

BIB	CAP	<b>NOP</b>	<u>YEB</u>
5	5	19	3
16.57	13.86	18.19	7.44
23.78	17.20	24.45	12.40
21.49	15.23	20.54	9.92
5	5	19	3
0	0	0	0
	5 16.57 23.78 21.49 5	5 5 16.57 13.86 23.78 17.20 21.49 15.23 5 5	5 5 19 16.57 13.86 18.19 23.78 17.20 24.45 21.49 15.23 20.54 5 5 19

**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	65	0	N/A	0	N/A
	Snapping Turtle	8	8	11.81 - 13.58 - 15.35	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 08/25/2023), and is therefore subject to change at any time.



FISHERIES DATABASE

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: Clam

DOW Number: 46-0111-00

Survey Type: Standard Survey

Survey ID Date: 08/21/2023

Survey Status: Field Work Complete

The following 25 (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. Water Level History Readings\*
- 5. Water Level History Station Summary\*
- 6. Lake Inlets
- 7. Additional Inlet Information
- 8. Lake Outlets
- 9. Additional Outlet Information
- 10. Water Control Structure (Dam)
- 11. Surrounding Watershed Characteristics, Shoreline Characteristics, and Riparian Landscape Observations<sup>2</sup>
- 12. Resorts And Campgrounds
- 13. Fish Spawning Conditions
- 14. Erosion And Pollution
- 15. Fish Diseases And Parasites
- 16. Aquatic Vegetation And Shoalwater Substrates
- 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. Status Of Fishery And Field Notes
- 25. 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 before noon on 08/25/2023 may not be reflected in the Distribution tables until after 12:30 pm on 08/25/2023.

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