

Lake Name: Amber
DOW Number: 46-0034-00

Survey Type: Standard Survey
Survey ID Date: 08/22/2022

Lake Identification

Alternate Lake Name: N/A
Primary Lake Class ID: 24

DNR Sounding Map Number: C0450
Alternate Lake Class ID: N/A

Lake Location

Primary County: Martin

Nearest Town: Fairmont

Legal Descriptions

Lake Center: Township - 102N Range - 30W Section - 30
PLS Section Lake Center: 10203030

All Legal Descriptions:

Martin County: Township - 102N Range - 30W Sections - 30, 31

Area Office

Area Name: Windom
Region Name: Southern

ORG Code: F418
Region Number: 4

Lake Access

(Information based on Re-Survey dated 08/30/1993)

Station ID	Ownership	Public Use	Type	Location / Comments
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(Data excludes records where public use is not designated or is designated "No Public Use")

Lake Characteristics

Lake Area (planimetered acres):	180.00	GIS Shoreline Length (miles):	2.20
GIS Lake Area (acres):	182.09	Maximum Fetch (miles):	0.89
DOW Lake Area (acres):	179.00	Fetch Orientation (degrees):	360
Littoral Area (acres):	108.00	USGS Quad Map Number:	X12c
Area in MN (acres):	182.09	USGS Quad 24K GIS Index:	4723
Maximum Depth (feet):	19.0		
Mean Depth (feet):	11.0		

Watershed Characteristics

Major Watershed

Name: Blue Earth River
Watershed Number: 30
Watershed size (acres): 777,240

Minor Watershed

Name: From Amber L
Watershed Number: 66
Watershed size (acres): 11,904

Surveys and Investigations

Re-Survey: 08/27/2001, 08/30/1993, 04/26/1982, 08/04/1971.
Population Assessment: 08/29/2011, 08/15/2005, 08/25/1997, 07/13/1987.
Special Assessment: 09/09/1997.
External Management Survey: 07/31/2014, 08/28/2006.
Standard Survey: 08/22/2022, 08/21/2018.
Targeted Survey: 07/05/2018, 07/10/2017.

Current Water Level

Station ID	Date	Level	Reading (feet)	Reading Type
GA - 1	08/23/2022	Normal	3.70	Direct Gauge Reading

Benchmark and Gauge Descriptions / Locations

Station ID	Location Description
GA - 1	N/A

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
GA - 1	08/23/2022	Normal	3.70	Direct Gauge Reading
	08/24/2018	High	4.65	Direct Gauge Reading
	08/29/2011	Normal	3.70	Direct Gauge Reading

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			
GA - 1	3.70	08/29/2011	4.65	08/24/2018	0.95	4.02	Direct Gauge Reading (3)

Dissolved Oxygen and Temperature Profile of Lake Water

Station ID	Sampling Date	Bottom Depth (Feet)	Sample Depth (Feet)	Water		Dissolved Oxygen (ppm)
				Temperature (°F)		
WQ - 1	08/23/2022	14.4	Surface	75.6	12.6	
			1.0	75.6	12.8	
			2.0	75.6	12.9	
			3.0	75.6	12.9	
			4.0	75.6	12.6	
			5.0	75.2	11.1	
			6.0	75.2	11.5	
			7.0	74.5	8.1	
			8.0	74.3	7.1	
			9.0	74.1	6.4	
			10.0	73.9	5.4	
			11.0	73.9	5.1	
			12.0	73.8	4.4	
			13.0	73.8	3.8	
14.0	73.6	3.3				

Field Measurements of Water Quality

<u>Station ID</u>	<u>Sampling Date</u>	<u>Sample Depth (Feet)</u>	<u>Secchi Depth (Feet)</u>	<u>Field pH</u>	<u>Alkalinity (ppm)</u>	<u>Water Color</u>	<u>Color Cause</u>
WQ - 1	08/23/2022	Surface	1.9	9.25	300	Green	Algae

Net Catch Summary by Numbers for GN

Standard gill net sets

Number of Sets: 2
 First Set Date: 08/22/2022
 Last Lift Date: 08/24/2022
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 24 ¹		
				25%	50%	75%
BIB	Bigmouth Buffalo	20	10.00	0.25	0.55	1.69
BLB	Black Bullhead	12	6.00	2.50	10.46	44.95
BLC	Black Crappie	14	7.00	2.50	6.91	16.50
CCF	Channel Catfish	9	4.50	N/A	N/A	N/A
CAP	Common Carp	12	6.00	0.33	1.00	3.00
FRD	Freshwater Drum	99	49.50	4.00	11.75	32.25
WAE	Walleye	5	2.50	1.17	2.82	6.33
WHC	White Crappie	1	0.50	0.67	2.65	10.38
WTS	White Sucker	1	0.50	0.40	1.00	2.17
YLB	Yellow Bass	24	12.00	N/A	N/A	N/A
YEP	Yellow Perch	5	2.50	2.00	10.50	27.94
Total Fish/Set:			101.00	¹ Quartiles for Number Per Set		

Net Catch Summary by Weight for GN

Standard gill net sets

Abbr	Species	Total Weight (Pounds)	Pounds Per Set	Mean Weight ²	Quartiles for Lake Class 24 ¹		
					25%	50%	75%
BIB	Bigmouth Buffalo	1.88	0.94	0.09	N/A	N/A	N/A
BLB	Black Bullhead	8.01	4.00	0.67	0.29	0.44	0.66
BLC	Black Crappie	6.94	3.47	0.50	0.15	0.20	0.26
CCF	Channel Catfish	18.10	9.05	2.01	N/A	N/A	N/A
CAP	Common Carp	44.47	22.23	3.71	1.87	3.41	5.24
FRD	Freshwater Drum	56.35	28.17	0.57	0.25	0.50	1.13
WAE	Walleye	4.97	2.49	0.99	1.20	1.81	2.69
WHC	White Crappie	0.23	0.11	0.23	0.17	0.24	0.33
WTS	White Sucker	1.78	0.89	1.78	1.55	2.00	2.38
YLB	Yellow Bass	7.03	3.52	0.29	N/A	N/A	N/A
YEP	Yellow Perch	1.81	0.91	0.36	0.10	0.13	0.18
Total Pounds Fish/Set:			75.79	¹ Quartiles for Mean Weight			

² 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: 08/22/2022
 Last Lift Date: 08/25/2022
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 24 ¹		
				25%	50%	75%
BIB	Bigmouth Buffalo	8	0.89	0.20	0.25	0.75
BLB	Black Bullhead	1	0.11	0.71	3.75	25.65
BLC	Black Crappie	89	9.89	1.83	6.50	21.16
BLG	Bluegill	125	13.89	7.54	23.13	62.50
CCF	Channel Catfish	6	0.67	N/A	N/A	N/A
CAP	Common Carp	168	18.67	0.38	0.74	2.00
FRD	Freshwater Drum	77	8.56	0.50	1.17	4.19
LMB	Largemouth Bass	3	0.33	0.20	0.33	0.67
QBS	Quillback	13	1.44	N/A	N/A	N/A
WAE	Walleye	17	1.89	0.27	0.60	1.24
WHC	White Crappie	7	0.78	0.50	1.50	6.55
WTS	White Sucker	2	0.22	0.20	0.44	1.00
YLB	Yellow Bass	21	2.33	N/A	N/A	N/A
YEB	Yellow Bullhead	5	0.56	0.88	2.15	5.68
YEP	Yellow Perch	1	0.11	0.25	0.60	1.67
Total Fish/Set:			60.33	¹ Quartiles for Number Per Set		

Net Catch Summary by Weight for TN

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

Abbr	Species	Total Weight (Pounds)	Pounds Per Set	Mean Weight ²	Quartiles for Lake Class 24 ¹		
					25%	50%	75%
BIB	Bigmouth Buffalo	27.75	3.08	3.47	2.50	4.13	5.65
BLB	Black Bullhead	0.60	0.07	0.60	0.28	0.43	0.62
BLC	Black Crappie	44.31	4.92	0.50	0.18	0.24	0.33
BLG	Bluegill	48.86	5.43	0.39	0.13	0.18	0.25
CCF	Channel Catfish	7.54	0.84	1.26	N/A	N/A	N/A
CAP	Common Carp	276.81	30.76	1.72	2.58	4.07	6.02
FRD	Freshwater Drum	52.94	5.88	0.69	0.43	0.79	1.21
LMB	Largemouth Bass	6.24	0.69	2.08	0.15	0.31	0.91
QBS	Quillback	31.54	3.50	2.43	N/A	N/A	N/A
WAE	Walleye	32.61	3.62	1.92	0.80	1.50	2.78
WHC	White Crappie	3.61	0.40	0.52	0.23	0.30	0.40
WTS	White Sucker	3.03	0.34	1.51	1.61	2.16	2.84
YLB	Yellow Bass	6.73	0.75	0.32	N/A	N/A	N/A
YEB	Yellow Bullhead	2.34	0.26	0.47	0.50	0.67	0.84
YEP	Yellow Perch	0.28	0.03	0.28	0.10	0.13	0.20
Total Pounds Fish/Set:			60.57	¹ Quartiles for Mean Weight			

² Mean Weights are based on measured fish counts only.

Length Frequency Distribution for GN

Standard gill net sets

(Field work conducted between 08/22/2022 and 08/24/2022)

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>CCF</u>	<u>FRD</u>	<u>WAE</u>	<u>WHC</u>	<u>WTS</u>	<u>YEP</u>	<u>YLB</u>
< 3.00	-	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-	-	-	-	-	-
4.00 - 4.49	6	-	-	-	-	-	-	-	-	-	-
4.50 - 4.99	12	-	-	1	-	-	-	-	-	-	-
5.00 - 5.49	1	-	-	-	-	-	-	-	-	-	-
5.50 - 5.99	-	-	-	1	-	-	-	-	-	-	-
6.00 - 6.49	-	-	-	1	-	-	-	-	-	-	-
6.50 - 6.99	-	-	-	-	-	-	-	-	-	-	1
7.00 - 7.49	-	-	-	-	-	-	-	-	-	-	1
7.50 - 7.99	-	1	1	1	-	2	-	1	-	-	3
8.00 - 8.49	-	-	1	-	-	10	-	-	-	1	6
8.50 - 8.99	-	1	4	-	-	4	-	-	-	2	12
9.00 - 9.49	-	-	2	-	-	-	-	-	-	1	-
9.50 - 9.99	-	-	3	-	-	6	-	-	-	1	-
10.00 - 10.49	-	2	2	-	-	7	-	-	-	-	-
10.50 - 10.99	-	4	1	-	-	8	-	-	-	-	-
11.00 - 11.49	1	2	-	1	-	22	-	-	-	-	-
11.50 - 11.99	-	2	-	-	-	17	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	18	2	-	-	-	-
13.00 - 13.99	-	-	-	2	-	5	-	-	-	-	-
14.00 - 14.99	-	-	-	-	1	-	2	-	-	-	-
15.00 - 15.99	-	-	-	-	1	-	-	-	-	-	-
16.00 - 16.99	-	-	-	-	3	-	-	-	1	-	-
17.00 - 17.99	-	-	-	-	-	-	1	-	-	-	-
18.00 - 18.99	-	-	-	-	1	-	-	-	-	-	-
19.00 - 19.99	-	-	-	-	1	-	-	-	-	-	-
20.00 - 20.99	-	-	-	-	-	-	-	-	-	-	-
21.00 - 21.99	-	-	-	-	-	-	-	-	-	-	-
22.00 - 22.99	-	-	-	-	1	-	-	-	-	-	-
23.00 - 23.99	-	-	-	1	-	-	-	-	-	-	-
24.00 - 24.99	-	-	-	1	1	-	-	-	-	-	-
25.00 - 25.99	-	-	-	-	-	-	-	-	-	-	-
26.00 - 26.99	-	-	-	-	-	-	-	-	-	-	-
27.00 - 27.99	-	-	-	2	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-
	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>CCF</u>	<u>FRD</u>	<u>WAE</u>	<u>WHC</u>	<u>WTS</u>	<u>YEP</u>	<u>YLB</u>
Total	20	12	14	12	9	99	5	1	1	5	23
Min. Length	4.09	7.87	7.91	4.65	14.96	7.91	12.40	7.52	16.22	8.03	6.65
Max. Length	11.06	11.81	10.67	28.03	24.45	13.50	17.09	7.52	16.22	9.69	8.94
Mean Length	4.91	10.50	9.33	16.07	18.26	10.97	14.13	7.52	16.22	8.92	8.28
# Measured	20	12	14	12	9	99	5	1	1	5	22
No Lengths for	0	0	0	0	0	0	0	0	0	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 08/22/2022 and 08/25/2022)

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>CCF</u>	<u>FRD</u>	<u>LMB</u>	<u>QBS</u>	<u>WAE</u>	<u>WHC</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>	<u>YLB</u>
< 3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-
4.00 - 4.49	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-
4.50 - 4.99	-	-	-	2	1	-	-	1	-	-	-	-	-	-	-
5.00 - 5.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.50 - 5.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00 - 6.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.50 - 6.99	-	-	-	10	-	-	-	-	-	1	-	-	-	-	1
7.00 - 7.49	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-
7.50 - 7.99	1	-	-	42	1	-	-	-	-	-	1	-	-	-	4
8.00 - 8.49	1	-	14	29	2	-	2	-	-	-	4	-	-	1	11
8.50 - 8.99	-	-	19	13	2	-	1	-	-	-	-	-	-	-	4
9.00 - 9.49	-	-	15	3	1	-	3	-	-	-	-	-	2	-	-
9.50 - 9.99	-	-	21	-	-	-	2	-	-	-	-	-	3	-	1
10.00 - 10.49	-	-	15	-	-	-	4	-	-	-	-	-	-	-	-
10.50 - 10.99	-	-	3	-	-	-	5	-	-	-	-	-	-	-	-
11.00 - 11.49	-	1	-	-	7	-	13	-	-	-	-	-	-	-	-
11.50 - 11.99	-	-	-	-	20	-	15	-	-	-	1	-	-	-	-
12.00 - 12.99	-	-	1	-	73	-	19	-	1	5	1	-	-	-	-
13.00 - 13.99	-	-	-	-	36	1	12	-	-	-	-	-	-	-	-
14.00 - 14.99	-	-	-	-	7	3	-	1	-	1	-	1	-	-	-
15.00 - 15.99	-	-	-	-	-	1	1	-	4	2	-	1	-	-	-
16.00 - 16.99	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-
17.00 - 17.99	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-
18.00 - 18.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.00 - 19.99	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-
20.00 - 20.99	-	-	-	-	2	-	-	-	3	-	-	-	-	-	-
21.00 - 21.99	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
22.00 - 22.99	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.00 - 23.99	-	-	-	-	3	-	-	-	-	2	-	-	-	-	-
24.00 - 24.99	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
25.00 - 25.99	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-
26.00 - 26.99	-	-	-	-	3	-	-	-	-	1	-	-	-	-	-
27.00 - 27.99	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
28.00 - 28.99	1	-	-	-	3	-	-	-	-	-	-	-	-	-	-
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>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>CCF</u>	<u>FRD</u>	<u>LMB</u>	<u>QBS</u>	<u>WAE</u>	<u>WHC</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>	<u>YLB</u>
Total	8	1	88	124	168	6	77	3	13	17	7	2	5	1	21
Min. Length	3.86	11.06	8.11	3.82	4.57	13.94	8.27	4.96	12.48	6.57	7.80	14.96	9.06	8.15	6.69
Max. Length	28.78	11.06	12.44	9.09	28.82	24.84	15.00	19.29	20.79	26.34	12.09	15.79	9.96	8.15	9.65
Mean Length	10.50	11.06	9.36	7.70	13.87	16.39	11.71	12.77	17.19	16.40	9.18	15.37	9.56	8.15	8.30
# Measured	8	1	83	118	125	6	76	3	13	17	7	2	5	1	21
No Lengths for	0	0	6	7	43	0	1	0	0	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

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	10	0	N/A	0	N/A
	Snapping Turtle	1	1	12.20	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 08/26/2022), 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: 20210824-RJE. Data Date: 08/26/2022 at 6:43 am .

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REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: Amber

Survey Type: Standard Survey

DOW Number: 46-0034-00

Survey ID Date: 08/22/2022

Survey Status: Active

The following 20 (of 33) report components are not included in this Lake Survey Report:

1. Water Level History¹
2. Lake Inlets
3. Additional Inlet Information
4. Lake Outlets
5. Additional Outlet Information
6. Water Control Structure (Dam)
7. Surrounding Watershed Characteristics, Shoreline Characteristics, and Riparian Landscape Observations²
8. Resorts And Campgrounds
9. Fish Spawning Conditions
10. Erosion And Pollution
11. Fish Diseases And Parasites
12. Aquatic Vegetation And Shoalwater Substrates
13. Water Quality (Winter Observations) (added to revision 01/21/2010)
14. Laboratory Analysis Of Water Chemistry
15. Catch Summary (Pre-1993 Format) (added to revision 20201001)
16. Length At Capture With Last Incremental Length*
17. Back-Calculated Lengths
18. Age Class Frequency Distributions
19. Status Of Fishery And Field Notes
20. Survey Attachments (added to revision 20150622)

¹ 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.

² 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 08/26/2022 may not be reflected in the Distribution tables until after 12:30 pm on 08/26/2022.

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