

Lake Name: Fish

Survey Type: Standard Survey

DOW Number: 32-0018-00

Survey ID Date: 07/10/2023

**Lake Identification**

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

DNR Sounding Map Number: C0931  
Alternate Lake Class ID: N/A

**Lake Location**

Primary County: Jackson

Nearest Town: Windom

**All Counties:** Cottonwood, Jackson.

**Legal Descriptions**

Lake Center: Township - 105N Range - 35W Section - 33  
PLS Section Lake Center: 10503533

**All Legal Descriptions:**

Cottonwood County: Township - 105N Range - 35W Sections - 33, 34  
Jackson County: Township - 104N Range - 35W Sections - 3, 4, 5

**Area Office**

Area Name: Windom  
Region Name: Southern

ORG Code: F418  
Region Number: 4

**Lake Access**

(Information based on Re-Survey dated 07/18/1994)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	STATE-OWNED BOAT ACCESS SOUTHWEST SHORELINE.

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

**Lake Characteristics**

Lake Area (planimetered acres): 300.00	GIS Shoreline Length (miles): 3.38
GIS Lake Area (acres): 297.12	Maximum Fetch (miles): 1.41
DOW Lake Area (acres): 425.00	Fetch Orientation (degrees): 45
Littoral Area (acres): 150.00	USGS Quad Map Number: W09d
Area in MN (acres): 297.12	USGS Quad 24K GIS Index: 4518
Maximum Depth (feet): 26.0	
Mean Depth (feet): N/A	

**Watershed Characteristics**

**Major Watershed**

Name: Watonwan River  
Watershed Number: 31  
Watershed size (acres): 558,963

**Minor Watershed**

Name: S Fork Watonwan R  
Watershed Number: 9  
Watershed size (acres): 26,964

**Surveys and Investigations**

**Re-Survey:** 06/01/2011, 07/15/2002, 07/18/1994, 07/10/1989, 07/16/1984.  
**Population Assessment:** 07/10/2006, 07/13/1998, 07/16/1990.  
**Special Assessment:** 06/03/2013, 09/09/2008, 08/24/1993.  
**Creel Survey:** 05/01/1990.  
**Dissolved Oxygen Check:** 01/04/2013, 01/20/2012.  
**Research Survey:** 04/15/1991, 09/25/1990, 05/30/1990.  
**Standard Survey:** 07/10/2023, 07/15/2019, 07/13/2015.  
**Targeted Survey:** 07/11/2023, 06/09/2020.

**Current Water Level**

<u>Station ID</u>	<u>Date</u>	<u>Level</u>	<u>Reading (feet)</u>	<u>Reading Type</u>
BM - 1	07/11/2023	Normal	-3.90	Above or below Benchmark

**Benchmark and Gauge Descriptions / Locations**

<u>Station ID</u>	<u>Location Description</u>
BM - 1	Top of South corner of the upstream end of concrete fishway at the NE end of the lake.

**Water Level History - Readings**

<u>Station ID</u>	<u>Date</u>	<u>Level</u>	<u>Reading (feet)</u>	<u>Reading Type</u>
BM - 1	07/11/2023	Normal	-3.90	Above or below Benchmark
	07/16/2015	Normal	-2.20	Above or below Benchmark
	08/18/2011	Normal	-4.30	Above or below Benchmark
	07/13/2006	Normal	-2.40	Above or below Benchmark
GA - 1	07/16/2015	Normal	11.40	Direct Gauge Reading
	07/13/2006	Normal	11.27	Direct Gauge Reading

**Water Level History - Station Summary**

<u>Station ID</u>	<u>Minimum Level</u>		<u>Maximum Level</u>		<u>Range (feet)</u>	<u>Average Level (feet)</u>	<u>Reading Type (and number of readings)</u>
	<u>Feet</u>	<u>Date</u>	<u>Feet</u>	<u>Date</u>			
BM - 1	-4.30	08/18/2011	-2.20	07/16/2015	2.10	-3.20	Above or below Benchmark (4)
GA - 1	11.27	07/13/2006	11.40	07/16/2015	0.13	11.34	Direct Gauge Reading (2)

**Fish Diseases and Parasites**

<u>Species Examined</u>	<u>Number of Fish Examined</u>			<u>Examination Results</u>	
	<u>Internally</u>	<u>Externally</u>	<u>In Lab</u>	<u>Condition Observed</u>	<u>Number of Fish</u>
northern pike	-	3	-	Neascus (Black Spot)	3

**Dissolved Oxygen and Temperature Profile of Lake Water**

<u>Station ID</u>	<u>Sampling Date</u>	<u>Bottom Depth (Feet)</u>	<u>Sample Depth (Feet)</u>	<u>Water Temperature (°F)</u>	<u>Dissolved Oxygen (ppm)</u>
WQ - 1	07/10/2023	24.5	0.1	72.9	7.0
			1.0	72.9	6.9
			3.0	72.9	6.9
			6.0	72.9	6.9
			9.0	72.9	6.8
			12.0	72.7	6.7
			15.0	72.7	6.5
			16.0	70.7	1.2
			17.0	65.1	0.3
			18.0	61.7	0.2
			21.0	55.9	0.1
			24.0	55.9	0.1

**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	07/10/2023	Surface	3.5	8.78	220	Brown Grn	Sediment

**Net Catch Summary by Numbers for GN**

Standard gill net sets

**Number of Sets:** 3  
**First Set Date:** 07/10/2023  
**Last Lift Date:** 07/13/2023  
**Target Species:** N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 24 <sup>1</sup>		
				25%	50%	75%
BIB	Bigmouth Buffalo	1	0.33	0.25	0.55	1.69
BLB	Black Bullhead	249	83.00	2.50	10.46	44.95
BLC	Black Crappie	6	2.00	2.50	6.91	16.50
BLG	Bluegill	1	0.33	N/A	N/A	N/A
CCF	Channel Catfish	15	5.00	N/A	N/A	N/A
CAP	Common Carp	2	0.67	0.33	1.00	3.00
LMB	Largemouth Bass	1	0.33	0.25	0.50	0.83
NOP	Northern Pike	4	1.33	1.50	3.75	7.29
SMB	Smallmouth Bass	3	1.00	0.20	0.50	2.29
WAE	Walleye	10	3.33	1.17	2.82	6.33
YEP	Yellow Perch	59	19.67	2.00	10.50	27.94
Total Fish/Set:			117.00	<sup>1</sup> 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 <sup>2</sup>	Quartiles for Lake Class 24 <sup>1</sup>		
					25%	50%	75%
BIB	Bigmouth Buffalo	0.00	0.00	N/A	N/A	N/A	N/A
BLB	Black Bullhead	103.09	34.36	0.41	0.29	0.44	0.66
BLC	Black Crappie	2.15	0.72	0.36	0.15	0.20	0.26
BLG	Bluegill	0.18	0.06	0.18	N/A	N/A	N/A
CCF	Channel Catfish	29.63	9.88	1.98	N/A	N/A	N/A
CAP	Common Carp	8.10	2.70	4.05	1.87	3.41	5.24
LMB	Largemouth Bass	1.87	0.62	1.87	0.40	0.60	1.00
NOP	Northern Pike	10.13	3.38	2.53	2.02	2.68	3.50
SMB	Smallmouth Bass	6.75	2.25	2.25	0.86	1.08	1.50
WAE	Walleye	25.38	8.46	2.54	1.20	1.81	2.69
YEP	Yellow Perch	5.78	1.93	0.10	0.10	0.13	0.18
Total Pounds Fish/Set:			64.35	<sup>1</sup> Quartiles for Mean Weight			

<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: 07/10/2023  
 Last Lift Date: 07/13/2023  
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 24 <sup>1</sup>		
				25%	50%	75%
BLB	Black Bullhead	97	10.78	0.71	3.75	25.65
BLC	Black Crappie	3	0.33	1.83	6.50	21.16
BLG	Bluegill	63	7.00	7.54	23.13	62.50
CCF	Channel Catfish	3	0.33	N/A	N/A	N/A
HSF	Hybrid Sunfish	5	0.56	N/A	N/A	N/A
NOP	Northern Pike	1	0.11	N/A	N/A	N/A
PMK	Pumpkinseed	15	1.67	0.74	2.00	4.24
WAE	Walleye	2	0.22	0.27	0.60	1.24
YEP	Yellow Perch	15	1.67	0.25	0.60	1.67
Total Fish/Set:			22.67	<sup>1</sup> 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 <sup>2</sup>	Quartiles for Lake Class 24 <sup>1</sup>		
					25%	50%	75%
BLB	Black Bullhead	39.78	4.42	0.40	0.28	0.43	0.62
BLC	Black Crappie	0.58	0.06	0.19	0.18	0.24	0.33
BLG	Bluegill	3.61	0.40	0.06	0.13	0.18	0.25
CCF	Channel Catfish	5.05	0.56	1.68	N/A	N/A	N/A
HSF	Hybrid Sunfish	0.17	0.02	0.03	N/A	N/A	N/A
NOP	Northern Pike	2.65	0.29	2.65	N/A	N/A	N/A
PMK	Pumpkinseed	1.12	0.12	0.07	0.10	0.13	0.18
WAE	Walleye	4.15	0.46	2.07	0.80	1.50	2.78
YEP	Yellow Perch	1.32	0.15	0.09	0.10	0.13	0.20
Total Pounds Fish/Set:			6.49	<sup>1</sup> Quartiles for Mean Weight			

<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 07/10/2023 and 07/13/2023)

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>CCF</u>	<u>LMB</u>	<u>NOP</u>	<u>SMB</u>	<u>WAE</u>	<u>YEP</u>
< 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	-	-	1	-	-	-	-	-	-	30
6.00 - 6.49	-	-	-	-	-	-	-	-	-	25
6.50 - 6.99	-	1	-	-	-	-	-	-	-	4
7.00 - 7.49	-	-	-	-	-	-	-	-	-	-
7.50 - 7.99	-	1	-	-	-	-	-	-	-	-
8.00 - 8.49	15	2	-	-	-	-	-	-	-	-
8.50 - 8.99	92	2	-	-	-	-	-	-	-	-
9.00 - 9.49	126	-	-	-	-	-	-	-	-	-
9.50 - 9.99	14	-	-	-	-	-	-	-	-	-
10.00 - 10.49	1	-	-	-	-	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-	-	-	-	-
11.00 - 11.49	-	-	-	-	-	-	-	-	-	-
11.50 - 11.99	-	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-	1	-
13.00 - 13.99	-	-	-	-	-	-	-	-	-	-
14.00 - 14.99	-	-	-	-	2	-	-	-	-	-
15.00 - 15.99	-	-	-	-	2	1	-	1	-	-
16.00 - 16.99	-	-	-	1	5	-	-	1	1	-
17.00 - 17.99	-	-	-	-	1	-	-	1	2	-
18.00 - 18.99	-	-	-	-	-	-	-	-	2	-
19.00 - 19.99	-	-	-	-	2	-	-	-	2	-
20.00 - 20.99	-	-	-	-	-	-	-	-	-	-
21.00 - 21.99	-	-	-	-	1	-	2	-	-	-
22.00 - 22.99	-	-	-	1	1	-	1	-	1	-
23.00 - 23.99	-	-	-	-	1	-	1	-	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	-	-	-	-	-	-	-	-	-	-

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>CCF</u>	<u>LMB</u>	<u>NOP</u>	<u>SMB</u>	<u>WAE</u>	<u>YEP</u>
Total	248	6	1	2	15	1	4	3	10	59
Min. Length	8.03	6.93	5.75	16.69	14.80	15.24	21.34	15.43	12.83	5.59
Max. Length	10.08	8.90	5.75	22.13	23.62	15.24	23.07	17.72	23.35	6.81
Mean Length	9.06	8.11	5.75	19.41	17.81	15.24	22.20	16.57	18.62	6.06
# Measured	140	6	1	2	15	1	4	3	10	55
No Lengths for	109	0	0	0	0	0	0	0	0	4

**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 07/10/2023 and 07/13/2023)

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CCF</u>	<u>HSF</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>YEP</u>
< 3.00	-	-	4	-	1	-	1	-	-
3.00 - 3.49	-	-	24	-	3	-	-	-	-
3.50 - 3.99	-	-	4	-	-	-	2	-	-
4.00 - 4.49	-	-	9	-	-	-	7	-	-
4.50 - 4.99	-	-	10	-	1	-	4	-	-
5.00 - 5.49	-	-	6	-	-	-	-	-	2
5.50 - 5.99	-	-	3	-	-	-	-	-	6
6.00 - 6.49	-	-	3	-	-	-	1	-	6
6.50 - 6.99	-	-	-	-	-	-	-	-	-
7.00 - 7.49	-	2	-	-	-	-	-	-	-
7.50 - 7.99	-	-	-	-	-	-	-	-	-
8.00 - 8.49	3	-	-	-	-	-	-	-	-
8.50 - 8.99	31	1	-	-	-	-	-	-	-
9.00 - 9.49	56	-	-	-	-	-	-	-	-
9.50 - 9.99	7	-	-	-	-	-	-	-	-
10.00 - 10.49	-	-	-	-	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-	-	-	-
11.00 - 11.49	-	-	-	-	-	-	-	1	-
11.50 - 11.99	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-	-
13.00 - 13.99	-	-	-	1	-	-	-	-	-
14.00 - 14.99	-	-	-	-	-	-	-	-	-
15.00 - 15.99	-	-	-	-	-	-	-	-	-
16.00 - 16.99	-	-	-	-	-	-	-	-	-
17.00 - 17.99	-	-	-	1	-	-	-	-	-
18.00 - 18.99	-	-	-	1	-	-	-	-	-
19.00 - 19.99	-	-	-	-	-	-	-	-	-
20.00 - 20.99	-	-	-	-	-	-	-	-	-
21.00 - 21.99	-	-	-	-	-	-	-	1	-
22.00 - 22.99	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CCF</u>	<u>HSF</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>YEP</u>
Total	97	3	63	3	5	1	15	2	14
Min. Length	8.23	7.13	2.72	13.98	2.87	23.46	2.91	11.26	5.35
Max. Length	9.53	8.70	6.46	18.62	4.84	23.46	6.14	21.69	6.38
Mean Length	8.99	7.66	4.06	16.54	3.53	23.46	4.32	16.48	5.91
# Measured	39	3	63	3	5	1	15	2	14
No Lengths for	58	0	0	0	0	0	0	0	1

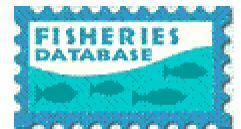
**Note:** Unless all fish were measured in the catch, totals shown for some length-frequency distributions may differ from the total number of fish in the catch, due to rounding of fractions used in the estimation of length frequency from a subsample of measured fish.

**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 07/14/2023), 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.

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Lake Survey Report revision: 20230207-RJE. Data Date: 07/14/2023 at 7:16 am .



## REPORT OVERVIEW - FOR OFFICE USE ONLY

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

**Lake Name: Fish**  
**DOW Number: 32-0018-00**

**Survey Type: Standard Survey**  
**Survey ID Date: 07/10/2023**

**Survey Status:** Field Work Complete

The following 21 (of 34) report components are not included in this Lake Survey Report:

1. Water Level History<sup>1</sup>
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 Observations<sup>2</sup>
8. Resorts And Campgrounds
9. Fish Spawning Conditions
10. Erosion And Pollution
11. Aquatic Vegetation And Shoalwater Substrates
12. Water Quality (Winter Observations) (added to revision 01/21/2010)
13. Laboratory Analysis Of Water Chemistry
14. Zooplankton Sampling (added to revision 20221130)
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. Other Species (added to revision 03/24/2009)
20. Status Of Fishery And Field Notes
21. 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 07/14/2023 may not be reflected in the Distribution tables until after 12:30 pm on 07/14/2023.**

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