

Lake Name: Bingham
DOW Number: 17-0007-00

Survey Type: Standard Survey
Survey ID Date: 06/06/2022

Lake Identification

Alternate Lake Name: N/A
Primary Lake Class ID: 43

DNR Sounding Map Number: C2537
Alternate Lake Class ID: N/A

Lake Location

Primary County: Cottonwood

Nearest Town: Bingham Lake

Legal Descriptions

Lake Center: Township - 105N Range - 35W Section - 4
PLS Section Lake Center: 10503504

All Legal Descriptions:

Cottonwood County: Township - 105N Range - 35W Sections - 3, 4, 9, 10

Area Office

Area Name: Windom
Region Name: Southern

ORG Code: F418
Region Number: 4

Lake Access

(Information based on Population Assessment dated 06/19/2006)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	A State access on Ryan's Point.

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

Lake Characteristics

Lake Area (planimetered acres): 259.00	GIS Shoreline Length (miles): 3.22
GIS Lake Area (acres): 269.75	Maximum Fetch (miles): 1.08
DOW Lake Area (acres): 274.00	Fetch Orientation (degrees): 22
Littoral Area (acres): 269.75	USGS Quad Map Number: W09a
Area in MN (acres): 269.75	USGS Quad 24K GIS Index: 4418
Maximum Depth (feet): 10.0	
Mean Depth (feet): 8.0	

Watershed Characteristics

Major Watershed

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

Minor Watershed

Name: unknown DNR Minor Wshd
Watershed Number: 59
Watershed size (acres): 8,226

Surveys and Investigations

Initial Survey: 07/01/1985.
Re-Survey: 06/17/2002, 06/20/1994.
Population Assessment: 06/21/2010, 06/19/2006, 06/22/1998, 06/25/1990.
Special Assessment: 09/25/2014, 09/13/2010, 09/30/2002, 09/16/1998, 09/01/1955.
Winter Kill Assessment: 04/15/2014.
Dissolved Oxygen Check: 02/11/2016, 01/21/2015, 01/03/2014, 01/08/2013, 12/28/2012, 01/20/2012, 12/29/2010, 01/12/2010.
Investigational Survey: 09/08/2008.
Research Survey: 09/20/2021.
Standard Survey: 06/06/2022, 06/04/2018.
Targeted Survey: 09/23/2020, 02/03/2020, 09/18/2019, 01/10/2019, 09/26/2018, 01/18/2018, 09/06/2017, 08/19/2015.

Current Water Level

<u>Station ID</u>	<u>Date</u>	<u>Level</u>	<u>Reading (feet)</u>	<u>Reading Type</u>
BM - 1	06/06/2022	High	0.95	Above or below Benchmark

Benchmark and Gauge Descriptions / Locations

<u>Station ID</u>	<u>Location Description</u>
BM - 1	N/A

Water Level History - Readings

<u>Station ID</u>	<u>Date</u>	<u>Level</u>	<u>Reading (feet)</u>	<u>Reading Type</u>
BM - 1	06/06/2022	High	0.95	Above or below Benchmark
	06/24/2010	High	1.40	Above or below Benchmark
BM - 2	06/05/2018	High	-2.10	Above or below Benchmark
	06/22/2006	High	-3.10	Above or below Benchmark
GA - 1	06/05/2018	High	2.53	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	0.95	06/06/2022	1.40	06/24/2010	0.45	1.18	Above or below Benchmark (2)
BM - 2	-3.10	06/22/2006	-2.10	06/05/2018	1.00	-2.60	Above or below Benchmark (2)
GA - 1	2.53	06/05/2018	2.53	06/05/2018	0.00	2.53	Direct Gauge Reading (1)

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	06/06/2022	10.6	Surface	65.1	7.8
			1.0	65.1	7.7
			2.0	65.1	7.7
			3.0	65.1	7.7
			4.0	65.1	7.7
			5.0	65.1	7.7
			6.0	65.1	7.7
			7.0	65.1	7.7
			8.0	65.1	7.7
			9.0	65.1	7.7
			10.0	65.1	7.7
			10.7	65.1	7.7

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	06/06/2022	Surface	4.7	8.31	300	Green	Algae

Net Catch Summary by Numbers for GN

Standard gill net sets

Number of Sets: 3
 First Set Date: 06/06/2022
 Last Lift Date: 06/09/2022
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43 ¹		
				25%	50%	75%
BLB	Black Bullhead	407	135.67	30.34	75.58	150.62
BLG	Bluegill	13	4.33	N/A	N/A	N/A
NOP	Northern Pike	25	8.33	1.08	3.00	8.00
PMK	Pumpkinseed	30	10.00	N/A	N/A	N/A
WAE	Walleye	19	6.33	2.28	6.83	18.06
YEP	Yellow Perch	65	21.67	2.65	8.00	25.00
Total Fish/Set:			186.33	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 43 ¹		
					25%	50%	75%
BLB	Black Bullhead	181.66	60.55	0.41	0.17	0.26	0.39
BLG	Bluegill	1.21	0.40	0.12	N/A	N/A	N/A
NOP	Northern Pike	87.57	29.19	3.50	1.82	2.50	3.35
PMK	Pumpkinseed	4.25	1.42	0.16	N/A	N/A	N/A
WAE	Walleye	59.03	19.68	3.11	1.01	1.53	2.30
YEP	Yellow Perch	16.08	5.36	0.26	0.13	0.21	0.31
Total Pounds Fish/Set:			116.61	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: 06/06/2022
 Last Lift Date: 06/09/2022
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43 ¹		
				25%	50%	75%
BLB	Black Bullhead	803	89.22	11.50	42.00	132.61
BLC	Black Crappie	3	0.33	1.17	4.88	20.50
BLG	Bluegill	41	4.56	1.17	3.89	20.00
PMK	Pumpkinseed	21	2.33	0.26	1.35	4.92
WAE	Walleye	3	0.33	0.50	1.33	2.95
YEP	Yellow Perch	29	3.22	0.33	1.37	3.76
Total Fish/Set:			100.00	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 43 ¹		
					25%	50%	75%
BLB	Black Bullhead	398.77	44.31	0.49	0.18	0.28	0.40
BLC	Black Crappie	1.10	0.12	0.37	0.22	0.34	0.50
BLG	Bluegill	3.86	0.43	0.10	0.13	0.24	0.39
PMK	Pumpkinseed	5.55	0.62	0.27	0.08	0.12	0.20
WAE	Walleye	11.00	1.22	3.67	0.82	1.44	2.28
YEP	Yellow Perch	6.18	0.69	0.22	0.11	0.18	0.30
Total Pounds Fish/Set:			47.39	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 06/06/2022 and 06/09/2022)

	<u>BLB</u>	<u>BLG</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-
3.50 - 3.99	-	-	-	2	-	-
4.00 - 4.49	1	-	-	-	-	-
4.50 - 4.99	3	-	-	5	-	-
5.00 - 5.49	11	5	-	-	-	-
5.50 - 5.99	-	4	-	5	-	5
6.00 - 6.49	4	-	-	6	-	9
6.50 - 6.99	1	-	-	3	-	5
7.00 - 7.49	3	-	-	-	-	1
7.50 - 7.99	-	-	-	-	-	3
8.00 - 8.49	2	-	-	-	-	4
8.50 - 8.99	18	-	-	-	-	6
9.00 - 9.49	88	-	-	-	-	6
9.50 - 9.99	115	-	-	-	-	4
10.00 - 10.49	32	-	-	-	-	2
10.50 - 10.99	3	-	-	-	-	2
11.00 - 11.49	-	-	-	-	-	1
11.50 - 11.99	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	2	-
14.00 - 14.99	-	-	-	-	1	-
15.00 - 15.99	-	-	-	-	1	-
16.00 - 16.99	-	-	-	-	-	-
17.00 - 17.99	-	-	-	-	-	-
18.00 - 18.99	-	-	-	-	1	-
19.00 - 19.99	-	-	-	-	2	-
20.00 - 20.99	-	-	2	-	1	-
21.00 - 21.99	-	-	-	-	-	-
22.00 - 22.99	-	-	2	-	1	-
23.00 - 23.99	-	-	-	-	1	-
24.00 - 24.99	-	-	5	-	2	-
25.00 - 25.99	-	-	1	-	3	-
26.00 - 26.99	-	-	4	-	-	-
27.00 - 27.99	-	-	-	-	-	-
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>BLB</u>	<u>BLG</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>YEP</u>
Total	281	9	15	21	15	48
Min. Length	4.06	5.00	20.00	3.50	13.07	5.63
Max. Length	10.75	5.87	28.15	6.73	25.87	11.02
Mean Length	9.06	5.43	24.48	5.65	20.37	8.10
# Measured	166	6	15	20	15	43
No Lengths for	206	6	0	5	0	8

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 06/06/2022 and 06/09/2022)

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>PMK</u>	<u>WAE</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-
3.00 - 3.49	-	-	2	-	-	-
3.50 - 3.99	-	-	9	1	-	-
4.00 - 4.49	-	-	2	-	-	-
4.50 - 4.99	5	-	4	-	-	-
5.00 - 5.49	-	-	5	-	-	-
5.50 - 5.99	-	-	6	5	-	4
6.00 - 6.49	-	-	-	4	-	2
6.50 - 6.99	-	-	1	1	-	1
7.00 - 7.49	-	-	-	1	-	-
7.50 - 7.99	-	-	-	-	-	-
8.00 - 8.49	2	-	-	-	-	1
8.50 - 8.99	54	2	-	1	-	1
9.00 - 9.49	196	-	1	-	-	-
9.50 - 9.99	226	-	-	-	-	-
10.00 - 10.49	99	-	-	-	-	-
10.50 - 10.99	5	-	-	-	-	-
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	-	-	-	-	-	-
17.00 - 17.99	-	-	-	-	-	-
18.00 - 18.99	-	-	-	-	-	-
19.00 - 19.99	-	-	-	-	-	-
20.00 - 20.99	-	-	-	-	-	-
21.00 - 21.99	-	-	-	-	-	-
22.00 - 22.99	-	-	-	-	-	-
23.00 - 23.99	-	-	-	-	-	-
24.00 - 24.99	-	-	-	-	-	-
25.00 - 25.99	-	-	-	-	1	-
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>PMK</u>	<u>WAE</u>	<u>YEP</u>
Total	587	2	30	13	1	9
Min. Length	4.72	8.86	3.43	3.86	25.12	5.63
Max. Length	10.63	8.98	9.09	8.78	25.12	8.78
Mean Length	9.59	8.92	4.91	6.19	25.12	6.69
# Measured	150	2	19	13	1	8
No Lengths for	599	0	17	1	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

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	1	0	N/A	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 06/09/2022), 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: 06/09/2022 at 3:08 pm .

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REPORT OVERVIEW - FOR OFFICE USE ONLY

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Lake Name: Bingham
DOW Number: 17-0007-00

Survey Type: Standard Survey
Survey ID Date: 06/06/2022

Survey Status: Field Work Complete

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 after noon on 06/09/2022 may not be reflected in the Distribution tables until 06/10/2022.

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