



Minnesota Department of Natural Resources

Fisheries Management



STANDARD LAKE SURVEY REPORT

DRAFT VERSION - PRELIMINARY DATA (AS OF 04/28/2014)

Lake Name: Bingham

Survey Type: Winter Kill Assessment

DOW Number: 17-0007-00

Survey ID Date: 04/15/2014

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: 09/13/2010, 09/30/2002, 09/16/1998, 09/01/1955.
Winter Kill Assessment: 04/15/2014.
Dissolved Oxygen Check: 01/03/2014, 01/08/2013, 12/28/2012, 01/20/2012, 12/29/2010, 01/12/2010.
Investigational Survey: 09/08/2008.

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/24/2010	High	1.40	Above or below Benchmark
BM - 2	06/22/2006	High	-3.10	Above or below Benchmark

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			
BM - 1	1.40	06/24/2010	1.40	06/24/2010	0.00	1.40	Above or below Benchmark (1)
BM - 2	-3.10	06/22/2006	-3.10	06/22/2006	0.00	-3.10	Above or below Benchmark (1)

Net Catch Summary by Numbers for TN

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

Number of Sets: 4
First Set Date: 04/15/2014
Last Lift Date: 04/16/2014
Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	14	3.50	11.50	42.00	132.61
Total Fish/Set:			3.50	* 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	Quartiles for Lake Class 43*		
					25%	50%	75%
BLB	Black Bullhead	2.41	0.60	0.17	0.18	0.28	0.40
Total Pounds Fish/Set:			0.60	* Quartiles for Mean Weight			

Natural Reproduction Catch Summary for SEF

Special sampling, electrofishing

Total run-time for all stations: 00:30:00

Total on-time for all stations: 00:30:00

First Sampling Date: 04/15/2014

Last Sampling Date: 04/15/2014

Daylight Sampling: Yes

Target Species: N/A

Abbr	Species	Age	Total Number	Number Measured	Mean Length (inches)	Length Range (inches)		Catch Rates (number per hour)	
						Min	Max	Run-Time	On-Time

(No fish taken)

Length Frequency Distribution For TN

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

(Field work conducted between 04/15/2014 and 04/16/2014)

	<u>BLB</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	-
6.00 - 6.49	3
6.50 - 6.99	6
7.00 - 7.49	3
7.50 - 7.99	2
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	-
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	-
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>
Total	14
Min. Length	6.38
Max. Length	7.80
Mean Length	6.86
# Measured	14
No Lengths for	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

Approval Dates And Notices

Date Approved By Windom Area Fisheries Supervisor: _____

Date Approved By Southern Region Fisheries Manager: _____

This DRAFT VERSION of the Standard Lake Survey Report contains preliminary data (as of 04/28/2014), 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.

Standard Lake Survey Report revision: 03/25/2014-RJE. Data Date: 04/28/2014 at 10:37 am .

REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: Bingham

Survey Type: Winter Kill Assessment

DOW Number: 17-0007-00

Survey ID Date: 04/15/2014

Survey Status: Field Work Complete

The following 23 (of 31) report components are not included in this report:

1. Current Water Level
2. Benchmark And Gauge Descriptions / Locations
3. Water Level History¹
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 Observations²
10. Resorts And Campgrounds
11. Fish Spawning Conditions
12. Erosion And Pollution
13. Fish Diseases And Parasites
14. Aquatic Vegetation And Shoalwater Substrates
15. Dissolved Oxygen And Temperature Profile Of Lake Water
16. Field Measurements Of Water Quality
17. Laboratory Analysis Of Water Chemistry
18. Length At Capture With Last Incremental Length*
19. Back-Calculated Lengths
20. Age Class Frequency Distributions
21. Status Of Fishery And Field Notes
22. Other Species (added to revision 03/24/2009)
23. Water Quality (Winter Observations) (added to revision 01/21/2010)

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 Standard 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 04/28/2014 may not be reflected in the Distribution tables until after 12:30 pm on 04/28/2014.