



# Minnesota Department of Natural Resources Fisheries Management



## STANDARD LAKE SURVEY REPORT

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

Lake Name: Bean

Survey Type: Winter Kill Assessment

DOW Number: 17-0054-00

Survey ID Date: 04/15/2014

### 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: Cottonwood

Nearest Town: Storden

### Legal Descriptions

Lake Center: Township - 107N Range - 38W Section - 14  
PLS Section Lake Center: 10703814

**All Legal Descriptions:**

Cottonwood County: Township - 107N Range - 38W Section - 14

### Area Office

Area Name: Windom  
Region Name: Southern

ORG Code: F418  
Region Number: 4

### Lake Access

(Information based on Population Assessment dated 08/01/1994)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	STATE OWNED PUBLIC ACCESS ON WEST SIDE OF LAKE.

### Lake Characteristics

Lake Area (planimetered acres): 141.00	GIS Shoreline Length (miles): 1.92
GIS Lake Area (acres): 162.09	Maximum Fetch (miles): 0.60
DOW Lake Area (acres): 141.00	Fetch Orientation (degrees): 360
Littoral Area (acres): 162.09	USGS Quad Map Number: V08d
Area in MN (acres): 162.09	USGS Quad 24K GIS Index: 4316
Maximum Depth (feet): 12.0	
Mean Depth (feet): N/A	

### Watershed Characteristics

**Major Watershed**

Name: Cottonwood River  
Watershed Number: 29  
Watershed size (acres): 840,782

**Minor Watershed**

Name: Highwater Cr  
Watershed Number: 80  
Watershed size (acres): 8,526

**Surveys And Investigations**

**Re-Survey:** 07/27/1998, 08/02/1989.  
**Population Assessment:** 08/18/2008, 07/22/2002, 08/01/1994.  
**Special Assessment:** 07/28/1948.  
**Winter Kill Assessment:** 04/15/2014.  
**Dissolved Oxygen Check:** 12/31/2013, 01/02/2013, 01/11/2012, 12/28/2010, 01/04/2010.

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**Water Level History - Readings**

<u>Station ID</u>	<u>Date</u>	<u>Level</u>	<u>Reading (feet)</u>	<u>Reading Type</u>
BM - 1	08/19/2008	N/A	-4.00	Above or below Benchmark

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**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	-4.00	08/19/2008	-4.00	08/19/2008	0.00	-4.00	Above or below Benchmark (1)

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**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	506	126.50	11.50	42.00	132.61
WAE	Walleye	2	0.50	0.50	1.33	2.95
Total Fish/Set:			127.00	* 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	57.90	14.47	0.11	0.18	0.28	0.40
WAE	Walleye	15.88	3.97	7.94	0.82	1.44	2.28
Total Pounds Fish/Set:			18.44	* 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

<u>Abbr</u>	<u>Species</u>	<u>Age</u>	<u>Total Number</u>	<u>Number Measured</u>	<u>Mean Length (inches)</u>	<u>Length Range (inches)</u>		<u>Catch Rates (number per hour)</u>	
						<u>Min</u>	<u>Max</u>	<u>Run-Time</u>	<u>On-Time</u>
BLB	Black Bullhead	All	7	6	6.04	5.87	6.22	14.00	14.00
BLC	Black Crappie	All	1	1	10.63	10.63	10.63	2.00	2.00
CAP	Common Carp	All	1	0	N/A	N/A	N/A	2.00	2.00
FHM	Fathead Minnow	All	200	0	N/A	N/A	N/A	400.00	400.00

**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>	<u>WAE</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	19	-
6.00 - 6.49	14	-
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	-	-
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	-	1
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>WAE</u>
Total	33	2
Min. Length	5.63	25.04
Max. Length	6.38	26.22
Mean Length	6.04	25.63
# Measured	13	2
No Lengths for	493	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 SEF**

**Special sampling, electrofishing**

(Field work conducted on 04/15/2014)

	<u>BLB</u>	<u>BLC</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	2	-
6.00 - 6.49	5	-
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	-	1
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>	<u>BLC</u>
Total	7	1
Min. Length	5.87	10.63
Max. Length	6.22	10.63
Mean Length	6.04	10.63
# Measured	6	1
No Lengths for	1	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.

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## REPORT OVERVIEW - FOR OFFICE USE ONLY

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

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**Lake Name: Bean**

**Survey Type: Winter Kill Assessment**

**DOW Number: 17-0054-00**

**Survey ID Date: 04/15/2014**

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**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 History<sup>1</sup>
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 Observations<sup>2</sup>
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)

<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 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.**