



Minnesota Department of Natural Resources

Fisheries Management



STANDARD LAKE SURVEY REPORT

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

Lake Name: West Graham

Survey Type: Winter Kill Assessment

DOW Number: 53-0021-00

Survey ID Date: 04/24/2014

Lake Identification

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

DNR Sounding Map Number: C2744
Alternate Lake Class ID: N/A

Lake Location

Primary County: Nobles

Nearest Town: Kinbrae

Legal Descriptions

Lake Center: Township - 104N Range - 39W Section - 21
PLS Section Lake Center: 10403921

All Legal Descriptions:

Nobles County: Township - 104N Range - 39W Sections - 15, 16, 21, 22

Area Office

Area Name: Windom
Region Name: Southern

ORG Code: F418
Region Number: 4

Lake Access

(Information based on Re-Survey dated 06/26/1995)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 2	County	Open to Public use	Concrete	COUNTY OWNED ACCESS ON NORTHEAST SIDE OF LAKE.

Lake Characteristics

Lake Area (planimetered acres):	515.00	GIS Shoreline Length (miles):	3.65
GIS Lake Area (acres):	519.29	Maximum Fetch (miles):	1.30
DOW Lake Area (acres):	526.00	Fetch Orientation (degrees):	45
Littoral Area (acres):	519.29	USGS Quad Map Number:	W07d
Area in MN (acres):	519.29	USGS Quad 24K GIS Index:	4514
Maximum Depth (feet):	8.0		
Mean Depth (feet):	N/A		

Watershed Characteristics

Major Watershed

Name: Des Moines-Headwaters
Watershed Number: 51
Watershed size (acres): 798,595

Minor Watershed

Name: From Jack L
Watershed Number: 39
Watershed size (acres): 5,366

Surveys And Investigations

Initial Survey: 11/30/1981.

Re-Survey: 06/03/2002, 06/26/1995, 06/29/1992, 06/29/1987.

Population Assessment: 06/14/2010, 06/12/2006, 06/28/1999.

Special Assessment: 05/01/2001, 10/30/2000.

Dissolved Oxygen Check: 12/30/2013, 02/07/2013, 01/07/2013, 02/17/2012, 01/26/2012, 12/28/2010, 01/11/2010.

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/17/2010	High	7.55	Direct Gauge Reading
	06/12/2006	Normal	-7.10	Above or below Benchmark
GA - 1	06/12/2006	Normal	7.05	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			
BM - 1	-7.10	06/12/2006	-7.10	06/12/2006	0.00	-7.10	Above or below Benchmark (1)
BM - 1	7.55	06/17/2010	7.55	06/17/2010	0.00	7.55	Direct Gauge Reading (1)
GA - 1	7.05	06/12/2006	7.05	06/12/2006	0.00	7.05	Direct Gauge Reading (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: 04/24/2014
Last Lift Date: 04/25/2014
Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	5	1.25	11.50	42.00	132.61
BLC	Black Crappie	1	0.25	1.17	4.88	20.50
CCF	Channel Catfish	1	0.25	N/A	N/A	N/A
CAP	Common Carp	15	3.75	1.00	2.44	5.51
NOP	Northern Pike	1	0.25	N/A	N/A	N/A
WAE	Walleye	17	4.25	0.50	1.33	2.95
WTS	White Sucker	5	1.25	0.34	0.88	2.58
YEP	Yellow Perch	12	3.00	0.33	1.37	3.76
Total Fish/Set:			14.25	* 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	3.73	0.93	0.75	0.18	0.28	0.40
BLC	Black Crappie	0.61	0.15	0.61	0.22	0.34	0.50
CCF	Channel Catfish	0.00	0.00	0.00	N/A	N/A	N/A
CAP	Common Carp	67.22	16.80	4.48	1.42	2.92	4.58
NOP	Northern Pike	4.41	1.10	4.41	N/A	N/A	N/A
WAE	Walleye	29.45	7.36	1.73	0.82	1.44	2.28
WTS	White Sucker	12.11	3.03	2.42	1.05	1.47	2.04
YEP	Yellow Perch	1.28	0.32	0.11	0.11	0.18	0.30
Total Pounds Fish/Set:			29.70	* Quartiles for Mean Weight			

Length Frequency Distribution For TN**Standard 3/4-in mesh, double frame trap net sets**

(Field work conducted between 04/24/2014 and 04/25/2014)

	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>CCF</u>	<u>NOP</u>	<u>WAE</u>	<u>WTS</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	1	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-	-	-
4.00 - 4.49	-	-	-	-	-	-	-	3
4.50 - 4.99	-	-	-	-	-	-	-	5
5.00 - 5.49	-	-	-	-	-	-	-	3
5.50 - 5.99	-	-	-	-	-	-	-	-
6.00 - 6.49	-	-	-	-	-	-	-	-
6.50 - 6.99	-	-	-	-	-	-	-	-
7.00 - 7.49	-	-	-	-	-	-	-	-
7.50 - 7.99	-	-	-	-	-	-	-	-
8.00 - 8.49	-	-	-	-	-	-	-	-
8.50 - 8.99	-	-	-	-	-	-	-	-
9.00 - 9.49	-	-	1	-	-	-	-	-
9.50 - 9.99	1	-	-	-	-	-	-	-
10.00 - 10.49	-	1	2	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-	-	-
11.00 - 11.49	3	-	-	-	-	-	-	-
11.50 - 11.99	1	-	-	-	-	-	-	1
12.00 - 12.99	-	-	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	-	-	-	-
14.00 - 14.99	-	-	-	-	-	1	-	-
15.00 - 15.99	-	-	-	-	-	6	1	-
16.00 - 16.99	-	-	-	-	-	-	-	-
17.00 - 17.99	-	-	-	-	-	5	1	-
18.00 - 18.99	-	-	2	-	-	3	2	-
19.00 - 19.99	-	-	1	-	-	1	1	-
20.00 - 20.99	-	-	-	-	-	-	-	-
21.00 - 21.99	-	-	4	-	-	1	-	-
22.00 - 22.99	-	-	-	-	-	-	-	-
23.00 - 23.99	-	-	2	-	-	-	-	-
24.00 - 24.99	-	-	1	-	-	-	-	-
25.00 - 25.99	-	-	-	-	-	-	-	-
26.00 - 26.99	-	-	1	-	-	-	-	-
27.00 - 27.99	-	-	1	-	1	-	-	-
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>CAP</u>	<u>CCF</u>	<u>NOP</u>	<u>WAE</u>	<u>WTS</u>	<u>YEP</u>
Total	5	1	15	1	1	17	5	12
Min. Length	9.61	10.31	9.33	3.03	27.48	14.49	15.83	4.06
Max. Length	11.61	10.31	27.52	3.03	27.48	21.26	19.37	11.65
Mean Length	10.96	10.31	19.95	3.03	27.48	17.12	17.84	5.33
# Measured	5	1	15	1	1	17	5	12
No Lengths for	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	2	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 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 9:54 am .

REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: West Graham

Survey Type: Winter Kill Assessment

DOW Number: 53-0021-00

Survey ID Date: 04/24/2014

Survey Status: Proposed

The following 22 (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. 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.