



Minnesota Department of Natural Resources
Fisheries Management



STANDARD LAKE SURVEY REPORT

DRAFT VERSION - PRELIMINARY DATA (AS OF 07/11/2013)

Lake Name: East Chain

Survey Type: Population Assessment

DOW Number: 46-0010-00

Survey ID Date: 07/08/2013

Lake Identification

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

DNR Sounding Map Number: C0454
Alternate Lake Class ID: N/A

Lake Location

Primary County: Martin

Nearest Town: East Chain

Legal Descriptions

Lake Center: Township - 101N Range - 29W Section - 19
PLS Section Lake Center: 10102919

All Legal Descriptions:

Martin County: Township - 101N Range - 29W Sections - 7, 18, 19, 30
Township - 101N Range - 30W Sections - 13, 24, 25

Area Office

Area Name: Windom
Region Name: Southern

ORG Code: F418
Region Number: 4

Lake Access

(Information based on Re-Survey dated 07/07/1997)

Station ID	Ownership	Public Use	Type	Location / Comments
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(Data excludes records where public use is not designated or is designated "No Public Use")

Lake Characteristics

Lake Area (planimetered acres): 485.00	GIS Shoreline Length (miles): 5.90
GIS Lake Area (acres): 480.75	Maximum Fetch (miles): 2.00
DOW Lake Area (acres): 485.00	Fetch Orientation (degrees): 360
Littoral Area (acres): 480.75	USGS Quad Map Number: X12d
Area in MN (acres): 480.75	USGS Quad 24K GIS Index: 4724
Maximum Depth (feet): 6.0	
Mean Depth (feet): N/A	

Watershed Characteristics

Major Watershed

Name: Blue Earth River
Watershed Number: 30
Watershed size (acres): 777,240

Minor Watershed

Name: Sager L
Watershed Number: 62
Watershed size (acres): 5,253

Surveys And Investigations

Re-Survey: 07/07/1997.
 Population Assessment: 07/08/2013, 07/02/2001, 07/06/1992.
 Special Assessment: 04/15/1997.
 Winter Kill Assessment: 04/15/2009.
 Dissolved Oxygen Check: 01/08/2013, 12/28/2012, 01/18/2011, 01/15/2010.

Current Water Level

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/11/2013	Normal	-2.90	Above or below Benchmark

Benchmark and Gauge Descriptions / Locations

Station ID	Location Description
BM - 1	top of western most culvert downstream of dam.

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/11/2013	Normal	-2.90	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	-2.90	07/11/2013	-2.90	07/11/2013	0.00	-2.90	Above or below Benchmark (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	07/08/2013	5.0	Surface	80.6	9.7
			1.0	80.2	11.1
			2.0	80.1	11.4
			3.0	79.7	10.6
			4.0	79.3	9.9
			5.0	78.1	3.1

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	07/08/2013	Surface	2.5	8.50	154	Brown Grn	Algae

STANDARD LAKE SURVEY REPORT
POPULATION ASSESSMENT DATED 07/08/2013 FOR DOW NUMBER 46-0010-00

DRAFT

Net Catch Summary by Numbers for TN

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

Number of Sets: 12
 First Set Date: 07/08/2013
 Last Lift Date: 07/11/2013
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BIB	Bigmouth Buffalo	1	0.08	0.17	0.38	1.04
BLB	Black Bullhead	44	3.67	11.50	42.00	132.61
BLC	Black Crappie	2	0.17	1.17	4.88	20.50
CAP	Common Carp	83	6.92	1.00	2.44	5.51
FRD	Freshwater Drum	11	0.92	0.23	0.92	3.25
GOS	Golden Shiner	3	0.25	0.22	0.50	1.10
NOP	Northern Pike	17	1.42	N/A	N/A	N/A
OSS	Orangespotted Sunfish	1	0.08	N/A	N/A	N/A
WAE	Walleye	5	0.42	0.50	1.33	2.95
WHC	White Crappie	8	0.67	0.25	1.83	5.96
WTS	White Sucker	1	0.08	0.34	0.88	2.58
Total Fish/Set:			14.67	* 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%
BIB	Bigmouth Buffalo	11.91	0.99	11.91	2.56	3.75	5.83
BLB	Black Bullhead	11.94	1.00	0.27	0.18	0.28	0.40
BLC	Black Crappie	0.40	0.03	0.20	0.22	0.34	0.50
CAP	Common Carp	488.11	40.68	5.88	1.42	2.92	4.58
FRD	Freshwater Drum	21.39	1.78	1.94	0.28	0.60	0.95
GOS	Golden Shiner	0.22	0.02	0.07	0.06	0.10	0.10
NOP	Northern Pike	42.91	3.58	2.52	N/A	N/A	N/A
OSS	Orangespotted Sunfish	0.02	0.00	0.02	N/A	N/A	N/A
WAE	Walleye	18.69	1.56	3.74	0.82	1.44	2.28
WHC	White Crappie	4.66	0.39	0.58	0.27	0.40	0.63
WTS	White Sucker	1.66	0.14	1.66	1.05	1.47	2.04
Total Pounds Fish/Set:			50.16	* Quartiles for Mean Weight			

Length Frequency Distribution For TN

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

(Field work conducted between 07/08/2013 and 07/11/2013)

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>FRD</u>	<u>GOS</u>	<u>NOP</u>	<u>WAE</u>	<u>WHC</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	-	-	-	-	-	3	-	-	-
6.00 - 6.49	-	-	-	-	-	-	-	-	-
6.50 - 6.99	-	-	-	-	-	-	-	-	-
7.00 - 7.49	-	-	1	-	-	-	-	-	-
7.50 - 7.99	-	-	-	-	-	-	-	-	-
8.00 - 8.49	-	3	-	-	-	-	1	-	-
8.50 - 8.99	-	-	-	-	-	-	-	-	-
9.00 - 9.49	-	-	-	-	-	-	1	-	1
9.50 - 9.99	-	-	-	-	-	-	-	-	1
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	-	-	-	-	1	-	-	-	-
16.00 - 16.99	-	-	-	1	2	-	-	-	-
17.00 - 17.99	-	-	-	-	2	-	-	-	-
18.00 - 18.99	-	-	-	1	-	-	-	1	-
19.00 - 19.99	-	-	-	3	-	-	-	1	-
20.00 - 20.99	-	-	-	5	-	-	-	-	-
21.00 - 21.99	-	-	-	9	-	-	1	-	-
22.00 - 22.99	-	-	-	8	-	-	-	-	-
23.00 - 23.99	-	-	-	3	-	-	-	1	-
24.00 - 24.99	-	-	-	8	-	-	-	-	-
25.00 - 25.99	-	-	-	2	-	-	3	1	-
26.00 - 26.99	1	-	-	5	-	-	2	-	-
27.00 - 27.99	-	-	-	3	-	-	1	-	-
28.00 - 28.99	-	-	-	2	-	-	3	-	-
29.00 - 29.99	-	-	-	3	-	-	1	-	-
30.00 - 30.99	-	-	-	1	-	-	-	-	-
31.00 - 31.99	-	-	-	-	-	-	-	-	-
32.00 - 32.99	-	-	-	-	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-
	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>FRD</u>	<u>GOS</u>	<u>NOP</u>	<u>WAE</u>	<u>WHC</u>
Total	1	3	1	54	5	3	13	4	3
Min. Length	26.93	8.11	7.01	16.46	15.12	5.51	8.35	18.86	9.13
Max. Length	26.93	8.46	7.01	30.31	17.87	5.83	29.49	25.04	10.98
Mean Length	26.93	8.31	7.01	23.61	16.72	5.67	23.61	21.72	9.97
# Measured	1	3	1	54	5	2	12	4	3
No Lengths for	0	16	1	1	0	1	1	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	5	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 07/11/2013), 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.

REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: East Chain

Survey Type: Population Assessment

DOW Number: 46-0010-00

Survey ID Date: 07/08/2013

Survey Status: Field Work Complete

The following 18 (of 31) report components are not included in this report:

1. Water Level History*
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
8. Resorts And Campgrounds
9. Fish Spawning Conditions
10. Erosion And Pollution
11. Fish Diseases And Parasites
12. Aquatic Vegetation And Shoalwater Substrates
13. Laboratory Analysis Of Water Chemistry
14. Length At Capture With Last Incremental Length*
15. Back-Calculated Lengths
16. Age Class Frequency Distributions
17. Status Of Fishery And Field Notes
18. Water Quality (Winter Observations) (added to revision 01/21/2010)

* 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.

* 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 07/11/2013 may not be reflected in the Distribution tables until 07/12/2013.