



Minnesota Department of Natural Resources
Fisheries Management



STANDARD LAKE SURVEY REPORT

DRAFT VERSION - PRELIMINARY DATA (AS OF 06/20/2014)

Lake Name: Yankton

Survey Type: Population Assessment

DOW Number: 42-0047-00

Survey ID Date: 06/16/2014

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: Lyon

Nearest Town: Balaton

Legal Descriptions

Lake Center: Township - 109N Range - 42W Section - 14
PLS Section Lake Center: 10904214

All Legal Descriptions:

Lyon County: Township - 109N Range - 42W Sections - 11, 13, 14, 23

Area Office

Area Name: Windom
Region Name: Southern

ORG Code: F418
Region Number: 4

Lake Access

(Information based on Re-Survey dated 06/14/1994)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	STATE OWNED PUBLIC BOAT ACCESS ON SOUTH END.

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

Lake Characteristics

Lake Area (planimetered acres): 387.00	GIS Shoreline Length (miles): 4.75
GIS Lake Area (acres): 401.33	Maximum Fetch (miles): 1.21
DOW Lake Area (acres): 382.00	Fetch Orientation (degrees): 45
Littoral Area (acres): 401.33	USGS Quad Map Number: V06a
Area in MN (acres): 401.33	USGS Quad 24K GIS Index: 4212
Maximum Depth (feet): 8.0	
Mean Depth (feet): N/A	

Watershed Characteristics

Major Watershed	Minor Watershed
Name: Des Moines-Headwaters	Name: From L Yankton
Watershed Number: 51	Watershed Number: 109
Watershed size (acres): 798,595	Watershed size (acres): 3,643

Surveys And Investigations

Initial Survey: 06/10/1985.
 Re-Survey: 06/19/2006, 06/14/1994.
 Population Assessment: 06/16/2014, 06/21/2010, 06/17/2002, 06/15/1998, 06/11/1990.
 Special Assessment: 03/29/1995.
 Dissolved Oxygen Check: 12/31/2013, 02/06/2013, 01/03/2013, 01/11/2012, 12/28/2010, 01/04/2010.

Current Water Level

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/17/2014	High	-0.20	Above or below Benchmark

Benchmark and Gauge Descriptions / Locations

Station ID	Location Description
BM - 1	Top of west wing on lake side of cement walkway that crosses outlet 5 feet from the lake.

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/17/2014	High	-0.20	Above or below Benchmark
	06/24/2010	High	-0.75	Above or below Benchmark
	06/19/2006	Normal	-1.20	Above or below Benchmark
GA - 1	06/24/2010	High	12.10	Direct Gauge Reading
	06/19/2006	Normal	2.58	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	-1.20	06/19/2006	-0.20	06/17/2014	1.00	-0.72	Above or below Benchmark (3)
GA - 1	2.58	06/19/2006	12.10	06/24/2010	9.52	7.34	Direct Gauge Reading (2)

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	06/17/2014	N/A	Surface	67.1	8.5
			2.0	66.9	8.4
			4.0	66.7	8.4
			6.0	66.6	8.0
			8.0	66.2	7.2
			8.8	66.2	7.1

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	06/17/2014	Surface	0.8	8.24	220	Brown Grn	Algae

Net Catch Summary by Numbers for GN

Standard gill net sets

Number of Sets: 3
 First Set Date: 06/16/2014
 Last Lift Date: 06/19/2014
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BIB	Bigmouth Buffalo	33	11.00	0.75	2.58	6.96
BLB	Black Bullhead	311	103.67	30.34	75.58	150.62
BLC	Black Crappie	4	1.33	1.41	3.71	13.75
CAP	Common Carp	17	5.67	1.00	3.33	13.75
NOP	Northern Pike	13	4.33	1.08	3.00	8.00
WAE	Walleye	25	8.33	2.28	6.83	18.06
WTS	White Sucker	9	3.00	0.81	2.33	6.50
YEB	Yellow Bullhead	1	0.33	0.50	1.50	3.50
YEP	Yellow Perch	13	4.33	2.65	8.00	25.00
Total Fish/Set:			142.00	* 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	Quartiles for Lake Class 43*		
					25%	50%	75%
BIB	Bigmouth Buffalo	8.52	2.84	0.26	N/A	N/A	N/A
BLB	Black Bullhead	66.60	22.20	0.21	0.17	0.26	0.39
BLC	Black Crappie	0.19	0.06	0.05	0.16	0.25	0.35
CAP	Common Carp	59.15	19.72	3.48	0.81	1.98	3.70
NOP	Northern Pike	32.84	10.95	2.53	1.82	2.50	3.35
WAE	Walleye	75.69	25.23	3.03	1.01	1.53	2.30
WTS	White Sucker	24.97	8.32	2.77	0.93	1.58	2.02
YEB	Yellow Bullhead	0.32	0.11	0.32	0.31	0.53	0.73
YEP	Yellow Perch	1.52	0.51	0.12	0.13	0.21	0.31
Total Pounds Fish/Set:			89.93	* Quartiles for Mean Weight			

Net Catch Summary by Numbers for TN

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

Number of Sets: 9
 First Set Date: 06/16/2014
 Last Lift Date: 06/19/2014
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BIB	Bigmouth Buffalo	1	0.11	0.17	0.38	1.04
BLB	Black Bullhead	128	14.22	11.50	42.00	132.61
BLC	Black Crappie	17	1.89	1.17	4.88	20.50
CAP	Common Carp	12	1.33	1.00	2.44	5.51
NOP	Northern Pike	4	0.44	N/A	N/A	N/A
WAE	Walleye	2	0.22	0.50	1.33	2.95
WTS	White Sucker	1	0.11	0.34	0.88	2.58
YEB	Yellow Bullhead	1	0.11	0.50	1.13	2.50
YEP	Yellow Perch	4	0.44	0.33	1.37	3.76
Total Fish/Set:			18.89	* 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	8.88	0.99	8.88	2.56	3.75	5.83
BLB	Black Bullhead	42.50	4.72	0.33	0.18	0.28	0.40
BLC	Black Crappie	10.17	1.13	0.60	0.22	0.34	0.50
CAP	Common Carp	91.18	10.13	7.60	1.42	2.92	4.58
NOP	Northern Pike	15.69	1.74	3.92	N/A	N/A	N/A
WAE	Walleye	4.30	0.48	2.15	0.82	1.44	2.28
WTS	White Sucker	2.87	0.32	2.87	1.05	1.47	2.04
YEB	Yellow Bullhead	0.83	0.09	0.83	0.31	0.48	0.67
YEP	Yellow Perch	0.32	0.04	0.08	0.11	0.18	0.30
Total Pounds Fish/Set:			19.64	* Quartiles for Mean Weight			

Length Frequency Distribution For GN

Standard gill net sets

(Field work conducted between 06/16/2014 and 06/19/2014)

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>NOP</u>	<u>WAE</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-	-	-	-
4.00 - 4.49	-	-	3	-	-	-	-	-	-
4.50 - 4.99	-	2	1	-	-	-	-	-	-
5.00 - 5.49	-	8	-	-	-	-	-	-	4
5.50 - 5.99	-	9	-	-	-	-	-	-	8
6.00 - 6.49	-	18	-	-	-	-	-	-	-
6.50 - 6.99	4	69	-	-	-	-	-	-	-
7.00 - 7.49	18	107	-	-	-	-	-	-	-
7.50 - 7.99	7	68	-	-	-	1	-	-	-
8.00 - 8.49	4	12	-	1	-	1	-	-	-
8.50 - 8.99	-	5	-	2	-	-	-	1	-
9.00 - 9.49	-	1	-	3	-	-	-	-	-
9.50 - 9.99	-	4	-	3	-	-	-	-	-
10.00 - 10.49	-	-	-	1	-	-	-	-	1
10.50 - 10.99	-	9	-	-	-	-	-	-	-
11.00 - 11.49	-	-	-	-	-	-	-	-	-
11.50 - 11.99	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	4	-	-	-
13.00 - 13.99	-	-	-	-	-	1	-	-	-
14.00 - 14.99	-	-	-	-	-	1	-	-	-
15.00 - 15.99	-	-	-	-	-	1	-	-	-
16.00 - 16.99	-	-	-	1	1	1	2	-	-
17.00 - 17.99	-	-	-	-	-	2	3	-	-
18.00 - 18.99	-	-	-	-	2	-	4	-	-
19.00 - 19.99	-	-	-	-	4	1	-	-	-
20.00 - 20.99	-	-	-	-	2	1	-	-	-
21.00 - 21.99	-	-	-	-	-	3	-	-	-
22.00 - 22.99	-	-	-	-	1	2	-	-	-
23.00 - 23.99	-	-	-	1	-	2	-	-	-
24.00 - 24.99	-	-	-	1	-	-	-	-	-
25.00 - 25.99	-	-	-	1	2	1	-	-	-
26.00 - 26.99	-	-	-	-	-	2	-	-	-
27.00 - 27.99	-	-	-	-	-	1	-	-	-
28.00 - 28.99	-	-	-	1	-	-	-	-	-
29.00 - 29.99	-	-	-	2	-	-	-	-	-
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>NOP</u>	<u>WAE</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
Total	33	312	4	17	13	25	9	1	13
Min. Length	6.54	4.65	4.02	8.03	16.38	7.83	16.97	8.74	5.08
Max. Length	8.35	10.75	4.80	29.88	30.47	27.56	18.74	8.74	10.39
Mean Length	7.41	7.08	4.37	15.95	21.30	18.59	17.74	8.74	5.92
# Measured	33	138	3	17	13	25	9	1	12
No Lengths for	0	173	1	0	0	0	0	0	1

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 06/16/2014 and 06/19/2014)

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>NOP</u>	<u>WAE</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-	-	-	-
4.00 - 4.49	-	-	3	-	-	-	-	-	-
4.50 - 4.99	-	1	1	-	-	-	-	-	-
5.00 - 5.49	-	-	1	-	-	-	-	-	3
5.50 - 5.99	-	1	-	-	-	-	-	-	1
6.00 - 6.49	-	-	-	-	-	-	-	-	-
6.50 - 6.99	-	7	-	-	-	-	-	-	-
7.00 - 7.49	-	20	-	-	-	-	-	-	-
7.50 - 7.99	-	36	-	-	-	-	-	-	-
8.00 - 8.49	-	26	-	-	-	-	-	-	-
8.50 - 8.99	-	6	-	-	-	-	-	-	-
9.00 - 9.49	-	2	-	-	-	-	-	-	-
9.50 - 9.99	-	7	-	-	-	-	-	-	-
10.00 - 10.49	-	10	1	-	-	-	-	-	-
10.50 - 10.99	-	9	5	-	-	-	-	1	-
11.00 - 11.49	-	2	2	-	-	-	-	-	-
11.50 - 11.99	-	-	2	-	-	-	-	-	-
12.00 - 12.99	-	-	2	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	-	-	-	-	-
14.00 - 14.99	-	-	-	-	-	-	-	-	-
15.00 - 15.99	-	-	-	-	-	-	-	-	-
16.00 - 16.99	-	-	-	-	-	-	-	-	-
17.00 - 17.99	-	-	-	-	-	-	1	-	-
18.00 - 18.99	-	-	-	1	-	1	-	-	-
19.00 - 19.99	-	-	-	-	1	-	-	-	-
20.00 - 20.99	-	-	-	2	1	-	-	-	-
21.00 - 21.99	-	-	-	1	-	-	-	-	-
22.00 - 22.99	-	-	-	-	-	-	-	-	-
23.00 - 23.99	-	-	-	-	-	-	-	-	-
24.00 - 24.99	1	-	-	2	-	-	-	-	-
25.00 - 25.99	-	-	-	-	-	-	-	-	-
26.00 - 26.99	-	-	-	-	-	-	-	-	-
27.00 - 27.99	-	-	-	1	-	-	-	-	-
28.00 - 28.99	-	-	-	4	-	-	-	-	-
29.00 - 29.99	-	-	-	1	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>NOP</u>	<u>WAE</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
Total	1	127	17	12	4	1	1	1	4
Min. Length	24.41	4.96	4.06	18.43	19.88	18.66	17.60	10.94	5.28
Max. Length	24.41	11.30	12.60	29.21	30.51	18.66	17.60	10.94	5.87
Mean Length	24.41	8.33	9.18	25.04	24.99	18.66	17.60	10.94	5.49
# Measured	1	126	17	12	4	1	1	1	3
No Lengths for	0	2	0	0	0	1	0	0	1

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	Snapping Turtle	1	1	12.60	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 06/20/2014), 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.

REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: Yankton

Survey Type: Population Assessment

DOW Number: 42-0047-00

Survey ID Date: 06/16/2014

Survey Status: Field Work Complete

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

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 06/20/2014 may not be reflected in the Distribution tables until after 12:30 pm on 06/20/2014.