



# Minnesota Department of Natural Resources Fisheries Management



## STANDARD LAKE SURVEY REPORT

**DRAFT VERSION - PRELIMINARY DATA (AS OF 09/11/2014)**

Lake Name: Slough

Survey Type: Population Assessment

DOW Number: 41-0022-00

Survey ID Date: 09/08/2014

### 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: Lincoln

Nearest Town: Arco

### Legal Descriptions

Lake Center: Township - 110N Range - 44W Section - 2  
PLS Section Lake Center: 11004402

**All Legal Descriptions:**

Lincoln County: Township - 110N Range - 44W Section - 2  
Township - 111N Range - 44W Section - 35

### Area Office

Area Name: Windom  
Region Name: Southern

ORG Code: F418  
Region Number: 4

### Lake Access

(Information based on Initial Survey dated 09/03/2002)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Other	Wildlife Management Area on the northwest corner of the lake.

### Lake Characteristics

Lake Area (planimetered acres): 162.00	GIS Shoreline Length (miles): 2.21
GIS Lake Area (acres): 160.04	Maximum Fetch (miles): 0.91
DOW Lake Area (acres): 151.00	Fetch Orientation (degrees): 337
Littoral Area (acres): 160.04	USGS Quad Map Number: U05d
Area in MN (acres): 160.04	USGS Quad 24K GIS Index: 4110
Maximum Depth (feet): 13.0	
Mean Depth (feet): N/A	

### Watershed Characteristics

**Major Watershed**

Name: Redwood River  
Watershed Number: 27  
Watershed size (acres): 447,531

**Minor Watershed**

Name: Coon Cr  
Watershed Number: 2  
Watershed size (acres): 16,644

**Surveys And Investigations**

Initial Survey: 09/03/2002.

Population Assessment: 09/08/2014.

Dissolved Oxygen Check: 01/02/2014, 02/06/2013, 01/03/2013, 12/29/2010, 02/18/2010.

**Dissolved Oxygen And Temperature Profile Of Lake Water**

<u>Station ID</u>	<u>Sampling Date</u>	<u>Bottom Depth (Feet)</u>	<u>Sample Depth (Feet)</u>	<u>Water Temperature (°F)</u>	<u>Dissolved Oxygen (ppm)</u>
WQ - 1	09/08/2014	12.6	Surface	65.3	7.7
			2.0	65.3	7.7
			4.0	65.3	7.7
			6.0	65.3	7.6
			8.0	65.5	7.6
			10.0	65.5	7.6
			12.0	65.5	7.5

**Field Measurements Of Water Quality**

<u>Station ID</u>	<u>Sampling Date</u>	<u>Sample Depth (Feet)</u>	<u>Secchi Depth (Feet)</u>	<u>Field pH</u>	<u>Alkalinity (ppm)</u>	<u>Water Color</u>	<u>Color Cause</u>
WQ - 1	09/08/2014	Surface	5.0	N/A	238	Clear	N/A

**Net Catch Summary by Numbers for GN**

Standard gill net sets

Number of Sets: 2  
 First Set Date: 09/08/2014  
 Last Lift Date: 09/10/2014  
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	339	169.50	30.34	75.58	150.62
WAE	Walleye	16	8.00	2.28	6.83	18.06
YEP	Yellow Perch	48	24.00	2.65	8.00	25.00
Total Fish/Set:			201.50	* 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%
BLB	Black Bullhead	158.97	79.48	0.47	0.17	0.26	0.39
WAE	Walleye	73.49	36.74	4.59	1.01	1.53	2.30
YEP	Yellow Perch	11.03	5.51	0.23	0.13	0.21	0.31
Total Pounds Fish/Set:			121.74	* Quartiles for Mean Weight			

**Net Catch Summary by Numbers for TN**

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

Number of Sets: 6  
 First Set Date: 09/08/2014  
 Last Lift Date: 09/10/2014  
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	10	1.67	11.50	42.00	132.61
BLC	Black Crappie	3	0.50	1.17	4.88	20.50
BLG	Bluegill	1	0.17	1.17	3.89	20.00
WAE	Walleye	12	2.00	0.50	1.33	2.95
Total Fish/Set:			4.33	* 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	4.42	0.74	0.44	0.18	0.28	0.40
BLC	Black Crappie	0.07	0.01	0.02	0.22	0.34	0.50
BLG	Bluegill	0.00	0.00	0.00	0.13	0.24	0.39
WAE	Walleye	34.89	5.81	2.91	0.82	1.44	2.28
Total Pounds Fish/Set:			6.56	* Quartiles for Mean Weight			

**Length Frequency Distribution For GN**

**Standard gill net sets**

(Field work conducted between 09/08/2014 and 09/10/2014)

	<u>BLB</u>	<u>WAE</u>	<u>YEP</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	1	-	-
6.00 - 6.49	2	-	1
6.50 - 6.99	-	-	5
7.00 - 7.49	1	-	9
7.50 - 7.99	8	-	25
8.00 - 8.49	49	-	7
8.50 - 8.99	101	-	1
9.00 - 9.49	91	-	-
9.50 - 9.99	67	-	-
10.00 - 10.49	19	-	-
10.50 - 10.99	-	-	-
11.00 - 11.49	-	-	-
11.50 - 11.99	-	-	-
12.00 - 12.99	-	1	-
13.00 - 13.99	-	-	-
14.00 - 14.99	-	-	-
15.00 - 15.99	-	-	-
16.00 - 16.99	-	-	-
17.00 - 17.99	-	-	-
18.00 - 18.99	-	1	-
19.00 - 19.99	-	-	-
20.00 - 20.99	-	4	-
21.00 - 21.99	-	-	-
22.00 - 22.99	-	1	-
23.00 - 23.99	-	4	-
24.00 - 24.99	-	2	-
25.00 - 25.99	-	1	-
26.00 - 26.99	-	-	-
27.00 - 27.99	-	2	-
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>	<u>YEP</u>
Total	339	16	48
Min. Length	5.83	12.68	6.34
Max. Length	10.28	27.56	8.58
Mean Length	9.00	22.45	7.59
# Measured	168	16	48
No Lengths for	171	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

**Length Frequency Distribution For TN**

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

(Field work conducted between 09/08/2014 and 09/10/2014)

	<u>BLB</u>	<u>BLC</u>	<u>WAE</u>
< 3.00	-	1	-
3.00 - 3.49	-	1	-
3.50 - 3.99	-	1	-
4.00 - 4.49	-	-	-
4.50 - 4.99	-	-	-
5.00 - 5.49	-	-	-
5.50 - 5.99	-	-	-
6.00 - 6.49	-	-	2
6.50 - 6.99	-	-	1
7.00 - 7.49	-	-	-
7.50 - 7.99	-	-	-
8.00 - 8.49	1	-	-
8.50 - 8.99	3	-	-
9.00 - 9.49	5	-	-
9.50 - 9.99	-	-	-
10.00 - 10.49	1	-	-
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	-	-	1
21.00 - 21.99	-	-	1
22.00 - 22.99	-	-	4
23.00 - 23.99	-	-	1
24.00 - 24.99	-	-	-
25.00 - 25.99	-	-	1
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>	<u>WAE</u>
Total	10	3	12
Min. Length	8.23	2.99	6.02
Max. Length	10.20	3.78	25.39
Mean Length	9.05	3.29	17.57
# Measured	10	3	12
No Lengths for	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

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**Other Species**

<b>Gear Type (1)</b>	<b>Other Species (Gender) (2)</b>	<b>Total Num</b>	<b>Number Measured</b>	<b>Length (inches) Min - Mean - Max</b>	<b>Number Weighed</b>	<b>Weight (pounds) Min - Mean - Max</b>
TN	Painted Turtle	22	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.

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**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 09/11/2014), 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 )

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**Lake Name: Slough**

**Survey Type: Population Assessment**

**DOW Number: 41-0022-00**

**Survey ID Date: 09/08/2014**

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**Survey Status:** Field Work Complete

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 History<sup>1</sup>
4. Water Level History - Readings\*
5. Water Level History - Station Summary\*
6. Lake Inlets
7. Additional Inlet Information
8. Lake Outlets
9. Additional Outlet Information
10. Water Control Structure (Dam)
11. Surrounding Watershed Characteristics, Shoreline Characteristics, and Riparian Landscape Observations<sup>2</sup>
12. Resorts And Campgrounds
13. Fish Spawning Conditions
14. Erosion And Pollution
15. Fish Diseases And Parasites
16. Aquatic Vegetation And Shoalwater Substrates
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)

<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 after noon on 09/11/2014 may not be reflected in the Distribution tables until 09/12/2014.**

The following survey component was flagged to be specifically excluded from this report: TN - 4