



# Minnesota Department of Natural Resources

## Fisheries Management



### STANDARD LAKE SURVEY REPORT

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

**Lake Name: Split Rock Reservoir**

**Survey Type: Population Assessment**

**DOW Number: 59-0001-00**

**Survey ID Date: 07/08/2013**

#### Lake Identification

Alternate Lake Name: N/A  
Primary Lake Class ID: 42

DNR Sounding Map Number: C2863  
Alternate Lake Class ID: N/A

#### Lake Location

Primary County: Pipestone

Nearest Town: Pipestone

#### Legal Descriptions

Lake Center: Township - 105N Range - 46W Section - 15  
PLS Section Lake Center: 10504615

##### All Legal Descriptions:

Pipestone County: Township - 105N Range - 46W Sections - 15, 22

#### 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
AC - 1	DNR	Fee/Permit needed	Concrete	STATE OWNED BOAT ACCESS ON WEST SIDE IN SPLIT ROCK STATE PARK. STATE OWNED BOAT ACCESS ON WEST SIDE; IN SPLIT ROCK STATE PARK.

#### Lake Characteristics

Lake Area (planimetered acres): 81.00  
GIS Lake Area (acres): 95.79  
DOW Lake Area (acres): 80.00  
Littoral Area (acres): 79.00  
Area in MN (acres): 95.79  
Maximum Depth (feet): 16.0  
Mean Depth (feet): N/A

GIS Shoreline Length (miles): 3.47  
Maximum Fetch (miles): 0.70  
Fetch Orientation (degrees): 315  
USGS Quad Map Number: W04a  
USGS Quad 24K GIS Index: 4408

#### Watershed Characteristics

##### Major Watershed

Name: Lower Big Sioux River  
Watershed Number: 82  
Watershed size (acres): 326,851

##### Minor Watershed

Name: Split Rock Cr  
Watershed Number: 19  
Watershed size (acres): 8,176

**Surveys And Investigations**

Initial Survey: 11/30/1981.

Re-Survey: 07/09/2007, 07/07/1997.

Population Assessment: 07/08/2013, 07/09/2001, 07/09/1990, 07/05/1988, 07/20/1987, 08/20/1986.**Current Water Level**

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/08/2013	Normal	0.05	Above or below Benchmark

**Benchmark and Gauge Descriptions / Locations**

Station ID	Location Description
BM - 1	N/A

**Water Level History - Readings**

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/08/2013	Normal	0.05	Above or below Benchmark
	07/09/2007	Low	-7.80	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	-7.80	07/09/2007	0.05	07/08/2013	7.85	-3.88	Above or below Benchmark (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	07/08/2013	10.8	Surface	79.0	15.0
			2.0	79.0	15.3
			4.0	79.0	15.3
			6.0	77.7	13.1
			8.0	76.3	6.2
			10.0	74.5	1.5

**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	2.0	N/A	153	Brown Grn	Algae

### Net Catch Summary by Numbers for GN

#### Standard gill net sets

Number of Sets: 1  
First Set Date: 07/08/2013  
Last Lift Date: 07/09/2013  
Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 42*		
				25%	50%	75%
BLB	Black Bullhead	46	46.00	9.63	39.75	91.42
BLC	Black Crappie	3	3.00	1.50	5.50	14.69
CCF	Channel Catfish	2	2.00	N/A	N/A	N/A
CAP	Common Carp	23	23.00	0.33	1.25	4.20
NOP	Northern Pike	2	2.00	1.54	4.29	7.00
WTS	White Sucker	38	38.00	0.50	2.00	7.44
Total Fish/Set:			114.00	* 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 42*		
					25%	50%	75%
BLB	Black Bullhead	6.65	6.65	0.14	0.18	0.28	0.49
BLC	Black Crappie	0.39	0.39	0.13	0.12	0.18	0.29
CCF	Channel Catfish	2.40	2.40	1.20	N/A	N/A	N/A
CAP	Common Carp	46.64	46.64	2.03	0.78	2.00	5.00
NOP	Northern Pike	7.87	7.87	3.94	1.49	2.17	3.40
WTS	White Sucker	37.39	37.39	0.98	0.99	1.78	2.24
Total Pounds Fish/Set:			101.35	* 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: 07/08/2013  
 Last Lift Date: 07/10/2013  
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 42*		
				25%	50%	75%
BLB	Black Bullhead	54	6.00	2.20	17.30	60.46
BLC	Black Crappie	141	15.67	2.36	5.60	15.10
BLG	Bluegill	5	0.56	1.88	10.80	29.50
CCF	Channel Catfish	2	0.22	N/A	N/A	N/A
CAP	Common Carp	24	2.67	1.00	2.06	3.56
GSF	Green Sunfish	6	0.67	0.20	0.40	2.00
NOP	Northern Pike	1	0.11	N/A	N/A	N/A
OSS	Orangespotted Sunfish	12	1.33	N/A	N/A	N/A
WTS	White Sucker	23	2.56	0.28	0.67	2.20
YEP	Yellow Perch	7	0.78	0.48	1.29	3.45
Total Fish/Set:			30.56	* 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 42*		
					25%	50%	75%
BLB	Black Bullhead	9.97	1.11	0.18	0.19	0.30	0.50
BLC	Black Crappie	43.08	4.79	0.31	0.17	0.25	0.36
BLG	Bluegill	1.26	0.14	0.25	0.15	0.20	0.30
CCF	Channel Catfish	1.23	0.14	0.62	N/A	N/A	N/A
CAP	Common Carp	51.82	5.76	2.16	2.10	3.55	5.29
GSF	Green Sunfish	0.40	0.04	0.07	0.09	0.10	0.19
NOP	Northern Pike	3.53	0.39	3.53	N/A	N/A	N/A
OSS	Orangespotted Sunfish	0.41	0.05	0.03	N/A	N/A	N/A
WTS	White Sucker	23.37	2.60	1.02	1.14	1.79	2.50
YEP	Yellow Perch	0.97	0.11	0.14	0.10	0.17	0.27
Total Pounds Fish/Set:			15.12	* Quartiles for Mean Weight			

### Length Frequency Distribution For GN

#### Standard gill net sets

(Field work conducted between 07/08/2013 and 07/09/2013)

	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>CCF</u>	<u>NOP</u>	<u>WTS</u>
< 3.00	-	-	-	-	-	-
3.00 - 3.49	-	1	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-
4.00 - 4.49	-	1	-	-	-	-
4.50 - 4.99	6	-	-	-	-	-
5.00 - 5.49	6	-	-	-	-	-
5.50 - 5.99	6	-	-	-	-	-
6.00 - 6.49	10	-	-	-	-	-
6.50 - 6.99	2	-	-	-	-	-
7.00 - 7.49	13	-	-	-	-	-
7.50 - 7.99	2	-	-	-	-	1
8.00 - 8.49	1	-	-	-	-	1
8.50 - 8.99	-	1	-	-	-	-
9.00 - 9.49	-	-	-	-	-	-
9.50 - 9.99	-	-	-	-	-	-
10.00 - 10.49	-	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-
11.00 - 11.49	-	-	-	-	-	2
11.50 - 11.99	-	-	-	-	-	2
12.00 - 12.99	-	-	1	1	-	1
13.00 - 13.99	-	-	2	-	-	10
14.00 - 14.99	-	-	-	-	-	21
15.00 - 15.99	-	-	1	-	-	-
16.00 - 16.99	-	-	8	1	-	-
17.00 - 17.99	-	-	6	-	-	-
18.00 - 18.99	-	-	3	-	-	-
19.00 - 19.99	-	-	1	-	-	-
20.00 - 20.99	-	-	1	-	1	-
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	-	-	-	-	1	-
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>WTS</u>
Total	46	3	23	2	2	38
Min. Length	4.65	3.46	12.95	12.32	20.55	7.52
Max. Length	8.07	8.54	20.55	16.69	30.24	14.88
Mean Length	6.23	5.43	16.85	14.51	25.39	13.39
# Measured	46	3	23	2	2	35
No Lengths for	0	0	0	0	0	3

**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 07/08/2013 and 07/10/2013)

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>CCF</u>	<u>GSF</u>	<u>NOP</u>	<u>OSS</u>	<u>WTS</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	3	-	-
3.00 - 3.49	-	-	-	-	-	1	-	6	-	-
3.50 - 3.99	-	-	-	-	-	1	-	3	-	-
4.00 - 4.49	-	4	-	-	-	3	-	-	-	-
4.50 - 4.99	2	15	1	-	-	1	-	-	-	-
5.00 - 5.49	1	7	1	-	-	-	-	-	-	2
5.50 - 5.99	1	1	-	-	-	-	-	-	-	2
6.00 - 6.49	6	3	1	-	-	-	-	-	-	-
6.50 - 6.99	4	10	-	-	-	-	-	-	-	-
7.00 - 7.49	15	5	-	-	-	-	-	-	-	-
7.50 - 7.99	15	9	1	-	-	-	-	-	-	2
8.00 - 8.49	9	29	-	-	-	-	-	-	-	1
8.50 - 8.99	1	25	1	-	-	-	-	-	-	-
9.00 - 9.49	-	14	-	-	-	-	-	-	-	-
9.50 - 9.99	-	2	-	-	-	-	-	-	1	-
10.00 - 10.49	-	4	-	-	-	-	-	-	-	-
10.50 - 10.99	-	6	-	-	-	-	-	-	-	-
11.00 - 11.49	-	3	-	-	-	-	-	-	-	-
11.50 - 11.99	-	-	-	-	1	-	-	-	-	-
12.00 - 12.99	-	4	-	2	1	-	-	-	-	-
13.00 - 13.99	-	-	-	2	-	-	-	-	5	-
14.00 - 14.99	-	-	-	-	-	-	-	-	16	-
15.00 - 15.99	-	-	-	4	-	-	-	-	1	-
16.00 - 16.99	-	-	-	6	-	-	-	-	-	-
17.00 - 17.99	-	-	-	4	-	-	-	-	-	-
18.00 - 18.99	-	-	-	-	-	-	-	-	-	-
19.00 - 19.99	-	-	-	1	-	-	-	-	-	-
20.00 - 20.99	-	-	-	3	-	-	-	-	-	-
21.00 - 21.99	-	-	-	2	-	-	-	-	-	-
22.00 - 22.99	-	-	-	-	-	-	-	-	-	-
23.00 - 23.99	-	-	-	-	-	-	-	-	-	-
24.00 - 24.99	-	-	-	-	-	-	-	-	-	-
25.00 - 25.99	-	-	-	-	-	-	-	-	-	-
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>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>CCF</u>	<u>GSF</u>	<u>NOP</u>	<u>OSS</u>	<u>WTS</u>	<u>YEP</u>
Total	54	141	5	24	2	6	1	12	23	7
Min. Length	4.80	4.37	4.92	12.76	11.81	3.46	26.46	2.91	9.69	5.31
Max. Length	8.78	12.40	8.58	21.81	12.68	4.61	26.46	3.82	15.43	8.46
Mean Length	7.31	8.00	6.55	16.97	12.24	4.20	26.46	3.29	14.04	6.38
# Measured	54	131	5	24	2	6	1	12	23	6
No Lengths for	0	10	0	0	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

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	24	1	13.19	0	N/A
	Snapping Turtle	18	18	6.77 - 10.86 - 13.19	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 )

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**Lake Name: Split Rock Reservoir**

**Survey Type: Population Assessment**

**DOW Number: 59-0001-00**

**Survey ID Date: 07/08/2013**

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**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.**