



Minnesota Department of Natural Resources
 Fisheries Management
LAKE SURVEY REPORT



DRAFT VERSION - PRELIMINARY DATA (AS OF 07/21/2016)

Lake Name: John

Survey Type: Standard Survey

DOW Number: 86-0288-00

Survey ID Date: 07/18/2016

Lake Identification

Alternate Lake Name: N/A
 Primary Lake Class ID: 38

DNR Sounding Map Number: C0743
 Alternate Lake Class ID: N/A

Lake Location

Primary County: Wright

Nearest Town: Annandale

Legal Descriptions

Lake Center: Township - 121N Range - 28W Section - 26
 PLS Section Lake Center: 12102826

All Legal Descriptions:

Wright County: Township - 121N Range - 28W Sections - 23, 25, 26, 35

Area Office

Area Name: Sauk Rapids
 Region Name: Central

ORG Code: F315
 Region Number: 3

Lake Access

(Information based on Re-Survey dated 07/17/2006)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	State owned public access located on south side of lake.

Lake Characteristics

Lake Area (planimetered acres): 411.00	GIS Shoreline Length (miles): 5.10
GIS Lake Area (acres): 397.49	Maximum Fetch (miles): 2.00
DOW Lake Area (acres): 506.00	Fetch Orientation (degrees): N/A
Littoral Area (acres): 353.00	USGS Quad Map Number: Q13c
Area in MN (acres): 397.49	USGS Quad 24K GIS Index: 3325
Maximum Depth (feet): 28.0	
Mean Depth (feet): 12.9	

Watershed Characteristics

Major Watershed

Name: North Fork Crow R
 Watershed Number: 18
 Watershed size (acres): 944,854

Minor Watershed

Name: unknown DNR Minor Wshd
 Watershed Number: 20
 Watershed size (acres): 12,800

Surveys and Investigations

Initial Survey: 06/26/1961.
 Re-Survey: 07/17/2006, 07/22/1991, 07/07/1980.
 Population Assessment: 07/23/1996, 07/15/1986.
 Special Assessment: 09/25/2007, 04/24/1996, 08/20/1970.
 External Management Survey: 06/12/2006.

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/17/2006	Normal	1052.92	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	1052.92	07/17/2006	1052.92	07/17/2006	0.00	1052.92	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	07/18/2016	29.3	1.0	75.9	8.5
			3.0	75.7	8.5
			6.0	75.6	8.5
			9.0	75.4	8.3
			12.0	75.4	8.2
			15.0	75.4	8.1
			16.0	75.4	8.0
			17.0	75.2	7.7
			18.0	74.8	6.7
			19.0	74.8	6.5
			20.0	74.7	6.7
			21.0	74.7	6.7
			22.0	74.5	6.4
			23.0	74.1	5.5
			24.0	71.1	0.3
25.0	68.0	0.1			
28.0	62.1	0.0			

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	07/18/2016	Surface	9.0	N/A	N/A	Brown Grn	Algae

Net Catch Summary by Numbers for GN

Standard gill net sets

Number of Sets: 9
 First Set Date: 07/18/2016
 Last Lift Date: 07/21/2016
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 38*		
				25%	50%	75%
BLB	Black Bullhead	3	0.33	7.73	35.00	104.69
BLC	Black Crappie	9	1.00	1.67	6.83	17.50
BLG	Bluegill	61	6.78	N/A	N/A	N/A
BRB	Brown Bullhead	1	0.11	0.75	2.00	7.00
HSF	Hybrid Sunfish	2	0.22	N/A	N/A	N/A
LMB	Largemouth Bass	12	1.33	0.25	0.50	0.60
NOP	Northern Pike	86	9.56	2.00	4.67	10.75
PMK	Pumpkinseed	26	2.89	N/A	N/A	N/A
WAE	Walleye	28	3.11	0.75	1.67	3.75
YEB	Yellow Bullhead	93	10.33	0.50	1.47	5.00
Total Fish/Set:			35.67	* 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 38*		
					25%	50%	75%
BLB	Black Bullhead	0.55	0.06	0.18	0.17	0.30	0.46
BLC	Black Crappie	1.55	0.17	0.17	0.13	0.20	0.28
BLG	Bluegill	10.54	1.17	0.17	N/A	N/A	N/A
BRB	Brown Bullhead	0.45	0.05	0.45	0.30	0.51	0.77
HSF	Hybrid Sunfish	0.95	0.11	0.48	N/A	N/A	N/A
LMB	Largemouth Bass	19.28	2.14	1.61	0.48	0.80	1.50
NOP	Northern Pike	146.47	16.27	1.70	1.65	2.27	3.12
PMK	Pumpkinseed	5.16	0.57	0.20	N/A	N/A	N/A
WAE	Walleye	64.82	7.20	2.32	1.36	2.32	2.99
YEB	Yellow Bullhead	58.62	6.51	0.63	0.40	0.58	0.83
Total Pounds Fish/Set:			34.27	* Quartiles for Mean Weight			

Net Catch Summary by Numbers for TN

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

Number of Sets: 8
 First Set Date: 07/18/2016
 Last Lift Date: 07/21/2016
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 38*		
				25%	50%	75%
BLC	Black Crappie	18	2.25	2.08	5.50	24.13
BLG	Bluegill	165	20.63	3.51	15.92	57.13
BOF	Bowfin (Dogfish)	1	0.13	0.25	0.67	1.25
GSF	Green Sunfish	1	0.13	0.33	1.00	2.81
HSF	Hybrid Sunfish	11	1.38	N/A	N/A	N/A
LMB	Largemouth Bass	7	0.88	0.20	0.43	0.77
NOP	Northern Pike	6	0.75	N/A	N/A	N/A
PMK	Pumpkinseed	44	5.50	0.73	2.01	6.54
WAE	Walleye	1	0.13	0.25	0.50	0.80
YEB	Yellow Bullhead	7	0.88	1.00	3.23	7.14
Total Fish/Set:			32.63	* 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 38*		
					25%	50%	75%
BLC	Black Crappie	7.04	0.88	0.39	0.17	0.24	0.36
BLG	Bluegill	35.30	4.41	0.21	0.13	0.19	0.32
BOF	Bowfin (Dogfish)	2.73	0.34	2.73	2.48	3.50	4.20
GSF	Green Sunfish	0.05	0.01	0.05	0.06	0.10	0.16
HSF	Hybrid Sunfish	3.86	0.48	0.35	N/A	N/A	N/A
LMB	Largemouth Bass	10.87	1.36	1.55	0.30	0.76	1.50
NOP	Northern Pike	10.81	1.35	1.80	N/A	N/A	N/A
PMK	Pumpkinseed	7.72	0.96	0.18	0.10	0.13	0.19
WAE	Walleye	6.18	0.77	6.18	0.90	2.05	3.49
YEB	Yellow Bullhead	6.12	0.76	0.87	0.42	0.63	0.79
Total Pounds Fish/Set:			11.33	* Quartiles for Mean Weight			

Electrofishing Catch Summary for EF

Standard electrofishing

Total run-time for all stations: 02:15:00
Total on-time for all stations: 01:45:40
First Sampling Date: 06/02/2016
Last Sampling Date: 06/03/2016
Daylight Sampling: No
Target Species: All ages largemouth bass

Abbr	Species	Summary By Numbers			Summary By Weight (pounds)			
		Total Number	Number per Hour Run-Time	On-Time	Total Weight	Lbs per Hour Run-Time	On-Time	Mean Weight
LMB	Largemouth Bass	129	57.33	73.25	139.15	61.84	79.01	1.08

Length Frequency Distribution for GN

Standard gill net sets

(Field work conducted between 07/18/2016 and 07/21/2016)

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>BRB</u>	<u>HSF</u>	<u>LMB</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>YEB</u>
< 3.00	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	-	4	-	-	-	-	-	-	-
4.00 - 4.49	-	-	5	-	-	-	-	-	-	-
4.50 - 4.99	-	-	3	-	-	-	-	4	-	-
5.00 - 5.49	-	2	3	-	-	-	-	2	-	1
5.50 - 5.99	1	1	3	-	-	-	-	4	-	-
6.00 - 6.49	-	1	6	-	-	-	-	3	-	-
6.50 - 6.99	-	1	8	-	-	-	-	7	-	1
7.00 - 7.49	-	1	12	-	-	-	-	3	-	4
7.50 - 7.99	1	1	5	-	-	-	-	-	-	3
8.00 - 8.49	1	1	1	-	1	-	-	-	-	3
8.50 - 8.99	-	1	1	-	1	-	-	-	-	4
9.00 - 9.49	-	-	-	-	-	2	-	-	-	5
9.50 - 9.99	-	-	-	1	-	1	-	-	1	12
10.00 - 10.49	-	-	-	-	-	-	-	-	1	10
10.50 - 10.99	-	-	-	-	-	-	1	-	-	9
11.00 - 11.49	-	-	-	-	-	-	-	-	-	11
11.50 - 11.99	-	-	-	-	-	-	-	-	-	13
12.00 - 12.99	-	-	-	-	-	-	-	-	3	15
13.00 - 13.99	-	-	-	-	-	1	-	-	-	1
14.00 - 14.99	-	-	-	-	-	2	3	-	-	1
15.00 - 15.99	-	-	-	-	-	2	1	-	2	-
16.00 - 16.99	-	-	-	-	-	-	5	-	1	-
17.00 - 17.99	-	-	-	-	-	2	9	-	-	-
18.00 - 18.99	-	-	-	-	-	-	14	-	5	-
19.00 - 19.99	-	-	-	-	-	1	16	-	3	-
20.00 - 20.99	-	-	-	-	-	-	13	-	5	-
21.00 - 21.99	-	-	-	-	-	-	5	-	1	-
22.00 - 22.99	-	-	-	-	-	-	3	-	1	-
23.00 - 23.99	-	-	-	-	-	-	1	-	2	-
24.00 - 24.99	-	-	-	-	-	-	6	-	1	-
25.00 - 25.99	-	-	-	-	-	-	2	-	1	-
26.00 - 26.99	-	-	-	-	-	-	3	-	-	-
27.00 - 27.99	-	-	-	-	-	-	-	-	-	-
28.00 - 28.99	-	-	-	-	-	-	2	-	-	-
29.00 - 29.99	-	-	-	-	-	-	1	-	-	-
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>BRB</u>	<u>HSF</u>	<u>LMB</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>YEB</u>
Total	3	9	51	1	2	11	85	23	27	93
Min. Length	5.63	5.31	3.74	9.84	8.35	9.45	10.75	4.80	9.76	5.43
Max. Length	8.27	8.98	8.62	9.84	8.58	19.21	29.92	7.28	25.51	14.09
Mean Length	7.18	6.84	6.21	9.84	8.46	14.39	20.06	6.12	18.47	10.50
# Measured	3	9	50	1	2	9	85	23	27	93
No Lengths for	0	0	11	0	0	3	1	3	1	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 07/18/2016 and 07/21/2016)

	<u>BLC</u>	<u>BLG</u>	<u>BOF</u>	<u>GSF</u>	<u>HSF</u>	<u>LMB</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>YEB</u>
< 3.00	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	2	-	-	-	-	-	2	-	-
4.00 - 4.49	-	4	-	1	-	-	-	2	-	-
4.50 - 4.99	-	5	-	-	-	-	-	2	-	-
5.00 - 5.49	1	16	-	-	-	-	-	9	-	-
5.50 - 5.99	-	25	-	-	1	-	-	9	-	-
6.00 - 6.49	-	21	-	-	-	-	-	10	-	-
6.50 - 6.99	-	33	-	-	1	2	-	6	-	-
7.00 - 7.49	2	43	-	-	4	1	-	3	-	-
7.50 - 7.99	3	11	-	-	5	-	-	-	-	-
8.00 - 8.49	2	3	-	-	-	-	-	-	-	-
8.50 - 8.99	2	-	-	-	-	-	-	-	-	-
9.00 - 9.49	2	-	-	-	-	-	-	-	-	-
9.50 - 9.99	3	-	-	-	-	-	-	-	-	-
10.00 - 10.49	1	-	-	-	-	-	-	-	-	-
10.50 - 10.99	2	-	-	-	-	-	-	-	-	1
11.00 - 11.49	-	-	-	-	-	-	-	-	-	1
11.50 - 11.99	-	-	-	-	-	-	-	-	-	4
12.00 - 12.99	-	-	-	-	-	1	-	-	-	1
13.00 - 13.99	-	-	-	-	-	-	-	-	-	-
14.00 - 14.99	-	-	-	-	-	1	-	-	-	-
15.00 - 15.99	-	-	-	-	-	-	-	-	-	-
16.00 - 16.99	-	-	-	-	-	-	-	-	-	-
17.00 - 17.99	-	-	-	-	-	1	2	-	-	-
18.00 - 18.99	-	-	-	-	-	-	-	-	-	-
19.00 - 19.99	-	-	1	-	-	-	2	-	-	-
20.00 - 20.99	-	-	-	-	-	1	-	-	-	-
21.00 - 21.99	-	-	-	-	-	-	1	-	-	-
22.00 - 22.99	-	-	-	-	-	-	-	-	-	-
23.00 - 23.99	-	-	-	-	-	-	-	-	-	-
24.00 - 24.99	-	-	-	-	-	-	-	-	-	-
25.00 - 25.99	-	-	-	-	-	-	1	-	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>BLC</u>	<u>BLG</u>	<u>BOF</u>	<u>GSF</u>	<u>HSF</u>	<u>LMB</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>YEB</u>
Total	18	163	1	1	11	7	6	43	1	7
Min. Length	5.43	3.58	19.96	4.13	5.63	6.50	17.60	3.62	25.91	10.51
Max. Length	10.75	8.39	19.96	4.13	7.99	20.35	25.28	7.09	25.91	12.91
Mean Length	8.74	6.45	19.96	4.13	7.30	12.17	20.17	5.80	25.91	11.65
# Measured	18	163	1	1	11	7	6	43	1	7
No Lengths for	0	2	0	0	0	0	0	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

Length Frequency Distribution for EF

Standard electrofishing

(Field work conducted between 06/02/2016 and 06/03/2016)

	<u>LMB</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	4
6.50 - 6.99	2
7.00 - 7.49	1
7.50 - 7.99	3
8.00 - 8.49	6
8.50 - 8.99	9
9.00 - 9.49	6
9.50 - 9.99	4
10.00 - 10.49	4
10.50 - 10.99	7
11.00 - 11.49	11
11.50 - 11.99	8
12.00 - 12.99	17
13.00 - 13.99	10
14.00 - 14.99	14
15.00 - 15.99	13
16.00 - 16.99	5
17.00 - 17.99	2
18.00 - 18.99	1
19.00 - 19.99	1
20.00 - 20.99	-
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	-
31.00 - 31.99	-
32.00 - 32.99	-
33.00 - 33.99	-
34.00 - 34.99	-
35.00 - 35.99	-
= > 36.00	-

	<u>LMB</u>
Total	129
Min. Length	5.63
Max. Length	19.76
Mean Length	11.93
# Measured	129
No Lengths for	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	19	0	N/A	0	N/A
	Spiney Softshell 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 Sauk Rapids Area Fisheries Supervisor: _____

Date Approved By Central Region Fisheries Manager: _____

This DRAFT VERSION of the Lake Survey Report contains preliminary data (as of 07/21/2016), and is therefore subject to change at any time.



MNDNR

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.

Lake Survey Report revision: 20160309-RJE. Data Date: 07/21/2016 at 4:14 pm .

REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: John

Survey Type: Standard Survey

DOW Number: 86-0288-00

Survey ID Date: 07/18/2016

Survey Status: Proposed

The following 21 (of 32) report components are not included in this Lake Survey 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. Laboratory Analysis Of Water Chemistry
16. Length At Capture With Last Incremental Length*
17. Back-Calculated Lengths
18. Age Class Frequency Distributions
19. Status Of Fishery And Field Notes
20. Water Quality (Winter Observations) (added to revision 01/21/2010)
21. Survey Attachments (added to revision 20150622)

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 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 07/21/2016 may not be reflected in the Distribution tables until 07/22/2016.

The following survey component was flagged to be specifically excluded from this report: TN - 7

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