



# Minnesota Department of Natural Resources

## Fisheries Management

### LAKE SURVEY REPORT



**DRAFT VERSION - PRELIMINARY DATA (AS OF 07/08/2015)**

Lake Name: First Fulda

Survey Type: Standard Survey

DOW Number: 51-0021-00

Survey ID Date: 07/06/2015

#### Lake Identification

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

DNR Sounding Map Number: C0473  
Alternate Lake Class ID: N/A

#### Lake Location

Primary County: Murray

Nearest Town: Fulda

#### Legal Descriptions

Lake Center: Township - 105N Range - 40W Section - 36  
PLS Section Lake Center: 10504036

##### All Legal Descriptions:

Murray County: Township - 105N Range - 40W Sections - 35, 36

#### Area Office

Area Name: Windom  
Region Name: Southern

ORG Code: F418  
Region Number: 4

#### Lake Access

(Information based on Re-Survey dated 06/17/1996)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 2	DNR	Open to Public use	Concrete	STATE OWNED ACCESS ON SOUTH SIDE OF FIRST (SOUTH) LAKE.

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

#### Lake Characteristics

Lake Area (planimetered acres):	179.00	GIS Shoreline Length (miles):	1.81
GIS Lake Area (acres):	122.71	Maximum Fetch (miles):	1.30
DOW Lake Area (acres):	122.00	Fetch Orientation (degrees):	360
Littoral Area (acres):	122.71	USGS Quad Map Number:	W07d
Area in MN (acres):	122.71	USGS Quad 24K GIS Index:	4514
Maximum Depth (feet):	7.0		
Mean Depth (feet):	N/A		

#### Watershed Characteristics

##### Major Watershed

Name: Des Moines-Headwaters  
Watershed Number: 51  
Watershed size (acres): 798,595

##### Minor Watershed

Name: From Fulda L  
Watershed Number: 30  
Watershed size (acres): 10,001

## Surveys and Investigations

Initial Survey: 06/26/1984.  
 Re-Survey: 06/13/2011, 06/17/1996, 06/19/1989.  
 Population Assessment: 06/14/2004, 06/12/2000.  
 Special Assessment: 07/02/2013, 08/19/2011, 05/02/2001, 06/15/1992.  
 Dissolved Oxygen Check: 02/19/2015, 12/30/2013, 02/06/2013, 01/03/2013, 01/10/2012, 12/30/2010, 01/05/2010.  
 Standard Survey: 07/06/2015.

## Current Water Level

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/06/2015	Normal	5.56	Above or below Benchmark

## Benchmark and Gauge Descriptions / Locations

Station ID	Location Description
BM - 1	gAuge on dam

## Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/06/2015	Normal	5.56	Above or below Benchmark
	06/15/2011	High	5.85	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	5.56	07/06/2015	5.56	07/06/2015	0.00	5.56	Above or below Benchmark (1)
BM - 1	5.85	06/15/2011	5.85	06/15/2011	0.00	5.85	Direct Gauge Reading (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	07/08/2015	7.0	Surface	69.8	9.5
			2.0	70.0	9.5
			4.0	70.0	9.4
			6.0	69.4	4.5
			7.0	67.6	2.1

## 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	07/08/2015	Surface	7.0	9.80	140	Clear	N/A

### Net Catch Summary by Numbers for GN

#### Standard gill net sets

Number of Sets: 1  
First Set Date: 07/06/2015  
Last Lift Date: 07/07/2015  
Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLC	Black Crappie	3	3.00	1.41	3.71	13.75
BLG	Bluegill	22	22.00	N/A	N/A	N/A
CAP	Common Carp	2	2.00	1.00	3.33	13.75
LMB	Largemouth Bass	1	1.00	0.20	0.50	1.50
NOP	Northern Pike	7	7.00	1.08	3.00	8.00
WAE	Walleye	1	1.00	2.28	6.83	18.06
YEP	Yellow Perch	46	46.00	2.65	8.00	25.00
Total Fish/Set:			82.00	* 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%
BLC	Black Crappie	0.49	0.49	0.16	0.16	0.25	0.35
BLG	Bluegill	3.08	3.08	0.14	N/A	N/A	N/A
CAP	Common Carp	10.47	10.47	5.24	0.81	1.98	3.70
LMB	Largemouth Bass	0.00	0.00	0.00	0.60	1.18	1.37
NOP	Northern Pike	22.24	22.24	3.18	1.82	2.50	3.35
WAE	Walleye	0.76	0.76	0.76	1.01	1.53	2.30
YEP	Yellow Perch	6.39	6.39	0.14	0.13	0.21	0.31
Total Pounds Fish/Set:			43.43	* 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: 07/06/2015  
 Last Lift Date: 07/08/2015  
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	26	2.89	11.50	42.00	132.61
BLC	Black Crappie	19	2.11	1.17	4.88	20.50
BLG	Bluegill	150	16.67	1.17	3.89	20.00
CAP	Common Carp	5	0.56	1.00	2.44	5.51
LMB	Largemouth Bass	1	0.11	0.23	0.38	0.67
NOP	Northern Pike	25	2.78	N/A	N/A	N/A
WAE	Walleye	16	1.78	0.50	1.33	2.95
YEP	Yellow Perch	104	11.56	0.33	1.37	3.76
Total Fish/Set:			38.44	* 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	6.48	0.72	0.25	0.18	0.28	0.40
BLC	Black Crappie	1.95	0.22	0.10	0.22	0.34	0.50
BLG	Bluegill	14.20	1.58	0.09	0.13	0.24	0.39
CAP	Common Carp	12.35	1.37	2.47	1.42	2.92	4.58
LMB	Largemouth Bass	2.98	0.33	2.98	0.30	0.85	1.53
NOP	Northern Pike	86.36	9.60	3.45	N/A	N/A	N/A
WAE	Walleye	48.61	5.40	3.04	0.82	1.44	2.28
YEP	Yellow Perch	10.29	1.14	0.10	0.11	0.18	0.30
Total Pounds Fish/Set:			20.36	* Quartiles for Mean Weight			

**Electrofishing Catch Summary for EF**

**Standard electrofishing**

Total run-time for all stations: 01:02:00  
Total on-time for all stations: 01:00:32  
First Sampling Date: 05/15/2015  
Last Sampling Date: 05/15/2015  
Daylight Sampling: Yes  
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	82	79.36	81.28	54.62	52.86	54.14	0.67

Length Frequency Distribution for GN

## Standard gill net sets

(Field work conducted between 07/06/2015 and 07/07/2015)

	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>NOP</u>	<u>WAE</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-
3.50 - 3.99	-	1	-	-	-	-
4.00 - 4.49	1	1	-	-	-	-
4.50 - 4.99	-	4	-	-	-	-
5.00 - 5.49	-	7	-	-	-	-
5.50 - 5.99	-	1	-	-	-	7
6.00 - 6.49	-	7	-	-	-	31
6.50 - 6.99	-	1	-	-	-	3
7.00 - 7.49	2	-	-	-	-	-
7.50 - 7.99	-	-	-	-	-	-
8.00 - 8.49	-	-	-	-	-	1
8.50 - 8.99	-	-	-	-	-	-
9.00 - 9.49	-	-	-	-	-	1
9.50 - 9.99	-	-	-	-	-	1
10.00 - 10.49	-	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-
11.00 - 11.49	-	-	-	-	-	1
11.50 - 11.99	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	1	-
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	-	-	-	2	-	-
20.00 - 20.99	-	-	-	-	-	-
21.00 - 21.99	-	-	-	-	-	-
22.00 - 22.99	-	-	-	1	-	-
23.00 - 23.99	-	-	-	1	-	-
24.00 - 24.99	-	-	-	-	-	-
25.00 - 25.99	-	-	1	2	-	-
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>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>NOP</u>	<u>WAE</u>	<u>YEP</u>
Total	3	22	2	8	1	45
Min. Length	4.29	3.78	18.58	19.41	13.27	5.67
Max. Length	7.44	6.50	25.43	27.76	13.27	11.02
Mean Length	6.26	5.50	22.01	24.32	13.27	6.50
# Measured	3	20	2	6	1	43
No Lengths for	0	2	0	1	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 07/06/2015 and 07/08/2015)

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>LMB</u>	<u>NOP</u>	<u>WAE</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-
3.50 - 3.99	-	3	6	-	-	-	-	-
4.00 - 4.49	-	6	35	-	-	-	-	-
4.50 - 4.99	-	2	51	-	-	-	-	1
5.00 - 5.49	-	-	39	-	-	-	-	10
5.50 - 5.99	-	-	8	-	-	-	-	46
6.00 - 6.49	1	1	9	-	-	-	-	44
6.50 - 6.99	2	4	-	-	-	-	-	3
7.00 - 7.49	6	1	2	-	-	-	-	-
7.50 - 7.99	8	2	-	-	-	-	-	-
8.00 - 8.49	7	-	-	-	-	-	-	-
8.50 - 8.99	-	-	-	-	-	-	-	-
9.00 - 9.49	2	-	-	-	-	-	-	-
9.50 - 9.99	-	-	-	-	-	-	-	-
10.00 - 10.49	-	-	-	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-	-	-
11.00 - 11.49	-	-	-	-	-	-	-	-
11.50 - 11.99	-	-	-	-	-	1	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	-	-	1	-
14.00 - 14.99	-	-	-	-	-	-	1	-
15.00 - 15.99	-	-	-	1	-	1	-	-
16.00 - 16.99	-	-	-	2	1	-	-	-
17.00 - 17.99	-	-	-	1	-	-	-	-
18.00 - 18.99	-	-	-	1	-	-	-	-
19.00 - 19.99	-	-	-	-	-	-	1	-
20.00 - 20.99	-	-	-	-	-	-	5	-
21.00 - 21.99	-	-	-	-	-	3	6	-
22.00 - 22.99	-	-	-	-	-	5	1	-
23.00 - 23.99	-	-	-	-	-	1	1	-
24.00 - 24.99	-	-	-	-	-	1	-	-
25.00 - 25.99	-	-	-	-	-	4	-	-
26.00 - 26.99	-	-	-	-	-	2	-	-
27.00 - 27.99	-	-	-	-	-	3	-	-
28.00 - 28.99	-	-	-	-	-	2	-	-
29.00 - 29.99	-	-	-	-	-	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>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>LMB</u>	<u>NOP</u>	<u>WAE</u>	<u>YEP</u>
Total	26	19	150	5	1	25	16	104
Min. Length	6.02	3.70	3.74	15.20	16.30	11.77	13.27	4.84
Max. Length	9.17	7.80	7.28	18.94	16.30	30.98	23.03	6.77
Mean Length	7.73	5.32	4.86	16.80	16.30	24.38	20.28	5.88
# Measured	26	18	84	5	1	24	16	68
No Lengths for	0	1	66	0	0	1	0	36

**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 on 05/15/2015)

	<u>LMB</u>
< 3.00	9
3.00 - 3.49	11
3.50 - 3.99	-
4.00 - 4.49	1
4.50 - 4.99	-
5.00 - 5.49	-
5.50 - 5.99	-
6.00 - 6.49	-
6.50 - 6.99	2
7.00 - 7.49	2
7.50 - 7.99	18
8.00 - 8.49	9
8.50 - 8.99	9
9.00 - 9.49	2
9.50 - 9.99	1
10.00 - 10.49	-
10.50 - 10.99	1
11.00 - 11.49	1
11.50 - 11.99	-
12.00 - 12.99	-
13.00 - 13.99	-
14.00 - 14.99	-
15.00 - 15.99	7
16.00 - 16.99	7
17.00 - 17.99	2
18.00 - 18.99	-
19.00 - 19.99	-
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	82
Min. Length	2.80
Max. Length	17.52
Mean Length	8.48
# Measured	82
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



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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	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.

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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 Lake Survey Report contains preliminary data  
(as of 07/08/2015), 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.

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Lake Survey Report revision: 20150625-RJE. Data Date: 07/08/2015 at 12:59 pm .

## REPORT OVERVIEW - FOR OFFICE USE ONLY

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

**Lake Name: First Fulda**  
**DOW Number: 51-0021-00**

**Survey Type: Standard Survey**  
**Survey ID Date: 07/06/2015**

**Survey Status:** Field Work Complete

The following 19 (of 32) report components are not included in this Lake Survey Report:

1. Water Level History<sup>1</sup>
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<sup>2</sup>
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)
19. Survey Attachments (added to revision 20150622)

<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 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 07/08/2015 may not be reflected in the Distribution tables until 07/09/2015.**

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