



Minnesota Department of Natural Resources  
Fisheries Management



STANDARD LAKE SURVEY REPORT

DRAFT VERSION - PRELIMINARY DATA (AS OF 06/29/2012)

Lake Name: Fox

Survey Type: Special Assessment

DOW Number: 46-0109-00

Survey ID Date: 03/20/2012

**SPECIAL ASSESSMENT**  
Electrofishing targeting Muskellunge All Adults  
Electrofishing  
Trap Netting targeting Muskellunge All Ages  
Trap Netting

**Lake Identification**

Alternate Lake Name: N/A  
Primary Lake Class ID: 24

DNR Sounding Map Number: D0266  
Alternate Lake Class ID: N/A

**Lake Location**

Primary County: Martin

Nearest Town: Sherburn

**Legal Descriptions**

Lake Center: Township - 103N Range - 32W Section - 32  
PLS Section Lake Center: 10303232

**All Legal Descriptions:**

Martin County: Township - 102N Range - 32W Sections - 4, 5, 6  
Township - 103N Range - 32W Sections - 31, 32, 33, 34

**Area Office**

Area Name: Windom  
Region Name: Southern

ORG Code: F418  
Region Number: 4

**Lake Access**

(Information based on Population Assessment dated 09/07/1993)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	State access on the NE end of lake. 103N 32W S34. State access on the NE end of lake. 103N; 32W; S34.
AC - 2	Private Property	Client Use Only	Concrete	Fox Lake Club access on east end of lake. 103N 32W S34. Fox Lake Club access on east end of lake. 103N; 32W; S34.

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

**Lake Characteristics**

Lake Area (planimetered acres): 1041.00	GIS Shoreline Length (miles): 11.31
GIS Lake Area (acres): 951.02	Maximum Fetch (miles): 3.40
DOW Lake Area (acres): 967.00	Fetch Orientation (degrees): 90
Littoral Area (acres): 780.00	USGS Quad Map Number: X11b
Area in MN (acres): 951.02	USGS Quad 24K GIS Index: 4621
Maximum Depth (feet): 20.0	
Mean Depth (feet): N/A	

**Watershed Characteristics**

**Major Watershed**

Name: Blue Earth River  
Watershed Number: 30  
Watershed size (acres): 777,240

**Minor Watershed**

Name: Fox L  
Watershed Number: 77  
Watershed size (acres): 4,023

**Surveys And Investigations**

**Re-Survey:** 09/07/2010, 09/11/2006, 09/11/2000, 09/04/1991, 09/23/1986, 09/16/1985.  
**Population Assessment:** 09/06/2011, 09/08/2009, 09/02/2008, 09/10/2007, 09/12/2005, 09/07/2004, 09/08/2003, 09/09/2002, 09/10/2001, 08/30/1999, 08/31/1998, 09/02/1997, 09/03/1996, 09/05/1995, 09/06/1994, 09/07/1993, 09/01/1992, 09/13/1988, 09/08/1987, 10/05/1981.  
**Special Assessment:** 03/20/2012, 04/25/2011, 07/28/2010, 05/20/2010, 04/21/2009, 05/01/2008, 05/10/2007, 04/16/2007, 09/25/2000, 09/08/1999, 10/21/1997.  
**Dissolved Oxygen Check:** 02/16/2012, 02/24/2010.

**Water Level History - Readings**

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	09/07/2011	Low	-2.60	Above or below Benchmark
	09/10/2010	Normal	-1.80	Above or below Benchmark
	09/05/2009	N/A	N/A	Above or below Benchmark
	09/05/2008	N/A	-2.20	Above or below Benchmark
	09/10/2007	Normal	-0.90	Above or below Benchmark
	09/12/2006	Normal	-2.10	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	-2.60	09/07/2011	-0.90	09/10/2007	1.70	-1.92	Above or below Benchmark (5)

**Net Catch Summary by Numbers for LTN**

Large-frame (5 x 6 ft) trap nets

Number of Set - Days: 105  
 First Set - Day Date: 03/20/2012  
 Last Set - Day Date: 04/13/2012  
 Target Species: All ages muskellunge

Abbr	Species	Total Fish	Number Per Set - Day	Quartiles for Lake Class 24*		
				25%	50%	75%
MUE	Muskellunge	45	0.43	N/A	N/A	N/A
Total Fish/Set - Day:			0.43	* Quartiles for Number Per Set - Day		

**Net Catch Summary by Weight for LTN**

Large-frame (5 x 6 ft) trap nets

Abbr	Species	Total Weight (Pounds)	Pounds Per Set - Day	Mean Weight	Quartiles for Lake Class 24*		
					25%	50%	75%
MUE	Muskellunge	856.25	8.15	19.03	N/A	N/A	N/A
Total Pounds Fish/Set - Day:			8.15	* Quartiles for Mean Weight			

**Natural Reproduction Catch Summary for SEF**

**Special sampling, electrofishing**

Total run-time for all stations: 06:42:00  
Total on-time for all stations: 05:44:16  
First Sampling Date: 04/24/2012  
Last Sampling Date: 05/10/2012  
Daylight Sampling: No  
Target Species: All adults muskellunge

Abbr	Species	Age	Total Number	Number Measured	Mean Length (inches)	Length Range (inches)		Catch Rates (number per hour)	
						Min	Max	Run-Time	On-Time
MUE	Muskellunge	All	7	7	41.41	35.55	47.40	1.04	1.22

**Length Frequency Distribution For LTN (for fish < 36.00 inches)**

**Large-frame (5 x 6 ft) trap nets**

(Field work conducted between 03/20/2012 and 04/13/2012)

	<u>MUE</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	-
6.00 - 6.49	-
6.50 - 6.99	-
7.00 - 7.49	-
7.50 - 7.99	-
8.00 - 8.49	-
8.50 - 8.99	-
9.00 - 9.49	-
9.50 - 9.99	-
10.00 - 10.49	-
10.50 - 10.99	-
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	-
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	1
34.00 - 34.99	1
35.00 - 35.99	-
= > 36.00	42

	<u>MUE</u>
Total	45
Min. Length	30.98
Max. Length	48.74
Mean Length	41.50
# Measured	45
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.

**Length Frequency Distribution For LTN (for fish  $\geq$  36.00 inches)**

**Large-frame (5 x 6 ft) trap nets**

(Field work conducted between 03/20/2012 and 04/13/2012)

	<u>MUE</u>
< 36.00	3
36.00 - 36.99	1
37.00 - 37.99	1
38.00 - 38.99	5
39.00 - 39.99	7
40.00 - 40.99	7
41.00 - 41.99	6
42.00 - 42.99	-
43.00 - 43.99	2
44.00 - 44.99	3
45.00 - 45.99	2
46.00 - 46.99	1
47.00 - 47.99	5
48.00 - 48.99	2
49.00 - 49.99	-
50.00 - 50.99	-
51.00 - 51.99	-
52.00 - 52.99	-
53.00 - 53.99	-
54.00 - 54.99	-
55.00 - 55.99	-
56.00 - 56.99	-
57.00 - 57.99	-
58.00 - 58.99	-
59.00 - 59.99	-
60.00 - 60.99	-
61.00 - 61.99	-
62.00 - 62.99	-
63.00 - 63.99	-
64.00 - 64.99	-
65.00 - 65.99	-
66.00 - 66.99	-
67.00 - 67.99	-
68.00 - 68.99	-
69.00 - 69.99	-
70.00 - 70.99	-
71.00 - 71.99	-
72.00 - 72.99	-
73.00 - 73.99	-
74.00 - 74.99	-
75.00 - 75.99	-
76.00 - 76.99	-
77.00 - 77.99	-
= > 78.00	-

	<u>MUE</u>
Total	45
Min. Length	30.98
Max. Length	48.74
Mean Length	41.50
# Measured	45
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.

**Length Frequency Distribution For SEF (for fish < 36.00 inches)**

**Special sampling, electrofishing**

(Field work conducted between 04/24/2012 and 05/10/2012)

	<u>MUE</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	-
6.00 - 6.49	-
6.50 - 6.99	-
7.00 - 7.49	-
7.50 - 7.99	-
8.00 - 8.49	-
8.50 - 8.99	-
9.00 - 9.49	-
9.50 - 9.99	-
10.00 - 10.49	-
10.50 - 10.99	-
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	-
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	1
= > 36.00	6

	<u>MUE</u>
Total	7
Min. Length	35.55
Max. Length	47.40
Mean Length	41.41
# Measured	7
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.

**Length Frequency Distribution For SEF (for fish ≥ 36.00 inches)**

**Special sampling, electrofishing**

(Field work conducted between 04/24/2012 and 05/10/2012)

	<u>MUE</u>
< 36.00	1
36.00 - 36.99	-
37.00 - 37.99	-
38.00 - 38.99	-
39.00 - 39.99	1
40.00 - 40.99	1
41.00 - 41.99	1
42.00 - 42.99	1
43.00 - 43.99	-
44.00 - 44.99	1
45.00 - 45.99	-
46.00 - 46.99	-
47.00 - 47.99	1
48.00 - 48.99	-
49.00 - 49.99	-
50.00 - 50.99	-
51.00 - 51.99	-
52.00 - 52.99	-
53.00 - 53.99	-
54.00 - 54.99	-
55.00 - 55.99	-
56.00 - 56.99	-
57.00 - 57.99	-
58.00 - 58.99	-
59.00 - 59.99	-
60.00 - 60.99	-
61.00 - 61.99	-
62.00 - 62.99	-
63.00 - 63.99	-
64.00 - 64.99	-
65.00 - 65.99	-
66.00 - 66.99	-
67.00 - 67.99	-
68.00 - 68.99	-
69.00 - 69.99	-
70.00 - 70.99	-
71.00 - 71.99	-
72.00 - 72.99	-
73.00 - 73.99	-
74.00 - 74.99	-
75.00 - 75.99	-
76.00 - 76.99	-
77.00 - 77.99	-
= > 78.00	-

	<u>MUE</u>
Total	7
Min. Length	35.55
Max. Length	47.40
Mean Length	41.41
# Measured	7
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.

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 06/29/2012), 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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## 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: Fox

Survey Type: Special Assessment

DOW Number: 46-0109-00

Survey ID Date: 03/20/2012

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**Electrofishing targeting Muskellunge All Adults, Electrofishing, Trap Netting targeting Muskellunge All Ages, Trap Netting**

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**Survey Status:** Field Work Complete

The following 23 (of 31) report components are not included in this report:

1. Current Water Level
2. Benchmark And Gauge Descriptions / Locations
3. Water Level History\*
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 Observations
10. Resorts And Campgrounds
11. Fish Spawning Conditions
12. Erosion And Pollution
13. Fish Diseases And Parasites
14. Aquatic Vegetation And Shoalwater Substrates
15. Dissolved Oxygen And Temperature Profile Of Lake Water
16. Field Measurements Of Water Quality
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. Other Species (added to revision 03/24/2009)
23. 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 before noon on 06/29/2012 may not be reflected in the Distribution tables until after 12:30 pm on 06/29/2012.**

The following 6 survey components were flagged to be specifically excluded from this report:

1. LTN - 2
2. LTN - 3
3. LTN - 5
4. LTN - 7
5. LTN - 8
6. LTN - 9

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Fisheries Lake ID = 3498, Survey ID = 2471208028253000

Standard Lake Survey Report revision: 04/05/2011. Data Date: 06/29/2012 at 10:43 am .