



# Minnesota Department of Natural Resources Fisheries Management



## STANDARD LAKE SURVEY REPORT

**DRAFT VERSION - PRELIMINARY DATA (AS OF 06/25/2012)**

**Lake Name: Big Twin**

**Survey Type: Population Assessment**

**DOW Number: 46-0133-00**

**Survey ID Date: 06/18/2012**

### Lake Identification

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

DNR Sounding Map Number: C2885  
Alternate Lake Class ID: N/A

### Lake Location

Primary County: Martin

Nearest Town: Trimont

### Legal Descriptions

Lake Center: Township - 103N Range - 33W Section - 12  
PLS Section Lake Center: 10303312

**All Legal Descriptions:**

Martin County: Township - 103N Range - 33W Sections - 11, 12, 13, 14

### Area Office

Area Name: Windom  
Region Name: Southern

ORG Code: F418  
Region Number: 4

### Lake Access

(Information based on Special Assessment dated 11/08/1994)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	STATE OWNED ACCESS ON EAST SIDE.

### Lake Characteristics

Lake Area (planimetered acres): 457.00	GIS Shoreline Length (miles): 6.13
GIS Lake Area (acres): 444.51	Maximum Fetch (miles): 1.50
DOW Lake Area (acres): 457.00	Fetch Orientation (degrees): 360
Littoral Area (acres): 443.50	USGS Quad Map Number: X11b
Area in MN (acres): 444.51	USGS Quad 24K GIS Index: 4621
Maximum Depth (feet): 18.0	
Mean Depth (feet): N/A	

### Watershed Characteristics

**Major Watershed**

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

**Minor Watershed**

Name: Elm Cr  
Watershed Number: 76  
Watershed size (acres): 30,240

**Surveys And Investigations**

Initial Survey: 06/13/1983.

Re-Survey: 06/26/2000, 06/23/1992.

Population Assessment: 06/18/2012, 06/23/2008, 06/28/2004, 06/24/1996, 06/27/1988.

Special Assessment: 09/27/2000, 09/15/1999, 11/08/1994.

Dissolved Oxygen Check: 01/11/2012, 12/29/2010, 01/12/2010.

**Current Water Level**

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/18/2012	Normal	-4.20	Above or below Benchmark

**Benchmark and Gauge Descriptions / Locations**

Station ID	Location Description
BM - 1	spike on south side of tree trunk behind aeration sign 30 feet south of public access.

**Water Level History - Readings**

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	06/18/2012	Normal	-4.20	Above or below Benchmark
	06/24/2008	Normal	-7.30	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	-7.30	06/24/2008	-4.20	06/18/2012	3.10	-5.75	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 - 2	06/18/2012	11.1	Surface	73.8	9.6
			2.0	73.6	9.5
			4.0	73.2	9.0
			6.0	73.0	8.8
			8.0	72.7	8.4
			10.0	72.7	8.2
			11.0	72.5	7.7

**Field Measurements Of Water Quality**

Station ID	Sampling Date	Sample Depth (Feet)	Secchi Depth (Feet)	Field pH	Alkalinity (ppm)	Water Color	Color Cause
WQ - 2	06/18/2012	11.1	1.4	N/A	238	Brown Grn	Algae

**Net Catch Summary by Numbers for GN**

**Standard gill net sets**

Number of Sets: 3  
 First Set Date: 06/18/2012  
 Last Lift Date: 06/21/2012  
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	36	12.00	30.34	75.58	150.62
BLC	Black Crappie	43	14.33	1.41	3.71	13.75
CCF	Channel Catfish	67	22.33	N/A	N/A	N/A
CAP	Common Carp	17	5.67	1.00	3.33	13.75
WAE	Walleye	48	16.00	2.28	6.83	18.06
WHC	White Crappie	1	0.33	0.50	2.00	8.42
YEP	Yellow Perch	27	9.00	2.65	8.00	25.00
Total Fish/Set:			79.67	* 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 43*		
					25%	50%	75%
BLB	Black Bullhead	15.64	5.21	0.43	0.17	0.26	0.39
BLC	Black Crappie	10.57	3.52	0.25	0.16	0.25	0.35
CCF	Channel Catfish	103.24	34.41	1.54	N/A	N/A	N/A
CAP	Common Carp	59.63	19.88	3.51	0.81	1.98	3.70
WAE	Walleye	87.12	29.04	1.81	1.01	1.53	2.30
WHC	White Crappie	0.45	0.15	0.45	0.15	0.21	0.32
YEP	Yellow Perch	3.23	1.08	0.12	0.13	0.21	0.31
Total Pounds Fish/Set:			93.30	* 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: 06/18/2012  
 Last Lift Date: 06/21/2012  
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	19	2.11	11.50	42.00	132.61
BLC	Black Crappie	551	61.22	1.17	4.88	20.50
BLG	Bluegill	5	0.56	1.17	3.89	20.00
CCF	Channel Catfish	95	10.56	N/A	N/A	N/A
CAP	Common Carp	2	0.22	1.00	2.44	5.51
GOS	Golden Shiner	2	0.22	0.22	0.50	1.10
HSF	Hybrid Sunfish	2	0.22	N/A	N/A	N/A
OSS	Orangespotted Sunfish	4	0.44	N/A	N/A	N/A
WAE	Walleye	2	0.22	0.50	1.33	2.95
WHC	White Crappie	35	3.89	0.25	1.83	5.96
WTS	White Sucker	1	0.11	0.34	0.88	2.58
YEP	Yellow Perch	23	2.56	0.33	1.37	3.76
Total Fish/Set:			82.33	* 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	9.55	1.06	0.50	0.18	0.28	0.40
BLC	Black Crappie	138.41	15.38	0.25	0.22	0.34	0.50
BLG	Bluegill	1.01	0.11	0.20	0.13	0.24	0.39
CCF	Channel Catfish	174.43	19.38	1.84	N/A	N/A	N/A
CAP	Common Carp	10.09	1.12	5.04	1.42	2.92	4.58
GOS	Golden Shiner	0.14	0.02	0.07	0.06	0.10	0.10
HSF	Hybrid Sunfish	0.54	0.06	0.27	N/A	N/A	N/A
OSS	Orangespotted Sunfish	0.14	0.02	0.03	N/A	N/A	N/A
WAE	Walleye	1.66	0.18	0.83	0.82	1.44	2.28
WHC	White Crappie	8.24	0.92	0.24	0.27	0.40	0.63
WTS	White Sucker	2.09	0.23	2.09	1.05	1.47	2.04
YEP	Yellow Perch	2.97	0.33	0.13	0.11	0.18	0.30
Total Pounds Fish/Set:			38.81	* Quartiles for Mean Weight			

**Length Frequency Distribution For GN**

**Standard gill net sets**

(Field work conducted between 06/18/2012 and 06/21/2012)

	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>CCF</u>	<u>WAE</u>	<u>WHC</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-	-
4.00 - 4.49	-	8	2	-	-	-	-
4.50 - 4.99	-	15	3	-	-	-	1
5.00 - 5.49	-	2	-	-	-	-	-
5.50 - 5.99	-	-	-	-	-	-	3
6.00 - 6.49	-	-	-	-	-	-	12
6.50 - 6.99	1	5	-	-	-	-	7
7.00 - 7.49	-	1	-	-	-	-	1
7.50 - 7.99	1	-	-	-	1	-	-
8.00 - 8.49	-	-	-	-	6	-	-
8.50 - 8.99	-	-	-	-	-	-	2
9.00 - 9.49	7	1	-	3	-	-	1
9.50 - 9.99	18	1	-	2	-	-	-
10.00 - 10.49	9	1	-	-	1	1	-
10.50 - 10.99	-	5	-	-	-	-	-
11.00 - 11.49	-	3	-	-	-	-	-
11.50 - 11.99	-	1	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	2	-	-
14.00 - 14.99	-	-	-	2	-	-	-
15.00 - 15.99	-	-	-	2	3	-	-
16.00 - 16.99	-	-	1	16	6	-	-
17.00 - 17.99	-	-	-	25	8	-	-
18.00 - 18.99	-	-	-	9	14	-	-
19.00 - 19.99	-	-	-	5	6	-	-
20.00 - 20.99	-	-	-	1	1	-	-
21.00 - 21.99	-	-	1	1	-	-	-
22.00 - 22.99	-	-	3	-	-	-	-
23.00 - 23.99	-	-	6	-	-	-	-
24.00 - 24.99	-	-	1	-	-	-	-
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>CAP</u>	<u>CCF</u>	<u>WAE</u>	<u>WHC</u>	<u>YEP</u>
Total	36	43	17	67	48	1	27
Min. Length	6.69	4.25	4.45	9.29	7.76	10.00	4.53
Max. Length	10.28	11.69	24.13	25.24	20.16	10.00	9.09
Mean Length	9.65	7.15	17.25	16.98	16.17	10.00	6.63
# Measured	36	34	17	67	48	1	21
No Lengths for	0	9	0	0	0	0	6

**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 06/18/2012 and 06/21/2012)

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>CCF</u>	<u>GOS</u>	<u>HSF</u>	<u>OSS</u>	<u>WAE</u>	<u>WHC</u>	<u>WTS</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	1	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-	-	3	-	-	-	-
4.00 - 4.49	-	100	-	-	-	-	-	-	-	-	-	-
4.50 - 4.99	-	109	-	-	-	-	1	-	-	-	-	-
5.00 - 5.49	-	-	-	-	-	1	-	-	-	6	-	-
5.50 - 5.99	-	-	1	-	-	1	-	-	-	10	-	2
6.00 - 6.49	-	20	2	-	-	-	-	-	-	2	-	6
6.50 - 6.99	-	113	2	-	-	-	-	-	-	1	-	11
7.00 - 7.49	-	54	-	-	-	-	-	-	-	1	-	2
7.50 - 7.99	-	6	-	-	-	-	1	-	-	1	-	-
8.00 - 8.49	-	2	-	-	-	-	-	-	1	-	-	1
8.50 - 8.99	-	15	-	-	-	-	-	-	-	2	-	-
9.00 - 9.49	2	-	-	-	-	-	-	-	-	2	-	1
9.50 - 9.99	10	19	-	-	-	-	-	-	-	6	-	-
10.00 - 10.49	6	31	-	-	-	-	-	-	-	2	-	-
10.50 - 10.99	1	52	-	-	-	-	-	-	-	1	-	-
11.00 - 11.49	-	23	-	-	-	-	-	-	-	1	-	-
11.50 - 11.99	-	7	-	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	-	-	-	-	-	-	-	-
14.00 - 14.99	-	-	-	-	-	-	-	-	-	-	-	-
15.00 - 15.99	-	-	-	-	6	-	-	-	-	-	-	-
16.00 - 16.99	-	-	-	-	23	-	-	-	1	-	1	-
17.00 - 17.99	-	-	-	-	37	-	-	-	-	-	-	-
18.00 - 18.99	-	-	-	-	12	-	-	-	-	-	-	-
19.00 - 19.99	-	-	-	-	11	-	-	-	-	-	-	-
20.00 - 20.99	-	-	-	-	5	-	-	-	-	-	-	-
21.00 - 21.99	-	-	-	1	1	-	-	-	-	-	-	-
22.00 - 22.99	-	-	-	-	-	-	-	-	-	-	-	-
23.00 - 23.99	-	-	-	1	-	-	-	-	-	-	-	-
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>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>CCF</u>	<u>GOS</u>	<u>HSF</u>	<u>OSS</u>	<u>WAE</u>	<u>WHC</u>	<u>WTS</u>	<u>YEP</u>
Total	19	551	5	2	95	2	2	4	2	35	1	23
Min. Length	9.33	4.25	5.94	21.89	15.55	5.12	4.69	3.23	8.35	5.08	16.97	5.79
Max. Length	10.83	11.89	6.93	23.23	21.46	5.94	7.76	3.62	16.06	11.02	16.97	9.33
Mean Length	9.90	7.41	6.33	22.56	17.75	5.53	6.22	3.49	12.20	7.45	16.97	6.72
# Measured	19	105	5	2	78	2	2	4	2	35	1	23
No Lengths for	0	446	0	0	17	0	0	0	0	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.

**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	1	0	N/A	0	N/A
	Snapping Turtle	5	5	9.29 - 11.72 - 14.37	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 06/25/2012), 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.

## 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: Big Twin**

**Survey Type: Population Assessment**

**DOW Number: 46-0133-00**

**Survey ID Date: 06/18/2012**

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**Survey Status:** Active

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 06/25/2012 may not be reflected in the Distribution tables until 06/26/2012.**