

Lake Name: East Chain
DOW Number: 46-0010-00

Survey Type: Standard Survey
Survey ID Date: 05/20/2025

Lake Identification

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

DNR Sounding Map Number: C0454
Alternate Lake Class ID: N/A

Lake Location

Primary County: Martin

Nearest Town: East Chain

Legal Descriptions

Lake Center: Township - 101N Range - 29W Section - 19
PLS Section Lake Center: 10102919

All Legal Descriptions:

Martin County: Township - 101N Range - 29W Sections - 7, 18, 19, 30
Township - 101N Range - 30W Sections - 13, 24, 25

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

Lake Characteristics

Lake Area (planimetered acres): 485.00
GIS Lake Area (acres): 480.76
DOW Lake Area (acres): 485.00
Littoral Area (acres): 480.75
Area in MN (acres): 480.76
Maximum Depth (feet): 6.0
Mean Depth (feet): N/A

GIS Shoreline Length (miles): 5.90
Maximum Fetch (miles): 2.00
Fetch Orientation (degrees): 360
USGS Quad Map Number: X12d
USGS Quad 24K GIS Index: 4724

Watershed Characteristics

Major Watershed

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

Minor Watershed

Name: Sager L
Watershed Number: 62
Watershed size (acres): 5,253

Surveys and Investigations

Re-Survey: 07/07/1997.
Population Assessment: 07/08/2013, 07/02/2001, 07/06/1992.
Special Assessment: 04/15/1997.
Winter Kill Assessment: 05/08/2014, 04/15/2009.
Dissolved Oxygen Check: 01/20/2016, 02/24/2015, 01/03/2014, 01/08/2013, 12/28/2012, 01/18/2011, 01/15/201
Standard Survey: 05/20/2025.
Targeted Survey: 05/29/2019, 02/19/2019.

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/11/2013	Normal	-2.90	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	-2.90	07/11/2013	-2.90	07/11/2013	0.00	-2.90	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	05/22/2025	4.0	Surface	54.3	9.8
			1.0	54.3	9.7
			2.0	54.3	9.8
			3.0	54.3	9.8
			4.0	54.5	9.9

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	05/22/2025	Surface	1.5	9.14	140	Brown Grn	Algae

Net Catch Summary by Numbers for TN

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

Number of Sets: 12
 First Set Date: 05/20/2025
 Last Lift Date: 05/22/2025
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43 ¹		
				25%	50%	75%
BIB	Bigmouth Buffalo	20	1.67	0.17	0.38	1.04
BLB	Black Bullhead	111	9.25	11.50	42.00	132.61
BLC	Black Crappie	101	8.42	1.17	4.88	20.50
CAP	Common Carp	87	7.25	1.00	2.44	5.51
FRD	Freshwater Drum	7	0.58	0.23	0.92	3.25
GOS	Golden Shiner	1	0.08	0.22	0.50	1.10
GSF	Green Sunfish	1	0.08	0.15	0.25	1.94
NOP	Northern Pike	12	1.00	N/A	N/A	N/A
QBS	Quillback	12	1.00	N/A	N/A	N/A
TPM	Tadpole Madtom	2	0.17	N/A	N/A	N/A
WAE	Walleye	10	0.83	0.50	1.33	2.95
WHC	White Crappie	1	0.08	0.25	1.83	5.96
WTS	White Sucker	1	0.08	0.34	0.88	2.58
YEB	Yellow Bullhead	4	0.33	0.50	1.13	2.50
YEP	Yellow Perch	8	0.67	0.33	1.37	3.76
Total Fish/Set:			31.50	¹ 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 ²	Quartiles for Lake Class 43 ¹		
					25%	50%	75%
BIB	Bigmouth Buffalo	105.77	8.81	5.29	2.56	3.75	5.83
BLB	Black Bullhead	39.84	3.32	0.35	0.18	0.28	0.40
BLC	Black Crappie	54.75	4.56	0.54	0.22	0.34	0.50
CAP	Common Carp	477.55	39.80	5.49	1.42	2.92	4.58
FRD	Freshwater Drum	9.97	0.83	1.42	0.28	0.60	0.95
GOS	Golden Shiner	0.00	0.00	N/A	0.06	0.10	0.10
GSF	Green Sunfish	0.08	0.01	0.08	0.09	0.11	0.24
NOP	Northern Pike	41.85	3.49	3.49	N/A	N/A	N/A
QBS	Quillback	19.36	1.61	1.61	N/A	N/A	N/A
TPM	Tadpole Madtom	0.08	0.01	0.04	N/A	N/A	N/A
WAE	Walleye	20.48	1.71	2.05	0.82	1.44	2.28
WHC	White Crappie	0.55	0.05	0.55	0.27	0.40	0.63
WTS	White Sucker	1.10	0.09	1.10	1.05	1.47	2.04
YEB	Yellow Bullhead	1.60	0.13	0.40	0.31	0.48	0.67
YEP	Yellow Perch	2.14	0.18	0.27	0.11	0.18	0.30
Total Pounds Fish/Set:			64.60	¹ Quartiles for Mean Weight			

² Mean Weights are based on measured fish counts only.

Length Frequency Distribution for TN

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

(Field work conducted between 05/20/2025 and 05/22/2025)

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>FRD</u>	<u>GSF</u>	<u>NOP</u>	<u>QBS</u>	<u>TPM</u>	<u>WAE</u>	<u>WHC</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-	-	-	-	1	-	-	-	-	-
4.00 - 4.49	-	-	4	-	-	-	-	-	-	-	-	-	-	-
4.50 - 4.99	-	-	1	-	-	1	-	-	1	-	-	-	-	1
5.00 - 5.49	-	2	-	-	-	-	-	-	-	-	-	-	-	1
5.50 - 5.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00 - 6.49	-	5	5	-	-	-	-	-	-	-	-	-	-	-
6.50 - 6.99	-	-	11	-	-	-	-	-	-	-	-	-	1	-
7.00 - 7.49	-	11	13	-	-	-	-	-	-	-	-	-	1	1
7.50 - 7.99	-	22	6	-	-	-	-	-	-	-	-	-	1	2
8.00 - 8.49	-	24	3	-	-	-	-	-	-	-	-	-	-	-
8.50 - 8.99	-	17	1	-	-	-	-	-	-	-	-	-	-	1
9.00 - 9.49	1	8	11	-	-	-	-	-	-	-	-	-	-	-
9.50 - 9.99	-	7	17	-	-	-	-	-	-	-	-	-	-	-
10.00 - 10.49	-	5	11	-	-	-	-	-	-	2	1	-	-	1
10.50 - 10.99	1	4	-	-	-	-	-	-	-	2	-	-	-	1
11.00 - 11.49	-	6	3	1	-	-	-	-	-	-	-	-	-	-
11.50 - 11.99	-	-	2	2	1	-	-	-	-	-	-	-	-	-
12.00 - 12.99	2	-	6	2	2	-	-	-	-	-	-	1	1	-
13.00 - 13.99	3	-	4	4	2	-	1	6	-	-	-	-	-	-
14.00 - 14.99	-	-	2	7	-	-	-	2	-	-	-	-	-	-
15.00 - 15.99	-	-	1	7	-	-	-	-	-	-	-	-	-	-
16.00 - 16.99	-	-	-	2	1	-	1	2	-	1	-	-	-	-
17.00 - 17.99	1	-	-	2	-	-	-	1	-	2	-	-	-	-
18.00 - 18.99	1	-	-	1	-	-	-	1	-	-	-	-	-	-
19.00 - 19.99	-	-	-	1	1	-	-	-	-	1	-	-	-	-
20.00 - 20.99	2	-	-	6	-	-	-	-	-	-	-	-	-	-
21.00 - 21.99	-	-	-	4	-	-	-	-	-	1	-	-	-	-
22.00 - 22.99	2	-	-	11	-	-	1	-	-	-	-	-	-	-
23.00 - 23.99	-	-	-	8	-	-	2	-	-	-	-	-	-	-
24.00 - 24.99	2	-	-	3	-	-	1	-	-	1	-	-	-	-
25.00 - 25.99	2	-	-	2	-	-	2	-	-	-	-	-	-	-
26.00 - 26.99	2	-	-	5	-	-	2	-	-	-	-	-	-	-
27.00 - 27.99	1	-	-	4	-	-	1	-	-	-	-	-	-	-
28.00 - 28.99	-	-	-	9	-	-	1	-	-	-	-	-	-	-
29.00 - 29.99	-	-	-	4	-	-	-	-	-	-	-	-	-	-
30.00 - 30.99	-	-	-	1	-	-	-	-	-	-	-	-	-	-
31.00 - 31.99	-	-	-	1	-	-	-	-	-	-	-	-	-	-
32.00 - 32.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	<u>BIB</u>	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>FRD</u>	<u>GSF</u>	<u>NOP</u>	<u>QBS</u>	<u>TPM</u>	<u>WAE</u>	<u>WHC</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
Total	20	111	101	87	7	1	12	12	2	10	1	1	4	8
Min. Length	9.09	5.20	4.17	11.38	11.85	4.84	13.03	13.15	3.98	10.28	10.08	12.91	6.77	4.84
Max. Length	27.87	11.46	15.28	31.42	19.72	4.84	28.78	18.94	4.65	24.84	10.08	12.91	12.20	10.67
Mean Length	19.19	8.47	9.01	21.53	14.33	4.84	23.75	14.95	4.31	15.91	10.08	12.91	8.47	7.77
# Measured	20	90	101	87	7	1	12	12	2	10	1	1	4	8
No Lengths for	0	21	0	0	0	0	0	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	4	0	N/A	0	N/A
	Snapping Turtle	1	1	11.38	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 Lake Survey Report contains preliminary data (as of 05/23/2025), 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.

Lake Survey Report revision: 20230207-RJE. Data Date: 05/23/2025 at 7:19 am .

REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: East Chain
DOW Number: 46-0010-00

Survey Type: Standard Survey
Survey ID Date: 05/20/2025

Survey Status: Field Work Complete

The following 23 (of 34) 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. Water Quality (Winter Observations) (added to revision 01/21/2010)
16. Laboratory Analysis Of Water Chemistry
17. Zooplankton Sampling (added to revision 20221130)
18. Catch Summary (Pre-1993 Format) (added to revision 20201001)
19. Length At Capture With Last Incremental Length*
20. Back-Calculated Lengths
21. Age Class Frequency Distributions
22. Status Of Fishery And Field Notes
23. 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 before noon on 05/23/2025 may not be reflected in the Distribution tables until after 12:30 pm on 05/23/2025.

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