



Minnesota Department of Natural Resources
 Fisheries Management
LAKE SURVEY REPORT



DRAFT VERSION - PRELIMINARY DATA (AS OF 07/24/2015)

Lake Name: Goose

Survey Type: Standard Survey

DOW Number: 42-0093-00

Survey ID Date: 07/20/2015

Lake Identification

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

DNR Sounding Map Number: B0467
 Alternate Lake Class ID: N/A

Lake Location

Primary County: Lyon

Nearest Town: Lynd

Legal Descriptions

Lake Center: Township - 111N Range - 43W Section - 32
 PLS Section Lake Center: 11104332

All Legal Descriptions:

Lyon County: Township - 111N Range - 43W Sections - 29, 32, 33

Area Office

Area Name: Windom
 Region Name: Southern

ORG Code: F418
 Region Number: 4

Lake Access

(Information based on Re-Survey dated 07/17/1995)

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

Lake Characteristics

Lake Area (planimetered acres):	139.00	GIS Shoreline Length (miles):	1.88
GIS Lake Area (acres):	149.74	Maximum Fetch (miles):	0.60
DOW Lake Area (acres):	151.00	Fetch Orientation (degrees):	90
Littoral Area (acres):	148.96	USGS Quad Map Number:	U05a
Area in MN (acres):	148.96	USGS Quad 24K GIS Index:	4010
Maximum Depth (feet):	9.0		
Mean Depth (feet):	N/A		

Watershed Characteristics

Major Watershed

Name: Redwood River
 Watershed Number: 27
 Watershed size (acres): 447,531

Minor Watershed

Name: unknown DNR Minor Wshd
 Watershed Number: 46
 Watershed size (acres): 3,158

Surveys and Investigations

Initial Survey: 07/17/1986.
 Re-Survey: 07/14/2003, 07/17/1995.
 Population Assessment: 07/25/2011, 07/23/2007, 07/21/1999, 07/19/1991.
 Special Assessment: 10/20/1998.
 Dissolved Oxygen Check: 02/19/2015, 01/02/2014, 02/06/2013, 01/03/2013, 01/10/2012, 12/29/2010, 01/04/2010.
 Standard Survey: 07/20/2015.
 Targeted Survey: 07/20/2015.

Current Water Level

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/22/2015	Normal	-9.00	Above or below Benchmark

Benchmark and Gauge Descriptions / Locations

Station ID	Location Description
BM - 1	Spike in large cottonwood tree - 15 feet north of the boat ramp at the public access.

Water Level History - Readings

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/22/2015	Normal	-9.00	Above or below Benchmark
	07/24/2007	Low	-9.20	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	-9.20	07/24/2007	-9.00	07/22/2015	0.20	-9.10	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 - 1	07/20/2015	7.8	Surface	78.1	7.0
			1.0	78.1	6.8
			2.0	78.1	6.8
			3.0	78.1	6.7
			4.0	78.1	6.7
			5.0	78.1	6.6
			6.0	77.9	6.3
			7.0	77.9	6.0
			8.0	77.7	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	07/20/2015	Surface	0.6	8.57	221	Brown Grn	Algae
		Surface	N/A	N/A	N/A	N/A	N/A

Laboratory Analysis of Water Chemistry

<u>Station ID</u>	<u>Sampling Date</u>	<u>Analysis Date</u>	<u>Sample Depth (ft)</u>	<u>Chemical Parameter</u>	<u>Chemical Value</u>
WQ - 1	07/20/2015	06/12/2015	Surface	Sulphate ion	262.0 ppm
				Total phosphorus	0.090 ppm
				Total alkalinity	190 ppm
				Total dissolved solids	596 ppm
				Chlorophyll-a trichromatic method calculation	28.2 ppb
				Conductivity	851 :S/cm
				pH	8.61 pH
				Chlorophyll-a corrected for pheophytin	23.50 ppb

Net Catch Summary by Numbers for GN

Standard gill net sets

Number of Sets: 3
 First Set Date: 07/20/2015
 Last Lift Date: 07/23/2015
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	74	24.67	30.34	75.58	150.62
BLC	Black Crappie	82	27.33	1.41	3.71	13.75
CAP	Common Carp	110	36.67	1.00	3.33	13.75
WAE	Walleye	7	2.33	2.28	6.83	18.06
Total Fish/Set:			91.00	* 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%
BLB	Black Bullhead	24.05	8.02	0.33	0.17	0.26	0.39
BLC	Black Crappie	20.19	6.73	0.25	0.16	0.25	0.35
CAP	Common Carp	238.67	79.56	2.17	0.81	1.98	3.70
WAE	Walleye	17.15	5.72	2.45	1.01	1.53	2.30
Total Pounds Fish/Set:			100.02	* 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: 07/20/2015
 Last Lift Date: 07/23/2015
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 43*		
				25%	50%	75%
BLB	Black Bullhead	162	18.00	11.50	42.00	132.61
BLC	Black Crappie	304	33.78	1.17	4.88	20.50
CAP	Common Carp	54	6.00	1.00	2.44	5.51
HSF	Hybrid Sunfish	2	0.22	N/A	N/A	N/A
WAE	Walleye	3	0.33	0.50	1.33	2.95
Total Fish/Set:			58.33	* 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	78.47	8.72	0.48	0.18	0.28	0.40
BLC	Black Crappie	138.35	15.37	0.46	0.22	0.34	0.50
CAP	Common Carp	198.22	22.02	3.67	1.42	2.92	4.58
HSF	Hybrid Sunfish	0.25	0.03	0.13	N/A	N/A	N/A
WAE	Walleye	4.97	0.55	1.66	0.82	1.44	2.28
Total Pounds Fish/Set:			46.70	* Quartiles for Mean Weight			

Length Frequency Distribution for GN

Standard gill net sets

(Field work conducted between 07/20/2015 and 07/23/2015)

	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>WAE</u>
< 3.00	-	-	-	-
3.00 - 3.49	-	-	-	-
3.50 - 3.99	-	-	-	-
4.00 - 4.49	-	2	-	-
4.50 - 4.99	1	2	-	-
5.00 - 5.49	1	-	-	-
5.50 - 5.99	1	1	-	-
6.00 - 6.49	-	12	-	-
6.50 - 6.99	-	28	-	-
7.00 - 7.49	2	10	-	-
7.50 - 7.99	18	14	-	-
8.00 - 8.49	34	1	-	-
8.50 - 8.99	7	-	-	-
9.00 - 9.49	-	-	-	-
9.50 - 9.99	3	2	-	-
10.00 - 10.49	5	4	-	-
10.50 - 10.99	2	1	-	-
11.00 - 11.49	-	2	-	-
11.50 - 11.99	-	1	-	-
12.00 - 12.99	-	1	15	-
13.00 - 13.99	-	-	35	-
14.00 - 14.99	-	-	2	-
15.00 - 15.99	-	-	-	2
16.00 - 16.99	-	-	5	-
17.00 - 17.99	-	-	24	3
18.00 - 18.99	-	-	12	1
19.00 - 19.99	-	-	9	-
20.00 - 20.99	-	-	2	-
21.00 - 21.99	-	-	2	-
22.00 - 22.99	-	-	1	-
23.00 - 23.99	-	-	1	-
24.00 - 24.99	-	-	1	1
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>CAP</u>	<u>WAE</u>
Total	74	81	109	7
Min. Length	4.76	4.37	12.09	15.20
Max. Length	10.79	12.05	24.88	24.13
Mean Length	8.31	7.40	16.01	17.92
# Measured	74	80	109	7
No Lengths for	0	2	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 07/20/2015 and 07/23/2015)

	<u>BLB</u>	<u>BLC</u>	<u>CAP</u>	<u>HSF</u>	<u>WAE</u>
< 3.00	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-
3.50 - 3.99	-	-	-	-	-
4.00 - 4.49	-	-	-	-	-
4.50 - 4.99	2	-	-	-	-
5.00 - 5.49	-	-	-	1	-
5.50 - 5.99	-	-	-	-	-
6.00 - 6.49	-	15	-	-	-
6.50 - 6.99	-	59	-	-	-
7.00 - 7.49	-	55	-	-	1
7.50 - 7.99	5	25	-	-	1
8.00 - 8.49	14	3	-	-	-
8.50 - 8.99	7	1	-	-	-
9.00 - 9.49	5	4	-	-	-
9.50 - 9.99	50	11	-	-	-
10.00 - 10.49	73	26	-	-	-
10.50 - 10.99	6	20	-	-	-
11.00 - 11.49	-	36	1	-	-
11.50 - 11.99	2	34	-	-	-
12.00 - 12.99	-	15	2	-	-
13.00 - 13.99	-	-	4	-	-
14.00 - 14.99	-	-	2	-	-
15.00 - 15.99	-	-	-	-	-
16.00 - 16.99	-	-	-	-	-
17.00 - 17.99	-	-	11	-	-
18.00 - 18.99	-	-	5	-	-
19.00 - 19.99	-	-	4	-	-
20.00 - 20.99	-	-	7	-	-
21.00 - 21.99	-	-	4	-	-
22.00 - 22.99	-	-	3	-	-
23.00 - 23.99	-	-	2	-	1
24.00 - 24.99	-	-	3	-	-
25.00 - 25.99	-	-	5	-	-
26.00 - 26.99	-	-	1	-	-
27.00 - 27.99	-	-	-	-	-
28.00 - 28.99	-	-	1	-	-
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>HSF</u>	<u>WAE</u>
Total	164	304	55	1	3
Min. Length	4.80	6.06	11.34	5.12	7.48
Max. Length	11.65	12.95	28.35	5.12	23.66
Mean Length	9.69	8.94	19.73	5.12	13.02
# Measured	123	215	53	1	3
No Lengths for	39	89	1	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

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 07/24/2015), 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.

Lake Survey Report revision: 20150625-RJE. Data Date: 07/24/2015 at 8:14 am .

REPORT OVERVIEW - FOR OFFICE USE ONLY

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

Lake Name: Goose

Survey Type: Standard Survey

DOW Number: 42-0093-00

Survey ID Date: 07/20/2015

Survey Status: Active

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

1. Water Level History¹
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 Observations²
8. Resorts And Campgrounds
9. Fish Spawning Conditions
10. Erosion And Pollution
11. Fish Diseases And Parasites
12. Aquatic Vegetation And Shoalwater Substrates
13. Length At Capture With Last Incremental Length*
14. Back-Calculated Lengths
15. Age Class Frequency Distributions
16. Status Of Fishery And Field Notes
17. Other Species (added to revision 03/24/2009)
18. Water Quality (Winter Observations) (added to revision 01/21/2010)
19. 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 07/24/2015 may not be reflected in the Distribution tables until after 12:30 pm on 07/24/2015.

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