

Lake Name: Wabana  
DOW Number: 31-0392-00

Survey Type: Targeted Survey  
Survey ID Date: 07/15/2019

**TARGETED SURVEY**  
**Gill Netting**  
**Water Quality Measurement**

**Lake Identification**

Alternate Lake Name: N/A  
Primary Lake Class ID: 22  
DNR Sounding Map Number: B0206  
Alternate Lake Class ID: N/A

**Lake Location**

Primary County: Itasca  
Nearest Town: Grand Rapids

**Legal Descriptions**

Lake Center: Township - 57N Range - 25W Section - 16  
PLS Section Lake Center: 5702516

**All Legal Descriptions:**

Itasca County: Township - 57N Range - 25W (Twelve various sections)

**Area Office**

Area Name: Grand Rapids  
Region Name: Northeast  
ORG Code: F216  
Region Number: 2

**Lake Access**

(Information based on Standard Survey dated 07/13/2015)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR	Open to Public use	Concrete	Access is on the southeast corner of the lake in Section 23, one half mile north and west of the intersection of County Road #49 and #59.
AC - 2	DNR	Open to Public use	Concrete	On northwest shore in Section 8 near the end of County Road #335 (Bluewater Road).

**Lake Characteristics**

Lake Area (planimetered acres):	2,215.00	GIS Shoreline Length (miles):	25.31
GIS Lake Area (acres):	2,221.18	Maximum Fetch (miles):	3.16
DOW Lake Area (acres):	2,146.00	Fetch Orientation (degrees):	45
Littoral Area (acres):	785.00	USGS Quad Map Number:	115a
Area in MN (acres):	2,221.18	USGS Quad 24K GIS Index:	1630
Maximum Depth (feet):	115.0		
Mean Depth (feet):	N/A		

**Watershed Characteristics**

**Major Watershed**

Name: Miss R-Grand Rapids  
 Watershed Number: 9  
 Watershed size (acres): 1,332,793

**Minor Watershed**

Name: Wabana Cr  
 Watershed Number: 47  
 Watershed size (acres): 17,313

**Surveys and Investigations**

Initial Survey: 08/18/1947.  
 Re-Survey: 07/29/1985, 07/28/1975.  
 Population Assessment: 07/20/2009, 07/11/2005, 07/10/2000, 07/10/1995, 07/16/1990, 08/04/1980.  
 Special Assessment: 07/07/2008, 09/22/1999, 06/24/1998, 07/09/1956, 08/18/1954.  
 Standard Survey: 07/13/2015.  
 Targeted Survey: 07/15/2019, 07/13/2015.

**Water Level History - Readings**

Station ID	Date	Level	Reading (feet)	Reading Type
BM - 1	07/13/2015	Normal	3.50	Above or below Benchmark
	07/20/2009	Normal	-3.50	Above or below Benchmark
GA - 1	07/13/2015	Normal	3.40	Direct Gauge Reading
	07/20/2009	Normal	3.25	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	-3.50	07/20/2009	3.50	07/13/2015	7.00	0.00	Above or below Benchmark (2)
GA - 1	3.25	07/20/2009	3.40	07/13/2015	0.15	3.33	Direct Gauge Reading (2)

**Fish Diseases and Parasites**

Species Examined	Number of Fish Examined			Examination Results	
	Internally	Externally	In Lab	Condition Observed	Number of Fish
tullibee (cisco)	17	-	-	None observed	17

**Dissolved Oxygen and Temperature Profile of Lake Water**

<u>Station ID</u>	<u>Sampling Date</u>	<u>Bottom Depth (Feet)</u>	<u>Sample Depth (Feet)</u>	<u>Water Temperature (°F)</u>	<u>Dissolved Oxygen (ppm)</u>
WQ - 1	07/15/2019	100.0	Surface	77.0	9.5
			3.0	76.6	9.6
			6.0	76.5	9.6
			9.0	76.5	9.6
			12.0	75.6	9.7
			15.0	73.4	10.3
			16.0	72.5	10.7
			17.0	70.9	11.1
			18.0	69.1	11.2
			19.0	67.8	11.3
			20.0	68.0	11.3
			21.0	65.5	11.5
			22.0	63.9	11.7
			23.0	62.2	11.7
			24.0	59.5	11.8
			25.0	57.7	11.7
			26.0	55.9	11.6
			27.0	55.0	11.3
			28.0	54.1	11.1
			29.0	53.2	10.9
			30.0	52.0	10.1
33.0	50.5	9.4			
36.0	48.7	8.3			
39.0	47.8	8.1			
42.0	46.0	7.3			
45.0	45.0	6.6			
50.0	44.2	5.5			
60.0	42.4	4.8			
70.0	41.5	3.6			
80.0	41.4	3.1			
90.0	41.2	0.5			

**Field Measurements of Water Quality**

<u>Station ID</u>	<u>Sampling Date</u>	<u>Sample Depth (Feet)</u>	<u>Secchi Depth (Feet)</u>	<u>Field pH</u>	<u>Alkalinity (ppm)</u>	<u>Water Color</u>	<u>Color Cause</u>
WQ - 1	07/15/2019	Surface	23.0	N/A	N/A	Clear	Low fertility

**Net Catch Summary by Numbers for GN**

Standard gill net sets

Number of Sets: 15  
 First Set Date: 07/15/2019  
 Last Lift Date: 07/19/2019  
 Target Species: N/A

Abbr	Species	Total Fish	Number Per Set	Quartiles for Lake Class 22*		
				25%	50%	75%
BLC	Black Crappie	3	0.20	0.22	0.42	1.14
BLG	Bluegill	37	2.47	N/A	N/A	N/A
HSF	Hybrid Sunfish	3	0.20	N/A	N/A	N/A
LMB	Largemouth Bass	17	1.13	0.25	0.62	1.20
NOP	Northern Pike	79	5.27	3.00	5.00	7.89
PMK	Pumpkinseed	3	0.20	N/A	N/A	N/A
RKB	Rock Bass	105	7.00	1.00	2.93	6.63
SMB	Smallmouth Bass	7	0.47	0.20	0.44	0.87
TLC	Tullibee (Cisco)	42	2.80	0.50	1.56	5.20
WAE	Walleye	61	4.07	4.01	6.61	9.63
WTS	White Sucker	3	0.20	1.02	2.00	3.49
YEP	Yellow Perch	11	0.73	7.06	17.14	33.87
Total Fish/Set:			24.73	* 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 22*		
					25%	50%	75%
BLC	Black Crappie	1.13	0.08	0.38	0.24	0.38	0.55
BLG	Bluegill	7.44	0.50	0.20	N/A	N/A	N/A
HSF	Hybrid Sunfish	0.99	0.07	0.33	N/A	N/A	N/A
LMB	Largemouth Bass	22.68	1.51	1.33	0.55	0.77	1.05
NOP	Northern Pike	273.71	18.25	3.46	1.68	2.25	2.80
PMK	Pumpkinseed	0.57	0.04	0.19	N/A	N/A	N/A
RKB	Rock Bass	33.49	2.23	0.32	0.30	0.41	0.52
SMB	Smallmouth Bass	17.79	1.19	2.54	0.94	1.35	1.81
TLC	Tullibee (Cisco)	95.43	6.36	2.27	0.37	0.69	1.04
WAE	Walleye	130.03	8.67	2.13	1.12	1.43	1.90
WTS	White Sucker	11.45	0.76	3.82	1.52	1.89	2.28
YEP	Yellow Perch	1.27	0.08	0.12	0.12	0.15	0.21
Total Pounds Fish/Set:			39.73	* Quartiles for Mean Weight			

**Length Frequency Distribution for GN**

**Standard gill net sets**

(Field work conducted between 07/15/2019 and 07/19/2019)

	<u>BLC</u>	<u>BLG</u>	<u>HSF</u>	<u>LMB</u>	<u>NOP</u>	<u>PMK</u>	<u>RKB</u>	<u>SMB</u>	<u>TLC</u>	<u>WAE</u>	<u>WTS</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	3	-	-	-	1	4	-	-	-	-	-
4.00 - 4.49	-	11	1	-	-	-	9	-	-	-	-	-
4.50 - 4.99	1	-	-	-	-	-	4	-	-	-	-	-
5.00 - 5.49	-	-	-	-	-	-	7	-	-	-	-	-
5.50 - 5.99	-	1	-	-	-	-	11	-	-	-	-	1
6.00 - 6.49	-	2	-	-	-	1	8	-	-	-	-	3
6.50 - 6.99	-	1	1	-	-	-	3	-	1	-	-	5
7.00 - 7.49	-	9	-	-	-	1	7	-	2	-	-	1
7.50 - 7.99	-	7	-	-	-	-	5	-	-	-	-	-
8.00 - 8.49	-	2	-	-	-	-	13	-	-	-	-	1
8.50 - 8.99	-	1	-	2	-	-	14	-	-	-	-	-
9.00 - 9.49	1	-	1	-	-	-	9	-	-	-	-	-
9.50 - 9.99	-	-	-	-	-	-	7	-	-	-	-	-
10.00 - 10.49	-	-	-	-	-	-	1	-	1	-	-	-
10.50 - 10.99	1	-	-	2	-	-	2	-	-	2	-	-
11.00 - 11.49	-	-	-	1	-	-	1	-	-	5	-	-
11.50 - 11.99	-	-	-	2	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	3	-	-	-	-	1	4	-	-
13.00 - 13.99	-	-	-	1	-	-	-	1	1	3	-	-
14.00 - 14.99	-	-	-	3	-	-	-	-	1	3	-	-
15.00 - 15.99	-	-	-	1	-	-	-	2	3	-	-	-
16.00 - 16.99	-	-	-	-	-	-	-	1	5	2	-	-
17.00 - 17.99	-	-	-	-	-	-	-	1	11	3	-	-
18.00 - 18.99	-	-	-	1	2	-	-	2	8	11	-	-
19.00 - 19.99	-	-	-	1	5	-	-	-	6	6	-	-
20.00 - 20.99	-	-	-	-	8	-	-	-	2	12	-	-
21.00 - 21.99	-	-	-	-	15	-	-	-	-	3	2	-
22.00 - 22.99	-	-	-	-	10	-	-	-	-	5	1	-
23.00 - 23.99	-	-	-	-	6	-	-	-	-	-	-	-
24.00 - 24.99	-	-	-	-	5	-	-	-	-	1	-	-
25.00 - 25.99	-	-	-	-	8	-	-	-	-	-	-	-
26.00 - 26.99	-	-	-	-	3	-	-	-	-	1	-	-
27.00 - 27.99	-	-	-	-	2	-	-	-	-	-	-	-
28.00 - 28.99	-	-	-	-	3	-	-	-	-	-	-	-
29.00 - 29.99	-	-	-	-	4	-	-	-	-	-	-	-
30.00 - 30.99	-	-	-	-	1	-	-	-	-	-	-	-
31.00 - 31.99	-	-	-	-	3	-	-	-	-	-	-	-
32.00 - 32.99	-	-	-	-	2	-	-	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	1	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	1	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-	-	-
	<u>BLC</u>	<u>BLG</u>	<u>HSF</u>	<u>LMB</u>	<u>NOP</u>	<u>PMK</u>	<u>RKB</u>	<u>SMB</u>	<u>TLC</u>	<u>WAE</u>	<u>WTS</u>	<u>YEP</u>
Total	3	37	3	17	79	3	105	7	42	61	3	11
Min. Length	4.61	3.86	4.21	8.58	18.50	3.74	3.82	13.58	6.77	10.55	21.06	5.91
Max. Length	10.63	8.82	9.06	19.17	35.08	7.20	11.06	18.78	20.35	26.10	22.56	8.46
Mean Length	8.12	6.16	6.61	13.04	24.12	5.75	7.19	16.60	16.60	17.86	21.72	6.71
# Measured	3	37	3	17	79	3	105	7	42	61	3	11
No Lengths for	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

**Survey Crew Notes**

Crew: Koski, Leonard, Mero, Vosika

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**Field Notes - General Field**

A hot and humid week with several rounds of rain showers/thunderstorms. Surface water temperatures were 75 to 78F.

Most Walleye stomachs were full of age-0 Yellow Perch about an inch long. Northern Pike had a variety of fish in their stomachs, including Rock Bass, Tullibee, and Largemouth Bass, but very few age-1 or older perch.

Numerous boats fishing each day, mostly from lake residences; only a few from the boat landings. Loons were observed all over the lake.

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**Approval Dates And Notices**

Date Approved By Grand Rapids Area Fisheries Supervisor: \_\_\_\_\_

Date Approved By Northeast Region Fisheries Manager: \_\_\_\_\_

**This DRAFT VERSION of the Lake Survey Report contains preliminary data (as of 08/08/2019), 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: 20190410-RJE. Data Date: 08/08/2019 at 12:25 pm .

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## REPORT OVERVIEW - FOR OFFICE USE ONLY

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Lake Name: Wabana

Survey Type: Targeted Survey

DOW Number: 31-0392-00

Survey ID Date: 07/15/2019

### Gill Netting, Water Quality Measurement

Survey Status: Field Work Complete

The following 20 (of 32) report components are not included in this Lake Survey Report:

1. Current Water Level
2. Benchmark And Gauge Descriptions / Locations
3. Water Level History<sup>1</sup>
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<sup>2</sup>
10. Resorts And Campgrounds
11. Fish Spawning Conditions
12. Erosion And Pollution
13. Aquatic Vegetation And Shoalwater Substrates
14. Laboratory Analysis Of Water Chemistry
15. Length At Capture With Last Incremental Length\*
16. Back-Calculated Lengths
17. Age Class Frequency Distributions
18. Other Species (added to revision 03/24/2009)
19. Water Quality (Winter Observations) (added to revision 01/21/2010)
20. 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 08/08/2019 may not be reflected in the Distribution tables until 08/09/2019.**

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