LAKE SURVEY REPORT
DRAFT VERSION
PRELIMINARY DATA (AS OF 06/01/2023)

Lake Name: Lime
Survey Type: Targeted Survey
DOW Number: 51-0024-00
Survey ID Date: 05/15/2023

TARGETED SURVEY
Electrofishing

Lake Identification

Alternate Lake Name: N/A
Primary Lake Class ID: 43
DNR Sounding Map Number: N/A
Alternate Lake Class ID: N/A

Lake Location

Primary County: Murray
Nearest Town: Avoca

Legal Descriptions

Lake Center: Township - 106N
Range - 40W
Section - 29

PLS Section Lake Center: 10604029

All Legal Descriptions:

Murray Country: Township - 106N
Range - 40W
Sections - 28, 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 06/16/1997)

<table>
<thead>
<tr>
<th>Station ID</th>
<th>Ownership</th>
<th>Public Use</th>
<th>Type</th>
<th>Location / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC - 1</td>
<td>DNR</td>
<td>Open to Public use</td>
<td>Concrete</td>
<td>STATE OWNED ACCESS ON NE CORNER OF LAKE.</td>
</tr>
</tbody>
</table>

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

Lake Characteristics

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Area (planimetered acres):</td>
<td>338.00</td>
</tr>
<tr>
<td>GIS Lake Area (acres):</td>
<td>326.05</td>
</tr>
<tr>
<td>DOW Lake Area (acres):</td>
<td>316.00</td>
</tr>
<tr>
<td>Littoral Area (acres):</td>
<td>326.04</td>
</tr>
<tr>
<td>Area in MN (acres):</td>
<td>326.05</td>
</tr>
<tr>
<td>Maximum Depth (feet):</td>
<td>7.0</td>
</tr>
<tr>
<td>Mean Depth (feet):</td>
<td>N/A</td>
</tr>
<tr>
<td>GIS Shoreline Length (miles):</td>
<td>4.10</td>
</tr>
<tr>
<td>Maximum Fetch (miles):</td>
<td>1.70</td>
</tr>
<tr>
<td>Fetch Orientation (degrees):</td>
<td>90</td>
</tr>
<tr>
<td>USGS Quad Map Number:</td>
<td>W07b</td>
</tr>
<tr>
<td>USGS Quad 24K GIS Index:</td>
<td>4413</td>
</tr>
</tbody>
</table>

Lake Survey Report revision: 20230207-RJE. Data Date: 06/01/2023 at 1:40 pm.
Watershed Characteristics

Major Watershed
Name: Des Moines-Headwaters
Watershed Number: 51
Watershed size (acres): 798,595

Minor Watershed
Name: Lime Cr
Watershed Number: 55
Watershed size (acres): 26,713

Surveys and Investigations

Dissolved Oxygen Check: 02/18/2016, 02/19/2015, 12/30/2013, 02/06/2013, 01/02/2013, 01/10/2012, 12/30/2010, 01/05/2010.
Targeted Survey: 05/15/2023, 02/06/2020, 05/22/2019, 01/19/2018.

Water Level History - Readings

<table>
<thead>
<tr>
<th>Station ID</th>
<th>Date</th>
<th>Level</th>
<th>Reading (feet)</th>
<th>Reading Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM - 1</td>
<td>05/23/2019</td>
<td>High</td>
<td>1.00</td>
<td>Above or below Benchmark</td>
</tr>
<tr>
<td></td>
<td>06/18/2013</td>
<td>Normal</td>
<td>-0.80</td>
<td>Above or below Benchmark</td>
</tr>
<tr>
<td></td>
<td>06/25/2007</td>
<td>High</td>
<td>-1.30</td>
<td>Above or below Benchmark</td>
</tr>
</tbody>
</table>

Water Level History - Station Summary

<table>
<thead>
<tr>
<th>Station ID</th>
<th>Minimum Level</th>
<th>Maximum Level</th>
<th>Range (feet)</th>
<th>Average Level (feet)</th>
<th>Reading Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM - 1</td>
<td>-1.30</td>
<td>1.00</td>
<td>2.30</td>
<td>-0.37</td>
<td>Above or below Benchmark (3)</td>
</tr>
</tbody>
</table>

Natural Reproduction Catch Summary for SEF

Special sampling, electrofishing

<table>
<thead>
<tr>
<th>Abbr</th>
<th>Species</th>
<th>Age</th>
<th>Total Number</th>
<th>Number Measured</th>
<th>Mean Length (inches)</th>
<th>Length Range (inches)</th>
<th>Catch Rates (number per hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIB</td>
<td>Bigmouth Buffalo</td>
<td>All</td>
<td>23</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>43.13</td>
</tr>
<tr>
<td>BLB</td>
<td>Black Bullhead</td>
<td>All</td>
<td>3</td>
<td>3</td>
<td>6.92</td>
<td>6.18 - 8.11</td>
<td>5.63</td>
</tr>
<tr>
<td>FHM</td>
<td>Fathead Minnow</td>
<td>All</td>
<td>250</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>488.75</td>
</tr>
</tbody>
</table>
Length Frequency Distribution for SEF

**Special sampling, electrofishing**

(Field work conducted on 05/15/2023)

<table>
<thead>
<tr>
<th>BLB</th>
<th>Total</th>
<th>Min. Length</th>
<th>Max. Length</th>
<th>Mean Length</th>
<th># Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>6.18</td>
<td>8.11</td>
<td>6.92</td>
<td>3</td>
</tr>
</tbody>
</table>

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 06/01/2023), and is therefore subject to change at any time.
Lake Name: Lime  
DOW Number: 51-0024-00

Survey Type: Targeted Survey  
Survey ID Date: 05/15/2023

Electrofishing

Survey Status: Field Work Complete

The following 26 (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. Dissolved Oxygen And Temperature Profile Of Lake Water  
16. Field Measurements Of Water Quality  
17. Water Quality (Winter Observations) (added to revision 01/21/2010)  
18. Laboratory Analysis Of Water Chemistry  
19. Zooplankton Sampling (added to revision 20221130)  
20. Catch Summary (Pre-1993 Format) (added to revision 20201001)  
21. Length At Capture With Last Incremental Length*  
22. Back-Calculated Lengths  
23. Age Class Frequency Distributions  
24. Other Species (added to revision 03/24/2009)  
25. Status Of Fishery And Field Notes  
26. 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 after noon on 06/01/2023 may not be reflected in the Distribution tables until 06/02/2023.

FOR OFFICE USE ONLY: As of revision 20150622, this page is automatically suppressed on signed versions of this report (area supervisor, region manager, research biologist, research supervisor, program staff, or program manager signed).

Fisheries Lake ID = 3451, Survey ID = 20822313533702000

Lake Survey Report revision: 20230207-RJE. Data Date: 06/01/2023 at 1:40 pm.