

# LAKE MANAGEMENT PLAN

| Region   | Area        | D.O.W Number                         | County | Lake Name                              | Acreage        |  |           |                               |        |   |        |                           |  |
|--|-------------|--------------------------------------|--------|--|----------------|--|-----------|-------------------------------|--------|---|--------|---------------------------|--|
| NW   | Walker F118 | 11-171                               | Cass   | Wabedo                                 | 1185           |  |           |                               |        |   |        |                           |  |
| <p><b>Long Range Goal:</b></p> <p style="text-align: center;">To provide a quality sportfishery with the following fish species specific population parameters: (over)</p>   |             |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
| <p><b>Operational Plan:</b></p> <p>Population assessments conducted in 2009 and 2011.<br/>                     Spring muskellunge assessment in 2009.<br/>                     Stock walleye fingerlings at 2 lb per littoral acre (590 lbs) in 2008 and 2010.<br/>                     Fish habitat will be protected via strict permit reviews and the dissemination of information on the value of various habitat components.</p>  |             |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
| <p><b>Midrange Objective:</b></p> <p>Determine the contribution of 2006 – 2010 walleye fingerling stocking (1 lb per littoral acre per year) to walleye gillnet catch for assessments conducted in 2009 and 2011. Assess NOP PSL of 24 to 36 inches that was implemented in 2003.</p>  |             |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
| <p><b>Potential Plan:</b></p> <table style="width: 100%; margin-left: 20px;"> <tr> <td>Purchase of shoreline to protect critical fish habitat</td> <td style="text-align: right;">2,000,000</td> </tr> <tr> <td>Creel survey in 2013 and 2014</td> <td style="text-align: right;">15,000</td> </tr> <tr> <td>Sampling directed at smallmouth and largemouth bass</td> <td style="text-align: right;">10,000</td> </tr> <tr> <td colspan="2" style="text-align: right;"><b>TOTAL \$ 2,025,000</b></td> </tr> </table> |             |                                      |        |  |                | Purchase of shoreline to protect critical fish habitat | 2,000,000 | Creel survey in 2013 and 2014 | 15,000 | Sampling directed at smallmouth and largemouth bass | 10,000 | <b>TOTAL \$ 2,025,000</b> |  |
| Purchase of shoreline to protect critical fish habitat   | 2,000,000   |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
| Creel survey in 2013 and 2014  | 15,000      |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
| Sampling directed at smallmouth and largemouth bass  | 10,000      |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
| <b>TOTAL \$ 2,025,000</b>  |             |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
|  |             |                                      |        | <b>FOR CENTRAL OFFICE USE ONLY</b>     |                |  |           |                               |        |   |        |                           |  |
|  |             |                                      |        | Entry Date:                            | Year Resurvey: |  |           |                               |        |   |        |                           |  |
| Stock Species -Size- Number per Acre   |             |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
|  |             |                                      |        | Schedule:                              | Year Beginning |  |           |                               |        |   |        |                           |  |
| Population Manipulation<br>YES NO Year   |             |                                      |        |  |                |  |           |                               |        |   |        |                           |  |
| <b>Primary Species Management:</b>   |             | <b>Secondary Species Management:</b> |        | Development<br>__YES __NO Year         |                |  |           |                               |        |   |        |                           |  |
| MUE, BLC, WAE  |             | NOP, SMB, LMB, BLG, TLC, YEP         |        |  |                |  |           |                               |        |   |        |                           |  |
| <b>Area Supervisor's Signature:</b>  |             | <b>Date</b><br>April 9, 2007         |        | Creel or Use Survey<br>__YES __NO Year |                |  |           |                               |        |   |        |                           |  |
| <b>Regional Manager's Signature:</b>   |             | <b>Date</b>                          |        | Other:<br><br>Year                     |                |  |           |                               |        |   |        |                           |  |

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**NARRATIVE: LONG RANGE GOAL:**

Northern Pike

- A. Gillnet catch rate of 3 to 6.
- B. PSD and RSD-P values of 60 to 20.

Muskellunge

- A. Spring trapnet (5 x 6 foot frame) catch rate of 0.25 to 0.50
- B. Naturally reproducing population with recruitment to most all age classes.
- C. Reported angler catches of 50+ inch fish.

Cisco

- A. Gillnet catch rate of 5 to 10.

Bluegill

- A. Trapnet catch rate of 20 to 30.
- B. PSD and RSD-P values of 50 and 10.

Black Crappie

- A. Spring trapnet catch rate of 2 to 4.
- B. PSD and RSD-P values of 70 and 30.

Smallmouth and Largemouth Bass

Sampling needs to be directed at these two species to better define population goals.

Yellow Perch

- A. Gillnet catch rate of 20 to 35.

Walleye

- A. Gillnet catch rate of 5 to 7.
- B. Recruitment to 3 of first 7-year classes.

**VARIOUS SURVEYS:**

Lake Surveys – 2005, 1993, 1969, 1948, 1940

Population Assessments – 2002, 1999, 1996, 1990, 1985, 1978

Special Assessments – 2000, 1999, 1998, 1997, 1994, 1993, 1992, 1989

Creel Surveys – 2001 and 2000.

Wabedo Lake has a diverse fish population that provides quality angling for several different fish species. Important species in the lake include muskellunge, northern pike, largemouth and smallmouth bass, bluegill, black crappie, and walleye.

Wabedo is known for its muskellunge population and receives considerable angling pressure directed at this specie. Fish over 50 inches long are caught by anglers.

The majority of the fish yield that occurred during the 2000 (7.0 lbs/acre) and 2001 (6.3 lbs/acre) creel surveys (May through September) was black crappie and northern pike. Black crappie accounted for 28 percent of total fish yield in 2000 and 56 percent in 2001. Twenty-five percent of the anglers targeted black crappie during the creel surveys. Such crappie angling effort and harvest is not typical of Lake Class 22 lakes. Though the lake has not been creeled during any ice-fishing season, reportedly considerable pressure is directed at crappie.

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**VARIOUS SURVEYS: (continued)**

The walleye gillnet CPUE typically has been less than six per gillnet. In recent assessments it has been four or less. Natural year classes of walleye can occur, however in recent assessments the most abundant year classes of walleye have occurred during years of walleye fry stocking. As stated previously, the walleye gillnet CPUE has declined from higher levels even though the walleye stocking strategy had not changed; higher gill net CPUE's had been supported by walleye fry stocking and/or natural reproduction. The walleye gillnet CPUE for 2005 did not increase even with increased number and frequency of walleye fry stocking. Walleye fingerling stocking at 2 pounds per littoral acre was initiated starting in 2006 to attempt to increase walleye abundance.

Spring assessments targeting muskellunge sample many different year classes of adult fish. Fall electrofishing has consistently sampled young-of-year and yearly muskellunge. Recruitment appears to be good most years.

The gillnet CPUE for northern pike is typically near the Lake Class 22 median value or less. There are quality fish present in the population.

Anglers catch quality smallmouth and largemouth bass in Wabedo Lake. Sampling needs to be directed at these species.

The blue gill population has increased since earlier assessments; quality has declined.

**Social Considerations:**

Wabedo Lake has a state-owned developed public access. There are numerous private homes and cottages; approximately 189 in 2005. There were believed to be 4 operating resorts with 20 cabins and 8 campsites in 2005. There is an active lake association. The association is a member of the Walker Area Walleye Coalition that is calling for greater walleye stocking in the area.

**Survey Needs:**

Sampling directed at smallmouth and largemouth bass. Further creel surveys would be useful to assess whether the northern pike PSL regulation is effective at creating more large fish; whether the walleye fingerling stocking creates higher walleye catch rates, and whether the black crappie angling harvest maintains the level from the 2000 and 2001 creel surveys.

**Stocking Plans:**

Based on strong local interest in increasing walleye stocking trials in the Walker area walleye fingerling stocking in Wabedo Lake will be done at the rate of 2 lbs per littoral acre during alternate years. This change was initiated in 2006. This stocking rate will be evaluated during the next two assessments. Adjustments in stocking may be made following this evaluations.

**Evaluation Plans:**

Population assessment to be conducted in 2009 to assess the 2006 (3 year old) and 2008 (1 year old) walleye fingerling stocking. A population assessment will also be conducted in 2011 to assess the 2008 (3 year old) and 2010 (1 year) fingerling stockings. These population assessments will also assess whether the northern pike PSL regulation influences the size structure in Wabedo Lake.

Spring muskellunge sampling to be conducted the same year as every other population assessment on lake survey – 2009.

**Other Management Tools:**

Wabedo Lake is a designated muskellunge lake. The muskellunge minimum size limit has been raised to 48 inches effective in 2007. A protected slot limit of 24 to 36 inches was instituted for northern pike in 2003.