

**LAKE MANAGEMENT PLAN**

Region	Area	D.O.W Number	County	Lake Name	Acreage		
NW	Walker F118	11 - 167	Cass	Little Boy	1372		
<b>Long Range Goal:</b>							
To provide a quality sportfishery with the following fish species specific population parameters: (over)							
<b>Operational Plan:</b>							
Spring muskellunge assessment every 6 years – (2009, 2015 . . .) Population assessments 2009 and 2012. Lake survey 2015. Stock 800,000 walleye fry 2008, 2010, 2012 . . . Fish habitat will be protected via strick permit reviews and the dissemination of the value of various components of fish habitat.							
<b>Midrange Objective:</b>							
Fish data will be used to determine if long-range goals are being achieved.							
<b>Potential Plan:</b>							
Purchase of shoreline to protect critical fish habitat				2,000,000			
Determine walleye spawning areas				10,000			
Creel survey in 2013 and 2014				15,000			
Sampling directed at smallmouth and largemouth bass				10,000			
<b>TOTAL \$ 2,035,000</b>							
<b>NARRATIVE:</b> (Historical perspectives - various surveys; past management; social considerations; present limiting factors; survey needs; land acquisition; habitat development and protection; commercial fishery; stocking plans; other management tools; and evaluation plans)  (see reverse side)				<b>FOR CENTRAL OFFICE USE ONLY</b>			
				Entry Date:		Year Resurvey:	
				Stock Species -Size- Number per Acre			
				Schedule:		Year Beginning	
				Population Manipulation YES NO Year			
<b>Primary Species Management:</b>		<b>Secondary Species Management:</b>		Development __YES __NO Year			
MUE, NOP, WAE		SMB, LMB, BLG, BLC, TLC, YEP		Creel or Use Survey __YES __NO Year			
<b>Area Supervisor's Signature:</b>		<b>Date</b> April 9, 2007		Other:			
<b>Regional Manager's Signature:</b>		<b>Date</b>		Year			

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**NARRATIVE: LONG RANGE GOAL:**

Northern Pike

- A. Gillnet catch rate of 6 to 8.
- B. PSD and RSD-P values of 60 to 20.

Muskellunge

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

Cisco

- A. Gillnet catch rate of 2 to 5.

Bluegill

- A. Trapnet catch rate of 10 to 20.
- B. PSD and RSD-P values of 50 and 5.

Smallmouth and Largemouth Bass

Sampling needs to be directed at these two species to better define population goals. Quality size individuals present in the population.

Black Crappie

- A. Spring trapnet catch rate of 2 to 4.
- B. PSD and RSD-P values of 70 and 50.

Yellow Perch

- A. Gillnet catch rate of 20 to 40.

Walleye

- A. Gillnet catch rate of 8 to 13.
- B. Recruitment to 3 of first 8-year classes.

**VARIOUS SURVEYS:**

Lake Surveys – 2005, 1993, 1976, and 1955.  
 Population Assessments – 2002, 1999, 1996, 1990, 1985.  
 Spring muskellunge Assessments – 1997 - 2000 and 1990 - 1994.  
 Creel Surveys – 2001 and 2000.

Cisco: Gillnet catches indicate that the population in Little Boy Lake is fairly abundant. Catch rates typically fall between the second and third quartile values. No cisco were sampled in 2002, however the gillnet CPUE was the highest ever (9/GN) in 2005.

Northern Pike: Gillnet catch rates are typically near the third quartile value or slightly less. Quality size fish are sampled, however the size distribution of gillnet samples are dominated by small fish. A protected slot limit (24 to 36 inches) for northern pike was implemented March 1, 2003.

Muskellunge: Spring assessments directed at muskellunge have sampled large numbers of sexually mature fish that have exhibited excellent size and age distributions. Fall electrofishing has consistently sampled age 0+ and 1+ fish. Fin clipped fingerling muskellunge were stocked in 1991, 1992, and 1993. Based on the age frequency distribution, 130 muskellunge captured from 1997 to 2000 corresponded to the 1991, 1992, and 1993 year classes. Two percent of these fish were from the 3 years of fingerling stocking.

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**VARIOUS SURVEYS: - (continued)**

Bluegill: The earliest assessments conducted on Little Boy Lake sampled zero to very few bluegill. The latest trapnet catch rates have ranged from approximately 10 to 20 per net. Quality size individuals are present in the population.

Smallmouth and Largemouth Bass: Sampling needs to be directed at these two species of fish. There are indications that there are fairly abundant populations present in Little Boy Lake. Quality to trophy size individuals are known to be present.

Black Crappie: Prior to the spring muskellunge assessments, few black crappie had been sampled in the lake. Large samples of black crappie with numerous fish over 12 inches long have been collected during the muskellunge assessments.

Yellow Perch: The yellow perch gillnet catch rate is typically greater than 30.

Walleye: The gillnet CPUE for walleye in Little Boy Lake is typically greater than 9/net. The lowest has been 6.1 walleye per gillnet. Large year classes of walleye are produced during year when no walleye stocking has occurred. Fall electrofishing conducted during non-stocked years typically samples good numbers of young-of-year walleye. In the latest assessment the largest year classes of walleye correspond with years when walleye fry stocking has been done. The frequency of walleye fry stocking is being changed from every third year to every other year as an effort to increase walleye abundance in Little Boy Lake.

**Creel Surveys 2000 and 2001:**

Angling pressure from northern pike/walleye opener through September on Little Boy Lake was approximately 24 hours per acre for both 2000 and 2001. Anglers harvested significant pounds of walleye (1.24 and 2.63 lbs/acre), northern pike (1.42 and 1.28 lbs/acre) and bluegill (0.43 and 1.10 lbs/acre). No harvest of muskellunge was recorded by the creel survey.

**Past Management:**

1980's and 1990's walleye fry stocking every third year. Fin clipped muskellunge fingerlings were stocked in 1991, 1992, and 1993. 1970's - periodic walleye fry stocking. Six years of muskellunge stocking.

**Social Considerations:**

Little Boy Lake has a state-owned developed public access. In 2005 there were approximately 131 homes/cabins, 2 resorts with 10 cabins and 28 campsites, and one YMCA camp located on Little Boy Lake. 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.

**Present Limiting Factors:**

Lakeshore development is impacting fish habitat. There has been substantial removal of emergent vegetation (primarily bulrush) as well as other impacts typically associated with lakeshore development.

**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.

**Stocking Plans:**

800,000 walleye fry will be stocked every other year - 2008, 2010, 2012 . . . This is an increase in stocking frequency based on strong local interest in increasing stocking trials in the Walker area.

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**VARIOUS SURVEYS: - (continued)**

**Other Management Tools:**

A protected slot limit of 24 to 36 inches was implemented on Little Boy Lake March 1, 2003. The muskellunge minimum size limit was increased to 48 inches effective March 1, 2007. Both of these regulation changes was supported by the angling public and the lake association.

**Evaluation Plans:**

Fish population assessments will be conducted in 2009 and 2012.

Spring muskellunge assessment will be conducted in 2009.

Findings from assessments will be used to measure success/failure of increased frequency of walleye stocking for increasing walleye population in Little Boy Lake.