Minnesota Department of Natural Resources
Fisheries Management
STANDARD LAKE SURVEY REPORT

Lake Name: Cannon | **Survey Type: Special Assessment**

DOW Number: 66-0008-00 | **Survey ID Date: 10/10/2006**

Lake Identification

Alternate Lake Name: N/A
Primary Lake Class ID: 41
DNR Sounding Map Number: C0504
Alternate Lake Class ID: 41

Lake Location

Primary County: Rice
Nearest Town: Faribault

Legal Descriptions

Lake Center: Township - 109N Range - 21W Section - 9
PLS Section Lake Center: 3176

All Legal Descriptions:

Rice County: Township - 109N Range - 21W Sections - 3, 4, 5, 7, 8, 9, 10, 17, 18
Township - 109N Range - 22W Section - 13

Area Office

Area Name: Waterville
Region Name: Southern
ORG Code: F417
Region Number: 4

Lake Access

(Information based on Re-Survey dated 08/12/2004)

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	DNR		Concrete	Shager Memorial Park. Shager Memorial Park.
AC - 2	Private Property	No public use	Other	Docs Dock ~Resort/Campground~Warsaw. Docs Dock ~Resort/Campground~ Warsaw.

Lake Characteristics

Lake Area (planimetered acres): 1591.00
GIS Lake Area (acres): 1593.22
DOW Lake Area (acres): 1476.00
Littoral Area (acres): 1591.00
Area in MN (acres): 1593.22
Maximum Depth (feet): 15.0
Mean Depth (feet): N/A

GIS Shoreline Length (miles): 11.98
Maximum Fetch (miles): 4.00
Fetch Orientation (degrees): N/A
USGS Quad Map Number: U16d
USGS Quad 24K GIS Index: 4132

Watershed Characteristics

Major Watershed	Minor Watershed
Name: Cannon River	Name: Cannon L
Watershed Number: 39	Watershed Number: 89
Watershed size (acres): 941,122	Watershed size (acres): 9,253

Surveys And Investigations

Initial Survey: 06/16/1958.
Re-Survey: 08/12/2004, 08/19/1999, 08/08/1994, 08/28/1989, 08/20/1984, 07/10/1972.
Population Assessment: 07/08/1981.
Special Assessment: 10/10/2006, 10/03/2005, 10/05/2004, 05/27/2004, 10/15/2003, 10/17/2002, 11/05/2001, 11/14/2000, 09/22/1999, 10/20/1998, 10/01/1997, 09/18/1996, 08/25/1969, 07/11/1955.

Electrofishing Catch Summary for EF

Standard electrofishing

Total run-time for all stations: 01:00:00
Total on-time for all stations: 01:00:00
First Sampling Date: 10/10/2006
Last Sampling Date: 10/10/2006
Daylight Flag: Yes
Target Species: Young of the year walleye

		Summary By Numbers			Summary By Weight (Pounds)			
		Total	Number per Hour		Total	Lbs per Hour		Mean
Abbr	Species	Number	Run-Time	On-Time	Weight	Run-Time	On-Time	Weight
WAE	Walleye	110	110.00	110.00	14.56	14.56	14.56	0.13

Length Frequency Distribution For EF

Standard electrofishing

(Field work conducted on 10/10/2006)

	WAE	YWAE
< 3.00	-	-
3.00 - 3.49	-	-
3.50 - 3.99	-	-
4.00 - 4.49	-	-
4.50 - 4.99	-	1
5.00 - 5.49	-	7
5.50 - 5.99	-	27
6.00 - 6.49	-	24
6.50 - 6.99	-	23
7.00 - 7.49	-	9
7.50 - 7.99	-	3
8.00 - 8.49	-	7
8.50 - 8.99	2	-
9.00 - 9.49	-	-
9.50 - 9.99	-	-
10.00 - 10.49	-	-
10.50 - 10.99	-	-
11.00 - 11.49	-	-
11.50 - 11.99	2	-
12.00 - 12.99	2	-
13.00 - 13.99	1	-
14.00 - 14.99	-	-
15.00 - 15.99	1	-
16.00 - 16.99	-	-
17.00 - 17.99	1	-
18.00 - 18.99	-	-
19.00 - 19.99	-	-
20.00 - 20.99	-	-
21.00 - 21.99	-	-
22.00 - 22.99	-	-
23.00 - 23.99	-	-
24.00 - 24.99	-	-
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	-	-

	WAE	YWAE
Total	9	101
Min. Length	8.86	4.96
Max. Length	17.99	8.43
Mean Length	12.54	6.40
# Measured	9	101
No Lengths for	0	0

Age Class Frequency Distribution

Species and Gear (1)	Number of Fish (2)			Number of Fish in Year Class ('yy) and Age Class															
	Aged	Keyed	Unaged	'06 0	'05 1	'04 2	'03 3	'02 4	'01 5	'00 6	'99 7	'98 8	'97 9	'96 10	'95 11	'94 12	'93 13	'92 14	<'92 15+
Walleye																			
EF	110	0	0	101	2	4	1	0	2	0	0	0	0	0	0	0	0	0	0

(1) **Key to sampling gear abbreviations:**
EF = Standard electrofishing

(2) **Notes:**
Number of Fish Aged: Fish that were aged from bony parts.
Number of Fish Keyed: Fish assigned an age with an age-length key or by expansion of mesh or station age distributions.
Number of Fish Unaged: Fish that were not aged and were not assigned an age.

Survey Crew Notes

Surveyed by Dan Wilfond and Dave Weitzel. Analysis and write up by Dave Weitzel.

Area Signed by user 'shareddrive' on 07/16/2007 as approved by Hugh Valiant.

Region Signed by user 'jalauer1' on 07/20/2007

Field Notes - General Field

Cannon Lake was sampled using standard nighttime boat electrofishing on October 10, 2006 to evaluate the status of the walleye population and determine the presence of young of the year (YOY) walleye. This evaluation is part of an annual assessment of walleye on the Cannon River chain of lakes. Three sites were sampled for 20 minutes each.

Discussion

In all, 110 walleye were sampled in one hour of electrofishing, 101 of which were age-0 fish as determined from scale samples. Catch per effort (CPE) of YOY walleye in 2006 was above the 17 year mean for Cannon Lake and improved from 2005 when 24 YOY walleye were sampled. Since Cannon Lake was first evaluated in 1990, CPE of YOY walleye has varied greatly among years (SE=19.2) with a mean of 56 YOY/hr. Natural reproduction appears to be very limited. Cannon Lake has frequently been stocked with walleye fry and is currently stocked 3 out of 4 years. Fry stocking appears to contribute greatly to the presence of YOY walleye. Mean CPE for stocked years is 75 YOY walleye/hr (SE=7.63) while the mean for years without fry stocking is 12 YOY walleye/hr (SE=6.66). When compared to other lakes in the Cannon River chain, Cannon Lake consistently produces the highest CPE of YOY walleye, often producing YOY walleye at a rate of 2 or 3 times that of the other lakes in the chain. It is unknown if fry survival is consistently higher in Cannon Lake or if downstream migration of age-0 fish from upstream lakes results in the high CPE.

Status Of The Fishery

Cannon Lake continues to produce high levels of young of the year walleye when compared to other lakes in the Cannon River chain of lakes. Fry stocking appears to contribute greatly to the presence of YOY walleye as natural reproduction is limited. Sampling in 2006 resulted in above average abundance of YOY walleye and likely represents good fry survival to fingerling size. The abundance of these fingerlings may contribute greatly to the overall walleye fishery and provide abundant angling opportunities in the near future.

Approval Dates And Notices

Date Approved By Waterville Area Fisheries Supervisor: 07/16/2007

Date Approved By Southern Region Fisheries Manager: 07/20/2007

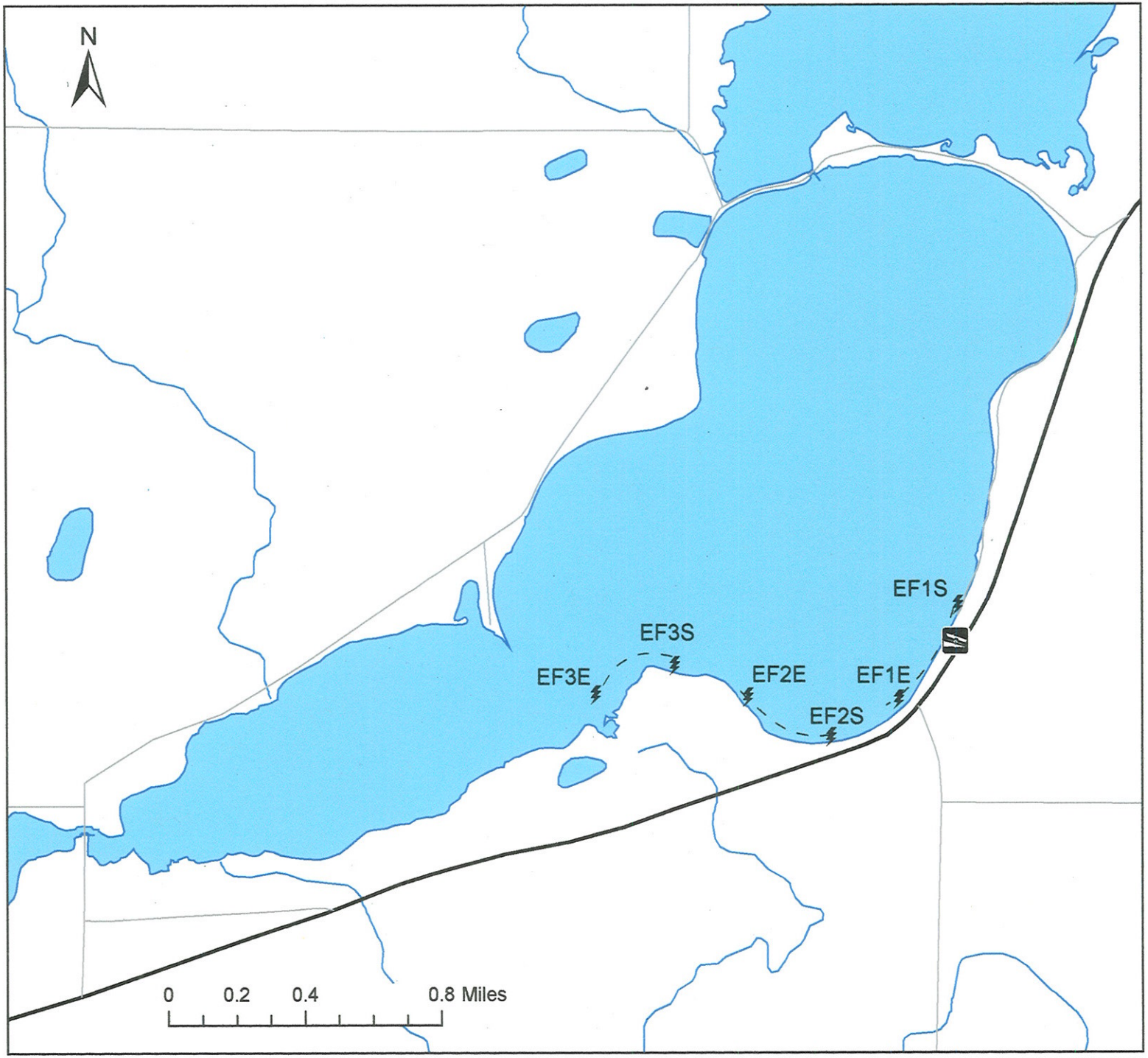
Cannon Lake Fall Walleye Electrofishing 10/10/2006

Waterville Fisheries Area

Legend

- Water Access Site
- fallef

Created by David Weitzel 2006



YOY Walleye catch per hour by year (bold print indicates years with no stocking)

	1987	1988	1989	1990	**1991**	1992	1993	1994	**1995**	1996	1997	1998	**1999**	2000	**2001**	2002
CANNON				283	**0**	58	13	58	**22**	141	14	2	**3**	12	**33**	4
GORMAN	**0**	29	114	42	**0**	17	5	14	**1**	2	0	8	**0**	20	**3**	14
L. SAKATAH	**0**	13	0	4	**0**	6	31	67	**2**	2	4	68	**0**	20	**11**	0
SABRE	**0**	46	1	9	**0**	1	18	47	**4**	63	0	28	**6**	20	**16**	1
TETONKA	**1**	38	2	35	**3**	28	22	19	**11**	79	51	39	**6**	21	**68**	0
U. SAKATAH	**0**	30	1	6	**0**	26	56	41	**16**	61	12	56	**0**	7	**173**	1

	1987	1988	1989	1990	**1991**	1992	1993	1994	**1995**	1996	1997	1998	**1999**	2000	**2001**	2002
mean for year	**0.2**	31.2	23.6	63.2	**0.5**	22.7	24.2	41.0	**9.3**	58.0	13.5	33.5	**2.5**	16.6	**50.7**	3.3
SE	**0.2**	5.5	22.6	44.4	**0.5**	8.3	7.3	8.6	**3.5**	21.3	7.9	10.6	**1.2**	2.3	**26.2**	2.2
N	**5**	5	5	6	**6**	6	6	6	**6**	6	6	6	**6**	6	**6**	6

	2003	2004	2005	2006
CANNON	**1**	185	24	101
GORMAN	**0**	8	10	0
L. SAKATAH	**1**	23	1	7
SABRE	**0**	35	1	
TETONKA	**0**	11	2	21
U. SAKATAH	**0**	50	41	14

mean for year	**2003**	2004	2005	2006
SE	**0.3**	52.0	13.2	28.6
N	**0.2**	27.3	6.6	18.4
	6	6	6	5