LAKE: OSSIPEE L (LITTLE) (VLMP 31)
TOWN: WATERBORO
COUNTY: YORK

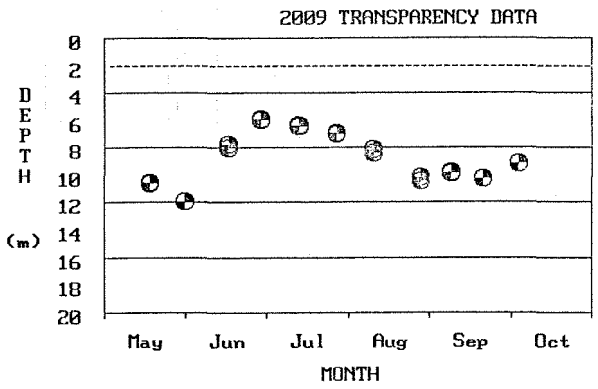
MIDAS: 5024
TRUE BASIN: 1
SAMPLE STATION: 1

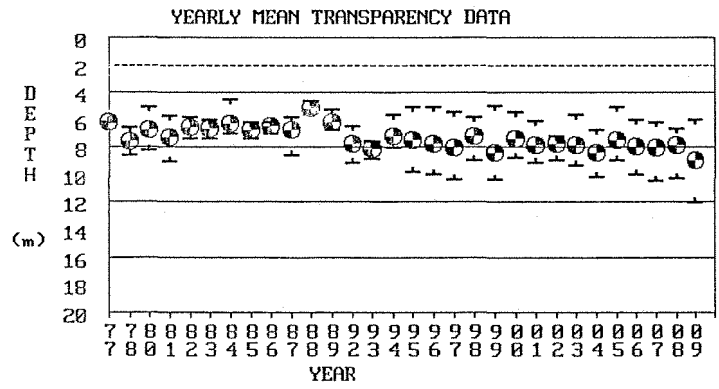
WHOLE LAKE INFORMATION
MAX. DEPTH: 23 m. (74 ft.)
MEAN DEPTH: 6 m. (21 ft.)
DELORME ATLAS #: 02
USGS QUAD: WATERBORO
IFW REGION A: Sebago Lake (Gray)
IFW FISH. MANAGMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS
SURFACE AREA: 182.0 ha. (449.7 a.)
FLUSHING RATE: 0.59 flushes/yr.
VOLUME: 12368135.3 cu. m. (10033 ac.-ft.)
DIRECT DRAINAGE AREA: 12.08 sq. km. (4.66 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. OSSIPEE L (LITTLE) has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:





Note: 2009 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visable at bottom of lake (or one reading used in calculation was visable)].

	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb) EPI CORE	SURF GRAB	BOT. GRAB	PRO. GRAB	SECCHI DISK (m.) MIN.	MEAN	MAX.	N	CHLOROPHYLL A(ppb) MIN.	MEAN	MAX.	TROPHIC STATE INDICES EPI PHOS C	G	SEC	CHL
YEAR																			
1977	-	-	-	-	-	-	5	-	6.1	6.1	6.1	1	-	-	-	-	-	-	-
1978	20	7.00	9.0	42	-	-	18	15	6.5	7.5	8.5	2	1.5	1.5	1.5	-	-	-	-
1980	-	-	-	-	-	-	-	-	5.0	6.7	8.2	5	-	-	-	-	-	34	-
1981	8	6.80	11.0	39	8	-	19	-	5.6	7.2	9.0	6	1.9	1.9	1.9	-	-	30	-
1982	-	-	-	-	-	-	-	-	5.8	6.5	7.3	6	-	-	-	-	-	35	-
1983	-	-	-	-	-	-	-	-	5.9	6.6	7.3	6	-	-	-	-	-	34	-
1984	10	7.10	6.0	-	-	-	-	-	4.4	6.2	7.0	5	2.5	2.5	2.5	-	-	37	-
1985	-	-	-	-	-	-	-	-	6.1	6.7	7.3	5	-	-	-	-	-	34	-
1986	-	-	-	-	-	-	-	-	6.1	6.4	7.0	6	-	-	-	-	-	36	-
1987	8	6.60	10.0	42	7	-	53	-	5.8	6.7	8.5	6	-	-	-	-	-	34	-
1988	-	-	-	-	-	-	-	-	4.6	5.1	5.5	3	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	5.2	6.1	6.7	6	-	-	-	-	-	38	-
1992	12	7.86	11.5	34	5	-	-	-	6.4	7.7	9.1	4	0.9	0.9	0.9	-	-	-	-
1993	-	-	-	-	-	-	-	-	7.5	8.1	8.8	5	-	-	-	-	-	25	-
1994	-	-	-	-	-	-	-	-	5.5	7.1	8.0	6	-	-	-	-	-	31	-

LAKE: OSSIPEE L (LITTLE) (VLMP 31) MIDAS: 5024
TOWN: WATERBORO *TRUE BASIN: 1
COUNTY: YORK *SAMPLE STATION: 1

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb) EPI CORE	SURF GRAB	BOT. GRAB	PRO. GRAB	SECCHI DISK (m.) MIN.	MEAN	MAX.	N	CHLOROPHYLL A(ppb) MIN.	MEAN	MAX.	TROPHIC STATE INDICES EPI PHOS C	G	SEC	CHL
1995	-	-	-	-	-	-	-	-	5.0	7.4	9.7	6	-	-	-	-	-	29	-
1996	19	-	11.0	-	4	-	59	-	5.0	7.7	9.9	6	1.5	1.5	1.5	-	-	28	-
1997	-	-	-	-	-	-	-	-	5.4	8.0	10.3	6	-	-	-	-	-	26	-
1998	12	-	11.0	62	6	-	18	-	5.8	7.1	8.9	6	2.5	2.5	2.5	-	-	31	-
1999	-	-	-	-	-	-	-	-	4.9	8.3	10.3	6	-	-	-	-	-	24	-
2000	-	-	-	-	13	-	24	-	5.4	7.3	8.7	6	3.2	3.2	3.2	-	-	30	-
2001	-	-	-	-	-	-	-	-	6.0	7.8	9.1	5	-	-	-	-	-	27	-
2002	7	-	14.3	76	6	-	16	-	7.1	7.7	8.9	3	1.5	1.6	1.7	-	-	-	-
2003	-	-	-	-	-	-	-	-	5.5	7.8	9.3	5	-	-	-	-	-	27	-
2004	-	-	-	-	-	-	-	-	6.7	8.3	10.1	5	-	-	-	-	-	24	-
2005	-	-	-	-	-	-	-	-	5.0	7.4	8.9	5	-	-	-	-	-	29	-
2006	-	-	-	-	-	6	-	-	5.9	7.9	9.9	6	-	-	-	-	-	26	-
2007	-	-	-	-	-	-	-	-	6.1	8.0	10.4	5	-	-	-	-	-	26	-
2008	16	6.94	8.8	75	3	4	15	-	6.6	7.8	10.2	6	2.8	2.8	2.8	-	-	27	-
2009	-	-	-	-	-	5	-	-	5.9	8.9	11.9	6	-	-	-	-	-	21	-
SUMMARY:	12	6.92	10.3	53	7	5	25	15	4.4	7.3	11.9	30	0.9	2.0	3.2	-	-	30	-

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

	SAMPLE DATE															
DEPTH	08/19/08		08/24/08		09/06/08		09/21/08		08/09/09		08/27/09		09/08/09		09/20/09	
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	23.0	8.5	23.7	9.0	23.7	8.2	20.7	8.2	24.2	7.5	25.2	7.6	22.8	8.7	19.4	8.5
1.0	23.0	8.5	23.6	9.0	23.6	8.2	19.6	8.3	24.2	7.7	25.3	7.6	22.5	8.8	19.3	8.5
2.0	23.0	8.6	23.2	9.1	23.4	8.3	19.4	8.3	24.2	7.7	25.4	7.4	22.2	8.8	19.3	8.5
3.0	23.0	8.6	23.0	9.1	23.2	8.3	19.3	8.4	24.2	7.7	25.4	7.6	22.0	8.8	19.3	8.5
4.0	22.7	8.6	22.8	9.1	23.0	8.3	19.3	8.3	24.1	7.8	25.4	7.6	22.0	8.8	19.2	8.6
5.0	21.3	8.6	22.6	9.1	22.8	8.2	19.2	8.3	22.6	8.4	25.3	7.6	21.9	8.8	19.2	8.6
6.0	18.7	9.6	19.3	9.9	20.8	8.9	19.1	8.2	19.4	9.6	20.9	9.5	21.6	8.8	19.2	8.6
7.0	15.8	11.2	15.4	11.8	16.8	10.3	18.5	8.1	15.9	10.8	17.4	10.8	18.2	11.8	19.1	8.6
8.0	10.7	12.2	11.7	13.4	12.5	11.8	13.8	10.4	12.8	11.0	13.5	11.9	13.7	13.8	14.5	12.7
9.0	8.1	13.5	8.7	14.2	9.9	12.5	10.2	11.2	10.1	10.2	11.1	11.3	11.1	12.6	11.7	12.6
10.0	6.8	12.3	7.0	12.0	7.7	11.3	7.8	9.7	8.5	9.0	9.3	9.8	9.1	10.2	9.5	9.7
11.0	6.1	10.2	6.3	8.7	6.8	9.4	6.9	7.7	7.6	7.9	8.1	8.1	8.1	8.3	8.3	7.7
12.0	5.6	9.2	5.8	8.2	6.1	7.7	6.2	7.1	7.1	7.9	7.4	7.7	7.5	8.0	7.7	7.2
13.0	5.1	7.9	5.3	7.1	5.4	6.5	5.7	5.1	6.7	7.5	7.1	7.3	6.9	8.1	7.0	7.0
14.0	4.8	5.3	4.8	6.1	4.9	5.1	5.2	4.0	6.1	6.4	6.6	6.5	6.5	7.5	6.5	5.9
15.0	4.4	4.5	4.6	4.6	4.6	3.7	4.8	3.0	5.9	5.9	6.2	5.7	6.1	5.9	6.2	5.3
16.0	4.2	3.6	4.5	3.3	4.5	2.3	4.6	1.2	5.7	5.5	5.9	5.5	5.9	4.7	5.9	4.2
17.0	4.2	1.3	4.5	0.9	4.5	0.2	4.5	0.2	5.5	4.3	5.7	3.6	5.7	3.9	5.7	3.2
18.0	4.2	0.9	4.4	0.2	4.5	0.2	4.5	0.1	5.4	3.3	5.5	1.8	5.6	2.6	5.5	0.6
19.0	4.1	0.7	4.4	0.2	4.4	0.1	4.5	0.1	5.3	1.5	5.3	0.2	5.4	1.0	5.3	0.1
20.0	-	-	4.4	0.1	4.4	0.1	4.5	0.1	5.2	0.1	5.2	0.1	5.2	0.2	5.3	0.1
21.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

WATER QUALITY SUMMARY

(Little) Ossipee Lake, Waterboro
Midas: 5024, Basin: Primary

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate present water quality, track algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring data for (Little) Ossipee Lake have been collected since 1977. During this period, 10 years of basic chemical information were collected, in addition to 24 years of Secchi Disk Transparencies (SDT). In summary, the water quality of (Little) Ossipee Lake is considered to be excellent, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on (Little) Ossipee Lake is very low.

Water Quality Measures: (Little) Ossipee Lake is a non-colored lake (average color 12 SPU) with an average SDT of 7.1m (23.3ft). The SDT is above average compared to other Maine lakes. TP values for Little Ossipee Lake are moderately low ranging from 4-13 parts per billion (ppb) with an average of 7 ppb. Chla values are considered low, ranging from .9-3.2 ppb with an average of 2.0 ppb. Recent dissolved oxygen (DO) profiles show little DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is low. Oxygen levels below 5 parts per million (ppm) stress certain cold water fish and a persistent loss of oxygen may eliminate habitat for sensitive cold water species.

See the ME-DEP *Explanation of Lake Water Quality Monitoring Report* for measured variable explanations. Additional lake information can be obtained by contacting the Maine DEP at 207-287-3901 or the VLMP at 207-783-7733, or on the Internet at **http://www.pearl.maine.edu** and/or **http://www.maine.gov/dep/blwq/lake.htm**.

Filename: ossi5024, Revised: 12/04; By kh