

LAKE: CRESCENT L (VLMP 05 )  
 TOWN: RAYMOND  
 COUNTY: CUMBERLAND

MIDAS: 3696  
 TRUE BASIN: 1  
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

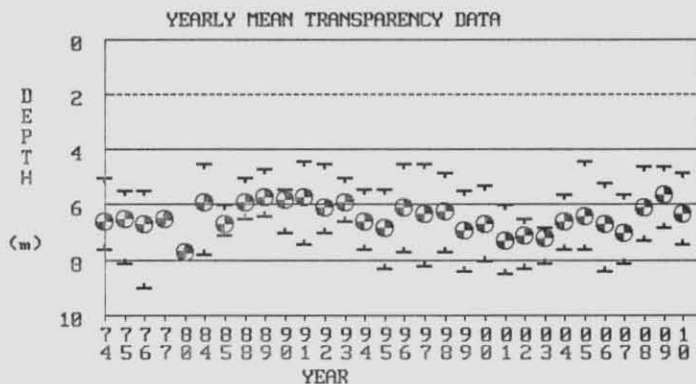
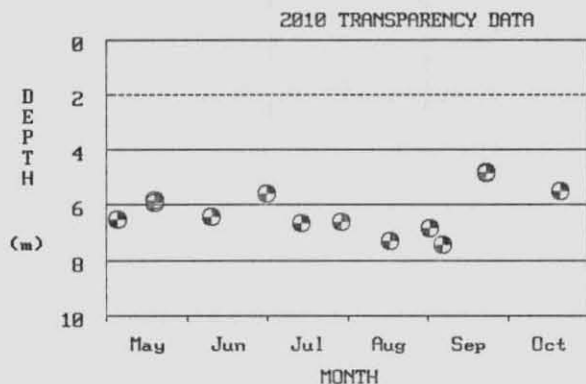
MAX. DEPTH: 16 m. (54 ft.)  
 MEAN DEPTH: 5 m. (17 ft.)  
 DELORME ATLAS #: 05  
 USGS QUAD: RAYMOND  
 IFW REGION A: Sebago Lake (Gray)  
 IFW FISH. MANAGMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 290.0 ha. (716.6 a.)  
 FLUSHING RATE: 1.22 flushes/yr.  
 VOLUME: 16030000.0 cu. m. (13003 ac.-ft.)  
 DIRECT DRAINAGE AREA: 15.79 sq. km. (6.10 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. CRESCENT L has 1 True Basin(s).

**SECCHI DISK TRANSPARENCY GRAPHS:**



Note: 2010 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)].

YEAR	MEAN COLOR	MEAN pH	MEAN ALK	MEAN COND.	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A (ppb)			TROPHIC STATE INDICES			
	(SPU)		(mg/l)	(uS	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
				/cm)	CORE	GRAB	GRAB	GRAB											
1974	-	-	-	-	-	6	-	-	5.0	6.6	7.6	5	2.1	2.7	3.4	-	-	34	37
1975	-	-	-	-	-	7	-	-	5.5	6.5	8.1	6	2.0	2.8	5.2	-	-	35	38
1976	13	6.58	11.0	56	9	-	-	-	5.5	6.7	9.0	6	1.4	2.7	3.8	39	-	34	37
1977	-	-	-	-	-	-	-	-	6.5	6.5	6.5	1	-	-	-	-	-	-	-
1980	15	-	9.0	41	8	-	17	-	7.7	7.7	7.7	1	2.7	2.7	2.7	-	-	-	-
1984	18	6.90	8.0	-	8	-	23	-	4.5	5.9	7.8	5	2.1	2.3	2.5	-	-	40	-
1985	10	7.10	10.0	43	5	-	13	-	6.0	6.7	7.1	4	-	-	-	-	-	-	-
1988	15	6.50	15.0	-	6	-	21	-	5.0	5.9	6.5	6	-	-	-	-	-	40	-
1989	-	-	-	-	-	-	-	-	4.7	5.7	6.4	6	-	-	-	-	-	42	-
1990	15	7.12	13.0	53	5	-	-	-	5.4	5.8	7.0	6	2.4	2.4	2.4	-	-	41	-
1991	6	7.37	10.0	42	6	-	16	-	4.4	5.7	7.4	5	-	-	-	-	-	42	-
1992	-	-	-	-	-	-	-	-	4.5	6.1	7.0	6	-	-	-	-	-	38	-
1993	-	-	-	-	-	-	-	-	5.0	5.9	6.6	6	-	-	-	-	-	40	-
1994	-	-	-	-	-	-	-	-	5.4	6.6	7.6	6	-	-	-	-	-	34	-
1995	-	-	-	-	-	-	-	-	5.4	6.8	8.3	6	-	-	-	-	-	33	-



## WATER QUALITY SUMMARY

### CRESCENT LAKE, RAYMOND

MIDAS: 3696, Sample Station # 1

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 water quality, track algal blooms, and determine water quality trends. This dataset does not include data for bacteria, mercury, toxics or nutrients other than phosphorus. Phosphorus is considered the primary limiting nutrient for algal growth in Maine lakes.

Water quality monitoring data for Crescent Lake have been collected since 1974. During this period, 12 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Crescent Lake is considered above average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Crescent Lake is moderate.

Water Quality Measures: Crescent Lake is a non-colored lake (average color 13 SPU) with an average SDT of 6.5 m (21.3 ft). The range of water column TP for Crescent Lake is 3 - 9 parts per billion (ppb) with an average of 6 ppb. Chla ranges from 1.4 - 5.2 ppb with an average of 2.7 ppb. Recent dissolved oxygen (DO) profiles indicate high DO depletion in deep areas of the lake. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is moderate to high. 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.

A watershed survey conducted in 1999 was the initial step toward implementing watershed improvements to protect the pond from future declines in water quality. Several erosion sites in the watershed were corrected in 2001-2004. In 2008, the Crescent Lake Watershed Association was formed and Crescent Lake was added to DEP's LakeSmart Program in 2009.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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LAKE: CRESCENT L (VLMP 05 )  
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MIDAS: 3696  
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 SAMPLE STATION: 2

WHOLE LAKE INFORMATION

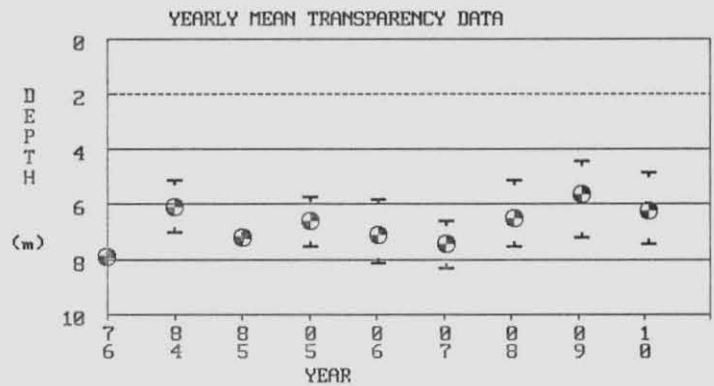
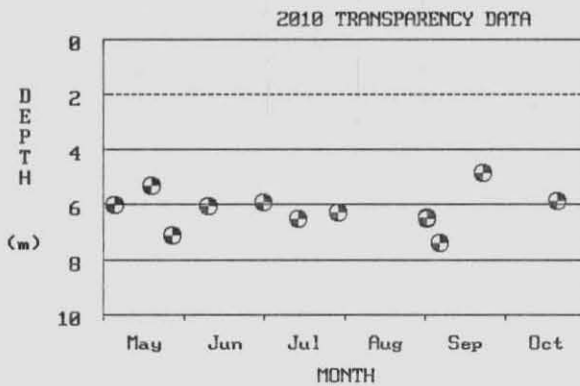
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					EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1976	10	6.72	11.0	48	13	-	-	-	7.9	7.9	7.9	1	2.2	2.2	2.2	-	-	-	-
1984	-	-	-	-	-	-	-	-	5.1	6.1	7.0	2	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	7.2	7.2	7.2	1	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	5.7	6.6	7.5	6	-	-	-	-	-	34	-
2006	-	-	-	-	-	-	-	-	5.8	7.1	8.1	6	-	-	-	-	-	31	-
2007	-	-	-	-	-	-	-	-	6.6	7.4	8.3	6	-	-	-	-	-	29	-
2008	-	-	-	-	-	-	-	-	5.1	6.5	7.5	6	-	-	-	-	-	35	-
2009	-	-	-	-	-	9	-	-	4.4	5.6	7.2	6	-	-	-	-	-	43	-
2010	-	-	-	-	-	9	-	-	4.8	6.2	7.4	6	-	-	-	-	-	37	-
SUMMARY:	10	6.72	11.0	48	13	9	-	-	4.4	6.7	8.3	9	2.2	2.2	2.2	-	-	35	-

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LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE					
	09/21/76		09/06/10		09/22/10	
m	°C	ppm	°C	ppm	°C	ppm
0.0	20.1	9.1	22.9	9.8	19.0	10.3
1.0	20.1	9.1	22.9	9.8	18.9	10.2
2.0	20.0	9.0	22.9	9.7	18.8	10.1
3.0	20.0	8.9	22.8	9.5	18.7	10.0
4.0	20.0	9.0	22.8	9.7	18.7	10.0
5.0	19.9	8.9	22.7	9.3	18.7	9.9
6.0	19.7	8.7	22.4	8.6	18.7	9.9
7.0	19.3	7.9	21.5	6.2	18.7	9.7
8.0	18.8	6.7	19.7	1.6	18.6	9.8
9.0	17.3	3.3	16.6	0.0	18.6	9.9
10.0	14.1	0.4	14.2	0.0	14.7	0.0
11.0	12.7	0.3	12.8	0.0	12.7	0.0
12.0	-	-	-	-	12.7	0.0