

LAKE: CARLTON BOG (POND) (VLMP 27)
 TOWN: TROY
 COUNTY: WALDO

MIDAS: 41
 TRUE BASIN: 1
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

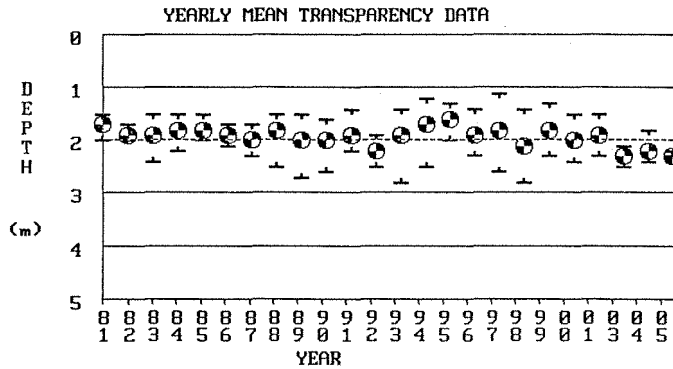
MAX. DEPTH: 2 m. (8 ft.)
 MEAN DEPTH: 1 m. (4 ft.)
 DELORME ATLAS #: 22
 USGS QUAD: UNITY POND
 IFW REGION B: Belgrade Lakes (Augusta)
 IFW FISH. MANAGEMENT: Warmwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 167.0 ha. (412.7 a.)
 FLUSHING RATE: 19.35 flushes/yr.
 VOLUME: 1477070.8 cu. m. (1198 ac.-ft.)
 DIRECT DRAINAGE AREA: 54.58 sq. km. (21.07 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. CARLTON BOG (POND) has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPH:



SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

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

YEAR	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
					EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1981	-	-	-	-	-	-	-	-	1.5*	1.7*	2.0*	6	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	1.7	1.9*	2.0*	6	-	-	-	-	-	-	-
1983	30	6.50	16.0	-	26	-	-	-	1.5*	1.9*	2.4*	6	5.9	5.9	5.9	-	-	-	-
1984	-	-	-	-	-	-	-	-	1.5	1.8	2.2	7	-	-	-	-	-	-	-
1985	100	6.80	14.0	40	18	-	-	-	1.5	1.8*	2.0	6	2.6	5.4	8.6	-	-	-	55
1986	-	-	-	-	-	-	-	-	1.7*	1.9*	2.1*	6	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	1.7	2.0	2.3	6	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	1.5	1.8	2.5	6	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	1.5	2.0	2.7	6	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	1.6	2.0	2.6	6	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	1.4	1.9	2.2	6	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	1.9	2.2	2.5	6	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	1.4*	1.9*	2.8*	6	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	1.2*	1.7*	2.5*	7	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	1.3	1.6	2.0	6	-	-	-	-	-	-	-

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YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR (SPU)	pH	ALK (mg/l)	COND. (uS /cm)	EPI CORE	SURF GRAB	BOT. GRAB	PRO. GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS		SEC	CHL
1996	-	-	-	-	-	-	-	-	1.4	1.9	2.3	6	-	-	-	-	-	-	-
1997	95	7.22	15.0	44	-	17	-	-	1.1	1.8*	2.6	6	2.8	2.8	2.8	-	-	-	-
1998	120	-	15.0	46	12	-	-	-	1.4*	2.1*	2.8*	6	4.0	4.0	4.0	-	-	-	-
1999	-	-	-	-	-	-	-	-	1.3	1.8*	2.3*	6	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	1.5*	2.0*	2.4*	6	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	1.5*	1.9*	2.3	6	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	2.1*	2.3*	2.5*	5	-	-	-	-	-	-	-
2004	94	6.97	21.0	61	17	-	-	-	1.8*	2.2*	2.4*	5	4.0	4.0	4.0	-	-	-	-
2005	-	-	-	-	-	-	-	-	2.2*	2.3*	2.3*	1	-	-	-	-	-	-	-
SUMMARY:	88	6.79	16.2	48	18	17	-	-	1.1*	1.9*	2.8*24		2.6	4.4	8.6	-	-	-	55

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE													
	09/07/83		09/04/85		08/14/97		08/12/98		08/26/04					
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	25.0	7.3	18.8	8.5	23.8	6.8	22.8	6.3	23.0	7.0				
1.0	24.0	7.0	18.3	8.2	21.5	5.1	22.8	6.2	22.4	6.7				
2.0	23.0	5.6	17.0	5.1	21.0	3.8	-	-	-	-				

WATER QUALITY SUMMARY

CARLTON BOG Pond, Troy

Midas: 0041, Sample Station # 1

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

Water quality monitoring data for Carlton Bog (Pond) have been collected since 1981. During this period, 5 years of basic chemical information were collected, along with 23 years of nearly continuous (with the exception of 2002) Secchi Disk Transparency (SDT) measures. In summary, the water quality of Carlton Bog (Pond) is considered to be slightly below average, based on measures of SDT, total phosphorus (TP), and chlorophyll-a (Chla). However, due to the high natural water color, transparency is naturally low. The potential for nuisance algae blooms on Carlton Bog (Pond) is moderate, since there is fairly high phosphorus present.

Water Quality Measures: Carlton Bog (Pond) is a highly colored lake (average color 88 SPU) with an average SDT of 1.9 meters (6.2 feet). The range of upper water column TP for Carlton Bog (Pond) is 12 to 26 parts per billion (ppb) with an average of 18 ppb, while Chla ranges from 2.6 to 8.6 ppb with an average of 4.4 ppb. Recent dissolved oxygen (DO) profiles show little DO depletion in deeper areas of the lake, since Carlton Bog is too shallow to thermally stratify in summer. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal recycling) is low.

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

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