

LAKE: CLEMONS P (BIG) (VLMP 17)
 TOWN: HIRAM
 COUNTY: OXFORD

MIDAS: 3174
 TRUE BASIN: 1
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

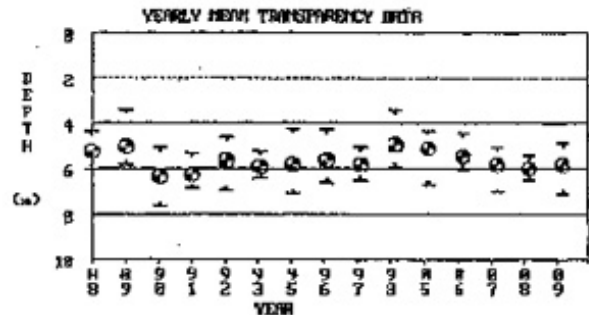
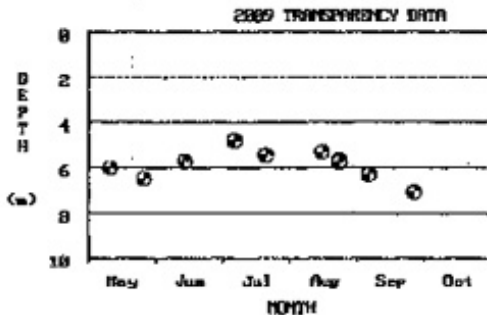
MAX. DEPTH: 11 m. (44 ft.)
 MEAN DEPTH: 4 m. (12 ft.)
 DELORME ATLAS #: 34
 USGS QUAD: KEWAN FALLS
 IPW REGION A: Sebago Lake (Gray)
 IPW FISH MANAGEMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 34.6 km. (84.0 a.)
 FLUSHING RATE: 2.55 flows/yr.
 VOLUME: 1504027.5 cu. m. (1220 ac.-ft.)
 DIRECT DRAINAGE AREA: 5.10 sq. km. (1.20 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 Phosphorus 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. CLEMONS P (BIG) 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 visible at bottom of lake (or one reading used in calculation was visible)).

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEAN (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A (ppb)			TROPHIC STATE INDICES				
	COLOC (SPU)	pH	ALN (mg/L)	COND. (uS /cm)	COLO	TRI	SURF	BOI	PHO.	MIN.	MEAN	MAX.	N.	MIN.	MEAN	MAX.	C	S	SPC	CEL
1971	-	-	-	-	0	-	-	13	13	-	-	-	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	-	4.3	5.2	6.0	5	-	-	-	-	-	45	-
1989	-	-	-	-	-	-	-	-	-	3.4	5.0	5.0	6	-	-	-	-	-	48	-
1990	10	6.71	10.5	31	6	-	-	-	-	5.0	6.3	7.6	5	-	-	-	-	-	37	-
1991	-	-	-	-	-	-	-	-	-	5.3	6.3	6.0	4	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-	4.6	5.6	6.9	6	-	-	-	-	-	43	-
1993	-	-	-	-	-	-	-	-	-	5.2	5.9	6.4	4	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	6.2	5.8	7.1	5	-	-	-	-	-	41	-
1996	7	-	7.0	19	8	-	-	22	-	4.2	5.6	6.6	5	2.0	3.0	3.1	-	-	43	-
1997	6	7.01	9.0	40	0	-	-	17	-	5.0	5.8	6.5	5	3.2	3.2	3.2	-	-	41	-
1998	-	-	-	-	-	-	-	-	-	3.4	4.9	5.9	5	-	-	-	-	-	49	-
2005	-	-	-	-	-	5	-	-	-	4.3	5.1	6.7	6	-	-	-	-	-	47	-
2006	17	6.97	6.8	38	7	7	17	-	-	4.4	5.4	6.0	6	1.9	1.9	1.9	-	-	44	-
2007	-	-	-	-	-	6	-	-	-	5.0	5.8	7.0	6	-	-	-	-	-	41	-
2008	-	-	-	-	-	6	-	-	-	5.4	6.0	6.5	6	-	-	-	-	-	39	-

WATER QUALITY SUMMARY

CLEMONS POND (BIG), Hiram

Midas: 3174, 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 present water quality, track algae blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring data for Big Clemons Pond has been collected since 1978 (11 years). During this period, four years of basic chemical information were collected, in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Big Clemons Pond is considered to be slightly above average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algae blooms on Big Clemons Pond is moderate.

Water Quality Measures: Big Clemons Pond is a low color lake (average color 8 SPU) with an average SDT of 5.6m (18.3ft). The range of water column TP for Big Clemons Pond is 6-8 parts per billion (ppb) with an average of 7 ppb, while Chla ranges from 2.8-3.2 ppb with an average of 3.1 ppb. Recent dissolved oxygen (DO) profiles show moderate 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 moderate. Oxygen levels below 5 parts per million stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species.

The oxygen profiles of this pond leave some reason for concern. While they have not shown severe depletion yet, a modest increase in productivity (phosphorus and algae, Chl_a) could cause internal recycling of phosphorus to become a real and persistent problem. We see deep water readings of 17-22 ppb phosphorus which indicates there is a tendency toward release of phosphorus under low oxygen conditions in late summer.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the World Wide Web at <http://www.pearl.maine.edu> 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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