

LAKE: WEST L (VLMP 19)
 TOWN: T03 ND
 COUNTY: HANCOCK

MIDAS: 503
 TRUE BASIN: 1
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

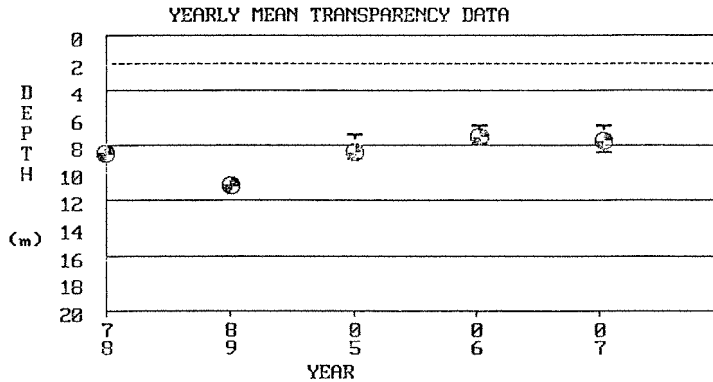
MAX. DEPTH: 21 m. (70 ft.)
 MEAN DEPTH: 9 m. (29 ft.)
 DELORME ATLAS #: 34
 USGS QUAD: WEST LAKE
 IFW REGION F: Penobscot (Enfield)
 IFW FISH. MANAGMENT: Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 568.0 ha. (1403.5 a.)
 FLUSHING RATE: 0.22 flushes/yr.
 VOLUME: 45787934.4 cu. m. (37143 ac.-ft.)
 DIRECT DRAINAGE AREA: 13.91 sq. km. (5.37 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. WEST L 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	MEAN pH	MEAN ALK	MEAN COND.	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	(SPU)		(mg/l)	(uS /cm)	EPI CORE	SURF GRAB	BOT. GRAB	PRO. GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1978	-	-	-	-	-	-	-	-	8.5	8.5	8.5	1	-	-	-	-	-	-	-
1989	15	6.84	3.5	16	3	-	-	-	10.8	10.8	10.8	1	2.2	2.2	2.2	-	-	-	-
2005	-	-	-	-	-	3	-	-	7.1	8.4	8.9	6	-	-	-	-	-	24	-
2006	14	6.91	4.3	21	-	5	-	-	6.5	7.3	7.8	6	-	-	-	-	-	30	-
2007	-	-	-	-	-	4	-	-	6.5	7.6	8.4	5	-	-	-	-	-	28	-
SUMMARY:	15	6.87	3.9	19	3	4	-	-	6.5	8.5	10.8	5	2.2	2.2	2.2	-	-	27	-

LAKE: WEST L (VLMP 19)
TOWN: T03 ND
COUNTY: HANCOCK

MIDAS: 503
*TRUE BASIN: 1
*SAMPLE STATION: 1

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

SAMPLE DATE		
DEPTH	09/21/89	
<u>m</u>	<u>°C</u>	<u>ppm</u>
0.0	20.2	9.0
1.0	19.0	8.9
2.0	18.6	9.1
3.0	18.1	9.2
4.0	18.1	9.2
5.0	18.0	9.2
6.0	18.0	9.1
7.0	18.0	9.1
8.0	18.0	9.2
9.0	18.0	9.1
10.0	16.0	8.7
11.0	13.0	8.2
12.0	11.8	7.2
13.0	10.8	6.7
14.0	10.2	5.1
15.0	10.0	4.4
16.0	10.0	3.8
17.0	10.0	3.6
18.0	10.0	2.9

WATER QUALITY SUMMARY

WEST LAKE, T 3 ND

Midas: 503 Basin 1, 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 datasets for West Lake have been collected since 1978. During this period, only 1 year of basic chemical information was collected, in addition to sporadic Secchi Disk Transparencies (SDT). In summary, the water quality of West Lake is considered to be above average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance alga blooms on West Lake is low.

Water Quality Measures: West Lake is a non-colored lake (average color 15 SPU) with an average SDT of 9.2m (31.2ft). The water column TP for West Lake is 3 ppb, and Chla is 2.2 ppb. These values are considered low, which indicates high water quality. Recent dissolved oxygen (DO) profiles show no 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 very low based on only 1 profile. Additional profiles are needed to increase confidence of this evaluation. 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. Currently, based on available information, this isn't a problem for West Lake.

See 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: west503, Revised: 3/06, By: jp