

LAKE: MEDDYBEMPS L (VLMP SCW)
 TOWN: MEDDYBEMPS
 COUNTY: WASHINGTON

MIDAS: 177
 TRUE BASIN: 1
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

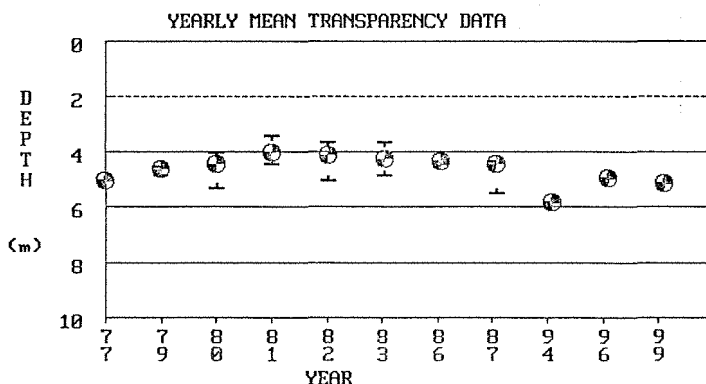
MAX. DEPTH: 12 m. (38 ft.)
 MEAN DEPTH: 4 m. (14 ft.)
 DELORME ATLAS #: 36
 USGS QUAD: MEDDYBEMPS LAKE EAST
 IFW REGION C: Grand Lake Stream (Machias)
 IFW FISH. MANAGMENT: Warmwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 2718.0 ha. (6716.1 a.)
 FLUSHING RATE: 0.60 flushes/yr.
 VOLUME: 117543614.0 cu. m. (95351 ac.-ft.)
 DIRECT DRAINAGE AREA: 69.51 sq. km. (26.84 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. MEDDYBEMPS L has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPH:



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 (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
					EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1977	-	-	-	-	4	-	-	-	5.0	5.0	5.0	1	-	-	-	-	-	-	-
1979	-	-	-	-	-	7	-	-	4.5	4.6	4.8	5	-	-	-	-	-	-	-
1980	-	6.70	-	-	9	-	-	-	4.0	4.4	5.3	5	2.4	3.2	4.4	-	-	-	42
1981	-	-	-	-	-	-	-	-	3.4	4.0	4.4	4	-	-	-	-	-	-	-
1982	30	6.90	6.0	32	6	-	-	-	3.6	4.1	5.0	4	3.0	3.0	3.0	-	-	-	-
1983	-	-	-	-	-	-	-	-	3.6	4.2	4.8	4	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	4.3	4.3	4.4	6	-	-	-	-	-	-	-
1987	25	6.80	5.0	36	7	-	-	-	4.3	4.4	5.5	4	-	-	-	-	-	-	-
1991	-	-	-	-	8	-	-	-	-	-	-	-	3.7	3.7	3.7	-	-	-	-
1994	28	-	7.0	-	10	-	-	-	5.8	5.8	5.8	1	3.2	3.2	3.2	-	-	-	-
1996	54	-	-	-	-	-	-	-	4.9	4.9	4.9	1	-	-	-	-	-	-	-
1999	22	-	5.0	35	6	-	-	-	5.1	5.1	5.1	1	6.4	6.4	6.4	-	-	-	-
2005	26	6.87	5.0	35	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
SUMMARY:	31	6.81	5.6	35	7	8	-	-	3.4	4.6	5.8	11	2.4	3.9	6.4	-	-	-	42

LAKE: MEDDYBEMPS L (VLMP SCW)
TOWN: MEDDYBEMPS
COUNTY: WASHINGTON

MIDAS: 177
*TRUE BASIN: 1
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LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE									
	09/03/80		09/08/82		08/20/87		08/25/94		08/19/99	
<u>m</u>	<u>°C</u>	<u>ppm</u>	<u>°C</u>	<u>ppm</u>	<u>°C</u>	<u>ppm</u>	<u>°C</u>	<u>ppm</u>	<u>°C</u>	<u>ppm</u>
0.0	22.0	8.5	17.5	9.3	22.5	8.5	21.2	8.7	22.1	8.4
1.0	-	-	17.5	9.3	-	-	21.3	8.7	22.1	8.4
2.0	22.0	8.3	17.5	9.4	22.5	8.3	21.2	8.7	22.1	9.5
3.0	-	-	17.5	9.3	-	-	21.1	8.6	22.0	9.3
4.0	22.0	8.3	17.3	9.3	21.5	8.2	20.9	8.5	22.0	9.3
5.0	-	-	17.3	9.3	-	-	20.8	8.4	22.0	9.3
6.0	22.0	8.3	17.3	9.3	21.0	7.8	20.8	8.4	22.0	9.4
7.0	-	-	17.3	9.3	-	-	20.8	8.3	-	-
8.0	-	-	17.3	9.3	20.9	7.6	20.5	8.3	-	-
9.0	-	-	17.3	9.3	-	-	20.4	8.2	-	-
10.0	-	-	-	-	20.5	7.2	20.2	7.8	-	-

WATER QUALITY SUMMARY

MEDDYBEMPS LAKE, Meddybemps

Midas: 0177, Station: 01 - 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 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 datasets for Meddybemps Lake have been collected since 1977. During this period, 7 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Meddybemps Lake is considered to be slightly above average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Meddybemps Lake is low.

Water Quality Measures: Meddybemps Lake is a slightly colored lake (average color 31 SPU) with an average SDT of 4.6m (15.1ft). Color does not affect water quality, but it does reduce the clarity (SDT) slightly. The average water column TP for Meddybemps Lake is 7.5 ppb, while Chla ranges from 2.4 to 6.4 ppb with an average of 3.9 ppb. Recent dissolved oxygen (DO) profiles show minimal 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.

Meddybemps Lake is managed by MDIFW as a warmwater fishery.

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: medd0177, Revised: 12/06, By: RJB

LAKE: MEDDYBEMPS L (VLMP SCW)
 TOWN: MEDDYBEMPS
 COUNTY: WASHINGTON

MIDAS: 177
 TRUE BASIN: 1
 SAMPLE STATION: 2

WHOLE LAKE INFORMATION

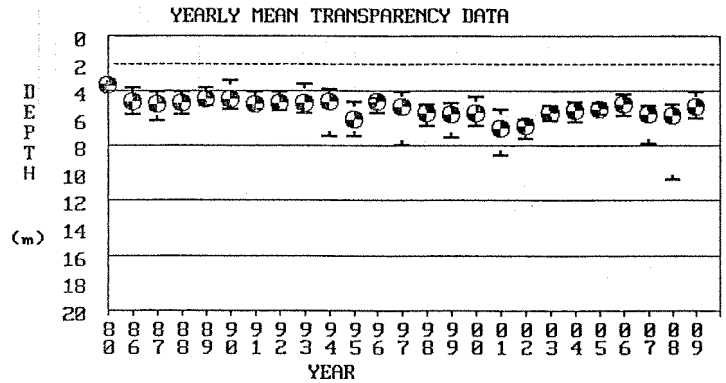
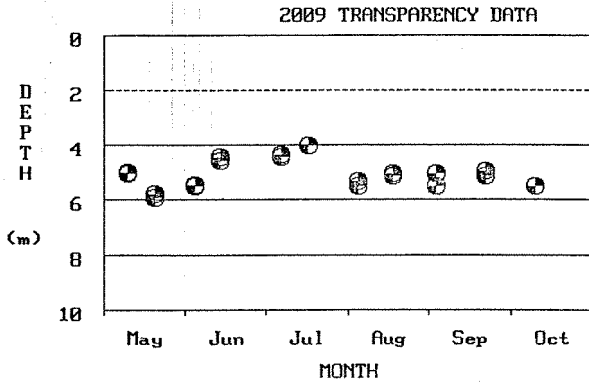
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SECCHI DISK TRANSPARENCY GRAPHS:



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 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											
1980	-	-	-	-	-	-	-	-	3.5	3.5	3.5	1	3.5	3.5	3.5	-	-	-	-
1986	-	-	-	-	-	-	-	-	3.7	4.7	5.7	6	-	-	-	-	-	52	-
1987	25	6.90	5.0	35	7	-	-	-	4.0	4.9	6.1	6	-	-	-	-	-	49	-
1988	-	-	-	-	-	-	-	-	4.0	4.8	5.7	6	-	-	-	-	-	50	-
1989	-	-	-	-	-	-	-	-	3.7	4.5	5.0	6	-	-	-	-	-	54	-
1990	-	-	-	-	-	-	-	-	3.1	4.5	5.3	7	-	-	-	-	-	54	-
1991	33	7.20	7.0	39	-	-	-	-	4.0	4.9	5.3	7	-	-	-	-	-	49	-
1992	-	-	-	-	-	-	-	-	4.0	4.8	5.4	7	-	-	-	-	-	50	-
1993	-	-	-	-	-	-	-	-	3.4	4.8	5.5	6	-	-	-	-	-	50	-
1994	-	-	-	-	-	-	-	-	3.8	4.7	7.2	6	-	-	-	-	-	52	-
1995	-	-	-	-	-	-	-	-	4.7	6.0	7.2	6	-	-	-	-	-	39	-
1996	-	-	-	-	-	-	-	-	4.4	4.7	5.5	6	-	-	-	-	-	52	-
1997	-	-	-	-	-	-	-	-	4.0	5.1	7.9	6	-	-	-	-	-	47	-
1998	-	-	-	-	-	-	-	-	4.9	5.5	6.5	6	-	-	-	-	-	43	-
1999	-	-	-	-	-	-	-	-	4.8	5.6	7.3	6	-	-	-	-	-	43	-

LAKE: MEDDYBEMPS L (VLMP SCW)
 TOWN: MEDDYBEMPS
 COUNTY: WASHINGTON

MIDAS: 177
 *TRUE BASIN: 1
 *SAMPLE STATION: 2

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

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
2000	-	-	-	-	-	-	-	-	4.3	5.5	6.5	6	-	-	-	-	-	43	-
2001	-	-	-	-	-	-	-	-	5.3	6.7	8.6	6	-	-	-	-	-	34	-
2002	-	-	-	-	-	-	-	-	6.0	6.5	7.4	6	-	-	-	-	-	35	-
2003	-	-	-	-	-	-	-	-	5.0	5.5	6.1	6	-	-	-	-	-	43	-
2004	-	-	-	-	-	-	-	-	4.7	5.4	6.2	6	-	-	-	-	-	44	-
2005	-	-	-	-	-	-	-	-	4.8	5.3	5.7	6	-	-	-	-	-	45	-
2006	-	-	-	-	-	-	-	-	4.2	4.9	5.8	6	-	-	-	-	-	49	-
2007	-	-	-	-	-	-	-	-	5.0	5.6	7.8	6	-	-	-	-	-	43	-
2008	30	6.80	4.8	33	-	7	-	-	4.9	5.8	10.4	6	-	-	-	-	-	41	-
2009	-	-	-	-	-	-	-	-	4.0	5.1	5.9	6	-	-	-	-	-	47	-
SUMMARY:	29	6.94	5.6	36	7	7	-	-	3.1	5.2	10.4	25	3.5	3.5	3.5	-	-	46	-

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE			
	08/20/87		09/05/91	
m	°C	pdm	°C	pdm
0.0	23.5	8.4	19.9	9.0
1.0	-	-	19.8	8.9
2.0	23.2	8.3	19.4	8.9
3.0	-	-	19.2	8.8
4.0	23.1	8.3	19.1	8.8
5.0	23.0	8.0	19.0	8.8
6.0	21.0	7.5	19.0	8.8
7.0	21.0	7.2	19.0	8.8
8.0	20.6	6.8	19.0	8.8
9.0	20.5	6.8	19.0	8.6
10.0	-	-	18.9	8.5

WATER QUALITY SUMMARY

MEDDYBEMPS LAKE, MEDDYBEMPS

Midas: 177, Station: 02

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 bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring datasets for Meddybemps Lake have been collected since 1980. During this period, 2 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Meddybemps Lake is considered to be slightly above average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Meddybemps Lake is low.

Water Quality Measures: Meddybemps Lake is a slightly colored lake (average color 29 SPU) with an average SDT of 5.1m (16.7 ft). Color does not affect water quality, but it does reduce the clarity (SDT) slightly. The water column TP, which was only been sampled once, is 7 parts per billion (ppb). Chla, which has only been sampled once, was 3.5 ppb. 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 low.

Meddybemps Lake is managed as a warm-water fishery by Inland Fisheries and Wildlife.

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: med1772, Revised: 12/06, By: RB