

LAKE: NASHS L (VLMP SCW)
 TOWN: CALAIS
 COUNTY: WASHINGTON

MIDAS: 1418
 TRUE BASIN: 1
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

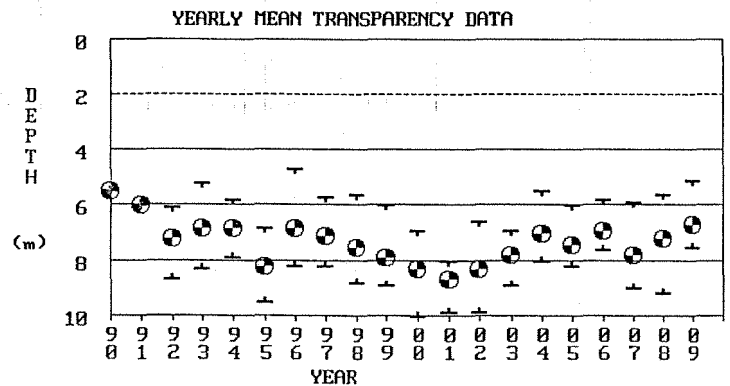
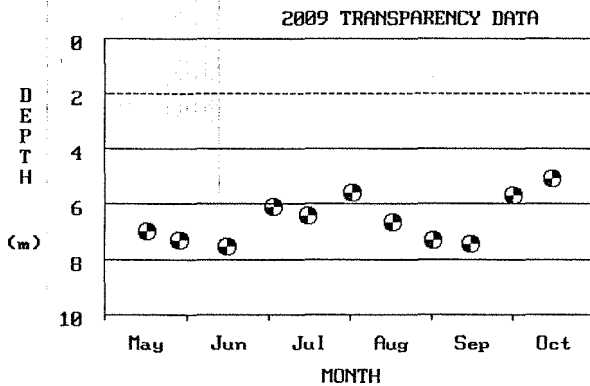
MAX. DEPTH: 17 m. (56 ft.)
 MEAN DEPTH: 7 m. (22 ft.)
 DELORME ATLAS #: 37
 USGS QUAD: RED BEACH
 IFW REGION C: Grand Lake Stream (Machias)
 IFW FISH. MANAGMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 355.0 ha. (877.2 a.)
 FLUSHING RATE: 0.76 flushes/yr.
 VOLUME: 20546778.4 cu. m. (16667 ac.-ft.)
 DIRECT DRAINAGE AREA: 17.61 sq. km. (6.80 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. NASHS L 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 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
					CORE	GRAB	GRAB	GRAB											
1990	-	-	-	-	-	-	-	-	5.5	5.5	5.5	1	-	-	-	-	-	-	-
1991	20	6.82	9.0	29	5	-	-	-	6.0	6.0	6.0	1	2.4	2.4	2.4	-	-	-	-
1992	-	-	-	-	-	-	-	-	6.1	7.2	8.7	6	-	-	-	-	-	30	-
1993	-	-	-	-	-	-	-	-	5.2	6.8	8.3	6	-	-	-	-	-	33	-
1994	-	-	-	-	-	-	-	-	5.8	6.8	7.9	6	-	-	-	-	-	33	-
1995	-	-	-	-	-	-	-	-	6.8	8.2	9.5	6	-	-	-	-	-	25	-
1996	12	-	6.0	29	10	-	19	-	4.7	6.8	8.2	6	2.5	2.5	2.5	-	-	33	-
1997	-	-	-	-	-	-	-	-	5.7	7.1	8.2	6	-	-	-	-	-	31	-
1998	-	-	-	-	-	-	-	-	5.6	7.5	8.8	6	-	-	-	-	-	29	-
1999	-	-	-	-	-	-	-	-	6.0	7.9	8.9	6	-	-	-	-	-	26	-
2000	-	-	-	-	-	-	-	-	6.9	8.3	10.0	6	-	-	-	-	-	24	-
2001	-	-	-	-	-	-	-	-	8.0	8.7	9.9	6	-	-	-	-	-	22	-
2002	-	-	-	-	-	-	-	-	6.6	8.3	9.9	6	-	-	-	-	-	24	-
2003	9	-	9.0	28	3	-	18	-	6.9	7.8	8.9	6	1.2	1.2	1.2	-	-	27	-
2004	-	-	-	-	-	-	-	-	5.5	7.0	8.0	6	1.9	2.0	2.1	-	-	32	-

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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.	C	G	SEC	CHL
2005	-	-	-	-	-	-	-	-	6.0	7.4	8.2	6	-	-	-	-	-	29	-
2006	-	-	-	-	-	4	-	-	5.8	6.9	7.6	6	-	-	-	-	-	32	-
2007	-	6.70	10.0	-	-	3	-	-	5.9	7.8	9.0	6	-	-	-	-	-	27	-
2008	11	6.81	5.2	25	-	5	-	-	5.6	7.2	9.2	6	-	-	-	-	-	30	-
2009	-	-	-	-	-	-	-	-	5.1	6.7	7.5	6	-	-	-	-	-	34	-
SUMMARY:	13	6.77	7.8	28	6	4	19	-	4.7	7.3	10.0	20	1.2	2.0	2.5	-	-	29	-

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH m	SAMPLE DATE															
	09/19/99		08/20/03		08/15/04		09/13/04		09/01/06		08/01/07		09/06/07		08/18/08	
	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	15.0	8.2	23.8	8.3	-	-	-	-	21.0	8.7	26.3	7.7	22.2	8.7	22.4	8.6
1.0	-	-	23.7	8.3	22.1	8.0	18.5	8.1	21.0	8.7	-	-	21.5	8.7	22.4	8.3
2.0	15.0	8.1	23.7	8.3	22.0	7.9	18.5	8.1	20.0	8.7	25.9	7.4	20.9	8.7	22.4	8.2
3.0	-	-	23.7	8.3	22.0	7.9	18.4	8.1	19.7	8.7	25.8	7.1	20.2	8.7	22.2	8.0
4.0	14.5	8.2	23.3	8.4	22.0	7.8	18.4	8.0	19.6	8.6	-	-	20.0	8.7	22.0	8.1
5.0	-	-	22.8	8.3	21.5	7.6	18.4	8.0	19.5	8.6	22.2	7.8	19.9	8.7	22.0	8.1
6.0	14.0	8.2	20.5	8.4	20.1	7.6	18.4	8.0	19.5	8.5	19.1	6.7	19.8	8.6	21.9	8.2
7.0	-	-	15.7	8.0	18.6	6.6	14.5	2.2	19.5	8.5	-	-	19.7	8.6	20.5	7.5
8.0	14.0	8.2	12.9	8.0	15.0	6.5	11.7	0.5	15.8	2.7	14.9	6.3	19.0	7.9	16.8	5.1
9.0	-	-	11.4	5.5	13.4	3.3	11.2	0.5	13.0	2.5	11.7	5.8	13.3	3.8	14.8	4.4
10.0	11.0	4.7	10.6	4.7	12.2	2.7	11.0	0.2	11.9	1.7	-	-	11.8	2.6	13.3	2.7
11.0	-	-	10.2	4.0	11.6	2.3	9.8	0.2	11.4	1.5	10.8	5.4	11.0	2.6	12.6	2.3
12.0	11.0	1.9	10.0	3.8	11.2	2.2	9.8	0.8	11.3	1.5	10.1	4.9	10.6	2.5	11.7	2.3
13.0	-	-	9.7	3.6	11.0	1.8	9.5	0.4	10.8	1.4	-	-	10.0	2.0	11.1	1.7
14.0	4.5	0.0	9.0	1.3	10.0	0.8	9.5	0.0	10.0	0.1	8.9	2.8	9.3	0.1	10.1	0.1
15.0	-	-	8.6	0.6	9.4	0.6	9.0	0.0	9.6	0.1	8.4	1.4	9.1	0.1	9.7	0.1
16.0	4.0	0.0	8.5	0.4	9.2	0.6	9.6	0.0	9.6	0.1	-	-	8.9	0.1	9.5	0.1
17.0	-	-	8.3	0.3	9.0	0.4	9.0	0.0	9.4	0.1	8.2	0.2	8.8	0.1	9.3	0.1
18.0	-	-	-	-	-	-	-	-	-	-	-	-	8.8	0.0	9.3	0.1
19.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	0.0

WATER QUALITY SUMMARY

NASHS LAKE, Calais

Midas: 1418, 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 Nashs Lake have been collected since 1990. During this period, 3 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Nashs Lake is considered to be above average, based on measures of SDT, total phosphorus (TP) and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Nashs Lake is low.

Water Quality Measures: Nashs Lake is a non colored lake (average color 14 SPU) with an average SDT of 7.3m (24 ft). The range of water column TP for Nashs Lake is 4-10 parts per billion (ppb) with an average of 6 ppb, while Chla ranges from 1.2-2.5 ppb with an average of 2.0 ppb. Recent dissolved oxygen (DO) profiles show low-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 low. Oxygen levels below 5 parts per million can stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species. This does not appear to be a significant problem at this time.

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: nash1418, Revised: 12/06 , By: RB

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MIDAS: 1418
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 SAMPLE STATION: 2

WHOLE LAKE INFORMATION

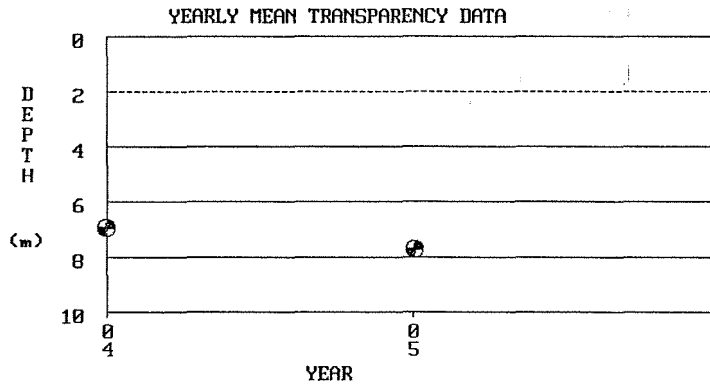
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 MEAN DEPTH: 7 m. (22 ft.)
 DELORME ATLAS #: 37
 USGS QUAD: RED BEACH
 IFW REGION C: Grand Lake Stream (Machias)
 IFW FISH. MANAGMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 355.0 ha. (877.2 a.)
 FLUSHING RATE: 0.76 flushes/yr.
 VOLUME: 20546778.4 cu. m. (16667 ac.-ft.)
 DIRECT DRAINAGE AREA: 17.61 sq. km. (6.80 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. NASHS L has 1 True Basin(s).

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2004	-	-	-	-	-	-	-	-	6.9	6.9	6.9	1	2.1	2.1	2.1	-	-	-	-
2005	-	-	-	-	-	-	-	-	7.7	7.7	7.7	1	-	-	-	-	-	-	-
SUMMARY:	-	-	-	-	-	-	-	-	6.9	7.3	7.7	2	2.1	2.1	2.1	-	-	-	-

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH m	SAMPLE DATE			
	08/15/04		09/13/04	
	°C	ppm	°C	ppm
1.0	22.2	8.0	18.5	8.0
2.0	22.2	8.0	-	-
3.0	22.1	7.9	-	-
4.0	22.0	7.9	-	-
5.0	21.2	7.5	-	-
6.0	20.5	7.3	-	-

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	08/15/04		09/13/04	
<u>m</u>	<u>°C</u>	<u>ppm</u>	<u>°C</u>	<u>ppm</u>
7.0	18.1	6.7	-	-
8.0	14.6	4.1	-	-
9.0	13.5	3.2	-	-
10.0	12.4	2.6	-	-
11.0	12.0	2.1	-	-
12.0	11.7	1.9	-	-
13.0	11.5	1.7	-	-
14.0	11.2	1.6	-	-
15.0	11.2	1.2	-	-

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 SAMPLE STATION: 3

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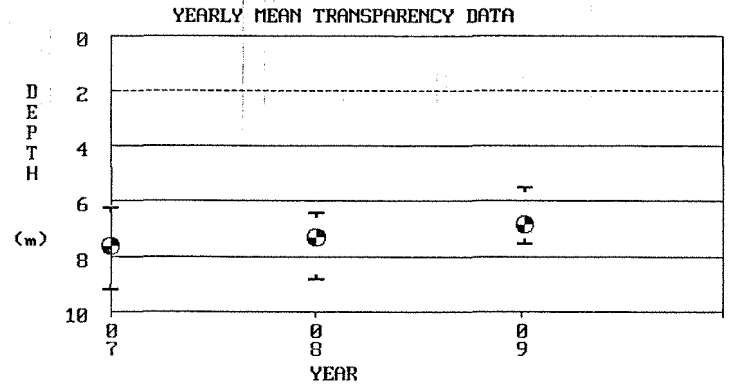
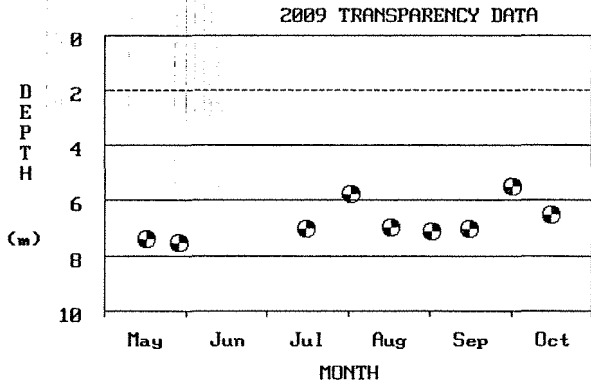
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	COLOR	pH	ALK	COND.	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS			
	(SPU)		(mg/l)	(uS	/cm)	CORE	GRAB	GRAB	GRAB							C	G	SEC	CHL
2007	-	-	-	-	-	-	-	-	6.2*	7.6*	9.2	3	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	6.4	7.3*	8.8	6	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	5.5	6.8	7.5	5	-	-	-	-	-	33	-
SUMMARY:	-	-	-	-	-	-	-	-	5.5*	7.2*	9.2	3	-	-	-	-	-	33	-