LAKE: CLARY L (PLEASANT P)

TOWN: JEFFERSON COUNTY: LINCOLN (VLMP 15

MIDAS: 5382 TRUE BASIN: SAMPLE STATION:

1

WHOLE LAKE INFORMATION

MAX. DEPTH: 7 m. (22 ft.)

MEAN DEPTH: 4 m. (14 ft.)

DELORME ATLAS #: 13

USGS QUAD: NORTH WHITEFIELD

IFW REGION B: Belgrade Lakes (Augusta)

IFW FISH. MANAGMENT: Warmwater

TRUE BASIN CHARACTERISTICS

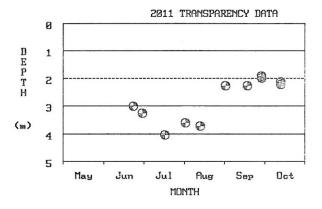
SURFACE AREA: 270.0 ha. (667.2 a.) FLUSHING RATE: 1.81 flushes/yr.

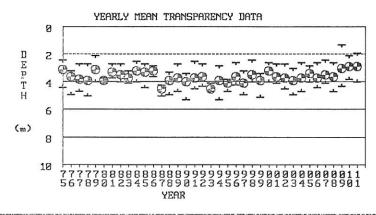
VOLUME: 7831791.0 cu. m. (6353 ac.-ft.)

DIRECT DRAINAGE AREA: 19.48 sq. km. (7.52 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. CLARY L (PLEASANT P) has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:





Note: 2011 graphs may indicate multiple readings taken on a given day.

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)].

	MEAN	MEAN	MEAN	MEAN															
	COLOR	pH	ALK	COND.	TOTAL	PHOS.	MEANS	(ppb)	SECCH	I DISK	(m.)		CHLORO	PHYLL	A(ppb)	TROP	PHIC ST	ATE IN	DICES
	(SPU)		(mg/l)	(us	EPI	SURF	BOT.	PRO.								EPI	PHOS		
YEAR				<u>/cm</u>)	CORE	GRAB	GRAB	GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	<u>C</u>	G	SEC	CHL
1975		100 T = 1	-	-	-	-	-	-	2.4	3.1	4.4	4		-		=	-	-	-
1976	35	6.40	10.0	32	13	-	-	17	3.2	3.6	4.9	6	6.0	6.0	6.0	-	-	66	_
1977	i	-	-	-	14	-	-	-	2.7	3.8	4.7	3		-	-	-	-	-	-
1978	- '	_	_	-	-	-	-		2.7	3.9	5.0	4	-	-	-	-	-	-	_
1979	-		_	-	-	-	-	-	2.1	3.1	4.0	3	, -	-	-	_	_	_	_
1980	_	-	_	-	-	-	-	-	3.7	3.9	4.1	3	·	-	-	-	_	-	_
1981	40	6.40	6.0	32	15	-	_	-	2.7	3.3	3.7	5	6.4	6.4	6.4	-	-	71	_
1982	28	6.70	7.0	42	12	-	_		2.7	3.5	4.0	3	6.6	6.8	6.9	-	-	-	-
1983	-	_	_	, - ,	-	-	-	_	3.2	3.7	4.1	5	_	-	_	-	_	65	-
1984	32	7.10	7.0	_	23	-	_	=	2.5	3.2	4.0	2	12.8	12.8	12.8	_	-	-	-
1985	-	-	-	_	-	-	-	-	2.7	3.3	4.4	4	-	-	-	-	_	-	_
1986	-	_	_	-	-	-	-	-	2.8	3.2	3.6	3	-	-	_	_	-	_	_
1987	25	6.90	7.0	39	13	-	-	-8	4.2	4.5	5.0	2	_	-	_	_	_	_	_
1988	-	-	_	-	-	_	-	_	3.3	3.9	4.9	5	-	-	-	-	-	62	_
1989	-	-	-	-	-	-	-	_	2.7	3.7	4.7	5	-	-	-	_	-	65	-

LAKE: CLARY L (PLEASANT P) (VLMP 15) TOWN: JEFFERSON

COUNTY: LINCOLN

MIDAS: 5382 *TRUE BASIN: 1

*SAMPLE STATION: 1

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

		MEAN	MEAN	MEAN	MEAN															
		COLOR	рH	ALK	COND.	TOTAL	PHOS.	MEANS ((ppb)	SECCH	I DISK	(m.)		CHLORO	PHYLL	A(ppb)	TROP	HIC ST	ATE IN	DICES
		(SPU)		(mg/l)	(us	EPI	SURF	BOT.	PRO.								EPI	PHOS		
	YEAR	,,			/cm)	CORE	GRAB	GRAB	GRAB	MIN.	MEAN	MAX.	N	MIN. M	MEAN	MAX.	<u>C</u>	<u>G</u>	SEC	CHL
	1990	_					_	-	_	3.4	4.0	5.3	5	-	-	-	-	-	60	_
	1991	28	6.72	11.0	34	_	_	_	_	2.5	3.7	4.5	5	9.8	9.8	9.8	-	_	65	-
	1992	-	-	_	_	_	_	_	_	2.7	3.6	4.3	6	_	-	-	-	-	66	-
	1993	_	_	_	_	_	_	_	_	4.1	4.5	4.7	4	-	_		-	-	_	-
	1994	19		8.0	_	12	_	_	_	2.8	3.9	5.3	7	7.7	7.7	7.7	_	-	62	-
	1995	_	_	-	_	14	_	_	_	3.8	4.1	4.7	5	_	_	-	120	_	59	_
	1995	- 24		_	_	17	_	_	_	2.6	3.6	4.2	6	_	-	_	_	_	66	_
	1996	24	_	_	_	20	_	_	_	3.2	4.1	4.9	6	_	_	-	_	-	59	_
		26	_	9.0	42	21	_	19	_	2.4	3.5	4.0	6	9.3	9.3	9.3	_	_	68	_
	1998				-	13			_	3.4	3.9	5.1	6	_	_	_	_	_	62	-
	1999	25	_	-	-	13	_	17	_	2.6	3.2	4.0	6	_	_	_	_	_	73	_
	2000	34	_	-	48	20	_	13	_	2.7	3.6	4.1	5	9.6	9.6	9.6	_	_	66	_
	2001	25	_	7.0	48	20	_			2.7	3.7	4.5	7	-	_	_	-	_	65	_
	2002	-	_	-	_	-	-	_	-	3.0	3.9	4.9	6	2	_	_	_	_	62	_ '
	2003	23	_	-	-	20	-	-	-			4.7	6				<u></u>		65	_
	2004	37	-	-	-	18	-	-	-	2.6	3.7			100	·=	_	- 1	_		
	2005	-	-	-	-	23	-	-	-	2.8	3.4	4.0	4	_	_	1 	1770		65	_
	2006	39	6.88	6.1	46		15	-	-	2.6	3.7	4.4	6	-	-	_	_	_	68	_
	2007	9	9.00	9.0	9		22	-	-	2.4	3.5	4.1	6	-	-	-	-	-	66	
	2008	-	-	-	-	20	-	-	-	2.6	3.6	4.7	6		-	-	-	-		-
	2009	-	-	-	-	14	15	21	-	1.3	3.0	4.3	6	27.0	27.0	27.0	-	-	76	_
	2010	-		-	-	19	-	-	-	2.1	2.9	3.8	5	-	-	-	-	-	78	-
	2011	-	_	-	-	_	_	-	-	1.9	2.9	4.0	5	-	-	-	-	-	78	_
su	MMARY:	28	6.72	7.9	36	19	17	17	17	1.3	3.6	5.3	37	6.0	10.6	27.0	-	-	66	_

LAKE: CLARY L (PLEASANT P) (VLMP 15) TOWN: JEFFERSON

MIDAS: 5382

*TRUE BASIN: 1

COUNTY: LINCOLN

*SAMPLE STATION: 1

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

SAMPLE DATE

DEPTH	08/18/10		09/20/10		09/29/10		08/01/11		08/12/11		08/31/11		09/17/11		09/28/11	
m	_°c	ppm	_°C_	ppm	_°C_	ppm	°C_	mqa	°C_	ppm	<u>°C</u>	_ppm	<u>°C</u>	ppm	<u>°C</u> .	ppm
0.0	24.1	7.9	18.5	9.0	18.8	9.1	25.8	7.6	23.6	7.7	23.4	8.9	19.4	8.5	20.5	9.2
1.0	24.1	7.9	18.5	8.9	18.8	9.1	25.5	7.6	23.6	7.6	23.4	8.9	19.5	8.4	20.5	9.3
2.0	24.1	7.8	18.5	8.9	18.8	9.1	25.2	7.7	23.6	7.6	23.0	8.9	19.5	8.4	19.9	9.3
3.0	23.8	7.6	18.4	8.9	18.7	9.1	24.8	7.5	23.6	7.5	22.8	8.6	19.5	8.3	19.0	8.5
4.0	23.7	7.4	18.4	8.8	18.5	9.0	24.5	7.0	23.5	7.4	22.2	7.9	19.4	8.3	18.7	7.4
5.0	23.5	6.4	18.4	8.8	18.2	8.8	22.5	2.0	23.0	5.0	22.0	7.9	19.4	8.3	18.4	5.8
6.0	22.1	0.4	18.2	8.2	18.1	8.7	17.3	0.2	20.3	0.2	21.9	7.1	19.4	8.3	18.3	4.4
7.0	19.9	0.1	18.0	7.7	17.8	8.0	16.2	0.1	16.4	0.2	21.3	3.8	19.4	8.3	18.2	3.0
8.0	17.9	0.1	18.0	7.6	17.7	7.4	15.6	0.1	15.7	0.1		-	19.4	8.3	-	_
9.0	20000 COSC	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_

WATER QUALITY SUMMARY

CLARY LAKE (Pleasant Pond), JEFFERSON

MIDAS: 5382, 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 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 data for Clary Lake (Pleasant Pond) have been collected since 1975. During this period, 10 years of basic chemical information was collected in addition to annual Secchi Disk Transparencies (SDT). In summary, the water quality of Clary Lake (Pleasant Pond) is considered below average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Clary Lake (Pleasant Pond) is moderate to high.

Water Quality Measures: Clary Lake (Pleasant Pond) is a slightly colored lake (average color 28 SPU) with an average SDT of 3.7 m (12.1 ft). The range of water column TP for Clary Lake (Pleasant Pond) is 12 - 38 parts per billion (ppb) with an average of 18 ppb. Chla ranges from 6.0 - 27 ppb with an average of 10.6 ppb. Recent dissolved oxygen (DO) profiles show little DO depletion in deep areas of the lake. The potential for phophorus to leave the bottom sediments and become available to algae in the water column (internal loading) is low to moderate.

Clary Lake had an algal bloom in 2009 for the first time. Total phosphorus and Chla have been increasing slightly over the years. A watershed survey is needed to determine the possible sources of nutrients to the lake; corrective actions could then be taken.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at http://www.maine.gov/dep/blwq/lake.htm, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

Filename: 5382clar, Revised: 12/04, By jm 1/11 by jp