LAKE: LONG P (VLMP 11)
TOWN: BELGRADE
COUNTY: KENNEBEC

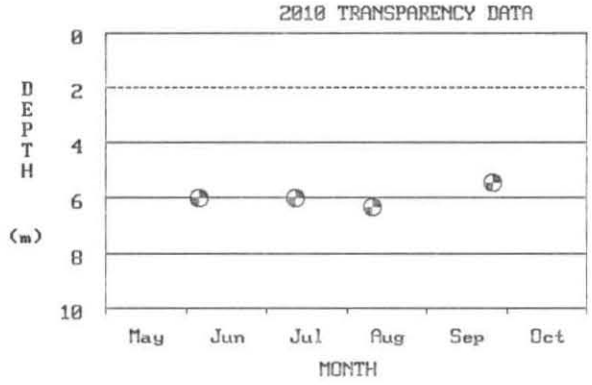
MIDAS: 5272
TRUE BASIN: 1
SAMPLE STATION: 1

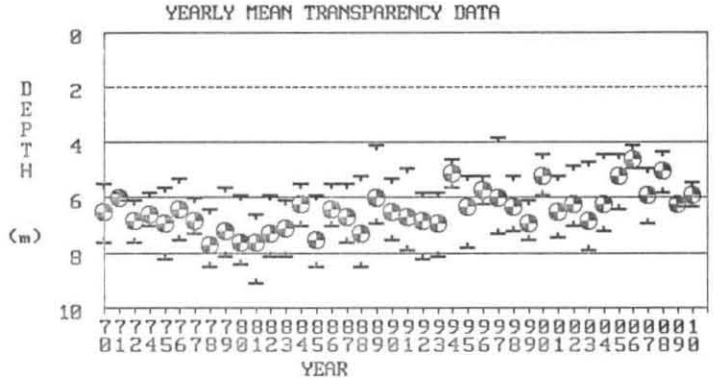
WHOLE LAKE INFORMATION
MAX. DEPTH: 30 m. (97 ft.)
MEAN DEPTH: 11 m. (35 ft.)
DELORME ATLAS #: 12
USGS QUAD: READFIELD
IFW REGION B: Belgrade Lakes (Augusta)
IFW FISH. MANAGMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS
SURFACE AREA: 540.0 ha. (1334.3 a.)
FLUSHING RATE: 2.99 flushes/yr.
VOLUME: 44055143.0 cu. m. (35737 ac.-ft.)
DIRECT DRAINAGE AREA: 24.19 sq. km. (9.34 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. LONG P has 2 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:





Note: 2010 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 COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb) EPI CORE	SURF GRAB	BOT. GRAB	PRO. GRAB	SECCHI DISK (m.) MIN.	MEAN	MAX.	N	CHLOROPHYLL A(ppb) MIN.	MEAN	MAX.	TROPHIC STATE INDICES EPI PHOS C	G	SEC	CHL
YEAR																			
1970	-	-	-	-	-	-	-	-	5.5	6.5	7.6	3	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	5.8	6.0	6.1	3	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	6.1	6.8	7.6	3	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	5.8	6.6	7.0	3	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	5.6	6.9	8.2	6	-	-	-	-	-	32	-
1976	-	6.80	11.0	37	-	-	9	10	5.3	6.4	7.5	6	2.5	2.7	2.9	-	-	36	-
1977	-	-	-	-	8	-	16	17	6.0	6.8	7.3	4	2.4	2.4	2.4	-	-	-	-
1978	-	-	-	-	-	9	-	-	6.4	7.7	8.5	5	-	-	-	-	-	28	-
1979	20	6.75	8.0	27	-	-	11	9	5.6	7.2	8.1	6	-	-	-	-	-	30	-
1980	-	-	-	-	-	-	-	-	5.9	7.6	8.4	5	-	-	-	-	-	28	-
1981	-	-	-	-	-	-	-	-	6.6	7.6	9.1	5	-	-	-	-	-	28	-
1982	-	7.00	-	-	5	-	6	-	5.9	7.3	8.1	5	2.0	2.1	2.1	-	-	30	-
1983	-	-	-	-	-	-	-	-	6.1	7.1	8.1	6	-	-	-	-	-	31	-
1984	-	-	-	-	-	-	-	-	5.5	6.2	7.0	6	-	-	-	-	-	37	-
1985	15	7.00	8.0	40	9	-	14	-	5.9	7.5	8.5	6	-	-	-	-	-	29	-

LAKE: LONG P (VLMP 11)
TOWN: BELGRADE
COUNTY: KENNEBEC

MIDAS: 5272
*TRUE BASIN: 1
*SAMPLE STATION: 1

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb) EPI CORE	SURF GRAB	BOT. GRAB	PRO. GRAB	SECCHI DISK (m.) MIN.	MEAN	MAX.	N	CHLOROPHYLL A(ppb) MIN.	MEAN	MAX.	TROPHIC STATE INDICES EPI PHOS C	G	SEC	CHL
YEAR																			
1986	-	-	-	-	-	-	-	-	5.5	6.4	7.0	6	-	-	-	-	-	36	-
1987	-	-	-	-	-	-	-	-	5.5	6.7	7.6	6	-	-	-	-	-	34	-
1988	10	6.70	9.0	31	10	-	32	-	5.2	7.3	8.5	5	-	-	-	-	-	30	-
1989	-	-	-	-	-	-	-	-	4.1	6.0	6.9	5	-	-	-	-	-	39	-
1990	-	-	-	-	-	-	-	-	5.3	6.5	7.5	6	-	-	-	-	-	35	-
1991	15	7.20	10.0	-	8	-	-	-	4.9	6.7	7.9	5	-	-	-	-	-	34	-
1992	15	-	10.0	-	6	-	10	9	5.8	6.8	8.2	6	-	-	-	-	-	33	-
1993	-	-	-	-	-	-	-	-	5.8	6.9	8.1	5	-	-	-	-	-	32	-
1994	-	-	-	-	7	-	-	-	4.6	5.1	5.6	3	-	-	-	-	-	-	-
1995	-	-	-	-	8	-	20	-	5.2	6.3	7.8	5	-	-	-	-	-	37	-
1996	-	-	-	-	9	-	48	-	5.2	5.7	6.2	5	-	-	-	-	-	42	-
1997	-	-	-	-	9	-	14	9	3.8	6.0	7.3	6	-	-	-	39	-	39	-
1998	-	-	-	-	12	10	16	16	5.2	6.3	7.2	6	-	-	-	-	-	37	-
1999	18	-	10.0	47	7	-	19	-	6.1	6.9	7.5	4	3.6	3.6	3.6	-	-	-	-
2000	-	-	-	-	11	-	45	12	4.4	5.2	5.9	5	-	-	-	45	-	46	-
2001	13	7.09	8.3	44	9	-	20	-	5.2	6.5	7.4	6	9.6	9.6	9.6	-	-	35	-
2002	16	-	10.0	48	9	7	24	-	4.8	6.2	7.0	5	3.8	3.8	3.8	-	-	37	-
2003	8	-	11.0	50	8	7	28	-	4.7	6.8	7.9	6	4.2	4.2	4.2	-	-	33	-
2004	11	7.14	12.0	52	8	-	9	-	4.4	6.2	7.2	3	4.5	4.5	4.5	-	-	-	-
2005	20	7.18	8.3	47	6	-	14	-	4.4	5.2	6.4	5	9.0	9.0	9.0	-	-	46	-
2006	24	7.11	8.1	45	8	-	12	-	4.1	4.6	4.9	5	5.7	5.7	5.7	-	-	53	-
2007	-	-	-	-	-	-	-	-	4.9	5.9	6.9	5	-	-	-	-	-	40	-
2008	20	7.04	8.3	46	9	-	14	-	4.3	5.0	5.8	4	6.0	6.0	6.0	-	-	-	-
2009	-	-	-	-	20	-	-	-	6.0	6.2	6.3	3	5.2	5.2	5.2	-	-	-	-
2010	-	-	-	-	-	-	-	-	5.4	5.9	6.3	4	-	-	-	-	-	-	-
SUMMARY:	16	6.97	9.4	43	9	8	19	12	3.8	6.4	9.1	40	2.0	4.9	9.6	42	-	35	-

LAKE: LONG P (VLMP 11) MIDAS: 5272
TOWN: BELGRADE *TRUE BASIN: 1
COUNTY: KENNEBEC *SAMPLE STATION: 1

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

	SAMPLE DATE															
DEPTH	08/13/08		08/26/08		09/04/08		08/15/09		09/02/09		09/03/09		08/10/10		09/25/10	
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	22.0	9.3	22.0	8.3	21.9	9.1	26.8	8.2	22.4	8.6	22.6	8.9	24.2	7.5	19.0	8.1
1.0	21.9	9.2	22.0	8.3	21.9	9.1	25.5	8.4	22.1	8.7	22.5	8.6	24.2	7.2	18.4	7.8
2.0	21.8	9.2	22.0	8.2	21.8	9.1	24.6	8.4	21.8	8.8	22.4	8.9	24.2	6.9	18.2	7.8
3.0	21.8	9.1	22.0	8.3	21.7	9.1	24.0	8.6	21.6	8.5	22.3	8.7	24.1	7.4	18.1	7.5
4.0	21.7	9.1	22.0	8.3	21.7	9.0	23.6	8.6	21.6	8.5	22.3	8.9	23.7	7.3	18.1	8.0
5.0	21.6	9.0	21.9	8.2	21.6	9.0	23.4	8.0	21.4	8.1	21.6	8.2	23.7	7.3	18.0	7.8
6.0	20.9	7.0	21.9	8.2	21.5	8.9	23.0	7.1	21.3	8.2	21.4	8.3	23.6	7.2	18.0	7.6
7.0	19.1	6.2	21.0	7.4	21.3	8.5	20.5	4.9	20.8	6.0	21.3	8.1	22.9	6.5	18.0	7.5
8.0	16.8	3.1	19.4	5.6	19.9	6.1	18.9	3.8	19.1	2.0	20.3	3.9	18.6	2.5	18.0	8.0
9.0	14.4	3.1	16.5	3.8	16.2	1.5	17.0	3.1	17.0	1.5	16.4	0.9	16.4	2.1	18.0	7.4
10.0	12.4	2.7	15.2	2.5	13.7	0.5	15.9	2.7	15.2	0.8	15.6	0.6	15.3	1.6	18.0	7.7
11.0	11.4	2.6	11.6	1.5	12.6	0.4	14.9	1.6	14.7	0.5	14.6	0.2	14.0	1.2	17.5	4.3
12.0	11.1	2.7	11.2	1.3	11.7	0.1	14.2	1.4	14.0	0.3	13.7	0.2	13.5	1.4	14.7	0.1
13.0	10.8	2.3	11.1	1.2	11.0	0.0	13.5	1.4	13.1	0.3	13.4	0.1	13.0	1.0	13.7	0.1
14.0	10.3	2.1	10.4	1.1	10.8	0.0	13.2	1.1	12.6	0.2	13.1	0.1	12.8	0.9	-	-
15.0	10.0	1.1	10.2	0.9	10.6	0.0	12.7	0.5	12.5	0.2	13.0	0.1	12.7	0.6	-	-
16.0	-	-	-	-	-	-	12.6	0.4	-	-	12.8	0.1	-	-	-	-
17.0	9.8	0.5	10.0	0.4	10.7	0.0	-	-	-	-	-	-	-	-	-	-
18.0	9.8	0.5	9.9	0.2	-	-	-	-	-	-	-	-	-	-	-	-
19.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

WATER QUALITY SUMMARY

LONG POND, BELGRADE

MIDAS: 5272, Sample Station # 1 (Northern)

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 Long Pond have been collected since 1970. During this period, 21 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Long Pond is considered above average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Long Pond is moderate. Non-nuisance Gleotrichia blooms occur fairly regularly.

Water Quality Measures: Long Pond is a non-colored lake (average color 16 SPU) with an average SDT of 6.5 m (21.4 ft). The range of water column TP for Long Pond is 5 - 12 parts per billion (ppb) with an average of 8 ppb. Chla ranges from 2.0 - 9.6 ppb with an average of 4.9 ppb. Recent dissolved oxygen (DO) profiles show high DO depletion in deep areas of the lake. The potential for phosphorus 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 Belgrade Regional Conservation Alliance (BRCA) received federal funding obtained under DEP's Non-Point Source Program to conduct a watershed survey in the Long Pond direct watershed (2001) and expand the Great Pond Watershed Management Plan to include all the lakes in the Belgrade Chain including Long Pond (2002). The Belgrade Lakes Conservation Corps, operating under the 'umbrella' of BRCA, has been operating in the chain of Belgrade Lakes since 1996. The Corps employs high school age young adults to implement erosion controls that do not require heavy equipment (rip-rap, plunge pools, buffer plantings). Cost is shared between homeowners and supporters of the Corps.

The Belgrade Lakes Association, one of the oldest in the state and encompassing both Great and Long Ponds, has been extremely active in lake protection activities.

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.lakesofmaine.org/ 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.

Filename: LON52721, Revised: 3/04, By: rjb Updated: 2/11, By: jp

LAKE: LONG P (VLMP 11)
TOWN: BELGRADE
COUNTY: KENNEBEC

MIDAS: 5272
TRUE BASIN: 2
SAMPLE STATION: 2

WHOLE LAKE INFORMATION
MAX. DEPTH: 30 m. (97 ft.)
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DELORME ATLAS #: 12
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IFW FISH. MANAGMENT: Warmwater & Coldwater

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VOLUME: 46191231.0 cu. m. (37470 ac.-ft.)
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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. LONG P has 2 True Basin(s).

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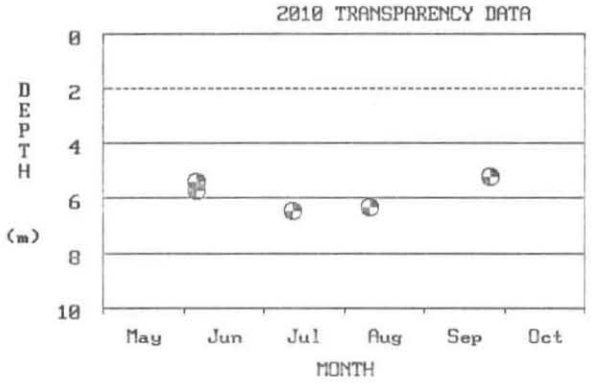

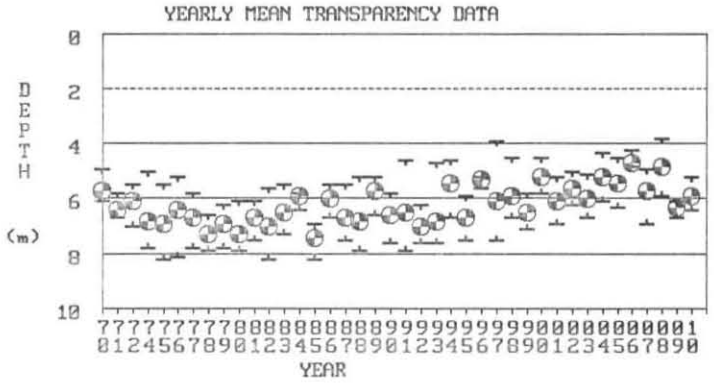

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[* indicates that Secchi disk was visable at bottom of lake (or one reading used in calculation was visable)].

	MEAN COLOR	MEAN pH	MEAN ALK	MEAN COND.	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES EPI PHOS			
	(SPU)		(mg/l)	(uS	EPI	SURF	BOT.	PRO.											
YEAR				/cm)	CORE	GRAB	GRAB	GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1970	-	-	-	-	-	-	-	-	4.9	5.7	6.1	3	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	5.8	6.4	6.7	3	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	5.5	6.1	7.0	3	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	5.0	6.8	7.8	3	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	5.5	6.9	8.2	5	-	-	-	-	-	32	-
1976	15	6.80	12.0	37	7	-	10	10	5.2	6.4	8.1	5	2.6	2.6	2.6	-	-	36	-
1977	-	-	-	-	10	-	10	11	5.8	6.7	7.8	5	-	-	-	-	-	34	-
1978	-	-	-	-	-	7	-	-	6.6	7.3	7.9	5	-	-	-	-	-	30	-
1979	20	6.85	9.0	26	-	-	8	9	6.2	6.9	7.8	6	-	-	-	-	-	32	-
1980	-	-	-	-	-	-	-	-	6.1	7.3	7.9	4	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-	6.1	6.7	7.5	5	-	-	-	-	-	34	-
1982	15	6.90	-	40	-	-	-	-	5.6	7.0	8.2	5	-	-	-	-	-	32	-
1983	-	-	-	-	-	-	-	-	5.5	6.5	7.3	5	-	-	-	-	-	35	-
1984	-	-	-	-	-	-	-	-	5.8	5.9	6.4	5	-	-	-	-	-	40	-
1985	15	6.90	8.0	37	8	-	7	7	6.9	7.4	8.2	5	-	-	-	-	-	29	-

LAKE: LONG P (VLMP 11) MIDAS: 5272
TOWN: BELGRADE *TRUE BASIN: 2
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SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR	pH	ALK	COND.												EPI PHOS			
YEAR	(SPU)		(mg/l)	(uS /cm)	EPI CORE	SURF GRAB	BOT. GRAB	PRO. GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1986	-	-	-	-	-	-	-	-	5.5	6.0	6.7	5	-	-	-	-	-	39	-
1987	-	-	-	-	-	-	-	-	5.5	6.7	7.5	5	-	-	-	-	-	34	-
1988	12	6.40	9.0	32	7	-	13	-	5.2	6.8	7.9	5	-	-	-	-	-	33	-
1989	-	-	-	-	-	-	-	-	5.2	5.7	6.6	5	-	-	-	-	-	42	-
1990	-	-	-	-	-	-	-	-	5.8	6.6	7.6	5	-	-	-	-	-	34	-
1991	20	7.50	12.0	-	9	-	-	-	4.6	6.5	7.9	5	-	-	-	-	-	35	-
1992	15	-	10.0	-	6	-	7	6	6.2	7.0	7.6	5	-	-	-	-	-	32	-
1993	-	-	-	-	-	-	-	-	4.7	6.8	7.6	5	-	-	-	-	-	33	-
1994	-	-	-	-	-	-	-	-	4.6	5.4	6.7	2	-	-	-	-	-	-	-
1995	-	-	-	-	8	-	52	-	5.9	6.7	7.5	3	-	-	-	-	-	-	-
1996	-	-	-	-	10	-	8	-	5.2	5.3	5.6	3	-	-	-	-	-	-	-
1997	-	-	-	-	10	-	35	17	3.9	6.1	7.5	6	-	-	-	41	-	38	-
1998	-	-	-	-	11	-	35	18	4.5	5.9	6.7	6	-	-	-	-	-	40	-
1999	10	-	10.5	48	9	-	19	-	5.8	6.5	7.1	4	4.0	4.0	4.0	-	-	-	-
2000	-	-	-	-	11	-	14	15	4.5	5.2	5.8	5	-	-	-	45	-	46	-
2001	16	7.24	9.5	46	9	-	23	-	5.2	6.1	6.9	6	7.0	7.0	7.0	-	-	38	-
2002	13	-	11.0	49	9	6	16	-	5.0	5.6	6.2	5	5.3	5.3	5.3	-	-	43	-
2003	10	-	11.5	51	9	20	24	-	5.1	6.0	6.7	5	3.9	3.9	3.9	-	-	39	-
2004	13	7.22	12.8	50	11	-	22	-	4.3	5.2	6.1	3	4.8	4.8	4.8	-	-	-	-
2005	18	7.24	8.7	47	6	-	-	-	4.5	5.4	6.3	6	5.5	7.3	9.0	-	-	44	-
2006	27	7.12	9.0	46	8	8	-	-	4.2	4.7	4.8	5	2.7	3.4	4.0	-	-	52	-
2007	-	-	-	-	-	9	-	-	4.9	5.7	6.9	5	3.0	3.5	4.0	-	-	42	-
2008	25	6.95	90.0	46	11	6	12	-	3.8	4.8	5.9	5	2.4	5.4	6.5	-	-	50	-
2009	-	-	-	-	7	-	17	-	6.1	6.3	6.7	4	0.9	2.7	4.4	-	-	-	-
2010	-	-	-	-	-	7	-	-	5.2	5.9	6.4	4	-	-	-	-	-	-	-
SUMMARY:	16	6.91	15.9	43	9	9	18	12	3.8	6.2	8.2	40	0.9	4.5	9.0	43	-	37	-

LAKE: LONG P (VLMP 11) MIDAS: 5272
TOWN: BELGRADE *TRUE BASIN: 2
COUNTY: KENNEBEC *SAMPLE STATION: 2

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

	SAMPLE DATE															
DEPTH	09/21/07		08/13/08		08/26/08		09/04/08		08/15/09		09/02/09		09/03/09		08/10/10	
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	19.2	9.7	21.9	9.1	21.9	7.8	21.9	9.1	26.6	7.3	21.8	8.0	23.7	8.5	24.3	7.4
1.0	19.2	9.7	21.9	9.0	21.9	7.8	21.9	9.1	25.6	7.1	21.5	8.3	23.2	8.3	24.4	7.1
2.0	18.9	9.6	21.9	9.0	21.8	7.9	21.9	9.1	25.0	7.2	21.4	8.3	23.1	8.6	24.4	7.2
3.0	18.7	9.5	21.9	9.0	21.7	7.9	21.7	9.1	24.4	7.1	21.4	8.3	22.9	8.8	24.0	7.3
4.0	18.6	9.3	21.9	8.5	21.7	7.9	21.7	9.0	23.5	7.1	21.4	8.2	22.8	8.7	24.0	7.4
5.0	18.5	9.4	21.6	7.8	21.6	7.8	21.7	9.0	23.0	6.5	21.3	8.3	21.7	8.7	23.9	6.7
6.0	18.5	9.2	20.6	5.9	21.6	7.8	21.6	9.0	21.6	5.2	21.3	8.3	21.6	8.0	23.7	6.8
7.0	18.4	9.2	19.1	3.8	18.9	4.9	20.6	7.1	19.8	3.6	19.9	4.4	20.9	6.1	23.5	6.4
8.0	18.3	9.1	15.3	2.9	14.6	1.7	17.4	2.1	18.0	2.8	17.2	1.4	18.6	1.3	19.6	2.5
9.0	17.6	6.9	13.3	3.0	13.0	1.6	14.0	0.6	16.2	2.1	15.8	1.0	16.5	0.9	16.8	2.0
10.0	14.4	0.8	12.2	3.1	11.8	1.7	12.8	0.8	15.2	1.8	14.8	1.1	15.3	0.9	15.4	2.0
11.0	12.1	1.3	11.2	3.4	10.7	1.9	11.9	1.1	14.5	1.9	14.2	1.2	14.4	1.3	14.7	2.2
12.0	11.6	1.7	10.6	3.6	10.5	2.3	10.8	2.0	13.6	2.4	13.5	1.4	14.1	1.2	14.0	2.8
13.0	10.5	3.3	9.9	5.1	9.0	4.3	10.2	2.9	13.0	2.9	12.4	2.4	13.3	1.7	12.8	3.3
14.0	9.4	5.2	8.9	5.7	8.3	4.7	9.1	5.2	11.7	4.4	10.8	4.5	11.3	4.7	11.4	5.2
15.0	8.7	6.3	8.1	7.1	7.5	5.6	7.9	6.2	10.3	5.8	9.1	5.9	9.9	5.6	10.5	5.9
16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.0	7.3	7.6	6.7	7.4	6.6	5.9	6.8	6.8	7.5	6.7	7.2	6.9	8.2	6.8	9.4	6.7
18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.0	6.7	8.1	6.1	7.1	5.8	5.8	6.1	6.1	6.7	7.0	6.4	7.3	7.2	6.9	7.6	6.8
20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.0	6.7	7.7	5.8	6.7	5.6	5.3	5.9	5.7	6.3	6.7	6.1	6.9	6.3	7.0	7.1	6.6
22.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.0	6.5	7.4	5.6	6.6	5.4	5.0	5.6	5.0	6.0	6.6	5.8	6.4	6.1	6.2	6.6	6.2
24.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.0	6.0	5.3	5.4	5.1	5.3	3.9	5.5	3.3	5.8	4.0	5.7	3.4	5.8	4.6	6.4	4.2
26.0	6.3	1.0	-	-	-	-	-	-	-	-	5.6	2.2	-	-	-	-
27.0	-	-	5.3	1.3	5.3	3.0	5.4	0.4	5.7	1.9	5.6	1.0	5.7	1.1	6.1	0.4
28.0	-	-	-	-	5.2	0.7	-	-	-	-	5.5	0.5	5.7	0.9	-	-
29.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

WATER QUALITY SUMMARY

LONG POND, BELGRADE
MIDAS: 5272, Sample Station # 1 (Southern)

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 Long Pond have been collected since 1970. During this period, 17 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Long Pond is considered above average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Long Pond is moderate. Non-nuisance Gleotrichia blooms occur fairly regularly.

Water Quality Measures: Long Pond is a non-colored lake (average color 16 SPU) with an average SDT of 6.2 m (20.5 ft). The range of water column TP for Long Pond is 6 - 11 parts per billion (ppb) with an average of 9 ppb. Chla ranges from 0.9 - 9.0 ppb with an average of 4.5 ppb. Recent dissolved oxygen (DO) profiles show moderate DO depletion in deep areas of the lake. The potential for phosphorus 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 Belgrade Regional Conservation Alliance (BRCA) received federal funding obtained under DEP's Non-Point Source Program to conduct a watershed survey in the Long Pond direct watershed (2001) and expand the Great Pond Watershed Management Plan to include all the lakes in the Belgrade Chain including Long Pond (2002). The Belgrade Lakes Conservation Corps, operating under the 'umbrella' of BRCA, has been operating in the chain of Belgrade Lakes since 1996. The Corps employs high school age young adults to implement erosion controls that do not require heavy equipment (rip-rap, plunge pools, buffer plantings). Cost is shared between homeowners and supporters of the Corps.

The Belgrade Lakes Association, one of the oldest in the state and encompassing both Great and Long Ponds, has been extremely active in lake protection activities.

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.lakesofmaine.org/ 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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