

LAKE: PIPER P (VLMP 21)
TOWN: ABBOT
COUNTY: PISCATAQUIS

MIDAS: 298
*TRUE BASIN: 1
*SAMPLE STATION: 1

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH m	SAMPLE DATE									
	08/26/82		08/27/93		08/21/96		08/28/96		08/17/01	
	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	18.5	8.7	24.0	8.5	22.0	8.9	23.8	8.7	24.7	8.1
1.0	18.8	8.6	23.3	8.5	22.1	8.9	22.2	8.9	23.8	8.1
2.0	18.8	8.7	23.0	8.5	22.0	8.9	22.0	8.9	23.8	8.1
3.0	18.6	8.7	22.8	8.5	21.8	8.8	21.9	8.8	23.2	8.1
4.0	18.6	8.6	22.4	8.3	21.7	8.7	21.8	8.8	23.2	8.1
5.0	18.3	8.6	22.2	8.3	21.0	8.2	21.3	8.2	23.1	8.0
6.0	18.2	8.6	21.8	8.1	19.0	5.8	20.1	6.6	22.0	7.8
7.0	18.0	8.5	20.8	7.0	16.2	4.0	12.7	4.0	16.9	6.9
8.0	14.5	5.1	18.1	3.2	14.0	2.5	14.3	1.8	13.8	5.2
9.0	12.0	3.6	15.2	0.3	12.8	2.1	13.0	1.4	12.0	3.6
10.0	10.8	2.8	14.8	0.1	12.2	2.0	12.3	1.2	11.1	3.1
11.0	10.2	2.6	14.2	0.1	12.0	1.9	12.2	1.2	10.8	2.8
12.0	10.0	2.6	14.1	0.1	11.9	1.9	12.1	1.2	10.6	2.7
13.0	9.8	2.3	13.9	0.1	11.8	1.8	11.9	1.2	10.3	2.5
14.0	9.8	2.2	13.3	0.1	11.8	1.8	11.9	1.1	10.2	2.3
15.0	9.8	1.9	13.2	0.1	11.7	1.7	11.9	1.0	10.2	2.3
16.0	-	-	-	-	11.5	1.6	-	-	-	-
17.0	-	-	-	-	11.5	1.5	-	-	-	-

WATER QUALITY SUMMARY

PIPER POND, ABBOT

Midas: 298, Sample Station # 1, center of pond.

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 data for Piper Pond has been collected occasionally since 1981. During this period, 4 years of basic chemical information was collected, in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Piper Pond 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 Piper Pond is low.

Water Quality Measures: Piper Pond is a non-colored lake (average color 14 SPU) with an average SDT of 6.4m (21ft). The range of water column TP for Piper Pond is 5-11 parts per billion (ppb) with an average of 7 ppb (State average is 12ppb), while Chla ranges from 1.8-3.7 ppb with an average of 2.7 ppb (State average 4.8ppb). Recent dissolved oxygen (DO) profiles show low to 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 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.

Inland Fisheries and Wildlife considers this pond both a warm-water and cold-water fishery. Water quality appears to be relatively stable. At least 8 years of data are needed to determine a true trend since lakes react to seasonal differences in rain, sunlight and temperature.

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>.

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