

LAKE: PUSHAW L (VLMP 19 )  
 TOWN: OLD TOWN  
 COUNTY: PENOBSCOT

MIDAS: 80  
 TRUE BASIN: 1  
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

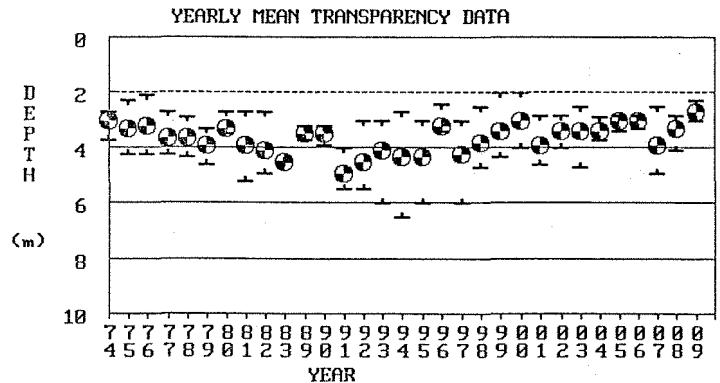
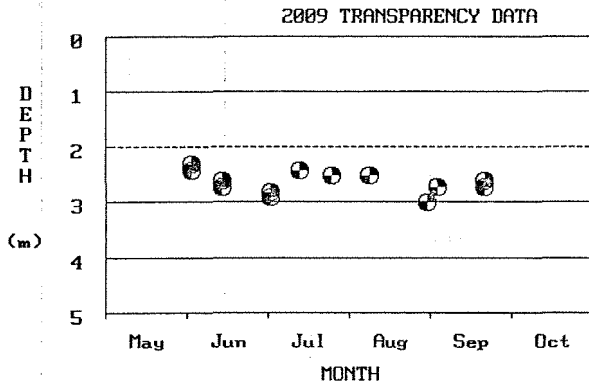
MAX. DEPTH: 9 m. (28 ft.)  
 MEAN DEPTH: 3 m. (11 ft.)  
 DELORME ATLAS #: 33  
 USGS QUAD: PUSHAW LAKE  
 IFW REGION F: Penobscot (Enfield)  
 IFW FISH. MANAGMENT: Warmwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 2046.0 ha. (5055.6 a.)  
 FLUSHING RATE: 1.96 flushes/yr.  
 VOLUME: 65500000.0 cu. m. (53133 ac.-ft.)  
 DIRECT DRAINAGE AREA: 194.88 sq. km. (75.24 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. PUSHAW 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 visable at bottom of lake (or one reading used in calculation was visable)].

YEAR	MEAN COLOR	MEAN pH	MEAN ALK	MEAN COND.	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC 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											
1974	60	7.00	17.0	40	-	15	-	-	2.7	3.0	3.7	5	2.6	3.6	4.8	-	-	-	45
1975	40	6.50	16.0	26	-	13	-	-	2.3	3.3	4.2	6	2.1	3.8	9.2	-	-	-	46
1976	-	-	-	-	13	-	-	-	2.1	3.2	4.2	6	1.8	3.6	5.6	-	-	-	44
1977	-	-	-	-	-	-	-	-	2.7	3.6	4.2	6	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	2.9	3.6	4.3	2	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	3.3	3.9	4.6	5	-	-	-	-	-	-	-
1980	80	6.90	20.0	55	22	-	-	-	2.7	3.3	3.5	4	5.0	5.0	5.0	-	-	-	-
1981	-	-	-	-	-	-	-	-	2.7	3.9	5.2	5	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	2.7	4.1	4.9	5	-	-	-	-	-	-	-
1983	50	7.10	13.0	-	10	-	-	-	4.5	4.5	4.5	1	3.6	3.6	3.6	-	-	-	-
1989	-	-	-	-	-	-	-	-	3.2	3.5	3.7	6	-	-	-	-	-	-	-
1990	50	7.55	13.0	61	12	-	-	-	3.2	3.5	3.9	6	4.0	4.0	4.0	-	-	-	-
1991	-	-	-	-	-	-	-	-	4.0	4.9	5.5	6	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	3.0	4.5	5.5	6	-	-	-	-	-	-	-
1993	-	-	-	-	17	-	-	-	3.0	4.1*	6.0	6	-	-	-	-	-	-	-



## WATER QUALITY SUMMARY

### **Pushaw Pond, Old Town**

Midas: 80, Basin: 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 present 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 Pushaw Pond have been collected since 1974. During this period, 9 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Pushaw Pond is considered to be average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Pushaw Pond is low to moderate.

Water Quality Measures: Pushaw Pond is a colored lake (average color 49 SPU) with an average SDT of 3.8 m (12.5 ft). The range of water column TP for Pushaw Pond is 10-22 parts per billion (ppb) with an average of 14 ppb, while Chla ranges from 1.8-9.2 ppb with an average of 3.9 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.

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: 801push, Revised: 11/2004, By: rjb

LAKE: PUSHAW L (VLMP 19 )  
 TOWN: OLD TOWN  
 COUNTY: PENOBSCOT

MIDAS: 80  
 TRUE BASIN: 1  
 SAMPLE STATION: 2

WHOLE LAKE INFORMATION

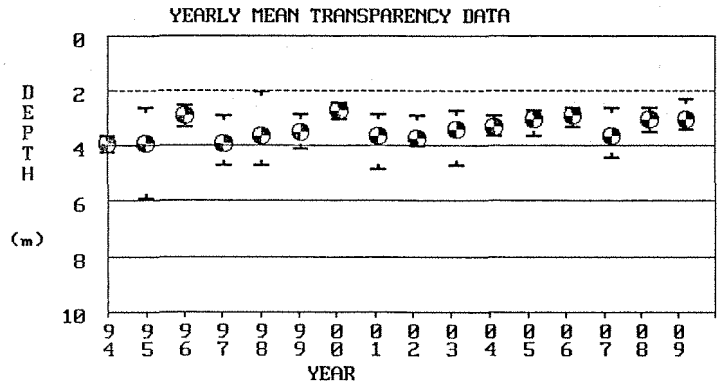
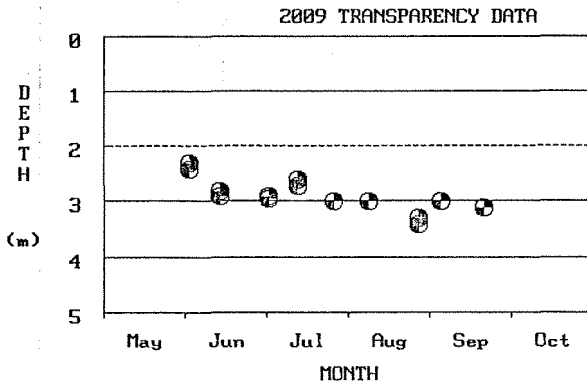
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 MEAN DEPTH: 3 m. (11 ft.)  
 DELORME ATLAS #: 33  
 USGS QUAD: PUSHAW LAKE  
 IFW REGION F: Penobscot (Enfield)  
 IFW FISH. MANAGEMENT: Warmwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 2046.0 ha. (5055.6 a.)  
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 VOLUME: 65500000.0 cu. m. (53133 ac.-ft.)  
 DIRECT DRAINAGE AREA: 194.88 sq. km. (75.24 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. PUSHAW 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
1994	-	-	-	-	15	-	-	15	3.6	3.9	4.2	2	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	2.6	3.9	5.9	6	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	2.5	2.9	3.3	5	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	2.9	3.9	4.7	6	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	2.0	3.6	4.7	6	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	2.8	3.5	4.1	5	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	2.4	2.7	3.0	5	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	2.8	3.6	4.8	5	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	2.9	3.7	4.0	3	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	2.7	3.4	4.7	3	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	2.9	3.3	3.6	4	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	2.7	3.0	3.6	3	-	-	-	-	-	-	-
2006	-	-	-	-	-	22	-	-	2.6	2.9	3.3	3	-	-	-	-	-	-	-
2007	49	7.46	17.9	66	18	-	-	-	2.6	3.6	4.4	5	3.5	3.5	3.5	-	-	-	-
2008	-	-	-	-	-	18	-	-	2.6	3.0	3.5	4	-	-	-	-	-	-	-



## WATER QUALITY SUMMARY

### **Pushaw Pond, Old Town**

Midas: 80, Basin: Primary, Sample Sta. 2

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 algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring data for Pushaw Pond sample station 2 has been collected since 1994. During this period, only 1 year of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Pushaw Pond is considered to be average based on measures of SDT, total phosphorus (TP). The potential for nuisance algal blooms on Pushaw Pond is low.

Water Quality Measures: Pushaw Pond is a colored lake (average color 49 SPU, based on color of basin 1) with an average SDT of 3.5 m (11.5 ft). The water column TP for Pushaw Pond is 14 parts per billion (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.

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: 802pusha, Revised: 11/2004 by: rjb

LAKE: PUSHAW L (VLMP 19 )  
 TOWN: OLD TOWN  
 COUNTY: PENOBSCOT

MIDAS: 80  
 TRUE BASIN: 1  
 SAMPLE STATION: 3

WHOLE LAKE INFORMATION

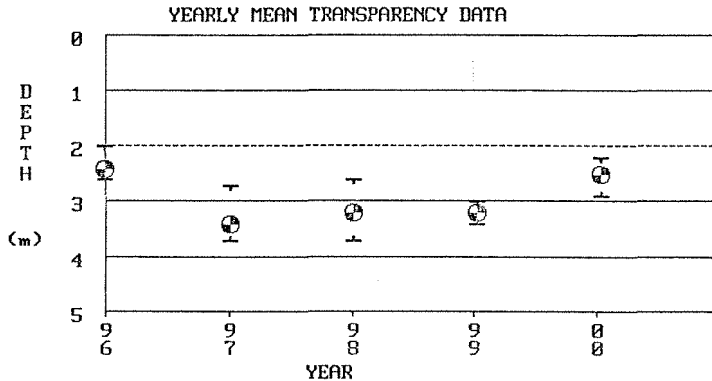
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SECCHI DISK TRANSPARENCY GRAPH:



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	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	COLOR (SPU)	pH	ALK (mg/l)	COND. (uS /cm)	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1996	-	-	-	-	-	-	-	-	2.0	2.4	2.6	5	-	-	-	-	-	89	-
1997	-	-	-	-	-	-	-	-	2.7	3.4*	3.7*	3	-	-	-	-	-	-	-
1998	24	-	-	-	-	-	-	-	2.6	3.2*	3.7*	4	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	3.0	3.2*	3.4*	2	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	2.2	2.5	2.9	3	-	-	-	-	-	-	-
SUMMARY:	24	-	-	-	-	-	-	-	2.0	2.9*	3.7*	5	-	-	-	-	-	89	-

LAKE: PUSHAW L (VLMP 19 )  
TOWN: OLD TOWN  
COUNTY: PENOBSCOT

MIDAS: 80  
\*TRUE BASIN: 1  
\*SAMPLE STATION: 3

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE							
	08/10/97		09/07/97		08/22/98		08/19/00	
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	23.0	8.0	19.1	9.3	21.4	8.1	21.0	8.8
1.0	22.9	8.0	19.0	9.2	21.4	8.1	21.0	8.8
2.0	22.8	8.0	18.9	9.2	21.4	8.0	21.0	8.8
3.0	22.6	7.9	18.9	9.1	21.3	7.9	20.8	8.7

## WATER QUALITY SUMMARY

### Pushaw Pond, Old Town

Midas: 80, Basin: Primary, Sample Sta. 3

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 algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring data for Pushaw Pond (at sample station 3) has been collected since 1996. During this period no basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). However, the chemistry will be very similar to the Primary Basin. In summary, the water quality of Pushaw Pond is considered to be average based on measures of SDT. The potential for nuisance algal blooms on Pushaw Pond is low, in part due to the high natural color which can reduce algae growth.

Water Quality Measures: Pushaw Pond is a colored lake (average color 49 SPU) with an average SDT of 2.9\* m (9.5\* ft) (The asterisk means that the Secchi disk was visible all the way to the bottom of the lake on several occasions. If the pond were deeper the Secchi Disk readings would probably be greater). Other sampling stations had secchi means of around 12 feet. This station may be similar, unless natural water color is locally higher. Since Pushaw Lake is fed by drainage from extensive wetlands, the lake tends to be highly colored, and there could be some variation within the lake. 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.

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: 803pusha, Revised: 11/2004 by: rjb