



Volunteer Lake Assessment Program Individual Lake Reports

CHILDS BOG, HARRISVILLE, NH

MORPHOMETRIC DATA

Watershed Area (Ac.):	896	Max. Depth (m):	5.4	Flushing Rate (yr ⁻¹):	1.7	Year	Trophic class	KNOWN EXOTIC SPECIES
Surface Area (Ac.):	105	Mean Depth (m):	2.8	P Retention Coef:	0.67	1984	OLIGOTROPIC	
Shore Length (m):	3,400	Volume (m ³):	1,176,500	Elevation (ft):	1375	1998	OLIGOTROPIC	

TROPHIC CLASSIFICATION

KNOWN EXOTIC SPECIES

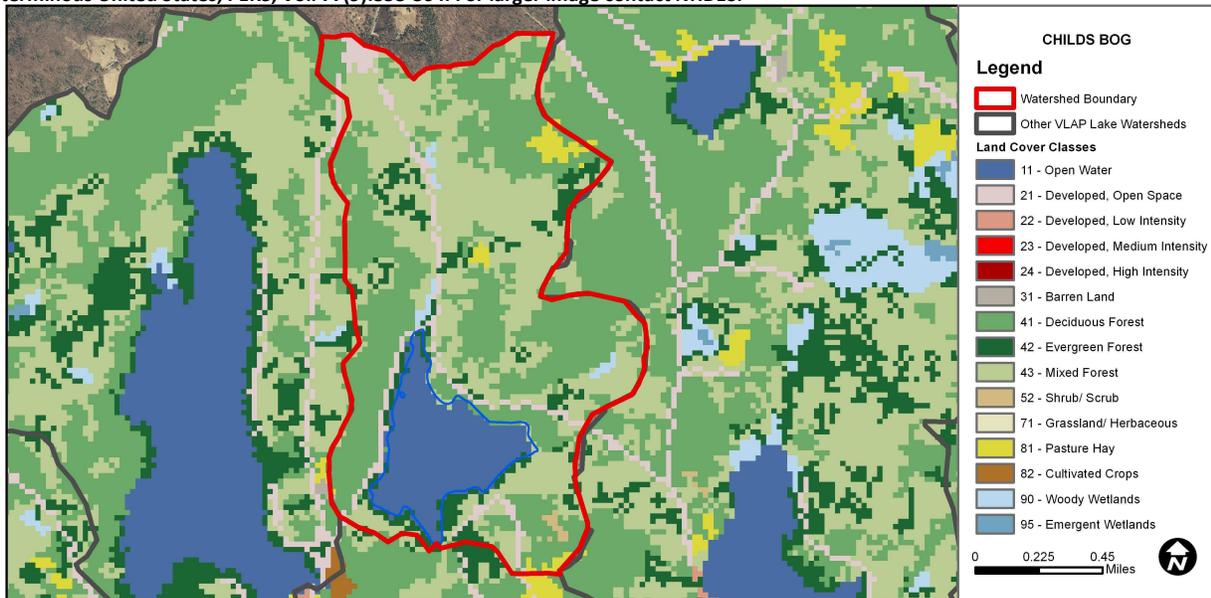
The Waterbody Report Card tables are generated from the 2012 305(b) report on the status of N.H. waters, and are based on data collected from 2001-2011.

Designated Use	Parameter	Category	Comments
Aquatic Life	Oxygen, Dissolved	No Data	No Data for this parameter.
	Dissolved oxygen satura	No Data	No Data for this parameter.
	Dissolved oxygen satura	No Data	No Data for this parameter.
	Chlorophyll-a	No Data	No Data for this parameter.
Primary Contact Recreation	Escherichia coli	No Data	No data for this parameter.

BEACH PRIMARY CONTACT ASSESSMENT STATUS

WATERSHED LAND USE SUMMARY

Fry, J., Xian, G., Jin, S., Dewitz, J., Homer, C., Yang, L., Barnes, C., Herold, N., and Wickham, J., 2011. Completion of the 2006 National Land Cover Database for the Conterminous United States, PERS, Vol. 77(9):858-864. For larger image contact NHDES.





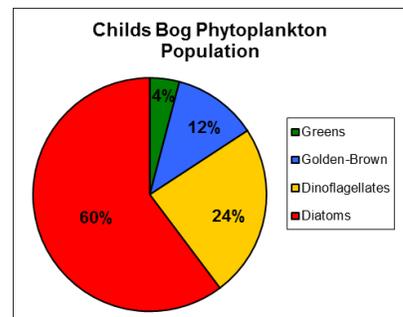
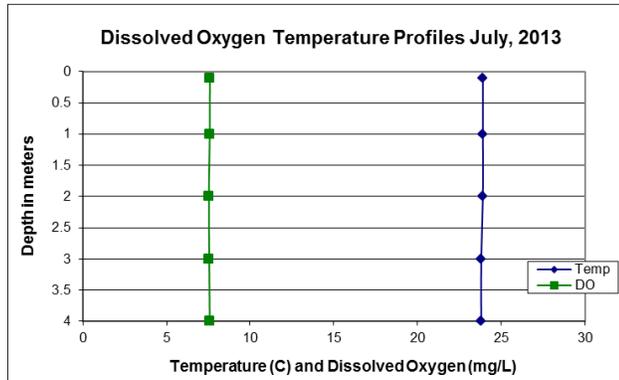
VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

CHILDS BOG, HARRISVILLE, NH

2013 DATA SUMMARY

OBSERVATIONS AND RECOMMENDATIONS (Refer to Table 1 and Historical Deep Spot Data Graphics)

- ♣ **CHLOROPHYLL-A:** Chlorophyll levels were greater than the NH lake median and above average for most NH lakes.
- ♣ **CONDUCTIVITY/CHLORIDE:** Epilimnetic (deep spot) and Outlet conductivity were approximately equal to the NH lake median and average for most NH lakes. Epilimnetic chloride was slightly greater than the NH lake median. Miller Gline Inlet conductivity was very low.
- ♣ **TOTAL PHOSPHORUS:** Epilimnetic (deep spot) phosphorus was slightly greater than the NH lake median. Outlet and Miller Gline Inlet phosphorus levels were in the low to average range.
- ♣ **TRANSPARENCY:** Non viewscope transparency was slightly less than the NH lake median; however viewscope transparency was greater than the NH lake median and likely a more accurate measure of pond transparency.
- ♣ **TURBIDITY:** Epilimnetic (deep spot) turbidity was slightly elevated in August potentially due to above average algal growth.
- ♣ **pH:** Epilimnetic (deep spot), Miller Gline Inlet and Outlet pH were less than the desirable range of 6.5 – 8.0 units.
- ♣ **DISSOLVED OXYGEN:** Dissolved oxygen levels were high throughout the water column and sufficient to support aquatic life.
- ♣ **PHYTOPLANKTON:** A healthy and diverse phytoplankton (algae) population was measured in July.
- ♣ **RECOMMENDED ACTIONS:** Continue monitoring program to establish baseline water quality conditions. After ten consecutive years of data collection, VLAP conducts historical water quality trend analysis to determine if water quality is improving, worsening or remaining stable. We look forward to visiting again in 2014!



Station Name	Table 1. 2013 Average Water Quality Data for CHILDS BOG								
	Alk.	Chlor-a	Chloride	Cond.	Total P	Trans.		Turb.	pH
	mg/l	ug/l	mg/l	uS/cm	ug/l	NVS	VS	ntu	
Epilimnion	2.60	7.10	9	48.3	14	2.88	3.65	1.91	6.23
Miller Gline Inlet				19.5	5			0.22	6.10
Outlet				48.0	11			1.04	6.37

NH Median Values: Median values for specific parameters generated from historic lake monitoring data.
Alkalinity: 4.9 mg/L
Chlorophyll-a: 4.58 mg/m³
Conductivity: 40.0 uS/cm
Chloride: 4 mg/L
Total Phosphorus: 12 ug/L
Transparency: 3.2 m
pH: 6.6

NH Water Quality Standards: Numeric criteria for specific parameters. Results exceeding criteria are considered a water quality violation.
Chloride: < 230 mg/L (chronic)
E. coli: > 88 cts/100 mL – public beach
E. coli: > 406 cts/100 mL – surface waters
Turbidity: > 10 NTU above natural level
pH: 6.5-8.0 (unless naturally occurring)

HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Explanation	Parameter	Trend	Explanation
pH	N/A	Ten consecutive years of data necessary.	Chlorophyll-a	N/A	Ten consecutive years of data necessary.
Conductivity	N/A	Ten consecutive years of data necessary.	Transparency	N/A	Ten consecutive years of data necessary.
			Phosphorus (epilimnion)	N/A	Ten consecutive years of data necessary.

