



## Volunteer Lake Assessment Program Individual Lake Reports

### CHILDS BOG, HARRISVILLE, NH

**MORPHOMETRIC DATA**
**TROPIC CLASSIFICATION**
**KNOWN EXOTIC SPECIES**

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

The Waterbody Report Card tables are generated from the DRAFT 2020 305(b) report on the status of N.H. waters, and are based on data collected from 2010-2019. Detailed waterbody assessment and report card information can be found at [NHDES' Water Quality Assessment Website](#).

Designated Use	Parameter	Category	Comments
Aquatic Life	Phosphorus (Total)	Cautionary	Limited data for this parameter predicts exceedance of water quality standards or thresholds; however more data are necessary to fully assess the parameter.
	pH	Slightly Bad	Data periodically exceed water quality standards or thresholds for this parameter by a small margin.
	Oxygen, Dissolved	Encouraging	Limited data for this parameter predicts water quality standards or thresholds are being met; however more data are necessary to fully assess the parameter.
	Dissolved oxygen satura	Encouraging	Limited data for this parameter predicts water quality standards or thresholds are being met; however more data are necessary to fully assess the parameter.
	Chlorophyll-a	Cautionary	Limited data for this parameter predicts exceedance of water quality standards or thresholds; however more data are necessary to fully assess the parameter.
Primary Contact Recreation	Escherichia coli	No Data	No data for this parameter.
	Chlorophyll-a	Encouraging	Limited data for this parameter predicts water quality standards or thresholds are being met; however more data are necessary to fully assess the parameter.

**VLAP SAMPLE STATION MAP:** This map depicts the location of routine sampling stations discussed on page two of the report.



**CHILDS BOG**  
HARRISVILLE  
VOLUNTEER LAKE ASSESSMENT PROGRAM

STATIONID	STATION NAME
CHIHARD	DEEP SPOT
CHIHARG	MILLER GLINE INLET
CHIHARO	OUTLET

Source: The data layers are derived from NHDES data and are under constant revision. NHDES is not responsible for the use or interpretation of this information. Not intended for legal use. NHDES Watershed Management Bureau Date: 2/17/2021





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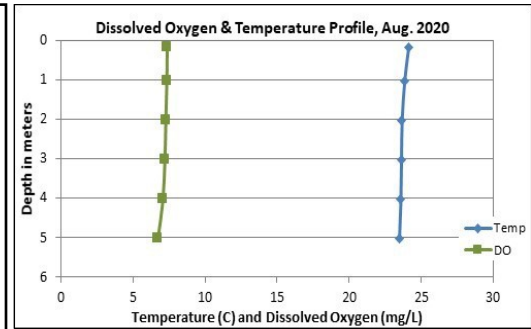
## Child's Bog, Harrisville

### 2020 Data Summary

**Recommended Actions:** Pond nutrient (phosphorus) levels and algal (chlorophyll) growth were within an elevated range for the pond this year potentially due to drought conditions, low water levels, and the lack of flushing of nutrients out of the pond. Continue annual monitoring program and increase monitoring frequency to better seasonal and annual variations in water quality and evaluate trends over time. Encourage shoreline property owners to become certified LakeSmart through NHLAKES lake-friendly living program [www.nhlake.org/lakesmart](http://www.nhlake.org/lakesmart). Keep up the great work!

#### Observations (Refer to Table 1 and Historical Deep Spot Data Graphics)

- ◆ **Chlorophyll-a:** Chlorophyll level was within an elevated range in August, increased from 2019, and was much greater than the state median and the threshold for oligotrophic lakes. Visual inspection of historical data indicates variable chlorophyll levels since monitoring began.
- ◆ **Conductivity/Chloride:** Epilimnetic (deep spot) conductivity and chloride levels were slightly greater than the state medians, yet much less than a level of concern. Visual inspection of historical data indicates variable epilimnetic conductivity levels since monitoring began.
- ◆ **Total Phosphorus:** Epilimnetic phosphorus level was slightly elevated in August, increased from 2019, and was slightly greater than the state median and the threshold for oligotrophic lakes. Visual inspection of historical data indicates variable epilimnetic phosphorus levels since monitoring began.
- ◆ **Transparency:** Transparency measured with (VS) and without (NVS) the viewscope was above average (good) in August, decreased (worsened) slightly from 2019, and was higher (better) than the state median. Visual inspection of historical data indicates stable transparency since monitoring began.
- ◆ **pH:** Epilimnetic pH level was within the desirable range 6.5-8.0 units and visual inspection of historical data indicates slightly variable epilimnetic pH levels since monitoring began.



Station Name	Table 1. 2020 Average Water Quality Data for CHILDS BOG - HARRISVILLE						
	Chlor-a ug/l	Chloride mg/l	Cond. us/cm	Total P ug/l	Trans. m		pH
					NVS	VS	
Epilimnion	8.75	20	68.0	13	3.70	3.50	6.61

**NH Median Values:** Median values for specific parameters generated from historic lake monitoring data.  
**Alkalinity:** 4.5 mg/L  
**Chlorophyll-a:** 4.39 ug/L  
**Conductivity:** 42.3 uS/cm  
**Chloride:** 5 mg/L  
**Total Phosphorus:** 11 ug/L  
**Transparency:** 3.3 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:** between 6.5-8.0 (unless naturally occurring)

#### Historical Water Quality Trend Analysis

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

