



## Volunteer Lake Assessment Program Individual Lake Reports

### CONNER POND, OSSISPEE, NH

#### MORPHOMETRIC DATA

Watershed Area (Ac.):	545	Max. Depth (m):	19.2	Flushing Rate (yr <sup>-1</sup> ):	0.4
Surface Area (Ac.):	87	Mean Depth (m):	9	P Retention Coef:	
Shore Length (m):	2,300	Volume (m <sup>3</sup> ):	3,163,500	Elevation (ft):	899

#### TROPHIC CLASSIFICATION

Year	Trophic class
1982	OLIGOTROPIC
2002	OLIGOTROPIC

#### KNOWN EXOTIC SPECIES


The Waterbody Report Card tables are generated from the DRAFT 2018 305(b) report on the status of N.H. waters, and are based on data collected from 2008-2017. Detailed waterbody assessment and report card information can be found at [www.des.nh.gov/organization/divisions/water/wmb/swqa/index.htm](http://www.des.nh.gov/organization/divisions/water/wmb/swqa/index.htm)

Designated Use	Parameter	Category	Comments
Aquatic Life	Phosphorus (Total)	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.
	pH	Slightly Bad	Data periodically exceed water quality standards or thresholds for this parameter by a small margin.
	Oxygen, Dissolved	Very Good	All sampling data meet water quality standards or thresholds for this 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	Very Good	Sampling data is 50 percent better than the water quality standards or thresholds for this parameter.
Primary Contact Recreation	Escherichia coli	Very Good	All sampling data meet water quality standards or thresholds for this parameter.
	Chlorophyll-a	Very Good	All sampling data meet water quality standards or thresholds for this parameter.

#### 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.



Land Cover Category	% Cover	Land Cover Category	% Cover	Land Cover Category	% Cover
Open Water	13.5	Barren Land	0	Grassland/Herbaceous	0
Developed-Open Space	0.3	Deciduous Forest	51.36	Pasture Hay	0
Developed-Low Intensity	0	Evergreen Forest	3.71	Cultivated Crops	0
Developed-Medium Intensity	0	Mixed Forest	30.36	Woody Wetlands	0.19
Developed-High Intensity	0	Shrub-Scrub	0.57	Emergent Wetlands	0.3



# VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

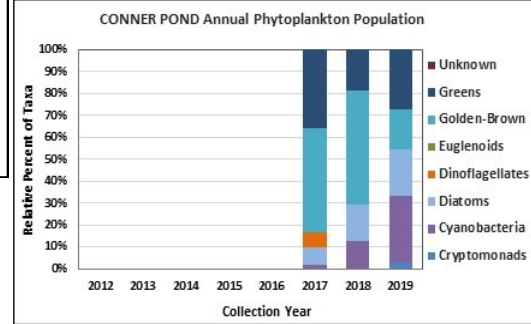
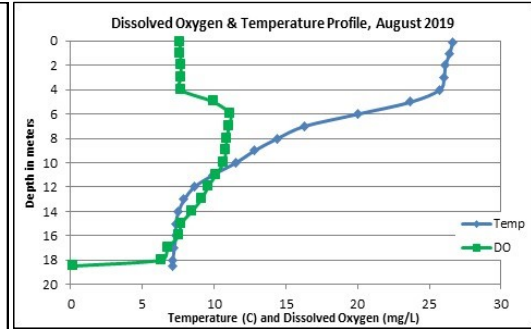
## CONNER POND, OSSIPEE

### 2019 DATA SUMMARY

**RECOMMENDED ACTIONS:** Conner Pond water quality is representative of oligotrophic, or high quality, conditions. If possible, increase monitoring frequency to once per month, typically June, July, and August, to better track seasonal and annual variations in water quality over time. Continue tracking apparent color to assess the influence of dissolved organic matter that imparts a tea color to the water. The increased frequency and intensity of storm events tends to increase introduction of organic matter, as well as sediments, that can influence water quality. Consider joining the NH Lakes' Lake Host Program to inspect boats for Aquatic Invasive Species (AIS), such as Variable milfoil, and to educate boaters on the Clean, Drain, Dry initiative to prevent transportation and spread of AIS. For more information contact [info@nhlakes.org](mailto:info@nhlakes.org). Keep up the great work!

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

- ◆ **CHLOROPHYLL-A:** Chlorophyll level was very low in August, increased slightly from 2018, and was much less than the state median and the threshold for oligotrophic lakes. Historical trend analysis indicates stable chlorophyll levels since monitoring began.
- ◆ **CONDUCTIVITY/CHLORIDE:** Epilimnetic (upper water layer), Metalimnetic (middle water layer) and Hypolimnetic (lower water layer) conductivity and/or chloride levels were very low and much less than the state medians. Historical trend analysis indicates variable epilimnetic conductivity levels since monitoring began.
- ◆ **COLOR:** Apparent color measured in the epilimnion indicates the water was clear with very little dissolved organic matter that imparts a tea color to the water.
- ◆ **TOTAL PHOSPHORUS:** Epilimnetic and Metalimnetic phosphorus levels remained low, were stable from 2018, and were much less than the state median and the threshold for oligotrophic lakes. Historical trend analysis indicates stable epilimnetic phosphorus levels since monitoring began. Hypolimnetic phosphorus levels increased slightly from 2018 but remained within a low range.
- ◆ **TRANSPARENCY:** Transparency measured with (VS) and without (NVS) the viewscope was high (good), increased slightly from 2018, and was much higher (better) than the state median. Historical trend analysis indicates stable transparency since monitoring began.
- ◆ **TURBIDITY:** Epilimnetic and Metalimnetic turbidity levels were within a low range. Hypolimnetic turbidity levels increased from 2018 but remained within a low range.
- ◆ **pH:** Epilimnetic, Metalimnetic and Hypolimnetic pH levels were slightly less than the desirable range 6.5-8.0 units. Historical trend analysis indicates variable epilimnetic pH levels since monitoring began.



Station Name	Table 1. 2019 Average Water Quality Data for CONNER POND - OSSIPEE									
	Alk.	Chlor-a	Chloride	Color	Cond.	Total P	Trans.		Turb.	pH
	mg/l	ug/l	mg/l	pcu	us/cm	mg/l	m	VS	ntu	
Epilimnion	3.2	0.36	3	10	16.0	3	9.70	10.55	0.20	6.39
Metalimnion					16.4	3			0.45	6.36
Hypolimnion					17.0	6			0.94	6.00

**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	Stable	Trend not significant; data highly variable.	Chlorophyll-a	Stable	Trend not significant; data highly variable.
pH (epilimnion)	Stable	Trend not significant; data highly variable.	Transparency	Stable	Trend not significant; data show low variability.
			Phosphorus (epilimnion)	Stable	Trend not significant; data moderately variable.

