



Volunteer Lake Assessment Program Individual Lake Reports

MAY POND, WASHINGTON, NH

MORPHOMETRIC DATA

Watershed Area (Ac.):	3,776	Max. Depth (m):	7.6	Flushing Rate (yr ⁻¹)	11.1
Surface Area (Ac.):	149	Mean Depth (m):	1.4	P Retention Coef:	0.5
Shore Length (m):	5,300	Volume (m ³):	905,000	Elevation (ft):	1603

TROPHIC CLASSIFICATION

Year	Trophic class
1984	MESOTROPHIC
2004	MESOTROPHIC

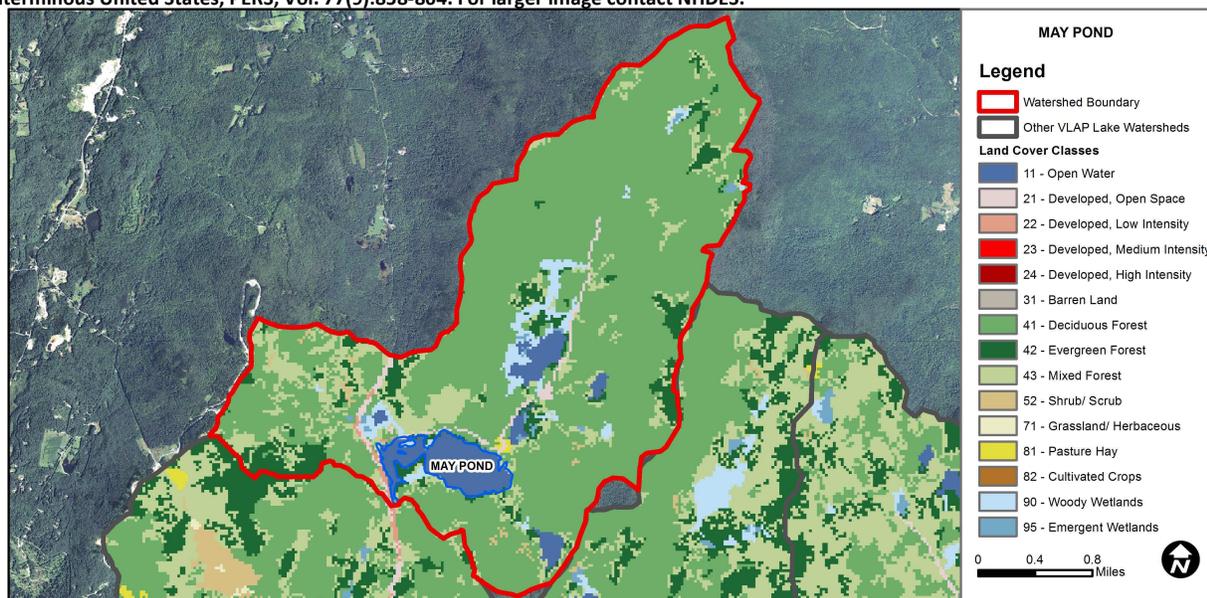
KNOWN EXOTIC SPECIES

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	Phosphorus (Total)	Good	>=5 samples and median is < threshold but > 1/2 threshold value.
	pH	Bad	>10%, with a minimum of 2, samples exceed criteria, with 1 or more by a large margin.
	D.O. (mg/L)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	D.O. (% sat)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	Chlorophyll-a	Good	>=5 samples and median is < threshold but > 1/2 threshold value.
Primary Contact Recreation	E. coli	Good	Geometric means < criteria; however at least 1 exceedance of the single sample criteria occurred.
	Chlorophyll-a	Very Good	At least 10 samples with 0 exceedances of criteria.

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	5.69	Barren Land	0	Grassland/Herbaceous	0.04
Developed-Open Space	1.34	Deciduous Forest	70.59	Pasture Hay	0.1
Developed-Low Intensity	0.26	Evergreen Forest	6.74	Cultivated Crops	0
Developed-Medium Intensity	0	Mixed Forest	11.23	Woody Wetlands	2.87
Developed-High Intensity	0	Shrub-Scrub	0.44	Emergent Wetlands	0.4



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2012 DATA SUMMARY

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

- 🔥 **CHLOROPHYLL-A:** Chlorophyll levels were slightly greater than 2011, however still less than the NH lake median.
- 🔥 **CONDUCTIVITY/CHLORIDE:** Deep spot and tributary conductivity levels were very low.
- 🔥 **TOTAL PHOSPHORUS:** Deep spot phosphorus levels were relatively low. Hypolimnetic (lower water layer) phosphorus was elevated in June due to bottom sediment contamination. Phosphorus levels in Vickery Pond Inlet were elevated throughout the summer and turbidity was also elevated. Mill Pond Inlet phosphorus was elevated in August.
- 🔥 **TRANSPARENCY:** Transparency improved as the summer progressed and was consistent with 2011 and slightly greater than the NH lake median.
- 🔥 **TURBIDITY:** Hypolimnetic turbidity was elevated in June likely due to sediment contamination. Vickery Pond Inlet turbidity was slightly elevated throughout the summer possibly due to low water flows.
- 🔥 **pH:** pH levels were lower than desirable and potentially critical to aquatic life.
- 🔥 **RECOMMENDED ACTIONS:** Observe samples for potential sediment contamination when sampling. Keep an eye on Mill Pond and Vickery Pond Inlets and note any potential changes in the watershed that could be causing an increase in phosphorus.

Station Name	Table 1. 2012 Average Water Quality Data for MAY POND						
	Alk.	Chlor-a	Cond.	Total P	Trans.	Turb.	pH
	mg/l	ug/l	uS/cm	ug/l	m	ntu	
					NVS		
Butterfield Outlet			12.9	9		0.66	6.13
Deep Epilimnion	0.97	4.13	11.8	8	3.99	1.06	6.02
Deep Hypolimnion			13.2	11		1.40	6.06
Mill Pd Inlet			13.2	17		0.94	5.98
Outlet			21.3	9		0.75	6.25
Vickery Pd Inlet			33.7	27		1.90	6.27

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
Chlorophyll-a	N/A	Ten consecutive years of data necessary for trend analysis.
Transparency	N/A	Ten consecutive years of data necessary for trend analysis.
Phosphorus (epilimnion)	N/A	Ten consecutive years of data necessary for trend analysis.

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