Site Id: 810248

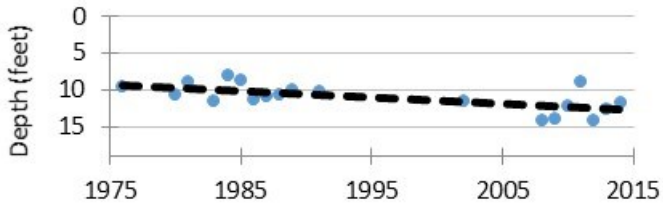
Portage Lake, Washtenaw County

2014 CLMP Results

Cooperative Lakes Monitoring Program

Secchi Disk Transparency (feet)

Year	# Readings	Min	Max	Average	Std. Dev	Carlson TSI
2014	16	10.0	14.0	11.8	1.3	42
2009-2013	76	6.5	21.5	12.4	2.9	41
1976-2008	203	5.0	21.0	10.5	3.0	43
2014 All CLMP Lakes	3050	2.0	50.0	13.1	2.1	41



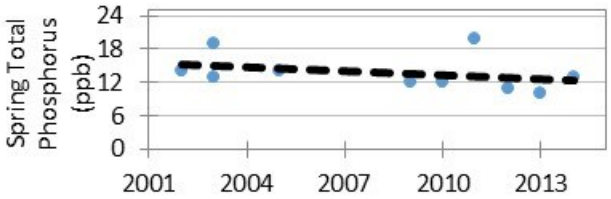
Chlorophyll-a (parts per billion)

This lake does not have Chlorophyll-a data available. Consider enrolling in this parameter next year.

Chlorophyll-a is the green photosynthetic pigment in the cells of plants. The amount of algae in a lake can be estimated by measuring the chlorophyll-a concentration in the water. As an algal productivity indicator, chlorophyll-a is often used to determine the trophic status of a lake.

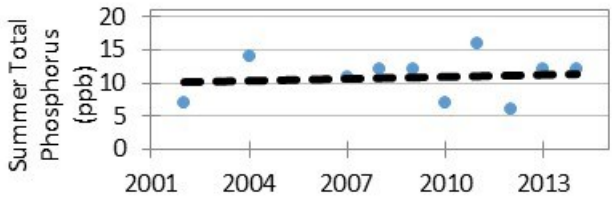
Spring Total Phosphorus (parts per billion)

Year	# Samples	Min	Max	Average	Std. Dev
2014	1	13	13	13.0	NA
2009-2013	5	10	20	13.0	4.0
2002-2008	4	13	19	15.0	2.7
2014 All CLMP Lakes	164	3 W	77	13.2	11.1



Summer Total Phosphorus (parts per billion)

Year	# Samples	Min	Max	Average	Std. Dev	Carlson TSI
2014	1	12	12	12.0	NA	40
2009-2013	5	6	16	10.6	4.1	37
2002-2008	4	7	14	11.0	2.9	38
2014 All CLMP Lakes	180	4 T	62	13.5	7.9	41



Dissolved Oxygen and Water Temperature Profile

This lake does not have dissolved oxygen/water temperature data available. Consider enrolling in this parameter next year.

Fish, insects, mollusks, and crustaceans need dissolved oxygen to live in water. By late summer, many lakes stratify, with cold anoxic water on the bottom and warm, oxygen rich water on the surface. Anoxic (oxygen-depleted) water occurring too close to the surface is a sign of nutrient enrichment. Understanding the pattern of dissolved oxygen and water temperature in a lake is important for assessing nutrient problems as well as the health of the biological community.

Summary

Average TSI	2014	2009-2013	1976-2008
Portage	41	39	41
All CLMP Lakes	40	NA	NA

With an average TSI score of 41 based on Secchi transparency and summer total phosphorus, this lake is rated as a mesotrophic lake.

Short term trends (last 10 years) indicate that phosphorus has not changed beyond minor year-to year variation. However, long term monitoring (last 40 years), indicates that the lake has gained about 5 feet in transparency since 1976.

*= No sample received W= Value is less than the detection limit (<3 ppb) T= Value reported is less than the reporting limit (5 ppb). Result is estimated.

<1 = Chlorophyll-a: Sample value is less than limit of quantification (<1 ppb).