



Cooperative Lakes

Monitoring Program

Michigan Lakes— Ours to Protect

2015 Data Report

for

North Lake, Washtenaw County

Site ID: 810276

42.39334°N, 84.00806°W

The CLMP is brought to you by:



Michigan Clean
Water Corps



Huron
River
Watershed
Council

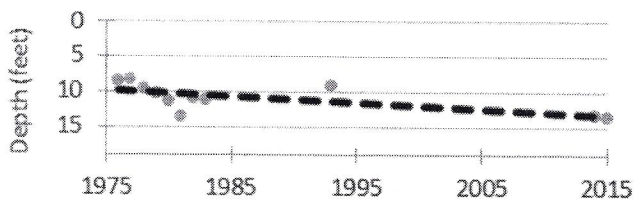
North Lake, Washtenaw County

2015 CLMP Results



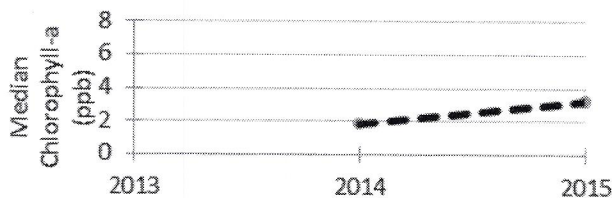
Secchi Disk Transparency (feet)

Year	# Readings	Min	Max	Average	Std. Dev	Carlson TSI
2015	19	10.0	17.0	13.5	1.8	< 40
2010-2014	16	8.0	22.0	13.4	3.9	40
1976-2009	131	5.0	16.0	10.3	1.7	44
2015 All CLMP Lakes	3018	1.5	42.0	12.6	6.1	42



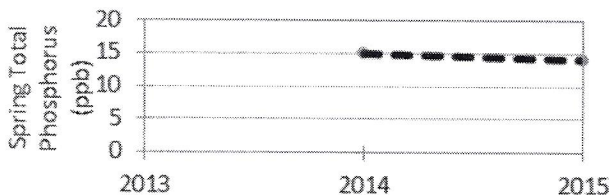
Chlorophyll-a (parts per billion)

Year	# Samples	Min	Max	Median	Std. Dev	Carlson TSI
2015	4*	2.6	8.9	3.2	3.0	42
2014	4	<1.0	3.7	1.9	1.7	37
2015 All CLMP Lakes	628	< 1.0	14.0	2.5	2.1	39



Spring Total Phosphorus (parts per billion)

Year	# Samples	Min	Max	Average	Std. Dev
2015	1	14	14	14.0	NA
2014	1	15	15	15.0	NA
2015 All CLMP Lakes	131	<= 3	70	11.5	13.7



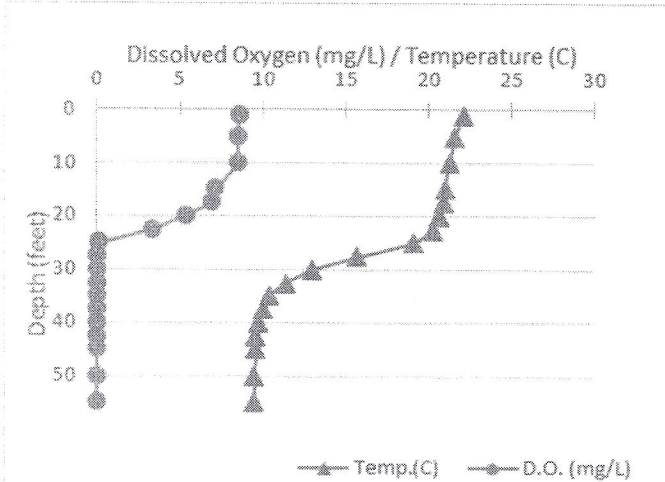
Summer Total Phosphorus (parts per billion)

Year	# Samples	Min	Max	Average	Std. Dev	Carlson TSI
2015	1*					
2015 All CLMP Lakes	173	<= 3	68	13.2	8.1	39

2015-09-28; Sample collected in non-standard sample bottles; rejected.

*No graph: Not enough data

Dissolved Oxygen and Water Temperature Profile: Sept 2015



Summary

Average TSI	2015	2010-2014	1976-2009
North Lake	41	38	37
All CLMP Lakes	40	NA	NA

With an average TSI score of 41 based on Secchi transparency, chlorophyll-a, and summer total phosphorus, this lake is rated as a mesotrophic lake. There is too little data to assess long term trends. CLMP recommends eight years of consistent monitoring in order to develop a strong data baseline.

Welcome to the CLMP! The longer you stay in the program, the more interesting this report will become.

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). < : Actual TSI is lower than given because at least one Secchi measurement was taken on the lake bottom.

About this report:

This report is a summary of the data that have been collected through the Cooperative Lakes Monitoring Program. The contents have been customized for your lake. The first page is a summary of the Trophic Status Indicators of your lake (Secchi Disk Transparency, Chlorophyll-a, Spring Total Phosphorus, and Summer Total Phosphorus). Where data are available, they have been summarized for the past field season, the past five years, and since the first year your lake has been enrolled in the program.

If you did not take 8 or more Secchi disk measurements or 4 or more chlorophyll measurements, there will not be summary data calculated for these parameters. These numbers of measurements are required to ensure that the results are indicative of overall summer conditions.

If you enrolled in Dissolved Oxygen/Temperature, the summary page will have a graph of one of the profiles taken during the late summer (typically August or September). A late summer graph is used because dissolved oxygen is often depleted in the late summer, and identifying this condition and the depth at which it occurs is typically the most important use of dissolved oxygen measurements.

The back of the summary page will be the results of the Exotic Plant Watch or Full Plant Mapping, if you participated in that parameter. If you enrolled in the Score the Shore Parameter, a summary will be found after the plant page.

The rest of the report will be larger graphs, including all Dissolved Oxygen/Temperature Profiles that you recorded. For Secchi Disk, Chlorophyll, and Phosphorus parameters, you need to have two years of data for a graph to make logical sense. Therefore if this is the first year you have enrolled in the CLMP, you will not receive a graph for these parameters.

Remember that some lakes see a lot of fluctuation in these parameters from year to year. Until you have eight years worth of data, consider all trends to be preliminary.

To learn more about the CLMP monitoring parameters or get definitions to unknown terms, check out the CLMP Manual, found at: <https://micorps.net/wp-content/uploads/CLMP-Manual.pdf>

Thank you!

The CLMP leadership team would like to thank you for all of your efforts over the past year. The CLMP would not exist without dedicated and hardworking volunteers!

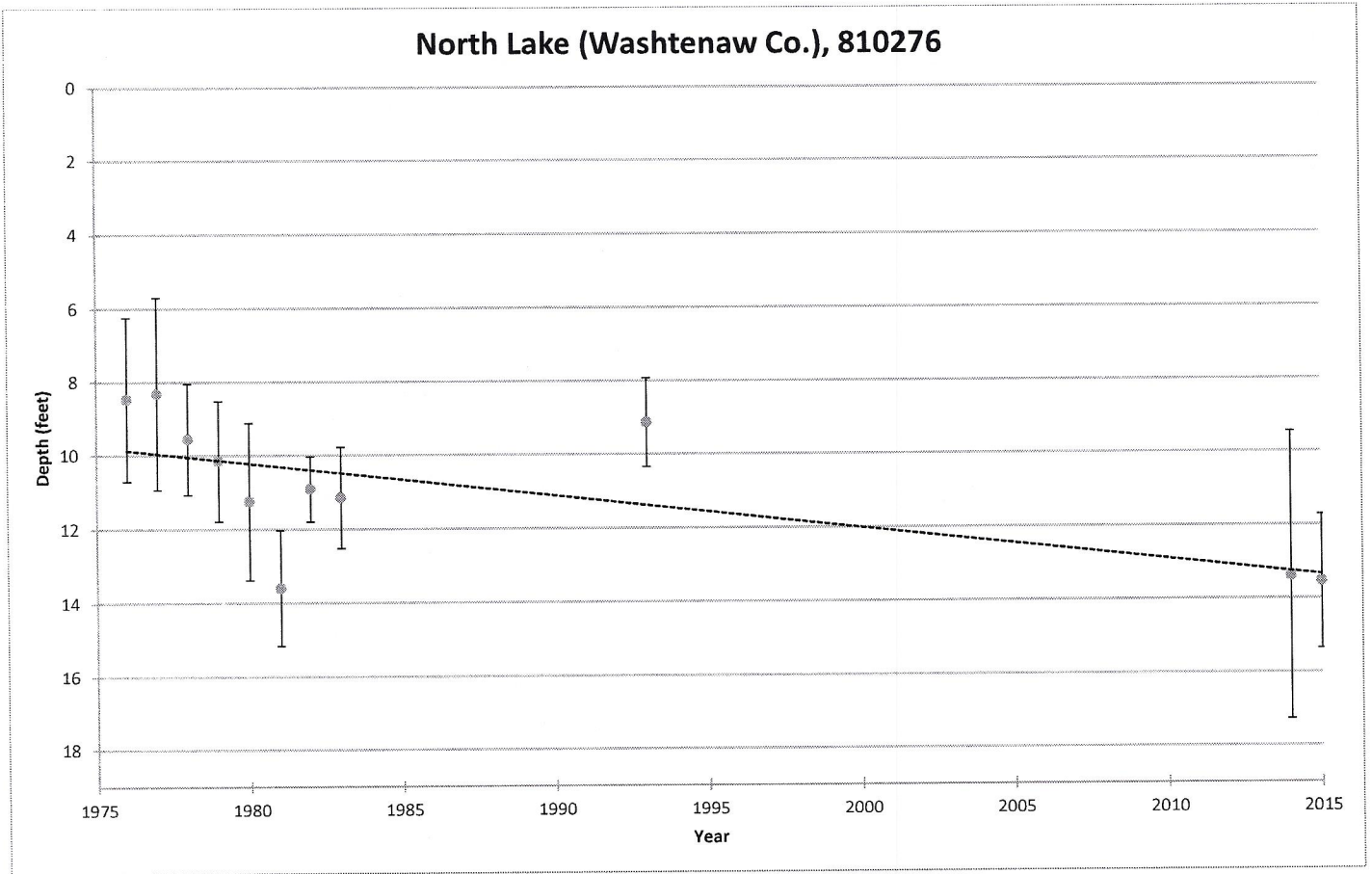
The CLMP Leadership Team is made of: Marcy Knoll Wilmes, Jean Roth, Jo Latimore, Paul Steen, Scott Brown, Laura Kaminski, and Katherine Hollins.

Questions?

If you have questions on this report or believe that the tabulated data for your lake in this report are in error please contact:

Paul Steen (psteen@hrwc.org), MiCorps Program Manager

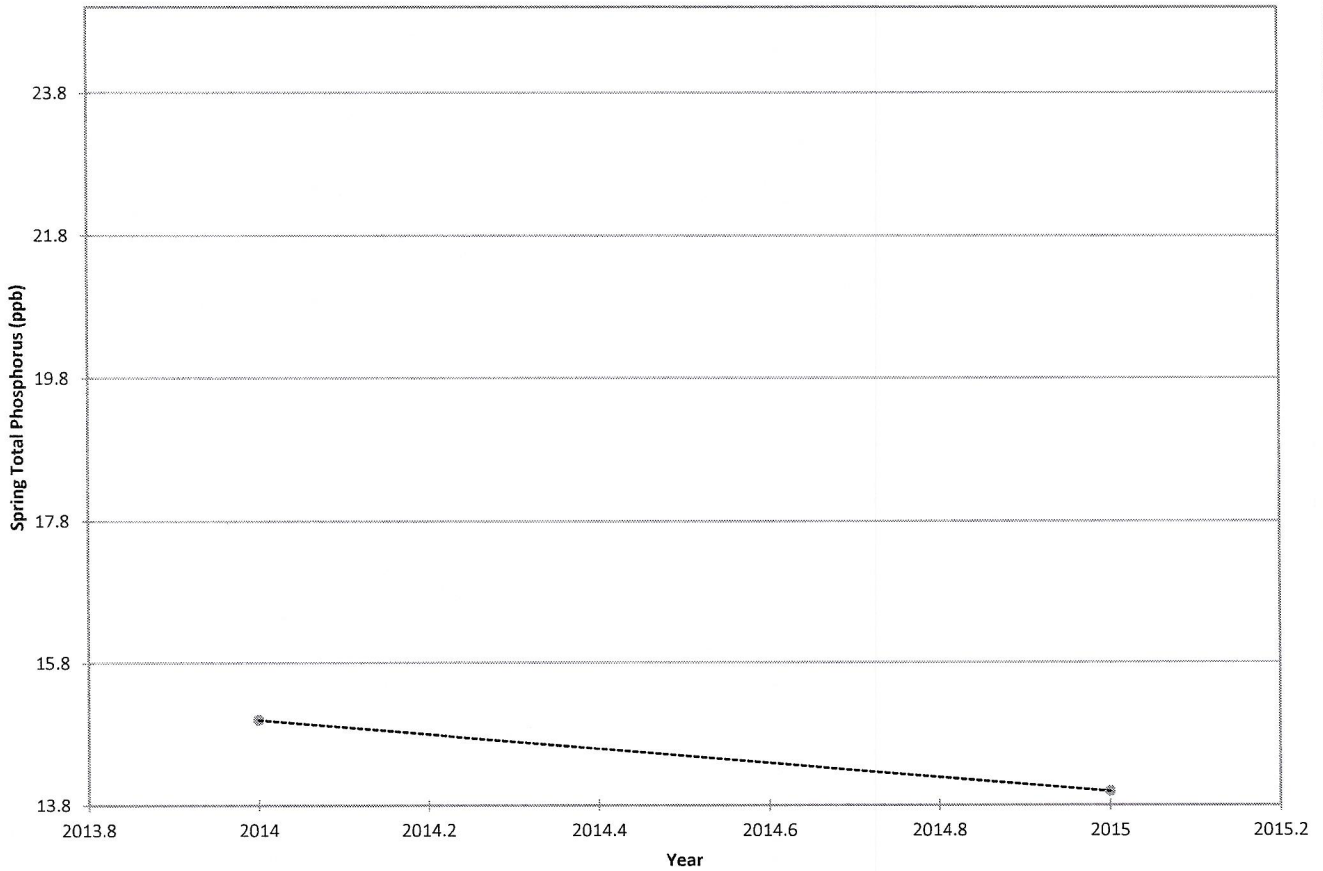
COOPERATIVE LAKES MONITORING PROGRAM
SUMMER MEAN TRANSPARENCY



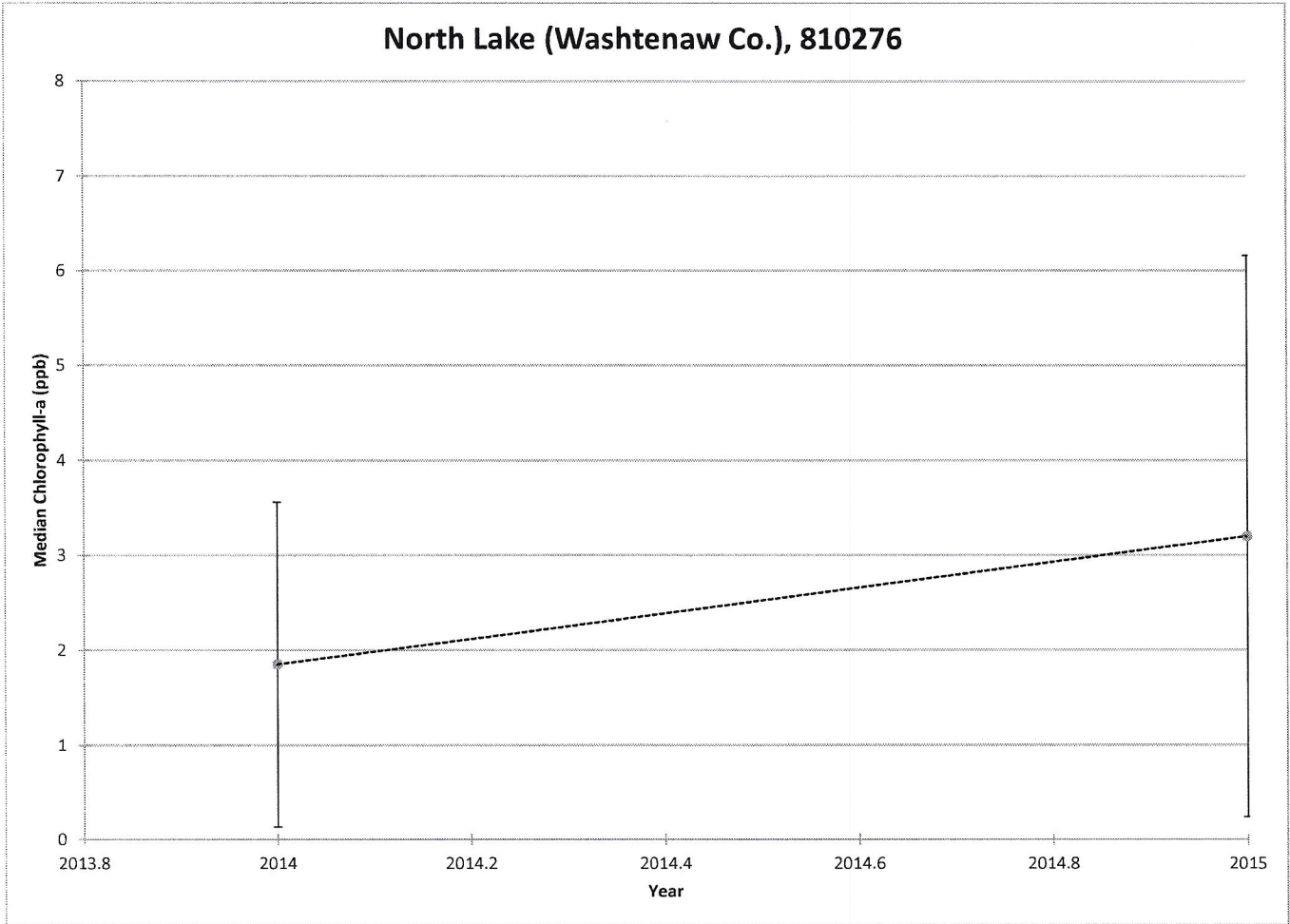
Vertical bars indicate standard deviation

COOPERATIVE LAKES MONITORING PROGRAM
SPRING TOTAL PHOSPHORUS

North Lake (Washtenaw Co.), 810276



COOPERATIVE LAKES MONITORING PROGRAM
SUMMER MEDIAN CHLOROPHYLL-A



Vertical bars indicate standard deviation

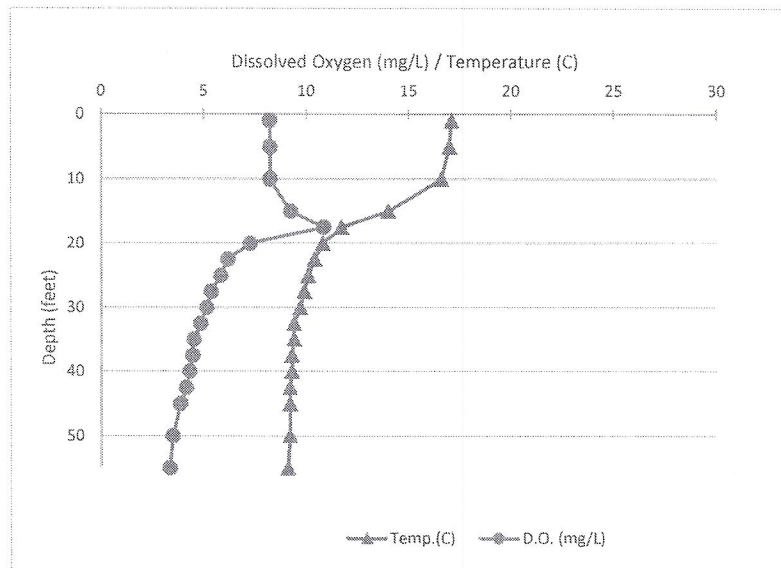
Name: North
 County: Washtenaw
 Site ID: 810276
 Date: 5/13/2015

Dissolved Oxygen and Temperature Profile

Depth (ft)	Temp.(C)	D.O. (mg/L)
1	17.1	8.23
5	17	8.24
10	16.6	8.24
15	14	9.25
17.5	11.7	10.85
20	10.8	7.26
22.5	10.4	6.18
25	10.1	5.82
27.5	9.9	5.36
30	9.7	5.14
32.5	9.4	4.85
35	9.4	4.51
37.5	9.3	4.46
40	9.3	4.32
42.5	9.2	4.15
45	9.2	3.87
50	9.2	3.5
55	9.1	3.35

Lake: North (Washtenaw Co.)

5/13/2015



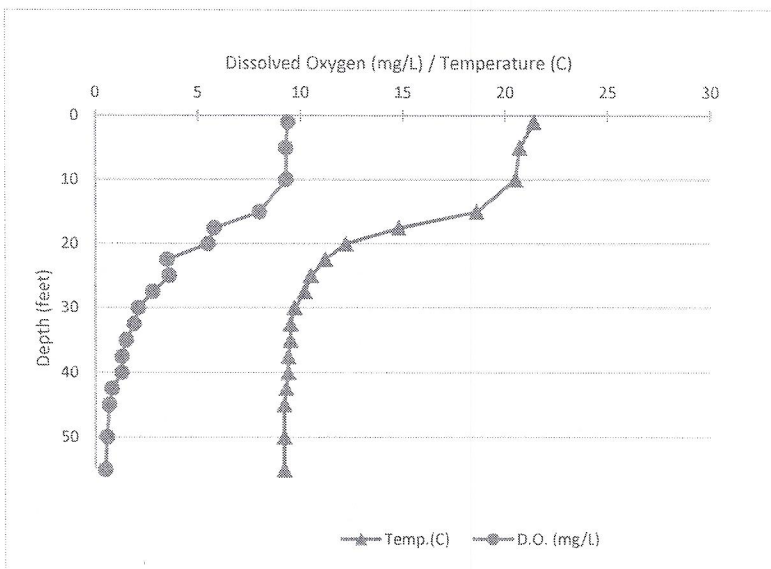
Name: North
 County: Washtenaw
 Site ID: 810276
 Date: 5/28/2015

Dissolved Oxygen and Temperature Profile

Depth (ft)	Temp.(C)	D.O. (mg/L)
1	21.4	9.4
5	20.7	9.3
10	20.5	9.3
15	18.6	8
17.5	14.8	5.8
20	12.2	5.5
22.5	11.2	3.5
25	10.5	3.6
27.5	10.2	2.8
30	9.7	2.1
32.5	9.5	1.9
35	9.5	1.5
37.5	9.4	1.3
40	9.4	1.3
42.5	9.3	0.8
45	9.2	0.67
50	9.2	0.57
55	9.2	0.49

Lake: North (Washtenaw Co.)

5/28/2015



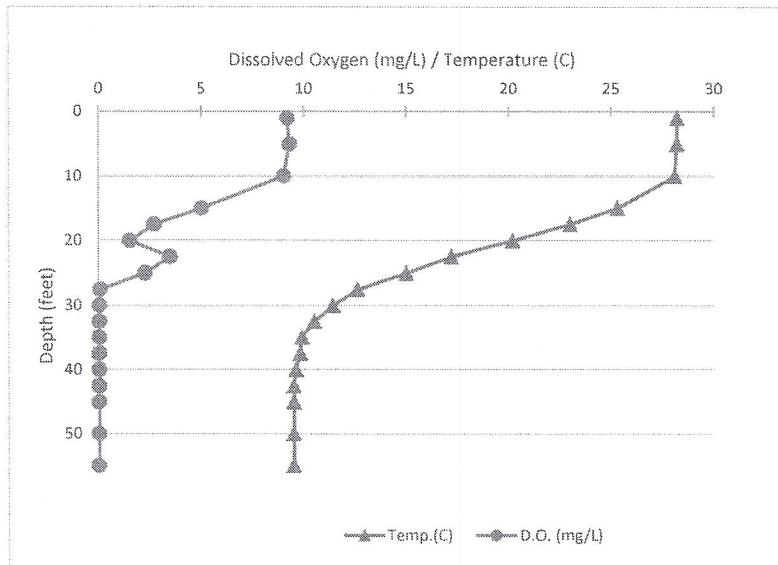
Name: North
 County: Washtenaw
 Site ID: 810276
 Date: 7/27/2015

Dissolved Oxygen and Temperature Profile

Depth (ft)	Temp.(C)	D.O. (mg/L)
1	28.2	9.2
5	28.2	9.3
10	28.1	9.03
15	25.3	5.01
17.5	23	2.71
20	20.2	1.51
22.5	17.2	3.47
25	15	2.27
27.5	12.6	0.07
30	11.4	0.04
32.5	10.5	0.03
35	9.9	0.03
37.5	9.8	0.01
40	9.6	0.02
42.5	9.5	0.01
45	9.5	0.01
50	9.5	0.01
55	9.5	0.01

Lake: North (Washtenaw Co.)

7/27/2015



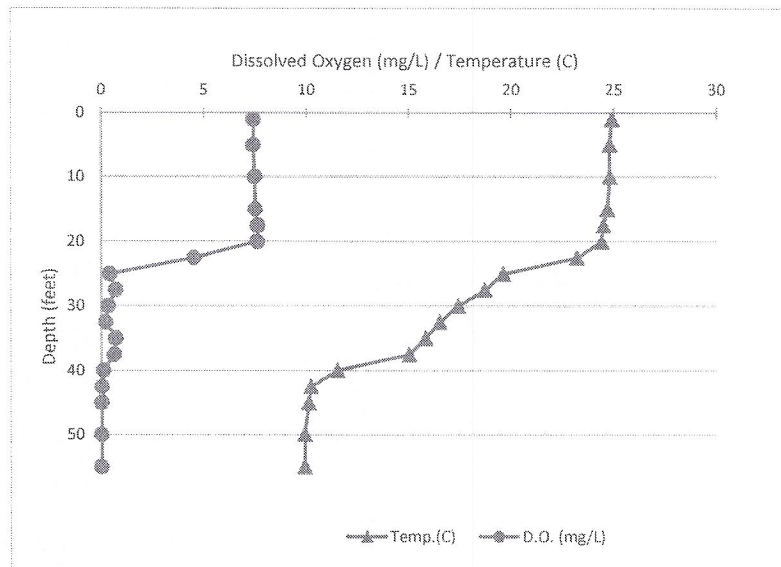
Name: North
 County: Washtenaw
 Site ID: 810276
 Date: 8/13/2015

Dissolved Oxygen and Temperature Profile

Depth (ft)	Temp.(C)	D.O. (mg/L)
1	24.9	7.4
5	24.8	7.4
10	24.8	7.47
15	24.7	7.5
17.5	24.5	7.62
20	24.4	7.6
22.5	23.2	4.5
25	19.6	0.4
27.5	18.7	0.7
30	17.4	0.33
32.5	16.5	0.21
35	15.8	0.7
37.5	15	0.61
40	11.5	0.1
42.5	10.2	0.02
45	10.1	0.01
50	9.9	0
55	9.9	0

Lake: North (Washtenaw Co.)

8/13/2015



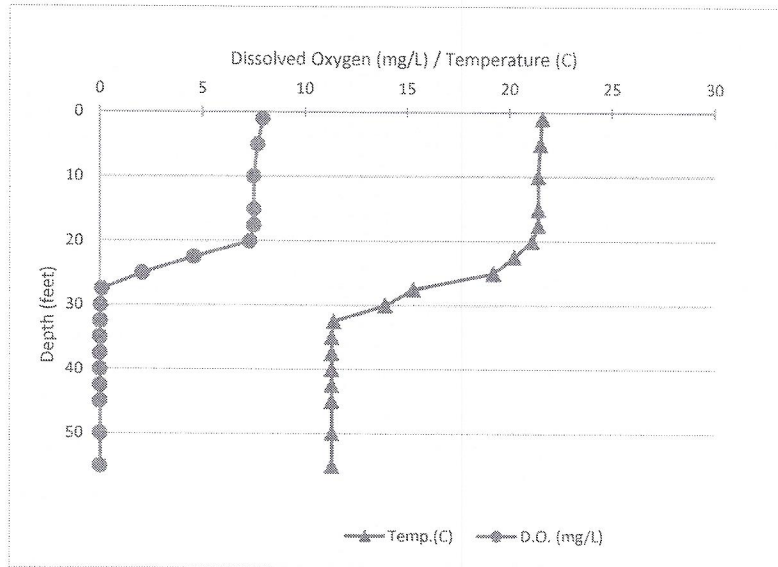
Name: North
 County: Washtenaw
 Site ID: 810276
 Date: 9/14/2015

Dissolved Oxygen and Temperature Profile

Depth (ft)	Temp.(C)	D.O. (mg/L)
1	21.6	7.96
5	21.5	7.7
10	21.4	7.5
15	21.4	7.5
17.5	21.4	7.5
20	21.1	7.3
22.5	20.2	4.57
25	19.2	2.06
27.5	15.3	0.09
30	13.9	0.03
32.5	11.4	0.02
35	11.3	0.01
37.5	11.3	0.01
40	11.3	0.01
42.5	11.3	0.01
45	11.3	0.01
50	11.3	0.01
55	11.3	0.01

Lake: North (Washtenaw Co.)

9/14/2015



Name: North
 County: Washtenaw
 Site ID: 810276
 Date: 9/28/2015

Dissolved Oxygen and Temperature Profile

Lake: North (Washtenaw Co.)

9/28/2015

Depth (ft)	Temp.(C)	D.O. (mg/L)
1	22.1	8.64
1	22.1	8.64
5	21.6	8.55
5	21.6	8.55
10	21.3	8.55
10	21.3	8.55
15	21	7.2
15	21	7.2
17.5	20.9	6.95
17.5	20.9	6.95
20	20.7	5.4
20	20.7	5.4
22.5	20.3	3.4
22.5	20.3	3.4
25	19.1	0.16
25	19.1	0.16
27.5	15.7	0.06
27.5	15.7	0.06
30	13	0.02
30	13	0.02
32.5	11.4	0.02
32.5	11.4	0.02
35	10.4	0.02
35	10.4	0.02
37.5	10	0.02
37.5	10	0.02
40	9.8	0.02
40	9.8	0.02
42.5	9.6	0.02
42.5	9.6	0.02
45	9.6	0.02
45	9.6	0.02
50	9.5	0.02
50	9.5	0.02

