



Mississippi Valley Conservation

*State of the Lake
Environment Report
December 2005*

Mosque Lake



MOSQUE LAKE

Mosque Lake is a cold water lake located in the amalgamated Township of North Frontenac. A public boat launch is located at the end of Mosque Lake Road, off of Hwy #509 (near the small town of Ompah). At last count in 1995 there were 43 cottages and 1 (3) resort on Mosque Lake.



Mosque Lake Facts

Elevation: 312 meters above sea level
Perimeter: 13.2 kilometers
Maximum depth: 34.1 meters
Fisheries include: Brook Trout
Lake Trout
White Sucker
Common Shiner

Individuals have volunteered their time to provide water quality testing through the Ministry of Environment (MOE) Self Help Program since 1976 and the Lake Partner Program since 1996. This data is extremely valuable, and provides a general picture of water quality conditions over the past 24 years. Comprehensive testing in 2001 and in 2005 through Mississippi Valley Conservation's (MVC) *Watershed Watch Program* provides for a comparison between water quality conditions as they exist now, to results obtained 29 years ago through the MOE Recreational Lakes Program.

In general the water quality in Mosque Lake is good. Three sampling stations are located in the deepest points of the west basin (16 meters), north basin (16 meters) and south basin (29 meters). All of the sampling stations were sampled three times in 2005. You will find graphs which show water clarity, as measured by Secchi Disk readings, observations were good. The mean for 2005 was 5.9 metres indicating that Mosque Lake is a unenriched (few nutrients) or Oligotrophic lake.

Directly related to water clarity is the amount of nutrients, in particular phosphorus, entering the lake. The Provincial Water Quality Objective for Total Phosphorus for Mosque Lake is 10 micrograms/litre (*ug/L*). The mean for euphotic zone (penetration of light) for 2005 was 10.9 *ug/L* indicating a moderately enriched (some nutrients) or mesotrophic lake. The mean for the sample taken one metre off the bottom was 25.2 *ug/L*, indicating an enriched (too many nutrients) or Eutrophic lake

Chlorophyll a is a measure of the algal density in the lake. The average chlorophyll a densities for 2005 was 3.2 micrograms/litre indicating a moderately enriched (some nutrients) algal density for Mosque Lake in 2005.

It is not all good news, plants and animals are a direct reflection of their environment. The most critical time of year for conducting dissolved oxygen and temperature profiles is after August 31. Profiles are generally conducted at this time of year and at the deepest points in the lake. Aquatic vegetation and algae that has grown over the summer, has died off and settled on the bottom, using the available oxygen necessary to sustain aquatic life in the lower portion of the lake or the hypolimnion.

The dissolved oxygen and temperature data, measured at the deepest point in the north, south and west basin, indicates oxygen concentrations in the deep water portion are poor by late summer. There is a concern for the cold water fishery in all three basins, the south basin because the usable habitat is reduced to lake depths of 10-17 meters. The west basin has usable habitat only at meter 7. The north basin is a special concern because profiles show there is no usable habitat by late September. Therefore, residents and users of Mosque Lake cannot afford to be complacent. Every effort should be made to reduce nutrient loading into the lake from land use activities.

Mosque Lake was also tested for invasive species in 2005, in particular, for zebra mussels and spiny water flea, in partnership with the Ontario Federation of Anglers and Hunters. Mosque Lake did test positive for zebra mussel veligers (larvae) however, no spiny water flea were present in the samples taken. Residents and property owners need to ensure that all access points to the lake have posted signs indicating the precautions they can take to avoid the spread of invasive species into Mosque Lake.

Residents and users of Mosque Lake should continue a stewardship approach to limit the amount of nutrients entering the lake. It is recommended that a Lake Association be formed and a Lake Steward be chosen to continue the water quality testing and to join the Mississippi Valley Lake Stewardship Network. Monitoring over time is essential to determine long term trends and changes. Information is readily available through the *Watershed Watch Program*. We all have a responsibility to preserve this precious natural resource for future generations



For more information on lakes in the
Mississippi Valley Watershed, visit MVC
online at
www.mvc.on.ca



How Does Mosque Lake Measure Up?

1976 – 2005 WATER QUALITY RESULTS – NORTH & SOUTH BASIN

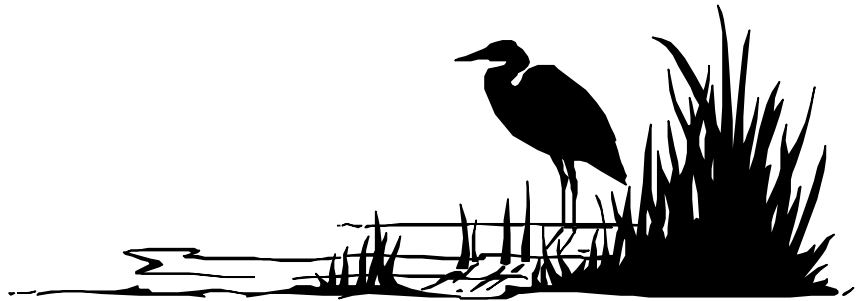
Sample Year Mean	Secchi Disk Depth (Metres)	Total Phosphorus Euphotic Zone (Micrograms/litre)	Total Phosphorus 1 Metre off Bottom (Micrograms/litre)	Chlorophyll <u>a</u> Composite (Micrograms/litre)
**1976	6.3	15.3	29.0	2.70
1977	5.2			2.50
1978	5.5			2.50
1979	5.6			2.10
**1980	6.0	*12.4	*6.0	2.40
1981	5.6			2.40
1982	5.0			2.10
1983	5.4			1.40
1984	5.2			2.70
1985	4.9			1.80
1986	4.6			2.10
1987	5.1			1.30
1988	4.7			1.10
1989	4.4			1.90
1990	5.3			1.70
1991	4.4			1.30
1992	4.9			1.20
1993	5.3			1.00
1994	4.6			1.00
1995	4.8			1.20
1996	4.3	5.8		
1997	4.9	6.0		
1998	4.4	6.0		
1999	5.1	4.0		
2000	5.2	14.5	*33.1	1.04
*2005	*6.5	*5.0	*9.0	*1.7
n	26	8	4	22
Minimum	4.3	4.0	6.0	1.00
Maximum	6.4	15.3	33.1	2.70
Mean	5.1	8.6	19.2	1.77
Standard Deviation	0.56	4.62	13.75	0.56

*Mean based on less than 6 measurements **Includes Recreational Lakes Program Data
Chlorophyll a data prior to 1985 has been adjusted to reflect new lab procedures
involving filtering, resulting in an increase in chl.a concentrations by 35%

1976 – 2005 WATER QUALITY RESULTS – WEST BASIN

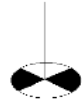
Sample Year Mean	Secchi Disk Depth (Metres)	Total Phosphorus Euphotic Zone (Micrograms/litre)	Total Phosphorus 1 Metre off Bottom (Micrograms/litre)	Chlorophyll <u>a</u> Composite (Micrograms/litre)
**1976	4.8	18.5	19.0	6.90
1977	3.9			4.30
1978	4.5			5.60
1979	4.6			4.80
**1980	5.1	*12.4	6.0	3.90
1981	4.5			2.50
1982	4.0			2.00
1983	4.2			2.10
1984	4.6			3.00
1985	3.7			3.10
1986	3.8			2.40
1987	4.3			1.30
1988	3.9			1.80
1989	3.7			2.50
1990	4.1			2.90
1991	3.6			2.00
1992	3.8			3.30
1993	4.0			2.10
1994	3.8			1.30
1995	4.0			2.50
2000	4.3	*15.2	*57.0	2.46
*2005	*5.0	*22.7	*57.7	*6.20
n	22	4	4	22
Minimum	3.6	12.4	6.0	1.30
Maximum	5.1	22.6	57.6	6.90
Mean	4.2	17.2	34.9	3.13
Standard Deviation	0.43	4.43	26.43	1.53

*Mean based on less than 6 measurements **Includes Recreational Lakes Program Data
 Chlorophyll a data prior to 1985 has been adjusted to reflect new lab procedures
 involving filtering, resulting in an increase in chl.a concentrations by 35%

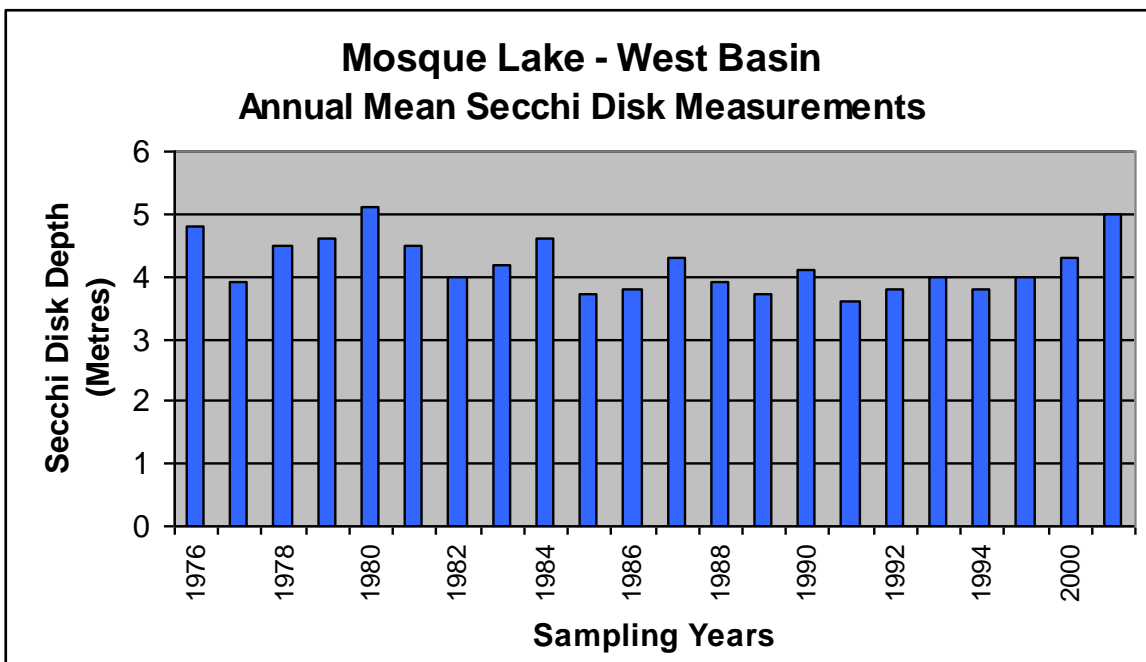
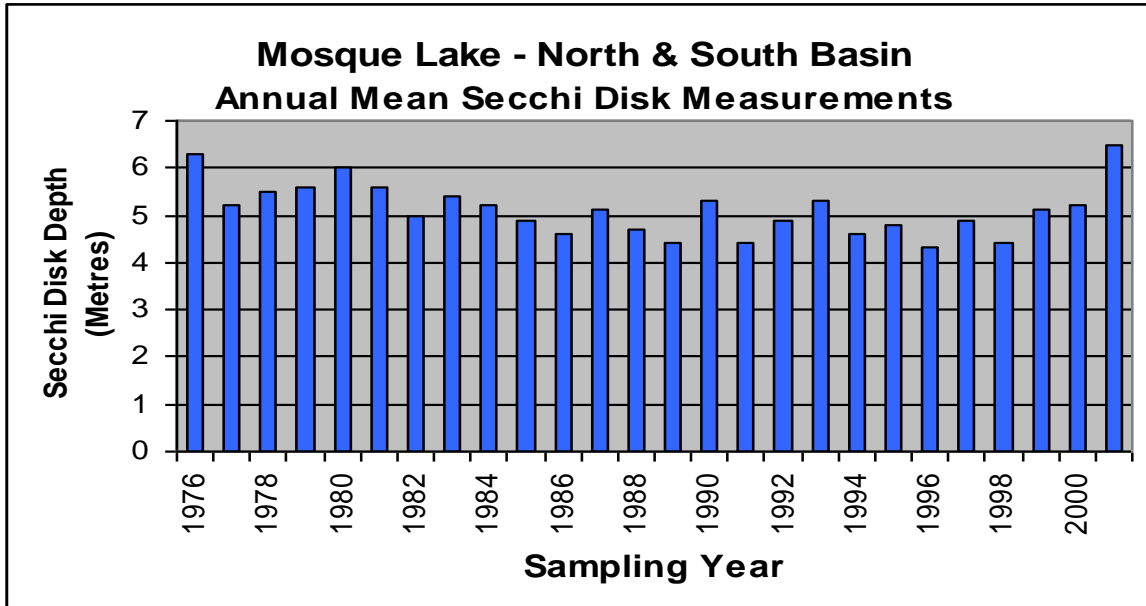




The higher the Secchi Disk measurement the clearer your lake is!



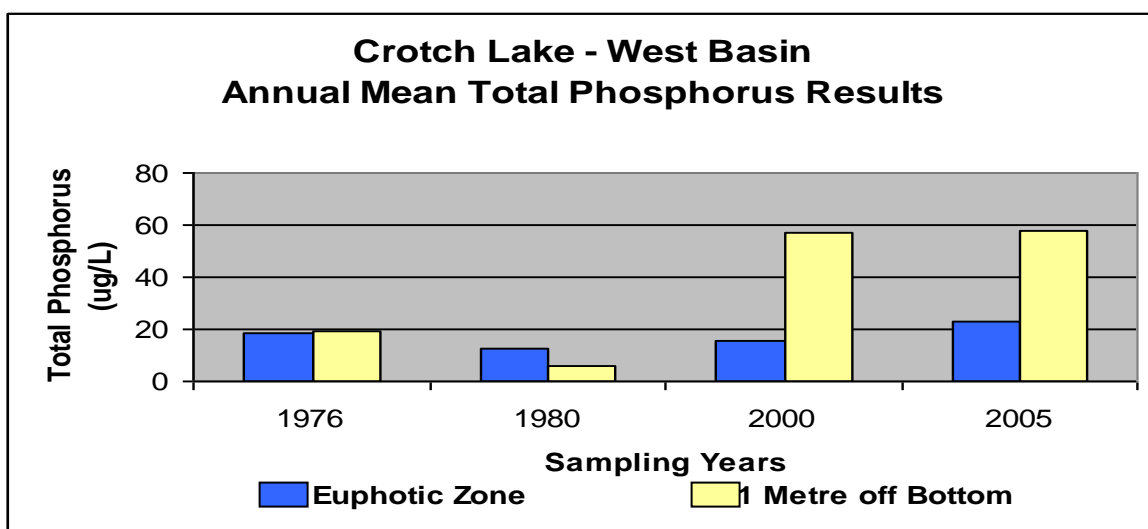
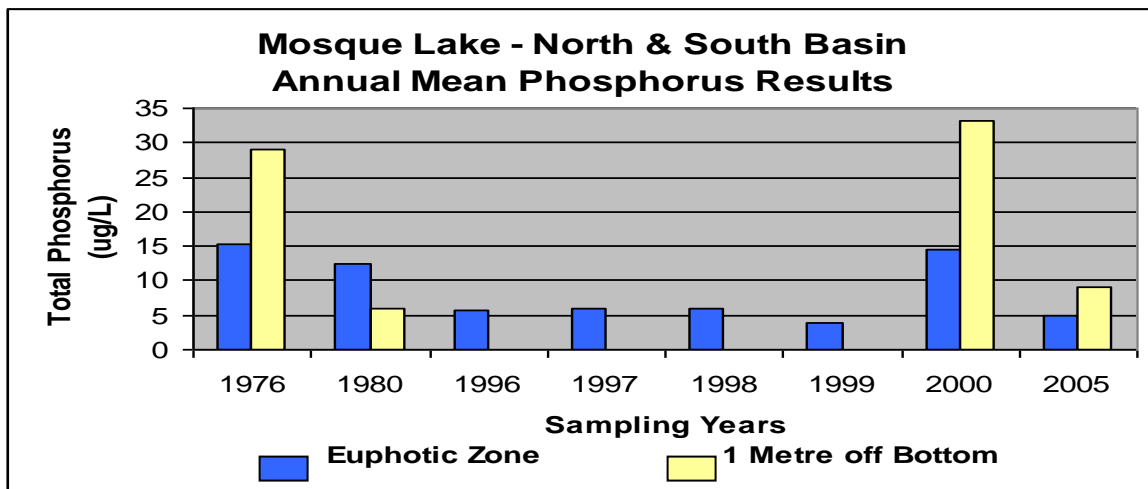
INTERPRETING YOUR SECCHI DISK RESULTS	
Secchi Reading	Lake Nutrient Status
Over 5 metres	Oligotrophic - unenriched, few nutrients
3.0 to 4.9 metres	Mesotrophic – moderately enriched, some nutrients
Less than 2.9 metres	Eutrophic – enriched, higher levels of nutrients



Interpreting Total Phosphorus Results:

Phosphorus is the nutrient that controls the growth of algae in most Ontario lakes. For this reason any increase in phosphorus in the lake will increase the quantity of algae that can grow. High levels of phosphorus can lead to algal blooms and in some cases affect the habitat of cold water fish such as lake trout. A general guideline exists to characterize your lake based on the total phosphorus that is measured.

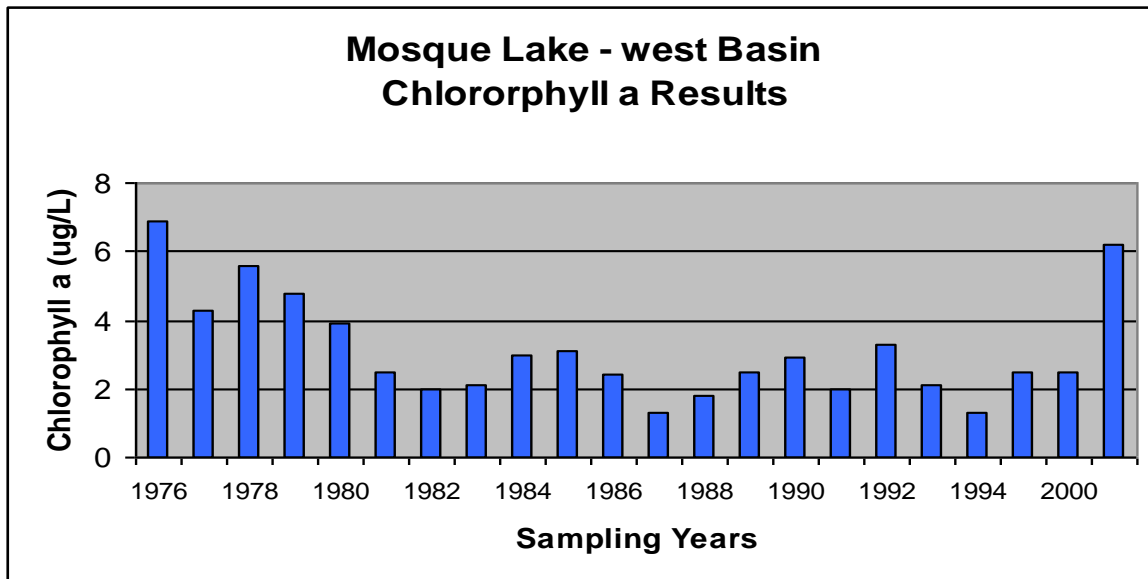
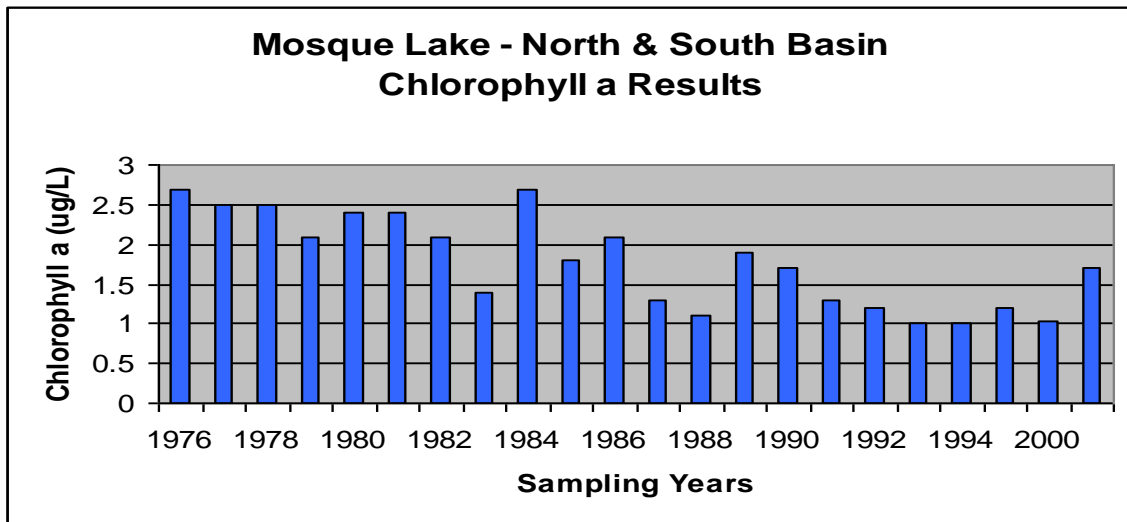
INTERPRETING YOUR TOTAL PHOSPHORUS RESULTS	
Total Phosphorus	Lake Nutrient Status
10 ug/L or less	Oligotrophic - unenriched, few nutrients
11 to 20 ug/L	Mesotrophic – moderately enriched, some nutrients
21 ug/L or more	Eutrophic – enriched, higher levels of nutrients



Evaluating your Chlorophyll a Results:

The lower the chlorophyll a density in your lake, the clearer your lake is. Chlorophyll a is directly affected by the amount of total phosphorus in your lake. The more phosphorus there is in the water, the more algal growth will occur.

INTERPRETING YOUR CHLOROPHYLL <u>A</u> RESULTS	
Chlorophyll <u>a</u> Reading	Lake Nutrient Status
Up to 2 ug/L - low algal density	Oligotrophic - unenriched, few nutrients
2-4 ug/L - moderate algal density	Mesotrophic - moderately enriched, some nutrients
More than 4 ug/L - high algal density	Eutrophic - enriched, higher levels of nutrients



MOSQUE LAKE – NORTH BASIN

DISSOLVED OXYGEN / TEMPERATURE PROFILE

MOE Rec. Lks. Station 18-3430-717-01

MVC # 05-06

Date: May 26, 2005

Euphotic Zone (Penetration of Light) = 14 Meters

Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	13.7	13.5	125	Epilimnion
1.0	13.7	13.5	125	
2.0	13.6	13.8	127	
3.0	13.3	13.7	126	
4.0	13.1	13.7	122	
5.0	12.2	14.0	125	
6.0	10.5	14.8	128	Metalimnion or Thermocline
7.0	8.6	16.1	133	
8.0	7.8	15.9	127	Hypolimnion
9.0	7.3	13.4	106	
10.0	7.0	13.2	104	
11.0	6.9	12.5	99	
12.0	6.5	11.4	90	
13.0	6.4	10.7	84	
14.0	6.0	10.5	81	
15.0	5.6	8.6	65	
16.0	5.4	8.3	64	
17.0	5.2	7.3	55	
18.0	5.1	6.8	52	
19.0	5.0	5.5	41	
20.0	Bottom	Bottom	Bottom	

MOSQUE LAKE – NORTH BASIN

DISSOLVED OXYGEN / TEMPERATURE PROFILE


MOE Rec. Lks. Station 18-3430-717-01

MVC # 05-06

Date: July 7, 2005

Euphotic Zone (Penetration of Light) = 15 Meters

Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	23.5	7.7	86	Epilimnion
1.0	23.6	7.5	85	
2.0	23.5	7.6	85	
3.0	23.5	7.6	85	
4.0	23.4	7.6	85	
5.0	18.2	8.0	80	Metalimnion or Thermocline
6.0	15.2	8.4	80	
7.0	12.3	8.9	79	
8.0	9.9	9.3	78	Hypolimnion
9.0	8.9	8.4	70	
10.0	8.2	8.1	66	
11.0	7.4	6.6	53	
12.0	6.4	6.0	47	
13.0	6.5	5.2	41	
14.0	6.2	5.0	39	
15.0	6.1	4.3	34	
16.0	5.8	3.7	29	
17.0	5.7	3.3	25	
18.0	Bottom	Bottom	Bottom	

 Optimal Habitat for Cold Water Fisheries (Trout) = DO > 6 mg/L at < 10°C.

 Vital Habitat for Cold Water Fisheries (Trout) = DO > 4 mg/L at < 15.5°C.

MOSQUE LAKE – NORTH BASIN

DISSOLVED OXYGEN / TEMPERATURE PROFILE

MOE Rec. Lks. Station 18-3430-717-01

MVC # 05-06

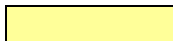
Date: September 30, 2005

Euphotic Zone (Penetration of Light) = 11 Meters

Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	16.9	9.2	87	Epilimnion
1.0	16.9	9.4	93	
2.0	16.9	9.5	94	
3.0	16.9	9.3	90	
4.0	16.9	9.4	92	
5.0	16.8	9.3	91	
6.0	16.7	9.3	91	
7.0	16.6	9.1	89	
8.0	15.7	9.3	90	Thermocline
9.0	11.3	3.8	29	
10.0	9.3	3.0	25	
11.0	8.0	1.2	9	Hypolimnion
12.0	7.2	1.3	10	
13.0	6.8	1.3	10	
14.0	6.5	1.0	8	
15.0	6.3	1.0	8	
16.0	6.1	0.5	4	
17.0	5.9	0.2	3	
18.0	5.7	0.2	3	
19.0	5.4	0.1	1	
20.0	Bottom	Bottom	Bottom	



Optimal Habitat for Cold Water Fisheries (Trout) = DO > 6 mg/L at < 10°C.



Vital Habitat for Cold Water Fisheries (Trout) = DO > 4 mg/L at < 15.5°C.

Note: Warm Water Fisheries Habitat (Bass, Walleye, Pike, Perch) = DO > 4 mg/L at < 25°C.



MOSQUE LAKE – SOUTH BASIN

DISSOLVED OXYGEN / TEMPERATURE PROFILE

MOE Rec. Lks. Station 18-3430-719-01

MVC # 05-09

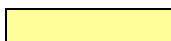
Date: May 26, 2005

Euphotic Zone (Penetration of Light) = 16 Meters

Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	14.0	13.1	121	Epilimnion
1.0	14.0	13.4	123	
2.0	13.9	13.5	124	
3.0	13.9	13.3	123	
4.0	13.9	13.5	124	
5.0	13.8	13.5	124	
6.0	13.3	13.6	125	
7.0	10.5	14.4	125	Metalimnion
8.0	8.2	14.8	120	or Thermocline
9.0	7.6	14.9	120	Hypolimnion
10.0	7.2	14.5	115	
11.0	6.9	13.3	104	
12.0	6.4	12.9	100	
13.0	6.0	11.9	92	
14.0	5.6	11.6	89	
15.0	5.4	10.9	83	
16.0	5.1	10.6	80	
17.0	4.9	9.5	72	
18.0	4.7	8.8	68	
19.0	4.6	7.6	58	
20.0	4.5	7.2	54	
21.0	4.5	6.5	49	
22.0	4.4	6.2	46	
23.0	4.4	5.8	43	
24.0	4.5	5.5	41	
25.0	4.3	5.0	37	
26.0	4.3	4.8	36	
27.0	Bottom	Bottom	Bottom	



Optimal Habitat for Cold Water Fisheries (Trout) = DO > 6 mg/L at < 10°C.



Vital Habitat for Cold Water Fisheries (Trout) = DO > 4 mg/L at < 15.5°C.

Note: Warm Water Fisheries Habitat (Bass, Walleye, Pike, Perch) = DO > 4 mg/L at < 25°C.



MOSQUE LAKE – SOUTH BASIN

DISSOLVED OXYGEN / TEMPERATURE PROFILE


MOE Rec. Lks. Station 18-3430-719-01

MVC # 05-09

Date: July 7, 2005

Euphotic Zone (Penetration of Light) = 11 Meters

Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	23.2	8.0	90	Epilimnion
1.0	23.2	8.0	90	
2.0	23.2	7.6	85	
3.0	23.2	7.9	89	
4.0	23.2	7.8	87	
5.0	20.7	8.9	95	Metalimnion or Thermocline
6.0	15.7	8.9	86	
7.0	12.8	9.0	81	
8.0	10.6	9.0	77	
9.0	9.5	8.9	75	
10.0	8.5	8.9	74	Hypolimnion
11.0	7.8	8.6	70	
12.0	6.8	8.3	61	
13.0	6.4	7.5	58	
14.0	6.0	7.3	56	
15.0	5.7	7.3	56	
16.0	5.3	6.8	52	Hypolimnion
17.0	5.1	5.8	44	
18.0	4.9	5.5	41	
19.0	4.8	4.7	36	
20.0	4.7	4.4	33	Hypolimnion
21.0	4.6	3.8	29	
22.0	4.5	3.6	27	
23.0	4.4	3.0	22	
24.0	4.4	2.8	21	
25.0	4.9	2.0	14	
26.0	4.3	1.7	12	
27.0	4.3	0.8	5	
28.0	4.3	0.5	3	
29.0	Bottom	Bottom	Bottom	

 Optimal Habitat for Cold Water Fisheries (Trout) = DO > 6 mg/L at < 10°C.

 Vital Habitat for Cold Water Fisheries (Trout) = DO > 4 mg/L at < 15.5°C.

Note: Warm Water Fisheries Habitat (Bass, Walleye, Pike, Perch) = DO > 4 mg/L at < 25°C.



MOSQUE LAKE – SOUTH BASIN

DISSOLVED OXYGEN / TEMPERATURE PROFILE


MOE Rec. Lks. Station 18-3430-719-01

MVC # 05-09

Date: September 30, 2005

Euphotic Zone (Penetration of Light) = 10 Meters

Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	16.7	9.1	90	Epilimnion
1.0	16.7	9.1	90	
2.0	16.7	9.2	90	
3.0	16.7	9.2	90	
4.0	16.7	9.2	90	
5.0	16.7	9.3	91	
6.0	16.7	9.2	90	
7.0	16.7	9.3	91	
8.0	15.7	6.2	60	
9.0	12.2	3.8	34	Metalimnion or Thermocline
10.0	9.6	4.0	34	
11.0	8.2	3.9	32	
12.0	7.2	4.1	33	
13.0	6.5	4.4	35	
14.0	6.1	4.6	36	
15.0	5.8	4.1	32	
16.0	5.3	4.1	32	
17.0	5.2	4.2	32	
18.0	4.9	3.2	24	Hypolimnion
19.0	4.8	2.7	20	
20.0	4.7	2.3	17	
21.0	4.6	1.6	12	
22.0	4.5	0.9	7	
23.0	4.5	0.3	3	
24.0	4.5	0.3	3	
25.0	4.5	0.2	2	
26.0	4.4	0.2	2	
27.0	4.4	0.1	2	
28.0	4.4	0.1	2	
29.0	Bottom	Bottom	Bottom	

 Optimal Habitat for Cold Water Fisheries (Trout) = DO > 6 mg/L at < 10°C.

 Vital Habitat for Cold Water Fisheries (Trout) = DO > 4 mg/L at < 15.5°C.

Note: Warm Water Fisheries Habitat (Bass, Walleye, Pike, Perch) = DO > 4 mg/L at < 25°C.




MOSQUE LAKE – WEST BASIN
 DISSOLVED OXYGEN / TEMPERATURE PROFILE
 MOE Rec. Lks. Station 18-3430-718-01 MVC # 05-07
 Date: May 26, 2005
 Euphotic Zone (Penetration of Light) = 12 Meters

Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	14.2	13.0	122	Epilimnion
1.0	14.2	13.5	127	
2.0	14.1	13.5	127	
3.0	14.0	13.6	126	
4.0	12.5	14.8	134	Metalimnion or Thermocline
5.0	9.7	17.9	?	
6.0	7.9	18.2	?	
7.0	7.0	13.4	105	Hypolimnion
8.0	6.2	12.8	99	
9.0	5.8	5.7	44	
10.0	5.4	2.2	16	
11.0	5.2	1.0	8	
12.0	4.4	0.3	3	
13.0	4.8	0.2	2	
14.0	4.7	0.1	1	
15.0	4.7	0.1	1	
16.0	Bottom	Bottom	Bottom	

MOSQUE LAKE – WEST BASIN
 DISSOLVED OXYGEN / TEMPERATURE PROFILE
 MOE Rec. Lks. Station 18-3430-718-01 MVC # 05-07
 Date: July 7, 2005
 Euphotic Zone (Penetration of Light) = 10 Meters


Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	23.4	7.7	86	Epilimnion
1.0	23.4	7.7	86	
2.0	23.3	7.4	83	
3.0	23.2	7.7	85	
4.0	20.6	8.5	90	Metalimnion or Thermocline
5.0	16.0	9.3	90	
6.0	12.2	9.9	88	
7.0	9.4	8.4	71	
8.0	7.8	5.4	44	
9.0	6.4	1.8	13	Hypolimnion
10.0	5.9	0.6	4	
11.0	5.3	0.5	4	
12.0	5.2	0.4	3	
13.0	5.0	0.4	3	
14.0	4.9	0.4	3	
15.0	Bottom	Bottom	Bottom	

 Optimal Habitat for Cold Water Fisheries (Trout) = DO > 6 mg/L at < 10°C.

 Vital Habitat for Cold Water Fisheries (Trout) = DO > 4 mg/L at < 15.5°C.

MOSQUE LAKE – WEST BASIN
 DISSOLVED OXYGEN / TEMPERATURE PROFILE
 MOE Rec. Lks. Station 18-3430-718-01 MVC # 05-07
 Date: September 30, 2005
 Euphotic Zone (Penetration of Light) = 10 Meters

Depth (Metres)	Temperature (Degrees Celsius)	Dissolved Oxygen (Milligram/Litre)	Percent % Saturation	Thermal Stratification
0.1	16.7	9.2	90	Epilimnion
1.0	16.7	9.4	93	
2.0	16.7	9.4	93	
3.0	16.7	9.5	94	
4.0	16.6	9.4	93	
5.0	16.5	9.2	90	
6.0	16.5	9.4	92	
7.0	13.5	4.2	39	Metalimnion
8.0	9.4	0.5	4	or Thermocline
9.0	7.0	0.4	3	
10.0	6.4	0.2	2	Hypolimnion
11.0	5.7	0.2	2	
12.0	5.4	0.1	1	
13.0	5.2	0.1	1	
14.0	5.1	0.1	1	
15.0	5.0	0.1	1	
16.0	5.0	0.1	1	
17.0	Bottom	Bottom	Bottom	

 Optimal Habitat for Cold Water Fisheries (Trout) = DO > 6 mg/L at < 10°C.

 Vital Habitat for Cold Water Fisheries (Trout) = DO > 4 mg/L at < 15.5°C.

Note: Warm Water Fisheries Habitat (Bass, Walleye, Pike, Perch) = DO > 4 mg/L at < 25°C.

How to protect or restore a shoreline depends on the conditions of the site and the energy and resources of the owner.

There are four main strategies to choose from:

1.) **PRESERVATION** – When purchasing a lakefront property, a natural shoreline is retained and access to the lake is designed to avoid shoreline damage.

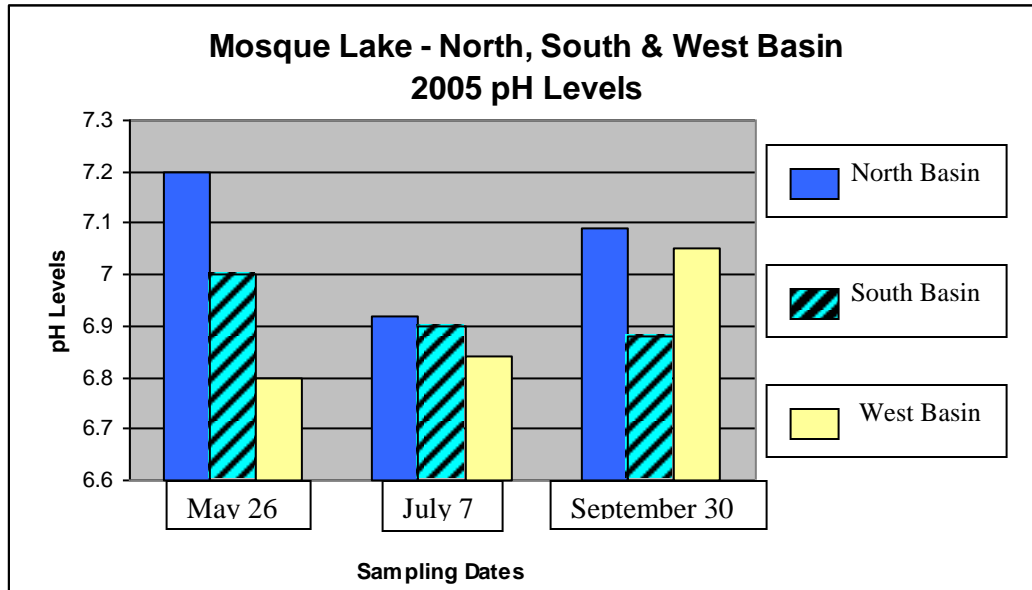
3.) **ENHANCEMENT** – Native species are planted non-native species are removed



2.) **NATURALIZATION** – Degraded shorelines are left alone to return to their natural state.

4.) **RESTORATION** – Cleared areas are planted with native species.

Evaluating your pH Results: Lakes with pH levels at 7.3 or higher are vulnerable to zebra mussel invasives.



FIVE EASY STEPS TO IMPROVE WATER QUALITY

1. Build at least 30 metres away from the shoreline.
2. Keep your lot well treed and preserve or replant native vegetation along the shoreline.
3. Pump out your septic tank every three to five years.
4. Reduce water use and use phosphate free soaps and detergents.
5. Keep the size of your lawn to a minimum; do not use fertilizers, herbicides or pesticides.

LOW PHOSPHORUS LIFESTYLE	Amount of Phosphorus (grams)	HIGH PHOSPHORUS LIFESTYLE	Amount of Phosphorus (grams)
Human waste	535	Human waste	535
No dishwasher	0	Dishwasher using powdered detergent once per day	650
No fertilizer	0	Lawn fertilized once/year	1960
Trees not cut down	20	Lot cleared of trees	30
Uses phosphate-free products	20	Uses products with phosphate	180
TOTAL	575 grams	TOTAL	3355 grams

Environmental Monitoring for you and your family.

There are numerous programs for you and your family to participate in, all of which are great ways to learn while monitoring your environment. The programs listed below are easy to use and created for those who are concerned for the environment.

* The **Great Ontario Dip-In**. This program helps determine your lakes water clarity while contributing to the documentation of your province's water quality. For more information contact the Federation of Ontario Cottagers' Association Inc. at www.foca.on.ca or the Ministry of the Environment at www.ene.gov.on.ca

* Borrow a **Zebra Mussel Kit** from MVC or the Ontario Federation of Anglers and Hunters (OFAH). This will give you the opportunity to help stop the spread of invasive species such as zebra mussels and spiny water flea in Ontario waters. For more information contact MVC or OFAH at www.ofah.org

* Become a **Citizen Scientist**. Environment Canada's Environmental Monitoring and Assessment Network (EMAN) are working with the Canadian Nature Federation (CNF) to create nature watch programs. These programs give people the opportunity to learn about the environment while helping gather information needed to protect it. There is a wide variety of watch programs to choose from such as frog watch, plant watch, ice watch and worm watch, this is a great program for kids. To become a citizen scientist check out the nature watch website at www.naturewatch.ca



Mississippi Valley Conservation

The Watershed Watch program was made possible thanks to the generous support of the Ministry of Environment, Lake Associations, area Stewardship Councils, the Lake Stewardship Network and concerned citizens.

For more information regarding Watershed Watch or for advice on how you can help protect and enhance your lake environment, contact Susan Lee, Water Quality Technician at Mississippi Valley Conservation. (613) 259-2421 or slee@mvc.on.ca

