Mississippi Valley Conservation

State of the Lake Environment Report December 2003

Mazinaw Lake

Watershed Watch

Mazinaw Lake

Mazinaw Lake is situated in portions of North Frontenac and Addington Highlands townships. It is the headwaters for the Mississippi River which flows to the Ottawa River. Part of the lake is within the boundary of Bon Echo Provincial Park. Mazinaw Lake is at an elevation of 268 metres above sea level. The lake perimeter is approximately 49 kilometres and the deepest point is 144.8 metres. Mazinaw Lake supports a cold water fishery, in particular lake trout. Other species include Walleye, Smallmouth and Largemouth Bass. Currently, accurate shoreline development information is not available. However at last count in the early 1970's, there were approximately 254 cottages on the lake.

Members of the Lake Association have volunteered their time to provide consistent water quality testing through the Ministry of Environment Self Help Program since 1975. This data is extremely valuable because it provides a general picture of water quality conditions over the past twenty-eight years. Comprehensive testing in 1998 and 2003 through Mississippi Valley Conservation's (MVC) *Watershed Watch Program*, provides for a comparison between water quality conditions as they exist now, to results obtained in 1971, (32 years ago), through the Ministry of Environment Recreational Lakes Program.

In general, the water quality in Mazinaw Lake remains excellent**.** There are two sampling stations on the lake. The south basin station is near Snyder Bay and the second station is in Campbell Bay. Each station was sampled six times for 2003, thanks to a grant from Canadian Waste Services. You will find graphs which follow, that water clarity, as measured by Secchi Disk readings, were observed as very good. The average for the two stations for 2003 is 6.78 metres, compared to 5 years ago, when the average was 5.2 metres. Thus indicating that Mazinaw Lake is an unenriched (few nutrients) or oligotrophic lake.

Directly related to water clarity is the amount of nutrients, in particular phosphorus, entering the lake. The Provincial Objective for phosphorus levels in cold water lakes is 10 micrograms per litre (ug/L). In 2003, the mean for the two stations in the euphotic zone (depth at which sunlight can penetrate or two times the secchi disk depth) was 4.09 *ug*/L. The mean for the samples taken one metre off the bottom was also 4.09 *ug/*L. Five years ago, the average phosphorus level was 7.7 *ug/*L in the euphotic zone and 10.6 *ug/*L one metre off the bottom of the lake, over the Provincial Objective. Mazinaw Lake decreased its average phosphorus levels by more than half, remaining an Oligotrophic lake and putting it well below the Provincial Objective.

Chlorophyll a is a measure of the algal density in the lake. The average chlorophyll a density for the two sampling stations was 1.36 *ug/*L. Thus, indicating a low algal density for Mazinaw Lake in 2003. In 1998, chlorophyll a levels were approximately in the same range, conditions essential to sustain lake trout habitat.

Lake trout require more pristine environmental conditions than most native fish species. Therefore, lake trout can act as an environmental barometer. The dissolved oxygen and temperature profiles conducted in 2003 at the two stations indicate sufficient optimal habitat is present to support lake trout in Mazinaw Lake. Results obtained in 2003 confirm results outlined in the *1993 Inland Lake Trout Management Report* which classified the lake as moderately sensitive to loss of the remaining optimal lake trout habitat as a result of additional nutrient loadings. Mazinaw Lake was given a sensitivity index to predicted percentage change in optimal habitat of 1, the least sensitive of all lake trout lakes in the south-eastern

region. This low sensitivity is due to the lake's very large size and other physical features. At the most critical time of year, in late summer, there remains a 22 metre layer of water from 10 to 32 metres in the south basin having optimal conditions for the lake trout to survive.

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 point 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. Three other profiles were conducted in 2003, one in June, July and one in August, in order to generate a more concise picture of the oxygen content of the lake.

The dissolved oxygen (DO) and temperature data, measured at the two sampling stations, indicate adequate levels all the way to the bottom for most of the ice-out season. However, data collected in September, revealed that the temperature readings in both South Basin and Campbell Bay were fairly warm, pushing cold water fish such as trout, down to below the 9 metre mark. Warm water fish species, such as pike and bass, received adequate DO levels throughout the season. Overall, there is a noticeable improvement in DO levels from 1998.

Despite excellent water quality conditions in the lake, residents and users of Mazinaw Lake cannot afford to be complacent. Every effort should be made to reduce nutrient loading into the lake from land use activities. Human sources of phosphorus include leachate from sewage disposal systems, erosion from the clearing of shorelines and the use of lawn fertilizers. Because lake trout are very sensitive to changes in their environment, we all have a responsibility to preserve this most precious resource for future generations, so they may catch lake trout in Mazinaw Lake. There are helpful tips throughout this report to help reduce your impact on Mazinaw Lake. Additional water quality data, current and historic, is available for Mazinaw Lake and many other lakes in the Mississippi Valley watershed. Contact MVC for more information on how you can become a good lake steward for your lake.

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**

How Does Mazinaw Lake Measure Up?

1971 – 2003 Water Quality Results

Sample Year [Various Stations]	Secchi Disk Depth [Metres]	Total Phosphorus Euphotic Zone [Micrograms/Litre]	Total Phosphorus 1 Metre off Bottom [Micrograms/Litre]	Chlorophyll a Composite [Micrograms/Litre]
*1971	5.6	9.0		0.8
1972				
1973				
1974				
1975	5.6			1.5
1976	5.6			1.8
1977	5.7			1.8
1978	5.6			1.5
1979	5.2			2.1
1980	4.9			2.1
1981	4.7			1.8
1982	3.5			1.8
**1983	3.6			1.5
1984	4.0			2.2
1985	3.6			1.7
1986	3.7			1.7
1987	3.6			1.3
1988	4.1			0.9
1989	3.8			1.7
1990	4.9			1.7
1991	4.5			1.1
1992	4.8			1.1
1993	4.3			1.0
1994				
1995				
1996				
1997				
1998	5.2	7.7	10.95	1.3
1999	5.8			
2000	4.35			
2001	6.15			
2002	4.15			
2003	6.8	4.09	4.09	1.36
n	26	3	2	22
Minimum	3.5	4.09	4.09	0.80
Maximum	6.8	9.0	10.95	2.2
Mean	4.8	6.9	7.5	1.5
Standard Deviation	0.91247129	2.543953616	4.850752519	0.391781368

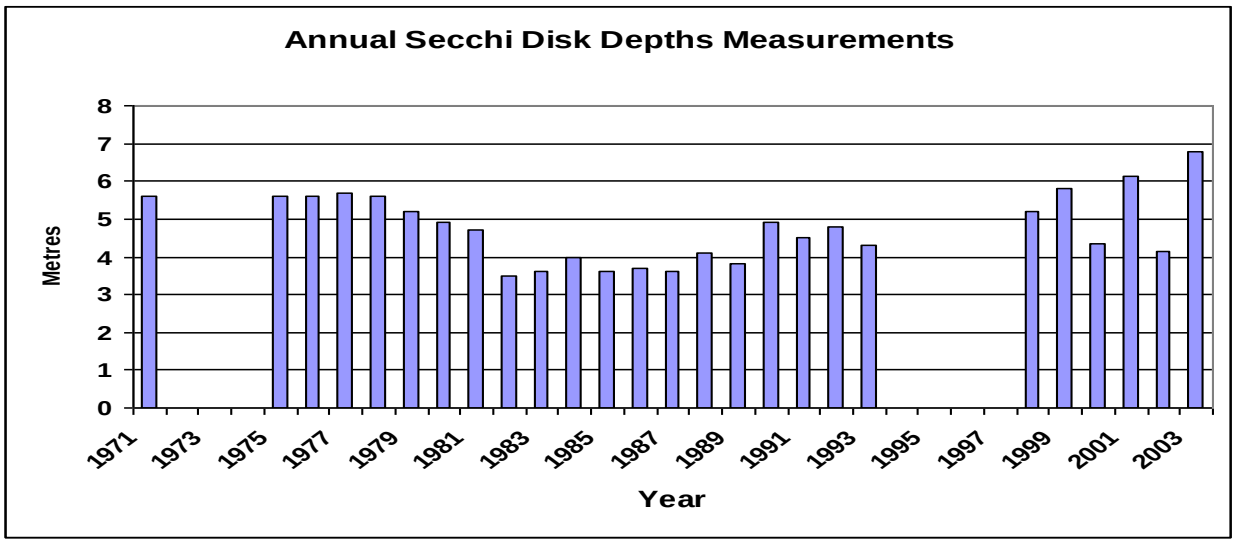
*Mean based on less than 6 measurements **Includes Recreational Lakes Program Data
Chlorophyll-a data prior to 1985 has been adjusted to reflect new lab procedures
in filtering resulting in an increase in chla concentrations by 35%

Interpreting Secchi Disc Readings:

A Secchi disk is a black and white coloured disk used to determine water clarity. The disk is lowered into the water. The point, at which you can no longer distinguish the black and white, is called the Secchi depth.

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

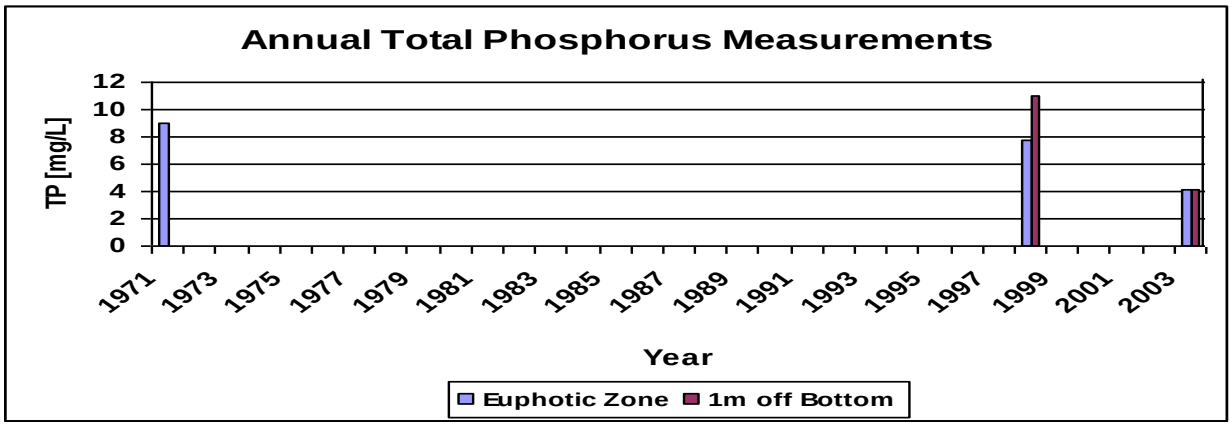
INTERPRETING YOUR SECCHI DISC RESULTS	
Secchi Reading	**Lake Nutrient Status**
Over 5 metres	Oligotrophic - unenriched, few nutrients
3.0 to 4.9 metres	Mesotrophic – moderately enriched, some nutrients
Less than 2.9 metres	Eutrophic – enriched, higher levels of nutrients



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.

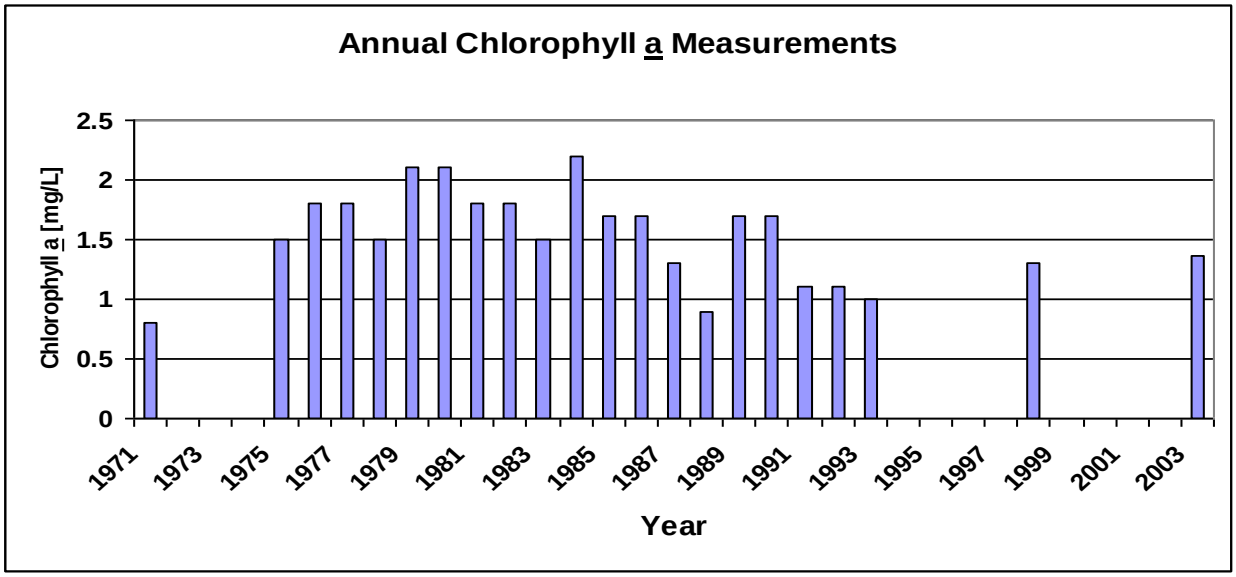
INTERPRETING YOUR TOTAL PHOSPHORUS RESULTS	
Total Phosphorus	**Lake Nutrient Status**
10ug/L or less	Oligotrophic - unenriched, few nutrients
11 to 20ug/L	Mesotrophic – moderately enriched, some nutrients
21ug/L or more	Eutrophic – enriched, higher levels of nutrients



Evaluating your Chlorophyll a Results:

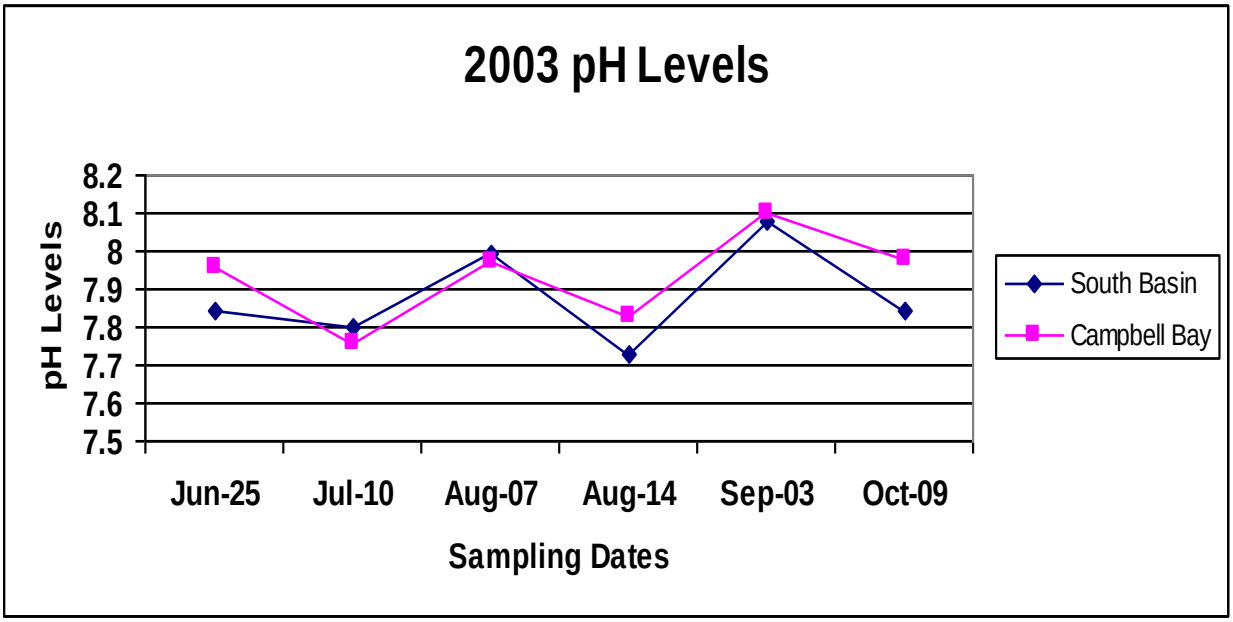
The lower the chlorophyll a density in your lake, the clearer your lake is. Chlorophyll a is directly affected by the amount of total phosphorus in your lake. The more phosphorus there is in the water, the more algal growth will occur.

INTERPRETING YOUR CHLOROPHYLL A RESULTS	
Secchi 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



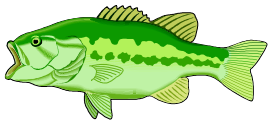
Evaluating your pH Results:

Lakes with pH levels at 7.3 or higher are vulnerable to zebra mussels invasive.


2003 pH Levels
pH Levels
8.2
8.1
8
7.9
7.8
7.7
7.6
7.5
Jun-25
Jul-10
Aug-07
Aug-14
Sep-03
Oct-09
Sampling Dates
South Basin
Campbell Bay

MAZINAW LAKE – South Basin

DISSOLVED OXYGEN/TEMPERATURE PROFILES
MOE Rec. Lks. Station # 19-3430-737-01, MVC Station # 03-02



Date: July 10, 2003
Depth: 53 Metres
Euphotic Zone (Penetration of Light) = 12.8 Metres

Depth [Metres]	Temperature [Degrees Celsius]	Dissolved Oxygen [Milligrams/Litre]	Percent % Saturation	Thermal Stratification
0.1	23.6	9.0	102	
1.0	23.6	8.7	98	
2.0	23.5	8.7	98	
3.0	23.4	8.7	98	Epilimnion
4.0	23.4	8.7	98	
5.0	20.9	10.1	108	
6.0	19.6	10.7	113	
7.0	14.5	11.4	108	Metalimnion
8.0	12.1	11.8	105	or Thermocline
9.0	10.1	12.1	103	
10.0	9.8	12.0	102	
11.0	9.0	11.9	99	
12.0	8.4	12.0	98	
13.0	8.0	11.9	96	
14.0	7.8	12.0	96	
15.0	7.5	11.9	95	
16.0	7.2	11.9	94	
17.0	6.9	12.1	93	
18.0	6.7	12.0	93	Hypolimnion
19.0	6.5	12.0	94	
20.0	6.3	12.0	94	
22.0	6.1	12.2	92	
24.0	5.8	12.0	92	
26.0	5.6	12.3	94	
28.0	5.6	12.3	94	
30.0	5.4	12.1	93	
32.0	5.3	12.2	93	
34.0	5.2	12.3	93	
36.0	5.2	12.2	93	
38.0	5.2	12.2	93	
40.0	5.2	12.1	92	
42.0	5.1	12.1	91	
44.0	5.1	12.1	91	
45.0	5.0	12.0	90	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.

MAZINAW LAKE – South Basin Continued…

Date: August 14, 2003
Depth: 53 Metres
Euphotic Zone (Penetration of Light) = 13.25 Metres

Depth [Metres]	Temperature [Degrees Celsius]	Dissolved Oxygen [Milligrams/Litre]	Percent % Saturation	Thermal Stratification
0.1	24.6	8.5	97	
1.0	24.3	8.8	100	
2.0	24.2	8.8	100	
3.0	24.1	8.8	98	Epilimnion
4.0	24.0	8.8	98	
5.0	23.1	8.9	99	
6.0	20.7	9.0	96	
7.0	18.1	10.2	103	Metalimnion
8.0	13.7	11.4	105	or Thermocline
9.0	10.6	11.4	99	
10.0	9.8	11.3	97	
11.0	8.8	11.2	93	
12.0	8.1	10.9	89	
13.0	7.7	10.8	87	
14.0	7.5	10.9	87	
15.0	7.4	10.9	87	
16.0	7.3	10.9	87	
17.0	7.1	11.0	87	
18.0	6.8	11.2	88	Hypolimnion
19.0	6.7	11.1	87	
20.0	6.5	11.0	86	
22.0	6.2	11.4	89	
24.0	6.1	11.4	89	
26.0	5.9	11.4	89	
28.0	5.6	11.4	88	
30.0	5.5	11.4	88	
32.0	5.4	11.4	88	
34.0	5.3	11.4	87	
36.0	5.3	11.4	87	
38.0	5.3	11.5	88	
40.0	5.2	11.5	88	
42.0	5.2	11.5	88	
44.0	5.2	11.5	88	
46.0	5.1	11.4	87	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.

MAZINAW LAKE – South Basin Continued…

Date: September 3, 2003
Depth: 53 Metres
Euphotic Zone (Penetration of Light) = 10.6 Metres

Depth [Metres]	Temperature [Degrees Celsius]	Dissolved Oxygen [Milligrams/Litre]	Percent % Saturation	Thermal Stratification
0.1	20.0	8.3	87	
1.0	20.1	8.2	87	
2.0	20.2	8.1	86	
3.0	20.3	8.1	86	Epilimnion
4.0	20.3	8.1	86	
5.0	20.3	8.0	86	
6.0	20.4	8.0	86	
7.0	20.3	8.0	86	
8.0	18.4	8.4	85	Metalimnion
9.0	13.9	9.0	83	or Thermocline
10.0	11.4	8.7	76	
11.0	10.6	8.5	73	
12.0	9.5	8.5	72	
13.0	8.8	8.5	71	
14.0	8.5	8.5	69	
15.0	8.1	8.5	69	
16.0	8.0	8.7	70	
17.0	7.8	8.7	68	
18.0	7.6	8.8	70	Hypolimnion
19.0	7.4	8.9	71	
20.0	7.3	9.0	72	
22.0	6.8	9.1	72	
24.0	6.6	9.2	72	
26.0	6.4	9.2	72	
28.0	6.2	9.2	72	
30.0	6.0	9.3	72	
32.0	5.8	9.4	72	
34.0	5.6	9.5	73	
36.0	5.5	9.5	73	
38.0	5.4	9.4	72	
40.0	5.3	9.5	73	
42.0	5.3	9.5	73	
44.0	5.3	9.4	72	
46.0	5.2	9.5	72	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.

MAZINAW LAKE – South Basin Continued…

Date: October 9, 2003
Depth: 53 Metres
Euphotic Zone (Penetration of Light) = 14.0 Metres

Depth [Metres]	Temperature [Degrees Celsius]	Dissolved Oxygen [Milligrams/Litre]	Percent % Saturation	Thermal Stratification
0.1	15.7	7.0	68	
1.0	13.8	7.2	67	
2.0	13.6	7.1	65	
3.0	13.5	7.3	66	
4.0	13.4	7.3	66	
5.0	13.4	7.3	66	Epilimnion
6.0	13.3	7.3	66	
7.0	13.2	7.3	66	
8.0	13.2	7.3	66	
9.0	13.0	7.3	66	
10.0	12.8	7.2	65	
11.0	10.4	6.6	57	Metalimnion
12.0	9.6	6.5	55	or Thermocline
13.0	8.5	6.4	53	
14.0	8.0	6.5	53	
15.0	7.9	6.6	54	
16.0	7.7	6.5	53	
17.0	7.5	6.6	54	
18.0	7.3	6.3	51	Hypolimnion
19.0	7.1	6.6	53	
20.0	7.0	6.7	54	
22.0	6.7	6.8	54	
24.0	6.5	6.9	54	
26.0	6.1	7.0	54	
28.0	5.9	7.0	54	
30.0	5.8	7.0	54	
32.0	5.5	7.1	55	
34.0	5.4	7.1	55	
36.0	5.4	7.0	54	
38.0	5.4	7.1	55	
40.0	5.4	7.0	54	
42.0	5.3	7.0	54	
44.0	5.3	7.0	54	
46.0	5.3	7.0	54	Bottom

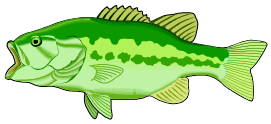
Optimal Habitat for Cold Water Fisheries (Trout) = DO > 6 mg/L at < 10°C.

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.

MAZINAW LAKE – Campbell Bay

DISSOLVED OXYGEN/TEMPERATURE PROFILES
MOE Rec. Lks. Station # 19-3430-741-01, MVC Station # 03-03



Date: July 10, 2003
Depth: 19 Metres
Euphotic Zone (Penetration of Light) = 18.4 Metres

Depth [Metres]	Temperature [Degrees Celsius]	Dissolved Oxygen [Milligrams/Litre]	Percent % Saturation	Thermal Stratification
0.1	23.2	8.4	96	
1.0	23.1	8.5	93	
2.0	23.0	8.6	96	Epilimnion
3.0	22.9	8.5	94	
4.0	22.8	8.6	94	
5.0	22.7	8.6	94	
6.0	15.1	11.0	105	
7.0	13.7	11.1	103	Metalimnion
8.0	12.5	11.5	104	or Thermocline
9.0	11.3	11.6	103	
10.0	12.4	11.6	104	
11.0	9.9	11.9	100	
12.0	8.1	12.3	99	
13.0	7.8	12.2	98	
14.0	7.5	12.1	97	
15.0	7.5	12.1	97	Hypolimnion
16.0	7.4	12.1	97	
17.0	7.4	12.1	97	
18.0	7.3	12.0	96	
19.0				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:

- **PRESERVATION –** When purchasing a lakefront property, a natural shoreline is retained and access to the lake is designed to avoid shoreline damage.
- **NATURALIZATION –** Degraded shorelines are left alone to return to their natural state.
- **ENHANCEMENT –** Native species are planted and non-native species are removed.
- **RESTORATION –** Cleared areas are planted with native species.

MAZINAW LAKE – Campbell Bay Continued…

Date: August 14, 2003
Depth: 19 Metres
Euphotic Zone (Penetration of Light) = 15.6 Metres

Depth [Metres]	Temperature [Degrees Celsius]	Dissolved Oxygen [Milligrams/Litre]	Percent % Saturation	Thermal Stratification
0.1	25.3	8.6	100	
1.0	24.3	8.6	98	
2.0	24.0	8.8	100	Epilimnion
3.0	24.0	8.8	100	
4.0	23.8	8.7	97	
5.0	23.1	8.7	97	
6.0	20.7	9.2	98	
7.0	18.4	9.6	98	Metalimnion
8.0	15.0	10.6	102	or Thermocline
9.0	12.5	11.2	102	
10.0	10.8	11.5	100	
11.0	9.1	11.7	98	
12.0	8.2	11.7	96	
13.0	7.7	11.9	96	
14.0	7.1	11.9	94	
15.0	6.8	12.0	94	Hypolimnion
16.0	6.3	12.2	94	
17.0	6.1	12.2	93	
18.0	5.8	12.3	93	
19.0	5.7	12.4	95	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.

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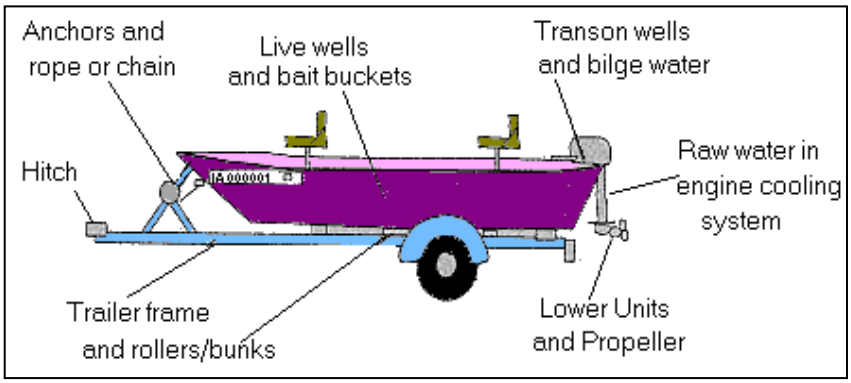
MVC and O.F.A.H. need your help to Stop the Invasion!

Check & clean your boat every time you change water bodies



Working with Lake Associations, we hope to improve signage at public launching areas to identify lakes where zebra mussels and spiny water fleas are already present. We hope to focus on an ambitious educational campaign to help reduce their spread to lakes where they are not yet present.

For more information call MVC at (613)259-2421, the Invading Species Hotline 1-800-563-7711.

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MAZINAW LAKE – Campbell Bay Continued…

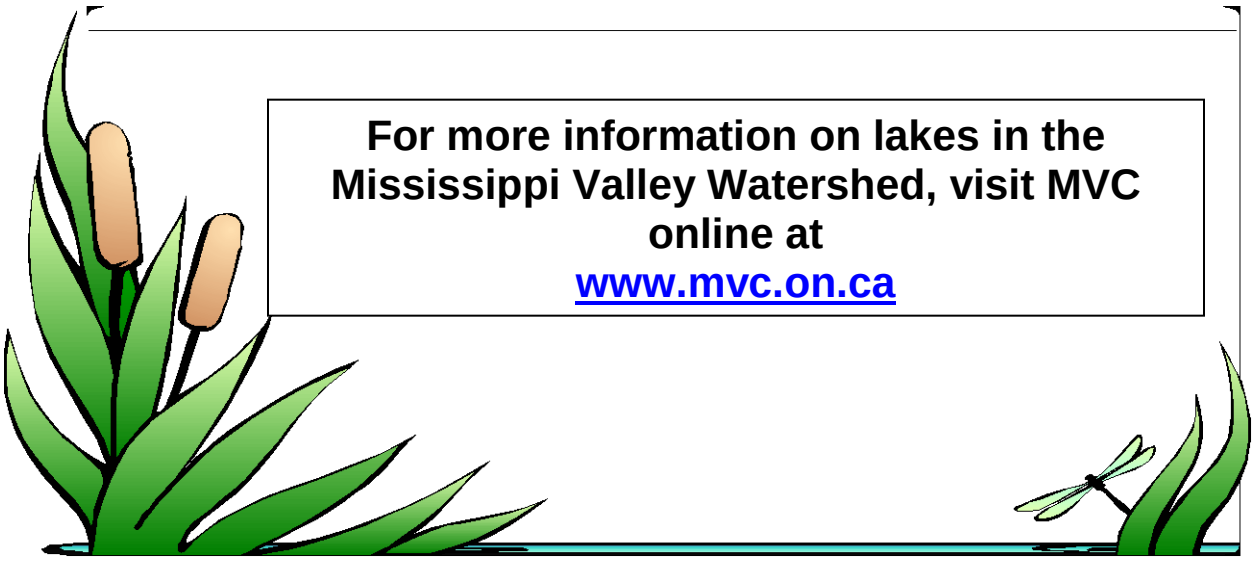
Date: September 3, 2003
Depth: 19 Metres
Euphotic Zone (Penetration of Light) = 11.5 Metres

Depth [Metres]	Temperature [Degrees Celsius]	Dissolved Oxygen [Milligrams/Litre]	Percent % Saturation	Thermal Stratification
0.1	20.4	8.2	88	
1.0	20.5	8.2	88	
2.0	20.5	8.1	86	Epilimnion
3.0	20.6	8.1	86	
4.0	20.6	8.1	86	
5.0	20.6	8.0	86	
6.0	20.5	8.0	86	
7.0	20.0	7.9	83	
8.0	18.8	8.3	86	
9.0	15.5	8.4	80	Metalimnion
10.0	13.1	8.9	81	or Thermocline
11.0	11.3	9.1	80	
12.0	9.4	9.4	78	
13.0	8.6	9.4	77	
14.0	8.2	9.7	79	
15.0	7.6	9.7	77	Hypolimnion
16.0	7.0	10.0	79	
17.0	6.6	10.0	78	
18.0	6.5	10.1	79	
19.0				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.



MAZINAW LAKE – Campbell Bay Continued…

Date: October 9, 2003
Depth: 19 Metres
Euphotic Zone (Penetration of Light) = 15.9 Metres

Depth [Metres]	Temperature [Degrees Celsius]	Dissolved Oxygen [Milligrams/Litre]	Percent % Saturation	Thermal Stratification
0.1	14.3	6.9	65	
1.0	13.7	6.9	64	
2.0	13.5	6.9	64	
3.0	13.3	6.9	64	
4.0	13.3	6.7	62	
5.0	13.2	6.8	63	
6.0	13.2	6.8	63	Epilimnion
7.0	13.2	6.8	63	
8.0	13.1	6.8	63	
9.0	13.1	6.8	63	
10.0	13.0	6.8	63	
11.0	12.9	6.7	61	
12.0	10.5	6.7	58	Metalimnion
13.0	9.9	6.7	57	
14.0	9.1	6.8	57	
15.0	8.6	6.8	56	Hypolimnion
16.0	8.2	7.0	57	
17.0	7.7	7.0	57	
18.0	7.2	7.1	57	
19.0	6.6	7.2	56	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.

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. ***Special Thanks to Canadian Waste Management for adopting Mazinaw Lake with a generous donation. We would also like to thank Smart's Marina for supplying the Watershed Watch crew with a boat & fuel for the 2003 sampling season.***

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