










Muskoka Watershed Report Card 2004

What is our goal?	Why is this important?	Are we happy?	Where are we now?	Are things improving?	What are the threats?
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OUR WATER SWIMABILITY

Supervised public beaches that meet the provincial standard for swimming safety.	Heavy use and poor sanitation result in high bacteria levels which may result in disease and infection to swimmers.		The provincial standard for swimming is 100 counts of <i>E. coli</i> per 100 ml of water. No municipal beaches or beaches at Arrowhead or Georgian Bay Island parks exceeded the standard, however, the beaches at Six Mile Lake Provincial Park exceeded the standard six times in 2003.		Gray water dumping from live-aboard boats, lack of proper sanitation at swimming areas, surface run-off, wildlife congregation areas, livestock watering and faulty septic systems may result in high bacteria counts.
Other swimming areas at lakes, rivers, cottages and homes that meet the provincial standard.			Lake associations have monitored swimming areas across Muskoka. Results consistently meet the provincial standard.	?	
Natural background <i>E. coli</i> levels in all our inland lakes and along our Georgian Bay coastline.	<i>E. coli</i> levels higher than natural background levels indicate a deterioration in water quality and an increase in possible health risk. Natural levels of bacteria in the lakes in Muskoka can be expected to display <i>E. coli</i> readings <10 counts/100 ml.		In 2003, inland lakes and Georgian Bay generally met this local standard except after heavy rain events. Certain sections of the the Severn River Watershed had higher bacteria counts on several occasions and should continue to be monitored.	?	
Lakes that do not have nuisance algae blooms.	Increase in phosphorus will increase algae blooms. Algae detracts from recreational enjoyment and impacts drinking water sources.		86% of lakes meet Muskoka's standard for phosphorus. However, based on modelling done by Muskoka, human inputs of phosphorus have increased by about 20% from an undeveloped state.		






FISHABILITY

No restrictions on eating local fish.	Toxic chemicals found in fish can cause health problems.		Generally, advisories on Georgian Bay are caused by PCBs levels. Consumption restrictions on 98% of inland lakes are a result of mercury.		Industrial emissions from outside Muskoka are the primary source of PCBs and mercury in our lakes and rivers.
Healthy fish populations.	Fish are sensitive animals that give us an early indication of water quality deterioration.		45% of lake trout lakes are below average with respect to abundance of fish and the effort it takes to catch them. The Georgian Bay fishery has deteriorated due to invasive species, low water levels, and loss of habitat.	?	Threats to fish populations include shoreline development, exotic species, chemicals found in stormwater, fishing pressure, water levels, industrial emissions, and habitat destruction, including loss of shoreline vegetation.

DRINKABILITY

Clean treatable groundwater.	Raw water must be easily treated to ensure an adequate supply for municipal systems and individual homes.		There has been no major health warning respecting groundwater sources. Boil water advisories are generally limited to shallow wells that are susceptible to localized contamination.		Bacteria and toxins from faulty septic systems, agricultural operations and industrial sources may result in water contamination. Loss of wetlands and removal of significant amounts of vegetation may lead to a deterioration in ground and surface drinking water sources.
Clean treatable surface water.	High bacteria levels or the presence of toxic chemicals pose a human health risk.		Water sampling conducted by several organizations indicates surface water has very low bacteria counts and is treatable using standard methods.		
Good municipal water source.			There are eight municipal water treatment plants in Muskoka. All plants require only standard and routine water treatment.		

OUR AIR

No incidents of poor air quality.	Excessive industrial emissions result in poor air quality.		In 2002 there were 6 advisories covering 12 days. In 2003 there were 4 advisories covering 10 days.	?	Emission from both Canadian and American industries, electricity production and automotive emissions from inside and outside Muskoka continue to release high levels of sulphur and nitrogen oxides, and volatile organic compounds into the air.
Industrial and automotive emissions in a healthy range.	Poor air quality leads to many health problems, especially in children and older people.		Sulphur emissions are decreasing but nitrogen oxides and volatile organic compounds are increasing.		
Reduction in acid rain that will allow full recovery of our lakes and forests.	Acid rain harms lakes, forests, and air quality. As a result, it can impact natural habitats and jobs in logging, fishing and the tourism industry.		Emissions are 58% less than in 1980. However, the current level of acid rain is still unlikely to promote widespread recovery.		

Legend



High quality



Good quality



Needs improvement



Needs significant improvement



Improving



Deteriorating



No change



Insufficient data to establish a trend



Vulnerable to significant deterioration