

Down with Phosphorus!



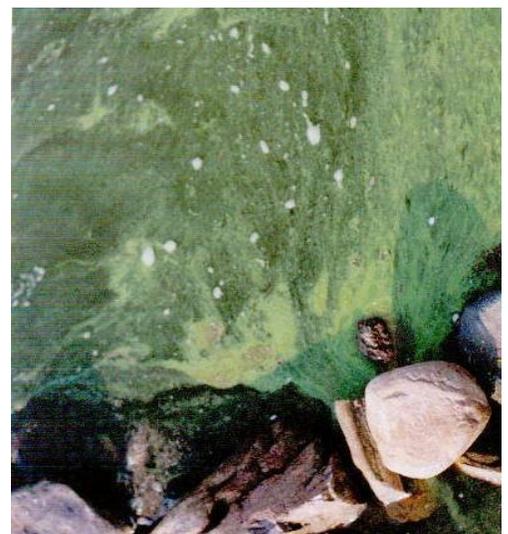
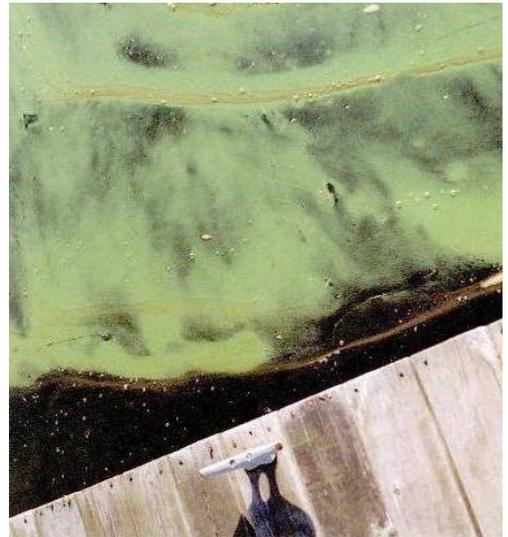
Phosphorus 101

Many people in the Georgian Bay Biosphere Reserve want to make sure that the water in Georgian Bay is free of pollutants and in good health. One way to learn about *water quality* is by measuring the amount of phosphorus in the water. Phosphorus is a *nutrient* essential for all living beings. It occurs naturally in ecosystems and is required by all plants for growth.

Why Is Phosphorus Important?

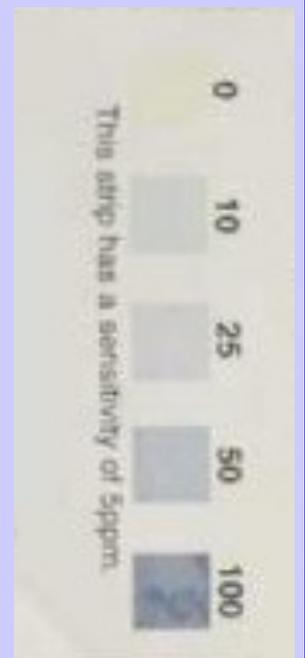
In large freshwater lakes, the amount of phosphorus can be very low but in shallow, protected bays the amount can be much higher. Natural and human sources of phosphorus include: soil, wastewater treatment plants, detergent, lawn fertilizer, failing septic systems and animal waste. If there is too much phosphorus in a water body, rapid algae growth can occur. It appears as "blooms" of murky scum. The amount of oxygen in the water will decline as the algae decompose. Reduced oxygen kills fish and other aquatic animals!

No one wants to boat or swim in algae blooms and, if you use lake water for drinking, it will taste and smell foul. Algal blooms can also produce blue-green algae which creates toxins dangerous to wildlife and humans.



Time To Test for Phosphorus! 1 point

1. Use the test strips that come with the Kids in the Biosphere Kit to test your waterfront or tap water.
2. Use a clean cup to collect a sample of the test water.
3. Select just one test strip and dip it into the water sample for five seconds.
4. Compare the colour it turns to the colour chart. The darker the colour, the more phosphorus is in the water.
5. Be sure to rinse the cup with the water from your next sample before testing a different water source!



Try testing these sample types:

Georgian Bay Water

Inland Lake Water

Swamp Water

Water Mixed with

Laundry Detergent

TAP WATER

What You Can Do With Your Family... 1 point each!

1. **Use less bleach and detergents** at home and the cottage. Heavy use of bleach will kill the microbes that make septic systems work and allow phosphates to get into water sheds.
2. **Maintain a shoreline buffer!** This means allowing the vegetation to grow naturally at the edge of the water. This vegetation will soak up nutrients like phosphorus and prevent them from entering lakes and rivers in large quantities.
3. **Say no to fertilizers!** Using fertilizers in excess or improperly sends phosphates directly into nearby water.
4. **Try using low-phosphorus dish soap.** Available in most grocery stores and much easier on your septic and nearby lakes.

