

## How to Minimize Cyanobacteria Blooms

Cyanobacteria occurs naturally in all freshwater waterbodies in the world and cannot be totally removed. However, there are steps that everyone who uses Province Lake can take to reduce the nutrients that feed cyanobacteria and allow it to bloom.

### PROPERTY OWNERS

1. Water runoff is the biggest contributor to phosphorus in our lake. Minimize shore-erosion on your property. Contact AWWA or NH Lakes Lake Smart for a free inspection of your property for specific recommendations and free resources. Build a vegetative buffer along your shoreline to stop runoff from entering the lake directly. Follow NH regulations on land development and tree removal to minimize runoff.
2. Maintain your septic systems. Replace old systems and schedule maintenance. According to the Province Lake Septic Survey report (on PLA website), "Reducing phosphorus loading from wastewater systems in the watershed should be considered a high priority to help reduce the overall phosphorus load which will ultimately help decrease the potential for future cyanobacteria blooms in the lake."
3. Clean up any organic material (trees, branches) or debris that has washed into the lake, particularly after this year's heavy rains. Do not dispose of leaf and/or grass debris into the lake.
4. Follow NH's restrictions on use of fertilizers (except limestone) within 25 ft of shore line. Only use phosphorus-free fertilizers beyond 25 ft.
5. Restrict use of fireworks and clean up any debris. Fireworks contain phosphorus and nitrogen, which both support cyanobacteria growth. Fireworks are illegal in Wakefield.
6. In winter, minimize use of salt on roads/driveways/walkways. Increased lake water salinity may change lake chemistry and encourage cyanobacteria.

### BOAT OWNERS

1. Use the boat launch. Launching from the beach kills vegetation and further breaks down the embankment which increases runoff. Boat inspections also decrease the possibility of milfoil and other invasive species from entering the lake.
2. Reduce wake. Increased motor speeds and large wakes erode the shoreline and pulls nutrient rich-sediment into the water that feed cyanobacteria. This is a significant problem for a Province Lake since it is shallow.
3. Try not to churn up the bottom while motoring. Trim your engine up if you can and keep power very low in the shallow areas.

### BEACHGOERS

1. Don't drive or park on the beach. This kills vegetation and further breaks down the embankment that are a first line defense in runoff.
2. Park on the non-lakeside of Rt 153 to prevent erosion near the beach and the introduction of vehicle fluids, phosphorous and other contaminants into the lake.
3. Walk pets on the other side of 153 to minimize organic waste in the water and pick up after your pet.
4. Don't feed the wildfowl and help educate other beachgoers to the amount of organic waste that geese and ducks add to the water. This not only increases risk for cyanobacteria, but also ecoli and swimmers' itch. The parasite that causes swimmers itch comes from goose and duck droppings.
5. Clean up after picnics and cookouts to reduce organic waste in the lake.
6. Restrict use of fireworks and clean up any debris. Fireworks contain phosphorus and nitrogen, which support cyanobacteria growth.

Help educate fellow beachgoers. Share information and direct them to the PLA website. We are all in this together and can make a difference. REFERENCES: Province Lake Association, [www.provincelake.org](http://www.provincelake.org); <http://awwatersheds.org>; lake health documents at <http://provincelake.org/news-2/important-info/>