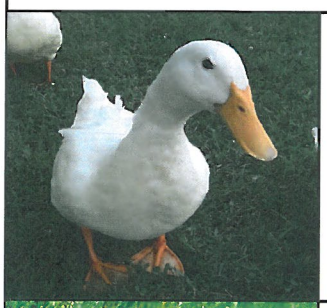
# Algae in Your Pond?

## Has your blue lake turned green?

Algae are a natural part of lake ecosystems and serve an important role in the aquatic food chain. However, excessive algae growth, called an algae bloom, can deteriorate water quality and aesthetics, and impede recreational activities due to unpleasant sights and odors. Algae blooms may also harm fish and other aquatic life by depleting oxygen, and some may produce toxins dangerous to Humans and animals. Algal growth depends on the availability of sunlight and nutrients. When enough sunlight is available, excess nutrients, especially phosphorus, can trigger an algae bloom. Although nutrients are deposited naturally from wildlife waste and plant decay, human activities have substantially increased the amount of phosphorus entering our rivers and lakes. Treating the lake with chemical algaecides may provide short-term relief but does not control the source of the problem, requiring repeated treatments that are expensive and may have adverse effects on our environment. An effective, long-term and cost-efficient approach to controlling algae includes reducing the amount of phosphorus entering our waters- and you can help!

**Here are some ways you can reduce the input of phosphorus to your lake:**



### Don't Feed the Ducks

**Why?** Feeding ducks and geese attracts unnaturally large flocks that are a source of nutrients to your lake. In addition, their waste litters lawns and docks and harbors disease-causing bacteria that can contaminate your lake and cause problems such as swimmer's itch.

- Do not feed ducks and geese– it's against the law!
- Plant shrubs and bushes along the shoreline to keep geese off your lawn

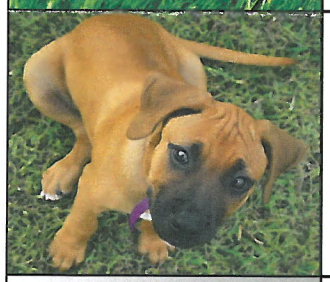
For more information about why feeding waterfowl is harmful: www.dem.ri.gov/programs/bnatres/fishwild/pdf/dontfeed.pdf.

### Reduce the Use of Fertilizer

**Why?** Plant foods and lawn fertilizers often contain phosphorus, but most northeastern lawns have enough phosphorus. When lawns are over-fertilized, rain washes excess phosphorus directly into your lake.

- Have your soil tested to determine how much fertilizer your lawn needs
- Avoid spreading fertilizer just before a heavy rain
- Use slow/timed-release or phosphorus-free fertilizers
- Sweep up fertilizer off pavement, do not rinse into drains

For information on soil testing: www.uri.edu/ce/factsheets/sheets/soiltest.html
More information on fertilizers and water quality: www.lawntolake.org



### Pick Up Pet Waste

**Why?** Like waterfowl, pet waste contains phosphorus. Rain may wash pet waste that is not picked up into your lake, adding nutrients and bacteria.

- Remove pet waste from your yard
- Clean up after your pet during walks in your neighborhood

For more information about pet waste and water quality: http://www.conservect.org/ctrivercoastal/petwaste/tabid/317/default.aspx

### Maintain Septic Systems

**Why?** Septic systems that are overloaded or leaking and outdated cesspools can leach human waste, adding nutrients and bacteria to your lake.

- Replace your cesspool with a properly designed septic system
- Have your septic system regularly inspected and pumped
- Check for plumbing leaks and conserve water to avoid overloading
- Avoid harsh chemicals that harm bacteria in the system, such as bleach products and drain cleaners containing lye or acid
- Minimize use of garbage disposals to avoid adding excess solids and grease

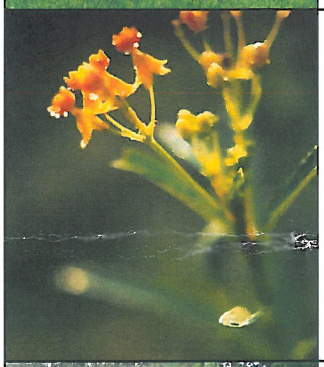
More information: www.dem.ri.gov/pubs/regs/regs/water/isdsbook.pdf

## Adopt "Greener" Mowing Methods

**Why?** By altering how you mow your lawn you can reduce the amount of water and fertilizer needed, preventing nutrients from leaching into your lake and saving you time and money spent maintaining your lawn.

- Set your mower blade height to 3 inches; this creates a healthier root system that needs less water and fertilizer and can shade out some weeds
- Always Leave grass clippings on the lawn to allow water and nutrients to return to the soil and help grass retain moisture

For more information on better mowing:
www.uri.edu/ce/factsheets/sheets/lawnmow.html

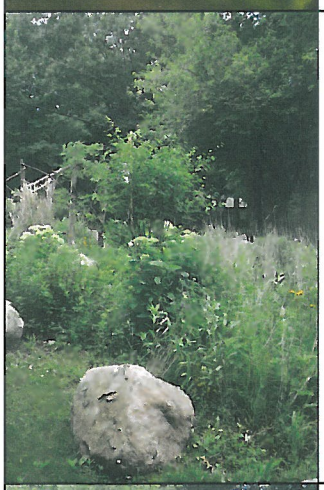


## Choose Native & Drought Tolerant Plants

**Why?** Choosing and watering your plants wisely can reduce the amount of water and fertilizer needed, saving you time and energy and reducing the potential for nutrients leaching into your lake.

- Select native plants for your landscaping
- Plant appropriate turf grasses; red fescue and chewing fescue are drought-tolerant. Tall and fine fescues require less fertilizer.

Information on choosing sustainable plants and turf grasses:
www.uri.edu/ce/factsheets/index.htm
A list of native landscaping plants and nurseries that sell natives is available from the Rhode Island Wild Plant Society at www.riwps.org

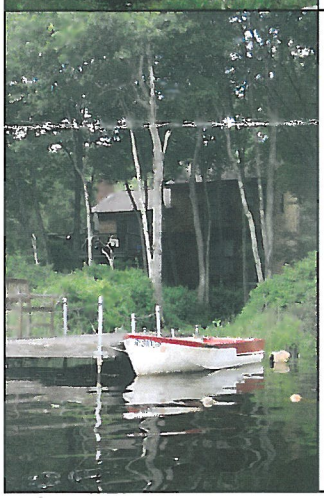


## Reduce Rainwater Runoff

**Why?** Rain water runoff from pavement and rooftops flowing over surfaces transports nutrients and other pollutants into your lake. Minimizing the amount of runoff can help keep your lake clean.

- Direct gutter downspouts from roof into a rain garden or rain barrel
- Maximize the amount of shrubs, trees and groundcover on your property to absorb rainwater, especially around driveways and pavement
- Create winding paths of gravel, stone or grass instead of direct paths of dirt or pavement to the shoreline to prevent erosion and reduce runoff
- Place straw over gardens and newly planted grass to prevent soil from being washed away

Information on planting a rain garden available from the Northern RI Conservation District at www.nricd.org/raingarden.htm and at www.uri.edu/ce/healthylandscapes/raingarden.htm



## Create a Vegetated Buffer

**Why?** Vegetated buffers along the shoreline help stabilize the bank, prevent erosion and filter out nutrients and pollutants. Buffers also improve the aesthetic value of your property and discourage geese from grazing on your lawn. Proper selection and placement of plants preserves lake views, and small paths and docks through the buffer allow access to the water.

- Avoid mowing down to the shoreline, and leave trees and shrubs in place
- Where no vegetation currently exists, plant native trees and shrubs along the shoreline (subject to conditions of RI wetlands Rule 6.18; see below)
- The bigger the better; a 15 ft buffer can remove around 50% of phosphorus, and larger buffers remove more nutrients

More information on creating and maintaining a buffer:
www.vtwaterquality.org/lakes/docs/lpseries/lp_lpseries3.pdf
Rules and regulations regarding freshwater wetlands:
http://www.dem.ri.gov/pubs/regs/regs/water/wetl09a.pdf

Implementing these easy and inexpensive methods to lower the amount of phosphorus entering your lake will help prevent future algae blooms and reduce the need for chemical algaecide treatments.

Rhode Island Department of
Environmental Management
Office of Water Resources
235 Promenade Street
Providence, RI 02908

Additional information:
URI Healthy Landscapes: www.uri.edu/ce/healthylandscapes/index.html
Scituate Reservoir Watershed Education Program: www.landwaterconnection.org