



# Protect Your Lake!

## A Guide for Lake Smart Homeowners

### The Benefits of a Healthy Lake

Lakes and ponds provide recreational opportunities such as fishing, swimming and boating, as well as habitat for wildlife, including game fish. However, if the health of a lake deteriorates, these benefits will be lost and property values could decrease.

### Homeowner Actions Affect Lake Health

Lake management is a constant, ongoing process. All land ultimately drains into a water body and therefore everyone lives in a watershed. Therefore, everyone has a responsibility to protect the water body that their land flows into. The actions you take on your own property and around town can significantly impact the health of the water body.

When it rains, the rainwater flows over impermeable surfaces, through storm drains, and underground until it ends up in the water body. As the water makes its way to the lake, it picks up nutrients and contaminants such as chemicals, sediments, and waste. When these nutrients and contaminants are deposited in the lake, they can decrease water quality and cause algae blooms.

By reducing runoff and removing the nutrients and contaminants that runoff can pick up, you can help keep your water body healthy!

### Protect the Lake – Soak Up the Rain!

By taking steps to soak up rain in the ground, you can reduce runoff and the pollutants it carries into the water body. In addition, it is important to keep water on your property in order to replenish your well. Reducing runoff also reduces the amount of water that goes through town drainage systems, which can lower town maintenance costs.

The next time it rains, watch where the water flows. Does it soak into the ground, flow across the lawn, or run down the driveway to the street and into a storm drain?

### The following are ways you can soak up the rain on your property:

- Redirect downspouts away from impermeable surfaces.
- Retain and recycle rainwater for your garden by redirecting your downspouts into rain barrels or directly into a garden or landscaped area.
- Maintain a buffer of natural vegetation around your lawn and along the lakeshore if you fertilize and plant bare areas in your yard with natural vegetation. This can significantly reduce runoff and erosion.
- Reduce impermeable surfaces and/or install permeable pavement. Permeable pavement can soak up 80-100% of rain and filter out pollutants in runoff.
- Plant trees. The leaf canopy can reduce erosion and the root system takes up water and filters out pollutants.
- Create a rain garden by planting grasses and flowering perennials in a depressed area of land. The garden will collect rainwater and the plants will take up water and filter out pollutants. These gardens can also provide habitat for wildlife.
- Plant a green roof. In addition to soaking up rainwater, green roofs can reduce energy costs in your home by adding insulation.



## Protect the Lake – Reduce Pollutants!

In addition to soaking up rainwater on your property, it is equally important to reduce pollutants in the watershed that can be picked up by runoff. By reducing pollutants on your property, you can help improve the quality of water flowing into the water body.

### Reduce pollutants on your property:

- Never dump anything into storm drains
- Pick up and dispose of animal waste
- Do not use fertilizer within 2,000 feet of the water body. If more than 2,000 feet from the water body, fertilize *very* sparingly and use low phosphate, slow release nitrogen fertilizer on vegetated areas only.
- Find and use pesticide alternatives, only as needed
- Properly dispose of toxic household materials
- Keep fertilizer off sidewalks and driveways (it flows more easily over impermeable surfaces)
- Do not dump leaves or grass clippings in or near the water body. They add excess nutrients to the water.
- If you own waterfront property, refrain from altering the lakeshore. Clearing trees, excavating, and dumping sand can disturb the ecosystem and affect lake health.

### Around town:

- Do not feed waterfowl
- Do not throw trash on the ground and pick up trash you see in the watershed
- Watch for and prevent activities that have the potential to affect water quality
- Join your local lake or pond organization
- Volunteer for your town conservation commission
- Support local, state, and federal legislation that protects water resources.
- Become actively involved in water resource issues in your community.

## Two Philosophies of Lake Management

Lake management approaches can be divided into two categories. One is the "quick-fix" approach. The other is long-term environmental management.

### The "Quick-Fix" Approach

The "quick fix" in lake management is a short-term "solution," such as the application of aquatic herbicides to quickly kill unwanted algae. Such chemical applications can go on year after year, becoming increasingly less effective if the underlying causes of the algal growth are ignored. The "quick fix" treats the biological symptoms of a lake problem, but plant and fish productivity are directly dependent on the chemical and physical processes going on in and around the lake as well. These underlying factors must be the principal consideration in any plan to change the biology of a lake.

### Long-Term Lake Management

Long-term lake management considers all of the environmental, cultural and biological factors affecting the lake and sets a higher priority on finding lasting solutions than on pursuing quick, cosmetic treatment of symptoms. A high quality, financially efficient environmental project takes time and begins with long-range planning. If immediate in-lake rehabilitation techniques are necessary, the community will need to be sure that such immediate rehabilitation efforts are followed by appropriate long-term management techniques.

Created by Northeast Aquatic Research, LLC

Information gathered from:

URI Watershed Watch

New Hampshire Department of Environmental Services

Minnesota Shoreland Management