

Enjoy Your Lake

How can you help keep your lake clean and safe?



Big Pond Otis, Massachusetts

Prepared by:
ESS Group, Inc.
for the Big Pond Association

Overview



Big Pond provides a home for wildlife, as well as recreational opportunities for local residents and visitors. Unfortunately, the desire to live in close proximity to and enjoy a beautiful pond

can negatively impact the waterbody. Runoff from roads, the use of fertilizers on lawns and gardens, and poor animal waste management can increase nutrients (phosphorus and nitrogen) and other pollutants in storm water runoff that flows to the pond. Excessive levels of nutrients in the pond lead to nuisance plant and algae growths, and decrease the quality of wildlife habitat and recreational use. In addition, the boats that are trailered to the pond from other lakes and ponds can introduce exotic and often invasive weeds to Big Pond. These invasive species may then overrun the native plants and in some instances can grow to nuisance levels that are detrimental to both recreation and wildlife.

You Can Help Preserve Big Pond & Its Watershed

If you live within or visit Big Pond's watershed, your actions impact the pond's water quality. A watershed is all the land that drains into a waterbody or into the streams that feed the waterbody. Anything within the watershed that can be transported by the water will eventually find its way into the waterbody. Even if you don't live near the shore, your daily actions (lawn care, pet walking, yard waste disposal, car washing, etc.) are likely to be contributing to the degradation of Big Pond's water quality.

Not sure if you live within Big Pond's watershed?
[View the map on the back of this brochure.](#)



Goals

Lake Management Objectives



The goal for Big Pond is to provide adequate habitat for wildlife, while maintaining or improving the potential for motorized, non-motorized, and passive recreational use. The objectives for managing the lake include:

- Minimize shoreline erosion so as to maintain a stable shoreline environment.
- Manage water quality in the pond to maintain recreational quality while also preserving fish and wildlife habitat.
- Control and limit plant growth to levels suitable for the maintenance of a healthy wildlife habitat, while ensuring a safe recreational resource for the community. Identify and eradicate exotic and invasive weeds.

Protecting Big Pond

In general, Big Pond is in excellent shape. We hope to keep it that way by preventing pollution (primarily nutrients and bacteria) from entering the lake from the watershed and preventing the introduction of invasive aquatic plant species. To this end, the Big Pond Association and the Massachusetts Department of Conservation and Recreation (DCR) have sponsored a study of the pond to identify sources of water quality impairment that can be addressed through behavioral changes by folks living in or visiting the watershed. In addition, DCR has worked to train a group of dedicated local volunteers to identify exotic or invasive aquatic plant species through their Weed Watcher program. The Big Pond Association has been overseeing and implementing annual pond-wide weed monitoring efforts.

You Can Help Do's & Dont's

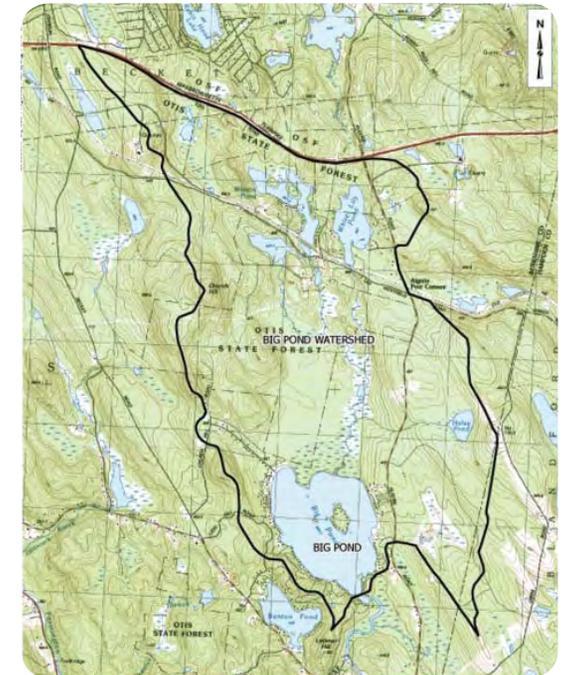
- Do: Leave large rocks, trees and other natural features along the shoreline.
Reason: Natural Shorelines are more stable and less likely to erode. Large rocks are especially effective at reducing wave action.
- Do: Try to divert roof runoff to low, flat, wooded areas.
Reason: Detaining or distributing water allows it to filter into the soil, where sediments and phosphorus are removed.
- Do: Create vegetated buffer strips along the shoreline (streams and roads too), especially with deep-rooted woody vegetation.
Reason: Vegetation intercepts runoff, takes up nutrients, and stabilizes the shoreline. Buffer strips (and fences) also make lawns less attractive for use by geese.
- Do: Mulch bare soil immediately after clearing.
Reason: Mulch prevents runoff of the soil and the phosphorus bound to it.
- Do: Avoid the use of fertilizer; use mulch or compost instead.
Reason: Inorganic fertilizers are easily transported by runoff into streams and the pond.
- Don't: Properly dispose of hazardous materials such as paints, solvents, household cleaning products, gas and oil.
Reason: These products may be a health hazard once released in the watershed and remain there for many years.
- Do: Read labels; avoid using laundry and dish washing detergents containing phosphorus.
Reason: Phosphorus in detergents will eventually find its way into the pond, increasing nutrient load.

How You Can Help Do's & Dont's (cont.)

- Do: Pump septic tanks when they are half-full of sludge (check every year). Reduce costs by organizing neighborhood pumping.
Reason: Settled solids can wash into and clog the leachfield.
- Don't: Flush heavy-duty cleaning agents into your septic system.
Reason: Strong cleaners (like bleach or drain cleaner) can kill the microorganisms that break down waste.
- Don't: Use in-sink garbage disposal systems.
Reason: Ground up garbage overburdens septic systems.
- Do: Conserve water; repair leaking faucets and pipes, install low flow showerheads and low flush toilets.
Reason: Septic systems work better with less water passing through them.
- Do: Launch all trailered boats at the State Boat Access at the end of the Creek, off Route 23
Reason: Invasive plants most commonly enter a lake attached to boats. Launching at the outlet lessens the chance of the chance of creating a problem at Big Pond.
- Don't: Feed geese or other waterfowl near the pond.
Reason: Feeding encourages resident populations and their waste contributes bacteria to the water.
- Do: Check your boat and trailer for attached weeds whenever you take a boat out or put a boat into a lake or pond. If you find weeds, remove them and



Big Pond Watershed



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