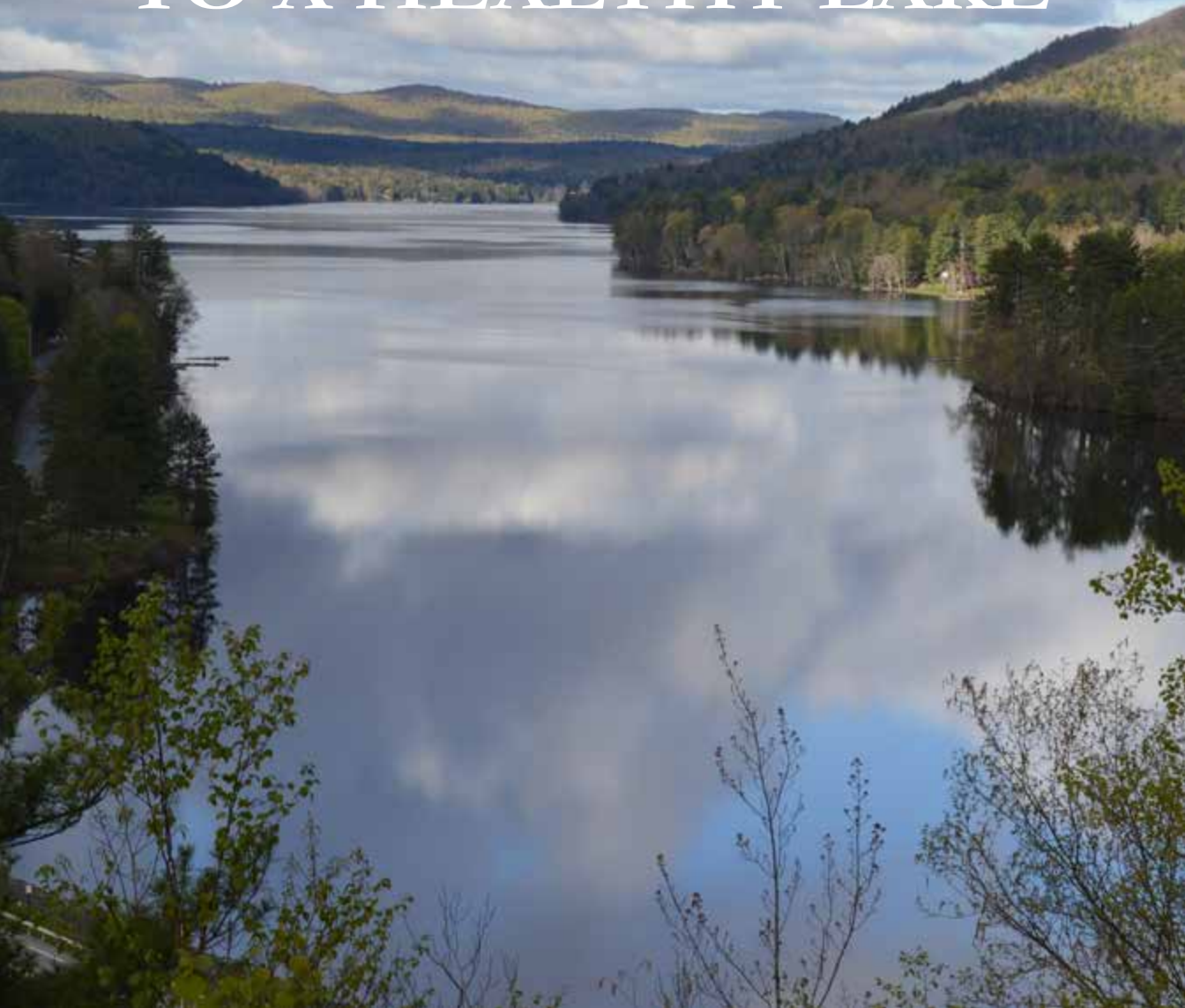


Great Sacandaga Lake

Homeowners Guide TO A HEALTHY LAKE



STORMWATER

Stormwater Runoff

Stormwater is water from rain or melting snow that does not soak into the ground. Instead, it runs over impervious surfaces, for example roofs, driveways, patios and sidewalks. As the water moves across these surfaces it picks up pollutants such as gas, oil, litter, fertilizers and pet waste. The stormwater then runs directly through shorefront properties and into Great Sacandaga Lake. These pollutants can harm the fish populations and promote the growth of algae and weeds.

There are several things you can do on your property to help reduce stormwater runoff into the Lake:



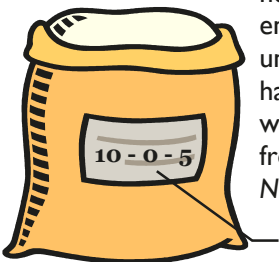
Reduce lawn areas in favor of trees, shrubs or natural ground cover to capture and hold rainwater.

Photo courtesy of Maine Dept. of Environmental Protection

1. Direct downspouts away from paved surfaces and away from directly entering the Lake.
2. Avoid using fertilizers and pesticides; at a minimum, switch to phosphorus free fertilizer.
3. Pick up pet waste and dispose of it properly.
4. Establish a natural plant buffer area along the lakefront. Low growing shrubs or natural, unfertilized gardens are good.
5. Reduce impermeable ground surfaces by replacing them with natural walkways, gravel, or other permeable pavements.
6. Never wash anything near or directly in the Lake. Soaps and cleaning agents contribute to pollutants in the water. Avoid washing boats or cars where the detergent can get into the Lake.
7. When removing yard waste, do not rake leaves and debris into the Lake.

Zero Phosphorus Fertilizer

Phosphorus is an essential nutrient for plant growth, but too much in the Lake can cause excess algae to grow and blanket the water with a green goo. What's more, the majority of lawns already contain the necessary amount of phosphorus for grass to grow. It's because of this that NYS enacted a law in 2012 that requires phosphorus-free fertilizer be used on all lawns unless you are establishing a new lawn or a soil test shows that your lawn doesn't have enough phosphorus. In addition, you may not apply fertilizer within 20 feet of a waterbody unless there is a 10 foot plant buffer. You may also not apply fertilizer from December 1 - April 1. For more information on the *Dishwater Detergent and Nutrient Runoff Law*, visit www.dec.ny.gov/chemical/67239.html.



When shopping for fertilizer, look for the bag with the “zero” in the middle.

MANAGEMENT

Shoreline Buffers & Lakescaping



Removing vegetation from shorelines will leave an open path for sediment and pollutants to enter into Great Sacandaga Lake. These pollutants have a negative impact on the plant and animal populations of the lake's system. Creating plant buffers along the shoreline will help keep soil in place and can absorb a substantial amount of phosphorus and other nutrients before they enter the lake. This will help keep our waters cleaner for swimming, boating, fishing, and drinking, and increase the natural beauty of the shorelines.



When planting a buffer, mimic nature by utilizing different levels of plants, decreasing the height as you move closer to the waters edge. This will be aesthetically pleasing, as well as create habitat for an array of wildlife.



Rain Gardens

Rain gardens are landscaped depressions that are designed to capture and filter stormwater runoff from impervious surfaces. Planting a rain garden in your yard will decrease the amount of pollution entering into the Lake. When planting your rain garden remember to keep it at least 10 feet from any foundations and direct any downspouts towards the garden. Naturally sloping or depressed areas in your yard are a good place to start. A typical homeowner rain garden is 100 - 300 sq. ft. in size and 4 - 8 inches deep.

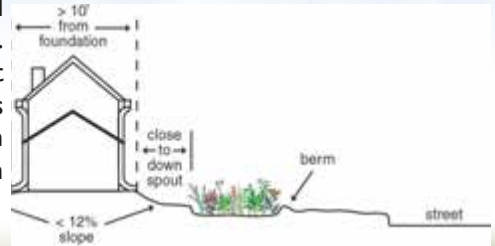
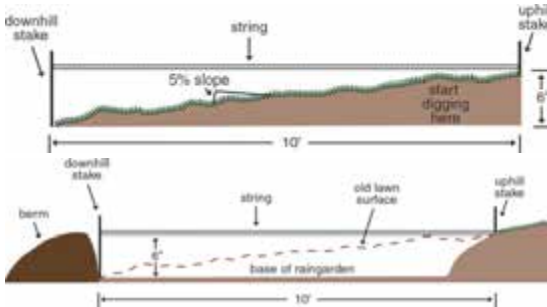


Figure from University of Wisconsin Extension and the Wisconsin Department of Natural Resources



Figures from University of Wisconsin Extension and the Wisconsin Department of Natural Resources

Native Plants

Landscaping around your house with native plants will not only keep your yard beautiful, but it will provide necessary habitat for local birds and butterflies. Hummingbirds enjoy Cardinal Flowers, Monarch Butterflies use native Milkweed for reproduction and the endangered Karner Blue Butterfly lays its eggs on Blue Lupine plants.

SEPTIC MAINTENANCE

As a homeowner that is not part of a municipal sewer system, your household waste is discharged into a septic system on your property. It is your responsibility to maintain your septic system, not only for the health of Great Sacandaga Lake, but for the health of all who live and recreate here.

Regularly inspect your system

You should have your septic system inspected every 2 - 3 years to make sure that there are not any underlying problems you aren't aware of.

Pump-out your system

Pump out your septic system every 3 - 5 years for year-round homes and every 5 - 7 years for seasonal homes to maintain the integrity of the system and minimize health & water quality impacts.

If you are looking to replace your septic system, contact the NYSDOH for information on alternative systems.

Failing Septic System

If you notice any of these signs of a failing septic system, it's time to call a professional....

1. Pooling water or muddy soil around the tank or drainfield area or leaching into your basement.
2. Bright green grass over your drainfield.
3. Rotten egg smell around the area of your drainfield.
4. Toilets or sinks back up when water is used.

Other maintenance measures you may not have thought of:

- ◆ Don't dispose of materials that may clog your septic system or cause harm to the system.
- ◆ Try to avoid using flushable wipes, as these products clog septic systems and filters, and can cause costly repairs.
- ◆ Space out your water use by leaving time intervals between showers, loads of laundry, and washing dishes.
- ◆ Fix leaks and running toilets as soon as possible. All that extra water puts unneeded stress on your system.
- ◆ Using water efficiently will alleviate stress on your system and help it last longer.
- ◆ Only plant grass or plants with shallow roots over your drainfield. Plants with deep roots have the ability to cause damage to your system.
- ◆ Don't drive or park vehicles on your drainfield, as this could compact the soil and cause damage to your pipes.
- ◆ Keep all surface runoff flow directed away from your drainfield to avoid flooding your system.

Flush Responsibly

Whether your household wastewater goes to the local sewage treatment plant or a septic system, here are a few things that should **never** be flushed down the toilet or poured down the drain:

X Cloggers

(these items can clog pipes and cause sewage backups)

Disposable diapers, feminine hygiene products, and grease.

X Household Hazardous Wastes

(unless the treatment system is designed to handle these wastes, they can interfere with the treatment process and result in the release of pollutants into the environment)

Gasoline, oil, antifreeze, pesticides, fertilizers, and paint.

Clean Water starts at H2O me

For more information, contact the US Environmental Protection Agency www.epa.gov or

INVASIVE SPECIES

Eurasian Watermilfoil, Brittle Naiad & Spiny Waterflea (Aquatic)

Eurasian Watermilfoil (EWM) is an aquatic invasive plant that cannot be eradicated and therefore needs to be continually managed. The presence of this invasive plant eliminates native plant species that many of the fish in the Lake depend on, as well as turn clear swimming beaches into mucky, weed-filled areas. One way that EWM spreads within a lake is through the dispersion of fragments, which is why it is very important not to drive your boat through dense beds in the Lake. In addition, fragments of these plants can attach to boats and trailers, which is the main method of transportation between waterbodies. EWM has feathery leaves in whorls of four and the stems range in color from pale pink to red to reddish-brown. It is a submerged aquatic plant, and grows sideways once it reaches the surface of the water, which then forms dense beds along shoreline areas. There are sometimes small pink flowers present in late summer.

Brittle Naiad grows in dense clusters with leaves that are long, pointed and opposite. Growth creates dense beds that impeded navigation and fishing while out-competing native vegetation for space and light. This invasive spreads through fragmentation and small seeds. There is no specific form of management for this invasive.



Photo by A. Fox



Photo by Graves Lovell



Photo by Emily Debolt



Photo by P. Rischmiller

Spiny Waterflea is an invasive aquatic animal that is less than one-half inch long with a long, sharp tail. The individual crustaceans clump together to form globs on fishing lines and hooks. The Spiny Water-fleas feed on small crustaceans within the lake, which takes important food sources away from young fish species. They reproduce rapidly and are not a good source of food for fish because of their sharp spines, which results in large populations once they are established. There is no method for controlling these invasives. They spread through fishing equipment, so remember to clean your equipment regularly.

Knotweed Species (Terrestrial)

There are currently three species of Knotweed within the Adirondack Park; Japanese Knotweed (the most commonly known), Giant knotweed and Bohemian knotweed. All of the species are fast-growing, herbaceous perennials that can be found in many habitats from forest edges to streambanks to roadsides. Knotweed species have hollow stems with alternate, leathery leaves and white flowers that bloom in August. During the winter, the stems are a reddish color and easily visible. All of these species begin their growth in the spring, giving them a leg over native species. Knotweed is incredibly difficult to control and spreads very aggressively. Stem injections with herbicides is used to manage small infestations.

HELP STOP THE SPREAD OF AQUATIC INVASIVES!



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HITCHHIKERS!™**

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

CLEAN

and remove all visible plants, animals, fish and mud from your boat, trailer, and other equipment and dispose of it in a suitable trash container. Clean any gear with hot water, heated above 140° F.

DRAIN

water from bilge, live wells, ballast tanks and any other locations with water in them before leaving the launch. This includes scuba gear, waders and floats. Disinfect when possible.

DRY

your boat, trailer, equipment and anything that is not washable for a least 5 days before re-using it in another waterbody.

Do not dump bait, fish, other animals or plants into the water!

WATERCRAFT CHECK POINTS

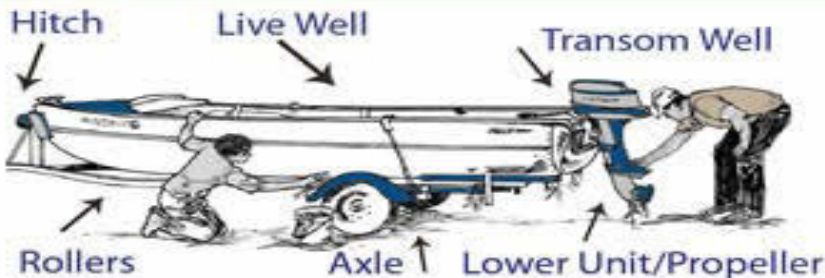


Figure provided by the Adirondack Lake Steward Program

WATER CONSERVATION

Water Efficient Landscaping

Gardens not only save water resources, but will save unneeded stress on your well system. You will also have less maintenance of your yard and fewer yard trimmings to dispose of. Here are a couple of tips for water efficient landscaping.

- ◆ Smaller lawns surrounded by landscaped areas decreases watering needs and increases the retention of stormwater runoff from your roof or driveway.
- ◆ Using native plants decreases the need for watering and replacing dead plants.
- ◆ Avoid using rock mulches in sunny areas as they promote evaporation.
- ◆ Careful placement of trees can reduce heating and cooling costs.



Landscaping the slope to the water's edge uses stormwater runoff to naturally water plants.

Home Usage

If you looked closely at your water usage at home, there will be some areas where you could cut back. That would help save the Lake and the strain on your wallet.

Look for the Water Sense label when purchasing new products for your home. They are found on high-efficiency products that will help conserve water. For more info visit

<http://www.epa.gov/watersense/>

- ◆ The average American uses 176 gallons of water per day.
- ◆ Leaky faucets can drip at the rate of one drip per second, which can waste more than 3,000 gallons of water each year.
- ◆ Washing a full load in the dishwasher uses less water than washing them all by hand.
- ◆ Filling up a bathtub uses almost 70 gallons of water, while taking a five minute shower uses around 15 gallons.
- ◆ Leaving the faucet running while brushing your teeth wastes 2 gallons of water a minute.
- ◆ A showerhead leaking 10 drips per minute wastes more than 500 gallons of water per year.

For more information....

Stormwater:
NYS DEC

www.dec.ny.gov/chemical/8468.html

Rain Gardens:
Lake George Association

www.lakegeorgeassociation.org

Invasive Species:
Adirondack Park Invasive Plant Program
Adirondack Watershed Institute

www.adkinvasives.com
www.adkwatershed.org

Septic Maintenance:
NYS DOH

www.health.ny.gov/publications/3208/



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Front and back cover photos of Great Sacandaga Lake provided by Peter Pepe.