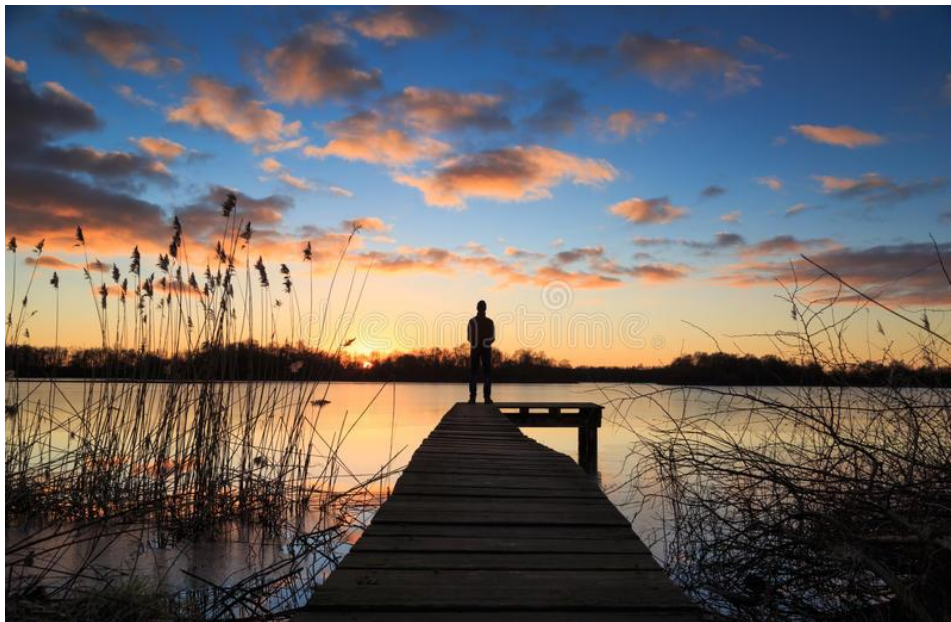


# Loon Lakes

## An Individual's Role in the Ecosystem



This document was developed for the Steward of the Lakes Program with the Loon Lakes Management Association.

Steward of the Lakes Program is designed to educate and inform on various topics relevant to the Loon Lakes and the watershed.

*“Funding for this project was provided in part by the Lake County Stormwater Management Commission through a Watershed Management Board Grant”*

Steward of the Lakes is an LLMA educational program that starts with the understanding that we are all part of this treasured ecosystem and what we do as homeowners, regardless of our location, impacts our lakes' water quality. The storm drain by your home is linked to the lakes and nutrients seep through groundwater to our lakes. All chemicals introduced by us into the environment have an effect on the ecosystem. However, there are two major nutrients that are problems in lakes: excessive phosphorus and chloride.

## What is wrong with Phosphates and Chloride?

**Phosphates** have low toxicity in the environment, but causes nutrient pollution, a major water quality problem in many watersheds. **Phosphates** in water cause eutrophication of algae and creates conditions favorable to formation of harmful algal blooms and alters the composition of aquatic species. Lake of sunlight chokes out native plants and Oxygen levels take a dive as a result of too much phosphorus. In bodies of water with an incredibly dense population of plants, or eutrophic water, animals and even other plants suffer from the low supply of oxygen.



Algae bloom cause by excessive phosphorus

**Chloride** occurs naturally in lakes and streams, and many organisms need it to carry out the basic functions of life. But elevated levels can cause cells to lose water and become deprived of nutrients, ultimately killing fish, amphibians, plants, and other aquatic organisms. One teaspoon of salt pollutes five gallons of water. On land, excessive amounts of chloride can harm pets, soil, cars, bridges, and eventually finds its way to our lakes and rivers.

The US EPA considers nutrient pollution to be one of the most important environmental challenges we face in the twenty-first century (USEPA 2009).

And while there is no good way to remove these excess nutrients from our lakes, there are some simple things people can do to reduce the environmental load.

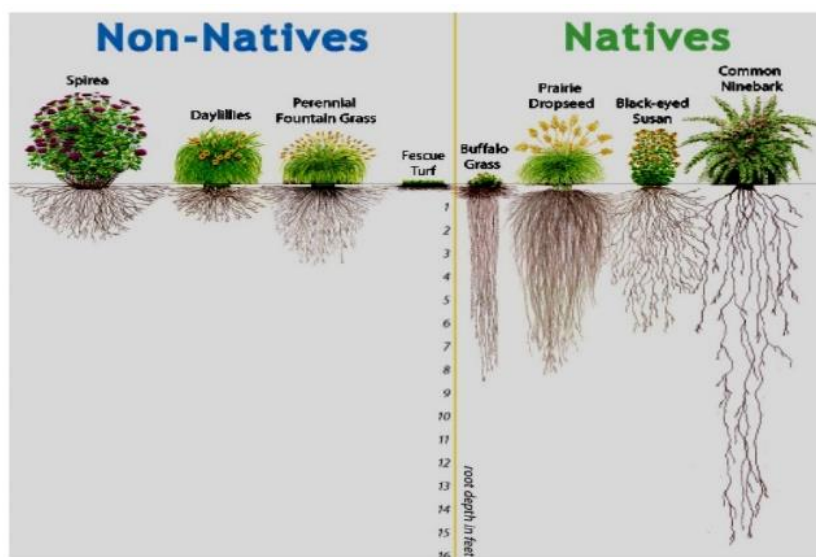
## How do I keep phosphorus from impacting on our lakes?

### Leaves and Lawn Clippings:

**Keep these out of gutters, yards, streets and lakes.** As the leaves decompose, they release the phosphorus that was bound up in the leaf. When it rains, the phosphorus is washed down the street, down the nearest storm drain or through the soil into the nearest lake, river, or stream. There it is a bountiful source for algal growth and causes excessive algae blooms.

### Plant Native Plants: Benefits of Native Plants

Native plants are plants that have been growing in a particular habitat and region, typically for thousands of years longer. Also called indigenous, they are well adapted to the climate, light, and soil conditions that characterize their ecosystem. **Native Plants filter excess nutrients from our lakes:** Native Plants have deeper roots than turf and nonnative plants. Native plants provide more absorption of nutrients through their roots and therefore, less nutrients enter the lake.



## **Create a Buffered Shoreline of Native Plants:**

A buffer zone of native plants provides 2 benefits: it functions as a natural filter for chemicals prior to reaching the lake and discourages geese. Canadian geese prefer a gentle grassy slope coming out of the water. Therefore, a buffer zone of native plants is helpful for preventing geese from residing on your lake. Plant tall native plants 25-30 feet wide and as long as you can to minimize the access point of the geese. As geese cannot see over/through the buffer zone, they do not feel secure from predators and are hesitant to enter property.



**Please...  
don't feed  
waterfowl.**



**REGULAR FEEDING CAN CAUSE:**

- Poor nutrition
- Spread of disease
- Unnatural behavior
- Pollution
- Overcrowding
- Delayed migration

Many people enjoy feeding waterfowl, but the effects of this seemingly generous act can be harmful. If you care about waterfowl, please stop feeding them, allow them to return to their natural habits.

**Keep Wildlife Wild**

**DON'T FEED THE GEESE**

## **Geese feces: Do not feed the geese.**

When waterfowl are artificially fed, they become dependent on the that food supply. They become semidomesticated and no longer migrate. Populations increase and become more concentrated. **Geese feces are very high in organic Phosphorus. 100 geese equate to over 7lbs of feces per day.** This can result in a human health hazard, evidence by the Villa Rica beach closing by Lake County Public Health.

### Villa Rica Beach Closings due to E-coli

2011-2017 beach closed an average of one day per year

2022 beach closed 37 days

Data from Illinois Beach Guard system Lake County Public Health Department

Feeding geese an artificial food supply does not provide the waterfowl with the necessary nutrients and causes angle wing. Angel Wing is where the wing joint deforms and twists. The feathers stick out at a funny angle, usually away from the bird's body. Unfortunately, there is nothing that can be done in adult birds as the wing joint will remain deformed. Waterfowl suffering from angel wing cannot fly, leaving them unable to migrate and more susceptible to predators.



**Pickup Pet waste:** Clean up promptly and properly dispose pet waste, so it doesn't end up in our lakes.



### **Maintain Septic Systems:**

Proper maintenance of septic system is critical to ensure phosphates are not leached into the groundwater. Septic system tips from U.S. epa.gov nutrient pollution

Inspect your septic system annually

Pump out septic system regularly (Every 2-5 years for a 3 BDRM house with 1,000gallon tank)

Avoid or reduce the use of garbage disposals. Disposals contribute unnecessary solids to your septic system and increase the need for more frequent pumping

Don't use toilets as trash cans. Excess solids can clog your drain field

Plant only grass on your drain field and avoid planting trees or bushes with extensive root systems that could damage tanks and pipes

Don't use additives in your septic system. No scientific evidence that biological or chemical additives aid or accelerate decomposition in septic tanks. Some additives can contaminate ground water or be detrimental to your tank.

## **Use Phosphate and Chloride free dishwasher soap and household cleaners:**

Modern laundry detergents no longer contain phosphates due to a ban passed in 1993. However, the law did not apply to dishwasher detergents and household cleaners many of which still contain phosphates. Seventeen states have banned its use, because the chemical compounds also pollute lakes, bays and streams. They create algae blooms and starve fish of oxygen. **Illinois is not one of the 17 states banning phosphates in dishwasher soap and cleaning supplies.** Check the label of the products you use. Mrs. Meyers make household cleaners, laundry detergent, and even body care. All products work extremely well on getting out dirt, grime, and dust while smelling great. They're all reasonably priced, sold at Walmart. Another good environmental option is a company called Tru Earth, they make laundry and dishwasher soap that is chloride and phosphorus free and also eliminates the use of large plastic jugs.

## **Fertilizers and Pesticides: Minimize their use and utilize organic Fertilizer**

Illinois and Wisconsin law prohibit the sale of fertilizers with phosphorus. You can reduce your fertilizer use by mulching your grass clippings. Grass clippings can provide up to 50% of the nitrogen your lawn needs. Use organic fertilizer as much as possible as it breaks down slower so excess nutrients are less likely to end up in the watershed. Nonorganic fertilizers are absorbed so quickly through the soil and have negative environmental costs. Among its harmful effects are: the pollution of the surrounding and underground water, an increase in the toxic salts of the soil, the degradation of the soil and the killing of microorganisms essential for the nutrition of the plants. Organic fertilizers are renewable, biodegradable, sustainable, and environmentally friendly.

## **What else can I do to limit Chlorides in the environment**

Shovel early after a snowstorm to minimize the need for deicers.

If you must use a deicer, consider a pre-wetted 1:1 sand and road salt mixture to minimize the amount of chlorides released.

Apply deicers early and sparingly; extra salt will not melt ice faster!

Do not deice with kitty litter, ashes, or any product containing urea.

Upgrade your water softener to a newer model with an on-demand setting.

Set your water softener to the correct hardness level for your water, and connect it so only inside water is being softened.



## Additional Benefits of Native Plants

Conserve Water: Because native plants are adapted to local environmental conditions, they require considerably less water, saving time, money, and a most valuable natural resource, water.

Low Maintenance: Native plants once established, generally require little maintenance. They do not require fertilizers as they are already adapted to the environment. Since Native Plants have been present in our ecosystem for thousands of years, they have evolved to be tolerant of our climate, soil, conditions, and pests/diseases. They will therefore require the least amount of maintenance.

### Beauty:

Many native plants offer beautiful showy flowers, produce abundant colorful fruits and seeds, and brilliant seasonal changes in colors from the pale, thin greens of early spring, to the vibrant yellows and reds of autumn.

### Wildlife:

Native plants are important to birds for a variety of reasons. These plants are important hosts for certain insects such as butterflies and moth caterpillars, making the insects rich in protein for birds to consume. Nesting birds will ultimately feed these sources of protein to their chicks. Birds are also a pathway for seed dispersal, spreading natives throughout their range. Native plants that produce large and colorful fruits will attract birds to consume them.

### Helping the Climate:

Landscaping with native plants can combat climate change. Native plants, especially long-living trees like oaks and maples, are effective at storing the greenhouse gas carbon dioxide.

## Illinois Environmental Boating Laws

**Aquatic Plants and Animals:** Do not leave a water access area, get on a highway or enter a new Illinois waterbody with aquatic plants and animals on the exterior of your watercraft or trailer. This law helps prevent the spread of invasive aquatic animals, plant fragments and seeds that can adhere to your boat and equipment.

Boat Registration and Safety Act: 625ILCS45/5-23 Effective January 1 2013



**Water:** Do not leave a water access area without emptying any compartment capable of holding natural waters, such as bait bucket, live well, bilge, etc. This law helps prevent the spread of VHS, a fish disease that is fatal for sport and bait fish.

VHS LAW: Illinois Administration Code title 17875.50 Effective May 18, 2015

**Live Bait:** Do not release unused purchased live bait into any waterbody. Do not use live prohibited species as live bait. Do not transport wild-trapped live bait to another waterbody. These laws help prevent the spread of invasive species used as live bait.

Aquatic Live Release Law: 515 ILCS 5/10-100. Effective January 1, 2015



## What LLMA does for you:

Protects and preserves the watershed and the ecosystem of East and West Loon Lakes

Monitors water clarity and report findings to Lake County Health Department-Environmental Services

In coordination with LCHD conducts rake studies on both lakes to determine amount and make-up of aquatic plant population

Fish Stocking of both lakes with various species

Provides a coordinated effort on the harvesting and herbicidal treatment of weeds

Instrumental in various major projects: Channel dredging, Channel seawall construction, new harvester purchase, Eurasian Water Milfoil whole lake treatment

Every three years in conjunction with LCHD-ES conducts a survey of threatened and endangered species to continually monitor any impact on these species

Provides no wake notifications during high water situations

Informs members on relevant information via our web page: <https://loonlakesmgmt.com> and Friends of Loon Lakes Facebook page

Represents your HOA through monthly meetings with each HOA representative

Provides educational information through our Steward of the Lakes program

## What you can do to help:

**Get involved in the organization:** Attend meetings, usually held the third Tuesday at 7:00 at the Antioch township center or via zoom. Check the LLMA website for information. <https://loonlakesmanagement.com>

**Volunteer:** Do you have a certain passion or skill? Volunteer for any of the following: Steward of the Lakes Educational program, Monthly Newsletter, Educational Speakers, Grant Writers, Volunteer Lake Monitoring Program, Fundraising Activities and ideas.

**Donate:** Our fixed (since 1989) SSA8 funding greatly limits our ability to do projects. LLMA is a 501C3 organization and is always in need of additional funding sources.

**Provide Ideas & Contacts:** Do you have ideas to better communicate and spread our mission? Do you have contacts that would be helpful in furthering the LLMA mission?

Contact us at [stewardsofthelakes@gmail.com](mailto:stewardsofthelakes@gmail.com) or [loonlakesmanagement@gmail.com](mailto:loonlakesmanagement@gmail.com)