

SLPID

2026 SUMMER NEWSLETTER

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A Summer Guide to Loving the Lake, from Raindrops to Loons

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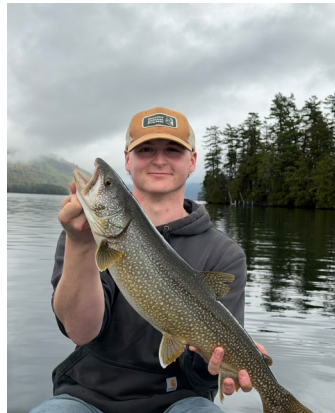
Every great lake deserves loyal Lake Stewards.

MEET THIS YEARS SARATOGA LAKE TEAM



Colin Ippolito is pursuing a Bachelor of Science in Fisheries and Aquaculture at SUNY Cobleskill and a Master of Science in Lake Management at SUNY Oneonta. When he is not pursuing his passion for aquatic ecosystems and lake health, Colin enjoys astrophotography and capturing the beauty of the night sky.

Will Wagner is a student at SUNY Cobleskill studying Environmental Management while also playing on the college's lacrosse team. When he's not helping protect Saratoga Lake, Will enjoys spending his time fishing, hiking, and hunting.



Lilly 🐾 may be the smallest member of the team, but she takes her lake steward duties seriously! She's always ready to help with aquatic surveys, sniff out invasive species, and inspect boats (especially when snacks are involved). When she's not protecting the lake, Lilly enjoys boat rides, swimming, rolling in the weeds, and reminding everyone that clean water is worth protecting. Stop by the NYS Boat Launch, or call SLPID at 518-223-3252.



THE HIDDEN JOURNEY OF THE RAINDROP

From your driveway, roof, or lawn... to the lake

Every raindrop has a journey. Where it lands—and what it picks up along the way—can make a difference in the health of Saratoga Lake.

Rainwater naturally moves downhill, flowing across yards, roads, rooftops, and other surfaces before eventually reaching streams, wetlands, rivers, and lakes. Along the way, it can collect nutrients, sediment, and pollutants that impact water quality.

Understanding the journey of a raindrop helps us understand how small changes around our homes can protect the lake.



photo credit: theconservationfoundation.org



THE HIDDEN JOURNEY OF THE RAINDROP

Driveway Runoff

What happens:

Rain falls on driveways and other hard surfaces where it cannot easily soak into the ground. Instead, water quickly flows downhill toward storm drains, ditches, and waterways.

Why it matters:

Hard surfaces allow water to move faster, which can increase erosion and carry pollutants into the lake.

A single raindrop can pick up:

- Oil, antifreeze, and other vehicle fluids that may leak from cars
- Metals and chemicals from vehicle wear and outdoor surfaces
- Sediment and debris that wash away during storms

Reducing unnecessary hard surfaces, maintaining vegetation nearby, and keeping driveways free of pollutants can help slow and filter runoff.

Roof Runoff

What happens:

Rain lands on rooftops, flows into gutters, and is often directed toward driveways, lawns, storm drains, or drainage areas.

Why it matters:

Because water moves quickly across roofs and gutters, it has little opportunity to soak into the ground and be naturally filtered.

Roof runoff may carry:

- Leaves and organic debris
- Bird droppings and other natural materials
- Small particles from roofing materials

There are several ways to help slow roof runoff and

allow water to soak into the ground naturally. Redirecting downspouts away from hard surfaces and toward rain gardens, vegetated areas, or rain barrels can reduce the amount of runoff reaching the lake. Other options include:

- French drains — underground drainage systems that collect and redirect excess water while allowing it to infiltrate into the surrounding soil. Properly designed French drains can help reduce pooling, slow runoff, and encourage groundwater recharge.
- Infiltration gutters — systems designed to capture and direct roof runoff into areas where it can gradually soak into the ground rather than flowing quickly across the property. These systems help filter water naturally and reduce the volume of runoff leaving the site.

By slowing, spreading, and soaking in roof runoff, homeowners can help reduce erosion and limit the transport of pollutants to Saratoga Lake.

Lawn Runoff

What happens:

Rain that falls on a lawn can soak into healthy soil. However, when soil is compacted, saturated, or unable to absorb additional water, runoff can occur.

Why it matters:

As water moves across the landscape, it can carry nutrients and other materials into nearby waterways.

A raindrop traveling across a lawn may pick up:

- Excess nutrients from fertilizer, grass clippings, and natural sources such as decomposing plant material
- ➔ Too many nutrients, especially nitrogen and phosphorus, can contribute to excessive algae growth and reduced oxygen levels in the lake.
- Pet waste
- ➔ Can add bacteria, parasites, and nutrients to runoff.
- Soil and sediment

- ➔ Can cloud the water, cover aquatic habitats, and transport additional pollutants attached to soil particles.

Where Does the Raindrop End Up?

Many stormwater systems are designed to move water quickly away from roads and properties. In many areas, storm drains discharge directly to local waterways rather than wastewater treatment plants.

That means a raindrop that begins on your driveway, roof, or lawn may eventually reach the same waters we use for recreation, fishing, and enjoying nature.

Along the way, it may carry:

- Excess nutrients ➔ increased algae growth and reduced water quality
- Bacteria ➔ impacts to recreational water use
- Sediment ➔ habitat impacts and cloudy water
- Chemicals and metals ➔ long-term stress on aquatic ecosystems

How You Can Help Your Raindrop Take a Better Journey

Small changes can make a big difference:

- ✓ Pick up pet waste promptly
- ✓ Follow New York State fertilizer guidelines and avoid unnecessary fertilizer use
- ✓ Keep grass clippings and yard debris out of the lake
- ✓ Plant native vegetation to slow runoff and stabilize soil
- ✓ Redirect roof runoff into rain barrels, gardens, vegetated areas, French drains, or infiltration systems
- ✓ Reduce unnecessary hard surfaces when possible
- ✓ Maintain shoreline buffers to help filter runoff before it reaches the lake

Every raindrop carries a story. By making choices that slow, filter, and clean stormwater, we can help protect Saratoga Lake for generations to come.



HEALTHY LAKES START AT HOME:

How Runoff Affects the Lake

Living on a lake provides countless opportunities to enjoy the outdoors, and many residents care deeply about protecting water quality. However, some everyday activities around our homes can unintentionally affect the lake's health. The good news is that small changes can make a big difference. Understanding where nutrients and pollutants come from—and how they reach the water—is one of the first steps in protecting Saratoga Lake.

Fertilizer Use and Lawn Care

Many homeowners apply fertilizer to maintain a green, healthy lawn. However, New York State's **Turfgrass Fertilizer Law** recognizes that excess fertilizer use can contribute to nutrient pollution in lakes and waterways. The law limits the use of phosphorus-containing fertilizers on residential lawns unless a soil test shows that phosphorus is needed, and it prohibits the application of fertilizer within **20 feet of a waterbody** unless a vegetative buffer is present.

For many established lawns, routine fertilizer applications are not necessary. Grass can remain healthy with proper mowing, watering practices, healthy soil, and leaving grass clippings in place to return nutrients to the soil naturally. Even lawns that are never fertilized can contribute to nutrient runoff. Grass clippings, leaves, pet waste, soil erosion, and naturally occurring nutrients in the landscape can all add nitrogen and phosphorus to stormwater runoff. During rain events, these nutrients can be carried into Saratoga Lake, where excess nutrients may contribute to algae growth and reduced water quality.

Homeowners can help reduce nutrient runoff by avoiding unnecessary fertilizer applications, following New York State guidelines for fertilizer use, keeping grass clippings and yard waste out of the lake, picking up pet waste, and maintaining healthy shoreline vegetation.

Parking Lots and Driveways

Hard surfaces such as driveways, roads, and parking areas create pathways for rainwater to flow quickly across the landscape. As water moves across these surfaces, it can pick up pollutants such as oils, chemicals, sediment, and debris before carrying them toward the lake.

Homeowners can reduce runoff by limiting unnecessary paved areas, using permeable surfaces when possible, and maintaining vegetation around driveways and parking areas. Another simple step is to sweep debris away rather than use a hose, which can wash pollutants directly into storm drains and waterways.

How Rain Carries Nutrients Into the Lake

When rain falls, water naturally moves downhill toward Saratoga Lake. As it travels, it can collect materials from the landscape, including soil, lawn clippings, pet waste, and other nutrient sources.

When too many nutrients enter the lake, they can contribute to excessive algae growth and changes in water quality. One of the most effective ways to reduce runoff is to create and maintain buffer zones along the shoreline.

Native grasses, wildflowers, shrubs, and other plants help slow water flow, trap sediment, absorb nutrients, and allow more water to soak into the ground before reaching the lake. Shoreline vegetation also provides important habitat for wildlife and helps strengthen the overall health of the ecosystem.

Everyone Plays a Role!

Protecting Saratoga Lake is a shared responsibility. Individual actions—such as reducing unnecessary fertilizer use, following New York State fertilizer guidelines, planting native vegetation, and managing stormwater runoff—can help protect water quality and maintain a healthy lake ecosystem.

No single person can solve the challenges facing a lake, but when homeowners, neighbors, and the community all take small steps, the collective impact can be significant.

Healthy lakes start with the choices we make at home.



RUNOFF AND ITS IMPACT ON LAKE HEALTH

Our lakes are among the most cherished natural resources in New York, providing beauty, recreation, and a place to relax and connect with nature. Beneath the lake's surface, changes in water quality can create challenges that are not always visible. Low dissolved oxygen (DO) levels can threaten fish and other aquatic life, contribute to harmful algal blooms (HABs), and impact the long-term health of our lake ecosystem.

Monitoring lake health is one of the responsibilities of the Saratoga Lake Protection and Improvement District (SLPID). Current monitoring data indicate that Saratoga Lake is experiencing increasing stress below the surface, making it more important than ever for everyone around the lake to understand how everyday actions can affect water quality.

Dissolved oxygen is essential for fish and other aquatic organisms. When nutrient-rich runoff from lawns, roads, and properties enters the lake—especially after storms—it can fuel excessive algae growth. As algae die and sink, their decomposition consumes oxygen in the water. Over time, this can create oxygen-depleted areas that put stress on aquatic life.

You might be thinking, “I don’t fertilize my lawn, so this doesn’t apply to me.” Unfortunately, runoff can still carry nutrients from many sources.

Even without fertilizer use, lawns naturally accumulate nutrients from sources such as grass clippings, pet waste, and atmospheric deposition. When rain carries these nutrients into the lake, they can act as a food source for algae. These nutrients do not simply disappear once they enter the water. Some can settle into lake sediments and may become available again under certain conditions.

When warm temperatures, sunlight, calm water, and excess nutrients combine, conditions may become favorable for harmful algal blooms (HABs). These blooms can result in murky green water, surface scum, unpleasant odors, and potential impacts on people, pets, and wildlife.

Throughout the season, SLPID monitors dissolved oxygen levels and other indicators of lake health. Monitoring shows the importance of reducing nutrient inputs and protecting the lake from additional stress. Every property owner and resident around Saratoga Lake plays a role in keeping our lake healthy.

Small changes around your home and yard can make a meaningful difference.

What You Can Do

- Reduce runoff from your property by installing rain gardens, buffer strips, or swales.
- Avoid mowing grass all the way to the shoreline.
- Scoop pet waste, compost yard clippings, and consider native landscaping alternatives.
- Encourage neighbors to take similar steps—lake health is a community effort.

A healthy lake starts at the edge of your lawn.



BENEATH THE SURFACE: THE SURPRISING BENEFITS OF LAKE WEEDS

Many people see aquatic plants in Saratoga Lake and assume they are a sign of unhealthy water. However, this is a common misconception. Native aquatic plants play a vital role in maintaining a balanced lake ecosystem and support life both above and beneath the surface.

Ecological Services of Native Aquatic Plants

It is easy to assume that a lake with abundant vegetation is unhealthy, but the opposite is often true. Native aquatic plants provide many important ecological services, including creating habitat, supporting food webs, stabilizing sediments, and helping cycle nutrients throughout the ecosystem.

Healthy oxygen levels are an important part of lake health. Through photosynthesis, aquatic plants release oxygen into the water, helping support many organisms, including fish and beneficial microorganisms that contribute to nutrient cycling and decomposition processes. While oxygen levels are influenced by many factors, including temperature, weather, and algae activity, native plants are an important part of a balanced aquatic environment.

One of the most important roles native aquatic plants provide is habitat. Submerged plants provide structure and shelter for many fish and other aquatic organisms. Small fish, such as sunfish, use vegetation for protection and spawning areas, while larger predatory fish, including bass, walleye, and pickerel, often use these areas as hunting grounds. Aquatic plants also provide food and habitat for other wildlife, including insects, amphibians, and some waterfowl species.

Native aquatic plants also help manage nutrients in the lake. Nitrogen and phosphorus can enter Saratoga Lake through sources such as stormwater runoff, fertilizers, and land use in the surrounding area. These nutrients are important for plant growth but can contribute to excessive algae growth when present in high amounts. Aquatic plants absorb some of these nutrients as they grow, helping compete with algae and supporting a more balanced ecosystem.

Invasive vs. Native Aquatic Plants

While Saratoga Lake, like many lakes, contains some invasive aquatic plants such as Eurasian watermilfoil and curly-leaf pondweed, it is important to understand that not all aquatic vegetation is harmful.

Native aquatic plants have evolved alongside local fish and wildlife and provide essential habitat, food, and shelter. They help protect shorelines, stabilize sediments, improve water clarity, and support biodiversity.

Invasive plants can create challenges because they often grow aggressively, spread quickly, and can outcompete native vegetation. When invasive species dominate, they may reduce habitat diversity and disrupt the natural balance of the ecosystem.

The goal is not to eliminate all aquatic plants, but to maintain a healthy balance in which native species can thrive while invasive species are carefully managed.

What to Take Away

Saratoga Lake is home to many different aquatic plants, each playing a role in the ecosystem. Learning the difference between native and invasive species is an important step toward understanding and protecting the lake.

Although aquatic plants may sometimes be viewed as unsightly or inconvenient, many of them are working beneath the surface to support cleaner water, healthier fish populations, and a more resilient lake ecosystem.

By appreciating the important role of native aquatic plants, we can help protect Saratoga Lake and keep it a place that future generations can enjoy.



PROTECTING SARATOGA LAKE WILDLIFE

Saratoga Lake is home to a variety of wildlife that depends on a healthy aquatic ecosystem. Among the most recognizable species are the bald eagle and the common loon—two iconic birds that remind us of the importance of protecting our lake and surrounding habitats.

While these birds are very different, both are closely connected to the health of our waterways. What happens in and around the lake can have lasting impacts on the wildlife that calls it home.

Bald Eagles: A Symbol of a Healthy Ecosystem

The bald eagle is one of North America's most recognizable and successful conservation stories. Once threatened by habitat loss, pollution, and the effects of chemicals such as DDT, bald eagle populations have rebounded significantly due to decades of conservation efforts and environmental protections.

As skilled hunters and opportunistic scavengers, bald eagles rely heavily on fish as a food source. Because of this, they are closely tied to the health of lakes, rivers, and other aquatic environments. A healthy fish population and clean water provide the foundation for a thriving eagle population.

Aquatic invasive species can disrupt these natural food webs by changing habitats, competing with native species, or altering fish populations. These changes can affect the availability of food resources that eagles depend on. While bald eagles are adaptable birds, protecting native species and maintaining balanced ecosystems helps support the entire food chain.



Simple actions—such as preventing the spread of invasive species, keeping shorelines healthy, and supporting responsible lake management—help protect the habitats that allow bald eagles and other wildlife to thrive.

Common Loons: Protecting a Lake Icon

Few sounds represent a northern lake more than the haunting call of the common loon. These remarkable birds are excellent divers and depend on clean, healthy lakes where they can find fish and safely raise their young.



One of the greatest threats loons face on freshwater lakes is accidental entanglement in discarded fishing line. Left behind fishing line can wrap around a loon's body, legs, or wings, preventing it from swimming, diving, or flying. Injured birds may struggle to feed and can suffer serious consequences.

Lead fishing tackle, including sinkers and jigs, is another significant concern. Loons naturally swallow small stones, known as grit, to help grind and digest food in their gizzards. Unfortunately, they may accidentally pick up lead fishing tackle while searching for grit. Once ingested, lead can cause severe poisoning and is often fatal.

Fortunately, these threats are preventable. Anglers can help protect loons and other wildlife by:

- Using non-lead fishing tackle alternatives
- Properly disposing of fishing line
- Removing old or unused gear from shorelines and boats
- Avoiding leaving fishing equipment behind

SLPID has Fishing Line recycling stations around Saratoga Lake at the Saratoga City Waterfront Park, the NYS Boat Launch, Lee's campground, Browns Beach, and South Shore Marina. Lead fishing tackle can be dropped off at the SLPID Lake Steward shed at NYS Boat Launch, or call SLPID at 518-223-3252.

Every Action Helps Protect Saratoga Lake

The health of Saratoga Lake is connected to every species that depends on it—from fish and aquatic plants to bald eagles and common loons. By making thoughtful choices around the lake, residents and visitors can help preserve the natural balance that makes Saratoga Lake such a special place.

Protecting wildlife starts with protecting the water they call home.



Saratoga Lake TAKE THE PLEDGE



ENCOURAGE YOUR NEIGHBORS!

Like us on Facebook and send a message

The goal of **Take the Pledge** is to encourage property owners within the Saratoga Lake watershed to commit to a few sustainable actions and demonstrate that small efforts on your part have a significant reaction on the biodiversity and health of the lake.



As a property owner within the watershed, your direct and indirect actions have the most impact on algal growth, sediment run-off, bacteria, pathogens, and poisoning aquatic life and wildlife.

I PLEDGE:

TO MINIMIZE RUNOFF – Use “soft-scaping” and buffers around the lakefront and any slope or hillside that has a chance to runoff into the watershed.

Tip: Leave a buffer of grass, hedges or native flowers between the lakefront and lawn. You can reduce impermeable surfaces with natural walkways, patios and permeable or gravel driveways. Instead of concrete patios, use natural permeable materials with native plants integrated.



Saratoga Lake TAKE THE PLEDGE

TO SAY NO TO FERTILIZERS – Most lawns naturally have adequate phosphorous for a healthy lawn and fertilizer is not needed. In accordance with NYS law, if you must use fertilizers, get a soil test done at the county Cooperative Extension office to ensure that you are only using the fertilizer that is needed.

DO NOT apply lawn fertilizer within 20 feet of any water body unless...

- There is at least a 10-foot buffer of shrubs, trees or other plants between the area you are fertilizing and the water OR
- Fertilizer can be applied no closer than 3 feet from the water using a device with a spreader guard, deflector shield or drop spreader.

Tip: Look for alternatives to fertilizers and if you do use them – never before a storm!

TO STOP THE POLLUTION – Do not throw leaves, lawn debris/clippings, or animal feces into the lake. All of these are high in phosphorous that can contribute to algal growth.

Tip: Always bag lawn debris for disposal or better yet, compost!

TO SAY NO TO PESTICIDES – As well as harmful cleaning agents and other chemicals. The bugs you see in and around the lake are also an important part of the ecosystem. Dangerous pesticides and lawn chemicals can be toxic to aquatic life and promote the growth of algae and weeds.

Tip: Avoid all chemicals; they are also bad for you and your pets' health. Wash cars and boats away from the lake.

