



Thank you for participating in LakeSmart!

| Name: | |
|---------------------|--|
| Location: | Georges Pond Road, Franklin, Maine 04634 |
| Reviewers: | |
| Date of Evaluation: | May 28, 2022 |
| Status: | Commendation |

Dear ----:

Thank you for allowing us to survey your property on Georges Pond for LakeSmart, one of the most effective lake protection programs available today and the flagship program of Maine Lakes. The alum treatments, applied in 2020 and 2021, produced record water clarity levels - almost 25 feet, the best since 1977 when records were first kept. However, this success will not last if we do not <u>also</u> address stormwater runoff, which carries phosphorus from each of our properties into the pond. Phosphorus is what fuels algal blooms and LakeSmart addresses stormwater runoff! Also, LakeSmart evaluations play a critical role as we apply for grant funding to address issues in our watershed.

Like many of us, your family has a rich and sentimental history on Georges Pond. We loved hearing about your family and friends enjoying Georges throughout the years, and the pictures you showed us were fun and informative. We hope our collective efforts to restore Georges will make a difference in the legacy we leave for future generations.

We sincerely appreciate your desire and commitment to protect the pond and your willingness to consider any recommended Best Management Practices (BMPs). BMPs are lake friendly techniques to slow, spread, capture or infiltrate stormwater to turn it into groundwater before it can harm the lake.

LakeSmart reviews how stormwater runoff is captured throughout the property in five sections: **Driveway and Parking Areas; Outdoor Structures; Outdoor Areas; Shoreline; and the Shoreline Buffer.**

Each of us can make improvements to benefit our pond, and we <u>Commend</u> you for the efforts already taken on your property and your support of the GPA. In order to earn the highest LakeSmart recognition, please continue to build up your shoreline buffer, which protects water quality by slowing and infiltrating stormwater runoff and by stabilizing the shoreline.

Remember, the following Best Management Practices (BMPs) are <u>only suggestions</u> to further enhance your property and protect our pond. Participating in our current 319 Grant can provide even more suggestions and funding. If you do make improvements to your property, please consider taking photos and sharing them with us. Not only will your efforts provide inspiration for others, but it will also document our collective community effort to fix the lake. All improvements, large and small, help protect our pond!

Section 1: Driveway and Parking Areas

Overall, this section looks good! We did not find any erosion of the driveway or parking surfaces or shoulders. The driveway is well-defined, but the parking areas closer to the camp could be better defined with large rocks or logs to indicate where vehicles should park. LakeSmart likes to limit parking areas for vehicles, so that soil in the yard does not become compacted. Compacted soil cannot readily absorb stormwater runoff. You mentioned concern about the dip at the driveway entrance which we will address with our grant consultant when she visits Georges.



Section 2: Outdoor Structures:

Structures:

A moderate rainstorm of ½ inch over a 25x40 foot roof produces 300 gallons of water. However, recently we have had rainstorms of *several inches* at a time - a *lot* of water all at once! While there are no significant issues with erosion from roof runoff, remember grass has a shallow root system that does not readily absorb stormwater.

Roof runoff at the back of the camp appears to come off of the gutter on the right side (as you face the pond) and flows toward the pond. We talked about putting a rain garden near the downspout to help retain and infiltrate rain water. Another alternative is to put a dry well under the gutter downspout to capture the roof runoff, rather than have it course its way to the pond. We don't see the same signs of runoff on the left back side of the camp.

You have some beautiful ferns growing In front of the porch on the pond side! We encourage you to let these thrive and spread across the entire span, including the shorter section beside the porch door. These plants act as a rain garden to absorb roof runoff, while adding natural beauty to your landscape.

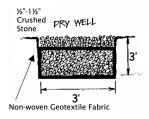
| A rain garden with |
|-------------------------|
| some of your hardy |
| ferns could help absorb |
| and infiltrate |
| stormwater from the |
| gutters. |
| |

A dry well is another alternative to help infiltrate stormwater. On this corner of the camp, you can see where the stormwater is heading toward the pond.

Spread out these beautiful ferns across the entire roof dripline.

More hostas or ferns under this roof dripline will help protect the pond.









Helpful Resources:

Rain Gardens
Dry Wells

Septic System:

We note that you had your septic tank pumped in August, 2020 and have blocked off vehicle access to your leach field. Both actions are excellent! Driving or parking over any part of the septic system (tank or leach field) can result in broken pipes or a cracked tank. As we discussed, there are some small trees growing on the leach field which should be removed to prolong the life of the leach field. Roots from trees can grow into the perforated pipes and interfere with the proper functioning of the leach field, resulting in an expensive fix.

Getting the septic tank pumped is the single most important maintenance item to keep a septic system working properly, followed by keeping the leach field free of woody vegetation. LakeSmart suggests that the septic tank be pumped on a regular schedule, usually every 3-5 years for a year-round home, and more often if the camp is rented out. We have learned that just one or two failing septic systems can adversely affect the water quality of Georges Pond.

Helpful Resources:

Septic System Maintenance
Septic System Inspection
Landscaping over Septic Leach Fields

3: Outdoor Areas:

Thank you for not using herbicides, pesticides or fertilizers which ultimately find their way into the pond. Lawns typically have very shallow root systems and do not infiltrate runoff into the soil well. Allowing grass to grow long (by mowing at the highest setting - 3" or higher) encourages a deeper root system. Depending on how much of the lawn area your family uses for outdoor recreation, consider reducing the footprint of the lawn by letting some areas naturalize with native plants. Also, let the duff (pine needles and leaves) accumulate throughout the property as it helps slow and filter stormwater. LakeSmart's motto is, "Take a break; Put down the rake; Save the lake!"

Although we don't see any problematic signs of erosion in this section, one suggestion is to add some defined paths to direct foot traffic to social areas and the water access. Directing foot traffic with pathways helps to reduce soil compaction by keeping other areas of the property in a natural condition to help soak up stormwater. An easy way of establishing a protective path is with Erosion Control Mulch (ECM). ECM is a chunky mix of composted bark, sand, gravel, stone and wood fragments which locks together to protect the underlying soil from erosion and absorbs storm runoff. It can be used on paths, slopes and between plantings, and can help control weeds and improve soil as it decomposes. ECM is different from garden mulch which can easily be washed away. If you need help locating ECM, let us know.

We also discussed storing boats in a designated area on racks or simple sawhorses. This allows ground vegetation to infiltrate runoff and reduces compaction of soil.

Helpful Resources:

Paths and Walkways
How ECM is different from other mulches
Erosion Control Mix
Lakes Like Less Lawn

Defined pathways can direct foot traffic through the yard to water access points (dock and beach), reducing soil compaction throughout the yard allowing for absorption of runoff. Naturalize the yard with native plants as much as possible to protect the pond..

A simple solution for boat storage. Sawhorses would work, too.





Section 4: Shoreline

The area along the entire owned shorefront is the interface between the water and the land. It is one of the most important areas to implement lake-friendly living practices to keep runoff water and pollutants out of the lake.

The far left and far right areas of your property are exemplary of an ideal shoreline! We realize that it is also somewhat impractical for lakeside living! Still it is up to us to protect our pond as much as possible if we want future generations to enjoy what we have now. Consider expanding the vegetation from the edges of your property as much as possible, while still allowing access and a beautiful view. We encourage a "filtered" view of the Pond as the "LakeSmart view".

There is an undercut shoreline present with leaning trees and exposed tree roots. The tree trunk your husband placed under the lip acts as a protective barrier against onshore wave action! Eventually the leaning trees on the bank will fail and you could lose some land when that happens. For this reason, we recommend planting saplings as the next generation of trees to replace the leaning trees. Do not cut down trees along the shoreline as their deep roots hold the bank, absorb stormwater, and their canopy provides protection from driving rain that can erode soil. Consider adding native plants along the shoreline to reinforce the bank.

The entrance to the dock shows minor erosion as you step from the grass onto the dock. We will ask our 319 grant administrator to look at this to see if an infiltration step would help stabilize this area.

The trees on the far left and far right of your property represent the <u>ideal</u> shoreline.

Selecting appropriate native plants can help protect the pond without losing your beautiful view.

The undercut shoreline is evidenced by leaning trees and exposed roots, but the deep root structure helps hold the bank. Consider planting saplings for the next generation of trees. Other ground cover and native plants can help, too.

An example of infiltration steps to the dock at ----'s camp, done with 319 Grant funding in 2021.







Helpful Resources:

<u>Infiltration Steps -retrofit</u> <u>Infiltration Steps - steep slopes</u>

Section 5: Shoreline Buffer

This section applies to the vegetative buffer between the *development footprint* (which includes the driveway, parking areas, structures, yard, and access points) and the lake. This buffer is the continuous stand of natural vegetation growing along the shoreline. It is the last line of defense protecting our pond from stormwater runoff. Buffers are also important to both aquatic and terrestrial wildlife that live in or near the lake or rely on the lake ecosystem for survival.

The ideal LakeSmart buffer slows and absorbs rain and stormwater and has five layers of vegetation - canopy, midstory, shrubs, ground cover, and duff (pine needles and leaves). The buffer should be at least 10 feet deep with narrow access points to the water and permeable, curving paths. Plants should be mostly native or native-friendly. LakeSmart always recommends "beefing up the buffer" by planting saplings and shrubs anywhere the buffer appears thin, allowing the next generation of trees and shrubs to grow in the buffer.

Our survey revealed that this section of your property needs the most attention in terms of protecting the pond. Like many of our camps, your camp is sited closer to the pond than current regulations would allow, but implementing LakeSmart BMPs (Best Management Practices) can protect the pond.

In general, the goal is to add depth to the buffer with several layers of plants which can be carefully selected to retain your gorgeous filtered view of the pond. The added plants and rain gardens would fully protect the pond. An easy BMP to try would be placing some live stakes in front of the undercut shoreline. Live stakes are dormant cuttings of pussy willow or dogwood varieties taken from an established plant. The cutting is typically 2-3 feet long and inserted into a pre-drilled hole 18 inches into the ground in the spring, before the active growing season. We have had some success with this technique in the last two years at a few camps around the pond. You can read more about live stakes in the link below. Let us know if you are interested as we hope to plant more live stakes next spring.

Lives staking along the undercut shoreline may be worth a try!

Consider adding native plants along the shoreline to expand the buffer.

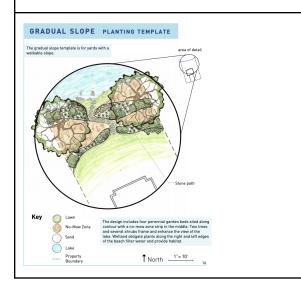




Vermont has a program called Lake Wise, which is modeled after LakeSmart. They published a wonderful pamphlet with some buffer designs. The pamphlet is linked below as a PDF for you to browse.

Planting template showing a curved path to the water and rain gardens on either side of the path.

Rain garden ideas from Lake Wise. Lake Wise is Vermont's version of LakeSmart. See the link, <u>Lake Wise pamphlet</u>, for more ideas and design templates.





Helpful Resources:

Lake Wise pamphlet
Live Stakes
Planting and Maintaining Buffers
Buffer Plant List
Plants for Sun and Dry Soil
Plants for Part Sun and Dry Soil

Some of these ideas may be good projects for our Phase 2 - 319 Grant. We will plan a visit with you this summer along with our Grant Consultant and draw up a proposal for you. You are under no obligation to execute any of the suggested plans, but if you do move forward, there is an opportunity to receive matching funds.

Thank you for allowing us to survey your property, for your consideration of the suggested BMPs, and for being a great steward of the pond. You can find lots of great information from the <u>Maine DEP</u> for all types of lake-friendly living practices - from roads to rain gardens.

Please don't hesitate to contact us if you have any questions.

With Sincere Appreciation,

LakeSmart Coordinator Georges Pond Association

"The greatest threat to our Pond is the belief that someone else will save it." (Adapted from a quote by Robert Swan, explorer.)

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