Pigeon Lake Watershed Association

Self-Guided Property Assessment

[Insert new stewardship branding]

For more information - Naturalize your lot: A Guide to Lake-Friendly Landscaping

Adapted with permission from NH Lakes LakeSmart Property Owner Self-Assessment (https://nhlakes.org/lakesmart/)

Self-Guided Property Assessment

Thank you for taking the first step to natural lake-friendly living and inspiring others to do the same! This is an opportunity to get to know your land better by understanding how water moves over and away from your site, as well to learn about how property aspects impact the lake. The estimated time to complete this self-assessment is 30 minutes. See the [landscape guide at ...] for more information

How this works

Rank how your property reflects each item in the sections from one to three. Note how many ones, twos, and threes you have to prioritize potential areas for improvement and investment. **1 - Needs improvement 2 - May require improvements 3 - Minimal improvements needed**

Section 1: Minimizing Your Footprint - Driveway and Parking Areas

Runoff water from driveways and parking areas can wash pollutants or soil into nearby lakes, rivers, wetlands, or storm drains that empty into a waterbody.

1.a	**Driveway and parking areas are 'designated'**	'Designated' means driving and parking areas are identified and used consistently while other areas on the property are free from driving and parking. This helps to minimize the amount of compacted soil on the property, increasing the area of soil that can soak up rain and runoff water.	1	2	3
1.b.	**Driveway and parking areas are 'minimized'**	'Minimized' means driving and parking areas are not larger than needed. Areas used for overflow parking during events and holidays are left in a natural condition in-between uses.	1	2	3
1.c.	**The driveway and parking area surfaces are 'stable'**	'Stable' means there is no evidence of materials being washed away and there are no ditches in or along the driveway or parking areas where channels have formed from runoff water.	1	2	3
1.d.	**Driveways are orientated to receive maximum sunlight**	The orientation of the driveway takes advantage of the sun so that it melts more quickly in the winter and dries more quickly in the summer.	1	2	3
1.e.	**There is a 'buffer area' between the driveway and nearby lakes, rivers, wetlands, or storm drains**	A 'buffer area' is a healthy band of trees and shrubs (not grass) that helps to slow down, soak up, and filter rain and snow melt running off of the driveway. Buffer areas are a protective boundary that minimize the amount of pollution and sediment carried off the property and into nearby rivers, wetlands, or storm drains that could eventually discharge into the lake.	1	2	3
1.f.	**All roof dripline areas are free of 'channels'**	Channels are narrow trenches where soil has been washed away by water falling from the roof. Walk around each building and look at the ground under the edge of the roof (the 'dripline').	1	2	3

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Section 1 Continued: Minimizing Your Footprint - Yard, Recreation Areas, and Footpaths

This is the area enjoyed by family and friends at Pigeon Lake. How the runoff soaks into the ground is affected by the way the area is used and the size of it. A properly cared for lawn can be a part of a lake-friendly lot; however, naturalizing unused portions of lawn can increase the benefits to the lake.

1.g.	**The size of the lawn is not 'excessive'**	'Excessive' means that the lawn is bigger than is needed for the socializing and activities that take place on your property. Over time, the soil in lawn areas can become compacted which does not allow runoff water to soak into the ground. If no lawn, circle '3'	1	2	3
1.h.	**The recreation areas in the yard are 'designated'**	'Designated' recreation areas include fire pits, outdoor dining areas, children's play areas, etc. These areas concentrate foot traffic and result in soil compaction, which doesn't soak up runoff.	1	2	3
1.i.	**Natural areas have been left wherever possible to form a 'duff' layer**	In areas not needed for socializing, recreation, play, or boat storage, thick areas of 'duff'—leaves and pine needles—have been left to accumulate to minimize the impact of raindrops on the soil and slow down runoff water, helping it soak it into the ground.	1	2	3
1.j.	**Bare ground exposure is minimized**	Bare soil is susceptible to erosion by wind and water. Erosion can remove topsoil and load surface water with sediment, damaging fish and wildlife habitat.	1	2	3
1.k.	**Footpaths on the property are lake-friendly**	Directing foot traffic to pathways helps keep other areas of the property free from soil compaction, helping to soak up runoff water. Lake-friendly footpaths are: 1. **Adequate and limited:** There are identified paths to direct foot traffic and there are not more paths than needed and paths are not wider than needed. 2. **Curved:** Paths meander to their destination. The soft bends created by curved footpaths help to slow down and divert runoff water so it can be absorbed into the ground. 3. **Cushioned:** Paths are covered with ground cover, mulch, crushed rock, or spaced pavers. Stable footpath surfaces help minimize soil being washed away by runoff water. If there are exposed tree roots present in the footpaths on your property, this is strong evidence of soil compaction and erosion and indicates that footpaths are not cushioned.	1	2	3
1.l.	**Runoff drainage is diverted away from surface water to areas of absorption**	Proper drainage can prevent erosion from runoff and also reduce the rate of water flow and the amount of pollutants going into the lake. This includes diverting runoff to natural vegetated areas on the sides of properties. i.e. rain gutters directed into flower beds, driveway slopes altered to move water to the side, yard grading moving away from the house to the sides towards vegetated areas, using a rain barrel, using trenches and soak-ways.	1	2	3
1.m	**Fertilizer or compost is not used on the lawn**	Fertilizer washed into the lake speeds up plant and algae growth and may cause harmful algal blooms. In most of the summer villages and counties fertilizer use is banned.	1	2	3

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Section 2: Planting for the Lake				
2.a. Native plant species are used when possible	Native plants will root easily, grow well, and will require little maintenance once established.	1	2	3
2.b. Plants used are appropriate for the area and condition	The appropriate area and condition refers to the sunlight exposure, water requirements, and soil type. By planting for the water conditions, it reduces the amount of additional watering that needs to be done.	1	2	3
2.c. Varying height, age, and types of vegetation	Having a variety of vegetation creates a more interesting and stable layered landscape. As well, it will help provide more habitat for birds and other wildlife.	1	2	3
2.d. Gardens are located in a sunny, level, or slightly sloping spot	A level garden can act as a rainfall trap to slow down runoff. As well, if the garden is too slopped heavy rainfalls could wash topsoil away.	1	2	3

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Section 3: Living Alongside Wildlife				
3.a. Plants and vegetation are layered or if space is restricted, clumps of trees are planted surrounded by smaller shrubs	"Layered" is defined as having taller trees along the edges of the property, with vegetation decreasing in height as they move towards the house. i.e. having shade tolerant shrubs and groundcover beneath trees.	1	2	3
3.b. Irregular or rounded planting edges are used whenever	Wildlife is wary of straight lines, so having irregular or rounded vegetation edges makes wildlife feel more comfortable.	1	2	3

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Section 4: Preventing the Spread of Invasive Species				
4.a. Measures are in place for checking and controlling invasive species	Landowners are responsible for controlling weeds on their property. Prohibited noxious weeds, regulated under the Weed Control Act, must be destroyed and eradicated. At the same time, the use of cosmetic fertilizers has been banned in all municipalities around Pigeon Lake. To prevent the spread allow areas to naturalize, add native plants, and be persistent in removing both noxious and nuisance weeds.	1	2	3
4.b. Firewood from unknown sources is not stored on the lot	To prevent the spread of pests use local firewood. Invasive insects can easily hide in firewood. When firewood moves, so do these pests, potentially threatening our beautiful forests.	1	2	3
4.c. Aquatic invasive species have not been introduced	Water garden plants found at the garden center have the potential to become invasive—outcompeting and diminishing the diversity of native aquatic species. When non-native plants or animals escape or are intentionally introduced into lakes, streams, and wetlands, they can become invasive due to an absence of natural population controls, such as predators and disease, that would normally keep them in check. i.e. Flower Rush	1	2	3

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Section 5: Protecting the Shoreline

If your property is along the water, the land right next to the lake is one of the most important areas to implement lake-friendly living practices to keep runoff water and pollutants out of the lake. If you do not have shoreline property please skip to the end.

5.a. There is native vegetation including some combination of trees, shrubs, wildflowers and grasses growing along the majority of the shoreline	This vegetated strip is typically referred to as a 'vegetated buffer.' This buffer should be densely populated with trees and shrubs to minimize the impact of rain hitting the ground. It soaks up runoff water, holds soil in place, provides wildlife habitat, and can, if sufficiently wide and tall, deter geese from visiting a property.	1	2	3
5.b. The shoreline is 'stable'	'Stable' means that the shoreline is not being undercut or washed away in any area by runoff water from the landscape or by wave action from the lake. If you have a dock, walk out to the end of it and look back at the shoreline. If the bank is slumping, or is undercut, or tree roots are exposed, the shoreline is not stable.	1	2	3
5.c. There are no culverts or pipes coming from my property that drain into the lake	Culverts, sump pumps, and other water transmissions drain into a planted area, rain garden, or area of vegetation to be filtered before reaching the lake. There is no evidence of any piped or culverted water being discharged directly into the lake.	1	2	3
5.d. Household and yard waste is not allowed to wash into the lake	Materials like grass clippings, leaves, ashes, and household compost contain nutrients that can impact the health of the lake and lead to lake plant and algae overgrowth and toxic algae (cyanobacteria) blooms.	1	2	3
5.e. The lake bottom is left natural and not 'cleaned up'	Not 'cleaned up' means that aquatic plants are not uprooted and removed, rocks are not removed, the lake bottom is not raked, and you are not personally putting chemicals or other materials into the water to control plant and animal growth. Raking the lake bottom to remove leaves and plants disturbs the sediment and releases phosphorus into the water. These actions speed plant and toxic algae (cyanobacteria) growth and disturb aquatic organism habitat. Aquatic plants have an important role in oxygenating and shading the water.	1	2	3
5.f. Sand or fill is not added to the shoreline	Adding fill to create a beach is a temorary measure. Wind, waves, and ice will eventually wash away the added fill. This increases the amount of sediment to into the lake, which is harmful for fish and other aquatic species . As well, imported fill and sand can carry invasive species and introduce them to the area	1	2	3
5.g. If there are any rocks on the shoreline, they are naturally occuring	A naturally rocky shoreline with plenty of vegitation can help prevent errosion. However adding in large rocks, where none naturally exisit, reflects the wave energy and can actually lead to a larger loss of shoreline.	1	2	3

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Section 5 Continued: Protecting the Shoreline

5.h. All the structures along the shoreline have the appropriate permits or are grandfathered	Check your summer village or county by-laws for information regarding shorelines and permits. Every municipality around the lake is different, so it is important to find out what your specific regulations are.	1	2	3
5.i. Docks, stairs, and decks are not constructed with lake-friedly materials i.e no pressure treated wood	Construction materials such as non-pressure treated wood, pre-cast concrete, corrosion-resistant hardware, or UV-resistant plastics / hardware are used. Chemicals in pressure treated wood and concrete can be toxic to wildlife and people. As well, the chemicals can leache into the lake, changeing the water quality . Naturally rot-resistant woods like redwood, cedar, and cypress can be used instead. If it is not used circle '3'.	1	2	3
5.j. Docks are post-supported or cantilever	Low impact styles such as post-supported, cantilever, or floating docks are used. These dock styles reduce the disturbance of the lake floor and allow for the continued flow of water beneath them.	1	2	3
5.k. Boat storage areas are 'defined and minimal'	'Defined and minimal' means that boats are stored off the ground in a way that allows rain and runoff water to soak into the ground, vegetation to grow underneath, and minimizes soil compaction. If no boats are stored on land circle '3.'	1	2	3
5.l. Exterior lighting near the water is 'minimized'	'Minimized' outdoor lighting means that outdoor lights are not left on unnecessarily and that they do not shine directly out over the lake. Artificial lights interfere with natural cycles of nocturnal birds, pollinators, and even small creatures living in the lake! Turning outdoor lights off when not in use or putting them on motion sensors and positioning them so that they shine downward is an easy way to minimize outdoor lighting.	1	2	3

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You Have Completed the Self-Assessment - What's Next

Congratulations on completing the self-guided property assessment! Your effort to make your property lake-friendly is truly appreciated. So thank you! What happens on your property affects Pigeon Lake and its watershed, so by taking this first step you are helping to ensure a clean and healthy lake for future generations!

The next step is to come up with a plan for your natural lake-friendly landscaping. Take what you have learned about your property from this assesment and research strategies to improve some key areas. We've included some useful resources below:

- A Guide to Naturalizing Your Lot: Lake-friendly Landscaping
- Alberta Clean Runoff Action Guide
- Nature Alberta living on the Waterfront - The Alberta Guide for Shoreline Living

The above resources are available at our website www.plwa.ca. If you have any questions please contact us at info@plwa.ca. Adapted with permission from the NH Lakes LakeSmart: A Lake-Friendly Living Program - Property Owner Self-Assessment. Other Sources: Nature Alberta living on the Waterfront - The Alberta Guide for Shoreline Living, Alberta Clean Runoff Action Guide