

Pigeon Lake Watershed Association

Self-Guided Property Assessment



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

Self-Guided Property Assessment

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 aspects of your property impact the lake.

The estimated time to complete this self-assessment is 30 minutes.

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 directly into Pigeon Lake or indirectly through creeks, ditches, or storm drains.

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. If an area is used for overflow parking during events and holidays, this space is 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 to minimize the amount of pollution and sediment carried off the property.	1	2	3
Fertilizers, pesticides and herbicide bans are observed	All municipalities around Pigeon Lake have Cosmetic Fertilizer Bans. To learn more			

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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.f. The size of the lawn is 'limited'	'Limited' means that the area with lawn is balanced with planting beds and natural areas. 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.g. The recreation areas in the yard are 'designated'	'Designated' recreation areas such as fire pits, outdoor dining areas, and children's play help contain foot traffic to reduce soil compaction in which the rate and volume of runoff will increase.	1	2	3
1.h. 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'—plant debris—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.i. 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.j. 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.k. 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.l Fertilizer pesticides and herbicide are not used in areas where banned	Cosmetic lawn treatments running into the lake speeds up plant and algae growth and may cause harmful algal blooms. All Summer villages, Leduc County and Wetaskiwin County have bylaws prohibiting the use of cosmetic fertilizers (including pesticides and herbicides in most cases). To learn more: https://www.plwa.ca/faqs/fertilizerbans	1	2	3

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Section 2: Planting for the Lake

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2.a. Native plant species have been retained or planted	Native plants will root easily, grow well, and 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.	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 sloped 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. 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 by using local firewood. Invasive insects can easily hide in firewood. When firewood moves, so do these pests, potentially threatening our beautiful treed areas.	1	2	3
4.c. Aquatic invasive species have not been introduced	Introducing plants or aquatic species in the lake is dangerous and illegal. When non-native plants (e.g. water plants from a garden centre) or aquatic species (e.g. gold fish) escape or are intentionally introduced into the lake they can become invasive due to an absence of natural population controls.	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 a mix of vegetation including trees, shrubs, wildflowers growing along the shoreline	Vegetation on the shoreline should be densely populated with trees and shrubs to minimize the impact of rain and runoff. A buffer strip of vegetation filters pollutants before it enters the lake, holds soil in place to prevent erosion, provides wildlife habitat. If sufficiently wide and tall, the vegetation will deter geese from landing on the 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 are 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 chemicals or other materials are not added to the water to control plant and animal growth. Raking the lake bottom to remove leaves and plants disturbs the sediment and releases phosphorus. 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	Changes to a shoreline are illegal without permits. Fill increases the amount of sediment to into the lake, which is harmful for fish and other species . As well, imported fill and sand can introduce invasive species.	1	2	3
5.g. If there are any rocks on the shoreline, they are naturally occurring	A naturally rocky shoreline with plenty of vegetation can help prevent erosion, however; adding in large rocks reflects the wave energy and can actually lead to a larger loss of shoreline. Note: changes to a shoreline are illegal without permits.	1	2	3

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Section 5 Continued: Protecting the Shoreline



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5.h. Limit hard surfaces and structures at the shoreline	A natural shoreline provides essential ecosystem services to protect the lake and your property value. All development on the shoreline increases the rate and volume of runoff in the lake and frequency of algal blooms. Limiting hard surfaces such as decks, stones, and building at the shoreline is essential.	1	2	3
5.i. Docks, stairs, and decks are not constructed with lake-friendly materials i.e. no pressure treated wood	Construction materials such as non-pressure treated wood, corrosion-resistant hardware, or UV-resistant plastics / hardware are used. Chemicals in pressure treated wood and concrete can be toxic to wildlife and people. 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. Low impact dock structure is installed	Low impact style docks include post-supported or floating docks. 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. Watercraft storage areas are 'defined and minimal'	'Defined and minimal' means that watercrafts including canoes, kayaks, paddle boats and motorized crafts 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 watercrafts 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

What happens on your property affects Pigeon Lake, its watershed, and the value of your property. If the Self-guided Property Assessment highlighted areas where some work is needed, Pigeon Lake Watershed Association (PLWA) offers consultation services to help you take what you have learned about your property and develop a lake-friendly landscaping plan.

PLWA also has other programs and services that can help you make changes. In 2021, we are offering free shrubs and plants to property owners in the watershed. Please contact: info@plwa.ca for more information.

To learn more: <https://www.plwa.ca/naturalize-your-lot>

This assessment was 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

