

Keep our

Lake

Blue

Campaign Guide



LICA

ENVIRONMENTAL STEWARDS

Keep Our Lake Blue Campaign Guide



Introduction

In the summer of 2019, LICA-Environmental Stewards led a Keep Our Lake Blue (KOLB) initiative to promote healthy aquatic systems in the Beaver River watershed. Within the watershed is Moose Lake, home to many lakefront properties, and a haven for recreation. Residents and visitors are drawn to its opportunities for fishing, boating, and swimming, but these activities are often interrupted by algae blooms. To help improve Moose Lake's water quality, LICA partnered with the Moose Lake Watershed Society to launch the KOLB campaign encouraging people to take action to reduce runoff and pollutants, such as phosphorus, from entering the lake.

Residents around Moose Lake were invited to take one new action to reduce runoff and pollutants on their properties. Households that signed up to KOLB received a lawn sign to display their commitment to clean water, and they were provided with a list of 52 actions they could take to reduce runoff and pollutants. From this list, the average household implemented 2 new actions over the summer of 2019, took 31 actions in previous years, and did not take 17 of the actions. Upon receiving the campaign information, one resident changed his plan to install an asphalt driveway to a driveway with a permeable surface.

The most common actions taken during the 2019 campaign are summarized in the table below.

Reducing Runoff	Water lawn in the morning or evening to minimize evaporation.
	Mow the lawn higher (2-3" is best).
	Use a broom instead of a hose to clean driveways and sidewalk.
Reducing Pollutants	Skip chemical fertilizers all together or use compost.
	Use pesticides sparingly, and only when needed. Do not apply chemicals as part of a routine maintenance plan.

This guide provides resources and step-by-step instructions for how any watershed stewardship group or group of citizens with an interest in water quality can implement a KOLB campaign to help improve the water quality of any lake.

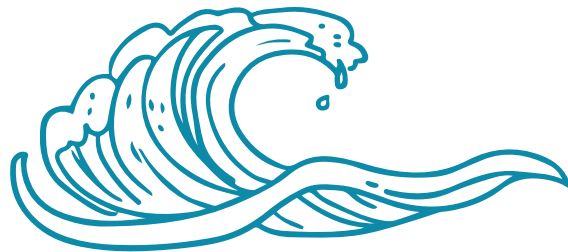
Learn about the Issues Affecting Water Quality

Contact LICA to arrange a presentation about how pollutants and runoff affect water quality. KOLB fact sheets with specific details about runoff and pollutants can be found [here](#) and in the Resources section of this guide.



Learn about Actions to Improve Water Quality

Contact LICA to arrange a presentation about how specific actions can reduce runoff and pollutants and help KOLB. A list of 52 actions that can reduce runoff and pollutants can be found [here](#) and in the Resources section of this guide.



Develop Partnerships

Seek partnerships with local groups with an interest in the environment and water quality to assist in launching the KOLB campaign. Water stewardship groups, watershed protection and advisory councils, and 4H groups are examples of potential partners.



Funding

Acquire funding to support the KOLB campaign. Funding will be required for materials like KOLB lawn signs, printing flyers, and hosting engagement events. See the Resources section for downloadable templates of the KOLB lawn signs.

Funding can be acquired through fundraising or through grants. A noteworthy funding opportunity includes the [Watershed Stewardship Grant](#). Contact LICA for more information about grant opportunities.

Engage the Community

1. Host a KOLB kickoff event at the lake to engage community members with the campaign. Host a free barbeque, have outdoor games and activities available for kids, and have campaign material present at booths. During this event, have volunteers engage with community members to encourage them to sign up for the KOLB campaign. Volunteers complete the following tasks:
 - Explain the effects of runoff and pollutants to interested parties
 - Explain actions that individuals can take on their properties help improve the water quality of the lake
 - Ask community members to commit to taking one action on their properties this summer to reduce runoff and pollutants
 - Community members that commit to taking one action sign the "Sign Up to Take Action" form, found in the Resources section of this guide
 - Community members that "Sign Up to Take Action" are given a KOLB lawn sign
 - Community members that sign up commit to taking a survey in the fall and returning their lawn sign to the host organization during the fall pick-up
2. Host a second event with a more formal presentation describing the effects of runoff and pollutants on water quality. Encourage community members to sign up for the KOLB campaign.
3. Host a shoreline clean up of the lake. Encourage community members to sign up for the KOLB campaign.
4. Have volunteers go door-knocking to inform more community members about the campaign and encourage them to sign up.



Collect Lawn Signs

At the end of the summer, collect lawn signs from the participants to be reused for next year.



Measure Success: Collect Survey Data

Survey all participants to determine what new actions they took over the course of the summer, which actions they have taken in previous years, and which actions they have never taken. The KOLB survey can be found in the Resources section of this guide. The survey can also be delivered online via a survey provider such as Survey Monkey.



Measure Success: Evaluate Survey Data

Determine the total number of households that participated in the campaign. Determine the survey completion rate by comparing the number of households that completed the survey to the total number of campaign sign-ups. Determine the average number of new actions taken this year, actions taken in previous years, and actions never taken (per participant). Also, determine the most common actions taken by participants.



Share Success Stories

Share the survey results with the community through community newsletters or bulletin board updates. Email the participants with a summary of the campaign results and thank them for their participation. Post the results of the campaign on websites and contact the local newspaper to share the results.

Resources

- KOLB Take Action Brochure
- KOLB Take Action Flyer
- KOLB Actions to Improve Water Quality
- KOLB Lawn Sign Templates
- Sign Up to Take Action Form
- KOLB Survey

Phosphorus, Algae, and Cyanobacteria



Items like detergents, fertilizer, manure, human waste, and decaying plants are all sources of phosphorus. When excess nutrients, such as phosphorus, enter the lake, it results in increased growth of algae that is often quite odorous. When mats of algae die, they sink to the bottom of the lake and decay, creating low-oxygen conditions that are detrimental to fish and other aquatic organisms.

Excess nutrients, like phosphorus, can also result in the formation of cyanobacteria, also known as blue-green algae, which are a unique group of bacteria that photosynthesize. When cyanobacteria decompose, they produce nerve and liver toxins that can pose a serious health risk to humans and animals.

You can help prevent algae blooms by reducing runoff, phosphorus, and other pollutants on your property.

Sign Up to Keep our *Lake Blue!*

This summer, we invite residents around our lake to commit to taking at least one action to reduce runoff and pollutants on their properties. Working together, our cumulative actions can improve the water quality of our lake.

Residents who sign up to Keep Our Lake Blue will receive a lawn sign to display their commitment to clean water.

For more information, and to sign up for the Keep our *Lake Blue* campaign, contact:

outreach@lica.ca
(780) 812-2182
lica.ca



@infoLICA

References:
Alberta Environment and Parks
aep.alberta.ca
Moose Lake Watershed Handbook
laraonline.ca

Keep our *Lake* Blue



Take Action

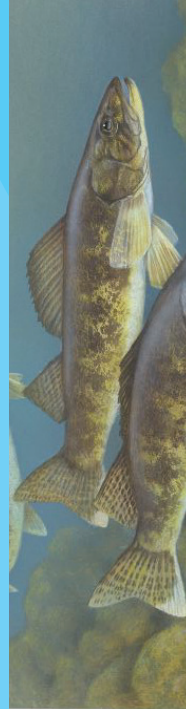
Reduce Runoff and Pollutants



Effects of Runoff

Impermeable surfaces don't allow water to soak into the ground. Instead, this water runs off of the surface, carrying sediments, salts, chemicals, and excess nutrients like phosphorous into the lake.

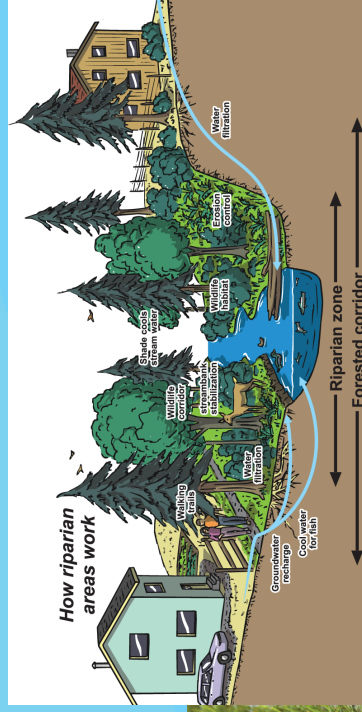
- Sediments cloud water, which can harm aquatic animals by impeding vision, covering eggs, and affecting breathing
- Pesticides, paints, and motor oil can poison aquatic life
- Excess nutrients, like phosphorus, can increase the growth of algae and cyanobacteria in the lake



Plants Reduce Runoff, Phosphorus, and other Pollutants

Layered Landscapes

Lawns absorb less rainfall than natural areas that have multiple layers of vegetation like tall trees, understory of smaller trees and shrubs, and groundcover. Adding layers of vegetation helps reduce runoff, and the plants help filter pollutants out of the water.

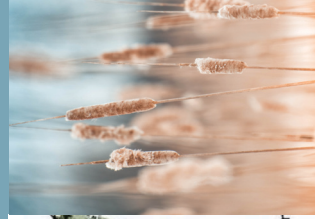
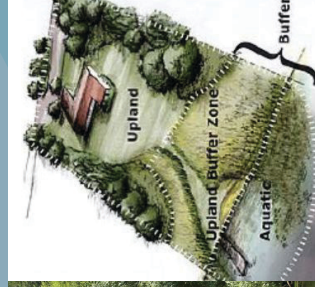


The more natural you keep your property the healthier your lake will be.



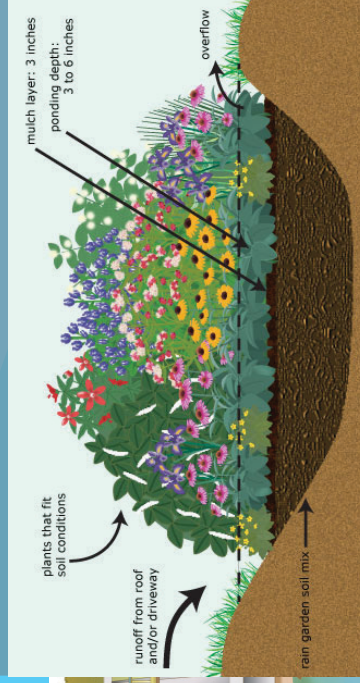
Native Species

Riparian plants that thrive near water attract wildlife, protect the shoreline, and are the "glue" that bind the shoreline together. Sedges are grass-like plants with deep root systems that help stabilize banks. Willows stabilize the shoreline and provide wildlife habitat. Cattails help purify water by removing nutrients and trapping sediment. Rushes are leafless with round stems, providing critical nesting habitat for marsh birds.



Rain Gardens

These gardens consist of native shrubs, perennials, and flowers that are planted in a depression of a slope. They are designed to catch the runoff from driveways or downspouts; they filter the water and reduce the amount of pollution reaching the lake.





Take Action

Reduce Runoff and Pollutants

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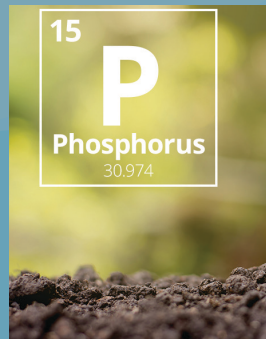


Phosphorus, Algae, and Cyanobacteria

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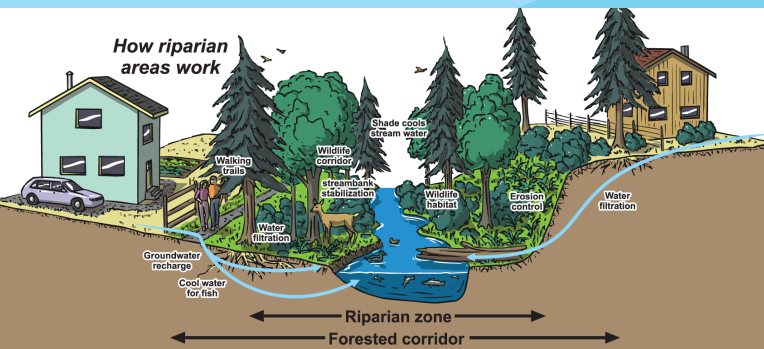
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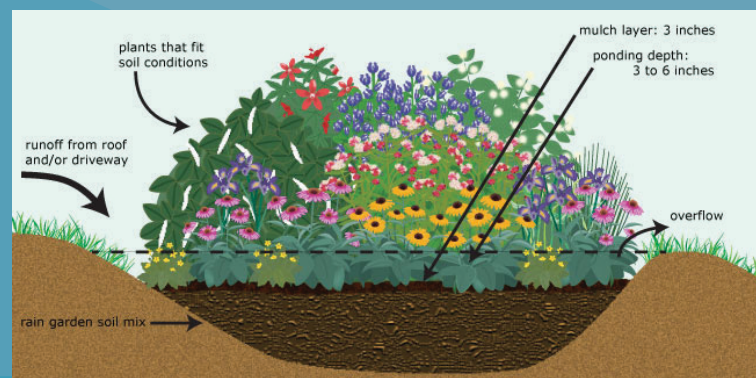
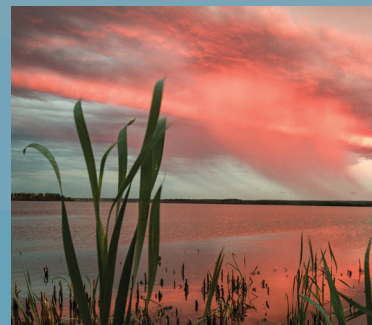
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References:

Alberta Environment and Parks
aep.alberta.ca
Moose Lake Watershed Handbook
laraonline.ca

Actions to Improve Water Quality

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Actions to Reduce Runoff

Make Impermeable Surfaces On Your Property Smaller

- ☐ Convert your driveway or parking area to a permeable surface
- ☐ Make your pathways out of stone or pavers (instead of poured concrete or asphalt)

Reduce The Size Of Your Lawn

- ☐ Plant more trees and shrubs around property edges and work your way in
- ☐ Plant shrubs and groundcovers instead of grass

Use Water Wisely

- ☐ Water your lawn or garden in the morning or evening to minimize evaporation
- ☐ Adjust sprinklers to only water the lawn (not the side of the house or sidewalk)
- ☐ Install a rain sensor so your sprinklers don't turn on when it's raining
- ☐ Spread organic mulch around plants to retain moisture
- ☐ Install drip irrigation for shrubs and trees
- ☐ Convert some lawn space to a patio (with permeable paving stones) to reduce the area needing to be watered
- ☐ Landscape with native plants that won't need irrigation once established
- ☐ Install a rain barrel to collect runoff from your roof to use for watering your garden
- ☐ Direct downspouts onto plants, lawn, or a rain barrel and away from impermeable surfaces
- ☐ Fix any leaking faucets/pipes
- ☐ Use a broom instead of a hose to clean driveways and sidewalks

Plant A Vegetative Shoreline Buffer

- ☐ Cover 50—75% of your property line with native species
- ☐ Plant shrubs, trees, flowers, and groundcover on your property beside the lake

Plant A Rain Garden

- ☐ Pick a location that you can direct a downspout and build a rain garden

Plant Native Plants

- ☐ Plant native plants in your garden or on your lakefront property line - they reduce stormwater runoff and are low maintenance



Actions to Eliminate Pollutants

Eco-Friendly Lawn Care

- ☐ Apply fertilizer at the recommended rate – fall is the best time and never before a storm or on frozen ground
- ☐ Skip chemical fertilizers all together or use compost
- ☐ Keep yard waste out of the street, ditches, storm drains
- ☐ Leave grass clippings on the lawn
- ☐ Mow higher – 2 to 3" is healthier for your lawn
- ☐ Pick up pet waste
- ☐ Use pesticides sparingly, only when needed, and try organic products. Do not apply chemical pesticides as part of a "routine maintenance plan"

Use Phosphorus-Free Fertilizer

- ☐ If you buy fertilizer, buy phosphorous-free

Maintain Your Septic System

- ☐ Have your septic system inspected every 2-3 years
- ☐ Pump your septic system every 3-5 years
- ☐ Don't dispose of hazardous wastes in sinks or toilets
- ☐ Plant only grass or groundcover with shallow roots over your drainfield
- ☐ Reduce water use to reduce stress on the septic system
- ☐ Instead of doing laundry all in one day, spread it out over the week
- ☐ Make sure water softeners or filters aren't flushing into the septic system

Don't Flush Drugs

- ☐ Take expired medications to a collection site instead of flushing them

Minimize Erosion During Any Construction Projects On Your Property

- ☐ Preserve existing vegetation where possible
- ☐ Install a silt fence or straw bales to trap sediment on the downslope of your lot
- ☐ Replant the disturbed area as soon as possible
- ☐ Fence the construction area to limit activity to the necessary area
- ☐ Divert runoff around disturbed areas

Maintain Your Vehicle

- ☐ Make sure your car is not leaking oil or other fluids onto your driveway
- ☐ Use kitty litter to clean up oil spills instead of washing it down the storm drain
- ☐ Wash your car on your lawn or at a commercial car wash instead of on the street or your driveway

Conserve Water In Your Home

- ☐ Install high efficiency showerheads
- ☐ Turn off faucets while shaving or brushing teeth
- ☐ Only run the dishwasher when full
- ☐ Install aerators in the kitchen and bathroom faucets
- ☐ Replace dishwashers, toilets, and washing machines with high efficiency models

Reduce Household Hazardous Waste

- ☐ Use hazardous substances such as gasoline, oil, paints, solvents, paint thinners, fertilizers, pesticides, and cleaners in the smallest amount possible
- ☐ Use biodegradable products when possible
- ☐ Clean paint brushes and other supplies in a sink, not outside
- ☐ Use phosphate-free soap



For more information visit
lica.ca/watershed



@infoLICA



Keep our *Lake* Blue

12"

18"

For the full resolution sign files contact outreach@lica.ca.

12"

Reduce
**Runoff &
Pollutants**

**Take
Action**



Keep our
Lake
Blue

Keep on Lake Blue

[illegible]

[illegible]

Survey

✓ - Actions taken this summer

X - Actions taken in previous years

Keep our
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