

BCLSS

September 2025 Newsletter



Gardom Lake - Photo by Marge Sidney

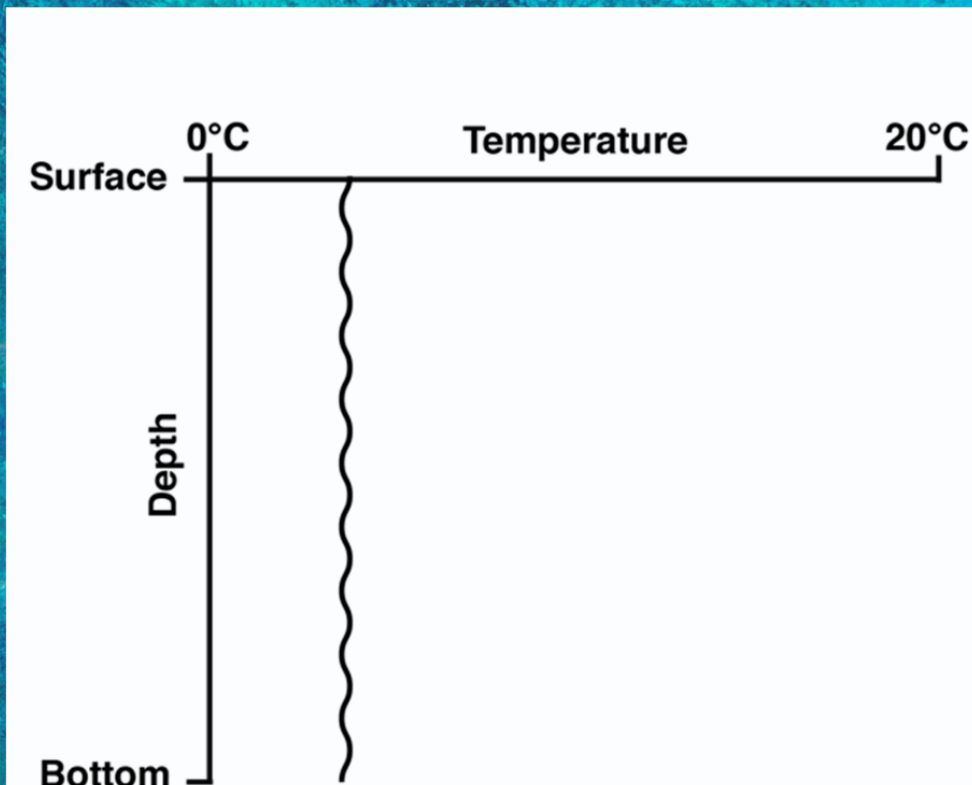
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* Please do not reply directly to this newsletter. For questions or comments, kindly contact us at

info@bclss.org *

Hello Fall! When should you wrap up monitoring for the 2025 season?



Typical Fall Temperature Profile



As we say goodbye to summer for another year, we often receive questions about when to wrap up lake monitoring for 2025. Though this will depend on the objectives of your monitoring program as well as the characteristics of the lake you monitor, you will find some tips below to help you decide when to pack in your monitoring gear for winter.

If you are collecting Level 1 BC Lake Stewardship and Monitoring Program (BCLSMP) data (clarity and surface temperature), we generally recommend continuing monitoring until approximately October 15th. However, if you are collecting dissolved oxygen and temperature profiles as well (Level 1+ BCLSMP),

continued monitoring until fall overturn (or initial freeze up conditions if the lake does not experience fall overturn) is important as long as weather and safety are on your side.

A lake has experienced turnover when the temperature profile of the lake is fairly uniform from top to bottom (see figure above), which allows wind and wave action to overcome any minor density difference remaining to mix the entire lake and replenish dissolved oxygen to the bottom waters. With climate warming, lakes are staying stratified longer and possibly not fully mixing and replenishing oxygen through the water column which has all kinds of implications. This is one reason we are encouraging Level 1+ data collection to obtain dissolved oxygen and temperature profiles. You can read more about lake turnover in the [LakeKeepers Manual](#), and more about the predicted impacts of climate change on BC lakes in [this article](#) written by BCLSS Director Ken Ashley (PhD).

Thank you for your time and commitment to monitoring BC Lakes!

Where Pollution Hides: Non-Point Sources in Our Watersheds

Many lakes and their watersheds struggle with the impacts of pollution. While point source pollution comes from a single, identifiable place (like a pipe), non-point source (NPS) pollution is released across a wide area within the watershed, often from diffuse sources.

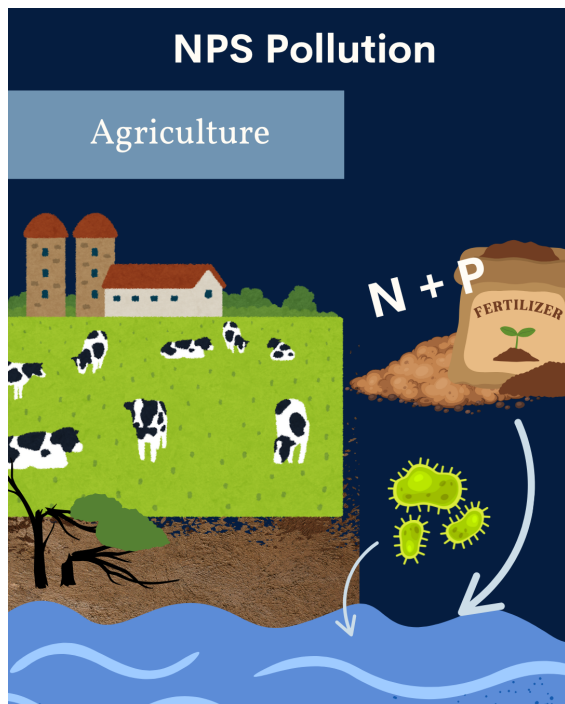
NPS pollution occurs when rainfall or snowmelt moves over the ground, picking up natural and human-made pollutants from many sources and carrying them into lakes, rivers, wetlands, and groundwater. One harmful impact is excess phosphorus, which can fuel algal growth and reduce water quality.

We have put together a series of graphics exploring potential sources of non-point source pollution in our watersheds— because understanding them is the first step to reducing them!

This information was taken from our 2022 LakeKeepers Manual. If you would like to learn more about lakes you can access the manual [here](#).

1. Stormwater Runoff

Lawn and garden fertilizer, sediment eroded from modified shorelines or infill projects, oil and fuel leaks from vehicles, snowmobiles and boats, road salt, and litter can all be washed by rain and snowmelt from properties and streets into watercourses. Phosphorus and sediment are of greatest concern, providing nutrients and/or a rooting medium for aquatic plants and algae. Paved surfaces prevent water infiltration to soils, and are potential sources of hydrocarbon and metal contamination, which can runoff into lakes during storm events.



2. Agriculture

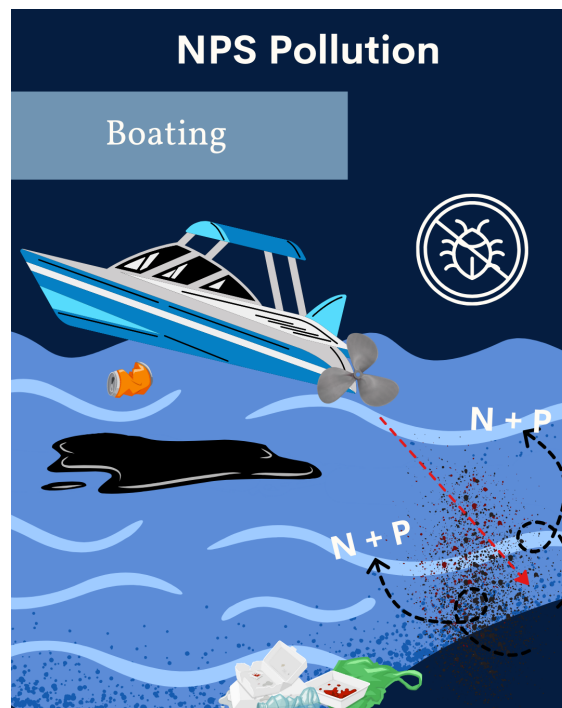
Agricultural production of crops and livestock, along with mixed farming activities, can alter water flow and increase sediment and chemical/bacterial/parasitic input into water bodies. Potential sources of nutrients (nitrogen & phosphorus) include chemical fertilizers, manure, and improperly situated winter-feeding areas. In addition significant amounts of phosphorus can be transported by sediment inputs when riparian areas are not well maintained near agricultural activities and become degraded.

The Code of Practice for Agricultural Environmental Management outlines requirements to minimize the impacts of agriculture on local waterways, including the distances structures and agricultural activities should be kept away from a watercourse (BC ENV, 2020) and should be complied with by farmers and ranchers.

3. Boating

Oil and fuel leaks are primary water quality concerns of boat operation on lakes. However, boating activities can also cause shoreline erosion from large wakes and churn up sediment and nutrients in shallow water from propeller wash. Other problems include the spread of aquatic invasive plants/animals and the dumping of litter.

Disturbance of sediments from boats in shallow water, in particular wake boats, can dislodge sediment bound pollutants and increase phosphorus and suspended sediment.



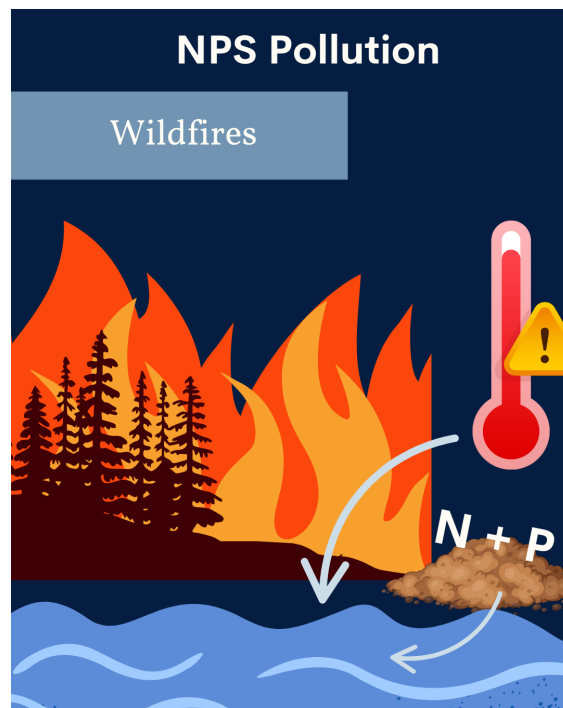
4. Forestry

Timber harvesting can include clear cutting, road building, and land disturbances, which alter water flow and the ability for nutrients to remain stored (sequestered) in soil, potentially increasing sediment and phosphorus inputs to water bodies.

5. Wildfires

Wildfires can impact water sources such as streams, rivers, and lakes. Potential impacts include changes in the amount and timing of snowmelt and runoff from storms, changes in water quality from build-up of ash, soil erosion, and fire debris. An increase in nutrient loading is typical after wildfires because of increased sedimentation in

receiving surface water bodies contributing to eutrophication. There may also be increases in water temperatures due to canopy removal from contributing streams. If fire retardant is present, there may be a possible rise in soil and water chemical levels such as phosphorus.

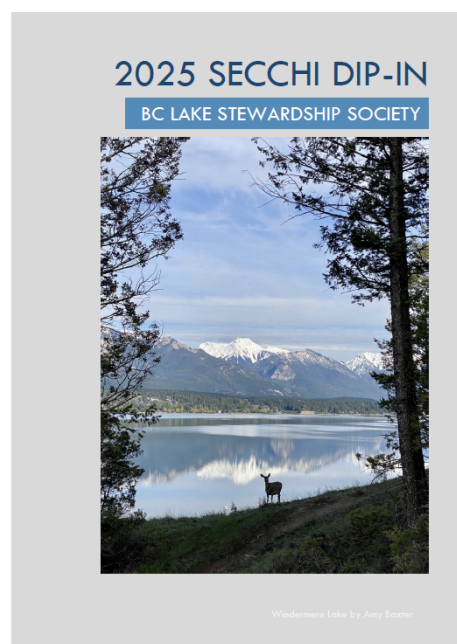


Follow us on social media or stay tuned for an upcoming newsletter to learn about other sources of non-point source pollution in our watersheds!

2025 Secchi Dip-In Report Now Available!

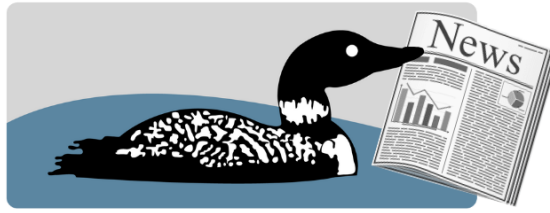
Thanks to everyone who participated in the Secchi Dip-In this year! We received 33 dips from 27 lakes. You can read the full Secchi Dip-In report linked below.

Please share this event with your friends and family so that we can increase participation in future years. These annual snapshots can be put together to form a changing picture of transparency over time.



Read the report here!

The Latest Freshwater News



- [UK's largest lake faces environmental crisis as rescue plans stall](#)
- [Coldstream Creek water quality assessment pursued amid lack of oversight](#)
- [Tale of Two Fishes: experiment finds wildly different outcomes for cool-water species in warming waters](#)
- ['This is what our ancestors did': Tl'azt'en Nation's smokehouses full of salmon for first time in decades](#)
- [Drought level in the Okanagan increases under new provincial system](#)



Not a member of the BCLSS yet? Please consider joining our network of lake stewards! For more information on the benefits of membership, visit our website.

Were you forwarded this newsletter? Subscribe today to get monthly updates on stewardship activities, lake science, and much more delivered to your inbox!

The BCLSS acknowledges that the lake stewardship activities of our staff, directors, and volunteers take place on the traditional, ancestral, and unceded lands of First Nations Peoples throughout British Columbia. We recognize that Indigenous Peoples have stewarded these lands and waters for generations and we are grateful to the Elders, Traditional Knowledge Keepers, and youth that implement their knowledge and traditional laws to preserve water and life for the benefit of all.



We gratefully acknowledge the financial support of the BC Conservation and Biodiversity Awards, and the Province of British Columbia through the Ministry of Municipal Affairs and the Ministry of Environment and Climate Change Strategy.



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