

Season in Review

A Start of Season Summary

The BC Lake Stewardship and Monitoring Program, which aims for the collection of 12 samples or data points per site every year, is expanding in 2023.

This season monitoring is planned for 36 Level 1 programs (secchi depth and temperature), managed by the [BC Lake Stewardship Society](#). Additionally, 12 Level 2 (secchi depth, lake profiles and ENV data) and 12 Level 3 (secchi depth, lake profiles, multi-depth sampling) monitoring programs are planned to be managed by the Ministry.

An online training session was held on April 20 and several in-person training sessions have also been conducted for individual lakes around the province.

All new monitoring groups or individuals are required to have training before monitoring can begin. It is also recommended that all returning groups and individuals attend a training session to learn about any updates or changes to the program that have occurred. If you have not yet received training, please email us at volunteerlakes@gov.bc.ca to organize a session.

The BCLSMP relies on volunteer samplers, and annual training helps to ensure the best possible data collection. The Ministry and BCLSS would like to welcome all our volunteers on board for the 2023 monitoring season and look forward to working with all of you.



Sampler on Diana Lake, Prince Rupert.



Diana Lake, Prince Rupert. April 2022.

Starting Up

First steps for volunteers to complete 2023 programs

With the arrival of spring, we are preparing for another lake monitoring season for 2023. Here are some things to keep in mind as you begin your programs for the year.

If you are new to the BC Lake Stewardship and Monitoring Program, even if your group has done previous monitoring, you will need to complete a volunteer services agreement. This form outlines the roles and responsibilities of both volunteers and the Ministry. By signing and submitting the form to the Ministry, it also allows volunteers to be covered by our liability insurance while performing your monitoring tasks. If you have not signed a volunteer services agreement, please email us at volunteerlakes@gov.bc.ca and we will send one to you.

Additionally, all new groups and individuals require training by either the Ministry or BCLSS before you can begin monitoring. It is recommended all returning volunteers also attend a training session, so they are aware of updates and/or changes to the program.

If you have not already attended or scheduled a training session, please email us to organize one.

All groups should have received their monitoring gear. Please check over everything to ensure that you are familiar with your kit, that you have all you need to complete your monitoring, and that nothing was damaged during shipping. If you have not yet received your monitoring gear, please contact us and we will arrange to get it to you.

As a reminder, volunteers are required to submit monitoring field data to the Ministry within 14 days of data collection. Data can be submitted by filling in the digital excel file, available on the BCLSMP [webpage](#), and emailing it to volunteerlakes@gov.bc.ca. Alternatively, volunteers can submit data using the online field data submission tool which can be accessed using the following weblink: <https://arcg.is/juOC8>. Please include photos of completed field sheets and completed requisition forms (Level 3 only) with all data submissions.

Meet the BCLSMP Team

Lucie Thomson Unit Head Vernon	Kirsten McNeill Aquatic Stewardship Coordinator Prince George	Mike Sokal Water Quality Limnologist Penticton	Jolene Raggett Aquatic Resource Biologist Nelson
Kristy Rasmus Water Quality Monitoring Specialist Smithers	Kim Klaczek Water Quality Monitoring Specialist Prince George	Dan St. Hilaire Water Quality Monitoring Specialist Penticton	Dean Peard Water Quality Monitoring Specialist Victoria

Behind the Scenes

What the Ministry is working on

During the winter the BCLSMP team distributed a 2022 year end survey to volunteers. Through a review of those results, the team identified four areas of concern to volunteers that we plan to address in the coming year.

The first concern was that the online field data submission tool was confusing and difficult for some users. To address this concern, we have updated the online field data submission tool for the 2023 season. There is now only one form to complete instead of two, and we have added more drop-down menus to simplify your data entry. The new tool can be accessed from our website [here](#).

The second concern was having more instruction materials, and clarifying those we already had. We have added some new materials to your kits, and clarified others.

Additionally, we plan to finalize a field manual this year and make it available to volunteers and through the website.

The third concern identified the desire of volunteers to have in-person check-ins with BCLSMP team members throughout the monitoring season. To address this, we are working hard to conduct in-person training this spring with as many lakes as possible. Additionally, we will be planning in-person check-ins with groups beginning in June, so keep an eye on your inboxes.

The final concern expressed in the 2022 season was the need to increase the public awareness of the program. To address this, we plan to have some events during Lakes Appreciation Month in July, and we are also working on a program logo that can be printed on marketing materials for distribution to volunteers and others.

Additionally, the BCLSMP team has been working on updating our report templates, and developing annual summary reports that are now available through the [mapping portal](#) on our website.

Lastly, we created a new [BC Lake Ice Reporting Tool](#), accessible through our website, that allows lake users to send us information on ice on and ice off dates which can be added to our database.



BC Lake Ice Reporting Tool.



Pelicans and Canada Geese on Dragon Lake, Quesnel.

In the Know

Items volunteers and stewardship groups need to know

- The online Field Data Submission Tool was updated for the 2023 season and is now a single form instead of two forms to complete. The form and training video can be found on our website at www.gov.bc.ca/lakestewardshipmonitoring
- The Ministry created a new BC Lake Ice Reporting Tool in 2023 which allows lake users to send information about ice on and ice off dates to the Ministry to be added to our records. The tool can be accessed by visiting www.gov.bc.ca/lake-monitoring.
- Annual data summaries are now available and accessible through our [website](#). Click on the mapping portal link, and then choose the BCLSMP tab, zoom in to your lake and click the dot.
- Algae happens. If you want to learn more about common algae or if you see an algae bloom, or something you think may be an algae bloom, please visit www.gov.bc.ca/algaewatch and submit your observation.
- For any questions or concerns at any time please email us at volunteerlakes@gov.bc.ca

Team Tell-All

Spotlight on a Team Member

Kristy Rasmus came to the Ministry in 2022 as the Water Quality Monitoring Specialist in the Skeena region as part of the Ministry's Ambient Surface Water Quality Monitoring team. In addition to supporting the BCLSMP, Kristy is the regional field lead for the [BC Lake Monitoring Network](#) and the [Canadian Aquatic Biomonitoring Network](#) (CABIN) work, as well as supporting the [Canada-BC Surface Water Quality Monitoring Program](#).

Kristy spent 15 years working in consulting as an aquatic biologist and forest technician and has an MSc from UNBC where she studied the movements of salmon nutrients on the Horsefly River and Horsefly Bay on Quesnel Lake.

Kristy splits her time between Smithers and her family farm on the south side of Francois Lake and can usually be found skiing or paddling with her dog, or working on her latest carpentry project.



Kristy Rasmus, Water Quality Monitoring Specialist.

Stewardship in Action

Highlighting volunteers and stewardship groups



Lake Windermere Ambassadors logo.

The Lake Windermere Ambassadors (LWA) are a society formed by a group of concerned citizens in 2010. The group formed following the successes of the Lake Windermere Project (2005-2009) which accumulated water monitoring equipment, an extensive library, and knowledge of monitoring protocols.

The LWA conducts water monitoring and community outreach projects to further their goal of directing water monitoring and stewardship of Lake Windermere. The LWA participates in the BCLSMP doing Level 3 monitoring. This includes bi-weekly monitoring of secchi depth, surface

temperature and dissolved oxygen/temperature profiles from the deepest point location on the lake. As well, LWA members are also collecting multi-depth water samples from the same site which are analyzed for nutrients and chlorophyll-a at the Ministry's contracted lab.

In addition to the BCLSMP work, the LWA also conducts independent water monitoring for supplemental water quality parameters, and conducts annual invasive plant surveys.

The LWA also engages in public education and engagement initiatives such as summer camps and school programs for school aged children, leading shoreline cleanups with the community, partnering with the local ski club to deliver winter stewardship programs, and providing tours, workshops and webinars on multiple topics affecting water quality and lake and watershed health.

To learn more about the Lake Windermere Ambassadors, become a member, or book a tour or workshop, visit www.lakeambassadors.ca.

Animalia

Understanding aquatic animals and insects

Mayflies (*Ephemeroptera*) begin their life cycles in water as they mature from egg to larva to nymph, a process which takes one to two years. They feed primarily on algae and detritus. The following spring, in 24 hours, they will leave the water, molt into adults, fly about in a horde, mate, lay eggs in the water and die.

This event often results in mass clouds or swarms of mayflies which can completely cover stationary objects.



Above: Mayfly nymph. Below: Mayfly adult.



No Name Lake, 100 Mile House.

What's in a Name?

How lakes get their names.

In B.C. the names of geographic places, including lakes, are assigned by the provincial government. The [BC Geographical Names Office](#) (BCGNO) is responsible for naming and managing official place names.

Lakes are typically named for their history, a unique feature, the shape of the lake, the use, or can be named after things like animals or people. The names of things can also change over time. Indigenous people gave names to places in their own dialects, while colonists gave different names to those same places in their language. Some of these names are still in

use while others have been lost or replaced by current names.

As there are over 20,000 lakes in B.C., it would be hard to find unique names for each one. In fact, many lakes in the province have the same name. There are 15 Summit Lakes in B.C., and 13 Beaver Lakes. Several other lake names are common such as Fish Lake (13), Hidden Lake (12), Lost Lake (12), Blue Lake (10), Loon Lake (10), Round Lake (9), Trout Lake (9) and Green Lake (7).

The most common lake name in B.C. is Long Lake. There are 20 Long Lakes around the province.