

A New Approach to Lake Water Testing in Val-des-Monts

This communication is intended to inform lake associations of a planning direction, and the Federation's support for that direction. The Federation cannot make commitments on behalf of the Municipality of Val-des-Monts. Any commitment of resources of the municipality in support of water testing can only come from the Municipality.

For almost 15 years, the Federation des Lacs de Val-des-Monts has tested lake water to understand the overall health of lakes and to identify problems that could be corrected. The testing program depended on the work of a professional biologist hired by the Federation. In recent years, the Municipality of Val-des-Monts provided the funding for the Federation's biologist. The municipality ended that funding and has added a biologist to its environmental staff.

Preserving and protecting the water resources in Val-des-Monts is a high priority for lake associations and lake residents. A new framework for lake water testing is emerging. It has both an area wide and a local component.

Municipality of Val-des-Monts

- 90 occupied lakes
- Common protocol
- Data analysis and retention
- Lab analysis funded by VdM
- Volunteer and VdM sample collection

Local

- Lake by lake
- Target to local concerns
- Lab analysis funded by associations.
- Volunteer sample collection

This new framework is a significant step forward:

- Many more lakes will be tested
- Results will show the overall health of the Val-des-Monts lakes
- More data collected and preserved over a longer time will support better analysis to find and fix problems

Municipal - Area Water Quality Surveillance

In time, all occupied lakes in Val-des-Monts will be included in a new general water testing program that will be organized and run by the Municipality of Val-des-Monts through the municipal biologist, Samantha Rhainds. It will expand the number of lakes to be tested from 30, or so, that were periodically tested by the Federation to about 90 lakes. The testing will follow a standard, well-established protocol endorsed by the Province of Quebec for the Réseau de surveillance volontaire des lacs (RSVL) program. The results will be maintained over time to identify problems and trends in individual lakes, to compare water quality among lakes and to have an ongoing picture of the health of our overall water resource. Samples will be drawn for analysis in each of June, July and August.

The program will rely on volunteers to collect samples on many lakes and municipal staff will collect samples on the rest. If there are not enough volunteers and municipal staff to cover all of the lakes in a cycle, the number of lakes will be cut back. The municipal biologist will train and schedule the volunteers who will collect water samples and will provide water sampling kits and water clarity measurement tools. The municipality will send water samples to a laboratory for analysis. The Federation will provide specialized testing equipment, support the municipal biologist in recruiting volunteers and participate in the analysis of the results.

The testing protocol calls for lakes to be tested each year for three years. If the results are stable and if there are no apparent problems, the testing is paused of three years, and then the cycle begins again. Lakes will be divided into two groups and the testing will cycle through the groups. The first group will be tested for three years, then the second for three years, and then back to the first. Water transparency measurements will be done every year regardless of a lake's testing cycle.

In summary, the testing will proceed as follows:

- 3 tests per year (June, July, August)
- measurements of phosphorus, dissolved organic carbon and chlorophyll a
- measurement of water transparency (Secchi disk depth)
- test for 3 years – stop for 3 if results are stable, unless some other problem is apparent.
 - First cohort 2021 – 2023
 - Second cohort 2024-2026
 - Repeat

To read more about the RSVL testing protocol go to <https://www.environnement.gouv.qc.ca/eau/rsvl/>.

For information about the water testing program led by the municipality, contact:

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Local Water Quality Surveillance

Many lake associations carry out their own water testing program. Most association programs address specific concerns such as targeted phosphorus or E.coli testing to indicate point source pollution like failing septic systems; general phosphorus testing as a predictor of the emergence of blue green algae; or testing of lake water as a drinking water source. Many associations will choose to continue their own programs. In some cases, the general water quality program may meet the local need and the association can also choose to replace part or all of their previous testing with the general program.

The municipality will fund association programs that follow the protocol of the area program and use the testing lab selected by the municipality, but only in those years that the lake is scheduled for testing in the general program.

Note: The Municipality has selected a testing lab for this program. This is not the Caduceon lab that the Federation has been using. The municipality will not cover costs for analysis at Caduceon, but associations can still use Caduceon for other tests at their own cost.
