



# Lakewatch

The Alberta Lake Management Society  
Volunteer Lake Monitoring Program

## VOLUNTEER WELCOME PACKAGE

Lakewatch is made possible  
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## WELCOME TO THE LAKEWATCH PROGRAM!

Thank you for your interest and participation. You play a very important role in making the LakeWatch Program happen and monitoring the water quality of your lake. Please read through our Volunteer Welcome Package. In it you will find the following:

- 1. Information about the LakeWatch program and past volunteer feedback.*
- 2. What you can expect as a volunteer and how to prepare yourself for a water quality testing day.*
- 3. Safety advisements.*
- 4. Equipment details and sampling procedures.*
- 5. How to be active in your community including stewardship resources.*

If you have any questions or feedback, we'd love to hear from you,

Sincerely,

Your LakeWatch Program Team  
Alberta Lake Management Society (ALMS)  
780-702-2567  
info@alms.ca  
<http://www.alms.ca>



## WHAT IS LAKEWATCH?

Alberta's volunteer-based lake monitoring program, known as LakeWatch, has been an important source of water quality data for lake & watershed stewardship groups, local government, provincial government, researchers, lake users, and cottage owners. LakeWatch strives to accomplish four primary objectives:

1. *Act as a platform for educating lake users about the aquatic environment;*
2. *Foster and enhance public involvement in lake management;*
3. *Facilitate linkages between aquatic scientists and lake users; and,*
4. *Provide reliable water quality data at significant cost-savings.*



The Alberta Lake Management Society (ALMS) has ensured that the data you collect is reliable through:

- *a partnership with Alberta Environment and Parks to train summer staff;*
- *routine preparation, calibration, cleaning, and servicing of equipment;*
- *incorporation of Quality Assurance/Quality Control (QA/QC) into sampling protocol; and,*
- *data verification and validation by technical experts.*

LakeWatch data has recently been used to describe the aquatic environment by the Cold Lake Beaver River Water Management Plan, Lac La Nonne and Moose Lake State of Watershed reporting, the Pine Lake Restoration Program, and Alberta Environment lake trend assessments. ALMS strives to make LakeWatch a fun and rewarding experience and we recognize our volunteers' time is valuable. Here are a few quotes from 2006 volunteers:

*"This program [LakeWatch] is very beneficial. Our water is our most precious resource... We need to take care to preserve what freshwater systems we have, and the best way to do this is through monitoring small changes over time to help us predict impending problems so that we can take action before it is too late."*

Jennifer Johnson, Crane Lake  
Advisory and Stewardship Society

*"ALMS provided the expertise and equipment for sampling and testing, and we were more than happy to provide the volunteers and boats needed... Without this program we would not have been able to do the sampling and testing, and thus determine what we are working with, and make a plan to proceed to improve the water quality of our lake."*

Laverne Faulkner, Chair Wizard Lake Watershed &  
Lake Stewardship Association



## WHAT TO EXPECT:

The LakeWatch program relies upon a partnership between ALMS technicians and local volunteers. The technicians have an undergraduate degree or diploma in the environmental field and are trained by ALMS and Alberta Environment and Parks in sampling techniques and protocols. It is the technician's responsibility to ensure that the samples are collected according to standard practices. The technician brings with him/her all the equipment necessary to perform the sampling.

In May, the ALMS technicians will contact you to schedule your first sampling trip. Sampling will occur 5 times per year, from June to the end of September and takes approximately 3 hours per trip (depending on the size of the lake). You are responsible for being ready at the appointed time, having the proper safety equipment in your watercraft (i.e. oars, personal flotation devices for everyone on board, flares, etc.), assisting the technician with sampling, and providing the transportation on the lake and associated costs (i.e. gasoline, safety equipment, etc.). You will be accompanied by a LakeWatch Technician during each of your sampling trips who will perform the sampling. You will assist in recording data, locating positions on the lake, and various other tasks. Over the winter, LakeWatch staff will compile your results into a LakeWatch report posted on [www.alms.ca/reports-2](http://www.alms.ca/reports-2).

What do technicians actually do on the lake? Firstly, the technicians will be taking a profile at the lake's deep spot. This involves anchoring at the deep spot and lowering a probe from the surface of the lake to the sediments, recording data at set intervals. After the profile is complete, technicians will be collecting physical water samples from 10 locations around the lake – these locations will be marked on the technician's bathymetric map. Additional sampling includes: Secchi disk measurements, zooplankton hauls, phytoplankton hauls, zebra/quagga mussel sampling, discrete grabs, and more!



## BE PREPARED:

- 1. Make sure you are available on your appointed day; if you are not, or the weather isn't looking good, contact your LakeWatch technician right away so we can avoid time and money lost. Technicians often have to drive for several hours to reach your lake, so as much notice as possible is appreciated.*
- 2. Make sure you have enough fuel for your boat, you could be on the lake for three hours. Also, ensure you have all boat gear and safety equipment that you require before departing (life jacket, bail bucket, anchor, oars, flares, etc.)*
- 3. Dress appropriately and wear a lifejacket at all times while in the boat.*
- 4. Bring water, snacks, insect repellent, sunscreen, medication and boat safety and first aid kits as necessary.*

## PLEASE BE SAFE WHILE TESTING!

Taking safety precautions during water quality testing is very important. Be sure to know your limits and follow the safety suggestions listed below.

- 1. Listen carefully and follow the LakeWatch Technicians instructions.*
- 2. Don't take unnecessary risks or make any moves that make you feel uncomfortable.*
- 3. Operate the boat in a safe and responsible manner. Volunteers should have a Pleasure Craft Operators Card as this is required by law in Alberta.*
- 3. Wear your lifejacket at all times.*
- 4. Don't go out on the lake if you are concerned about bad weather and if there are any advisory warnings.*
- 5. Don't take a boat out on the water if you are concerned it might not be up to the task of a three hour water testing mission.*
- 6. Stay in the boat at all times. Stay seated when the motor is running and the boat is moving.*
- 7. If you are not feeling well do not go out on the boat.*
- 8. Dress appropriately for the weather.*
- 9. Know the local of the bail bucket, oars and emergency man overboard flotation rescue device.*



## WHY SAMPLE WATER QUALITY?

Water samples are collected to determine the chemistry that characterizes general water quality. Though not all encompassing, the various data collected through the LakeWatch program monitors the effects of human activities in watersheds that can cause degraded water quality. For example, nutrients such as phosphorus and nitrogen are important determinants of a lake's potential productivity. The concentrations of these nutrients in a lake are altered (typically elevated) by land use changes such as increased crop production, livestock grazing, or urban development.



Elevated nutrient concentrations can cause increases in undesirable algae blooms resulting in low dissolved oxygen concentrations as well as degraded habitat for fish. Not only do these chemicals potentially pollute the aquatic habitat of a lake, but they can result in noxious smells as well.

The information that you will collect through LakeWatch may be used for a variety of purposes: providing baseline information on the health of your lake to compare to the state of other lakes in the province; tracking quality over time to feed into 'State of the Watershed' reports; and determining if restoration efforts are having a positive effect are all important uses for the data collected through LakeWatch.

## GET INVOLVED WITH PROTECTING YOUR LAKE!

Did you know that most lakes in Alberta have stewardship groups? Lake or watershed stewardship groups are formed by individuals interested in protecting and/or restoring their local lake. These groups meet a few times per year to discuss local water issues, share information, and plan activities to generate support for lake protection. To find out if there is a lake or watershed stewardship group in your area, first visit the Land Stewardship Network at <http://www.landstewardship.org/ASN/> or call 780-483-1885. The Land Stewardship Network provides funding for local projects aimed at stewardship activities, such as monitoring, "State of the Watershed" reporting, signage, and restoration activities to list a few. This funding is only available to stewardship groups, so act now! You can also visit the Alberta Lake Management Society at <http://www.alms.ca>. Our website includes listings of past LakeWatch reports, news articles, fact sheets, and much more.

