

Photo: Jackson Woren

 **Emerald
Awards**
2014
Recipient

ALMS
Alberta Lake Management Society

**Annual Report
2014 - 2015**

Committed to the
Management of
Alberta's Lakes,
Reservoirs and
Their Watersheds





FROM OUR NOMINATION LETTERS:

This has been a record-setting year for ALMS — the most lakes monitored, the most volunteers, the most partnerships established, three new lake watershed management projects started, and, to top it all off, ALMS has been recognized for its efforts with an Emerald Award in the Water Challenge category.

We are very proud of this award as it is recognition of the ability of our small society to significantly contribute to the health of Alberta's lakes and a relection of the 23 years of commitment that ALMS has show towards lake management.

The Society's efforts are committed to the management of Alberta's lakes, reservoirs and their watersheds. We do this not only by collecting lake and watershed data but by transferring knowledge to stakeholders and decision-makers: we are knowledge brokers, and try to be supportive of each lake communities' initiatives.

The Society actively works to achieve its vision by developing and delivering strategic programs for each of our four objectives. These are described in detail in the report below.

"There's a huge disconnect between the science behind lake sampling and water quality management in the province, versus the residents' perspectives of what is going on," she said. "ALMS is really great to bridge that gap with education while collecting samples."

"I have come to realize that ALMS not only provides a service to the scientific community, but through education and awareness, to all Albertans."

BOARD OF DIRECTORS 2013-14

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Dave Mussell, Director

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Bradley Peter

Patti Fish

Alyssa Cloutier

Kara MacAulay

Jackson Woren

Brittany Kereliuk

Lisa Kish

Objective 1

Undertake the collection of data and information to increase knowledge of lake functions and management options; share and disseminate information and experiences on all aspects of lake and watershed management.

LAKEWATCH

LakeWatch is our flagship program and has been in operation since 1996. The program works to not only collect reliable water quality data from Alberta lakes but also educates lake users about the aquatic environment by interpreting and discussing data with lake stewards to help them make informed lake management decisions.

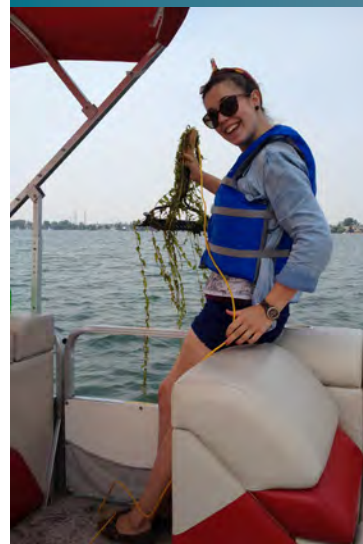
Our goal is to continue to sample new lakes each year, increase the number of volunteers involved, and to diversify the services that LakeWatch can offer. For example, we have partnered with Alberta Fish and Wildlife to search for invasive aquatic plant species in Alberta's lakes. The project was developed to establish baseline knowledge about aquatic plant communities as well as to monitor for the introduction of prohibited species. All specimens will be catalogued and housed at the University of Alberta's herbarium.

ALMS has been quick to incorporate invasive species monitoring into all aspects of our LakeWatch program. Using our network of citizen scientists, we have been able to coordinate the distribution of zebra mussel substrates to volunteers across the province. In addition, monitoring for zebra and quagga mussel veligers has been added as a parameter at all of the lakes we monitor.

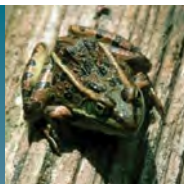
Total Lakes
Sampled: 31 ▲3

New lakes: 3

Number of
Volunteers: 102 ▲42



New monitoring
program:
Aquatic Plant
Species



Lacombe
Lake Watershed
Stewardship Society.
Photo: Brittany Kereliuk ►



Moreover, ALMS works to ensure these important programs are effective and widespread by sitting on both the provincial Aquatic Invasive Species Monitoring Task Team and the Aquatic Invasive Species Outreach and Education Task Team.

When undertaking lake watershed management plans it becomes important to understand the flow of nutrients from the land into the lake. Tributary monitoring is an important tool in compiling this information and ALMS is working to develop a citizen-science model that is safe and easy for residents to undertake but provides scientifically robust tributary water quality data. In 2014, ALMS partnered with the Beaver River Watershed Alliance to sample tributaries flowing into Moose Lake. ALMS also partnered with the Friends of Elk Island to pilot a citizen-science project that designed and tested protocols to collect water quality data for the Beaver Hill Moraine region.

ALMS co-authored a detailed report on Pigeon Lake that represents the most detailed work on water quality, sediment quality, and non-fish biota done at Pigeon Lake to date. As well, the overview provided the foundation for the Pigeon Lake phosphorus budget. Together with the phosphorus budget, paleolimnology report, and modeling exercise, this report will provide a solid foundation for current and future work being undertaken or considered by stakeholders at Pigeon Lake. It will also provide a base of current information by which to measure future success.



Much of the effort in lake monitoring and research is in collecting the samples. We help advance research by collecting samples at LakeWatch lakes for use in various research programs. Samples were collected for the University of Alberta FlowCAM project (Dr Rolf Vinebrooke) to evaluate cyanobacteria species present in lakes throughout the season to help model and determine future bloom patterns. Samples were analyzed for microcystin at the University of Calgary Centre for Toxicology and used in provincial and national research projects (Dr Ron Zurawell). Cyanobacteria genes have been sequenced by the University of Alberta for use in rapid assessment technology (Dr Lily Pang). Aquatic plant specimens were catalogued in the University of Alberta herbarium for future use in research and teaching (Dr. Jocelyn Hall). Some records were the first species recorded for Alberta's lakes.

Thank you to our
LakeWatch
volunteers.

Together we
completed
144 sampling
trips. We couldn't
have done it
without you!

Photo: Jackson Woren



Objective 2

Educate and increase Albertans' awareness and understanding of the importance of lakes and their watersheds.

WORKSHOPS

The 21st Annual Fall Workshop was held in Slave Lake, co-hosted by the Lesser Slave Watershed Council. This provides education and a forum for discussion for practitioners as well as highly motivated watershed stewardship groups. There were eighty-two attendees from all sectors & disciplines.

COMMUNICATION AND OUTREACH

We make a great effort to be available to present on the data we collect and to help explain lake issues and management strategies. Whether it is to teach school kids about water quality or to talk to municipalities about water quality and land-use planning, we make ourselves available for all audiences. In 2014-2015 we presented at 39 different events.



ALMS 21st Annual
Workshop at Slave Lake.
Photo: Bradley Peter





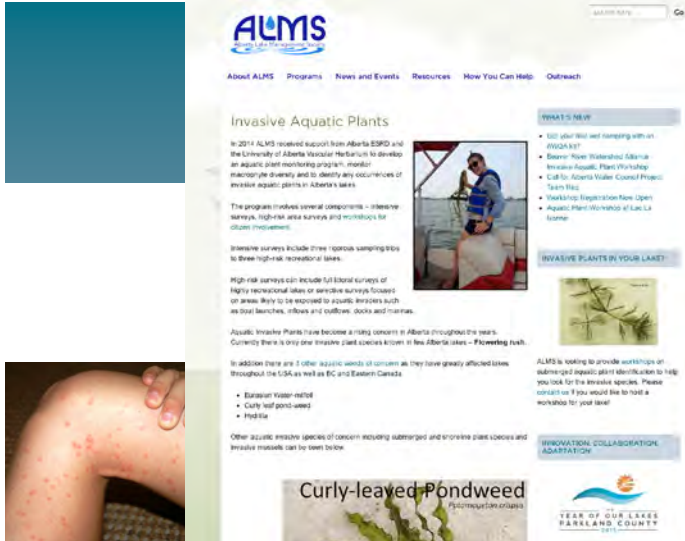
DIGITAL COMMUNICATIONS

ALMS members receive our monthly e-newsletter, *The New Wave*. The e-newsletter profiles what ALMS and its members are doing across Alberta and provides information to those that are interested in lake and watershed management.

Social media is integrated into our website to allow rapid transmission of relevant news and events. All communication channels have seen increased engagement.

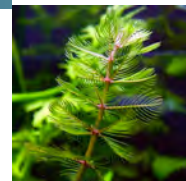
We continually add new resources to our webpage and completed three new factsheets this year: Invasive Species, Swimmer's Itch, and Cyanobacteria.

2567 active
contacts on our
mailing list ▲99

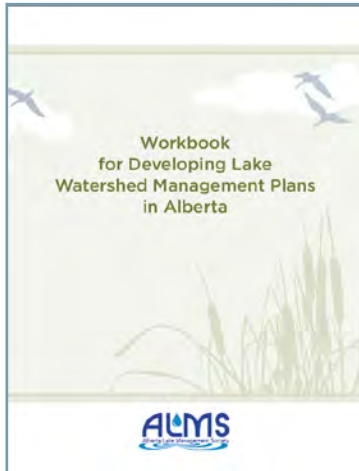


Twitter 583
followers ▲193

Facebook 253
likes ▲114

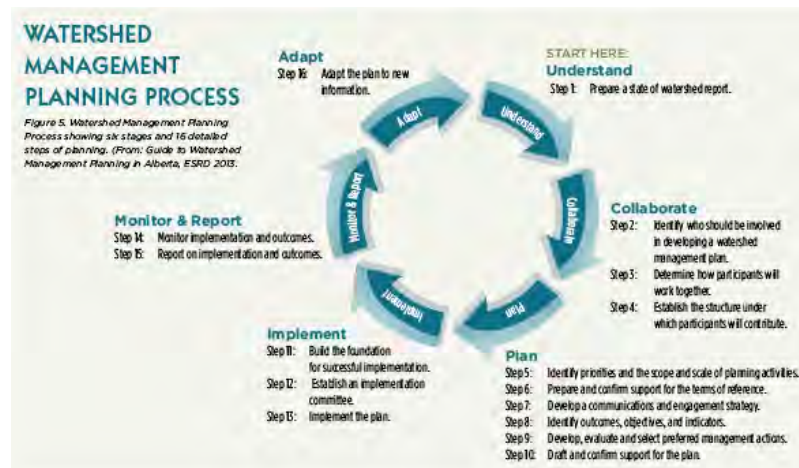


Objective 3



Participate in the development of local, provincial, and national programs and policy that promote lake and watershed management and/or encourage protection of lakes and watersheds and that promote healthy aquatic ecosystems.

Development and implementation of lake watershed management plans have become the goal for many lake groups. ALMS helps stewardship groups as they undertake this process using our *Workbook for Developing Lake Watershed Management Plans in Alberta*. We coordinate our monitoring activities to provide lake and watershed data for making science-based decisions. We've participated in five lake watershed management plans: Pigeon, Baptiste and Island, Mayatan, Wabamun, and Lac La Biche.



Objective 4

Provide expertise to and collaborate with other agencies, organizations, and individuals involved with lakes and lake-watershed improvement, protection, and policy.

ALBERTA WATER COUNCIL

ALMS continues to be the Lake Environment Conservation sector representative on the Council, advocating for management and protection of healthy lake ecosystems at all levels. ALMS has represented lakes on all of the project teams in 2014-2015:

- Aquatic Invasive Species (Jay White, Amanda Doyle)
- Water Literacy (Jay White)
- Symposium on Exploring Water Re-use for Household, Municipal, and Industrial Applications (Judy Stewart)
- Lake Management (Steph Neufeld)

In total, 215 hours of in-kind time was donated to the Council and these projects.

POLICY REVIEW

ALMS and its members participated in the consultations for the North Saskatchewan Regional Plan and the Municipal Government Act review.



COLLABORATION

By working together with multiple agencies, watershed stewardship groups, and lake stakeholders the Society can influence people involved with lakes and lake-watershed improvement, protection, and policy. Not a single project was undertaken without the collaboration of another group. Thank you to:

- Alberta Environment and Sustainable Resource Development
- AEMERA
- Alberta Health & Alberta Health Services
- Alberta Parks, Tourism and Recreation
- Alberta Innovates Technology Futures
- Alberta Water Council
- Lakeland Industry and Community Association
- University of Alberta
- University of Calgary
- Beaver River Watershed Alliance
- Lesser Slave Watershed Council
- Battle River Watershed Alliance
- Red Deer River Watershed Alliance
- North Saskatchewan Watershed Alliance
- Moose Lake Watershed Society
- Baptiste and Island Lakes Stewardship Society
- Gull Lake Water Quality Management

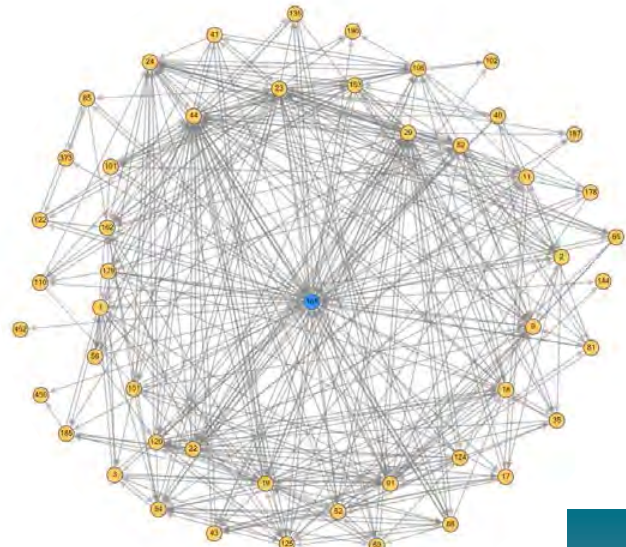
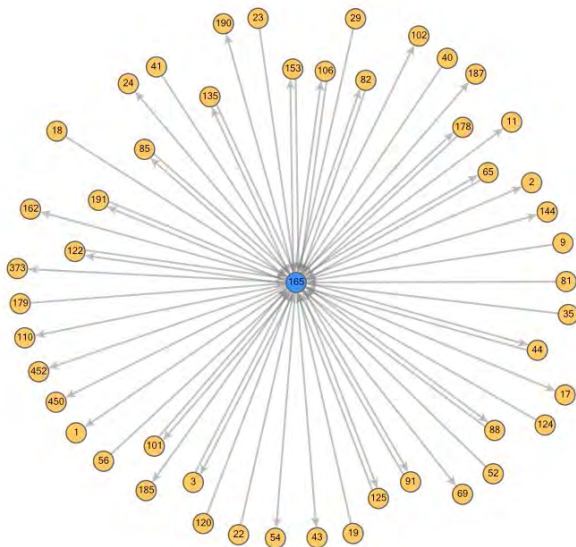
Crane Lake.
Photo: Kara MacAulay





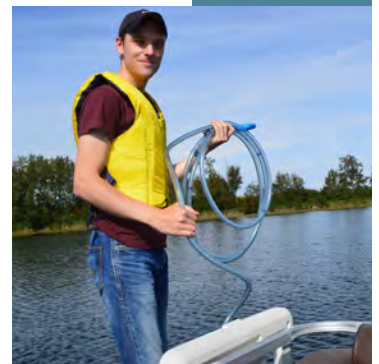
- Lacombe Lake Watershed Stewardship Society
- Skeleton Lake Stewardship Association
- Jackfish Lake Management Association
- Wizard Lake Watershed and Lake Society
- Mayatan Lake Management Society
- Sylvan Lake Watershed Stewardship Society
- Pine Lake Restoration Society
- Living Lakes Canada
- Crane Lake Advisory and Stewardship Society
- Friends of the Chain Lakes
- Friends of Little Beaver Lake
- Stewards of Lac la Biche Watershed
- Pigeon Lake Watershed Association
- Association of Pigeon Lake Municipalities
- Counties of Lesser Slave River, Wetaskiwin, Leduc, Parkland, Wainwright, Clearwater, Ponoka, Yellowhead, Lac La Biche, and MD of Bonnyville
- Town of Chestermere
- CURA H2O, St Mary's University
- Community Based Environmental Monitoring Network
- Friends of Elk Island
- Alberta Council for Environmental Education
- Land Stewardship Council
- Nature Alberta
- Alberta Ecotrust Foundation
- TD Friends of the Environment Foundation
- Environment Canada
- First Nations Technical Services Advisory Group
- Aquality Environmental Consulting Ltd.
- Cows and Fish
- Alberta Summer Villages Association
- Alberta Conservation Association
- North American Lake Management Society

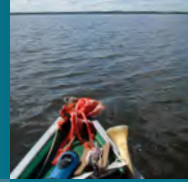




PATTERNS OF COLLABORATION

ALMS participated in the Alberta Ecotrust's 2014 initiative *Mapping What Matters* Project. EcoTrust provided ALMS results of the project as maps, showing all 48 of the environmental non-governmental organizations (ENGOS) ALMS has collaborated with over the past three years. Where ALMS identified a collaborator in the survey the arrow is outgoing, and where another survey respondent identified ALMS, the arrow is incoming. A second map shows not only the past collaborations that occurred directly with ALMS, but map B also shows past collaboration among ALMS ENGO collaborators, demonstrating that ALMS is part of a larger collaborative network.





Financial Report

Detailed below is our financial statement for the period April 1, 2014 to March 31, 2015 (Table 1). We annually evaluate all of the contributions to ALMS' programs, time and money, and have produced an estimate of the total value of ALMS' programs (Table 2).

Table 1. Statement of Financial Position (A) and Statement of Operations (B) for 2014-2015.

A. Statement of Financial Position		
	March 31, 2015	March 31, 2014
ASSETS		
Current Assets		
Cash	\$325,154	\$200,720
Accounts Receivable	21,210	4,045
Short term investments	22,026	85,205
TOTAL ASSETS	\$348,642	\$289,970
LIABILITIES AND NET ASSETS		
Current Liabilities		
Accounts payable and accrued liabilities	\$8,610	\$13,976
Deferred revenue	50,000	3,200
Total current liabilities	58,610	17,176
	290,032	272,794
	\$348,642	\$289,970
Opening Balance Equity	-18,173.54	-18,173.54
Unrestricted Net Assets	290,967.66	264,426.20
Net Income	19,965.90	26,541.46
Total Equity	292,760.02	272,794.12
TOTAL LIABILITIES & EQUITY	385,870.41	289,969.80

B. Statement of Operations

	March 31, 2015	March 31, 2014
Ordinary Income/Expense		
Income		
Operational & Programs	\$85,000	\$76,837
Annual Workshop	12,376	14,126
AWC Stakeholder Support	-	370
Total Education and Outreach Income	3,200	19,095
Total Lakewatch Program Income	250,100	242,640
Donations	1,500	150
Interest	1,582	5,413
Total Project Income	2,172	8,600
Training Grants	-	495
TOTAL INCOME	\$355,930	\$367,356
Expense		
General Expenses	\$59,193	\$65,631
Lake Management Expense	1,797	9,405
Lakewatch Program Expenses	254,210	222,341
Project Expenses	6,348	25,745
Workshops	17,144	17,691
TOTAL EXPENSE	\$338,692	\$340,814
EXCESS OF REVENUE FOR THE YEAR	17,238	26,541
NET ASSETS AT THE BEGINNING OF THE YEAR	272,794	246,253
NET ASSETS AT THE END OF THE YEAR	290,032	272,794

Table 2.

Value of ALMS Program Delivery 2014-15			
Monitoring			
Cash			
LakeWatch Funding			\$250,100
In-Kind			
LakeWatch Volunteers	616 hrs		11,071
Aquatic Invasive Species Volunteers	47 hrs		823
ESRD/AEMERA McIntyre Support			42,770
			\$304,764
Education & Outreach Projects			
Cash			
Education & Outreach Funding			\$17,748
In-Kind			
Workshop Planning & Inkind Donations	83 hrs		1,660
			\$19,408
Operations & Administration			
Cash			
Operational and Program Funding			\$88,082
In-Kind			
ALMS Board of Directors (13)	110 hrs		5,500
AWC Inkind Contribution	215 hrs		19,390
			\$112,972
TOTAL ANNUAL VALUE OF ALMS PROGRAM DELIVERY			\$437,144

Photo: Jackson Woren



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