



Progress on Lake Management

Arin MacFarlane Dyer

Alberta Lake Management Society – 22nd Annual Workshop
Stony Plain, AB
September 23-25, 2015

Photo: Ageleky Bouzetos

Welcome

- ◆ Welcome to the 22nd Annual ALMS Workshop
- ◆ Thank you to our co-hosts Parkland County and to the workshop committee members



A Bit About ALMS

- ◆ **Mission:** To promote comprehensive management of lakes and reservoirs and their watersheds
- ◆ **Program Areas:**
 - ◆ Water Quality Monitoring
 - ◆ Education and Outreach
 - ◆ Lake Watershed Management

LakeWatch Monitoring

- A cooperative venture between ALMS and Alberta Environment/AEMERA:
 - 15 Lakes
- Also partner with the Beaver River Watershed Alliance and LICA:
 - 10 Lakes
- Funding from individual WSGs/municipalities
- Environmental Damages Fund



Beaver River Watershed Alliance



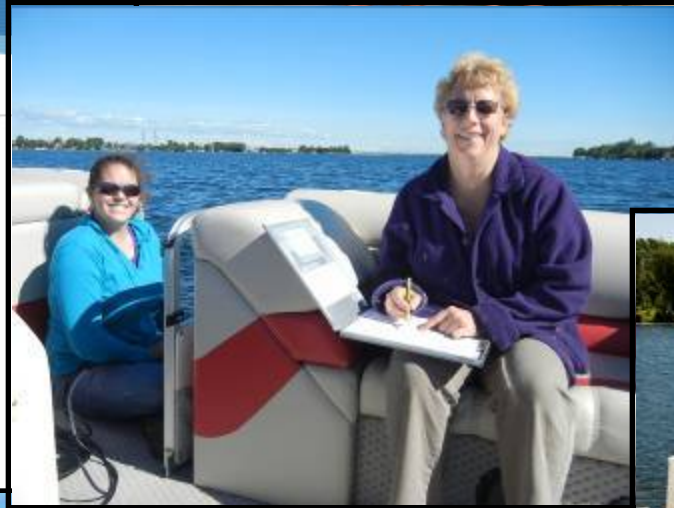
This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de :



Environment
Canada

Environnement
Canada

Lakewatch

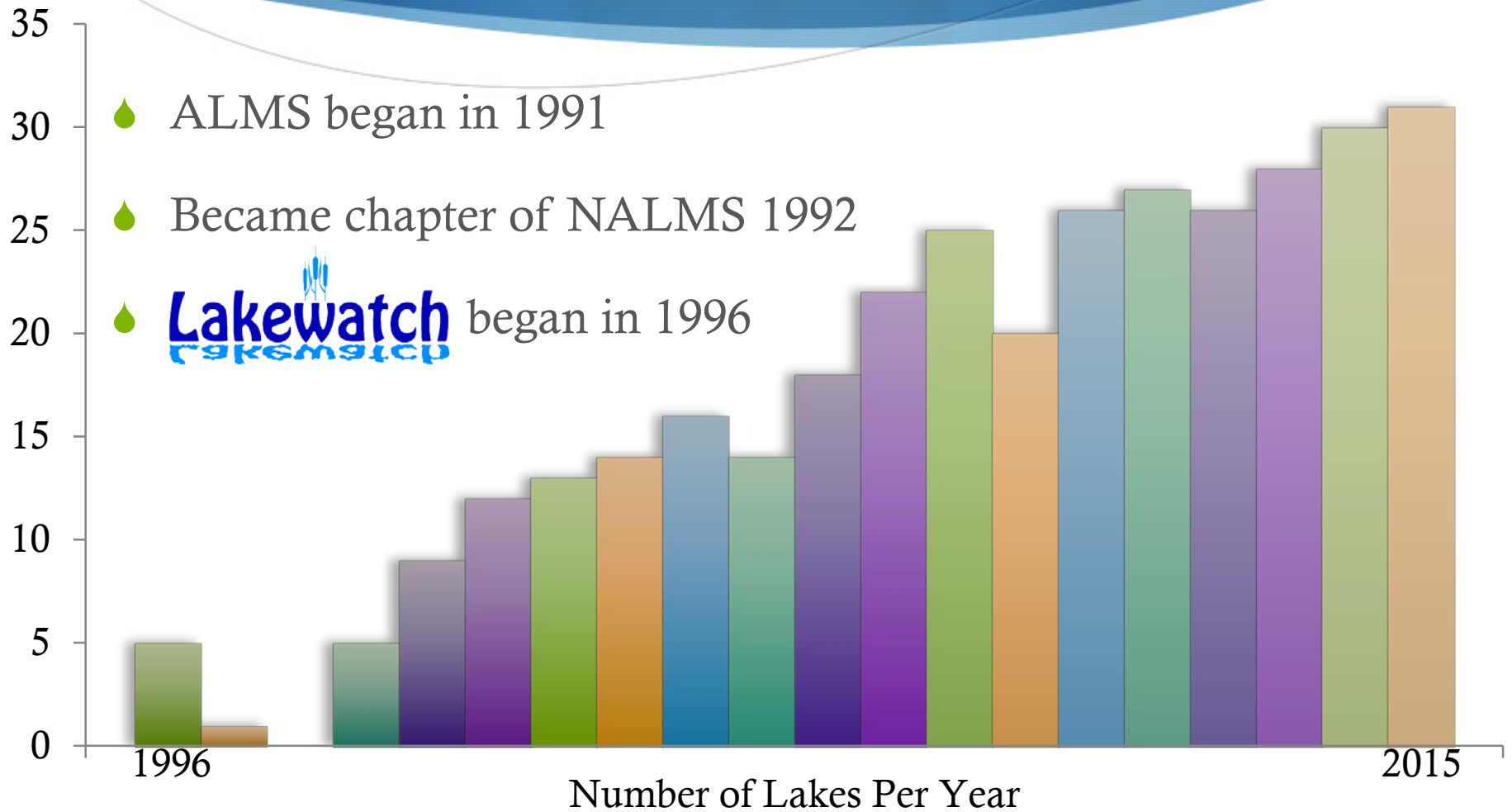


- ◆ LakeWatch program is dependent on volunteers.

- ◆ Volunteers meet technicians 5 times throughout the summer.

- ◆ Volunteers provide transportation!

LakeWatch History



Education and Outreach

- ◆ Workshops throughout Alberta since 1992
- ◆ Scholarship program
- ◆ Newsletters, Beach Outreach and annual lake awareness days
- ◆ Alberta Water Quality Awareness Day – since 2005



Importance of Workshops

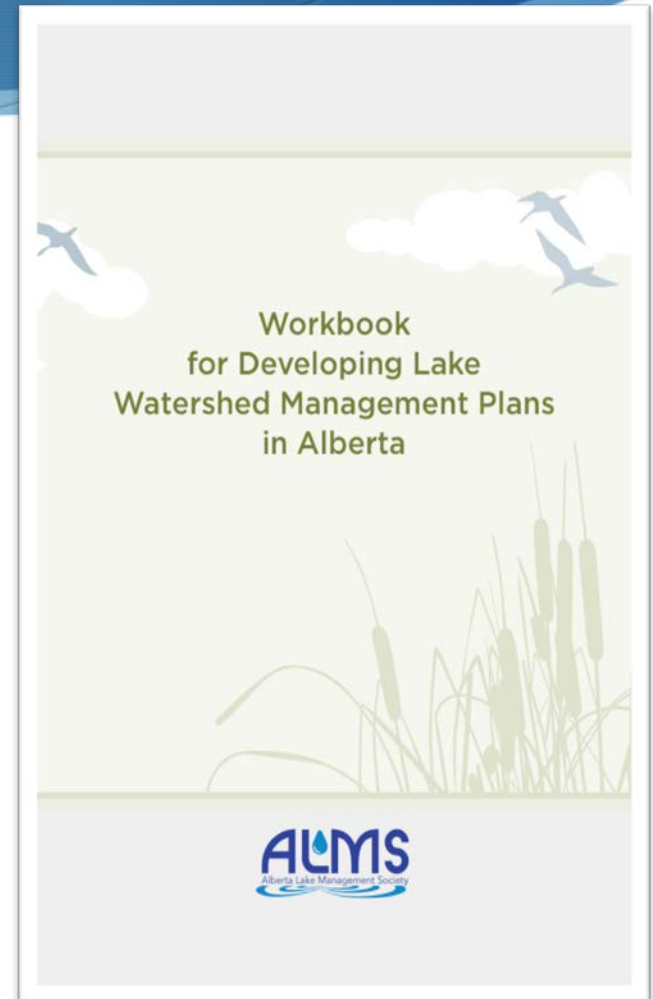
- ◆ 22 Annual Events
 - ◆ 1992 – 1st – Pine Lake: Hypolimnetic System results
 - ◆ 1998 – 6th – Chestermere: Development of Sheppard Constructed Wetlands to treat Calgary waste water
 - ◆ 2001 – 9th – Bonnyville: LICA begins monitoring Beaver River Lakes
 - ◆ 2004 – 12th – Okotoks: ALIDP begins after workshop
 - ◆ 2015 – 22nd – Province adopts new lake management policy...

Lake Watershed Management

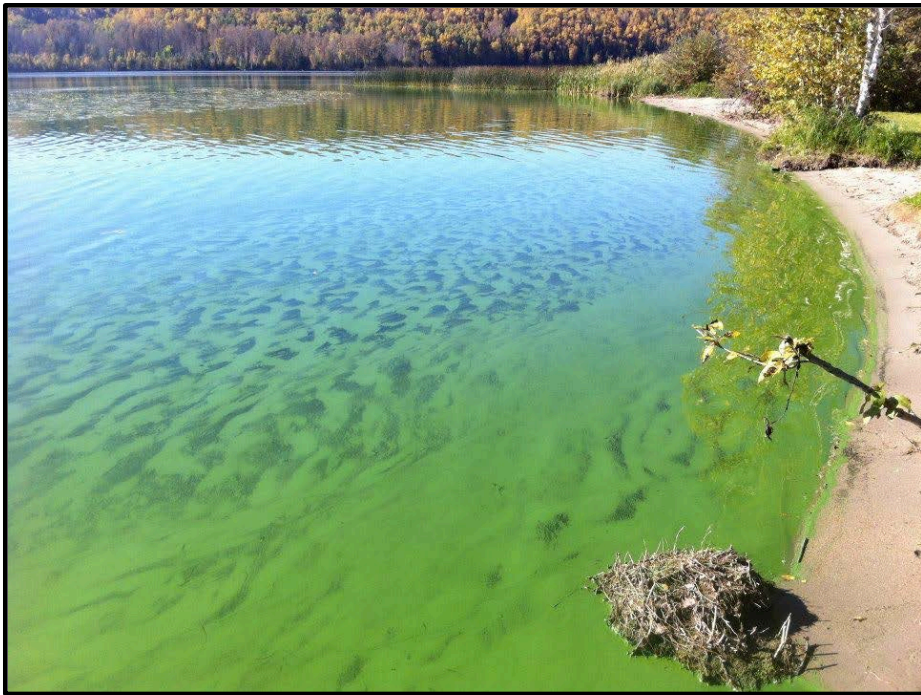
- ◆ Workbook for Lake Watershed Planning - 2013

- ◆ Helping Lake Groups:

- ◆ Pigeon
- ◆ Baptiste
- ◆ Island
- ◆ Wabamun
- ◆ Mayatan
- ◆ Jackfish
- ◆ Skeleton
- ◆ Lac La Biche
- ◆ Hubbles
- ◆ Antler
- ◆ Hardisty
- ◆ Sylvan
- ◆ Slave



Progress on Lake Management



💧 Are we making progress?

The screenshot shows the top portion of a news article. At the top left is the logo for 'The Athabasca Advocate'. To the right is a search bar and a temperature display showing '5.8°C'. Below the logo is a navigation menu with options: HOME, NEWS (highlighted in red), OPINION, SPORTS, COMMUNITY, MULTIMEDIA, DIRECTORY, and CONTESTS. Underneath the navigation menu is a sub-header for 'Politics'. The main headline of the article is 'Blue-green algae returns to Baptiste Lake'. Below the headline, it says 'Tuesday, Jun 30, 2015 06:00 am' and 'By: Ross Hunter'. There are also links for 'Comments' and 'A A' (font size). At the bottom of the article preview, there is a row of social media sharing icons for Facebook, Twitter, Pinterest, Google+, Email, Print, and a plus sign for more options. A small thumbnail image of the lake with algae is visible at the bottom of the article preview.

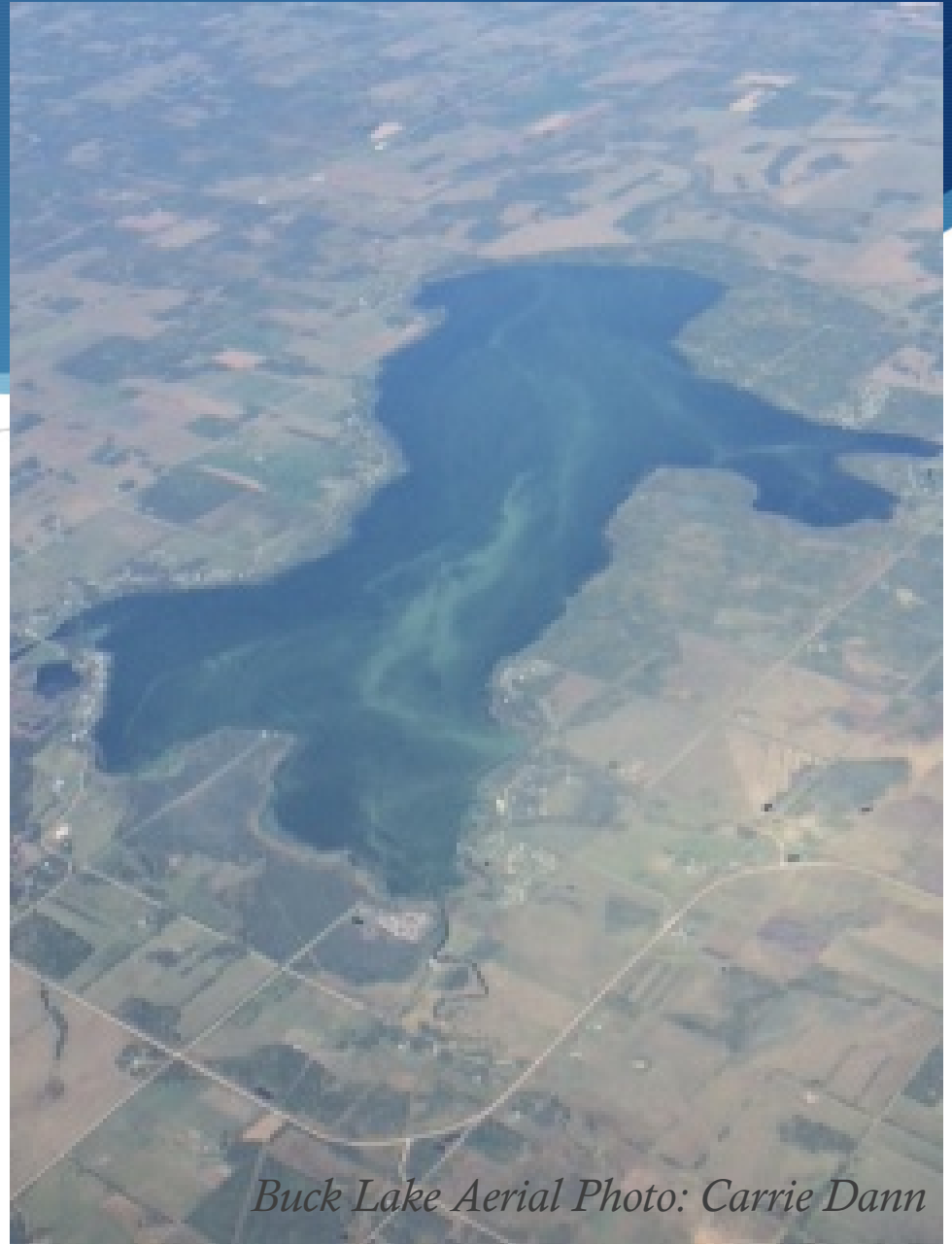
Watershed Moments

- ◆ Key events in the progress of ALMS and lake management in Alberta
 - ◆ 1970-90s – Lake development plans
 - ◆ 1991 – Pine Lake Management Plan
 - ◆ 2003 – Water for Life
 - ◆ 2005 – Wabamun Spill
 - ◆ 2006 – Pigeon Lake Bloom
 - ◆ 2009 – Lake Management Framework
 - ◆ 2010 – Alberta Health Blue-Green Algae Bloom Advisories
 - ◆ 2013 – Water Conversation
 - ◆ 2015 – Alberta Water Council Lake Project



Challenges

- 💧 Lake Management is a Complex Undertaking!
- 💧 Healthy lakes are everyone and no-one's responsibility



Buck Lake Aerial Photo: Carrie Dann

Watershed Management in Alberta

Regulations and Standards

Source Water Protection Plans

- Focus on drinking water

Drinking Water Safety Plans

Approvals and Environmental Performance Plans

Water for Life

- safe, secure drinking water
- healthy aquatic ecosystems
- reliable, quality water supplies for a sustainable economy

Alberta Water Council

- Water policy advice

Watershed Planning and Advisory Councils

- Water quality and watershed outcomes

Sub-basin plans

- Lake management plans
- Sub-watershed plans

Cumulative Effects Management

Land Use Framework

- Enabled by Alberta Land Stewardship Act

Regional Plans

- Legislatively binding

Water Quality Management Frameworks

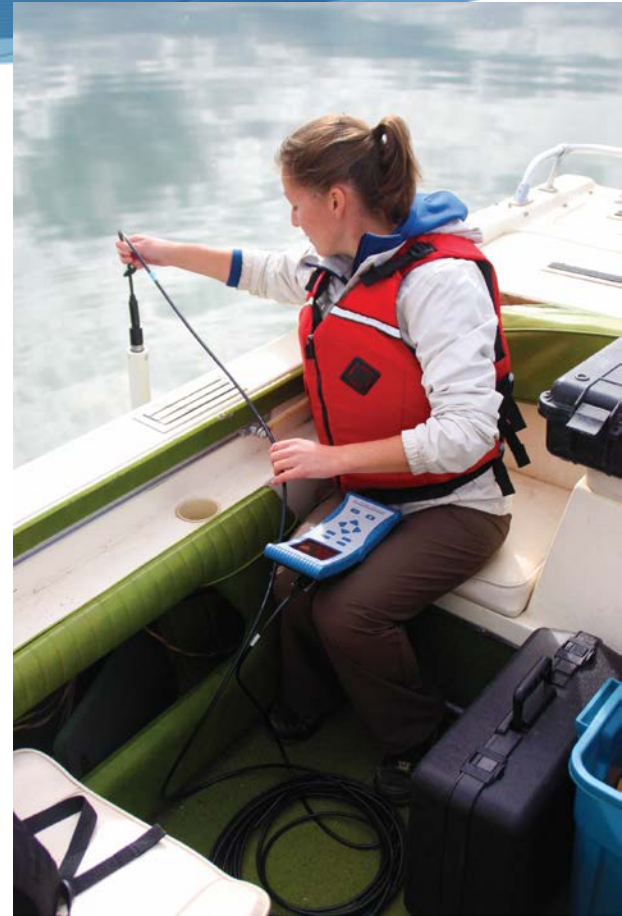
- Water quality outcomes

Water Conversation: Healthy Lakes

- ◆ Long Term: Advance a provincial lake policy that supports an integrated approach to healthy lakes in support of economic, environmental, and social impacts.
- ◆ Short Term:
 - ◆ Enhance lake governance systems to clarify roles and responsibilities;
 - ◆ Fill information gaps to improve lake monitoring, evaluating, and reporting; and
 - ◆ Enhance public awareness about lake management to further support Albertan's in keeping lakes clean and healthy.

Scientific Consensus

- ◆ Advances in lake science make it possible to determine the causes of lake health issues.
- ◆ Ongoing research & monitoring programs



Progress in Lake Management

YES

- ◆ Recognition that management of lakes is an issue that impacts social, economic and environmental outcomes
- ◆ Groups across AB undertaking watershed management plans
- ◆ Provincial Government Lake Policy



THE
YEAR OF OUR LAKES
PARKLAND COUNTY
2015

25th Anniversary

- ◆ North American Lake Management Society
- ◆ Banff Springs Hotel
- ◆ Nov 1-4th 2016



Enjoy the Workshop!



Photo: Laticia MacDonald