

annual
REPORT

LAKELAND

2015 industry
COMMUNITY
association



Cover Photo:
Debbie Wooldridge
LICA 2014 Photo Contest

Report Designed
& Printed by
Dark Horse Media

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Lakeland Industry and Community Association (LICA)

is a community based synergy group. We work together to actively support and promote a healthy and sustainable environment, as well as to support responsible resource development. We are a multi-stakeholder partnership between community, industry and government coming together to establish understanding, share information, and work toward mutually beneficial solutions to local concerns. Our work is undertaken through our offices in Bonnyville, Alberta, Canada.

Our Vision

Lakeland Industry and Community Association is a balanced partnership actively supporting a sustainable environment.



who
WE ARE

Our Mission

LICA supports the community by gathering and sharing information relevant to the environment and development in our region.

Our Values

LICA demonstrates these values as individuals and an organization:

Honesty. Transparency.
Integrity. **Respect.**
Cooperation. **Equality.**
Accountability.

where
WE ARE



Geographic Area

The area served by the Association is in Alberta: from the northern border of the Cold Lake Air Weapons Range to the western border of the Municipal District of Bonnyville No. 87 and the County of St Paul No. 19, and south to the North Saskatchewan River at Secondary Highway 881, south to Highway 45, then east to the Saskatchewan border. The area encompasses approximately 18,000 square kilometres.

lica
WELCOME



Charmaine Code

2015 marked LICA's 15th Anniversary – a significant milestone and time of reflection and contemplation. It has also been a year of tremendous challenge for our members and our association with the downturn in the oil and gas industry impacting our local economy and many citizens and businesses in our region. It has motivated LICA to question everything we do – every decision we make, every community event we host, every project we support.

We are proud to be part of the rich history of LICA and extend our gratitude to the Board, Committees, volunteers, staff, and contractors who put forth their very best every day for the benefit of LICA. Please consider joining our all-inclusive group for a great opportunity to learn, share, and be involved to enhance the LICA region. With a warm welcome,

Andrea Woods
Board Chair

Charmaine Code
Executive Manager



The **LICA Board of Directors** consists of; back row (L to R): Kristy Tetreau (Vice Chairperson), John Ilchuk (Director), Mildred Dunham (Alt. Director), Monty Moore (Secretary - Treasurer), Fred Bamber (Director), Harold Ross (Director). Front row (L to R): Wilf Tomchek (Director), Colin Woods (Director), Wayne Bamber (Director), Andrea Woods (Chairperson), Neil Young (Alt. Director), Robert Deresh (Alt. Director). Missing from the photo: Directors Darlene Gates, Geoff Pearse, Dana Swigart, Duane Zaraska; Alt. Director Paul Kip.

our BOARD



our COMMITTEES

Our Organization

Lakeland Industry and Community Association (LICA) is an incorporated not-for-profit society. We have a board of 12 directors, some elected and some appointed, to provide direction and leadership to our organization. A number of committees also assist with the work of our association. The board employs an Executive Manager, who is responsible for the successful management of LICA and is assisted in these duties by several staff.

Education & Information Committee (EIC)

The EIC is a committee of LICA that works closely with members of the Lakeland communities. Its mandate is to source information through synergy groups, agriculture, industry and regulatory partners, and share that knowledge by hosting informative and educational events and activities.



LICA's EIC consists of (L to R): Harold Ross (Co-Chair), Warren Hobart (Co-Chair), Donna Gingras (Alt. Member), Robert Deresh (Member), Annette Ozirny (Member), Judy Cabay (Member), Andrea Woods (Member). Missing: Members Nancy Tolley, Duane Zaraska; Alt. Member Terry Martial-Fox.

Kevin Casper
LICA 2014
Photo Contest

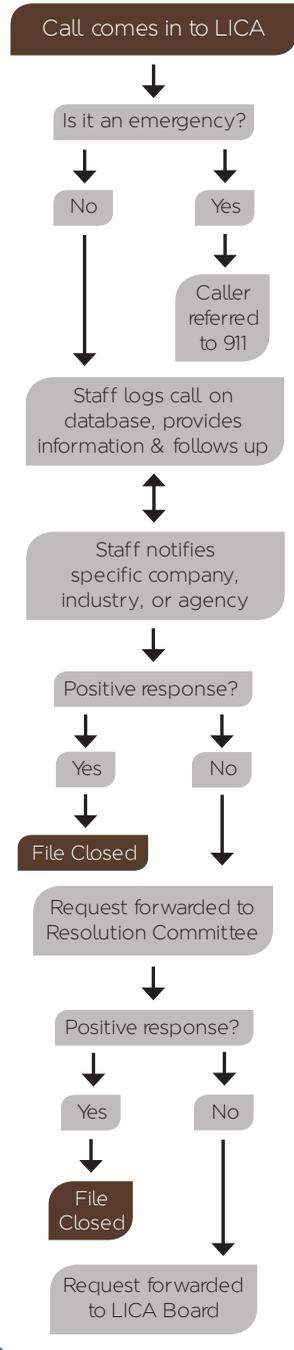
our COMMITTEES

Resolution Committee

One of the reasons that LICA exists is to ensure that all parties affected by such things as resource development end up with the best possible outcome. If you have been involved with or affected by resource development, you know that it is an intricate process involving many sectors, and sometimes its hard to find needed information. LICA's Executive Manager is the first contact for questions, although once in a while, a more complex issue arises. LICA's Resolution Committee then offers an issue-resolution process that brings people together to work things out.

The **Governance Committee's** role is to ensure that the requirements of the Alberta Societies Act, under which LICA is incorporated, are met, and that the bylaws and policies are clear, easy to follow, and in accord with each other. Thanks to this year's committee members: Dixie Dahlstedt, John Ilchuk, Delano Tolley, Wilf Tomchek, Wayne Bamber, Heather Harms, Colin Woods, Duane Zaraska, and Andrea Woods (ex officio).

Issue Resolution Process





awards
RECOGNITION

Lynn Beaupre
LICA 2014 Photo Contest

LICA was humbled to receive numerous awards and recognitions highlighting their 15th Anniversary celebrations in 2015:

- 2015 Award of Excellence from Synergy Alberta recognizing LICA's Annual General Meetings Best Practice as a special initiative or new program area that addresses the pressures and/or opportunities of energy/resource development at a community level.
- 15 Year Award of Recognition of working together toward a better community, presented by Synergy Alberta
- Pioneer Spirit Award presented to Iris English, long term active LICA member and past Board Chairperson, nominated by LICA and presented by Synergy Alberta
- Lakeland 2015 Nominee as Outstanding Not-for-Profit Organization
- 15 Years of Service Award, presented by Bonnyville Chamber of Commerce
- 15 Years in Business Award, presented by Cold Lake Chamber of Commerce

Monty Moore

Monty is involved with LICA as an industry member. He has been part of the LICA Board and various committees since 2008, and is currently a member of the Board of Directors and also the Secretary - Treasurer. He promotes positive community engagement with industry, government, and non-government organizations.

Monty has worked for Husky Energy since 1993 and is currently the Environmental Coordinator / Regulatory Contact for Tucker Thermal facility. He moved to the Lakeland from Rainbow Lake in 2008, and currently lives on a hobby farm near Ardmore with his wife and three daughters. The family enjoys archery, hunting, fishing and horseback riding. At the LICA table, Monty advocates for environmental education as an instrumental part of caring for the environment for future generations.



Marie & John Ilchuk

Marie & John Ilchuk are the perfect example of a family caring for the environment and their community. Marie's "prints" are all over LICA. During her five years with the Airshed Zone, Marie has shared her photography talent at most LICA events, leading to treasured images of our history. As an active Airshed Zone member, Marie is well prepared for meetings, researches relevant topics, and asks intriguing questions. The perspective Marie provides to the Airshed Zone is just one of the many ways that she contributes to the organization. Her husband John, a long term LICA community member, second year director with the LICA Board, and Forestry, Trapping and Recreation sector representative with BRWA, is a valued contributor. His thoughtful input to discussions, willingness to take an active role in all LICA events, and knowledge of the LICA region, make John an effective member of the organization.



LICA's Volunteer Strength

| | | | |
|------------------|------------------|----------------------|--------------------|
| Zoe Ainsworth | Guy Fontaine | Terry Martial-Fox | Sonja Schmelzeisen |
| Wanda Austin | Bill Fox | Geoff Montgomery | Abdi Siad-Omar |
| Fred Bamber | David Fox | Monty Moore | Don Sinclair |
| Wayne Bamber | James Gamblin | Corrine Murray | Dana Swigart |
| Shirley Benson | Donna Gingras | Kellie Nichiporik | Jessica Tetreau |
| Roger Boucher | Gordon Graves | Annette Ozirny | Kristy Tetreau |
| Rayelle Boyer | Heather Harms | Donna Padelcky | Mason Tetreau |
| Roxane Bretzlaff | Marsha Hayward | Leo Paquin | Megan Tilley |
| Shawn Brockhoff | Sean Humphreys | Geoff Pearse | Delano Tolley |
| Dianne Brownless | Warren Hobart | Alana Phelps | Nancy Tolley |
| Aleesha Cabay | John Ilchuk | Kaitlin Poitras | Wilf Tomchek |
| Judy Cabay | Marie Ilchuk | Adolph Porcina | Kathryn Wiebe |
| Katarazyna Cabay | James Ingle | Emma Poulin | Doug Wong |
| Dixie Dahlstedt | Jessie Kim | Maria Priestley | Andrea Woods |
| Brian Deheer | Paul Kip | Joe Prusak | Colin Woods |
| Robert Deresh | Carmelle Kokonas | Harold Ross | Connor Woods |
| Peter Doonanco | Nestor Kunec | Megan St. Amant | Neil Young |
| Emily Dreichel | Duane Lay | Jade Saruk | Duane Zaraska |
| Mildred Dunham | Paul Leonard | Jaxyn Schlegel Poole | Kathleen Zellweger |
| Iris English | Katlyn Macdonald | Colton Schmelzeisen | Your Name Here! |

our
VOLUNTEERS

Alex Abraham
LICA 2014 Photo Contest

LICA's active presence in the community would never be possible without the dedicated efforts of our many passionate volunteers. Thank you to the above group of individuals for providing us with your most precious gift - your time - over the last two years.

LICA Annual General Meeting

On April 23, 2015 LICA hosted its 2015 Annual General Meeting (AGM) and 15th Anniversary celebrations, with 155 in attendance. It was a social evening of comradeship, entertainment, great food, and of course the business and elections of an AGM.

We were delighted to welcome guest speaker Jay Nagendran, President and CEO of the Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA). Jay's presentation provided an update on AEMERA's responsibilities and accomplishments, and gave us a glimpse into the future of environmental monitoring in Alberta.

Each of LICA's committees reported on their work over the past year, as well as upcoming projects, allowing our audience to expand their knowledge of our operations.

The 2016 AGM will be held on April 14, 2016. We welcome you to join us to see what you can do to make a difference in our region as we work toward supporting a sustainable environment. Elections for the positions of Board Directors are held at the AGM and you must be a member to run for office or vote, but membership is free. Watch for further details of the 2016 AGM. The event is open to the public and is provided at no charge. We'll be looking for you there.

in the
COMMUNITY



Jay Nagendran speaking
at LICA's 2015 AGM

Bonnyville Oil & Gas Show

LICA was once again represented with a booth at the 2015 Bonnyville Oil & Gas Show. As a synergy group, it is essential that we be counted

among the organizations that serve the three main objectives for oil and gas producing companies: safety, environment and production.

2015 Earth Day Birthday

LICA's Synergy Alberta Award Winning "Earth Day Birthday Party" took place on April 11, 2015, in Elk Point. The festivities provided children, grades 1 to 6, the opportunity to learn what wildlife:

- Look like: motion camera images of area wildlife, along with track graphics.
- Sound like: audio animal sounds, with a birch bark call making project.
- Feel like: fur and skull petting zoo.

Our 30 guests enjoyed Earth Day themed dirt cake and treat bags, after completing an assessment of all they had learned that afternoon.

LICA representatives Harold Ross (left) and Andrea Woods (far right) with contestants Lauren Hansen and Akira Miley-Hiatt

Earth Day Writing Contest

To acknowledge Earth Day, LICA urged students in grades 5 to 8 to respond to: "You are granted one wish. How would you use it to protect the healthy habitat of a plant, animal, or other organism found in our region?" The Education and Information Committee was captivated by the entries received. Akira Miley-Hiatt, an eighth grade student from Assumption Jr/Sr High, wrote our winning essay, Akira would: "hire a team of superheroes to protect the grasslands and all the endangered or threatened species that live in the prairies. These superheroes would have super-vision to spot garbage and other harmful substances, rapid healing powers to care for sick



or hurt animals, fight poachers with super-strength and use laser eye power to put protective force fields around any plant or animal that was in danger."

Watch For Us in 2016

- LICA's AGM - April 14
- Earth Day Birthday Party - April 23
- Earth Day Writing Contest - April
- Lakeshore Clean-up - September
- LICA's Photo Contest - October
- BRWA Calendar Contest - October
- Christmas at LICA - December

Christmas at LICA

On December 9, 2015, LICA opened its doors to host its 7th Annual Christmas at LICA. 95 people took the opportunity to stop by LICA to enjoy food and refreshments, and mingle with LICA staff, volunteers, and members, learning a little more about our association. Community helpers volunteered to help make the evening more enjoyable. This year LICA also collected nonperishable food items for the local food bank to help out those less fortunate.

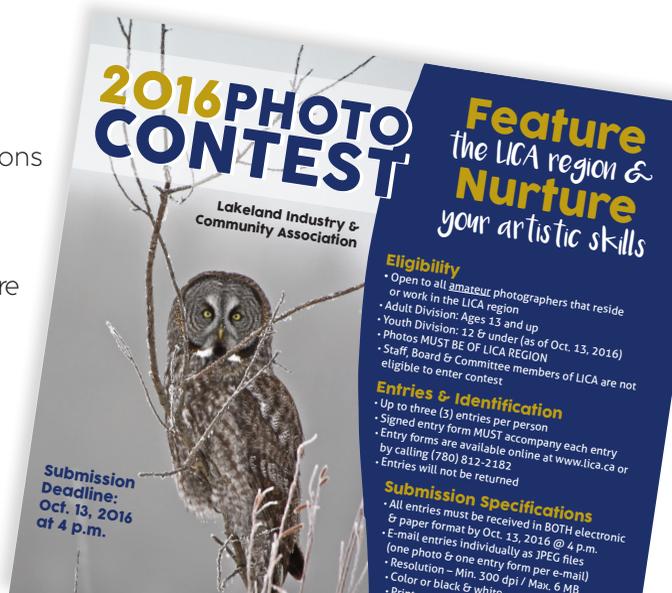
Landowner's Handbook on Resource Development

LICA has developed and published an award-winning Landowner's Handbook on Resource Development, covering 16 broad topics such as land agents, seismic, noise, and surveys, to assist in creating a positive interaction between landowners and resource developers. It includes a glossary of terms commonly encountered, fast facts, helpful hints, and references of additional sources, if more information is desired.

This valuable resource can be accessed through LICA's website at www.lica.ca or by picking up a copy from the LICA office, as shown on the back of this publication. Whatever your role in resource development, we know that you will find this handbook useful.

Photo Contest

Don't forget to get your submissions in for LICA's bi-annual photo contest. The deadline is October 13, 2016. Visit www.lica.ca for more information and to download entry forms. Put your best shot forward and it could be featured in the annual report and other LICA publications.



2016 PHOTO CONTEST
Lakeland Industry & Community Association

Feature the LICA region & Nurture your artistic skills

Eligibility

- Open to all amateur photographers that reside or work in the LICA region
- Adult Division: Ages 18 and up
- Youth Division: 12 & under (as of Oct. 13, 2016)
- Photos MUST BE OF LICA REGION
- Staff, Board & Committee members of LICA are not eligible to enter contest

Entries & Identification

- Up to three (3) entries per person
- Signed entry form MUST accompany each entry
- Entry forms are available online at www.lica.ca or by calling (780) 812-2182
- Entries will not be returned

Submission Specifications

- All entries must be received in BOTH electronic & paper format by Oct. 13, 2016 @ 4 p.m.
- E-mail entries individually as JPEG files (one photo & one entry form per e-mail)
- Resolution – Min. 300 dpi / Max. 6 MB
- Color or black & white
- Best

Submission Deadline:
Oct. 13, 2016
at 4 p.m.

Statement of Operations

For the year ended December 31, 2015 (unaudited)

Prepared by Ross & Sylvestre LLP (Bonnyville, Alberta)

| REVENUE | 2015 | 2014 |
|-----------------------------|------------------|------------------|
| Agency funding | 834,621 | 718,505 |
| Government funding | 188,636 | 172,921 |
| Interest income | 2,483 | 2,208 |
| Memberships | 50,250 | 56,500 |
| Other receipts from members | 88,901 | 553,768 |
| Total Revenue | 1,164,891 | 1,503,902 |

James Wilson
LICA 2014 Photo Contest

| EXPENDITURES | 2015 | 2014 |
|--|------------------|------------------|
| Airshed | 516,354 | 631,032 |
| Amortization | 41,707 | 57,797 |
| Annual report | 25,736 | 32,704 |
| Board & committee | 38,801 | 42,600 |
| Contract services | 199,089 | 213,834 |
| Insurance | 8,470 | 8,472 |
| Meetings | 12,383 | 15,217 |
| Occupancy costs | 56,108 | 57,334 |
| Office | 21,601 | 17,045 |
| Professional fees | 36,045 | 6,288 |
| Property taxes | 3,305 | 3,339 |
| Public relations | 14,645 | 35,066 |
| Training & development | 4,936 | 1,946 |
| Travel | 15,772 | 15,926 |
| Wages & benefits | 192,515 | 163,300 |
| Watershed | 76,100 | 81,868 |
| Total Expenditures | 1,263,567 | 1,383,768 |
| Excess (deficiency) of revenues over expenses | (98,676) | 120,134 |
| Total Net Assets (beginning of year) | 1,016,884 | 896,749 |
| Total Net Assets (end of year) | 918,206 | 1,016,884 |

airshed ZONE



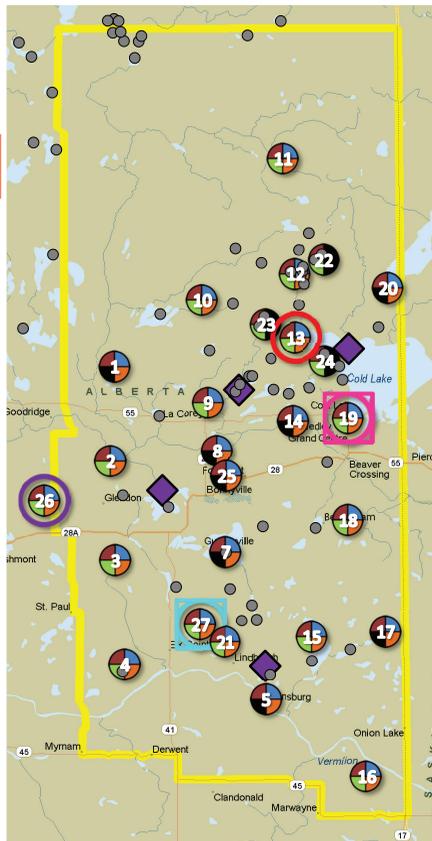
The Airshed Zone is: back row (L to R): Members Heather Harms, Harold Ross, Robert Deresh, Andrea Woods; Michael Bisaga (Manager, Environmental Monitoring Programs); Members Sean Humphreys, Carmelle Kokonas; Kathryn Wiebe (Alt. Member). Front Row (L to R): Marie Ilchuk (Alt. Member), Kristy Tetreau (Co-Chair), Megan Tilley (Co-Chair), Megan St. Amant (Alt Member). Missing: Members Shawn Brockhoff, Diane Brownless, James Ingle, Katlyn Macdonald, Duane Zaraska; Alt. Member Roger Boucher.

LICA's passive stations generally follow a 3 x 3 township grid pattern. Samples from these stations are collected every two months. LICA examines long-term spatial patterns in air quality and acid deposition using data from the passive monitoring program. Ozone, nitrogen dioxide, sulphur dioxide, and hydrogen sulphide are sampled in the passive monitoring network. Over the years, LICA's continuous monitoring network has expanded to include permanent stations in Cold Lake (Cold Lake station), southwest

of St. Lina (St. Lina station), and near oil sands operations, southwest of Marie Lake (Maskwa station). LICA's portable air monitoring system (PAMS) can be dispatched to communities throughout the region. The Cold Lake, PAMS, and St. Lina stations report on the Air Quality Health Index (AQHI) and produce near real-time measurements 24 hours per day, 7 days per week, and 365 days per year. Volatile organic compounds and polycyclic aromatic hydrocarbons are collected at the Cold Lake and PAMS stations.

To align with the National Pollutant Surveillance (NAPS) program, LICA collects 24-hour integrated samples every six days; over 100 compounds can be detected with these methods. Special equipment automatically collects additional samples at our PAMS station when a high concentration of hydrocarbons is detected. Sampled on a staggered four-year cycle, LICA established soil acidification sampling plots in Moose Lake Provincial Park (2010), Whitney Lakes Provincial Park (2011), and southwest of Tucker

Lake (2012). LICA's acidification effects monitoring programs enhance sampling by Alberta Environment and Parks, local industry, and the Alberta Lake Management Society. In 2015, LICA completed a second round of sampling at the Whitney Lakes monitoring site. LICA's monitoring network has evolved over time to meet changing regulatory and local stakeholder needs, while maintaining a high degree of scientific rigor. LICA will adopt new methods and deploy new, proven monitoring technologies when needed. This ensures the highest quality of data is collected to meet the needs of our partners and members.



airshed zone

-  **Passive Monitor:**
Sulphur Dioxide
-  **Passive Monitor:**
Nitrogen Dioxide
-  **Passive Monitor:**
Ozone
-  **Passive Monitor:**
Hydrogen Sulphide
-  **Continuous Monitor:**
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Total Hydrocarbons, Meteorology
-  **Continuous Monitor:**
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Ozone, Methane/Non-Methane Hydrocarbons, Particulate Matter, Meteorology
-  **Continuous Monitor:**
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Ozone, Total Hydrocarbons, Particulate Matter, Meteorology
-  **Continuous Monitor:**
Sulphur Dioxide, Total Reduced Sulphurs, Oxides of Nitrogen, Ozone, Total Hydrocarbons, Particulate Matter, Meteorology
-  **Polycyclic Aromatic and Speciated Hydrocarbons:**
Routine 1-in-6 day samples
-  **Polycyclic Aromatic and Speciated Hydrocarbons:**
Routine 1-in-6 day samples
High non-methane hydrocarbon triggered samples
-  **Soil Acidification Monitoring Plot:**
pH, Soil Texture, Electrical Conductivity, Soluble Ions, Cation Exchange Capacity – Buffered, Unbuffered, Exchangeable Cations, Total Carbon, Total Nitrogen, Total Sulphur, Available Ammonium, Available Nitrates, Available Phosphorous
-  **Surface Water Acidification Assessment:**
3rd Party Monitoring/Sampling

PASSIVE STATIONS:

1. Sand River
2. Therien
3. Flat Lake
4. Lake Eliza
5. Telegraph Creek
7. Muriel - Kehewin
8. Dupre
9. La Corey
10. Wolf Lake
11. Foster Creek
12. Primrose
13. Maskwa
14. Ardmore
15. Frog Lake
16. Clear Range
17. Fishing Lake
18. Beaverdam
19. Cold Lake South
20. Medley - Martineau
21. Fort George
22. Burnt Lake
23. Mahihkan
24. Hilda Lake
25. Town of Bonnyville
26. St. Lina
27. Portable Station

2015 Continuous Monitoring Program Summary

| Parameter | Units | AAAQO | | COLD LAKE | | | | ST. LINA | | | | MASKWA | | | | PAMS | | | |
|--|-------------------|-------|-----|---------------|------|-------------|-----|---|-----|-------------|-----|---------------|------|-------------|-----|---------|------|-------------|-----|
| | | | | Summary | | Exceedances | | Summary | | Exceedances | | Summary | | Exceedances | | Summary | | Exceedances | |
| | | 1H | 24H | Avg | Max | 1H | 24H | Avg | Max | 1H | 24H | Avg | Max | 1H | 24H | Avg | Max | 1H | 24H |
| Sulphur Dioxide | ppb | 172 | 48 | 0 | 5 | 0 | 0 | 0 | 6 | 0 | 0 | 1 | 18 | 0 | 0 | 0 | 7 | 0 | 0 |
| Hydrogen Sulphide | ppb | 10 | 3 | Not monitored | | | | 0 | 4 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 4 | 0 | 0 |
| Nitrogen Dioxide | ppb | 159 | n/a | 3.7 | 34.5 | 0 | n/a | 2.1 | 39 | 0 | n/a | 3.3 | 31.7 | 0 | n/a | 7.7 | 41.4 | 0 | n/a |
| Ozone | ppb | 82 | n/a | 25 | 65 | 0 | n/a | 31 | 74 | 0 | n/a | Not monitored | | | | 22 | 70 | 0 | n/a |
| PM _{2.5} Mass | µg/m ³ | 80 | 30 | 9 | 278 | 78 | 10 | 7 | 216 | 40 | 5 | Not monitored | | | | 7 | 269 | 47 | 5 |
| ppb - Parts per billion | | | | | | | | Max - Maximum 1 hour measurement of 2015 | | | | | | | | | | | |
| µg/m ³ - Micrograms per cubic meter | | | | | | | | Summary - Annual Summary | | | | | | | | | | | |
| AAAQO - Alberta Ambient Air Quality Objective | | | | | | | | n/a - Not applicable AAAQO for parameter | | | | | | | | | | | |
| 1H - 1 Hour | | | | | | | | Exceedances - Number of exceedances of the indicated AAAQO | | | | | | | | | | | |
| 24H - 24 Hour | | | | | | | | Not monitored - Parameter not monitored at site | | | | | | | | | | | |
| Avg - Annual average for 2015 | | | | | | | | PM _{2.5} Mass - Particles less than or equal to 10 micrometers in diameter | | | | | | | | | | | |

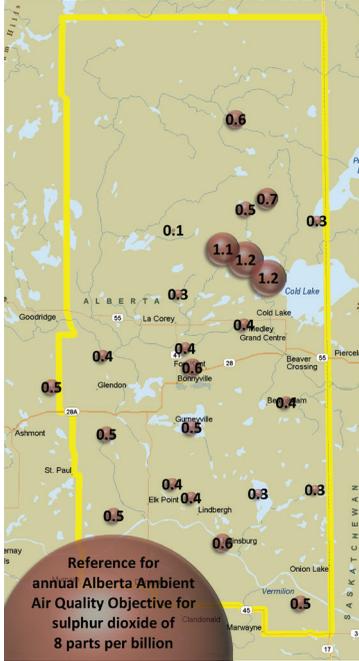
The Cold Lake Station provides information about air quality conditions in the regions most populated centre (City of Cold Lake) and reports the Air Quality Health Index (AQHI). As in previous years the data indicate that air quality at this location is influenced by urban emissions including home heating and vehicles. Summer forest fires resulted in several exceedances of the Alberta Ambient Air Quality Objectives (AAAQO) for particulate matter.

The St. Lina station is located near the Hamlet of St. Lina and reports the AQHI. The station provides information about the characteristics of air masses moving into the region. Ozone concentrations are slightly elevated relative to other stations, a pattern often observed at rural locations with few combustion sources

nearby. Summertime forest fire smoke carried into the region caused elevated particulate matter concentrations.

The Portable Air Monitoring System (PAMS) is located at the Elk Point Airport and reports the AQHI. The PAMS can be moved around the region to collect data that may be used to address local air quality issues. Like other locations, forest fire smoke caused elevated particulate matter concentrations over the summer. The Maskwa station is located southeast of Marie Lake in the immediate vicinity of in situ oil sands operations. Although it is not equipped to report on the AQHI, this station provides information about air quality conditions in the region's oil sands producing area. It monitors a suite of parameters relevant to the types of emissions from in situ operations.

SULPHUR DIOXIDE

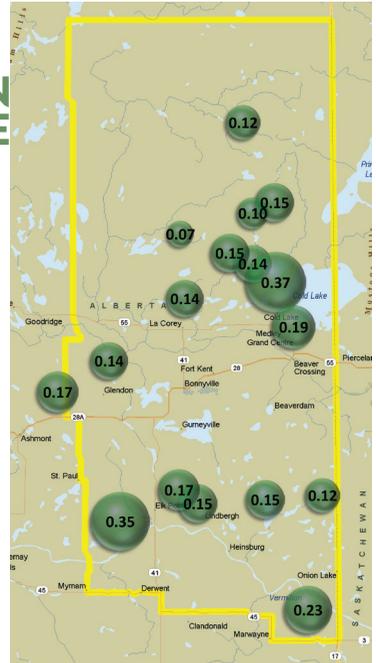


The highest concentrations of sulphur dioxide were measured at stations near in situ oil sands facilities northwest of Cold Lake.

These operations are a major point source of sulphur dioxide in the region. Although elevated, these annual average concentrations were well below the Alberta Ambient Air Quality Objective of 8 ppb.

HYDROGEN SULPHIDE

Elevated concentrations of hydrogen sulphide were measured at stations close to in situ oil sands operations; these industrial activities are a potential source in the LICA area. Elevated concentrations were also detected at stations near Elk Point and Marwayne, likely caused by decaying organic matter in shallow sloughs and small feedlots. There is no current annual Alberta Ambient Air Quality Objective for hydrogen sulphide.



average concentration for the given location, and the width of the bubble is relative to the concentration. Where possible, a reference bubble is shown to compare annual average network measurements to Alberta Ambient Air Quality Objectives (AAAQO).

The Alberta Environmental Monitoring Evaluation and Reporting Agency (AEMERA) is the arms length provincial agency responsible for measuring, assessing, and informing the public on the condition of Alberta's environment. AEMERA was created when Alberta recognized the need to strengthen our monitoring, evaluation and reporting activities.

Monitoring

Our scientists and experts are transforming, expanding and improving how we monitor the environment in our province.



Evaluation

Monitoring the environment results in data and information that needs to be assessed, analyzed and evaluated. This data and information allows AEMERA to draw science-based conclusions about the health of our environment. It also ensures we're using best practices, the best technology and that we're focused on the right measures.

Reporting

Albertans have an investment in the health of our environment. At AEMERA, we are committed to reporting the results of our work in an open, transparent and timely manner. Additionally, we strive to ensure our reporting is easy to access and understand. We report our findings and results to the public, policy-makers, regulators, planners, researchers, communities and industry.

Working relationships

Collaboration makes our work stronger and more rigorous. We pride ourselves on building collaborative relationships with our stakeholders and partners, so we have the most balanced and informed perspective on the health of our environment. AEMERA works with LICA to deliver transparent access to scientific data and information on the condition of real-time ambient air concentrations, long-term regional air quality patterns, and the potential acidifying effects of pollutants.

AEMERA in the Oil Sands Region

- On March 31, 2015, the Joint Canada-Alberta Implementation Plan for Oil Sands Monitoring (JOSM) three-year agreement expired. AEMERA and Environment and Climate Change Canada (ECCC) continue to work together in implementing the 2015-2016 work plans, while working to develop and finalize a formal long-term agreement on scientific monitoring, evaluation and reporting in the oil sands region.

DATA & RESULTS

Alberta Environmental Monitoring Evaluation & Reporting Information Service

aemeris.aemera.org/map

Canada-Alberta Oil Sands Information Portal

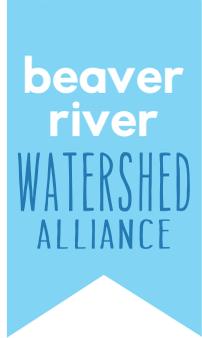
jointoilsandsmonitoring.ca



- In July 2015, AEMERA and ECCC released the 2014-2015 JOSM Annual Report. The accompanying technical report will be released in February 2016 and will feature key scientific results and findings in 2014-2015, including additional synthesis, review and validation.
- AEMERA launched a newly redesigned website, aemera.org, in September of 2015. The site provides open and transparent access to information on the condition of Alberta's environment.
- AEMERA completed a review and inventory of monitoring activities undertaken by First Nations and Metis communities.
- AEMERA's Science Advisory Panel and Indigenous Wisdom Advisory Panel are in place.
- Working together with monitoring organizations and communities in Alberta's oil sands region, AEMERA launched an electronic report featuring information and findings related to key science, research and community activities in the three oil sands regions: Athabasca, Cold Lake and Peace River. View at www.osmreport.ca.
- One of AEMERA's goals is to provide environmental data and information to stakeholders and the public in an open, timely and understandable way. In November of 2015 AEMERA launched a campaign that streams real-time Air Quality Health Index (AQHI) readings to digital billboards in seven communities across the province, including Cold Lake.



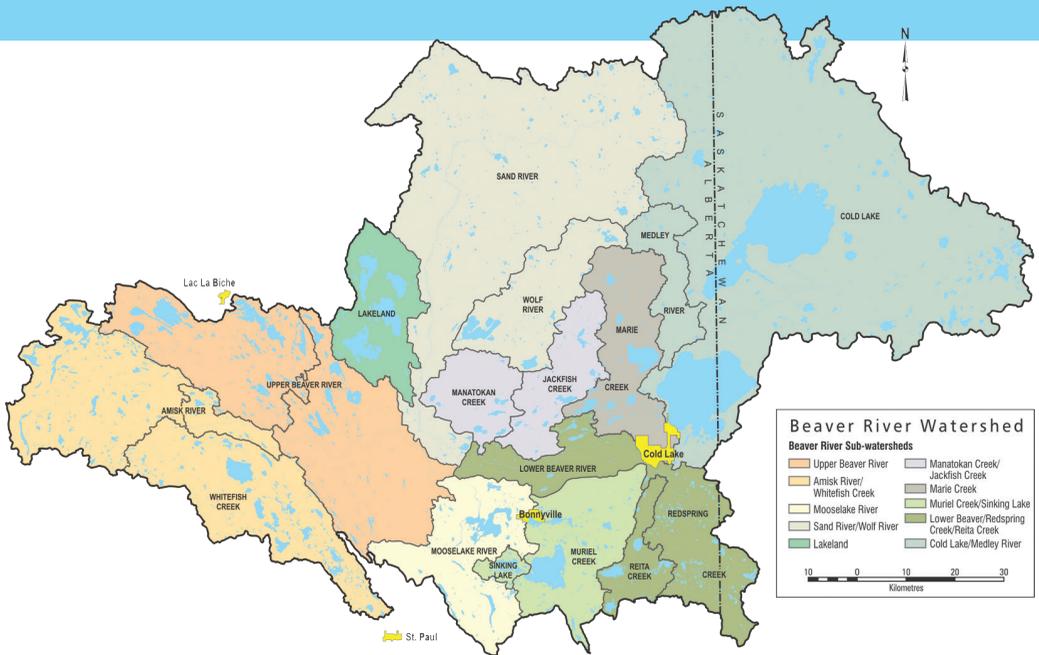
The Beaver River Watershed Alliance (BRWA) is the designated Watershed Planning and Advisory Council (WPAC) for the Beaver River Basin under Alberta's Water for Life



Strategy. The roles of the BRWA are three-fold: to assess and report on the state of the watershed, to educate and inform the community about watershed stewardship, and to lead the creation and implementation of a watershed management plan.

BRWA is a multi-stakeholder partnership organization bringing together organizations and individuals in the region to work towards a healthier watershed. Members include agricultural producers, oil and gas producers, municipal and provincial governments, stewardship groups, First Nations, Metis, community members, and other key parties. We are an independent standing committee of LICA.

Back Row (L to R): Wanda Austin (Alt. Member), John Ilchuk (Member), Wilf Tomchek (Member), Delano Tolley (Member), James Gamblin (Alt. Member), Harold Ross (Member), Bill Fox (Alt. Member). Middle Row (L to R): Paul Kip (Alt. Member), Geoff Montgomery (Member), Kathryn Wiebe (Alt. Member), Don Sinclair (Member). Front Row (L to R): Andrea Woods (Member), Roxane Bretzlaff (Co-Chair), Chantelle Adams (Education & Outreach Coordinator), Kellie Nichiporik (Member), Lisa Isaacman (Program Manager), Gordon Graves (Co-Chair), Nestor Kunic (Member), Mildred Dunham (Alt. Member). Missing: Members Brian Deheer, Monty Moore, Joe Prusak, Duane Zaraska; and Alt. Members Marsha Hayward, Duane Lay, Katlyn Macdonald, Donna Padlesky, Alana Phelps.



VISION MISSION

The Beaver River Watershed is ecologically healthy and environmentally sustainable.

The Beaver River Watershed Alliance will maintain or improve the ecology of the Beaver River Watershed while respecting the diverse values of the watershed community. This will be achieved through broad community engagement, partnerships, sound scientific study, education, and the support and encouragement of implementing sustainable water management and land use practices.

Education & Outreach / Partnerships

The BRWA continues to build and support partnerships to better understand and conserve the watershed. Examples of activities this year include:

- Our multi-sectoral Steering Committee met regularly to share information and disseminate watershed information to their sectors.
- Participation and support of our local Watershed Stewardship Groups and municipalities.
- Joint initiatives with Alberta Lake Management Society, Land Stewardship Centre and other WPACs.
- Continued partnership with the Lakeland Nature Kids Club. With the assistance of BRWA, the group was awarded \$10,000 from AltaGas to support its programming.
- In partnership with other WPACs, developed an X-stream Science program for high school students. The program will focus on assessing stream water quality by sampling macroinvertebrates in the water.
- Participation in regional planning initiatives.



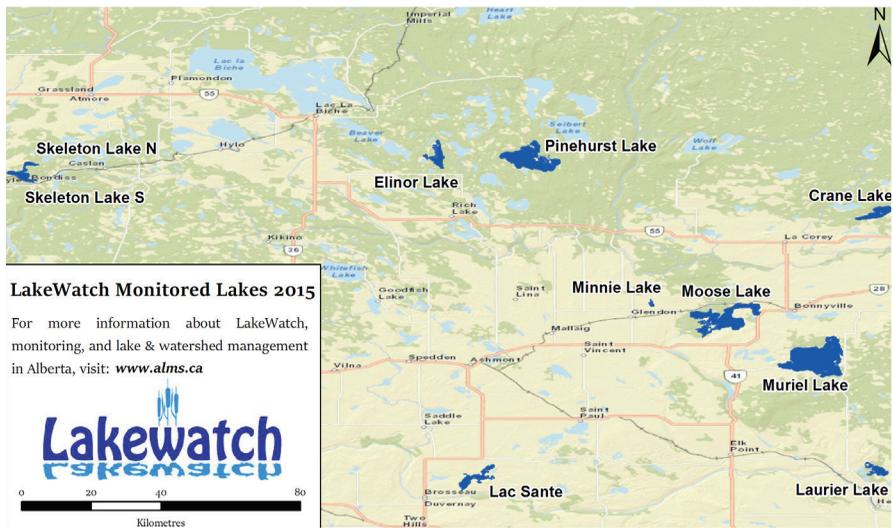
beaver
river
WATERSHED
ALLIANCE

ALMS LakeWatch

In 2015, the LakeWatch Program combined volunteers with field technicians to conduct ambient monitoring of 10 lakes in the LICA region. Monitoring was conducted five times at each lake and encompassed numerous ecological parameters, including invasive zebra and quagga mussels, phosphorus, microcystin, and metals. Fortunately, no zebra or quagga mussels were detected in the 10 LICA lakes. Publishing of the complete results will be announced via the monthly ALMS e-newsletter.

The BRWA is committed to educating and informing residents of the Beaver River watershed on watershed stewardship. To do so we offer a series of education and outreach events and programs each year. Highlights this year include:

- Classroom programs for students in grades K to 12.
- Summer programs and interactive displays at public libraries, summer camps, campgrounds, community clubs, and community events.
- Disseminated information on topics such as watersheds, water quality, pollution and biodiversity to nearly 2,000 people in the Beaver River watershed.
- Shoreline Cleanup day at Jessie Lake with over 250 participants, including local high school students, removing 160 kg of litter and debris from the shoreline.
- Annual Youth Calendar Contest for students in Kindergarten to Grade 12. This year's contest theme was "What is your favorite thing to do in the Beaver River Watershed?"



Integrated Watershed Management Plan (IWMP)

The IWMP will lay out a long-term vision and management objectives for the health of the watershed, and an action plan to meet those objectives. Over the past year, the BRWA established an IWMP project subcommittee and a technical advisory team, with representation from key stakeholder groups. We have also been busy talking with implementers about the IWMP process and how they can best be engaged. Plan development and review will be carried out in 2016 with many opportunities for community participation and feedback.

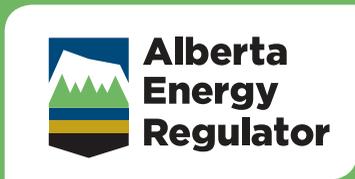
Indices of Aquatic Ecosystem Vulnerability

Funded by Alberta Environment and Parks, the goal of this project was to develop standardized indices (models) that can be used over time to monitor, report, and run scenarios on the state of aquatic ecosystem health in the Beaver River Watershed. The final report is available for viewing on the BRWA website at www.beaverriverwatershed.ca.

Alberta Energy Regulator

The Alberta Energy Regulator (AER) provides for the safe, efficient, orderly, and environmentally responsible development of energy resources. This includes allocating and conserving water resources, managing public lands, and protecting the environment while securing economic benefits for all Albertans.

What We Regulate



To view the Alberta Energy Regulator's Annual Report, visit: www1.aer.ca/annualreport

OVER **200** AND **16**
primary/enhanced recovery projects (in situ) experimental projects

MORE THAN **50**
thermal/enhanced in situ projects

OVER **421 000**
kilometres of pipelines

9
oil sands mines

782
gas processing plants

5
bitumen upgraders

OVER **178 000**
operating natural gas and oil wells

4
coal processing plants

MORE THAN **29 000** AND CLOSE TO **21 000**
oil facilities gas facilities

11
producing coal mines

Synergy Alberta

Synergy Alberta (SA) is the provincial association of synergy groups in Alberta, and has grown to also include associate organizations and individuals who, like us, strongly believe that multi-stakeholder collaboration is the most effective way to benefit all stakeholders involved in and affected by resource development. SA had a very successful fall conference in Calgary November 2-4, 2015, with the theme "The Power of Working Together." Synergy works. Visit synergyalberta.ca to see what its all about. Its amazing.

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