



Lakeland Industry & Community Association

Annual Report 2014

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LICA 2014 Photo Contest

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LAKELAND INDUSTRY & COMMUNITY ASSOCIATION (LICA)

is a community based synergy group. We work together to 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 and rapport, share information, and work toward mutually beneficial solutions to local concerns. Our work is undertaken through our offices in Bonnyville, Alberta, Canada.

Introduction to

OUR VISION

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

OUR MISSION

LICA supports the environment by gathering, sharing, and acting on information regarding development in our region.

OUR VALUES

LICA demonstrates these values as individuals and an organization:

- Respect
- Honesty
- Integrity
- Equality
- Cooperation
- Transparency
- Accountability

LICA

Joyce Gerrard
LICA 2014 Photo Contest

Debbie
Wooldridge
LICA 2014
Photo Contest

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 assist with the work of our association including:

- **Education & Information Committee** which plans and facilitates outreach activities and special events, and collects and shares information.
 - **Governance Committee** which develops, monitors and ensures compliance with LICA's policies and bylaws.
 - **Resolution Committee** which facilitates the resolution of concerns and issues related to development in the region.
- In addition, LICA has two independent standing committees, both of which have a technical focus:
- **LICA Airshed Zone** facilitates regional air quality monitoring, and furthers and promotes an understanding of air quality, operating within the parameters of the Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA).
 - **Beaver River Watershed Alliance** works to advance and update knowledge of the watershed with a focus on water studies and communication.

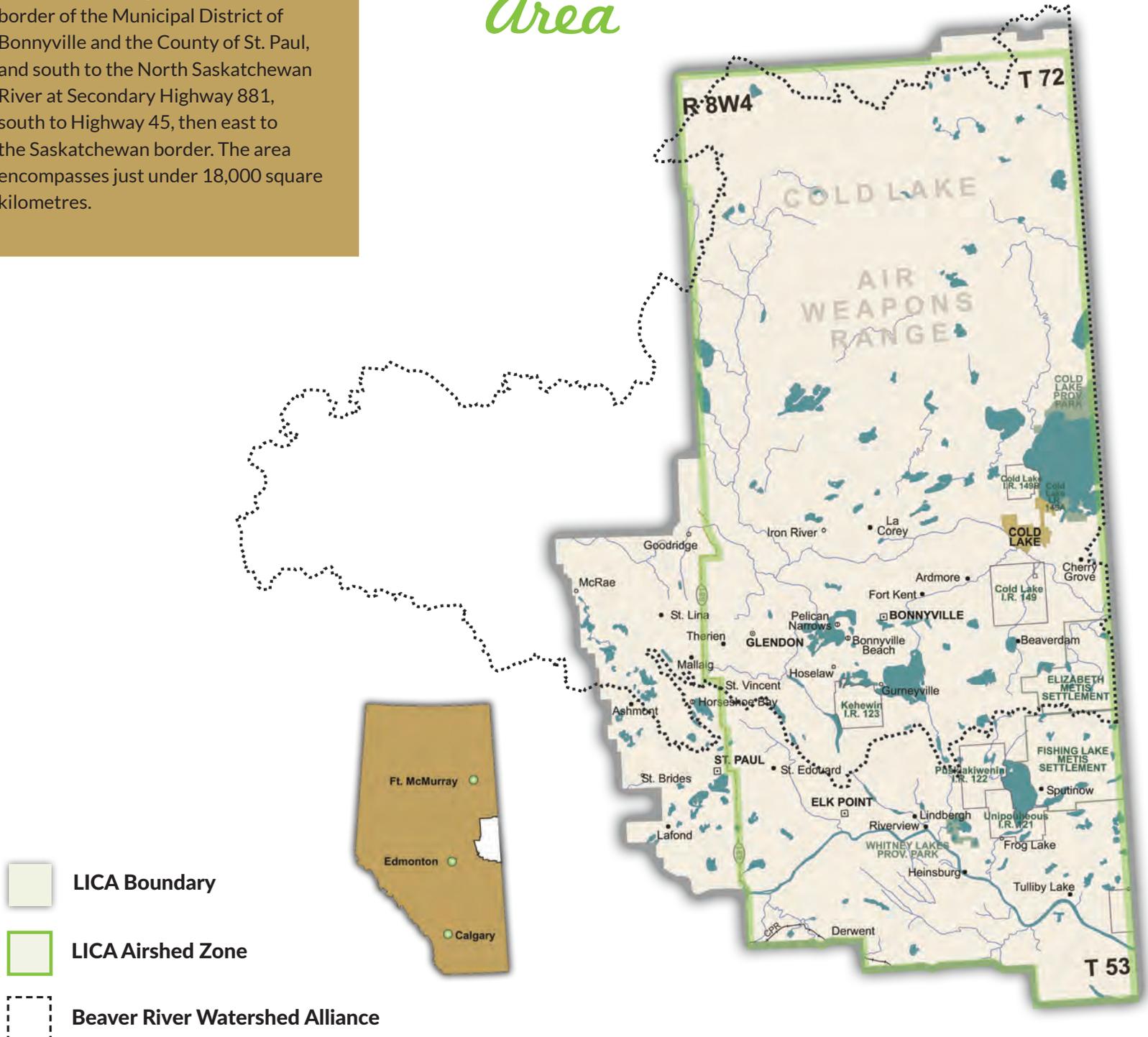
The board employs an Executive Manager, who is responsible for the successful management of LICA according to its vision, mission, values, bylaws, policies, and strategic plan. The Executive Manager is assisted in these duties by several staff.

(the way we work)



The Lakeland Industry and Community Association (LICA) is in Alberta: from the northern border of the Cold Lake Air Weapons Range to the western border of the Municipal District of Bonnyville and the County of St. Paul, and south to the North Saskatchewan River at Secondary Highway 881, south to Highway 45, then east to the Saskatchewan border. The area encompasses just under 18,000 square kilometres.

Geographical Area





Robert Deresh



Chairman's Message

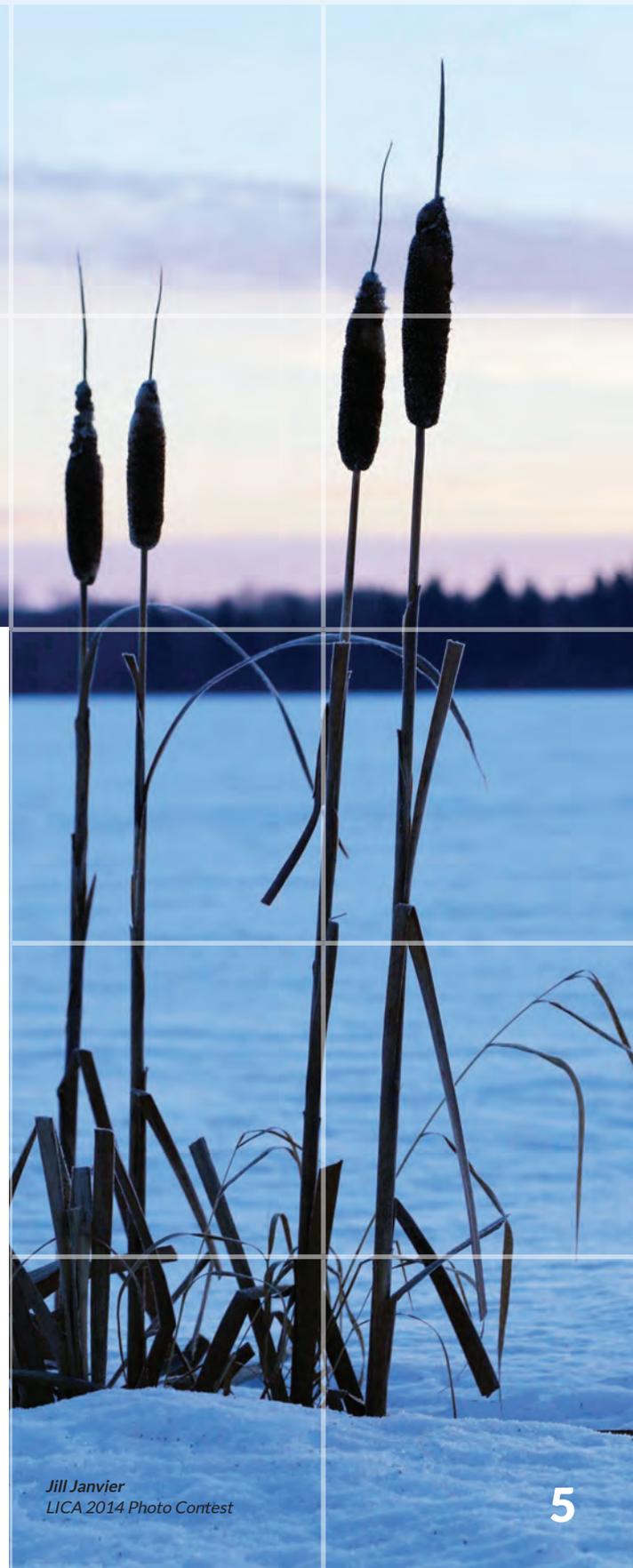
Welcome to the 2014 Annual Report of the Lakeland Industry and Community Association (LICA). LICA has two independent standing committees: LICA's Airshed Zone and the Beaver River Watershed Alliance (BRWA). These committees work towards monitoring and conserving the environment. The Education and Information Committee (EIC) educates the public about oil and gas development, and environmental issues, through various activities.

LICA is a member of Synergy Alberta, which was established by a desire of rural communities to be heard and involved in industry development affecting them. Each year Synergy Alberta sponsors a province-wide conference. This year, one of the keynote speakers was Leona Dargis, a local resident, who spoke about influencing farm families to take action in estate planning.

This past spring at LICA's 2014 Annual General Meeting, the speaker was the Chief Executive Officer of Lakeland Credit Union, Pierre Amyotte, whose message was titled 'Embracing Change: Our Dynamic, Growing Local Community'. He was a very good speaker, and a number of people commented on his excellent presentation.

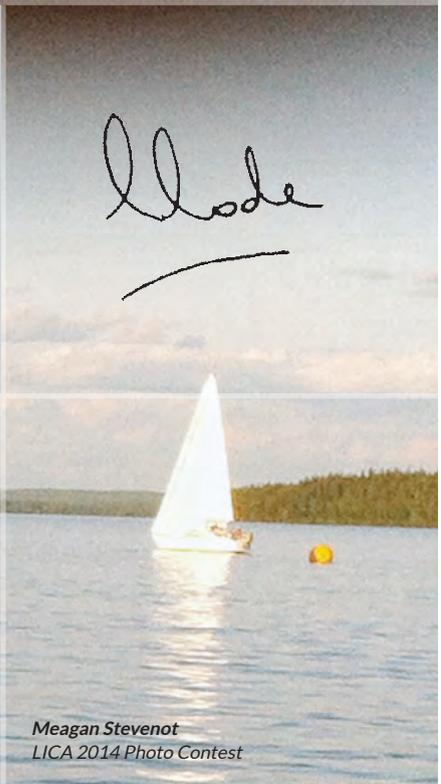
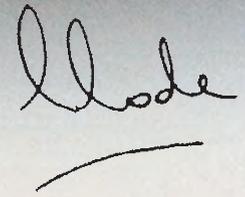
Thank you to our Executive Manager, Charmaine Code, and her staff of Carrie Cardamone, Executive Assistant, and Luella Brown, Accounting Assistant, whose dedication and time contributed are invaluable to the Board and greatly appreciated.

Robert Deresh, Chairman



Jill Janvier
LICA 2014 Photo Contest

Executive Manager's Message



Meagan Stevenot
LICA 2014 Photo Contest



2014 was an eventful year at Lakeland Industry and Community Association (LICA), and marked the completion of fourteen years of operation. Our Board, Committees, membership and staff worked diligently to continue building on our impressive track record, using their varied knowledge and experience to reach our goals. At this time, I want to extend a heartfelt thank you to each of them for their phenomenal commitment and efforts which have allowed us to focus on our goals to enhance the lives of those in the LICA region.

LICA continues to be unique and respected in our region and far beyond. Our association of a synergy group, along

with airshed and watershed components, as well as the support and contributions of our many partners, positions us well on an ongoing basis to support the environment and sustainable resource development. In addition, LICA continues to be involved as a monitoring delivery partner operating under the Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA) to implement the Joint Oil Sands Monitoring (JOSM) Plan.

2014 ended with tremendous challenges for our members with the economic downturn affecting the oil and gas industry, and thus many other areas. But with challenge comes opportunity, and we simultaneously commenced an internal efficiencies review, as has been our regular practice over the years.

I look ahead with great excitement to 2015 as we celebrate our 15th Anniversary, and also face the challenges on the horizon. With the contributions of our members, community and staff, I believe our future remains bright! I particularly thank my staff of Carrie Cardamone, Luella Brown, and Kami Cline for their tireless work to support and enhance LICA this past year. And please know that we warmly invite you to join us at any time – you are always welcome to experience one of our events, meetings, or just a visit to the office.

Charmaine Code, Executive Manager

why join LICA?

If you live, work, or operate in the Cold Lake, Bonnyville, Elk Point, St. Paul area, you have been or will be affected by or involved in resource development such as oil and gas, forestry, or sand and gravel. Resource development is complex and LICA exists to ensure that all parties end up with the best possible outcome. LICA is a not-for-profit association of community members, local and provincial government, and oil and gas and other industries. As a synergy group, LICA works to build understanding, respect, and relationships; share information; and arrive at mutually beneficial solutions to local concerns.

Brandon Born
LICA 2014 Photo Contest

Here's what some of our members say about why they joined LICA:

- Where else could you find a place where government, industry & community get together to try to solve problems?
- To share ideas and bring awareness to the public of taking care of the environment, water & air
- A great way to be active within the community and collaboratively work with industry on making a difference
- Wonderful people who share a common and honorable passion for the environment
- To promote and encourage environmental sustainability
- Very beneficial to keep in touch with industry players

Whether you are a community, industry, or government member, LICA can offer:

- The opportunity to support and contribute to responsible resource development
- The chance to bring forward your concerns and questions
- A way to build understanding, respect, and trust
- The ability to sort out concerns before they become problems
- An established process for issue resolution
- The power to influence the type of things that are monitored
- Access to the technical expertise that industry, and their employees bring to address issues
- New contacts, relationships, and networks
- Accurate, science-based information



LICA board of Directors

*Back Row (L-R): Paul Leonard (Director), John Ilchuk (Director), Wilf Tomchek (Director), Delano Tolley (Vice Chair), Harold Ross (Alt. Director).
Front row (L-R): Nancy Tolley (Alt. Director), Robert Deresh (Chairman), Monty Moore (Secretary Treasurer), Annette Ozirny (Director)
Missing: Directors Fred Bamber, Wayne Bamber, Shirley Benson, Geoff Pearse, Colin Woods, Duane Zaraska, Kathleen Zellweger; Alt. Director Paul Kip*

GOVERNANCE COMMITTEE

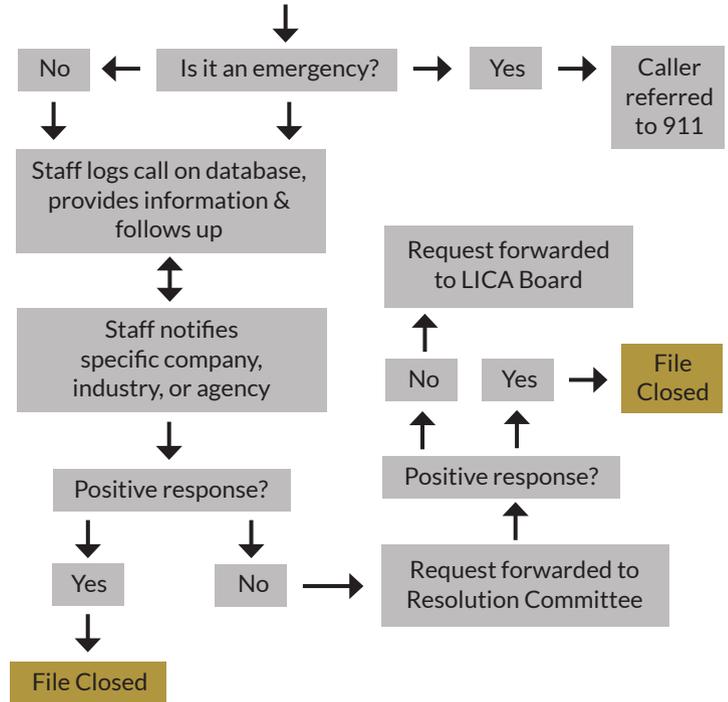
The Governance Committee's (GC) role is to ensure that the requirements of the Alberta Societies Act, under which LICA is incorporated, are met, and that the Bylaws and Policies are clear, easy to follow, and in accord with each other. As a standing committee of LICA, the GC works at the direction of the Board to review, revise, develop, and monitor Policies and Bylaws, and to develop and deliver training in the consensus model of decision making used by LICA. The GC works closely with the Executive Manager to make recommendations to the Board for needed changes and updates.

The GC had some activity early in the year, followed by a few quiet months, as various Policies were updated. Thanks to this year's committee members: John Ilchuk, Delano Tolley, Nancy Tolley, Wilf Tomchek, Wayne Bamber, Shawn Brockhoff, Heather Harms, Colin Woods, Kathleen Zellweger, and Robert Deresh (ex officio).

Committees

Call comes in to LICA

Issue Resolution Process



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 it's hard to find needed information. LICA's staff is the first contact for questions, and are almost always able to provide contact information and quick, effective answers.

Once in a while, though, a more complex issue arises. Perhaps the parties involved are having difficulty coming to agreement, or a landowner feels injured by the actions of an oil company, or a problem is not understood the same way on both sides. While the avenues of regulatory hearings or court action are always available, LICA's Resolution Committee offers an issue-resolution process (see table above) that works on the principle that if people come together to work things out in a spirit of cooperation, then an agreeable solution can be found, with far less time, trouble, and expense.

A standing Resolution Committee is in place, ready to swing into action whenever required. This year Charmaine Code, Executive Manager, has dealt successfully with everything that came her way, and the Committee of Mildred Dunham, John Ilchuk, Delano Tolley, Wilf Tomchek, Colin Woods, Wayne Bamber, Heather Harms, and Robert Deresh (ex officio), therefore had another quiet year.



Janice Newman
LICA 2014 Photo Contest

EDUCATION & INFORMATION COMMITTEE

The Education and information Committee (EIC) has a mandate to share and exhibit a holistic view on how the environment and sustainable resource development can complement each other. Consisting of members from Community, Industry, the regulatory bodies and Aboriginal groups, the EIC has been instrumental in bringing public engagement to the forefront of LICA.

This year's AGM and 'Earth Day Birthday' brought record numbers of participants. Each event saw members of the surrounding communities coming together to share real life experiences with each other. The Earth Day Birthday also included a surprise visit from local celebrity trappers and the Alberta Habitat Management Society known as 'Cows and Fish.' In conjunction with the Earth Day celebrations, LICA's Earth Day Writing Contest entries included numerous ways to protect environmentally sensitive areas. LICA was the recipient of another Synergy Alberta Award for the Earth Day Birthday (air, water and environment) public engagement theme.

The biennial Photo Contest was also as popular as ever and very successful, as you'll see in that report. The quality and number of submissions continues to dazzle the Committee. In order to promote LICA to the entire region, the EIC attends Community Registration Days in Bonnyville, Cold Lake, Elk Point and St. Paul. This lends an opportunity for the EIC to meet the public and expose them to our synergy group.



(L to R): Andrea Woods (Member), Robert Deresh (Member), Warren Hobart (Co-Chair), Harold Ross (Co-Chair), Annette Ozirny (Member), Iris English (Member).
Missing: Members Judy Cabay, Duane Zaraska; Alt. Members Rayelle Boyer, Donna Gingras.



The EIC finished off 2014 by hosting another 'Christmas at LICA' event which was held in the board room of the LICA office in Bonnyville. Amateur photos from the contest were on display, and a power point presentation showed highlights of our 2014 events. We would like to thank our community, committee members, and LICA for their continued support. Feel free to join us in 2015!

Harold Ross & Warren Hobart
Committee Co-Chairs

Committees



LICA's biennial photo contest was another resounding success with 95 entries from residents of the Lakeland area. Their amateur photography captured the beauty and diversity of the LICA region. Once again, there were two categories: Youth (12 and under), and Adults (age 13 and over). Those entering the contest live, work, or do business in the LICA region. The Education and Information Committee (EIC) is finding it harder and harder to judge the contest due to the quality of each entry, and the attention to detail. Winners' photos of life and fun in the Lakeland area were awarded cash prizes and a framed print of their image, and may have their photos used in this Annual Report, in advertising, or in other displays.



2014

Photo Contest

2014 ADULT WINNERS:

First: Brandon Born of Cold Lake - "Fire in The Sky"
(featured on Page 7)

Second: Debbie Wooldridge of Cold Lake - "Peace"
(featured on Page 3)

Third: Charman Alm of Bonnyville - "Sunset" (featured, top right)

Honorable Mention: Brandon Born of Cold Lake - "Paddle On"
(featured, bottom)

2014 YOUTH WINNERS:

First: James Wilson,
M.D. of Bonnyville
"The Boat Pier" (upper left)

Second: Nathan Brockoff,
M.D. of Bonnyville
"I See You" (top left)

Thanks to our Volunteers

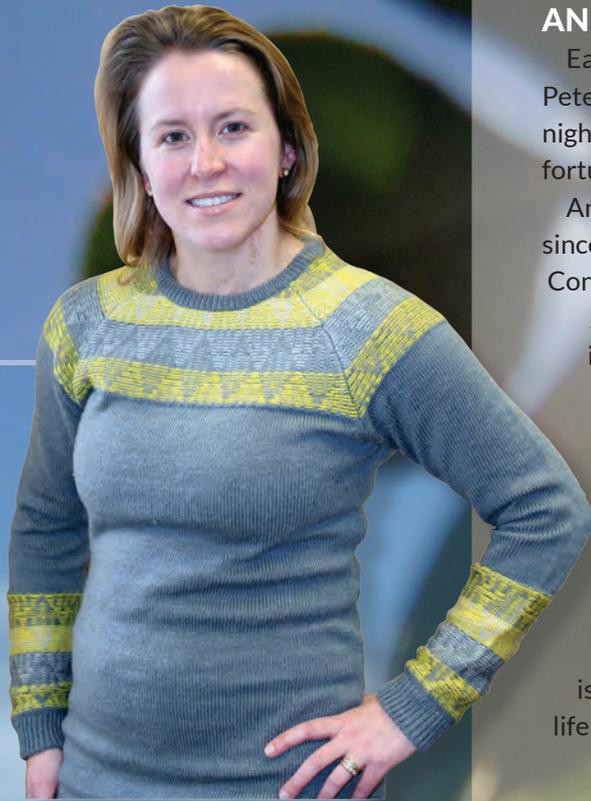
Volunteers are what make LICA a great association. Our achievements are your achievements as you provide your time and many talents to the betterment of residents in the LICA region. Whether it be the Board of Directors, Airshed Zone, Beaver River Watershed Alliance, Education and Information Committee, or your involvement in the countless other LICA activities, we value your contributions.

Time and time again, you step forward to ensure great results by sharing your energy, creativity, wisdom and knowledge. Your concern for our environment and the world around us fuels the direction of LICA. We've had great results as exhibited by the numerous Awards of Excellence given to LICA by Synergy Alberta over the years. These awards are a reflection of the pride and capability of our diverse membership as you respond to the requests of the association.

We wish to thank not only our many community volunteers, but also our industry partners and government representatives, for their support and cooperation. As representatives of your company or agency, you continually walk the extra mile to assist in the favourable outcomes we experience. We sincerely offer a thank you to each of you for being you and contributing selflessly to LICA. What a wonderful gift that you so freely give.

Robert Deresh,
Board Chair

Charmaine Code,
Executive Manager



ANDREA WOODS

Early 2011 brought LICA's Book Launch of "World's Greenest Oil" by author Dr. Peter Silverstone, and the attendance at the Launch of Andrea Woods, enjoying a date night with her husband, Colin. Following that introduction of Andrea to LICA, we were fortunate to have Andrea immediately join our team as an enthusiastic volunteer.

Andrea has served as a member of the Education and Information Committee (EIC) since then, and has as well taken on the role of Chairperson for the Earth Day Writing Contest Sub-Committee for the past three years.

Andrea has been instrumental in expanding the Writing Contest participation to include most area schools, with participant entries and quality increasing each year. Andrea's inspiration and creativity has contributed to the EIC adding a highly successful Earth Day Birthday celebration in 2014, and undertaking the planning of unique and educational activities.

Originally from Cape Breton Island, and a St. Francis Xavier University graduate, Andrea attained a Bachelor of Arts with Honours in Psychology and an Elementary Education degree. Andrea then came West in 2004 to teach in Bonnyville. Andrea, along with Colin and son, Connor, enjoy life in the Lakeland, skiing at Kinosoo Ridge and paddle boarding on our numerous local lakes. Andrea is an example of an exceptional volunteer participating to ensure the high quality of life which we enjoy in the Lakeland.

ROXANE BRETZLAFF

Roxane Bretzlaff moved to Bonnyville in 2004 and was invited to sit at the LICA table as an industry member at that time. Prior to moving to the Lakeland area she spent 10 years as an environmental consultant working on reclamation, remediation, drilling, and construction projects throughout the province. The move to Bonnyville from Calgary brought her closer to home (Athabasca) and her husband, Rob.

As a Field Environmental Coordinator with Canadian Natural Resources Ltd, Roxane has been involved in almost every LICA committee to various degrees. Currently she is the Co-Chair of the Beaver River Watershed Alliance, a position she has held for a number of years. Roxane's passion for responsible development has fueled her career and her interest in LICA which provides an opportunity for different sectors to work together to address regional issues.

In 2011, Roxane's focus shifted when she became a mother to triplet boys. Now her interest in the Lakeland area focuses on sustainable development to ensure our region is thriving and healthy for future generations, including their three young sons. Roxane would like to thank the staff and volunteers from all of the different committees for the rewarding opportunity to work with this diverse group.



Member Profiles

2014 EARTH DAY WRITING CONTEST

In recognition of Earth Day, we encouraged 5th through 8th grade students of the LICA region to respond to the following prompt “You are granted one wish ... How would you use it to protect the earth’s environmentally sensitive areas?” The question was followed by a description of environmentally sensitive areas, which was developed in cooperation with Cows and Fish, the Alberta Riparian Habitat Management Society. After carefully reading each of the 134 entries, the Education and Information Committee was impressed by the high-quality entries we had received. These essays, from seven different schools, were filled with original ideas, thought provoking suggestions, and inventive solutions. The level of student engagement on this topic was tremendous, as was their knowledge of agriculture and social responsibility.

leasha Moyah, a grade 8 student from Ardmore School, wrote our winning essay. Simply put, leasha would wish for “an invisible bubble to surround the wetlands so that no one can harm” them. Her response detailed the “many opportunities that exist for private citizens, corporations, government agencies and other groups to work together to slow the rate of wetlands loss and to improve the quality of our remaining wetlands.”

Ardmore students, Louis Bear and Devony Carter, tied for second place. Daniel Cardinal, Elk Point Elementary, and Akira Miley, Assumption School, tied for third place.

Honourable mentions were awarded to Natasha Bowman from Ardmore School, Liam Ludlage from Elk Point Elementary, and Cassia Lumby from Glen Avon Protestant School. We look forward to reading the 2015 submissions, and once again being astounded by the perception of our students.



LICA in our Community

LICA representatives Andrea Woods and Robert Deresh present awards to Ardmore School writing contest participants leasha Moyah, Devony Carter and Natasha Bowman.

COMMUNITY REGISTRATION DAYS

Each year, LICA takes the opportunity to come to the major communities in our region to participate in Community Registration Days. This year we visited Bonnyville, Cold Lake, Elk Point, and St Paul for the chance to speak with many of you.

You told us that many of you had heard of LICA and had read the Annual Report you received in the mail. You said you were glad that the interface LICA provides between the community, industry, and government is there, and that you think how resource development happens here is changing. And you told us that there's still a lot to do to make things better.

We offer many thanks to those who visited our booths, and also to all of the volunteers who took time to represent LICA and share our Vision with others. We look forward to meeting you again at our upcoming events or meetings, and to your participation in LICA - at whatever level works for you.



LICA IS CONNECTED

Lakeland Industry and Community Association (LICA) remains involved with social media to stay in touch with you. We can communicate with our broad audience through our website, Facebook, and Twitter. This provides an opportunity for everyone to keep up to date with LICA happenings, contact us with feedback and suggestions, follow us, and like us.

We are also pleased to offer our library for public use with more than one thousand catalogued items covering a variety of topics, in keeping with our mission of gathering, sharing, and acting on information regarding development in our region. Various studies, annual reports, publications, books, newsletters, magazines, and CD's can be reviewed electronically or by hard-copy in our research area.

Technology is great and assists us in doing business. We invite you to learn more about us, our goals, and our activities; and as well we can stay in touch with you, through modern social media. See you there!

LICA ANNUAL GENERAL MEETING

On April 24, 2014 Lakeland Industry & Community Association hosted its 2014 Annual General Meeting (AGM) at the Bonnyville Seniors' Drop-In Centre, with 145 in attendance. It was a social evening of comradeship, entertainment, great food, and of course the business and elections of an AGM.

We were happy to welcome guest speaker Pierre Amyotte, Chief Executive Officer of Lakeland Credit Union. Pierre's presentation encouraged the audience to embrace change in the Lakeland's dynamic and growing local community, and offered examples of innovations occurring in our rapidly changing world.

Representatives from each of LICA's committees reported on the projects they have been working on over the past year as well as upcoming projects, highlighting successes and challenges. A question and answer period followed each presentation to give those in attendance an opportunity to expand their knowledge of our operations.

The 2015 Annual General Meeting will be held on April 23, 2015. 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 Annual General Meeting and you must be a member to run for office or vote, and membership is free. Watch for further details of the 2015 Annual General Meeting. The event is open to the public and is provided at no charge. We'll be looking for you there.

RESOURCE DEVELOPMENT HANDBOOK

When landowners and resource development meet, there is sometimes a lack of understanding on both sides. LICA has developed and published a 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.

CHRISTMAS AT LICA

On December 10, 2014, LICA's Education and Information Committee (EIC) hosted its 6th Annual 'Christmas at LICA' event. This is an opportunity for community members to stop by the LICA office to enjoy a complimentary holiday meal, treats, cider and hot chocolate. We had about 90 people gather to mingle with LICA volunteers, friends and family, as well as industry and government representatives, and staff.

EIC also took the opportunity to announce our 2014 Photo Contest winners and recognize them through the presentation of their prizes. We had some young community helpers volunteer to help make the evening more enjoyable: Aleesha Cabay and Mackenzie Bloom greeted our guests, while Sonja Schmelzeisen provided beautiful entertainment by singing Christmas songs. We also had our little elves, Connor Woods and Colton Schmelzeisen, serving chocolates and oranges to our guests. Thank you to our wonderful little helpers. We hope to see you at the 7th Annual 'Christmas at LICA' this December.



LICA representatives Robert Deresh (left) & Harold Ross (second from right) present awards to several of the winners of LICA's 2014 Photo Contest.

*Lynn Beaupre
LICA 2014
Photo Contest*

*LICA
in our
Community*



WATCH FOR US & JOIN US!

Earth Day Birthday Party (Youth Grades 1 to 6 & Adults) - April 11, 2015

Earth Day Writing Contest (Youth Grades 5 to 8) - April, 2015

LICA's Annual General Meeting - April 23, 2015

Bonnyville Oil & Gas Show - June 17 & 18, 2015

Lakeshore Clean-up - September, 2015

Christmas at LICA - December, 2015

Presentations / Events - TBD

EARTH DAY BIRTHDAY

Earth Day Birthday, a Synergy Alberta award winning project, took place on April 12, 2014. The festivities provided children, grades 1 to 6, the opportunity to learn what Lakeland wildlife:

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

Meanwhile, our adult guests discussed how to protect environmentally sensitive areas with Cows and Fish, the Alberta Riparian Habitat Management Society. Our 50 participants enjoyed pizza and Earth Day themed cupcakes, balloons, and treat bags. Plans have already begun for what we are sure will be an annual event.



LICA in our community

Earth Day Birthday participants learn about bird species on April 12. The event drew about 50 participants.

LAKEWATCH PROGRAM

LICA and the Alberta Lake Management Society (ALMS) have a long partnership dating back to 2002 when ALMS first started conducting water sampling of area lakes on our behalf. Each year, ALMS technicians carry out water quality sampling on up to 10 lakes in our region and release results through written reports. These reports also provide recommendations on how to deal with water quality issues that are identified, and are available on the ALMS website (www.alms.ca). A special summary report on conditions in all of the tested lakes is also produced as a result of funding that we offer.

Technicians rely on local volunteers with motorized boats to bring them out to testing locations on each lake. Physical data such as water temperature, clarity and pH are collected at each spot. Thank you to our 2014 volunteers, whose generosity makes this program possible. If you'd like to join our volunteer corps for 2015, please call 780-812-2182. LICA has been pleased to provide the LakeWatch program for the past 13 years, with our BRWA assuming management of this project since 2007.



*Jill Janvier
LICA 2014 Photo Contest*

Back row (L-R): Harry Keess (Program Manager), Gordon Graves (Co-Chair), Harold Ross (Member), Wanda Austin (Alt. Member), Geoff Montgomery (Member), John Ilchuk (Member), Bill Fox (Alt. Member), Roxane Bretzlaff (Co-Chair), Robert Deresh (Member), Alicia Fontaine (Education & Outreach Coordinator), Don Sinclair (Member). Front row (L-R): Kelly Nichiporik (Member), Bob Buckle (Observer), Marsha Hayward (Alt. Member), James Gamblin (Alt. Member), Nestor Kunec (Member), Donna Padelsky (Alt. Member). Missing: Members Kay Lee Kinch, Monty Moore, Adolph Porcina, Joe Prusak, Wilf Tomchek; and Alt. Members Paul Kip, Duane Lay, Alana Phelps, Nancy Tolley, Kathryn Wiebe.



Beaver River Watershed Alliance

CO-CHAIR'S MESSAGE

What's in your watershed? We'd like to tell you! The BRWA has been putting efforts into stakeholder engagement and our education and outreach programs. As part of the initial work on our Watershed Management Plan our Program Manager, Harry Keess, has been busy consulting with different sectors within the watershed. Alicia Fontaine, our Education and Outreach Coordinator, continues to build relationships and implement training programs in the community. Her community engagement efforts became clearly evident when she was able to get 250 volunteers from one of our local schools to participate in our annual lake shore clean-up.

The BRWA partnered with the Land Stewardship Centre to

host Stewards in Motion in Lac La Biche where the participants used the newly developed environmental stewardship framework. The BRWA continues to participate in the consultation sessions with the Lower Athabasca Regional Plan and the Oil Sands Monitoring Plan.

Next year we are planning to kick off some projects connected to our State of the Watershed report. We are also looking for opportunities to engage the community with citizen science projects, please watch our newsletters and website for updates.

Let us tell you our story and we would love to hear yours.

Roxane Bretzlaff & Gordon Graves
BRWA Co-Chairs



STATE OF THE WATERSHED

We were pleased to officially release our landmark State of the Watershed Report in the spring. This report was the culmination of four years' worth of efforts from the BRWA and its partners. The State of the Watershed (SoW) provides a detailed look at the conditions of the Beaver River basin across a wide array of criteria. By using selected indicators (metrics which measure a given property), we are able to properly assess the overall health of our watershed.

Development of our SoW Report began, in spirit, right when the BRWA was formed in 2007. It was known at the time that we would need to develop a new report. It was necessary to first determine what information would go into the report, and then work on gathering that information before beginning work on the report. From 2007-2010, various studies were carried out through the BRWA and its partners, allowing for gaps in the information record to be filled. In 2010, work began on drafting the report. Working with Robert Halliday, of R. Halliday and Associates, we determined the indicators of watershed health which would be used in the report.

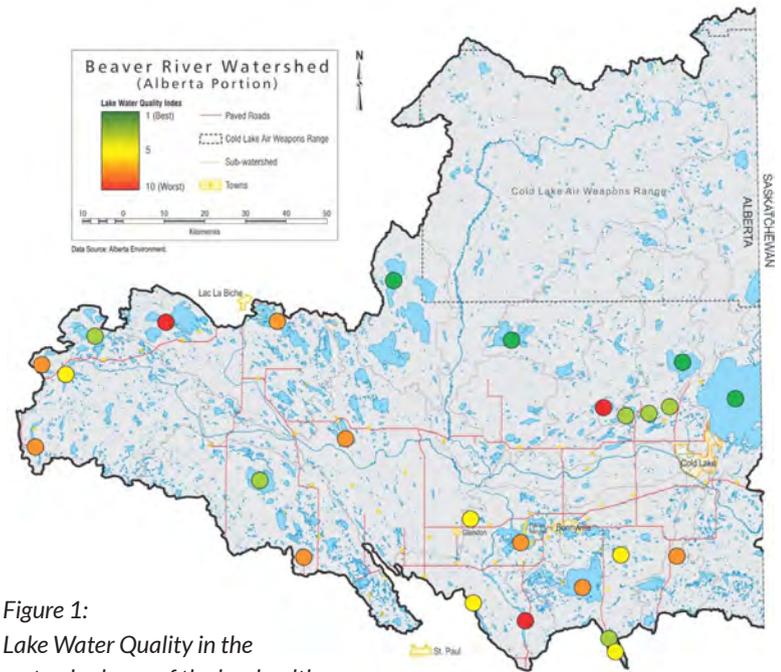


Figure 1:
Lake Water Quality in the watershed, one of the key health indicators used in the SoW report.

(Source: State of the Beaver River Watershed: Summary Report 2014)

Spencer Stupka
LICA 2014 Photo Contest

BRWA

This was followed by a multi-year cycle of writing, review, and stakeholder engagement. New information was also incorporated as it became available.

The SoW Report is an approachable tool for those from all backgrounds. It can be used as a technical resource for operators and consultants working in the area, and can also provide context for decision-making at different levels of government. It's also a great way to learn more about the area from the layman's standpoint. The SoW Report is available for free in three different formats: the Summary Report (in print), the full report (on DVD), or from our website at www.beaverriverwatershed.ca. If you would like copies of the summary report, please contact the BRWA office. Thanks to all those who contributed time, expertise, and funds to this initiative.

As time moves forward, we will work to fill data gaps identified in the 2013 report. A new State of the Watershed will be developed in 2018 to account for ongoing changes in the area as well as availability of new information.

WATERSHED MANAGEMENT PLAN

February was a busy month for the BRWA. As part of our Watershed Management Plan (WMP) process, we held five stakeholder workshops over the course of the month, with each workshop having a specific sector focus. These included sessions for Industry, Agriculture, Non-Government Organizations, Municipal Government, and Provincial Government.

The purpose of the workshops was to discuss new and existing issues in the watershed in order to determine the highest priorities for stakeholders as a whole. We also had the secondary opportunity to learn more about the groups represented at each workshop and learn how we could work together in the future.

There was plenty of debate and discussion about the highest priority issues for each sector – considering the wide range of land use and personal connections across the basin, this was to be expected! Some issues, however, stood out as relatively important priorities for all participant groups.

TABLE 1: Top-ranked issues of all participants

	%
Incremental loss & degradation of wetlands & riparian areas	80
Perception surrounding industrial impacts on the overall watershed	65
Use of potable water for industrial purposes	60
Impacts of unregulated sources on groundwater quality	60
Groundwater - surface water interactions between lakes & aquifers	55

Source: Summary of sector workshops held in February 2014, CPP Environmental

The full report is available on our website, www.beaverriverwatershed.ca. You can also contact the BRWA to request additional copies of the report. Many thanks go to Charette Pell and Poscente Environmental for their expertise in facilitating the sessions throughout February and in preparing the report.

Moving forward, The BRWA will be working with sectors which are already part of the process as well as individuals and groups not yet contacted to define issues and values. Any future feedback will be welcome at any time from here on out –

everyone is invited to provide input on their watershed values and priorities. Our goal is to meet with interested groups, departments, and organizations to better identify their concerns about the health of the watershed. Please contact the BRWA if you would like to have us meet with your group.

Next steps in this process: we will be organizing a working project team with representation from each key stakeholder group. The purpose of this team will be to ensure that all stakeholder interests are represented as we move forward with the process. In addition, further technical review of concerns will be taking place in order to ensure that any recommendations coming out of this plan have good public backing and scientific validity. We are looking forward to continuing the planning process at the BRWA.

PARTNERSHIPS

In November, the BRWA co-hosted a Stewards in Motion workshop with the Land Stewardship Centre. This one-day workshop took place in Lac La Biche and was an opportunity for individuals from various stakeholder groups to get together.

Participants learned about various stewardship strategies, as well as policy and legislation relating to land use. There was also a group exercise which had participants work together to identify key pieces to a shared stewardship project. Thanks to Portage College for use of the facilities, and many thanks to the Land Stewardship Centre for organizing the event agenda and guest speakers.

The BRWA also co-hosted level one Aquatic Invasive Species training with Alberta Parks in April. This session provided a wide variety of participants with essential knowledge about the threats posed by various invasive plants and wildlife, as well as specific training on how to inspect boats for zebra and quagga mussels. Participants ranged from conservation officers to stewardship group members. Our thanks go to Alberta Parks for co-hosting the event and to Kate Wilson (AIS program coordinator with ESRD) for facilitating the workshop and training.



*YNC participants
making slime
in St. Paul.*



*Janice Newman
LICA 2014 Photo Contest*

The Lakeland YNC is a partnership between Nature Alberta, Iron Horse Trail Association, Beaver River Watershed Alliance, and community volunteers. YNC is a nature-focused program with the goal of teaching children and their families about nature. We provide outdoor experiences that promote being outside, observing nature, scientific investigation, environmental stewardship, and healthy living.

The Lakeland YNC meets every third Saturday of the month to partake in different nature activities. The Lakeland YNC held its first Explorer Day event of the year at Moose Lake Provincial Park. With the help of Dixie Colter with Alberta Parks, YNC families were given a guided snowshoe tour which included a winter scavenger hunt. Over the year, we have also held other events such as geocaching, pond dipping for invertebrates, bat house construction, and participated in the Christmas bird count.

We have many more events planned for 2015. If you would like to register your family for a free upcoming Explorer Day, contact YNC Lakeland Leader, Marianne Masters at camuck15@hotmail.com.

YOUTH & FAMILY INITIATIVES

The Beaver River Watershed Alliance focuses on providing local youth organizations and classrooms with interdisciplinary learning that encourages critical thinking and problem solving skills. The BRWA has developed a series of classroom programs that link specifically to the Alberta curriculum. Each education module is designed to provide hands on learning, while promoting environmental stewardship. Throughout 2014, the BRWA gave over 30 classroom presentations to students in pre-k through to grade 12. Staff travelled from across the watershed from Ashmont, to Lac La Biche, and to Cold Lake to deliver free classroom programs to over 800 students. We also received 110 entries from students across the watershed for our 2015 Calendar Contest. This is a unique opportunity for students in K-12 to have their artwork published in a calendar. The calendar contest presents a great cross-curricular activity as students can be creative, while learning about the importance of our watershed.

This summer, the BRWA participated in over 15 summer programs, spread throughout the watershed, from Lac La Biche County to Cold Lake. The BRWA spoke to nearly 600 people this summer regarding topics such as water quality, pollution, and animal adaptations. The BRWA partnered with Alberta Parks for Parks Day at Sir Winston Churchill Provincial Park, as well as for a campground presentation at Cold Lake Provincial Park. These events featured interactive displays on animals of the boreal forest, non-point source pollution, and information on the prevention of invasive species. Campers had the opportunity to feel animal pelts and skulls, take part in a hands-on watershed model, and learn how to prevent the spread of quagga and zebra mussels. Throughout the summer, the BRWA also presented as part of a large number of library reading programs. Attendees were able to learn about stewardship and the importance of protecting our watershed. Lastly, the BRWA began our first year of being involved in Lac La Biche's 'Mad About Science' program. This was a wonderful partnership between the BRWA, Lakeland Agricultural Research

Association, and Lac La Biche County. Day campers constructed bird houses from recyclable materials, built their own healthy aquatic ecosystems out of clay, and learned about the boreal forest.

Shoreline Cleanup

On Tuesday, Sept 23rd, the BRWA hosted the annual shoreline cleanup at Jessie Lake. Over 255 community volunteers, including students from Notre Dame High School, spent their morning removing litter and debris from our shorelines, truly making an improvement in the health of our aquatic ecosystems. The shoreline cleanup is an annual initiative, first started by the Vancouver Aquarium in 1994, and has since grown to a national scale, with 1,950 sites hosting shoreline cleanups in 2013. Litter has a direct impact on not only our ecosystems, but also our wildlife, drinking water, and economy. Litter is known to have the potential to interfere with important biological processes, introduce non-native species, reducing water quality, and negatively impact delicate food webs.

Annually, cigarette butts continue to be the number one most popular litter item collected. Our 257 participants removed 1,943 cigarette butts during the cleanup. Consequently, cigarettes leak chemicals into our waterways, which can then end up in our drinking water. Additionally, many other varieties of shoreline litter contain dangerous chemicals that can further degrade water quality. Paint cans, oil cans, and batteries are a few examples of items that can easily leak toxic chemicals. Plastic, which is a common substance found in many litter items, can also release toxins once they break down, and eventually impact the sources of water that we use every day.

The most peculiar items we collected were a 9ft 'No Parking' sign, a large Canadian flag, and two discarded traffic cones. We would like to extend a huge thank-you to Notre Dame High School for allowing their students to attend the cleanup, as well as to all of the other community volunteers that participated. Thanks to Lakeland Co-op for the donation of cleanup supplies for our volunteers.

Notre Dame High School Shoreline Cleanup Participants. (Photo: Bonnyville Nouvelle)



The LICA Airshed Zone has had a year of change and success as we continue to operate the air monitoring network for the Lakeland region. This network is comprised of four continuous monitoring trailers, one of which is portable, and 26 stationary passive monitoring stations. Data collected from these monitoring sites are all available on the LICA website at www.lica.ca. The portable continuous monitoring trailer has been scheduled for relocation in 2015, moving to the town of Bonnyville from its former operating location at Elk Point Airport.

The implementation of the Joint Oil Sands Monitoring (JOSM) program is well underway. The program was initiated in February 2012 with projected full implementation within the 2015 year. The JOSM program is a conglomerate effort between Environment Canada and the Government of Alberta, and incorporates stakeholder involvement. The program builds upon existing monitoring networks ensuring consistency and improving science based data collection and availability. What does this mean for LICA? It means that we continue to be involved as a monitoring delivery partner operating under the

Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA) to implement JOSM. It also means that the airshed data LICA collects will be integrated into a world class monitoring system providing vital information for historical data, assessing baselines and charting trends.

All interested parties are welcome to attend and participate in the Airshed Zone monthly meetings. Dates and times of the meetings are posted on the LICA website.

It has been our pleasure to be the Community and Industry Co-Chairs in 2014. Many thanks to all those who have participated in the LICA Airshed Zone this year. Very special thanks to Michael Bisaga who continues to do an outstanding job as Manager of Environmental Monitoring Programs. And a heartfelt thank you to Charmaine Code, Executive Manager, and all of the hard working office staff who keep the office running so smoothly.

Kristy Tetreau & Shawn Brockhoff
Co-Chairs, LICA Airshed Zone

LICA Airshed Zone

Back row (L to R): Members Robert Deresh, Harold Ross, Kathryn Wiebe; Michael Bisaga (Manager, Environmental Monitoring Programs). Front row (L-R): Members Peter Doonanco, Roger Boucher, Dianne Brownless; Marie Ilchuk (Alt. Member). Missing: Members Shirley Benson, Roger Boucher, Shawn Brockhoff (Co-Chair), Heather Harms, Sean Humphreys, James Ingle, Kristy Tetreau (Co-Chair), Duane Zaraska, Kathleen Zellweger; and Alt. Members Rayelle Boyer, Guy Fontaine, Leo Paquin, Geoff Pearse

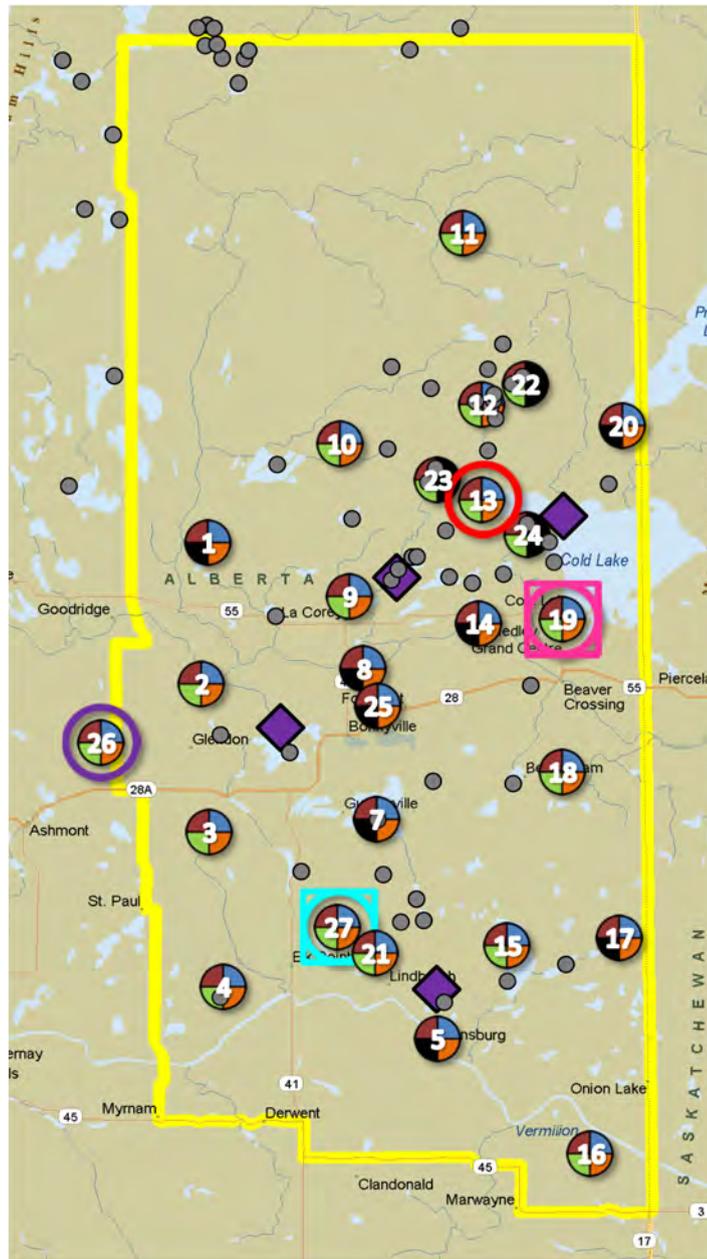
REGIONAL MONITORING & SAMPLING NETWORK

LICA's passive monitoring stations generally follow a 3 x 3 township grid pattern; samples are analyzed once per month. The data are used for understanding regional spatial patterns in air quality, long-term trend analyses, and for estimating acid deposition. Ozone, nitrogen dioxide, sulphur dioxide, and hydrogen sulphide are sampled in the passive monitoring network.

Continuous monitoring involves drawing air through highly sensitive analyzers 24 hours a day, seven days per week, 365 days per year. These analyzers produce near-real time data. Continuous monitoring in the LICA network is carried out in Cold Lake South (Cold Lake station), southwest of St. Lina (St. Lina station), east of Elk Point (Portable station), and in the immediate vicinity of in situ oil sands operations approximately 10 kilometers southwest of Marie Lake (Maskwa station).

Sampling for volatile organic compounds and polycyclic aromatic hydrocarbons is carried out at the Cold Lake South and Portable stations. 24-hour integrated samples are collected every six days in accordance with the National Air Pollutant Surveillance (NAPS) program; upwards of one hundred compounds can be detected using these methods. Additional samples are also collected at the Portable station during high concentration hydrocarbon events.

Soil acidification sampling plots have been established in Moose Lake Provincial Park, Whitney Lakes Provincial Park, and southwest of Tucker Lake. LICA also samples a small set of acid sensitive lakes throughout the region. LICA's soil and lake acidification monitoring programs enhance already-existing regional sampling by other organizations including Alberta Environment and Sustainable Resource Development, local industry, and Alberta Lake Management Society.



LEGEND



PASSIVE STATIONS

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

SURFACE WATER ACIDIFICATION MONITORING

In 2007 and 2012, acid sensitivity of lakes in the LICA region was assessed using the classification system of Saffran & Trew¹. This system classifies sensitivity of lakes to acidification based on concentrations of alkalinity, pH & calcium. Trend analysis was conducted on regional water bodies to determine if there was an increasing or decreasing trend in acidification impacts.

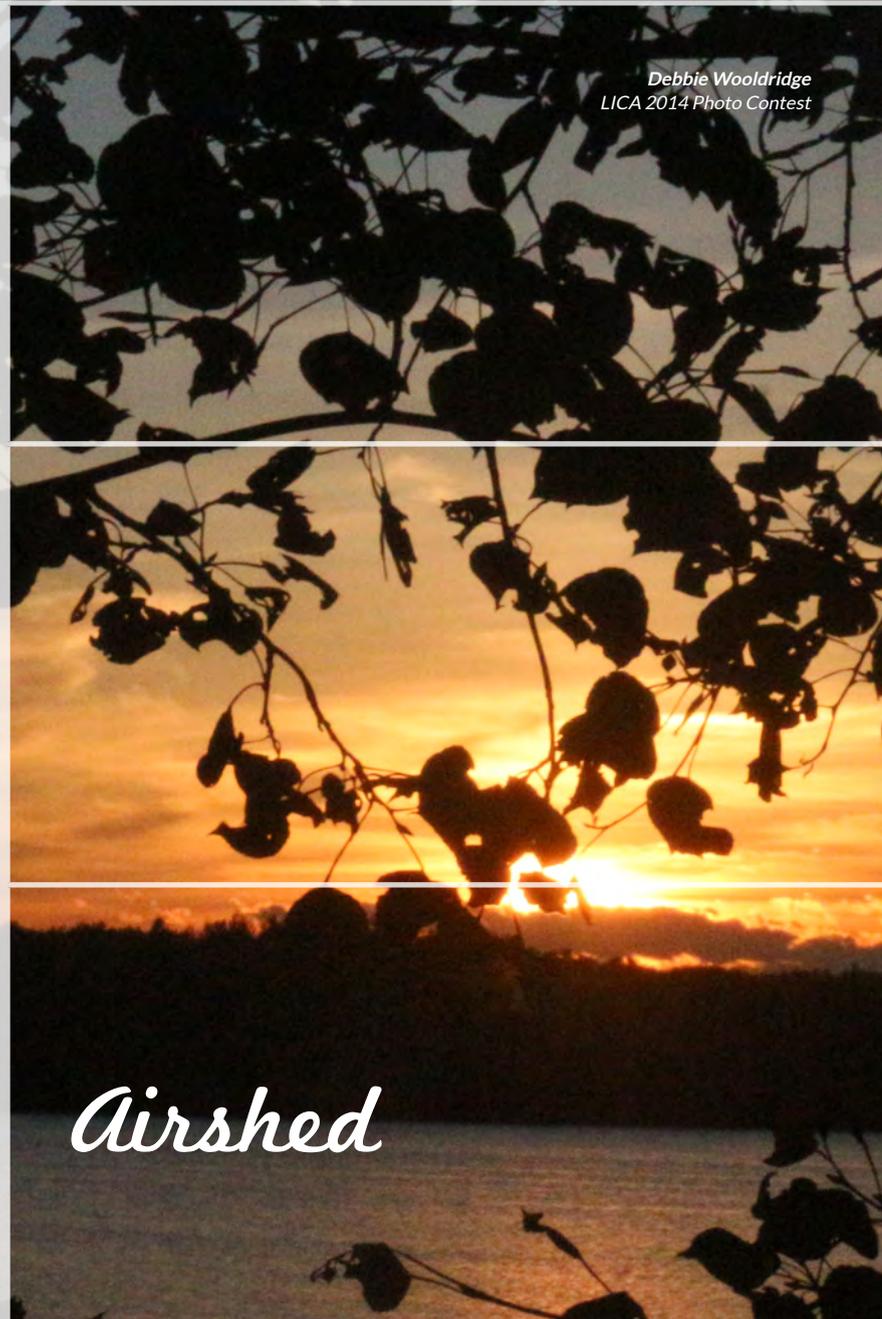
In order to do carry out the trend analysis and assessments in 2007 and 2012, LICA relied on water monitoring data from other organizations, government, and industry. In response to sampling gaps outlined in the 2012 study, LICA identified 12 acid sensitive lakes for future sampling (surface water bodies in high deposition areas, not sampled on a routine basis by other organizations) to support its efforts in assessing potential acidification effects on surface water. In 2014, LICA commissioned a sampling program for these lakes including Manatokan Lake, Whitney Lake, Beartrap Lake, Upper Garnier Lake, Lower Garnier Lake, and Stoney Lake.

The results of the 2014 study indicated that all lakes generally had a high buffering capacity to acid input and were below the monitoring load trigger level. Monitoring may continue on Beartrap Lake given that concentrations of calcium were lower than the other lakes resulting in a “Moderate” rating of sensitivity to acidification in 2014, and PAI levels were near the monitoring load trigger level of 0.17 keq/ha/yr.

Monitoring may also continue at Whitney Lake given that the potential acid input level was also near the monitoring load trigger level and the gross and net critical loads were the lowest of all lakes. Future years of monitoring will help to assess whether these trends continue over time and whether increasing or decreasing trends in buffer capacity exist.

¹ Saffran, K.A., and Trew, D.O. 1996. *Sensitivity of Alberta lakes to acidifying deposition: an update of sensitivity maps with emphasis on 109 northern lakes*. Alberta Environmental Protection, Edmonton. 70 pp.

Debbie Wooldridge
LICA 2014 Photo Contest

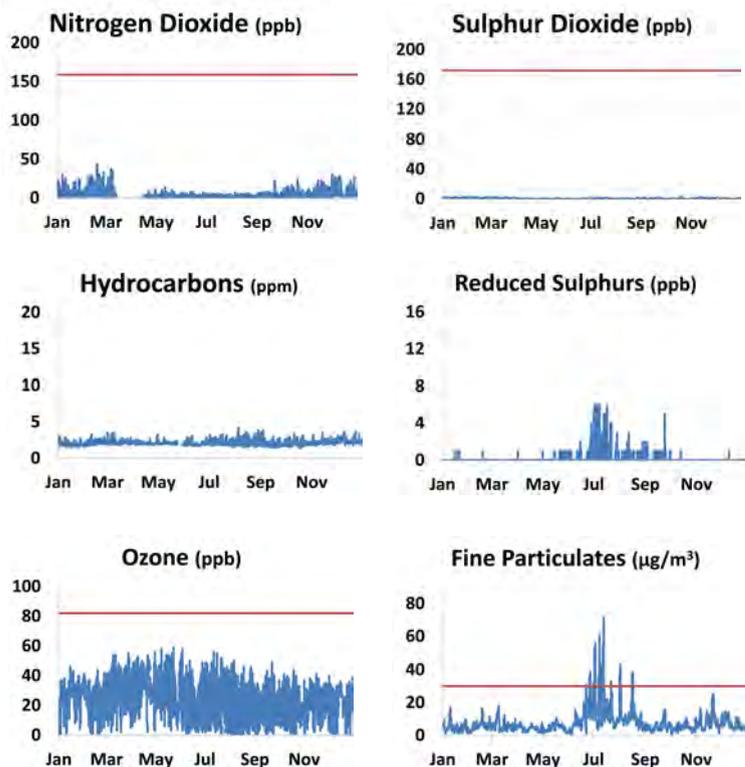


Airshed

SOIL ACIDIFICATION MONITORING

LICA's first soil acidification monitoring site was established in October 2010 in Moose Lake Provincial Park. A second site was established in Whitney Lakes Provincial Park in October 2011 while a third site was established southeast of Tucker Lake in 2012. These new sites were the next steps in the work started in 2007 aimed at increasing the collective understanding of potential acidification effects. Changes to soil chemistry as a result of acid deposition occur very slowly and therefore LICA's monitoring plots represent a commitment to long-term effects monitoring; each site is sampled every four years. In 2014, LICA returned to the Moose Lake Provincial Park plot to resample and in 2015 LICA plans on returning to the Whitney Lakes plot to also conduct a second round of sampling. The results from these sampling events will be compared to the soil analyses in 2010 and 2011 and may provide insight on potential soil acidification impacts.

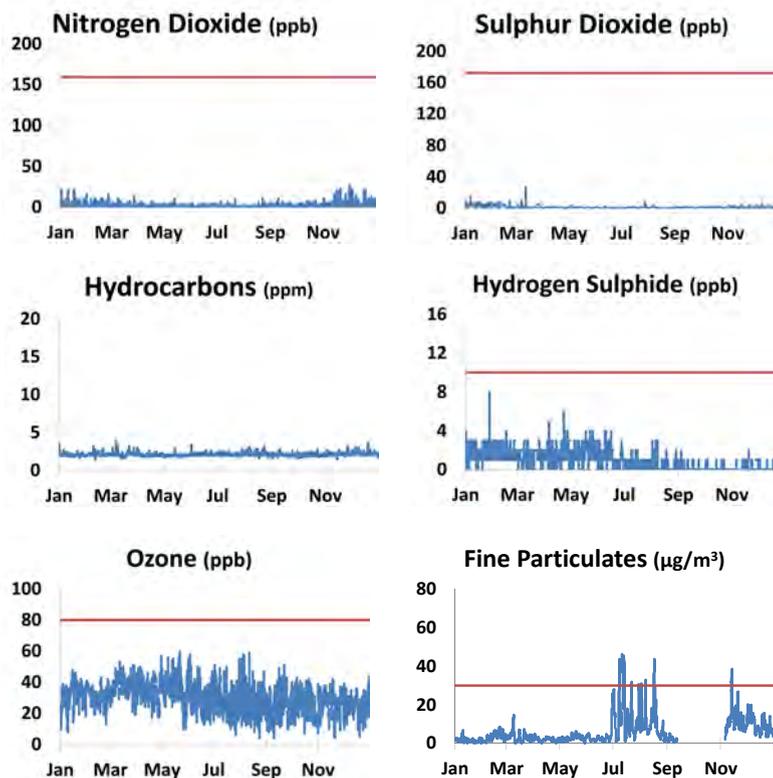
2014 CONTINUOUS MONITORING RESULTS COLD LAKE SOUTH



The Cold Lake Station is located in Cold Lake South near the Lakeland Humane Society. The station provides information about air quality conditions in the region's most populated centre and is equipped to report on the Air Quality Health Index (available on the LICA website). The data indicate that air quality at this location is largely influenced by urban emissions including home heating and vehicle exhaust.

In Cold Lake, there are seasonal patterns in nitrogen dioxide concentrations. Nearly all combustion produces nitrogen dioxide; during the winter months, higher concentrations of nitrogen dioxide in Cold Lake are present because of stagnant meteorological conditions coupled with vehicle idling, and an increased demand for home heating. Forest fires in the summer of 2014 carried smoke into the region causing elevated particulate matter concentrations.

2014 CONTINUOUS MONITORING RESULTS ST. LINA

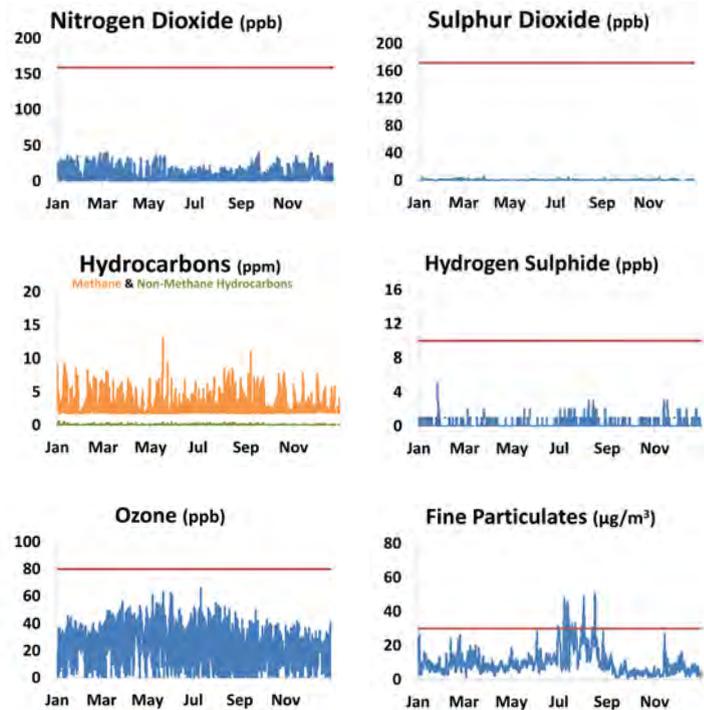


The St. Lina station is located just outside the western boundary of the LICA Airshed Zone, on Highway 867 a few kilometers south of the Hamlet of St. Lina. The station provides information about background air quality and the characteristics of air masses as they move into the region (predominant west to east air flows) and is equipped to report on the Air Quality Health Index (available on the LICA website).

An interesting observation about ozone can be seen at St. Lina. Ozone formation is driven by two major classes of directly emitted precursors: nitrogen oxides (NO_x) and volatile organic compounds (VOC) in the presence of sunlight. However, at nighttime, and in the vicinity of large emissions of NO (e.g. vehicles and home heating in Cold Lake), ozone concentrations are depressed or limited through the process of titration. For this reason, ozone often dips down close to concentrations of 0 ppb overnight in Cold Lake while remaining elevated at St. Lina due to the lack of NO sources in this relatively undeveloped part of the region. Like the Cold Lake station, forest fires carried smoke into the region causing elevated particulate matter concentrations at the St. Lina Station.

2014 CONTINUOUS MONITORING RESULTS: ELK POINT

The Portable Air Monitoring System (PAMS) is located at the Elk Point Airport and is equipped to report on the Air Quality Health Index (available on the LICA website). The PAMS is a valuable tool in LICA's regional monitoring program. Unlike the other fixed monitoring locations, the PAMS is portable and can be moved around the region to collect data that may be used to address local air quality issues. Prior to being located at the Elk Point Airport, the PAMS monitored air quality north of Bonnyville near the Beaver River valley. The PAMS was moved to the Elk Point Airport in 2012 to gather data to address locally elevated nitrogen dioxide measurements detected by LICA's passive stations. While at this new monitoring location, a second observation was made: hydrocarbon concentrations were also elevated at this location relative to other sites in the network. LICA has undertaken a data analysis and modelling project to help provide insight regarding the potential cause of both the elevated hydrocarbon and nitrogen dioxide measurements. Like the Cold Lake station, forest fires carried smoke into the region causing elevated particulate matter concentrations at the PAMS in the summer months. LICA plans to move the PAMS to Bonnyville in 2015.



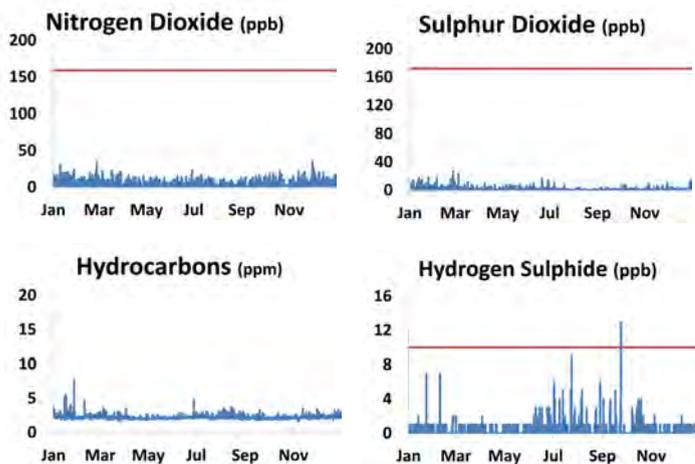
2014 CONTINUOUS MONITORING RESULTS: MASKWA

The Maskwa station is located southeast of Marie Lake in the immediate vicinity of in situ oil sands operations. In 2014, two exceedances of the 1-hour hydrogen sulphide objective were recorded (back-to-back hours) in September at the Maskwa air quality monitoring station. LICA and its industry stakeholders conducted an investigation of the event. The operator with facilities closest to the Maskwa Station reviewed its plant activity around the time of the hydrogen sulphide exceedance; the higher concentrations did not appear to correspond with operations. Furthermore, a field operator responded to the alarm and no odours were evident. Since monitoring began in 2003, LICA has recorded a total 4 hydrogen sulphide exceedances in the network.

NOTES:

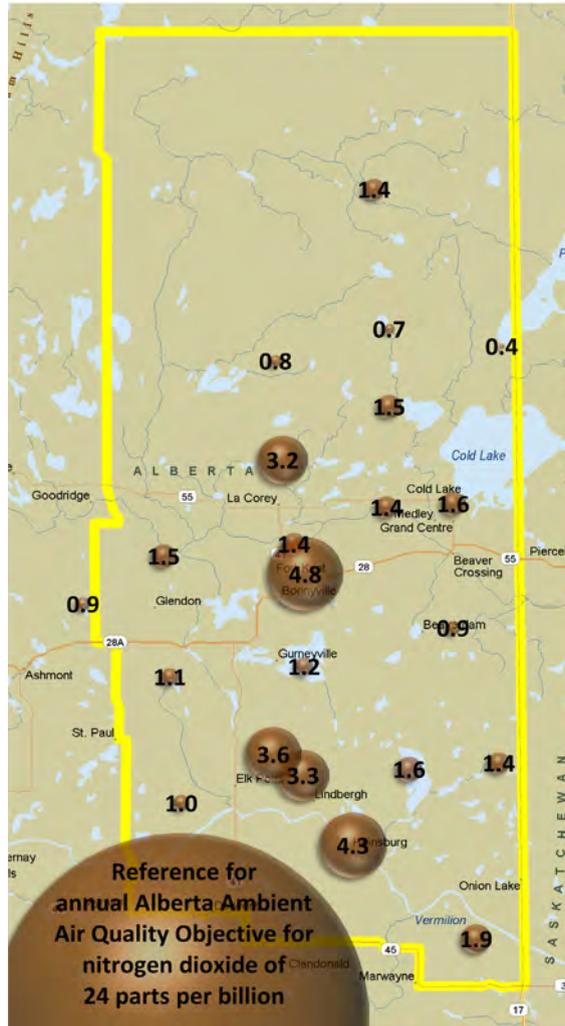
In this series of charts, the blue line indicates the pattern of 1-hour average measurements from Jan 1 – Dec 31 2014; the red line indicates the applicable 1-hour Ambient Air Quality Objective. In the case of particulate matter, the blue line indicates the pattern of 24-hour average measurements; the red line indicates the applicable 24-hour Ambient Air Quality Objective.

The LICA Airshed has been experiencing an increasing number of PM_{2.5} monitoring issues that have resulted in downtime events, data invalidation, and extended Air Quality Health Index non-reporting periods. LICA is working with Alberta Environmental Monitoring, Evaluation, and Reporting Agency (AEMERA) to transition to a new, more reliable monitoring method and to resolve some of the technical and data quality issues around particulate matter monitoring in 2015.



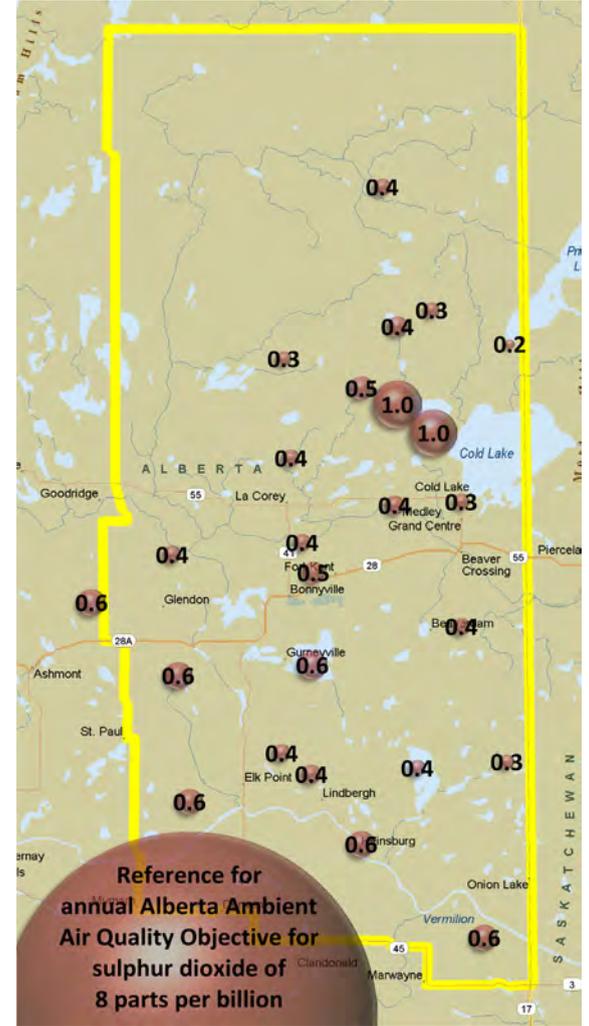
2014 PASSIVE MONITORING RESULTS

The bubble charts illustrate the regional patterns of the parameters measured by the passive monitoring network in 2014, with annual average concentrations in parts per billion (ppb). Each bubble represents the location of a passive monitoring station, the number inside the bubble is the annual 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.



NITROGEN DIOXIDE

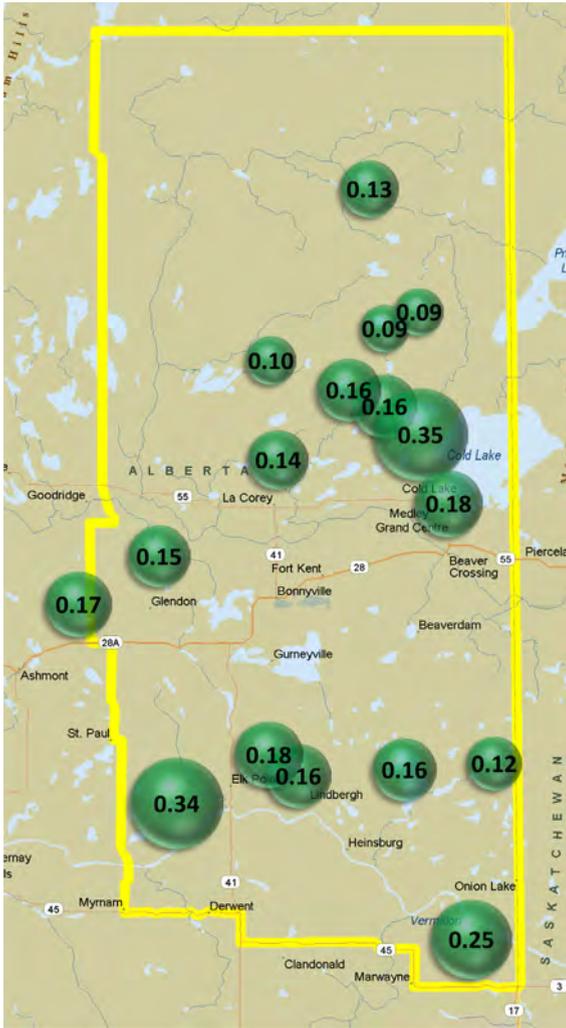
The highest concentrations of nitrogen dioxide were measured near major highways and in urban or built-up centers; the highest annual average concentration was measured in Bonnyville. In urban centers, the high density of combustion sources (automobiles, home and office heating, aircraft) are the likely cause for these elevated concentrations. All stations had annual average concentrations well below the annual Alberta Ambient Air Quality Objective of 24 ppb.



SULFUR DIOXIDE

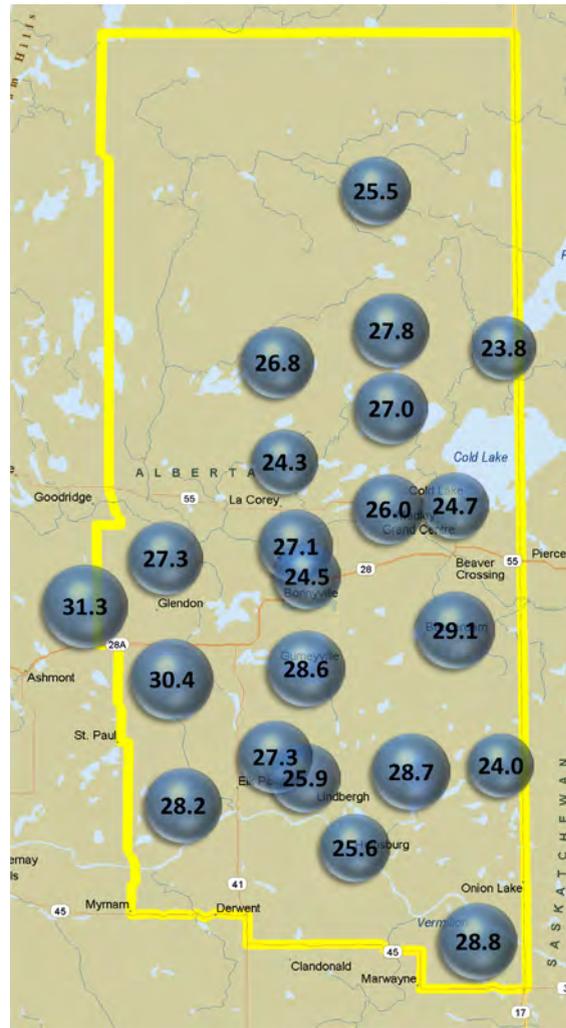
The highest concentrations of sulphur dioxide were measured near the thermal heavy oil plants northwest of Cold Lake. These plants are the major point source of sulphur dioxide in the region. These elevated annual average concentrations were well below the annual Alberta Ambient Air Quality Objective of 8 ppb.

Airshed



HYDROGEN SULFIDE

Elevated concentrations of hydrogen sulphide were measured at the stations close to thermal recovery heavy oil plants; these plants are a source of hydrogen sulphide in the LICA area. Elevated concentrations of hydrogen sulphide were also measured near Lake Eliza and Clear Range in the southern portions of the LICA Airshed Zone, likely caused by decaying organic matter in shallow ponds and sloughs as well as small feedlots. There is no current annual Alberta Ambient Air Quality Objective of for hydrogen sulphide.



OZONE

The annual spatial pattern of ozone in the LICA area is very subtle. The monitoring sites that have the lowest concentrations are those closest to or downwind from combustion sources, including stations in Bonnyville, Cold Lake, and near Highway 55. This is due to the titration of ozone by nitric oxide which is emitted by vehicles, home and office heating, and other nearby high temperature burning processes. Higher concentrations were generally observed at rural monitoring stations, particularly along the western boundary of the LICA Airshed Zone. There is no current annual Alberta Ambient Air Quality Objective for ozone.

ALBERTA ENVIRONMENTAL MONITORING, EVALUATION & REPORTING AGENCY

With the proclamation of the Protecting Alberta's Environment Act on April 28, 2014, the Government of Alberta formally established the Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA) as an arm's length organization responsible for providing credible, scientific data and relevant information on the conditions of Alberta's environment.

Mission: To measure, assess and inform on the conditions of Alberta's environment.

Mandate: To provide provincial environmental monitoring, evaluation and reporting:

- Based on sound science and evidence
- Presented in a timely, open and transparent manner
- And that respects and incorporates community and traditional ecological knowledge from Alberta's First Nations and Métis

Current Status

AEMERA is in a start-up phase as an organization with the target of becoming fully operational in 2015. AEMERA's current activities include:

- Managing all key, ambient monitoring previously done by the Government of Alberta.
- Serving as the provincial lead on Joint Canada / Alberta



Implementation Plan for Oil Sands Monitoring (JOSM) with the Government of Canada (see below).

- Seeking input from aboriginal groups and organizations on how best to incorporate Traditional Ecological Knowledge (TEK) into monitoring, evaluation and reporting activities, and to establish and work with a TEK Advisory Panel.
- Developing an initial on-line environmental reporting and information system that will provide searchable data from a variety of sources either regionally or by category (i.e. air, land, water, biodiversity).
- Conducting a global search for its Science Advisory Panel.

Alberta Environmental Monitoring, Evaluation & Reporting Information Service (AEMERIS)

Recognizing the need to provide environmental real-time and historic data and information, as a first step, AEMERA launched AEMERIS – an initial information-sharing platform to provide access to data on key ambient air, water, land and biodiversity indicators and related environmental information.

Visit AEMERIS at <http://aemeris.aemera.org/>

Partner News

JOINT CANADA / ALBERTA IMPLEMENTATION PLAN FOR OIL SANDS MONITORING

Overview

The JOSM plan was announced in February 2012 by the Governments of Canada and Alberta. The Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA) assumed provincial responsibility for the Joint Canada-Alberta Plan for Oil Sands Monitoring (JOSM) upon the proclamation of the Protecting Alberta's Environment Act, establishing the agency, on April 28, 2014.

LICA's Involvement

Lakeland Industry and Community Association (LICA) operates the regional environmental monitoring network in the Cold Lake Oil Sands under the purview of AEMERA. LICA's full participation as a monitoring delivery partner commenced in April, 2014. As a result, LICA continues to contribute to a world class, science based program. In this manner, LICA is able to assist AEMERA in its Mission to measure, assess and inform on the conditions of Alberta's environment.

The JOSM Program describes environmental monitoring that:

- Supports decision making by governments and stakeholders
- Provides accessible, comparable and quality-assured data
- Enhances science-based monitoring and collects information necessary to understand cumulative effects

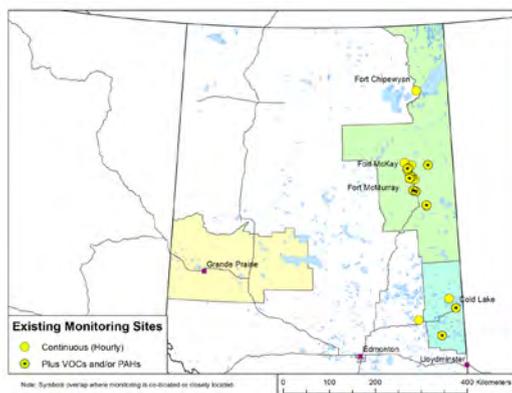
The JOSM plan addresses the following components:

- Air quality
- Acid sensitive lakes and deposition
- Water quantity and quality
- Fish status and health, benthic invertebrates and other aquatic organisms
- Wildlife toxicology
- Biodiversity and habitat disturbance
- Data management

What questions is the air quality monitoring component in the oil sands region designed to answer?

The air quality monitoring component is designed to address the following questions:

- What is the status of air quality?
- What are the trends for contaminants of concern?
- What is the impact of air pollutants entering the region?
- What is the impact of oil sands operations downwind from the region?
- What is the contribution of oil sands specific sources relative to other sources (natural and long-range transport)?
- What is the impact of air emissions from the oil sands region on downwind ecosystems (acid sensitive lakes, terrestrial vegetation)?
- What are the linkages of air and deposition monitoring data to the water quality, aquatic biota, and wildlife components?



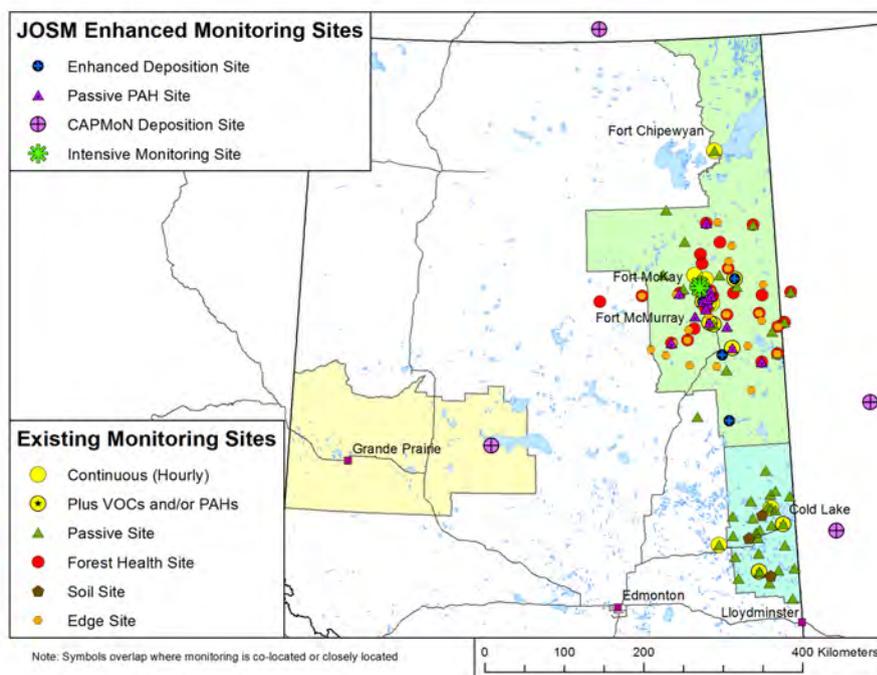
How are these questions being answered?

- Long-term air monitoring - monitoring over an extended period of time usually at the same location
 - Monitor trends
 - Monitoring to support the Air Quality Health Index
 - Report the status of environmental quality to Albertans
 - Identify signals that may require further investigation
- Focused Monitoring – generally shorter-term; can be used to investigate an issue or trend identified through the long-term monitoring network

Air Monitoring Progress

- Expansion of Canadian Air and Precipitation Monitoring Network (CAPMoN) (6 new sites underway)
- New enhanced deposition sites (5 new sites)
- New passive sampling network for PAHs (17 sites)
- Monitoring more pollutants - Polycyclic aromatic hydrocarbons (PAHs), Volatile Organic Compounds (VOCs), metals
- Remote sensing
 - Ground-based
 - Analysis of satellite data

Partner
News



AIR MONITORING NETWORK ASSESSMENT

Why conduct an oil sands air monitoring assessment?

Air quality monitoring in the oil sands region is conducted by several organizations and individual industrial facilities. Periodic reviews of air quality monitoring networks are necessary to address changes in regional and local air quality management priorities and needs.

To date, monitoring network assessments have been conducted for Lakeland Industry and Community Association (LICA), Peace Airshed Zone Association (PAZA) and Wood Buffalo Environmental Association (WBEA) in the Alberta oil sands area. These assessments have focused on local Airshed Zone monitoring needs. The oil sands monitoring assessment will refer to previous assessment but will also examine the current monitoring needs for the area.

What will the oil sands monitoring assessment result in?

To collect the best possible scientific information, with limited resources, a monitoring assessment for the oil sands region will:

- evaluate how current and planned air monitoring meets the monitoring objectives for the oil sands region
- identify gaps and redundancies in monitoring across the region

A monitoring assessment report will be produced that includes, but is not limited to, the following:

- current and planned monitoring;
- known sources of emissions within the assessment area;
- location and size of populated areas, sensitive (protected) natural areas and general land use within the assessment area;
- monitoring objectives;
- methodology used to assess how well monitoring meets monitoring objectives;
- monitoring assessment results; and
- recommendations to inform monitoring within the oil sands region.

How?

The monitoring assessment will be conducted by a qualified third party contractor selected through open competition. Sonoma Technology Incorporated has done similar assessment for areas of Alberta and for United States Environmental Protection Agency (USEPA).

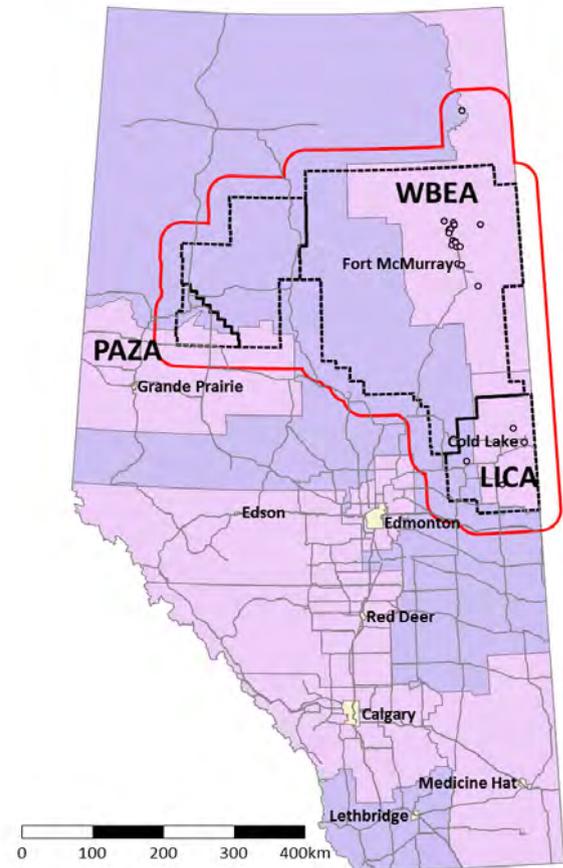
The process will be guided by a recognized USEPA guidance document "Ambient air monitoring network assessment guidance: analytical techniques for technical assessment of ambient air monitoring networks" EPA-454/D-07-001.

Where?

The assessment will include the three oil sands deposits (Athabasca, Cold Lake and Peace) with a 30 km buffer area as indicated in above figure.

When?

The network assessment will be completed in spring of 2015. It will be used to inform modifications to existing and planned long-term network in 2016-2017.



ASSESSMENT AREA

-  Airsheds
-  Oil Sands Areas
-  Proposed Assessment Area

Proposed area represents area covered by:

- 30 km buffer around OS areas, Ft. Chipewyan

Partner News

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.

In June 2013, the AER became a new organization with an entirely



new governance structure and took over responsibilities previously held by the Energy Resources Conservation Board (ERCB).

Creating the AER was a complex task that required careful implementation, especially considering that all energy regulation activities in the province continued throughout the transition. That transition is now complete, and the AER has become the single regulator of oil, gas, oil sands, and coal development in Alberta—from initial application and exploration, to construction and development, to abandonment, reclamation, and remediation.

Included among the AER's many important achievements in 2014 were

- enhancing our authorizations process for exploration programs to ensure we make timely decisions for operations where access is limited during the winter season, while ensuring protection of public safety and the environment;
- strengthening Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting requirements to reduce impacts related to flaring, venting, and incineration, and to increase opportunities for gas conservation;
- strengthening requirements for capturing casing and tank-top gas in the Peace River region as part of its continued action to address emissions and odours;
- piloting a new regulatory framework to govern unconventional oil and gas development through the AER's play-based regulation initiative;
- signing memorandums of understanding with the Government of the NWT, the BC Oil and Gas Commission, and Mexico's National Hydrocarbon Commission in an effort to share best practices and learn from one another; and
- launching the Best-In-Class Project to provide the AER with the necessary tools

and framework to become a best-in-class energy regulator. Guiding all of our efforts is the AER's first strategic plan—developed and released in 2014—that will help us reach our vision and uphold our mandate.

The strategic plan sets out our strategic priorities, outcomes, themes, and performance measures and targets against which we will monitor all progress. Our strategy reflects our mandate, our vision, and our pursuit of becoming a best-in-class regulator by being protective, effective, efficient, and credible.

The AER regulates:

- 178,000 operating wells
- 421,000 kilometers of pipelines
- 785 gas processing plants
- 9 oil sands mines and more than 50 thermal in situ and 200 primary / enhanced schemes
- 5 bitumen upgraders
- 11 coal mines and 4 processing plants

Partner News

SYNERGY ALBERTA

Like the synergy groups we serve, Synergy Alberta (SA) has been growing and changing. We had another successful fall conference at the Marriott River Cree Resort in Edmonton and will be holding the 2015 conference in Calgary, November 2-4, 2015.

At the Conference, LICA was the proud recipient of a 2014 Award of Excellence recognizing their Earth Day Birthday initiative, the 4th consecutive year that LICA has been honored. SA also presented Pioneer Spirit Awards for the 1st time, with Robert Deresh, LICA's Board Chairman, being recognized for his tireless efforts and unwavering dedication toward healthy, sustainable communities.

SA has developed a snapshot of what an Alberta Synergy Group looks like, both to help our synergy groups, unique as they all are, develop the most effective ways of connecting with and serving their communities, and to help SA provide exactly the kind of resources and support that will help them do that. We've expanded our reach to many associate organizations and individuals who, like us, strongly believe that multi-stakeholder collaboration is truly the most effective way to benefit all the stakeholders involved in and affected by resource development. Synergy is not only working in Alberta, but also spreading across North America and around the globe - because it works. Visit synergyalberta.ca and see what Alberta synergy groups are doing. It's amazing.

REVENUE	2014	2013
Operating		
Memberships	56,500	54,500
Other receipts from members	465,437	833,343
Government funding	172,922	196,051
Agency funding	511,755	55,000
Interest	2,208	2,849
Total Operating	1,208,822	1,141,743
Projects		
Airshed	148,859	50,472
Watershed	88,331	198,377
Total Projects	237,190	248,849
Total Revenue	1,446,012	1,390,592

EXPENDITURES	2014	2013
Operating		
Airshed	455,032	498,622
Amortization	57,797	74,801
Annual Report costs	32,704	30,572
Board & committee	42,600	50,550
Contract services	213,834	214,647
Insurance	8,472	7,924
Meetings	15,217	15,701
Occupancy costs	57,334	54,132
Office	17,045	18,359
Professional fees	6,288	5,810
Property taxes	3,339	3,487
Public relations	35,066	44,711
Training & development	1,946	8,363
Travel	15,926	23,457
Wages & benefits	163,300	179,141
Total Operating	1,125,900	1,230,277
Projects		
Airshed costs	176,000	49,455
Watershed costs	81,868	126,543
Total Projects	257,868	175,998
Total Expenditures	1,383,768	1,406,275
Excess (deficiency) of revenues over expenses	62,244	(15,683)
Total Net Assets (beginning of year)	896,749	912,430
Total Net Assets (end of year)	958,993	896,747

Financials

Statement of Operations

For the year ended December 31, 2014 (Unaudited)
Prepared by Ross & Sylvestre LLP, Bonnyville, Alberta

INDUSTRY MEMBERS / FUNDING PARTNERS



Baytex Energy Ltd.
Centennial Place, East Tower
2800, 520 - 3 Avenue SW
Calgary, AB T2P 0R3
Jody Brown: 780.815.5381



Canadian Natural Resources Ltd.
Bag 1003
Bonnyville, AB T9N 2J7
Paul Kip: 780.815.4557



Cenovus Energy
Bag 1015, Foster Creek
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Devon Canada Corporation
Box 7905, 7002 - 50 Avenue
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Kevin Ryan: 780.573.2476



Husky Energy
Box 6098
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Imperial Oil Resources Ltd.
Box 1020
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Darlene Gates: 780.639.5117
Donna Gingras: 780.639.5195



OSUM Oil Sands Corp.
Box 8098
Cold Lake, AB T9M 1N1
Brad Braun: 403.270.4761
Heather Harms: 780.639.5076



Shell Canada Energy
400 - 4 Avenue SW
Calgary, AB T2P 2L2
Phone: 403.691.3111

INDUSTRY MEMBERS



Inter Pipeline Ltd.
Box 7189
Bonnyville, AB T9N 2H5
Audra Papp: 403.717.5785
Dan Morrison: 403.932.8560



Pengrowth Energy Corporation
2100, 222 - 3 Avenue SW
Calgary, AB T2P 0B4
Linda Coulombe: 587.792.0831
Neil Young: 780.792.1776

GOVERNMENT MEMBERS



Municipal District of Bonnyville
4905 - 50 Avenue, Bag 1010
Bonnyville, AB T9N 2J7
Chris Cambridge: 780.826.3171



Town of Bonnyville
4917 - 49 Avenue, Bag 1006
Bonnyville, AB T9N 2J7
Mark Power: 780.826.3496



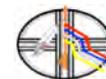
Village of Glendon
Box 177
Glendon, AB T0A 1P0
Melody Kwiatkowski: 780.635.3807

Our Members

ASSOCIATE MEMBERS



Birchwood Resources Inc.
925 Veterans Blvd.
Airdrie, AB T4A 2G6
Alex Lemmens: 403.945.8625



Frog Lake Energy Resources Corp.
Suite 880, 550 - 11 Avenue SW
Calgary, AB T2R 1M7
Joe Dion: 403.290.1390



Koch Exploration
Suite 1500, 111 - 5 Avenue SW
Calgary, AB T2P 3Y6
Darren Schulz: 403.716.7612



Secure Energy Services Inc.
3600, 205 - 5 Avenue SW
Calgary, AB T2P 2V7
Kevin Collins: 403.930.7919



Windtalker Energy Corp.
1050, 340 - 12 Avenue SW
Calgary, AB T2R 1L5
Gil Hegel: 403.265.2263

Key Contacts

Utility Emergencies

ATCO Electric (General Inquiries)	1.800.668.2248
ATCO Electric (24 Hour)	1.800.668.5506
Alta Gas, Bonnyville (General)	1.866.222.2067
Alta Gas, Bonnyville (24 Hour)	1.866.222.2068
EPCOR	1.800.667.2345
Northeast Gas Co-op, Bonnyville	780.826.4002
Buried Utilities Locations	1.800.242.3447

Alberta Energy Regulator (AER)

Bonnyville Field Centre (24 Hour)	780.826.5352
General Inquiries	403.297.8311

Government of Alberta

Service Alberta (Toll-Free)	310.0000
Registrar of Land Agents	780.415.4600
Surface Rights Board	780.427.2444
Land Compensation Board	780.427.2444
Genia Leskiw, MLA	780.826.5658
Shayne Saskiw, MLA	780.645.6999

Alberta Environment & Sustainable Resource Development

Emergency, Spills & Complaints	1.800.222.6514
General Inquiries (Edmonton)	780.944.0313

Fish and Wildlife Division

Bonnyville	780.826.3142
Cold Lake	780.594.7876
St. Paul	780.645.6313

Public Lands Division

Bonnyville	780.826.4297
St. Paul	780.645.6336
Report-A-Poacher	1.800.642.3800
Report a Forest Fire	310.FIRE (3473)

Alberta Agriculture, Food & Rural Development

The Farmer's Advocate	310.FARM (3276)
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Alberta Environmental Monitoring, Evaluation & Reporting Agency (AEMERA)

General Inquiries	780.427.6236
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Alberta Human Resources & Employment

Workplace Health & Safety	1.866.415.8690
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Alberta Infrastructure & Transportation

Transportation of Dangerous Goods Emergencies	1.800.272.9600
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Alberta Health Services

Westlock Office	780.349.8705
Camrose Office	780.608.8800

Government of Canada

Environment Canada (Prairie & Northern Office)	
General Inquiries	780.951.8600
Severe Weather Reporting	1.800.239.0484

Brian Storseth, MP	1.800.667.8450
National Energy Board	1.800.899.1265

Jill Janvier
LICA 2014 Photo Contest



www.lica.ca

Lakeland Industry & Community Association

5107 W - 50 Street, Box 8237
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