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## CASA acronyms

AAC	Alberta Airsheds Council	CTG	Coal-to-Gas
AAQO	Ambient Air Quality Objectives	NGO	Non-Government Organization
AEP	Alberta Environment and Parks	NPS	Non-Point Source
AQHI	Air Quality Health Index	ROVER	Roadside Optical Vehicle Emissions Recorder
CAAQS	Canadian Ambient Air Quality Standard		

**Note:** The only chemical symbol used in this report is NO<sub>x</sub> (nitrogen oxides). The names of all other substances are written out to ensure clarity for readers.

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# about CASA

## vision

The air will have no adverse odour, taste or visual impact and have no measurable short- or long-term adverse effects on people, animals or the environment.

## mission

The Clean Air Strategic Alliance (CASA) is a multi-stakeholder alliance of representatives selected by industry, government, and non-government organizations to provide strategies to assess and improve air quality for Albertans, using a collaborative consensus process.

## mandate

- Implement the Comprehensive Air Quality Management System for Alberta,
- Conduct strategic air quality planning for Alberta through shared responsibility and use of a consensus-building, collaborative approach, and
- Prioritize concerns with respect to air quality in Alberta and develop specific actions or action plans and activities to resolve those concerns.

CASA was established in March 1994 as a new way to manage air quality in Alberta. While much has changed, this approach to engagement remains relevant and valuable to this day.

CASA supports three air quality management goals:

1. Protect the environment by preventing short and long-term adverse effects on people, animals, and the ecosystem
2. Optimize economic efficiency
3. Promote pollution prevention and continuous improvement

Responsibility for specific air quality planning is shared among stakeholders. Regulatory implementation, licensing, compliance, control, and enforcement remain with existing government departments and agencies.

Core funding for 2017 was provided by Alberta Environment and Parks. Financial information for fiscal year 2017 is available on the CASA website.



## 2017 CASA highlights

### coal-to-gas emission standard

CASA responded to a high-priority request from the Deputy Minister of Alberta Environment and Parks (AEP), by developing recommendations for a nitrogen oxides (NO<sub>x</sub>) emission standard that could be applied to coal-fired electricity generation units that will be converted to burn natural gas instead of coal. Consensus was reached on a Coal-to-Gas Unit Conversion NO<sub>x</sub> Emission Standard Agreement that was supported by industry, environmental non-government organizations, and Government of Alberta stakeholders who were represented on the working group. This work addressed a significant policy gap associated with the accelerated phase-out of coal-fired plants and was completed under very tight timelines. The recommendation was developed during the fall and delivered to the Government of Alberta as advice in late December 2017.

### non-point source air emissions

The Non-Point Source Project Team completed its work in 2017, reaching consensus on 19 recommendations in eight topic areas, ranging from transportation to open-air burning and land use planning. The project was intended to help address non-point source air emissions that contribute to ambient fine particulate matter and ozone standard non-achievement in Alberta. CASA considers this project to be a starting point for continued, coordinated efforts to manage non-point source emissions to improve air quality for the benefit of Albertans.

### ambient air quality objectives

The Ambient Air Quality Objectives (AAQO) Project Team began its review of AAQO in Alberta with the goal of recommending objectives for six substances: fine particulate matter, ozone, nitrogen dioxide, sulphur dioxide, total reduced sulphur, and hydrogen sulphide. During 2017, the team and its subgroups gathered a great deal of scientific, technological, and economic information, as well as information on adverse health and ecosystem effects of each substance. The recommendations will be presented sequentially to the CASA board, starting in 2018 with the 24-hour objective for fine particulate matter. All of the proposed objectives will be transmitted to AEP as advice.

### amalgamation of support services with alberta water council

With the agreement of the executive committees for both organizations, support services for CASA were amalgamated with those of the Alberta Water Council. This shift is expected to improve efficiency and save substantial funds for CASA.



## executive director's message

This year has been one of increased activity and transition for CASA. I was very honoured to be named executive director in July and given the trust of the executive and boards of both CASA and the Alberta Water Council as the two organizations focused on amalgamating their support services. We have found many efficiencies and opportunities to reduce costs through this process and continue to look for more.

As noted elsewhere in this report in more detail, CASA working groups and project teams accomplished a lot this year in several important areas, in particular the delivery of consensus advice under tight timelines to the Government of Alberta on a Coal-to-Gas Unit Conversion NO<sub>x</sub> Emission Standard. Other areas where substantial progress was made included recommendations to manage non-point source emissions, and the assembly of considerable information to use in proposing new ambient air quality objectives for six substances. Toward the end of 2017, the board also agreed to undertake its third study of on-road vehicle emissions and propose a path forward for the highest emitters. The ROVER III project will officially launch in 2018.



The Performance Measures Committee reported on CASA performance in 2016, using the revised performance measures framework. Some of the key measures are included in this report as a way to publicly report on CASA's performance. A multi-stakeholder Strategic Planning Steering Committee was also formed this year to recommend an approach for CASA's next round of multi-year strategic planning. A workshop is planned for 2018 as the basis for developing a new three-year strategic plan.

This year, the board approved a budget for 2018 that included an allocation of funds to enable us to increase our focus on Indigenous relations. Staff began outreach to Indigenous organizations this year and that work will continue, along with efforts to identify opportunities for raising awareness and understanding among staff and board members.

After nearly a quarter century, CASA's volunteer board and team members continue to bring enthusiasm and commitment to the organization, which could not succeed without them. We acknowledge this support and thank them all. I am especially grateful to the executive and staff for their support, wisdom, and insight during my first six months as executive director, and I look forward to another productive year ahead.

A handwritten signature in blue ink that reads "Andre Asselin".

Andre Asselin  
Executive Director

## secretariat (as of december 31, 2017)

**Andre Asselin**, Executive Director

**Cara McInnis**, Executive Assistant, Board Support, Communications Advisor

**Katie Duffett**, Project Manager

**Anuja Ramgoolam**, Project Manager

**Marie-Claire St-Jacques**, Project Manager

**Matthew Dance**, Contract Project Manager

**Sunny Yeung**, Financial Administrator

**Keith Denman**, Executive Director and  
**Karen Bielech**, Financial Administrator,  
were with the Secretariat for part of 2017.

## board of directors

The following were members of the CASA Board of Directors as of December 31, 2017. CASA is very grateful for the ongoing commitment and support of these individuals and the organizations they represent.

Stakeholder Group	Sector	Director	Alternate Director
Non-Government Organizations (NGOs)	Consumer Transportation	Scott Wilson	Vacant
	NGO Health	Leigh Allard	Vacant
	NGO Industrial	Ruth Yanor	Andrew Read
	NGO Rural	Ann Baran	Wayne Ungstad
	NGO Urban	Bill Calder	David Spink
Industry	Agriculture	Rich Smith	Humphrey Banack
	Alternate Energy	David Lawlor	Vacant
	Chemical Manufacturers	Terry Rowat	Greg Moffatt
	Forestry	Keith Murray	Vacant
	Mining	Rob Beleutz	Dan Thillman
	Oil & Gas – Large Producers	Claude Chamberland	Vacant
	Oil & Gas – Small Producers	Vacant	Vacant
	Petroleum Products	Peter Noble	Brian Ahearn
	Utilities	Jim Hackett	Ahmed Idriss
Government	Federal Government	Vacant	Martin Van Olst
	Local Government - Rural	Vacant	Vacant
	Local Government – Urban	Vacant	Vacant
	Provincial Government – Energy	Stacey Schorr	Wade Clark
	Provincial Government – Environment	Andre Corbould	Rick Blackwood
	Provincial Government – Health	Vacant	Chris Shandro
Aboriginal Government	Métis	Mary Onukem	Vacant
	Samson Cree Nation	Holly Johnson Rattlesnake	Vacant

CASA thanks the following board members, who stepped down in 2017, for their contributions:

- Cheryl Baraniecki, Federal Government
- Dawn Friesen, Provincial Government – Health
- Carolyn Kolebaba, Local Government – Rural
- Steve Tkalcic, Provincial Government – Energy
- Koray Onder, Oil & Gas – Large Producers

Andre Corbould, Provincial Government – Environment, stepped down in early 2018.

CASA was saddened in 2017 by the death of Brian Gilliland, who represented the forestry sector on the board through the Alberta Forest Products Association. Brian joined the board in 2004 and was a strong supporter of CASA, bringing the forestry perspective to the many issues considered at the CASA table, as well as to the other committees and boards on which he sat. He is missed by the many who knew and worked with him.



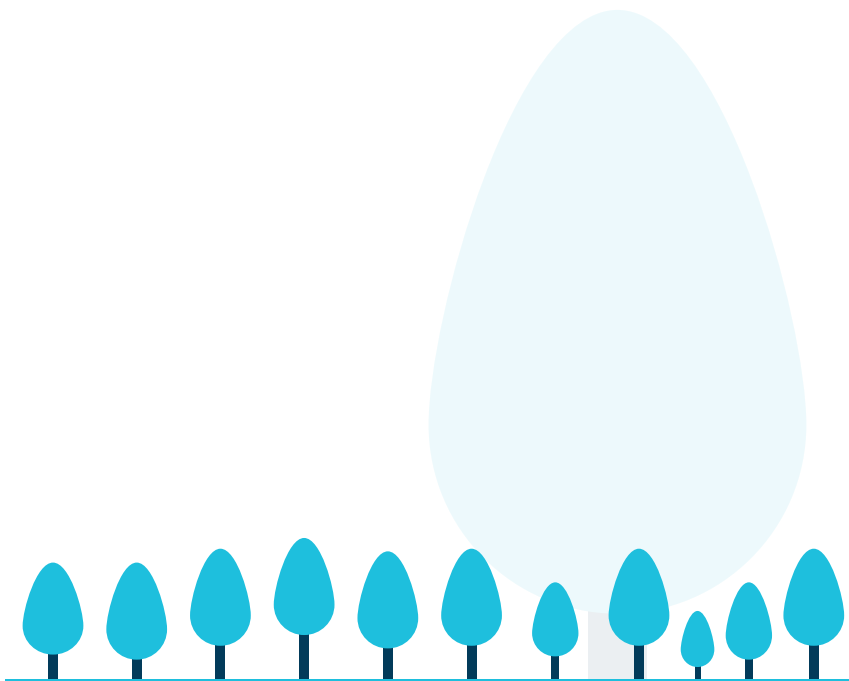
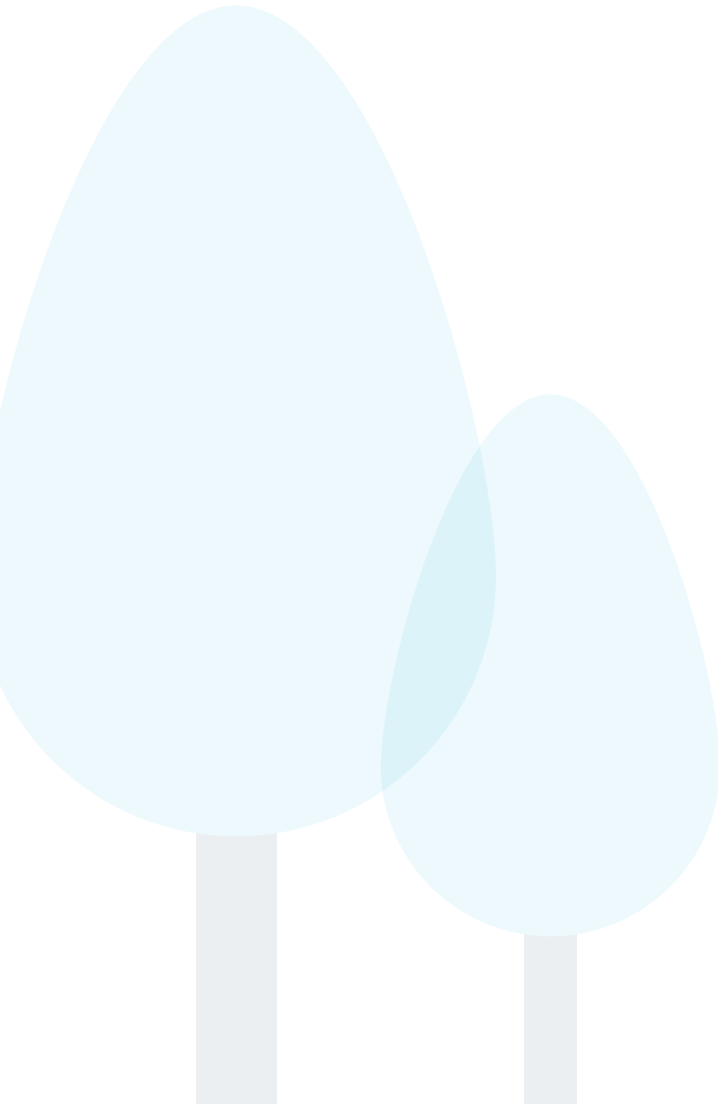
## committees

### communications committee

In 2017 it was decided that, with strategic planning on the horizon, CASA would continue to follow the 2016 communications plan. CASA continues to use social media to promote air quality, stakeholder content, and CASA events. The executive director participated in the 2017 Clean Air Day through partnerships with our stakeholders. The strategic planning work in 2018 will allow for the development of a new communications plan that reflects CASA's vision, mission, and goals.

### performance measures committee

CASA completed a review of the system of performance measures and indicators from 2017, intended to ensure transparency; develop useful and usable measures; and assess stakeholder satisfaction with the value, relevance, and awareness of CASA. This year the Performance Measures Committee reviewed both the annual evaluation and the three-year evaluation criteria, and sent a stakeholder satisfaction survey to all board, project team, and committee members who served between 2015 and 2017.





# project teams and working groups

## ambient air quality objectives project team

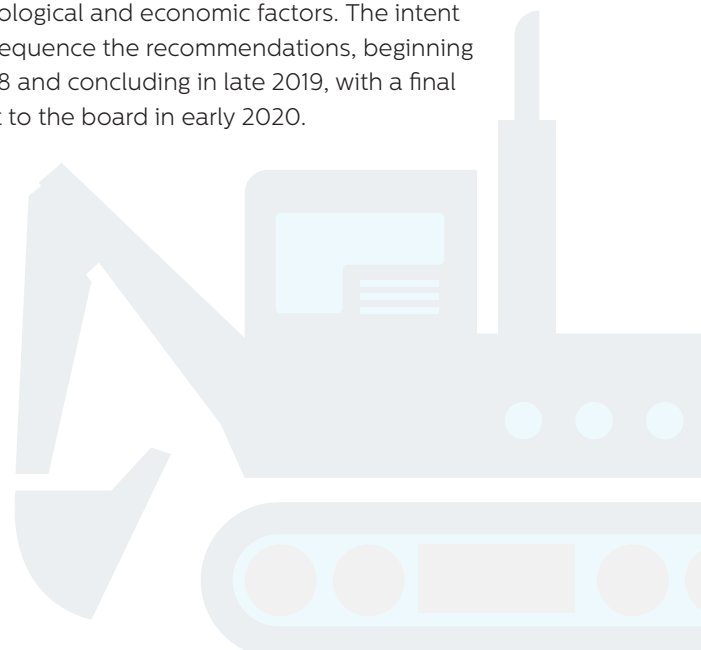
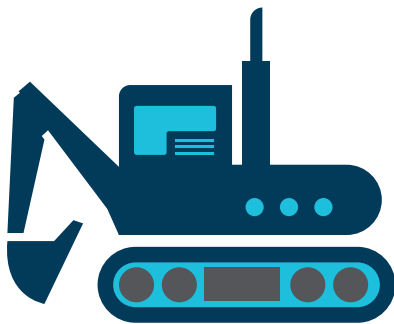
Starting in 2001, Alberta's environment department (now known as AEP) worked with a multi-stakeholder committee—the Alberta Ambient Air Quality Objectives Stakeholder Advisory Committee—to develop and review ambient air quality objectives. During its tenure, the Committee developed and reviewed 30 objectives before it was disbanded in December 2015.

In December 2016, the CASA board approved a Statement of Opportunity from AEP for the formation of a CASA Ambient Air Quality Objectives (AAQO) Project Team. The CASA board approved the team's project charter in December 2017 although the team had begun work earlier in the year.

The priorities for this work were established in response to the development of Canadian Ambient Air Quality Standards (CAAQS) for fine particulate matter, ozone, nitrogen dioxide, and sulphur dioxide and the need for further work on two substances that were part of the previous committee's work plan—total reduced sulphur and hydrogen sulphide. The CAAQS and AAQO serve different purposes but they need to work together as air quality management tools.

CAAQS were developed to enhance long-term air zone management, and reports on their status and implementation are prepared annually. In Alberta, AAQO are used in a number of ways, including to assess compliance near major industrial air emission sources and to report on the state of Alberta's atmospheric environment. These metrics are also applied when modelling and predicting the impact on air quality and human and environmental health (e.g., Environmental Impact Assessments, Human Health Risk Assessments). Averaging periods for AAQO range from one hour to one year. Alberta is reviewing its current AAQO in light of recent CAAQS changes.

The team will propose AAQO for the six substances noted above. Members worked throughout 2017, gathering scientific information on health and ecosystem effects specific to the substances, as well as information on technological and economic factors. The intent is to sequence the recommendations, beginning in 2018 and concluding in late 2019, with a final report to the board in early 2020.



## non-point source project team

The Non-Point Source (NPS) Project Team was launched in November 2015 with a focus on non-point source air emissions in Alberta that contribute to ambient fine particulate matter and ozone in areas where air quality is approaching or not achieving the CAAQS. Non-point emission sources are sources that are too small, too numerous, too geographically large, or too geographically spread out to be represented or estimated as a single source; e.g., emissions from the transportation sector.

Emissions of interest included primary fine particulate matter, as well as precursors of secondary fine particulate matter and ozone. Efforts to reduce these substances are likely to have the co-benefit of reducing other emissions.

A multi-stakeholder technical task group compiled and reviewed a great deal of monitoring, modelling, and other scientific information, all of which provided a solid foundation for the team's recommendations and overall approach.

Nineteen emission reduction opportunities and management actions were identified in the eight topic areas. Many of the recommendations were addressed to various departments and agencies of the Government of Alberta but will also rely on collaboration with other partners such as municipalities, industries, and industry associations for successful implementation. CASA's new ROVER III initiative, described below, was informed by the work of the NPS team and is now moving forward.

The NPS recommendations were approved by the CASA board in December 2017, and a final report will be publicly released and available on the CASA website in April 2018.

CASA considers this project to be a starting point for continued, coordinated efforts to manage NPS emissions to improve air quality for the benefit of Albertans.

## coal-to-gas working group

In October 2017, the Deputy Minister for AEP asked CASA to develop and recommend by December 31, 2017 a nitrogen oxides (NO<sub>x</sub>) emission standard that could be applied to coal-fired electricity generation units that converted to burn natural gas instead of coal. This work was to include:

- Draft technology requirements for a coal-to-gas (CTG) unit conversion
- A draft NO<sub>x</sub> emission standard for a CTG unit conversion
- Allowable lifespan for a CTG unit conversion based on the draft NO<sub>x</sub> emission standard

Following discussions between the board of directors and the executive director, CASA established the Coal-to-Gas Working Group to undertake this task.

The multi-stakeholder group met for five days in October and November, and its discussions were informed by a third-party engineering consultant's report commissioned by the Government of Alberta. The group reached consensus on a CTG Unit Conversion NO<sub>x</sub> Emission Standard Agreement, and subsequently obtained the endorsement of industry, environmental non-government organizations, and Government of Alberta stakeholders who were represented on the working group. The agreement is a two-page document that was presented to and approved by the CASA board at its December 13, 2017 meeting. This agreement, in addition to a non-consensus final report, was transmitted, as advice, to the Government of Alberta in late December 2017.

## ROVER III working group

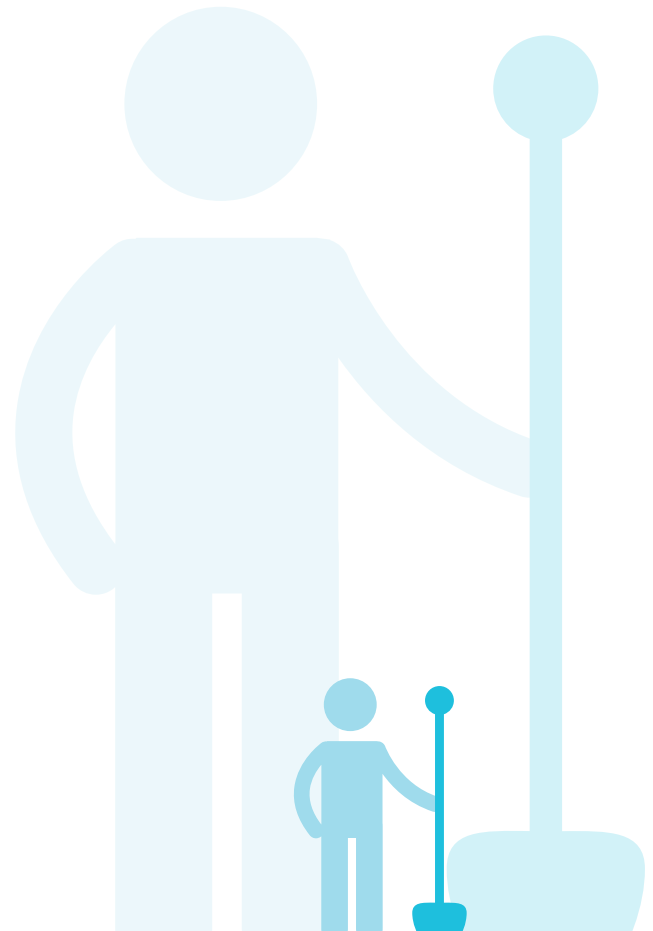
In 2017, CASA launched its third ROVER (Roadside Optical Vehicle Emissions Recorder) project to assess emissions from vehicles as they are being driven, using remote sensing technology. The 2014 Air Pollutant Emissions Inventory found that the on-road transportation sector is a large source of nitrogen oxides emissions as well as a source of volatile organic compounds and primary fine particulate matter. Diesel engine exhaust, in particular, has negatively affected human respiratory health.

CASA's previous ROVER I and ROVER II projects used a van equipped with remote sensing technology to measure vehicle emissions. In 1998, ROVER I tested over 42,000 light-duty vehicles in Edmonton, Calgary, Red Deer, and Canmore. In 2006, the ROVER II project tested over 66,000 vehicles in the same four municipalities, measuring a wider range of emissions. ROVER II found emissions per kilometre were falling but vehicle use was increasing. Results also indicated that although the number of higher emitters was relatively small at 5%, they contributed a larger proportion of emissions (60% of carbon monoxide, 31% of hydrocarbons, 26% of nitric oxide, and 7% of particulate matter). Both projects communicated with Albertans about vehicle emissions throughout the testing periods.

The ROVER III project will use similar remote sensing technology to test emissions from the on-road vehicle fleet and will make recommendations on managing emissions from

the on-road transportation sector. The focus will be on diesel-fuelled trucks but data will also be collected on other heavy-duty vehicles (e.g., buses) and light-duty vehicles (e.g., personal vehicles). Emissions data will include nitrogen oxides, volatile organic compounds, carbon monoxide, carbon dioxide, and particulate matter for a holistic approach that covers selected air contaminants and greenhouse gases; recommendations to reduce these substances are expected to have the co-benefit of reducing other emissions.

The project charter will be presented to the CASA board in early 2018 and work is expected to begin in April 2018. The project team will develop a final report that includes the collected vehicle emissions data, recommendations, and key findings.

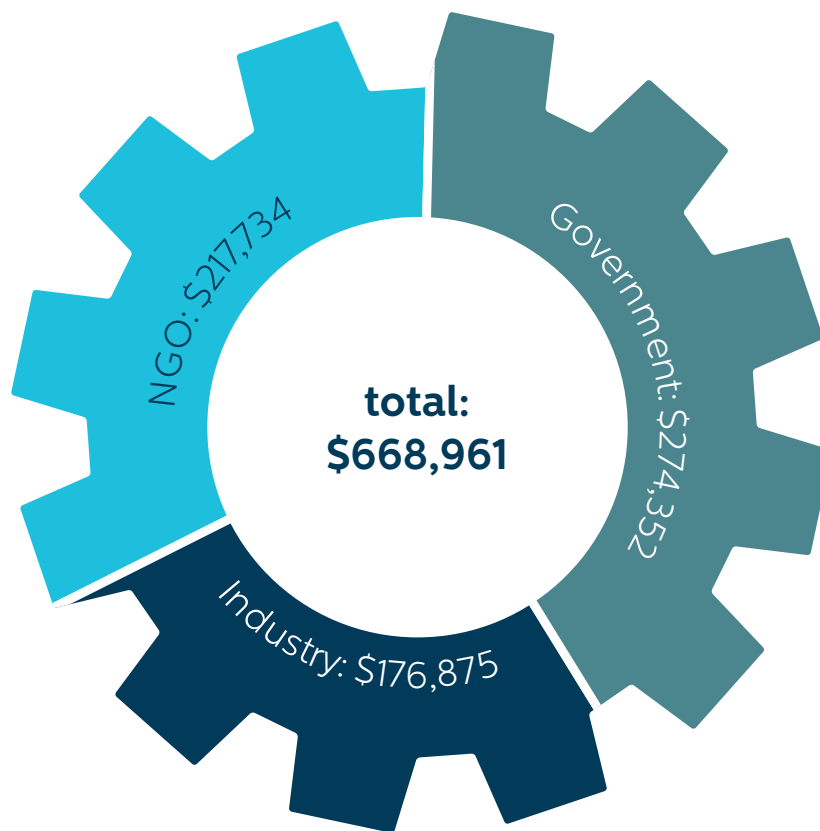


## cash and in-kind contributions

Cash and in-kind support are crucial factors in CASA's effectiveness and ability to undertake its work. CASA's core funding is provided by the Government of Alberta and is not included in the contributions shown below. No additional cash contributions were made to CASA in 2017. Government, industry, and non-government organizations all provided in-kind support.

CASA has tried to assign a dollar value to this support by examining time and travel costs and other contributions but is confident that the true value of these contributions is both under-recorded and underestimated. The Government of Alberta also generously provided office space as an in-kind contribution in 2017.

### 2017 in-kind contributions



# evaluating and measuring CASA's performance

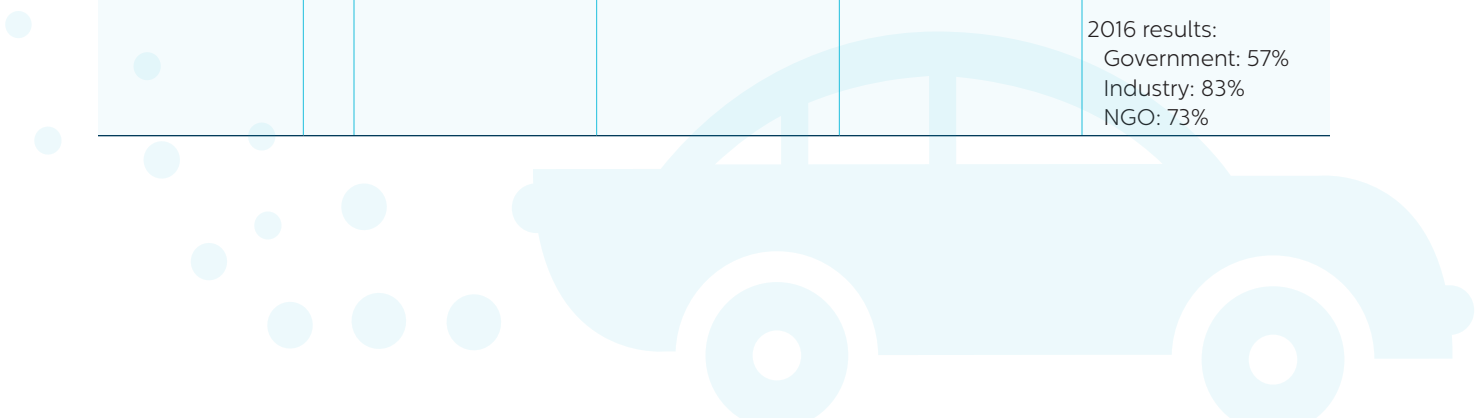
Every year CASA ensures that performance is measured to reflect the work completed; this enables the organization to make adjustments so we can continue to improve. For ease of year-to-year comparison, the measures and indicators shown in the tables below are the same as those presented in the 2016 CASA annual report. Further details and a complete listing of performance measures and indicators can be found in the 2017 Performance Measures report, available on the CASA website.

CASA's Performance Measures Strategy defines performance measures (areas where CASA has a higher degree of control over results) and performance indicators (areas where CASA has a lower degree of control over results). This combination of performance measures and performance indicators provides a well-rounded description of CASA as an organization and, by providing timelines and meaningful information, supports continuous improvement of CASA.

## CASA performance measures

(Areas where CASA has a higher degree of control over the results)

Objective	#	Performance Measure	Target	Actual	Notes
Ensure that CASA is financially efficient and accountable	1	Sufficient operating funds are available to bridge CASA's and GoA's fiscal years	Three months of operating funds	Six months as of December 31, 2017	Based on estimated operating expenses for January through March.
Encourage board member participation in CASA	5a	Percentage of board member attendance at board meetings by sector group	75%	Government: 46% <sup>1</sup> Industry: 72% <sup>2</sup> NGO: 70% <sup>3</sup>	The targets were not met. Fewer projects were running in 2017, which may have affected the results.  Sectors without current representation are not included in the calculations.  2016 results: Government: 57% Industry: 83% NGO: 73%



Objective	#	Performance Measure	Target	Actual	Notes
Develop reports and recommendations adhering to CASA's Managing Collaborative Processes Guide	6	Degree of satisfaction with project team work by team: <ul style="list-style-type: none"> <li>The Project Charter was completed</li> <li>The process was collaborative</li> <li>The team developed recommendations using the SMART (Specific, Measurable, Actionable, Realistic, Time-bound) model</li> </ul>	<ul style="list-style-type: none"> <li>Project Charter complete: 75%</li> <li>Collaborative: 75%</li> <li>SMART recommendations: 100%</li> </ul>	<ul style="list-style-type: none"> <li>Project Charter complete: 92%</li> <li>Collaborative: 92%</li> <li>SMART recommendations: 77%</li> </ul>	Data gathered from 13 Project Team surveys completed by the Non-Point Source project team.
Improve project team knowledge of the Managing Collaborative Processes Guide	7	Project teams' degree of satisfaction with ability to participate in collaborative processes	Maintain or increase	95%	Data only available for NPS work. 2016 results: 70%
Increase awareness of CASA, CASA projects, and the Managing Collaborative Processes Guide	8	Speaking engagements and meetings undertaken by CASA's Executive Director	Maintain or increase	17	Down slightly from last year. 2016 results: 18 engagements

**<sup>1</sup> Government attendance:**

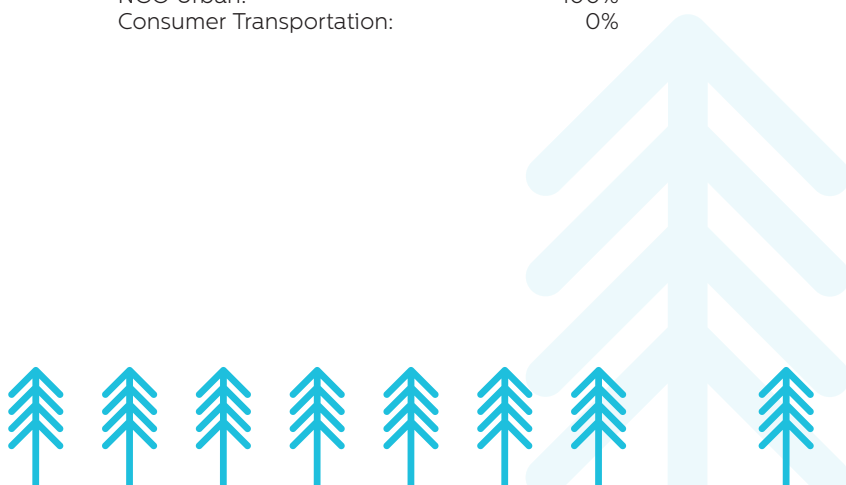
Aboriginal (First Nations):	50%
Aboriginal (Métis):	0%
Federal:	100%
Local (Rural):	50%
Local (Urban):	Vacant, not included in totals
Provincial (Energy):	50%
Provincial (Environment):	75%
Provincial (Health):	0%

**<sup>3</sup> NGO attendance:**

NGO Health:	50%
NGO Rural:	100%
NGO Industrial:	100%
NGO Urban:	100%
Consumer Transportation:	0%

**<sup>2</sup> Industry attendance:**

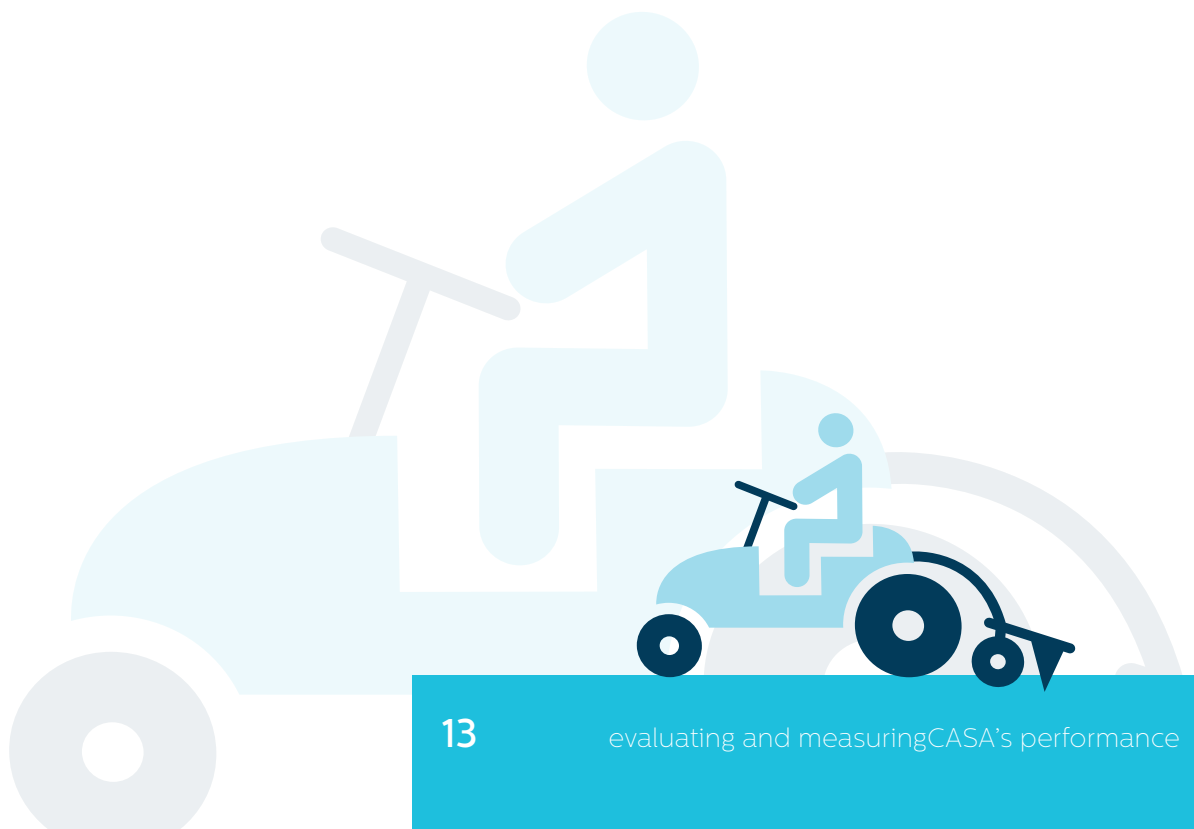
Agriculture:	100%
Alternate Energy:	50%
Chemical Manufacturers:	75%
Forestry:	50%
Mining:	50%
Oil & Gas – Large:	75%
Oil & Gas – Small:	Vacant, not included in totals
Petroleum Products:	75%
Utilities:	100%



## CASA performance indicators

(Areas where CASA has a lower degree of control over results)

Objective	#	Performance Indicator	Actual	Notes
Implement CASA recommendations	1	Percentage of substantive recommendations from the previous four years that have been implemented	0%	This is based on three substantive recommendations from the 2015 Electricity Framework Review (EFR) report. Each of these topics of discussion will be included in the upcoming 2018 EFR work.
Improve capacity to monitor air quality in Alberta	4.a	The percentage of monitoring stations and/or parameters implemented from the 2009 Ambient Monitoring Strategic Plan	PI 4 was not due for reporting in 2017	
	4.b	Geographic percentage of province covered by airshed zones		



## alberta airshed zones and the alberta airsheds council

The Alberta Airsheds Council (AAC) is a partnership of Alberta's Airshed Associations (referred to as Airsheds) to support healthy air quality for Albertans and the environment. Airshed collaboration has improved program alignment, cost efficiencies, and air quality monitoring and reporting for Albertans. The community, industry, and government members continue to champion the Airshed model that delivers science-based air quality monitoring, contributes to provincial policy development, and promotes education and engagement on air quality issues that affect Albertans.

In 2017, the AAC received grant funding from and worked collaboratively with AEP on matters related to expanding the province-wide air monitoring system, establishing a sustainable funding model, and bringing more clarity to roles in Alberta's air framework.

Airsheds operate more than 70 air monitoring stations and provide data to report the Air Quality Health Index (AQHI) in more than 30 communities. Airshed representatives actively contributed to CASA-led initiatives in 2017, including the Non-Point Source Project Team and the Ambient Air Quality Objectives Project Team. This year, the AAC launched a new website that showcases communication and outreach materials. Grant funding from AEP enabled the AAC to create entertaining and informative videos suitable for a range of audiences. Each video includes a clear "call to action" to encourage choices that can improve air quality. Using the videos and supporting print materials, many Airsheds participated in school programs and other events to enhance understanding of air quality and encourage people to take on projects to further their learning and bring more awareness to air quality issues in their communities.

In 2017, the AAC welcomed its tenth member – the Peace River Area Monitoring Program (PRAMP). PRAMP launched with a focus on monitoring odours and emissions from heavy oil production and plans to expand its network to include a portable station to provide AQHI information for the first time in the Peace River area.

Airshed highlights from 2017:

- Alberta Capital Airshed (ACA), Peace Airshed Zone Association (PAZA), and West Central Airshed Society (WCAS) continued to expand their boundaries due to growing interest from industry and communities.
- Calgary Region Airshed Zone (CRAZ) adapted a portable air monitoring unit to serve as a continuous monitoring station. CRAZ also developed a Wildfire Protocol Guide that has been shared with the City of Calgary and Alberta Health Services.
- The Wood Buffalo Environmental Association (WBEA) implemented a new station in collaboration with ConocoPhillips and also reviewed its long-term forest health monitoring program, with multiple publications planned for 2018. WBEA continued its Traditional Knowledge Berry Program and expanded the program to other communities in the Regional Municipality of Wood Buffalo.
- Parkland Airshed Management Zone (PAMZ) and Fort Air Partnership (FAP) operated fine particulate matter (PM<sub>2.5</sub>) speciation sampling and analysis programs to better understand sources of PM<sub>2.5</sub> and to enable management of PM<sub>2.5</sub> according to Canadian Ambient Air Quality Standards.



- Palliser Airshed Society (PAS) completed one full year of continuous air quality monitoring with the airpointer portable station at the Medicine Hat Airport site.
- ACA, FAP and WCAS continued to work with AEP and other stakeholders in implementing the Capital Region Air Quality Management Framework and related Fine Particulate Matter Response Plan.
- WBEA developed and fully launched the Community Odour Monitoring Program app for smart phones and tablets to help identify odours, as well as the frequency and intensity of odours in the Wood Buffalo Region.
- Passive networks have been under review in several Airsheds. The passive monitoring programs were scaled back by PAMZ, PAZA, and PAS and suspended by CRAZ. At the same time, the ACA developed a new passive monitoring program that serves ten communities.
- Several Airsheds participated in school programs to enhance understanding of air quality and to encourage students to take on projects to further their learning and bring more awareness to air quality issues in their communities.

## AAC members

**Alberta Capital Airshed (ACA):** [www.capitalairshed.ca](http://www.capitalairshed.ca)

**Calgary Region Airshed Zone (CRAZ):** [www.craz.ca](http://www.craz.ca)

**Fort Air Partnership (FAP):** [www.fortair.org](http://www.fortair.org)

**Lakeland Industry and Community Association (LICA):** [www.lica.ca](http://www.lica.ca)

**Parkland Airshed Management Zone (PAMZ):** [www.pamz.org](http://www.pamz.org)

**Palliser Airshed Society (PAS):** [www.palliserairshed.com](http://www.palliserairshed.com)

**Peace Airshed Zone Association (PAZA):** [www.paza.ca](http://www.paza.ca)

**Peace River Area Monitoring Program (PRAMP):** [www.prampairshed.ca](http://www.prampairshed.ca)

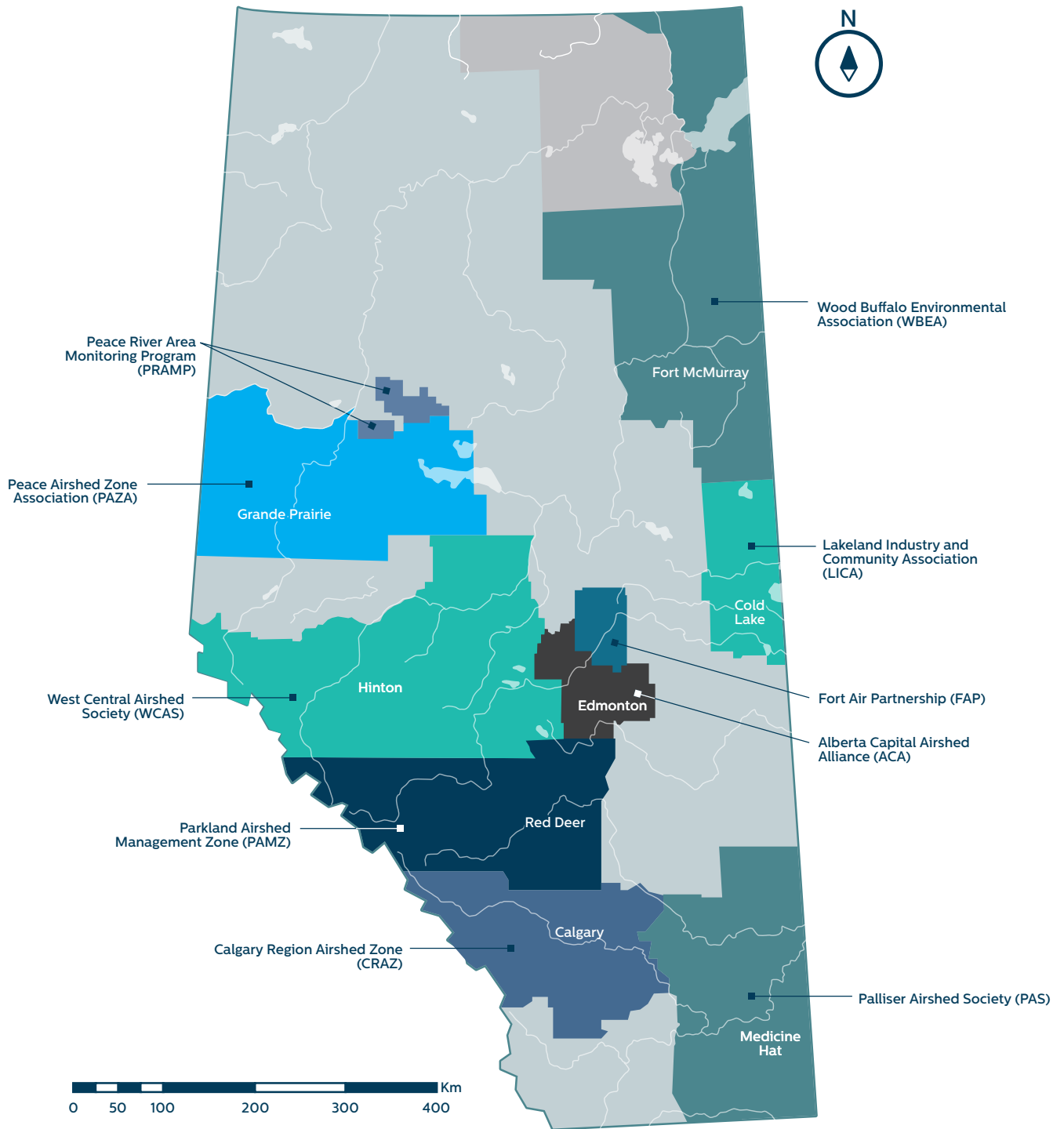
**West Central Airshed Society (WCAS):** [www.wcas.ca](http://www.wcas.ca)

**Wood Buffalo Environmental Association (WBEA):** [www.wbea.org](http://www.wbea.org)

For more information, visit: [www.albertairshedsCouncil.ca](http://www.albertairshedsCouncil.ca)



# alberta airsheds (january 2018)



## CASA participating organizations

CASA could not operate without the help of the many organizations that support participants on the board and project teams. CASA is very grateful to these organizations for providing financial and in-kind contributions of time and expertise.

Alberta Agriculture and Forestry

Alberta Airsheds Council

Alberta Association of Municipal Districts and Counties (now Rural Municipalities of Alberta)

Alberta Beef Producers

Alberta Canola Producers

Alberta Capital Airshed

Alberta Energy

Alberta Environment and Parks

Alberta Environmental Network

Alberta Federation of Agriculture

Alberta Forest Products Association

Alberta Health

Alberta Health Services

Alberta Newsprint Company

Alberta Motor Association

Alberta Transportation

ATCO Power

Calgary Region Airshed Zone

Canadian Association of Petroleum Producers

Canadian Fuels Association

Capital Power Corporation

Chamberland Consulting Ltd.

Chemistry Industry Association of Canada

City of Calgary

City of Edmonton

City of Red Deer

ENMAX

Environment and Climate Change Canada

Fort Air Partnership

Graymont Western Canada Inc.

Health Canada

Imperial Oil Ltd.

Innstor

Lehigh Cement

Maxim Power Corp

Methanex Corporation

Mewassin Community Council

NextEra Energy Canada

North West Refinery

Notinto Sipyi Conservation Association

Palliser Airshed Zone

Parkland Fuel Corporation

Pembina Institute

Prairie Acid Rain Coalition

R. Angle Consulting

Samson Cree Nation

Southern Alberta Group for the Environment

TransCanada

TransAlta

The Lung Association – Alberta and NWT

West Central Airshed Society

Weyerhaeuser Company Ltd.



**Clean Air Strategic Alliance**

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