



**2008**  
Annual Report



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## 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

To recommend strategies to assess and improve air quality in Alberta, using a consensus process.

## ABOUT CASA

The Clean Air Strategic Alliance (CASA) is a multi-stakeholder partnership, composed of representatives selected by industry, government and non-government organizations. Stakeholders are committed to developing and applying a comprehensive air quality management system for all Albertans.

All CASA groups and teams, including the board of directors, make decisions and recommendations by consensus. Recommendations are likely to be more innovative and long lasting than those reached through adversarial processes.

## Mandate

CASA was established by Ministerial Order as an advisory committee under the *Environmental Protection and Enhancement Act* and the *Department of Energy Act* to undertake and report on:

1. The operation of the Comprehensive Air Quality Management System (CAMS).
2. The conduct of strategic air quality planning for Alberta through shared responsibility and the utilization of a consensus building collaborative approach. Planning shall include:
  - i. clear identification of issues;
  - ii. prioritization of specific problems;
3. The prioritization of problems with respect to air quality in Alberta and specific actions or action plans and activities to resolve such problems. The action plans will prescribe guidelines for the initiatives to be undertaken, the economic and environmental consequences, and what outcomes are expected from each initiative.
  - iii. allocation and coordination of resources;
  - iv. development of action plans; and
  - v. evaluation of results.

Decisions on matters of policy and action of CASA will be based on consensus. Where consensus policy and action matters are not achieved, yet some action is deemed necessary, specific alternatives will be provided to the Ministers for decision. The alternatives will reflect the extent of consensus and areas of agreement, the specific issues about which there is no consensus, and the reasoning behind the differing views.

## CASA supports the following 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.

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## HIGHLIGHTS

- **Confined Feeding Operations Team Final Report** – The board approved the final report and ten recommendations aimed at improving the management of air emissions from existing and future intensive livestock operations in Alberta. The Government of Alberta and industry will implement the recommendations, which include research, monitoring, managing problem areas and improving relationships between stakeholders. The team will reconvene in 2011.
- **Clear the Air Consultation** – CASA visited seven communities across the province to consult with Albertans on air quality concerns and possible solutions to inform development of a renewed Clean Air Strategy for Alberta. Almost 500 Albertans participated in the consultation by attending a meeting, completing an online survey or sending in a written submission.
- **ROVER Report** – The Vehicle Emissions Team released the report from the ROVER vehicle emissions study, which studied in-use vehicle emissions in Calgary, Canmore, Edmonton and Red Deer in the fall of 2006. The study found a small number of vehicles were causing a large proportion of the emissions. Alberta Environment is developing a plan to reduce emissions from gross emitting vehicles.
- **Ambient Monitoring Strategic Plan Workshop** – This well-attended stakeholder workshop provided eighty stakeholders with an opportunity to provide refinements and feedback on a draft ambient air monitoring strategic plan for Alberta.
- **Performance Evaluation** – The 2007 Performance Evaluation found that CASA is effective in supporting Alberta Environment in strategic air quality planning for Alberta. The board accepted several recommendations to enhance CASA's relationship with the Government of Alberta.
- **Strategic planning** – The board engaged in a strategic planning retreat in June to discuss strategic organizational and air quality issues. CASA should be working on. A Business Planning Committee was created in September to develop a new three-year business plan for CASA.
- The board received two statements of opportunity in 2008 and created two new teams and two board committees: Martha Kostuch Legacy Workshop Project Team, Priority Setting Workshop Project Team, Airsheds Issues Committee and the Business Planning Committee.

## Thank you to past board members

CASA gratefully acknowledges the contribution of board members, indicated below, who stepped down in 2008.

**Humphrey Banack**

**Len Bracko**

**Dave Byler**

**Linda Duncan**

**Carolyn Kolebaba**

**Timothy Lambert**

**Sandra Locke**

**Jerry MacPherson**

**Len Vogelaar**

Wild Rose Agricultural Producers

Alberta Urban Municipalities Association

Canadian Association of Petroleum Producers

Lake Wabamun Enhancement and Protection Association

Alberta Association of Municipal Districts and Counties

Canadian Public Health Association

Alberta Energy

Alberta Energy

Alberta Beef Producers

## MESSAGE FROM THE PRESIDENT



Peter Watson

Clean air is important to Albertans. CASA heard that loud and clear as it toured the province in 2008 as part of the Clear the Air public consultation. Albertans told us that, even when air quality is generally good, it shouldn't be taken for granted. Fortunately, there are many programs and initiatives that exist or are planned, both provincially and locally, that ensure that Alberta's air is valued as it should be. CASA is one of them.

Throughout its fourteen year history, CASA has delivered on air quality in Alberta by developing recommendations to address air

quality issues in Alberta. Over three-quarters of these recommendations have been implemented by government and industry over the years. Some recommendations have resulted in policy frameworks that guide decision-making and actions. Others have resulted in voluntary action and still others have given rise to new regulations and legislation. The recommendations have one thing in common: they have been agreed to by consensus of industry, government and non-government organizations at the CASA table.

In 2008, CASA broke some new ground and it also revisited some familiar territory to work on the future of air quality in Alberta. CASA rose to the challenge of developing recommendations to renew the Clean Air Strategy for Alberta. The release of the Land Use Framework and the Provincial Energy Strategy, along with CASA's collaboration with the Alberta Water Council, has created new opportunities for the integrated management of air, water and land in Alberta. CASA's multi-stakeholder composition bodes well for meeting the challenges of ever increasing collaboration. CASA has a lengthy track record of working on a wide range of issues with a diversity of stakeholders. With 22 sectors represented on its board, CASA has the flexibility to address complex air issues that may also relate to water and land.

CASA has demonstrated its adaptability to changing times. A strong component of CASA is relationships: among stakeholders, organizations and people. Relationships evolve as new ways of communicating arise. CASA has used this evolution to build new relationships and strengthen existing ones. In 2008, we figuratively put another leaf in the CASA table. CASA invited Albertans to air their views about what air quality issues are important to them and what a Clean Air Strategy for Alberta should include. We will invite them again to tell us what their issues and solutions are regarding emissions from electricity generation. CASA raised awareness as well by partnering with Global TV and the City of Edmonton to educate Albertans on ways to reduce vehicle emissions, and we have established ongoing dialogues online through CASA social media groups.

CASA is a long-term investment in ensuring that Alberta's air is clean, clear and safe for this and future generations. It has proven its worth as a cost-effective organization that delivers results and is adaptable to changing times. As CASA celebrates another year of successful multi-stakeholder partnerships, the future looks bright.

A handwritten signature in black ink, appearing to read 'Peter Watson', written over a light blue background.

# BOARD OF DIRECTORS As of December 31, 2008

Stakeholder Group: Industry Sector	Director	Alternate
Agriculture	Rich Smith Alberta Beef Producers	Robert Filkohazy Wild Rose Agricultural Producers
Alternate energy	Theresa Howland Alternate energy producers	
Chemical manufacturers	Réjeanne Cool Canadian Chemical Producers Association	Al Schulz Canadian Chemical Producers Association
Forestry	Brian Gilliland Alberta Forest Products Association	Keith Murray Alberta Forest Products Association
Mining	Peter Darbyshire Mining industry	
Oil and gas (large producers)		Bill Clapperton Canadian Association of Petroleum Producers
Oil and gas (small producers)	John Squarek, (CASA vice-president) Small Explorers and Producers Association of Can.	
Petroleum products	Cindy Christopher Canadian Petroleum Products Institute	Ted Stoner Canadian Petroleum Products Institute
Utilities	Alex McFadden Utilities	Jim Hackett Utilities
<b>Stakeholder Group: Government</b>		
Federal	Randall Cripps Environment Canada	Tim Goos Environment Canada
Provincial	Jim Ellis Alberta Environment	Bev Yee Alberta Environment
Provincial	Peter Watson, (CASA president) Alberta Energy	Jennifer Steber Alberta Energy
Provincial	Margaret King Alberta Health and Wellness	Alex Mackenzie Alberta Health and Wellness
Local (urban)	Linda Osinchuk Alberta Urban Municipalities Association	
Local (rural)	Tom Burton, Alberta Association of Municipal District & Counties	
Aboriginal (First Nations)	Trevor Swampy Samson Cree Nation	
Aboriginal (Métis)	Allan Wells Métis Settlements General Council	Jerry Cunningham, Métis Settlements General Council
<b>Stakeholder Group: Non-government organizations</b>		
Consumers/transportation issues		
Health issues	Tony Hudson The Lung Association - Alberta and NWT	Eileen Gresl COPD and Asthma Network of Alberta
Pollution issues	Chris Severson-Baker Pembina Institute	
Pollution issues	Myles Kitagawa (CASA vice-president) Toxics Watch Society of Alberta	Ian Peace Residents for Accountability in Power Industry Development
Wilderness issues	Nashina Shariff Toxics Watch Society of Alberta	Ann Baran Southern Alberta Group for the Environment



## MESSAGE FROM THE EXECUTIVE DIRECTOR



Kerra Chomlak

2008 was a year of capacity building and change at CASA. New personnel as well as changes at the Executive Committee forced us to start fresh in some areas, while our hard work continued on in many areas to meet our prior commitments.

First, we built up our capacity at the secretariat. Four new staff joined the secretariat in 2008, with our total contingent increasing from seven to nine. With most of us having been in our new positions for less than a year, we aimed to first strengthen our individual proficiencies, and by year end, had developed into a solid team, ably supporting the board and all its teams.

The CASA Executive Committee also endured significant change. Dave Byler, CASA's Industry Vice President for 8 years, retired from Suncor, and we miss Dave's steadfast leadership and support of the CASA process. To fill this position, CASA welcomed John Squarek, representing the Small Explorer and Producers Association of Canada, bringing with him a myriad of CASA experience as a former board member and participant on many teams.

Peter Watson carried on as CASA President, even with his move to Deputy Minister of Alberta Energy. In the past, the presidency has alternated between Alberta Environment and Alberta Energy. This year, Alberta Energy's other outstanding contribution to our organization was a commitment to fund CASA's core operations into the future. Peter was duly thanked by the CASA board.

Sadly, the passing of CASA NGO Vice President, Martha Kostuch left an enormous vacancy at CASA. As our memorial points out, Martha is irreplaceable. NGOs rallied together and charged Myles Kitagawa with fulfilling this critical role at the CASA Executive. Fortunately for us, Myles has a true commitment to the CASA process, and a wealth of experience from participating on the board and project teams.

Even with these changes, CASA continued to support the work of 20 projects. On average, 17 stakeholder meetings and teleconferences were held per month.

Sustaining this pace of work moved CASA forward on three large projects: Clean Air Strategy recommendations, the Electricity Framework Review and the Ambient Monitoring Strategic Plan, amongst others. In addition to their regular work, the Board of Directors felt it prudent to pay attention to some external activity in 2008. A special CASA board meeting was held to hear about the Provincial Energy Strategy, and how it might relate to CASA's reports on Electrical Efficiency and Conservation, and Renewable and Alternative Energy.

We are grateful to CASA participants for their willingness to host meetings and commit their time to CASA. These in-kind contributions are crucial to carrying out our mission to recommend strategies to assess and improve air quality in Alberta, using a consensus process.

As always, CASA could not have moved forward without the personal commitment of individuals to the process and to our vision for clean air. Thank you all. Capacity built. Change managed. Progress made.

### Secretariat

#### Executive Director

**Kerra Chomlak**

#### Project Manager

**Jennifer Allan**

**Robyn Jacobsen** (from January 7)

**Linda Jabs** (from September 2)

**Kim McLeod** (from September 29)

#### Office Manager

**Lori Melanson** (to February 28)

**Kathy Semchuk** (from March 1)

#### Communications Manager

**Sharon Hawrelak**

#### Administrative Assistants

**Kathy Semchuk** (to March 1)

**Alison Hughes** (formerly Jenness)

#### Financial Administrator

**Karen Bielech** (from March 17)

Thank you to **Kim Sanderson** and **Carmen Rieder** for applying their skills as consultants to various CASA teams this year and to **Christine Macken** for delivering a workshop on consensus building to CASA and Alberta Water Council staff.

## THE PEOPLE

Stakeholders are the key to our success. Each of the names in the board, committee and team membership lists throughout this report represent a phenomenal commitment of time, expertise and resources as well as a commitment to *the CASA Way* and air quality in Alberta.

### In memory of Martha Kostuch



CASA remembers Martha Kostuch, CASA Vice President (NGO), who passed away on April 23, 2008. A staunch environmental leader and self-proclaimed tree hugger, Martha's active participation in CASA dated back to 1997. She was a key contributor to the success of the CASA board and executive committee, airshed zones and a multitude of project teams and sub-groups, including the clean air strategy, acid deposition and sulphur dioxide management, flaring and venting, electricity, particulate matter and ozone, renewable and alternative energy, human and animal health, confined feeding operations, indoor air quality, climate change and oilsands, and pollution prevention and continuous improvement.

She personified the multi-stakeholder process that CASA holds so dear. She had the ear and respect of leaders and decision-makers in government, industry and non-government organizations from near and far. It didn't matter to Martha whether they were on her side of the issue or not, she was always willing to work with them towards a solution. A font of knowledge and wisdom on a diverse range of environmental issues, she was equally concerned about the protection of air, water and land.

Martha Kostuch left an admirable legacy of enduring relationships between stakeholders who, because of her commitment, had a better understanding of each other and a willingness to find mutually beneficial solutions, without compromising the environment.

### Volunteers at CASA

A lot of effort is also applied from those behind the scenes who support folks who sit at the board or project team table. CASA is very grateful for the substantial and valuable contributions of time and expertise from those individuals who support their stakeholder representatives.

CASA extends a very special thank you to Kim Sanderson, who volunteered her expertise and substantial time to a special project on behalf of CASA in 2008.

CASA thanks Global TV, Canwest Mediaworks, NAIT, Dan VanKeeken, Rayne Kuntz, Mick Cormier and Brian and Elaine Hawrelak for their generous donations of time and facilities for the public service announcements to reduce vehicle emissions.



# THE ORGANIZATIONS

Over 100 organizations have offered financial and in-kind support to CASA. This support ensures the continuing success of CASA.

Action on Smoking and Health	Canadian Natural Resources Limited	Parkland Airshed Management Zone
Aecon Industrial	Canadian Petroleum Products Institute	Peace Air Shed Zone Association
Agri-Environmental Partnership of Alberta	Capital Health	Pembina Agricultural Protection Association
Agrium	City of Calgary	Pembina Institute
Alberta Agriculture and Rural Development	City of Edmonton	Petro Canada
Alberta Association of Municipal Districts & Counties	Climate Change Central	Ponoka Fish and Game
Alberta Beef Producers	ConocoPhillips Canada	Prairie Acid Rain Coalition
Alberta Employment and Immigration	COPD & Asthma Network of Alberta	Residents for Accountability in Power Industry Development
Alberta Energy	David Thompson Health Region	Rocky Mountain House Community Health Centre
Alberta Environment	DF Technical Services	Shell Canada Limited
Alberta Federation of Labour	Edmonton Public School Board	Sierra Club
Alberta Forest Products Association	EnCana Corporation	Small Explorers and Producers of Canada
Alberta Health and Wellness	Energy Resources Conservation Board	Society for Environmentally Responsible Livestock Operations
Alberta Home Builders Association	EnerVision	South Peace Environmental Association
Alberta Infrastructure	ENMAX Energy Corporation	Southern Alberta Group for the Environment
Alberta Milk	Environment Canada	Suncor Energy Inc.
Alberta Motor Association	EPCOR Energy Services	The Alberta Roadbuilders & Heavy Construction Association
Alberta Motor Transportation Association	Friends of an Unpolluted Lifestyle	The Farmers Advocate
Alberta Pork	Government of British Columbia, Oil and Gas Commission	The Lung Association, Alberta & NWT
Alberta Poultry Producers	Graymont Western Canada	Town of Whitecourt
Alberta Sheep & Wool Commission	Green Alberta Sustainable Product Assessment Inc.	Toxics Watch Society of Alberta
Alberta Sustainable Resource Development	Health Canada	TransAlta Corp.
Alberta Transportation	Husky Energy	TransAlta Generation Partnership
Alberta Urban Municipalities Association	Imperial Oil	TransCanada
Alberta Utilities Commission	Imperial Oil Resources	TransCanada Transmission
Alberta Water Council	Intensive Livestock Working Group	University of Alberta
ATCO Gas	Lafarge Canada Inc.	West Central Airshed Society
ATCO Power	Lake Wabamun Enhancement & Protection Association	Wild Rose Agricultural Producers
Bert Riggall Environmental Foundation	Lakeland Industry and Community Association	Wood Buffalo Environmental Association
Building Owner & Managers Association of Edmonton	MEGlobal Canada Inc.	
Bullfrog Power Inc.	Mewassin Community Action Council	
Calgary Health Region	MGV Energy Inc. / CSUG	
Calgary Motor Dealers Association	Natural Resources Canada	
Calgary Region Airshed Zone	Natural Resources Conservation Board	
Canada Mortgage and Housing Corporation	Northern Lights Health Region	
Canadian Association of Petroleum Producers	NOVA Chemicals Corporation	
Canadian Chemical Producer's Association	Palliser Airshed Society	
Canadian Home Builders Association - Alberta		

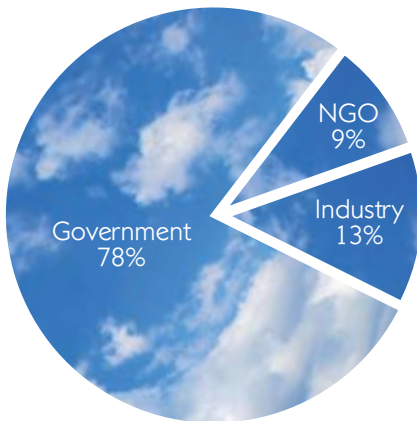
# FUNDING

The core operations of CASA were supported by financial contributions from Alberta Environment, Alberta Energy, Alberta Agriculture and Rural Development and Alberta Health and Wellness. Industry, government and non-government organizations provided additional funding and in-kind support for CASA teams.

CASA has tried to put an actual dollar figure on the support and assistance provided by each sector. The figures are compiled by examining time and travel costs, as well as cash and in-kind contributions, and likely under-estimate the actual value of stakeholder contributions. These figures are offered in the spirit of acknowledging and recognizing participant involvement.

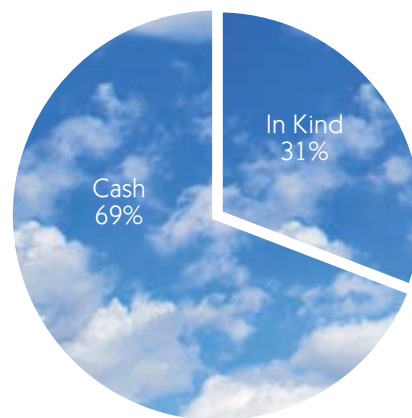
## Cash and in-kind contributions to CASA teams

Cash and in-kind contributions by sector:



Industry:	\$ 366,776
Government:	\$ 2,212,165
Non-government organizations:	\$ 244,475
<b>Combined:</b>	<b>\$ 2,823,416</b>

Total cash and in-kind contributions:



In-kind:	\$ 877,316
Cash:	\$ 1,946,100
<b>Combined:</b>	<b>\$ 2,823,416</b>



# SUMMARIZED FINANCIAL STATEMENTS

of the Clean Air Strategic Alliance Association, December 31, 2008.

The complete audited financial statements are available at [www.casahome.org](http://www.casahome.org) or by contacting CASA directly.



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## AUDITORS' REPORT ON SUMMARIZED FINANCIAL STATEMENTS

To the Members of  
The Clean Air Strategic Alliance Association  
Edmonton, Alberta

The accompanying statement of financial position and the statement of operations are derived from the complete financial statements of The Clean Air Strategic Alliance Association (the "Association") as at December 31, 2008 and for the year then ended on which we expressed an opinion without reservation in our audit report dated January 28, 2009. The fair summarization of the complete financial statements is the responsibility of management. Our responsibility, in accordance with the applicable Assurance Guideline of The Canadian Institute of Chartered Accountants, is to report on the summarized financial statements.

In our opinion, the accompanying financial statements fairly summarize, in all material respects, the related complete financial statements in accordance with the criteria described in the Guideline referred to above.

These summarized financial statements do not contain all the disclosures required by Canadian generally accepted accounting principles. Readers are cautioned that these statements may not be appropriate for their purposes. For more information on the Association's financial position, results of operations and changes in financial position, reference should be made to the related complete financial statements.

Edmonton, Alberta  
January 28, 2009

Chartered Accountants  
Hawkings Epp Dumont LLP

# STATEMENT OF FINANCIAL POSITION

As at December 31, 2008

	2008			2007
	Core	External Projects	Total	Total
<b>Current Assets</b>				
Cash and cash equivalents	\$ 892,084	\$ 500,388	\$ 1,392,472	\$ 581,810
Receivables	11,345	132,311	143,656	203,412
Interfund receivable (payable)	28,650	(28,650)	-	-
Prepaid expenses	8,422	-	8,422	5,804
	940,501	604,049	1,544,550	791,026
Property and Equipment	13,110	-	13,110	5,892
	<b>\$ 953,611</b>	<b>\$ 604,049</b>	<b>\$ 1,557,660</b>	\$ 796,918
<b>LIABILITIES AND FUND BALANCES</b>				
<b>Current Liabilities</b>				
Accounts payable and accrued liabilities	\$ 31,337	\$ 112,672	\$ 144,009	\$ 54,569
Deferred contributions (Note 6)	547,730	491,377	1,039,107	401,167
	579,067	604,049	1,183,116	455,736
<b>Fund Balances</b>				
Internally restricted	290,000	-	290,000	240,000
Unrestricted				
Invested in property and equipment	13,110	-	13,110	5,892
Available for operations	71,434	-	71,434	95,290
	<b>374,544</b>	<b>-</b>	<b>374,544</b>	341,182
	<b>\$ 953,611</b>	<b>\$ 604,049</b>	<b>\$ 1,557,660</b>	\$ 796,918

## Note 6. DEFERRED CONTRIBUTIONS

### (a) Core Fund

During the year, the Association received grants totalling \$1,205,000 (2007 – \$446,750) from the Province of Alberta. The purpose of the grants is to provide core funding in support of the Association's objectives as detailed in Note 1. The Regulations to the *Department of the Environment Act*, the *Department of Energy Act*, the *Department of Health Act*, and the *Department of Agriculture and Food Act* under which the grants have been provided, specify that grants must either be used for the purposes specified in the grant, be used for different purposes if such different purposes are agreed to by the applicant and the respective Minister, or be returned to the Province of Alberta. Accordingly, in the event the Association does not utilize the funds in pursuit of its objectives, any unexpended grant monies remaining may have to be repaid to the Province of Alberta.

	2008	2007
<b>Balance, Beginning of Year</b>	\$ 162,076	355,883
Grants Received and Receivable During the Year	\$ 1,205,000	\$ 446,750
Revenue Recognized to Cover Expenses During the Year	(819,346)	(640,557)
<b>Balance, End of Year</b>	\$ 547,730	162,076

### (b) External Projects Fund

Deferred external project contributions are comprised of monies received for specific external projects, which have not been expended for the purposes specified in the mandates of the projects.

	2008	2007
<b>Balance, Beginning of Year</b>	\$ 239,091	291,065
Grants Received and Receivable During the Year	\$ 741,100	\$ 121,917
Interest Earned During the Year	8,772	-
Revenue Recognized to Cover Expenses During the Year	(497,586)	(173,891)
<b>Balance, End of Year</b>	\$ 491,377	239,091

# STATEMENT OF OPERATIONS AND CHANGES IN FUND BALANCES

For the Year ended December 31, 2008

	2008			2007
	Core	External Projects	Total	Total
<b>Revenue</b>				
Grants	819,346	488,814	1,308,160	805,969
Interest	25,194	8,772	33,966	32,783
Insurance proceeds	8,168	-	8,168	-
	852,708	497,586	1,350,294	838,752
<b>Expenses</b>				
Projects	329,756	-	329,756	231,248
General and administrative	280,689	-	280,689	217,832
External projects	-	497,586	497,586	173,891
Communications	104,247	-	104,247	126,807
Board support	102,108	-	102,108	64,670
Other	2,546	-	2,546	-
	819,346	497,586	1,316,932	814,448
Excess of Revenue over Expenses	33,362	-	33,362	24,304
Fund Balance, Beginning of Year	341,182	-	341,182	316,878
Fund Balance, End of Year	<b>\$ 374,544</b>	<b>\$ -</b>	<b>\$ 374,544</b>	<b>\$ 341,182</b>



# EVALUATING AND MEASURING CASA PERFORMANCE

In the belief that “what gets measured gets done,” CASA has a strong system for measuring and evaluating its performance which consists of setting priorities, evaluating organizational performance and performance measures.

## Performance evaluation

When CASA was established in 1994, an article was included in the bylaws to ensure that overall organizational performance is evaluated on a regular basis. Article 16 of the CASA bylaws requires that, *“The performance of the Society will be evaluated upon the expiration of three years from the date of its incorporation, or the date of its last performance evaluation, by the Members of the Society.”* Performance evaluation occurred in 1997, 2001, 2004 and 2007. The next performance evaluation is due in 2010.

The most recent performance evaluation occurred from 2007 to 2008, when the committee interviewed government officials and surveyed CASA stakeholders with a view to answering the question, “How effective is CASA in supporting the Government of Alberta in strategic air quality planning?”

The major finding was that CASA has been effective in supporting Alberta Environment, the only provincial government department with a formal mandate for strategic air quality planning. The committee recommended several ways to enhance CASA’s relationship with the provincial government as a whole. All of the recommendations were addressed by the CASA board and most will be implemented. The committee’s report is available on the CASA website.

## Priority setting

Every three years, the CASA board engages in setting priorities on the importance of existing and emerging air quality issues. It is an opportunity for the Board to review its mandate, consider other activities that could have an impact on CASA, and begin to identify priorities for future work. At the board retreat in June, several topics were suggested and board members were assigned to scope issues and work needed. After discussion in September, the board forwarded some of the key issues to a new business planning committee.

## Performance measures

Two new measures and several updated indicators were developed and approved in 2007. The new indicators examine air quality in areas of CASA action. Note that the first performance measure evaluates Alberta’s progress toward CASA’s vision of clean air and does not necessarily measure progress made by CASA itself. The second performance measure is primarily a reflection of the work done by the airshed zones and the scientific community. The remaining performance measures focus more directly on progress made by CASA.

The performance measures and corresponding indicators are:

Performance Measure	Indicator(s)
1a Improved air quality indicators in areas of CASA action	<ul style="list-style-type: none"> <li>• Annual average ambient concentrations of: NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, benzene, wet acid deposition</li> <li>• Annual peak concentrations of: NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, and benzene</li> <li>• Percent hourly exceedances of: NO<sub>2</sub>, SO<sub>2</sub> and H<sub>2</sub>S</li> </ul>
1b Change in emissions of substances of concern in areas of CASA action	<ul style="list-style-type: none"> <li>• Annual total emissions from power generation for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>2.5</sub>, and mercury, and solution gas flaring and venting</li> </ul>
1c Energy use as an indirect measure of air quality in areas of CASA action	<ul style="list-style-type: none"> <li>• Electrical power capacity based on renewable and alternative energy sources</li> </ul>
2 Capability to measure air quality effects on humans and the ecosystem	<ul style="list-style-type: none"> <li>• Ambient monitoring</li> <li>• Ecological effects monitoring</li> <li>• Human health monitoring</li> </ul>
3 Number of recommendations through Comprehensive Air Quality Management System implemented	<ul style="list-style-type: none"> <li>• Percentage of substantive recommendations from four years ago that have been implemented. (thus, from 2003)</li> </ul>
4 Degree of CASA members, partners and clients' satisfaction with the CASA approach	<p>Satisfaction with CASA's:</p> <ul style="list-style-type: none"> <li>• Overall approach</li> <li>• Openness and transparency</li> <li>• Implementation of recommendations</li> <li>• Resources for teams</li> <li>• Achievements</li> <li>• Support to airshed zones</li> <li>• Communication between teams</li> </ul>
5 Degree of recognition of CASA as a major vehicle for delivering improved air quality management for Alberta	<ul style="list-style-type: none"> <li>• Return visitors to website</li> <li>• Number of news stories about CASA</li> <li>• Quality of news stories about CASA</li> </ul>

# Performance measures results

## 1. Measures of air quality

CASA’s mandate includes the evaluation of air quality in Alberta through a collaborative process. To assess progress, two sets of indicators were defined:

- One set is based on concentrations of selected substances in the air: nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), fine particles of 2.5 microns in diameter or less (PM<sub>2.5</sub>), ozone (O<sub>3</sub>), benzene and wet acid deposition.
- The other set is based on exceedances of the Alberta ambient air quality one-hour guideline of three substances: sulphur dioxide, hydrogen sulphide and nitrogen dioxide.

Analysis began with data from 1994 because that was the year CASA was formed. Please note that this performance measure is calculated every three years, with the next calculation due in 2010.

### a) Air quality indicators in areas of CASA action

#### Concentrations of selected substances

Annual average ambient concentrations and the annual peak concentrations across Alberta are the two indicators chosen for this set. The specific substances, as shown in Figures 1 and 2, were selected because:

- They are substances of concern in Alberta.
- They affect air quality in Alberta.
- They are associated with issues addressed by one or more CASA project teams.
- Data on each substance is readily available in electronic form.

The changes in the average concentrations of these substances from 1994 to 2006 are summarized in Figure 1.

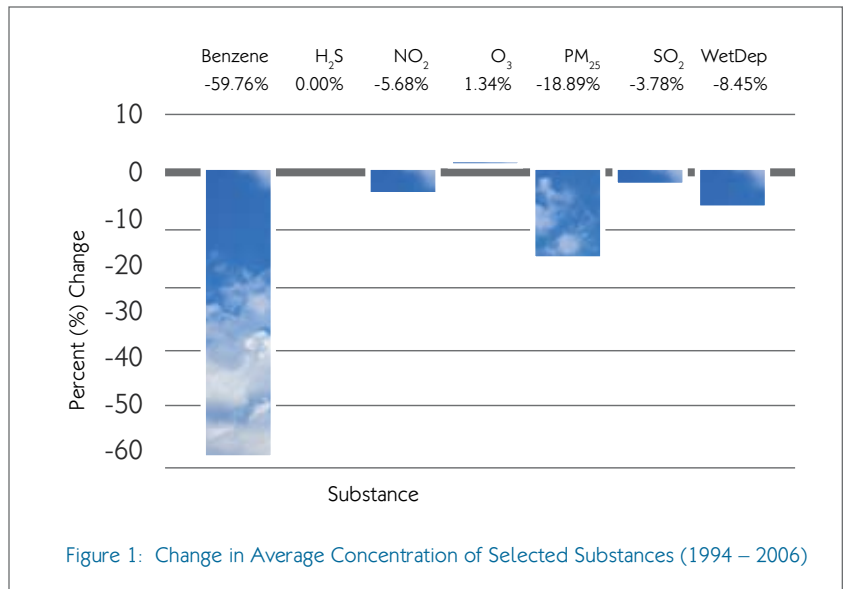


Figure 1: Change in Average Concentration of Selected Substances (1994 – 2006)

The annual peak concentrations of these substances were also calculated and the changes from 1994 to 2006 are summarized in Figure 2.

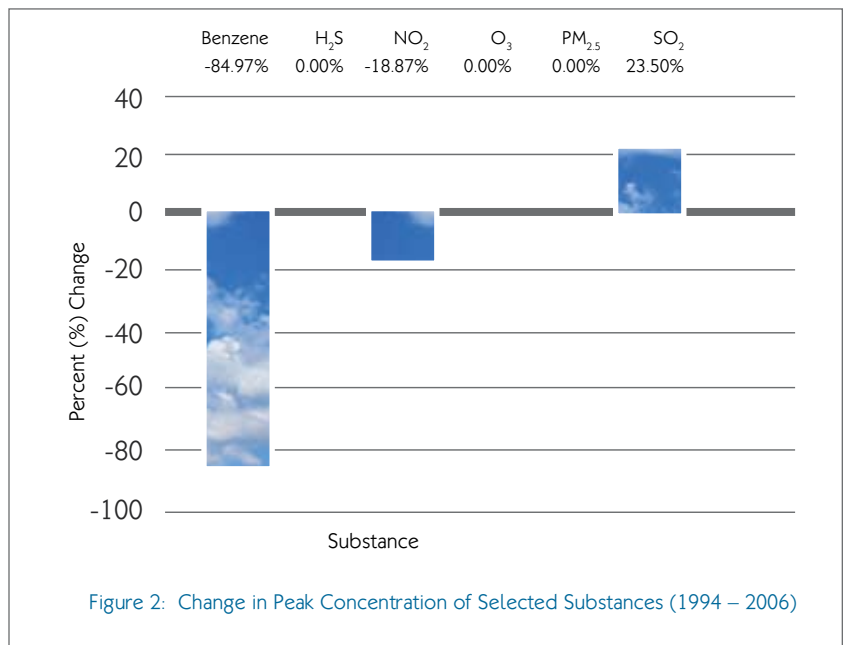


Figure 2: Change in Peak Concentration of Selected Substances (1994 – 2006)

### Exceedances of selected substances

Exceedances of the Alberta ambient one hour guideline across Alberta for sulphur dioxide, hydrogen sulphide and nitrogen dioxide are shown in Figure 3. Of the three, the objective for hydrogen sulphide was the most frequently exceeded, with particularly high numbers of exceedances in 1994 and in 2000. Compliance with this objective has been improving. The objective for nitrogen dioxide was exceeded just 5 times over the 12 years of available data. This led to close to 100 percent compliance in each year. For sulphur dioxide, the ambient air quality objective was exceeded most often between 1994 to 1995.

### b) Change in emissions of substances of concern in areas of CASA action

Total annual emissions from power generation in Alberta and the change in solution gas vented and flared were used as indicators for this performance measure. The results for these indicators show that:

- Sulphur oxides and nitrogen oxides did not change significantly from 1990 to 2005 (see figure 3).
- PM<sub>2.5</sub> decreased significantly from 1990 to 2005.
- Mercury increased significantly from 2000 to 2005.

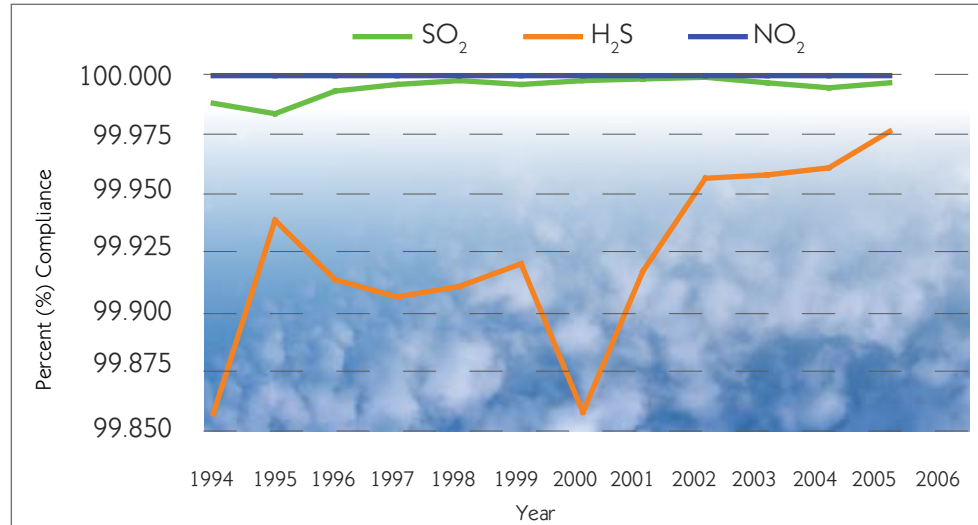


Figure 3: Percent Compliance with Ambient Air Quality Objectives

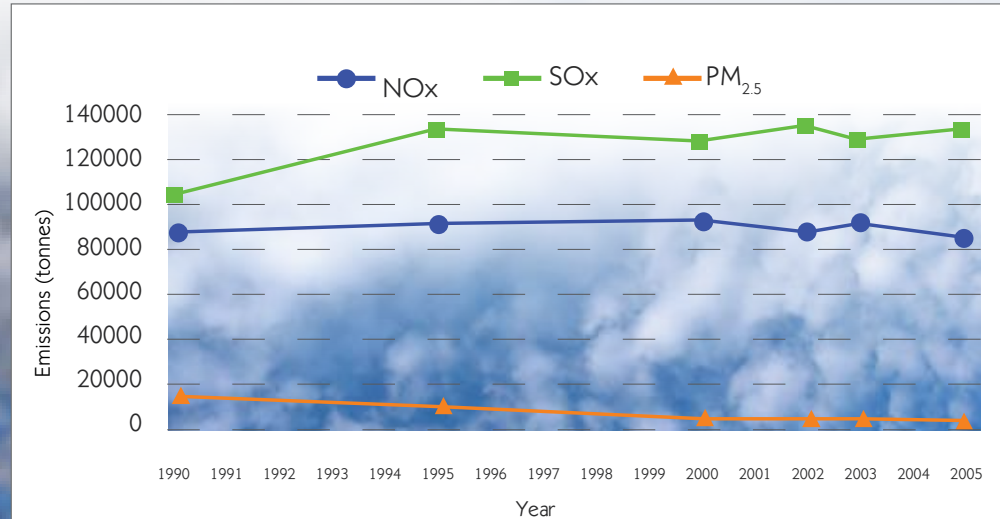
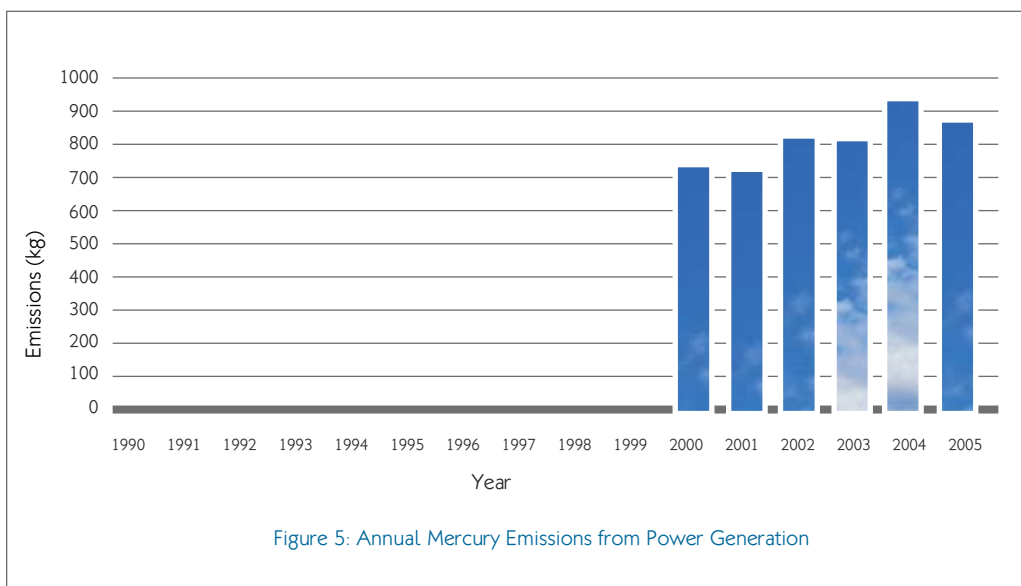


Figure 4: Annual Emissions of Criteria Air Contaminants from the Electricity Generation Sector

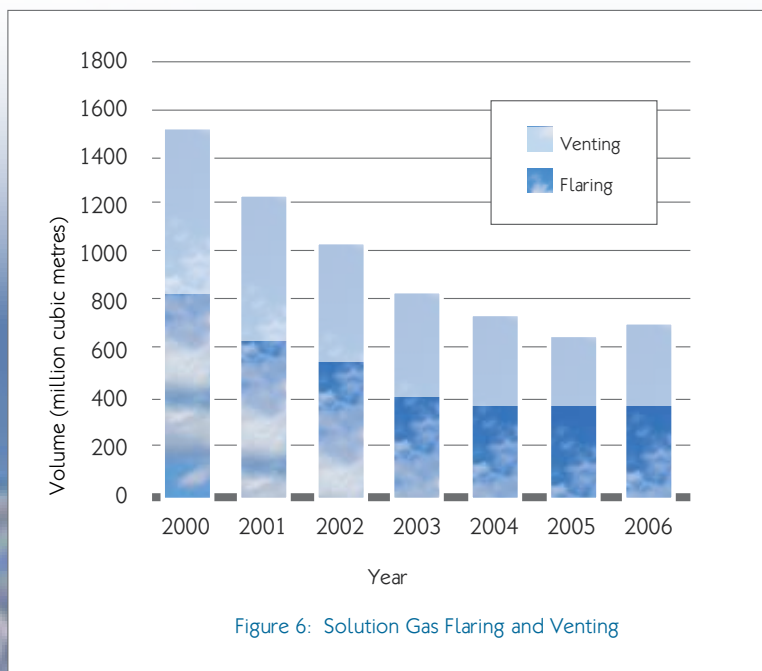
Source: Environment Canada Criteria Air Contaminants (CAC) data

Mercury emissions were not reported until 2000. Between 2000 and 2005, calculated emissions increased from 725 kg to 876 kg, which indicates a statistically significant upward trend. The major reason for this change is improvements and refinements in the emission calculation methods. The only exception is an increase in mercury emissions in 2005 when a new electricity generating unit came on line.



For the oil and gas sector:

- Solution gas flaring and venting decreased significantly from 2000 to 2006.



### c) Energy use as an indirect measure of air quality in areas of CASA action

The generation of energy in Alberta from renewable and alternative energy sources is the indicator used for Performance Measure 1c. Between 2001 and 2006, the proportion of total energy production from renewable sources rose from 4.8 to 7.4 percent.

## 2. Capability to measure air quality effects on humans and the ecosystem

Three indicators represent capability to measure air quality effects and are calculated every three years. In order to define air quality effects, a measure of air quality and a measure of effects are needed, resulting in three types of monitoring indicators. This indicator is calculated every three years and results shown are from the 2007 report. The next report is due in 2010.

### Ambient Air Quality Monitoring

Fifty-four percent of the monitoring stations and/or parameters from the 1995 plan were in place as of September 2007. This indicator is based on the original Alberta Ambient Monitoring Strategy and the 1997 implementation plan for the strategy, which presented the "ideal" ambient monitoring system for Alberta and at that time, about one-third of the proposed 377 monitoring sites and instruments were in place.

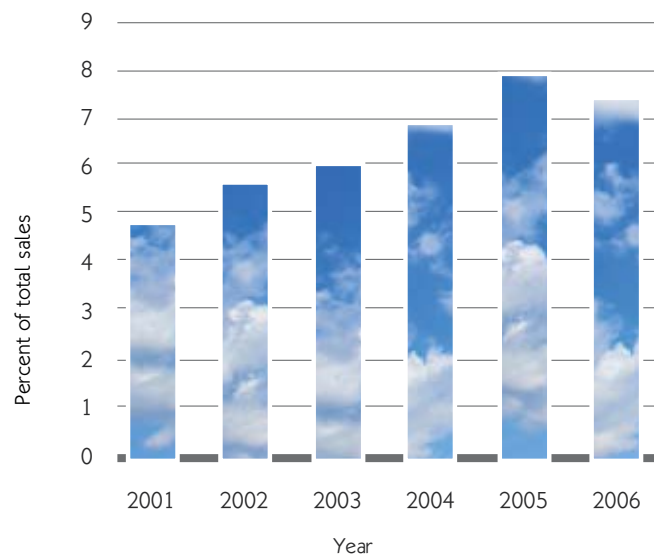


Figure 7: Renewable and Alternative Energy Share of Total Electricity Sales

### Ecological Effects Monitoring

The indicator value is 33 percent or two out of six regions monitored, which is unchanged from the previous year. Alberta has six natural regions with distinct assemblages of flora and fauna. They include: the Canadian Shield, Boreal Forest, Rocky Mountains, Foothills, Parkland, and Grasslands natural regions. The ecological effects monitoring performance indicator examines the ability to assess air quality effects on local ecosystems. It is based on the number of ecological monitoring sites with co-located air monitoring. Vegetation is collected at these sites and the tissue is analyzed for pollutants present in the air. Ecological monitoring with co-located air quality monitoring occurs in two of Alberta's natural regions. These programs are conducted by the Wood Buffalo Environmental Association (WBEA) and West Central Airshed Society (WCAS) airsheds. These sites are not sampled annually, but on a three- to six-year schedule.

### Human Health Effects Monitoring

This indicator increased from 40 percent in 2004 to 60 percent in 2007. This rating acknowledges the increase in monitoring since 2004, but it is not clear that "ongoing, routine" monitoring is in place. As of 2007, Alberta Health and Wellness' Community Exposure and Health Effect Assessment Program (CEHEAP) has been completed in Fort McMurray, Grande Prairie, Fort Saskatchewan and the Lake Wabamun area and is currently underway in the Sunde area. These community exposure and health effects assessment programs collect indoor, outdoor, ambient and personal air quality exposure data. The Human Exposure Monitoring Program (HEMP), conducted by the Wood Buffalo Environmental Association, is an ongoing program in the Fort McMurray region to assess human exposure and air quality.

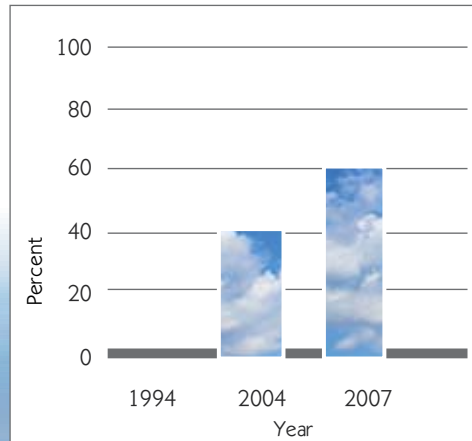
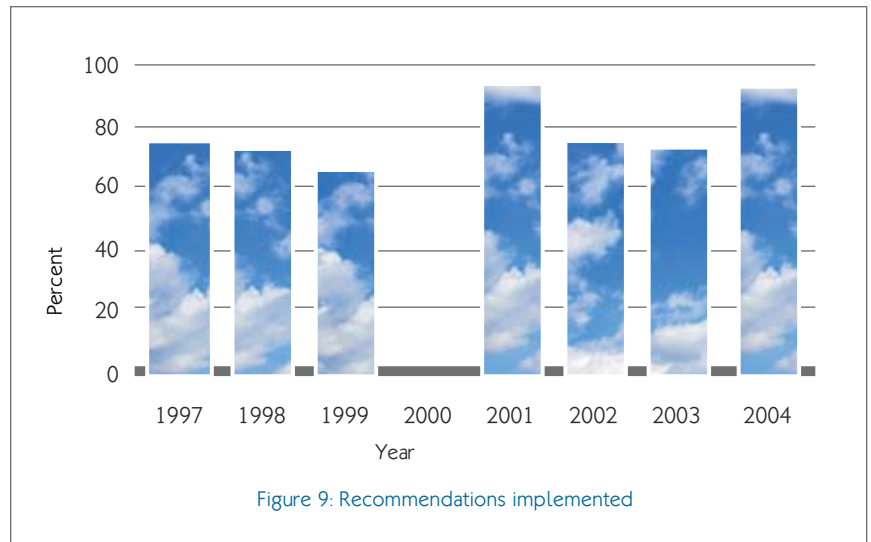


Figure 8: Human Health Monitoring Indicator

### 3. Recommendations implemented

CASA teams make recommendations for consideration by the CASA board of directors. The intent of this indicator is to measure the degree to which recommendations that can lead directly to improved air quality (that is, substantive recommendations) have been implemented within three years of their approval by the CASA board. This indicator is a snapshot taken three years after the recommendations were approved, and complex actions may take more than three years to be fully implemented. Recommendations accepted by the board that are administrative or operational are not included in this indicator.

There were 47 substantive recommendations approved by the CASA board in 2004. The percentage of substantive recommendations from 2004 implemented by 2008 is 91 percent. Please note that no substantive recommendations were made in 2000.



### 4. Stakeholder satisfaction

To determine the degree of satisfaction of CASA stakeholders, a Stakeholder Satisfaction Survey was conducted in October of 2007. The results from seven questions in the survey are used to calculate the indicators for this performance measure. Previous stakeholder satisfaction surveys from 1995, 2001 and 2004 used one question as a performance indicator but due to the updated rating scale used in 2007, a direct comparison was not possible. The next stakeholder satisfaction survey is due in 2010.

In the following table, a summary of the rating for each indicator is expressed in the percentage of stakeholders who indicated they were either satisfied or very satisfied with various aspects of CASA's performance. By definition, a "substantive" recommendation is one that can lead directly to improved air quality.

Degree of stakeholder satisfaction with...	Percent Satisfied
a. <i>The CASA Way</i> of addressing air quality issues.	71
b. The openness and transparency with which CASA conducts its business.	89
c. The implementation of substantive recommendations.	40
d. Teams having the resources needed to meet objectives.	55
e. CASA's achievements, in general.	57
f. CASA's support to airshed zones.	49
g. Communications between CASA teams.	35

## 5. Degree of recognition

To measure how well Albertans recognize the CASA organization and its accomplishments, one indicator based on CASA website usage and two indicators based on media coverage are calculated each year.

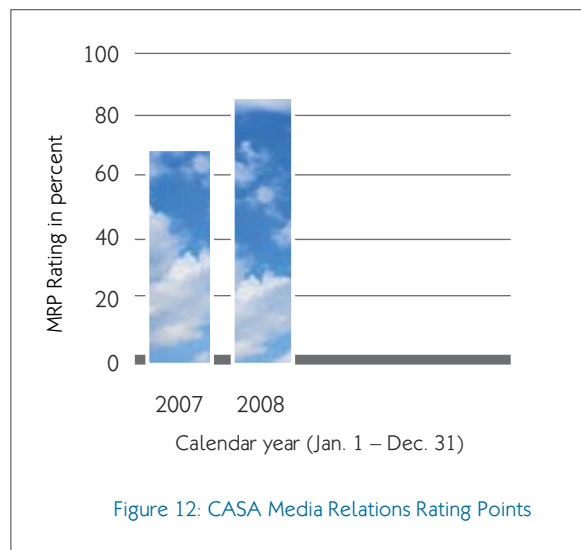
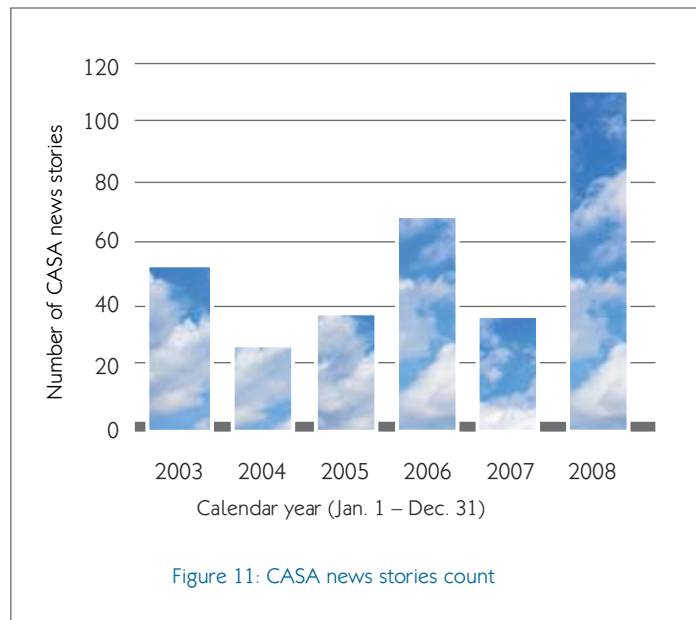
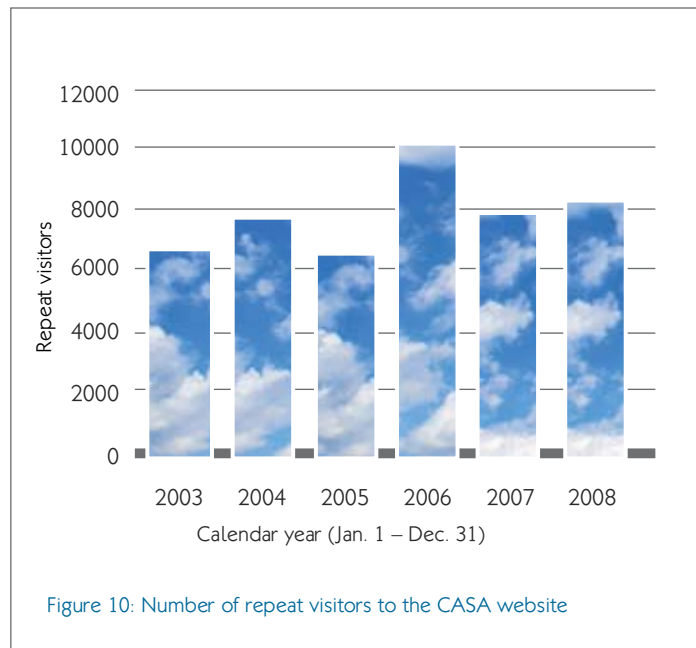
### Website indicator

After a peak due to the new website launch in late 2006, repeat website visitor numbers stabilized as expected in 2007. The number of visitors who visited the CASA website more than once from January 1 to December 31, 2008 was 8,372, up 7.4% from the previous year.

### News stories indicators

There are two news stories indicators in the degree of recognition performance measure. The first indicator measures the number of news stories about CASA reported by the Alberta news media (print, television, radio, magazines, etc.) each year. The number of news stories is proportional to newsworthy activity by CASA. The highest number of stories was achieved in 2008, due to interest in the Clean Air Strategy public consultation, ROVER vehicle emissions study report, the passing of CASA vice president Martha Kostuch and the final report of the Confined Feeding Operations Team.

The second indicator measures the quality of that news coverage calculated using the Media Relations Rating Points (MRP)<sup>™</sup> system developed by the Canadian Public Relations Society. Quality of news coverage is evaluated by measuring several attributes of each news story, for example, reach (e.g., number of a newspaper's readers) and presence of CASA messages in the article. CASA achieved a score of 85 per cent for 2008, which is 10 percent above the target and an increase of 27 percent over 2007. The increase was primarily due to an increase in positive coverage. This is the second year that this indicator was calculated.





## CASA TEAMS

The work of CASA is achieved largely through the participation of teams of individuals representing stakeholders who share an interest in a specific issue. There are four types of teams:

- Board committees to achieve specific organizational goals.
- Working groups to lay the groundwork for projects.
- Project teams to complete a project and make recommendations to the board.
- Implementation teams to oversee implementation of board-approved recommendations.

Most issues are brought to the CASA board in the form of a statement of opportunity. When the board agrees that CASA should take on an issue, a working group is formed to draft terms of reference for a project team. Once the board approves those terms of reference, a project team is formed. The project team is accountable to the board while individual participants are accountable to their stakeholder organizations. As appropriate, recommendations from a project team may lead to the formation of another team to oversee implementation. The board may create standing or ad hoc committees as required.

## BOARD COMMITTEES

### Executive

The executive committee oversees finances and the operation of the secretariat. It also sets the agenda and presides at board meetings, and monitors board effectiveness and adherence to policies and procedures. The committee provides leadership, liaises with government ministers, advocates on behalf of CASA and represents CASA.

### Report for 2008

The executive committee welcomed two new members this year. The committee focussed on long-term funding for CASA and initiated a strategy to reach out to other provincial government departments.

### The members of the executive committee are:

**Peter Watson, president**

Representing the government sector

**Martha Kostuch, vice-president** (to March)

**Myles Kitagawa, vice-president** (from March)

Representing the non-government organization sector

**Dave Byler, vice-president** (to March)

**John Squarek, vice-president** (from June)

Representing the industry sector

**Kerra Chomlak, secretary-treasurer**

Executive director of CASA

### Airsheds issues

The board agreed in 2008 to form a committee to discuss several issues that pertain to airsheds and their evolving relationship with CASA. Airshed zones are distinct multi-stakeholder organizations that monitor and in some cases, manage regional air quality in nine zones in Alberta. Seven of nine airsheds have been endorsed by CASA. Members of this committee have not been selected yet.

### Business planning

Arising from the September board meeting, a committee of the board was created and tasked with creating a three year business plan for CASA.

### Members:

<b>Kerra Chomlak</b>	Clean Air Strategic Alliance
<b>Cindy Christopher</b>	Imperial Oil Resources
<b>Bill Clapperton</b>	Canadian Natural Resources Limited
<b>Tim Goos</b>	Environment Canada, Prairie & Northern Region
<b>Eileen Gresl</b>	COPD & Asthma Network of Alberta
<b>Tony Hudson</b>	The Lung Association, Alberta & NWT
<b>Myles Kitagawa</b>	Toxics Watch Society of Alberta
<b>Kim McLeod</b>	Clean Air Strategic Alliance
<b>Al Schulz</b>	Canadian Chemical Producer's Association
<b>John Squarek</b>	Small Explorers and Producers Association of Canada
<b>Ted Stoner</b>	Canadian Petroleum Products Institute
<b>Bev Yee</b>	Alberta Environment

## Communications

The goal of the communications committee is to provide direction and advice to strategic internal and external communications initiatives, plans and priorities in support of the organization's mission and vision. The committee also administers performance measure five – degree of recognition of CASA. The committee tracks implementation of the strategic communications plan. The committee also has ongoing responsibility for the Air Quality Education and Outreach Clearinghouse, an online resource of contacts for air quality education and outreach programs and resources in Alberta.

### Report for 2008

In addition to reviewing the annual communications audit and tracking implementation of the strategic communications plan, the committee revised the 2001 Media Relations Policy and drafted a new Public Participation Policy. They also provided strategic communications counsel for the Clean Air Strategy consultation plan and successfully expanded their membership. Contributions to innovation in communications at CASA included creation of the Clear the Air and CASA groups on Facebook.

### Members:

<b>Ann Baran</b>	Southern Alberta Group for the Environment
<b>Kerra Chomlak</b>	Clean Air Strategic Alliance
<b>Sharon Hawrelak</b>	Clean Air Strategic Alliance
<b>Parker Hogan</b>	Alberta Forest Products Association
<b>Tony Hudson</b>	The Lung Association, Alberta and NWT (co-chair)
<b>Ogho Ikhala</b>	Alberta Environment
<b>Karen Karbasheski</b>	Alberta Energy
<b>Lynn McNeil</b>	Canadian Natural Resources Ltd. (to April)
<b>Gord Mounce</b>	Canadian Association of Petroleum Producers (co-chair)
<b>Ian Peace</b>	Residents for Accountability in Power Industry Development
<b>Brian Waddell</b>	Alberta Environment
<b>Ruth Yanor</b>	Mewassin Community Action Council

## Enhanced collaboration with the Alberta Water Council

The goal of this committee is to explore opportunities for enhanced collaboration with the Alberta Water Council by coordinating resources and efficiencies between the organizations. It also aims to raise awareness of the organizations and demonstrate a commitment to the important linkage between air, land and water at the strategic level.

### Report for 2008

The board approved a terms of reference for this committee in 2008. The committee discussed the implications of the Land Use Framework on both organizations.

### Members:

<b>Dave Belyea</b>	Alberta Environment
<b>Bob Cameron</b>	South Peace Environmental Association (co-chair)
<b>Kerra Chomlak</b>	Clean Air Strategic Alliance
<b>Réjeanne Cool</b>	MEGlobal Canada Inc (co-chair)
<b>Gord Edwards</b>	Alberta Water Council
<b>Robyn-Leigh Jacobsen</b>	Clean Air Strategic Alliance
<b>Carolyn Kolebaba</b>	Alberta Association of Municipal Districts and Counties
<b>Terry Sly</b>	Alberta Water Council

## Performance evaluation

A multi-stakeholder committee was established by the board to fulfill the requirement in CASA's bylaws to conduct a review of the organization's performance every three years.

### Report for 2008

The board accepted the committee's final report and the committee was disbanded. Please refer to the Performance Evaluation section earlier in this report for more information.

#### Members:

<b>Mike G. Boyd</b>	Alberta Energy (chair)
<b>Sharon Hawrelak</b>	Clean Air Strategic Alliance
<b>Myles Kitagawa</b>	Toxics Watch Society of Alberta
<b>John Squarek</b>	Canadian Association of Petroleum Producers

## Performance measures

The performance measures committee reports to the CASA board on performance and manages the stewardship processes for CASA's performance measures.

### Report for 2008

In 2008, the committee focussed on performance measure three, degree of recommendations implemented. The committee also wanted to recognize two long-standing committee members. Mary Griffiths of the Pembina Institute was a member of the committee since its inception in 2000. In 2008, Mary moved on to pursue her other interests and the team misses her dedication to the measurement of CASA's performance. Randy Angle, also a founding member of the committee, retired from Alberta Environment, and the committee wanted to recognize Randy's significant contribution to the development of CASA's five key performance measures and their stewardship processes. Randy was also committed to ensuring recommendations from CASA teams were measurable and actionable, a goal the committee continues to pursue.

#### Members:

<b>Jennifer Allan</b>	Clean Air Strategic Alliance
<b>Kerra Chomlak</b>	Clean Air Strategic Alliance
<b>Mary Griffiths</b>	Pembina Institute
<b>Bob Myrick</b>	Alberta Environment
<b>Ian Peace</b>	Residents for Accountability in Power Industry Development
<b>Ted Stoner</b>	Canadian Petroleum Products Institute

## Procedural guidelines

The original CASA Procedural Guidelines booklet was developed in 1994 to document CASA procedures and help members of the CASA board understand their obligations to CASA. In September 2007, the CASA board approved the terms of reference for a committee to review and assess the CASA procedural guidelines to reflect current and best practices.

### Report for 2008

The committee developed a comprehensive draft, incorporating former CASA documents on Roles and Responsibilities into the revised Procedural Guidelines. The committee refined that draft and obtained direction from the board on membership procedures to reflect current and best practices. The committee expects to complete its work in 2009.

#### Members:

<b>Kerra Chomlak</b>	Clean Air Strategic Alliance
<b>Tim Goos</b>	Environment Canada, Prairie and Northern Region
<b>Mike Kelly</b>	TransAlta Corporation
<b>Myles Kitagawa</b>	Toxics Watch Society of Alberta
<b>Timothy Lambert</b>	Canadian Public Health Association
<b>John Squarek</b>	Small Explorers and Producers Association of Canada

## PROJECT TEAMS

### Ambient monitoring strategic planning

The ambient monitoring strategic planning project team is reviewing and recommending updates to the Strategic Plan for Air Quality Monitoring in Alberta. The team's goal is that Alberta will possess a dynamic, effective and efficient framework that provides the foundation for the development of a world-class ambient air quality monitoring system. An enhanced monitoring network is responsive to emerging issues and growth, and is an important foundation of cumulative effects management.

#### Report for 2008

The team hosted a well-attended stakeholder workshop in March to receive input on the draft plan. The stakeholder feedback received was used to refine the draft strategy and provided useful information, for example, identifying more potential users of a strategic monitoring framework.

An external consultant's report received during the year recommended enhancements to the Alberta ambient air monitoring system. A sub-group is developing a funding formula that is fair and equitable and is based on a polluter-pays principle. Another sub-group is planning implementation tasks and timelines. The team expects to present its final report to the CASA board in 2009.

#### Members:

<b>Angela Ball</b>	TransAlta Generation Partnership
<b>Michael Bisaga</b>	Lakeland Industry and Community Association and Peace Air Shed Zones Association
<b>Kerra Chomlak</b>	Clean Air Strategic Alliance
<b>Linda Jabs</b>	Clean Air Strategic Alliance
<b>Findlay MacDermid</b>	Residents for Accountability in Power Industry Development
<b>Bettina Mueller</b>	Alberta Environment
<b>Bob Myrick</b>	Alberta Environment (co-chair)
<b>Ken Omotani</b>	TransAlta Corporation
<b>Mike Pawlicki</b>	Lafarge Canada Inc.
<b>Ian Peace</b>	Residents for Accountability in Power Industry Development
<b>Roxanne Pettipas</b>	ConocoPhillips Canada (co-chair)
<b>Krista Phillips</b>	Canadian Association of Petroleum Producers
<b>Chris Severson-Baker</b>	Pembina Institute
<b>David Spink</b>	Prairie Acid Rain Coalition
<b>Merry Turtiak</b>	Alberta Health and Wellness
<b>James Vaughan</b>	Energy Resources Conservation Board
<b>Kevin Warren</b>	Parkland Airshed Management Zone
<b>Brian Wiens</b>	Environment Canada
<b>Mike Zemanek</b>	Alberta Health and Wellness

## Clean air strategy

The team was charged with developing recommendations for a renewed Clean Air Strategy for Alberta. The strategy will provide a strategic framework for existing and future clean air initiatives and serve as the foundation of the Government of Alberta's long term strategy for clean air. Consulting with Albertans and stakeholders is an important aspect of developing recommendations for the strategy.

### Report for 2008

Given the magnitude of this undertaking, the team worked tirelessly throughout 2008 in laying the groundwork. The team reviewed the 1991 strategy, identified air quality issues in Alberta and identified four strategic directions: governance, regional planning, pollution prevention and control, and knowledge and information. Sub-groups worked on the four strategic directions and public consultation.

Considerable effort was made to engage Albertans and stakeholders in development of the recommendations. In spring, a stakeholder telephone survey was used to identify air quality issues and possible solutions. In the fall, about 500 individuals and groups shared their views on air quality in the Clear the Air consultation. Albertans participated by attending one of seven meetings held across the province, in an online survey or in writing. Aboriginal groups were also invited to engage in the discussion.

The recommendations for the Clean Air Strategy are expected to be presented to the CASA Board for approval in 2009.

#### Members:

<b>Jennifer Allan</b>	Clean Air Strategic Alliance	<b>David Lawlor</b>	ENMAX Corp.
<b>Angela Ball</b>	TransAlta Generation Partnership	<b>Alison Lewis</b>	Graymont Western Canada
<b>Len Bracko</b>	Alberta Urban Municipalities Association	<b>Alexander MacKenzie</b>	Alberta Health and Wellness
<b>Don Bradshaw</b>	Alberta Energy	<b>Al Mok</b>	Suncor Energy Inc. (co-chair)
<b>Michael Brown</b>	Energy Resources Conservation Board	<b>Bettina Mueller</b>	Alberta Environment (co-chair)
<b>Christine Byrne</b>	Imperial Oil Resources	<b>Allan Mumby</b>	City of Edmonton
<b>Lawrence Cheng</b>	Alberta Environment	<b>Ken Omotani</b>	TransAlta Corporation
<b>Kerra Chomlak</b>	Clean Air Strategic Alliance	<b>Colin Pate</b>	Alberta Energy
<b>Peter Dzikowski</b>	Alberta Infrastructure	<b>Sharla Rauschnig</b>	Alberta Energy
<b>Gerry Ertel</b>	Canadian Petroleum Products Institute / Shell Canada Ltd	<b>Anita Sartori</b>	Canadian Natural Resources Limited
<b>Long Fu</b>	Alberta Environment	<b>Al Schulz</b>	Canadian Chemical Producers Association
<b>Debra Gardiner</b>	ENMAX Corp.	<b>Jason Schulz</b>	TransCanada
<b>Tim Goos</b>	Environment Canada, Prairie and Northern Region	<b>Nashina Shariff</b>	Toxics Watch Society of Alberta
<b>James Guthrie</b>	TransAlta Generation Partnership	<b>Kristofer Siriunas</b>	Alberta Energy and Utilities Board
<b>Tony Hudson</b>	The Lung Association - Alberta and NWT	<b>Merry Turtiak</b>	Alberta Health and Wellness
<b>Steve Kennett</b>	Pembina Institute (co-chair)	<b>Srikanth Venugopal</b>	TransCanada Transmission
<b>Myles Kitagawa</b>	Toxics Watch Society of Alberta	<b>Mike Zemanek</b>	Alberta Health and Wellness
<b>Carolyn Kolebaba</b>	Alberta Association of Municipal Districts and Counties	<b>Additional Sub-group members:</b>	
<b>Martha Kostuch</b>	Prairie Acid Rain Coalition	<b>Renata Bothwell</b>	Alberta Environment (Consultation)
		<b>Aynsley Toews</b>	Alberta Environment (Consultation)

## Confined feeding operations

The goal of the confined feeding operations project team was to develop a strategic plan to improve the management of air emissions from existing and future confined feeding operations in Alberta and to improve relationships between stakeholders.

### Report for 2008

The team's final report and ten recommendations were approved by the CASA board in March. The team is in abeyance until 2011 when they will reconvene to review the progress on implementation of their recommendations. Major recommendations of the team include:

- Compile an inventory for CFO air emissions in Alberta by March 31, 2011.
- Conduct specific studies in areas with CFOs to estimate the contribution of CFO emissions of the five priority substances relative to other sources by December 31, 2010. Other proposed studies will examine management mechanisms.
- Develop an ambient monitoring plan for ammonia, hydrogen sulphide (H<sub>2</sub>S), particulate matter (PM) and volatile organic compounds (VOCs) to determine current ambient levels around CFOs by March 31, 2010.
- Develop an odour management plan template for use by operators by January 2009 and site specific odour management plans in problem areas.
- Improve communications and relationships between stakeholders.

Please note that the detailed recommendations are available on the CASA website.

### Members:

<b>Jennifer Allan</b>	Clean Air Strategic Alliance	<b>Jim McKinley</b>	Natural Resources Conservation Board
<b>Humphrey Banack</b>	Wild Rose Agricultural Producers	<b>Usha Mulukutla</b>	Calgary Health Region
<b>Ann Baran</b>	Southern Alberta Group for the Environment (co-chair)	<b>Rients Palsma</b>	Alberta Milk (co-chair)
<b>Bob Barss</b>	Alberta Association of Municipal Districts and Counties	<b>Denis Sauvageau</b>	Friends of an Unpolluted Lifestyle
<b>Doug Beddome</b>	Natural Resources Conservation Board	<b>Barbara Shackel-Hardman</b>	Alberta Agriculture and Rural Development (co-chair)
<b>Laura Blair</b>	Alberta Environment	<b>Rich Smith</b>	Alberta Beef Producers
<b>Ike Edeogu</b>	Alberta Agriculture and Rural Development	<b>Karina Thomas</b>	Alberta Health and Wellness
<b>Ahmed Idriss</b>	Alberta Environment	<b>Jim Turner</b>	Natural Resources Conservation Board
<b>Bruce Inch</b>	Agriculture and Agri-Food Canada	<b>Len Vogelaar</b>	Alberta Beef Producers
<b>Norm Lowe</b>	Alberta Urban Municipalities Association	<b>Ross Warner</b>	Society for Environmentally Responsible Livestock Operations
<b>Doris Ludlage</b>	Alberta Poultry Producers	<b>Kevin Warren</b>	Parkland Airshed Management Zone
<b>Stuart McKie</b>	Alberta Pork	<b>Brenda Woo</b>	Health Canada
		<b>Mike Zemanek</b>	Alberta Health and Wellness

## Electricity framework review

At the request of Alberta Environment, CASA is conducting the first five year review of the *Emissions Management Framework for the Alberta Electricity*. The framework recommends a multi-stakeholder review of best available technology economically achievable and other related elements within the framework during 2008.

### Report for 2008

Work completed thus far includes a review of best available control technologies, a literature compilation on health and environmental effects of emissions, and an emissions forecast. Projects in progress include an assessment of the implementation of recommendations and a continuous improvement report from the electricity sector. A public consultation is planned for early 2009. More information is available at [www.electricair.ca](http://www.electricair.ca). The team expects to present its report to the board in mid-2009.

#### Members:

<b>Angela Ball</b>	TransAlta	<b>Jagtar Sandhu</b>	Health Canada
<b>Jack Davis</b>	Alberta Utilities Commission	<b>Jeff Sansom</b>	EPCOR
<b>Randy Dobko</b>	Alberta Environment	<b>Al Schulz</b>	Canadian Chemical Producers Association
<b>Linda Duncan</b>	Lake Wabamun Enhancement and Protection Association (co-chair)	<b>Nashina Shariff</b>	Toxics Watch Society of Alberta
<b>Tim Goos</b>	Environment Canada, Prairie and Northern Region	<b>David Spink</b>	Prairie Acid Rain Coalition
<b>Jim Hackett</b>	ATCO Power Canada Ltd. (co-chair)	<b>Randy Stubbings</b>	ENMAX Corp.
<b>Debra Hopkins</b>	Alberta Health and Wellness	<b>Trevor Thain</b>	Town of Whitecourt
<b>Rick Hyndman</b>	Canadian Association of Petroleum Producers	<b>Joan Tingley</b>	ATCO Power Canada Ltd.
<b>Ahmed Idriss</b>	Alberta Environment (co-chair)	<b>Harry Tyrrell</b>	Mewassin Community Action Council
<b>Hasan Imran</b>	ConocoPhillips Canada	<b>Wayne Ungstad</b>	Ponoka Fish and Game
<b>Les Johnston</b>	EPCOR Energy Services	<b>Srikanth Venugopal</b>	TransCanada Transmission
<b>Chris Joy</b>	ENMAX Energy Corp.	<b>Ruth Yanor</b>	Mewassin Community Action Council
<b>Mark Kavanagh</b>	Alberta Utilities Commission	<b>Additional sub-group members:</b>  <b>Renata Bothwell</b> Alberta Environment (Consultation)  <b>Aynsley Toews</b> Alberta Environment (Consultation)  <b>Anita Sartori</b> Canadian Natural Resources Limited (Control Technologies)	
<b>Carolyn Kolebaba</b>	Alberta Association of Municipal Districts and Counties		
<b>Bevan Laing</b>	Alberta Energy		
<b>Tom Marr-Laing</b>	Pembina Institute		
<b>Ken Omotani</b>	TransAlta Corporation		

## Indoor air quality

The project team will develop a strategic plan to address indoor air quality issues in Alberta.

### Report for 2008

The Indoor Air Quality team gathered information on various aspects of indoor air quality issues. The team worked on designing a survey of indoor air quality experts in Alberta to be conducted in 2009. The first steps to design a decision tree for indoor air quality concerns were taken in 2008 for completion in 2009.

#### Members:

Jennifer Allan	Clean Air Strategic Alliance
Meaghan Allen	Northern Lights Health Region
Dean Befus	The Lung Association/University of Alberta
Stephani Carter	Green Alberta Sustainable Product Assessment Inc.
Roy Clough	Alberta Employment, Immigration and Industry
Ken Erickson	Edmonton Public School Board
David Lee	Northern Lights Health Region
Anand Mishra	Canada Mortgage and Housing Corporation
Asish Mohapatra	Calgary Health Region (co-chair)
Ian Peace	Residents for Accountability in Power Industry Development
Diane Radnoff	Alberta Employment, Immigration and Industry
Ludmilla Rodriguez	Capital Health
Janine Ross	Alberta Environment
Roger Steele	Building Owner and Managers Association of Edmonton
Merry Turtiak	Alberta Health and Wellness
Opel Vuzi	Health Canada
Tannis Zuk	Health Canada



## Martha Kostuch legacy workshop

The board approved a statement of opportunity from Alberta Environment to organize a two-day workshop on consensus-building in 2009. The workshop is one of three Alberta Environment initiatives to honour the memory of the late Martha Kostuch, environmental leader, CASA vice-president and an extraordinary advocate for consensus-building processes in Alberta. A working group developed terms of reference for a project team to organize the workshop, which is expected to attract decision makers (boards), project teams and facilitators.

### Members:

<b>Ann Baran</b>	Southern Alberta Environmental Group
<b>Michael Bisaga</b>	Lakeland Industry and Community Assoc. & Peace Air Shed Zone Assoc.
<b>Kerra Chomlak</b>	Clean Air Strategic Alliance
<b>Gerry Ertel</b>	Canadian Petroleum Products Institute & Shell Canada Limited
<b>Carmen Gilmore</b>	Alberta Energy
<b>Wayne Hillier</b>	Husky Energy
<b>Kim McLeod</b>	Clean Air Strategic Alliance
<b>George Murphy</b>	Alberta Environment
<b>Terry Sly</b>	Alberta Water Council

## Priority setting workshop

The CASA board approved a statement of opportunity from Alberta Environment proposing CASA organize a workshop to set priority substances for future development of ambient air quality objectives in Alberta. A working group developed terms of reference for a project team to organize the workshop, tentatively scheduled for the fall of 2009. The previous workshop was held in 2004.

### Members:

<b>Laura Blair</b>	Alberta Environment
<b>Kim McLeod</b>	Clean Air Strategic Alliance
<b>Natasha Rowden</b>	Canadian Natural Resources Ltd.
<b>Ruth Yanor</b>	Mewassin Community Action Council

## IMPLEMENTATION

CASA made significant progress in 2008 towards monitoring implementation of CASA recommendations. The degree to which recommendations are implemented has been tracked via the CASA performance measures, specifically performance measure three - recommendations implemented, for the past seven years. Both CASA and external implementation teams report progress on implementation at CASA board meetings on a rotation schedule.

The following CASA implementation teams exist to monitor and/or provide guidance to implementation or complete subsequent work on an ongoing air quality issue.

### Ambient monitoring operations steering committee

The ambient monitoring operations steering committee provides overall direction, tracks progress and makes budgetary decisions regarding the implementation of the provincial ambient air quality monitoring network. In Alberta, air quality is monitored by a comprehensive network of stations operated by Alberta Environment, airshed zones, Environment Canada and industry stations. The committee has membership representing government, industry and airsheds.

The committee meets twice a year to review progress in implementing the *1995 Strategic Plan for Ambient Air Monitoring* and the 1997 implementation plan and to provide a forum to share information between the committee members on new initiatives with regards to air monitoring and associated programs. In 2008, the committee focussed on reviewing the operation of the CASA Data Warehouse.

#### Members:

<b>Michael Bisaga</b>	Lakeland Industry and Community Association and Peace AirShed Zone Association
<b>Glynis Carling</b>	Imperial Oil Resources
<b>Tom Dickson</b>	Alberta Environment (chair)
<b>Linda Jabs</b>	Clean Air Strategic Alliance
<b>Shane Lamden</b>	NOVA Chemicals Corporation
<b>Keith Murray</b>	Alberta Forest Products Association
<b>Bob Myrick</b>	Alberta Environment
<b>Janine Ross</b>	Alberta Environment
<b>Bob Scotten</b>	West Central Airshed Society
<b>John Squarek</b>	Small Explorers and Producers Association of Canada
<b>Merry Turtiak</b>	Alberta Health and Wellness
<b>Kevin Warren</b>	Parkland Airshed Management Zone
<b>Brian Wiens</b>	Environment Canada
<b>Mike Zemanek</b>	Alberta Health and Wellness

## Flaring and venting

The goal of the team is to assess the performance of the upstream oil and gas industry in managing flaring and venting and to make recommendations regarding the Alberta flaring and venting management framework.

### Report for 2008

The team reconvened under a revised terms of reference in 2008. The team reviewed progress on implementation of the framework, primarily achieved via the Alberta Energy and Utilities Board's (now the Energy Resources Conservation Board) Directive 60, which came into effect in 2007 and addressed 44 recommendations from all three CASA Flaring and Venting Team reports. A consultant has been engaged to assist the team in assessing the feasibility of eliminating routine solution gas flaring and venting by conducting a full-cost analysis. The team is also in the process of evaluating progress in reducing flaring and venting, reviewing previous recommendations and assessing flaring and venting research. The team will make recommendations for further improvements to the Flaring and Venting Management Framework.

#### Members:

<b>Michael Brown</b>	Energy Resources Conservation Board (co-chair)
<b>Jeff Cormier</b>	Alberta Energy
<b>Randy Dobko</b>	Alberta Environment
<b>Shannon Hiebert</b>	Husky Energy
<b>Andrew Higgins</b>	Canadian Natural Resources Limited (co-chair)
<b>Robyn-Leigh Jacobsen</b>	Clean Air Strategic Alliance
<b>Carolyn Kolebaba</b>	Alberta Association of Municipal Districts & Counties
<b>Martha Kostuch</b>	Prairie Acid Rain Coalition
<b>Anna Maslowski</b>	Alberta Energy
<b>Danielle Moffat</b>	Alberta Energy
<b>Carol Nykolyn</b>	Alberta Energy
<b>Ian Peace</b>	Residents for Accountability in Power Industry Development
<b>Krista Phillips</b>	Canadian Association of Petroleum Producers
<b>Doreen Rempel</b>	MGV Energy Inc.
<b>Chris Severson-Baker</b>	Pembina Institute (co-chair)
<b>Jolene Shannon</b>	Pembina Agricultural Protection Association
<b>Ralph Smith</b>	Wildrose Agricultural Producers
<b>Jim Spangelo</b>	Energy Resources Conservation Board
<b>John Squarek</b>	Small Explorers and Producers Association of Canada
<b>Rudy Sundermann</b>	EnCana Corporation
<b>Karina Thomas</b>	Alberta Health and Wellness
<b>James Vaughan</b>	Energy Resources Conservation Board
<b>Mike Zemanek</b>	Alberta Health and Wellness

## Human and animal health

This team reviews and develops implementation plans for the recommendations from the human health project team and animal health project team. It also identifies emerging issues in the area of air emissions and their effects on human and animal health.

### Report for 2008

The team adjusted its previous non-consensus recommendations and the board approved two new recommendations in light of a pilot project being conducted by Alberta Health and Wellness, specifically:

- The Syndromic Surveillance Network was accepted as a means of implementing the Comprehensive Human Health Monitoring System, and the previous non-consensus recommendation on the 1-800 number and the consensus recommendation to disband the team were withdrawn.
- Alberta Health and Wellness agreed to report to the CASA Board on the implementation of the Syndromic Surveillance Network for the purpose of enhanced environmental health surveillance by June 2009.

### Members:

Randy Angle	Alberta Environment
Jim Benum	Energy Resources Conservation Board
Simon Cobban	Intensive Livestock Working Group
Kim Eastlick	Energy Resources Conservation Board
Bryan Haggarty	Health Canada, Alberta/Northwest Territories Region
Judy Huntley	Bert Riggall Environmental Foundation
Ila Johnston	Parkland Airshed Management Zone
Joe Kendall	Alberta Agriculture and Rural Development
Martha Kostuch	Prairie Acid Rain Coalition
Alexander MacKenzie	Alberta Health and Wellness
Kim McLeod	Clean Air Strategic Alliance
Laura McLeod	David Thompson Health Region
Lonnie Melnychyn	Petro Canada
Richard Murray	Petro Canada
Greg Ritz	Rocky Mountain House Community Health Centre
Gary Sargent	Canadian Association of Petroleum Producers
Al Schulz	Canadian Chemical Producers Association
John Squarek	Small Explorers and Producers Association of Canada
Merry Turtiak	Alberta Health and Wellness
Brenda Woo	Health Canada
Ruth Yanor	Mewassin Community Action Council (chair)

## Particulate matter and ozone implementation

The Particulate Matter (PM) and Ozone Management Framework was approved by the CASA board in 2003. Implementation of the framework was undertaken by various parties and the PM and ozone implementation team monitors implementation.

### Report for 2008

Ozone levels in three urban areas in Alberta triggered the management plan level of the framework. Ozone levels did not exceed Canada Wide Standards – the management plan level is intended to keep clean areas clean, reduce levels and prevent exceedances. Ozone management plans were developed for the Calgary Census Metropolitan Area by the Calgary Region Airshed Zone, for the Red Deer area by the Parkland Airshed Management Zone and for the Capital region by the Alberta Capital Airshed Alliance, the Fort Air Partnership and the West Central Airshed Society. These management plans were delivered to Alberta Environment in December 2008. Airsheds and Alberta Environment are currently working on implementation strategies for the management plans.

The project team agreed to postpone the review of the framework until after the ozone management plans are complete and a process is in place for implementation. The review is expected to be initiated in the latter half of 2009.

### Members:

<b>Pamela Aloisio</b>	Alberta Environment
<b>Jill Bloor</b>	Calgary Region Airshed Zone
<b>Alan Brownlee</b>	City of Edmonton
<b>Claude Chamberland</b>	Shell Canada Limited (co-chair)
<b>Andrew Clayton</b>	Alberta Environment
<b>David L. Day</b>	City of Calgary
<b>Linda Harvey</b>	City of Calgary
<b>Debra Hopkins</b>	Alberta Health and Wellness
<b>Linda Jobs</b>	Clean Air Strategic Alliance
<b>Robyn-Leigh Jacobsen</b>	Clean Air Strategic Alliance
<b>Myles Kitagawa</b>	Toxics Watch Society of Alberta
<b>Martha Kostuch</b>	Prairie Acid Rain Coalition
<b>Shane Lamden</b>	NOVA Chemicals Corporation
<b>Findlay MacDermid</b>	Residents for Accountability in Power Industry Development
<b>Keith Murray</b>	Alberta Forest Products Association
<b>Bob Myrick</b>	Alberta Environment (co-chair)
<b>Stan Nowakowski</b>	City of Calgary
<b>Mike Pawlicki</b>	Lafarge Canada Inc.
<b>Ian Peace</b>	Residents for Accountability in Power Industry Development (co-chair)
<b>Krista Phillips</b>	Canadian Association of Petroleum Producers
<b>Dave Slubik</b>	EPCOR
<b>John Squarek</b>	Small Explorers and Producers Association of Canada
<b>Dennis Stefani</b>	Calgary Health Region
<b>Karina Thomas</b>	Alberta Health and Wellness
<b>James Tweedie</b>	Bert Riggall Environmental Foundation
<b>Darcy Walberg</b>	Agrium
<b>Kevin Warren</b>	Parkland Airshed Management Zone

## Vehicle emissions

The vehicle emissions team recommends initiatives to reduce vehicle emissions and support the CASA vision of clean air.

### Report for 2008

The team released the results of the ROVER vehicle emissions study, which measured in-use vehicle emissions in Edmonton, Calgary, Red Deer and Canmore in the fall of 2006. Alberta Environment agreed to develop a plan to address gross emitting vehicles (those emitting over five times their original emissions) and report their progress to the board in 2009. In partnership with Global TV, the team broadcast three public service announcements to educate Albertans on how to reduce vehicle emissions. Another partnership with the City of Edmonton raised awareness of the need to reduce vehicle idling.

Board members in Edmonton and Calgary were reminded to complete Clean Commute assessments as recommended in the 2005 Employer Transportation Demand Management report. The Vehicle Emissions Team is on a well-deserved hiatus pending the release of the renewed Clean Air Strategy for Alberta.

#### Members:

<b>Brian Ahearn</b>	Imperial Oil
<b>Greg Bartlett</b>	ATCO Gas
<b>Alan Brownlee</b>	City of Edmonton (co-chair)
<b>Casey Chan</b>	Alberta Environment
<b>Peter Dzikowski</b>	Alberta Infrastructure and Transportation
<b>Gerry Ertel</b>	Shell Canada Limited (co-chair)
<b>Sharon Hawrelak</b>	Clean Air Strategic Alliance
<b>Robyn-Leigh Jacobsen</b>	Clean Air Strategic Alliance
<b>Myles Kitagawa</b>	Toxics Watch Society of Alberta
<b>John Rilett</b>	Climate Change Central
<b>Mayne Root</b>	Alberta Motor Transportation Association
<b>Ron Schafer</b>	City of Calgary
<b>Gene Syvenky</b>	The Alberta Roadbuilders and Heavy Construction Association
<b>Don Szarko</b>	Alberta Motor Association
<b>Rod Thompson</b>	Alberta Infrastructure and Transportation
<b>Reed Turner</b>	Alberta Agriculture and Rural Development
<b>Scott Wilson</b>	Alberta Motor Association

# AIRSHED ZONES

Airshed zones are established by local stakeholders to deal with air quality issues in a specific region. CASA provides the framework within which an airshed zone functions but each operates independently from CASA as a non-profit society. Airshed zones are consensus-based and support the CASA vision. Passive and/or continuous ambient air quality monitoring is conducted in each airshed zone and is funded by the partners in the airshed zone.

To date, seven airsheds have been endorsed by CASA, and their reports appear below. Two new airshed zones have been formed, namely, the Alberta Capital Airshed Alliance (Edmonton and area) and the Calgary Region Airshed Zone (Calgary and area). Early discussions have occurred for possible airshed developments in the east central and southwest areas of Alberta.

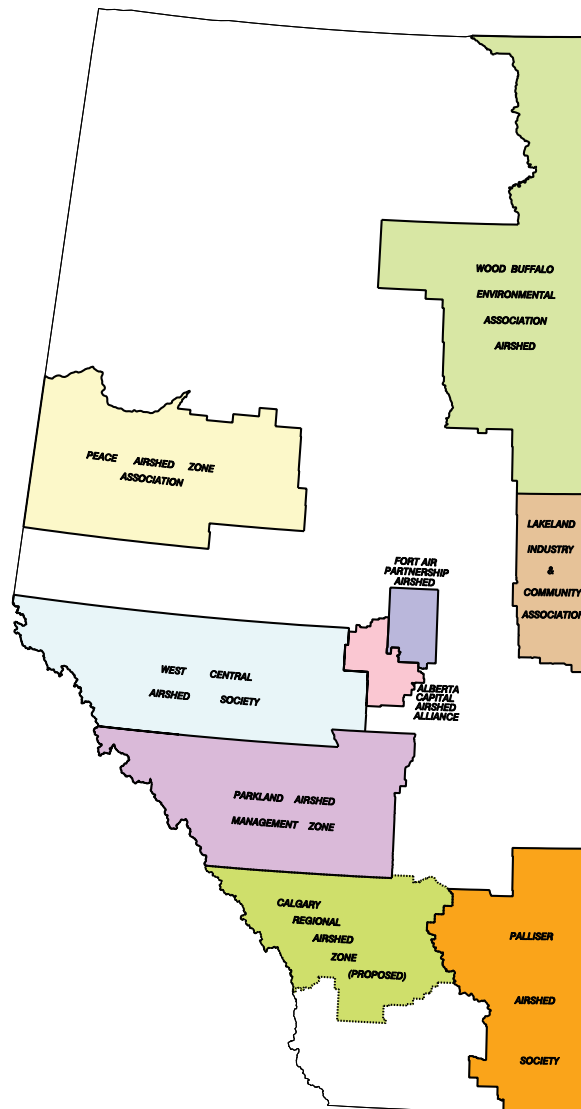
## Alberta Airsheds Council

The purpose of the Alberta Airsheds Council is to identify and advocate for the common interests of the nine airshed zones in Alberta. It also facilitates communication and cooperation between airsheds and between airshed zones and the public. Objectives of the council include:

- Facilitating communications on a broad scale between airsheds in Alberta and with Albertans and others
- Facilitating information sharing between airsheds
- Acting as a resource for forming airsheds
- Providing a forum for discussing issues and concerns common to airsheds zones
- Developing strategies and processes to address those issues
- Delegating airshed representation for various CASA working groups and project teams
- Hosting an airshed conference about every two years on topics of mutual interest to airsheds
- Strengthening the relationships between airsheds and regulatory agencies

In 2008, the Council published the proceedings from the successful 2007 Alberta Airsheds Conference. Preliminary planning is underway for the 2009 conference.

The Council is in the process of becoming a registered society. In 2008, it made a presentation to the CASA board requesting that it be considered for membership in CASA. A board committee was created to discuss several airshed issues, including the membership request.



## Reports from CASA airshed zones

Since CASA began in 1994, seven airshed zones have been endorsed by CASA, two more have been formed but not yet endorsed and another two are in the works. Despite their differences in mandates, location and structures, all of these zones share many common issues and concerns. The need to establish clear lines of communications among airshed zones, between airshed zones and the public and to create a forum where common challenges to airshed development, growth and operation can be discussed, has long been recognized by all the airshed zones.

### Fort Air Partnership

In 2008, Fort Air Partnership (FAP) clarified its role in the community as the organization responsible for monitoring ambient air quality and providing air quality information for the public, industry and government. During the year, FAP also strengthened relationships with other airsheds.

In addition to reporting ambient air quality data from its eight monitoring stations and 46 passive monitoring sites, FAP operated a temporary station adjacent to Edmonton to characterize trans-boundary influence on air quality. The start up of a proposed ninth permanent monitoring station at Bruderheim has been delayed until 2010.

During 2008, FAP partnered with West Central Airshed Society, Alberta Capital Airshed Alliance and Alberta Environment to develop the Edmonton Census Metropolitan Area Regional Ozone Management Plan. The Capital Airshed Partnership (CAP) expects to continue its work on ozone management and other airshed issues in future.

FAP was able to secure resources to support three contracted positions: an executive director, technical manager and communications manager. The executive director position will be filled in early 2009.

In order to provide more detailed information to its stakeholders, FAP's Technical Working Group completed a detailed technical annual report in 2008. The airshed monitoring program will be reviewed in 2009 and realigned in a comprehensive Monitoring Framework to meet the needs of industrial growth and public expectation.

Consistent with its mandate, FAP also responds to resident concerns and participates in a regional communications partnership called Life in the Heartland. Key communications initiatives conducted in 2008 included the widespread distribution of an Annual Report to the community, an Air Quality information document and six fact sheets entitled Making It Clear that explain air quality monitoring and management practices in Alberta. In addition, FAP made presentations to municipal councils and other groups, responded to many questions and public concerns, and conducted a number of media interviews. Issues management was also in the forefront when regulatory hearings, media stories or other events elicited interest from residents and reporters.

In 2009, FAP will continue to meet new challenges and demands related to changing economic conditions and increasing expectations.



## Lakeland Industry and Community Association

In 2008, the Lakeland Industry and Community Association (LICA) continued to operate its network of 25 passive air monitoring stations and two continuous monitoring stations in east-central Alberta. Once fully implemented, the LICA network will have one more permanent and one more portable continuous monitoring station added to the program. In 2008, LICA saw the completion of two major projects: the Potential Acidification Impacts Study, and the Third Party Network Review.

The Acidification Impacts Study was an exploratory study to assess the current levels of acidic deposition and acidifying substances, and to assess their potential

impacts on surface waters, soils, and vegetation. The objective of the acid deposition study was to synthesize, or bring together, all of the work and data on acid deposition that has been done for the LICA area and come up with a regional assessment of the potential effects of acid deposition in the area.

LICA's Network Review Project was also completed in 2008. LICA's in-depth third party network review provided the airshed zone with recommendations on how to operate the most effective and representative air monitoring network. The review answered some of the fundamental questions of any environmental monitoring network: are we monitoring the right parameters at the right location for the right duration at the right time?

In 2009, LICA is planning to commission Alberta Environment's Portable Air Monitoring Laboratory (PAML) in the southern part of the airshed zone. LICA plans on using the PAML to help the Airshed understand what is causing elevated nitrogen dioxide concentrations as well as seasonally high hydrogen sulphide in the Elk Point area.

Major projects for 2009 include implementing the recommendations from the Potential Acidifying Emissions Impacts Study and the Third Party Network Review. In early 2009, LICA will also be launching its new website to improve access to information.

For more information, please visit the LICA website at [www.lica.ca](http://www.lica.ca).



## Palliser Airshed Society

The Palliser Airshed has had an extremely challenging year in 2008. The Airshed expanded its boundaries in 2006. In 2007 the monitoring program expanded by adding a second continuous monitoring station and fourteen more passive monitoring sites. The annual budget was increased substantially due to the expanded monitoring program.

Funding for the Airshed is mostly provided by emitters on a voluntary basis. Funding in 2008 fell short of what was expected; many companies chose not to participate in the program. The Board of Directors took their concerns to the Honourable Rob Renner, the Minister of Alberta Environment. The Minister agreed to provide a grant that would cover the short fall for 2008 provided the Airshed could develop a sustainable business plan for 2009 and beyond.

A number of special Board meetings were held in the fall of 2008 and early 2009 to develop a new business plan. The plan includes a modification to the monitoring program that was approved by Alberta Environment. The modified monitoring plan includes a reduction of the months of operation for the rover station and a decrease in the number of passive stations from 20 to 10. Alberta Environment agreed to loan PAS a surplus portable air monitoring station that will become the rover air-monitoring station. Savings of twenty percent have been realized by these measures. The savings reduce the budget to the level of funding realized from stakeholder contributions in 2008. Providing fee collections are at least as effective in 2009 and beyond, the new business plan will be sustainable.

The main focus for PAS in 2009 will be to build a solid financial program for 2009 and the future as well as provide a credible air monitoring program for the region.



## Parkland Airshed Management Zone

2008 marked a year of change for the Parkland Airshed Management Zone (PAMZ).

PAMZ said goodbye to two of its members who played crucial roles in the association's formation and strategic direction through our early years.

Martha Kostuch, PAMZ's secretary since its inception succumbed to a terminal illness in April. Her loss has been deeply felt by her friends at PAMZ and the numerous other organizations she served. We are all thankful for having known her and have benefitted immensely from her knowledge, empathy, and courage. In recognition of Martha's contributions to PAMZ, the Peregrine portable air monitoring station was renamed in her honour and a permanent environmental education scholarship, also in her name, was established.

David McCoy passed away suddenly in June. David was a key member of PAMZ's technical working group and was respected by all for his willingness to share his knowledge and his passion for sound environmental management. He will also be dearly missed.

In June, PAMZ met with the newly-formed neighbouring Calgary Region Airshed Zone to explore areas of common interest and opportunities to work together in the future. Work on the development of a Human Health Monitoring Network was adjourned until after the reorganization of Alberta's health regions has been fully implemented.

In September, the operations and maintenance of the PAMZ Air Quality Monitoring Program were turned over to a new contractor. In 2008, the two PAMZ portable stations continued to provide the data needed to address issues of concern to residents within and outside the zone including emissions from controlled biomass burning, a proposed biofuels plant, various industrial activities and confined feeding operations.

Throughout the year, the PAMZ Ozone Management Committee continued its development of an ozone management plan for the zone and at the year's end delivered the plan, as required, to Alberta Environment.



## Peace Airshed Zone Association

In 2008, the Peace Airshed Zone Association (PASZA) continued its focus on building a solid foundation for its Regional Air Quality Monitoring Program.

In September, PASZA finished its year-long monitoring project near a group of Confined Feeding Operations (CFOs). Alberta Environment custom-built a monitoring trailer for PASZA's use; it was outfitted with instruments to measure parameters relevant to CFOs such as ammonia, hydrogen sulphide and total reduced sulphur compounds. PASZA is currently analyzing the data and has struck a committee to specifically deal with interpreting the information from the monitoring project as well as making management recommendations.

In 2008, PASZA also completed its monitoring project in the proposed northern expansion area; monitoring in this area consisted of 12 passive monitoring stations. Monitoring data show that there was good alignment between the data collected at these stations and what was predicted in modeling runs for the same parameters in the Boundary Expansion Feasibility Assessment Report. In 2009, additional consultation is planned for industry located in the proposed expansion area.

In 2008, PASZA hired an administrator, Dawn Ewan, to help with the day-to-day operations of the organization such as bookkeeping, maintaining a library of reports and providing "front-desk" support. Exceeding the Board's expectations in every way, Dawn has brought many new ideas to the table including the implementation of a radio advertising campaign to raise awareness of PASZA's monitoring programs and funding partners.

In 2009, PASZA will be completing a major redesign of the website to improve its overall look and feel and to improve access to information and data.

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



## West Central Airshed Society

WCAS has experienced another good year of operations. The WCAS Board continues to work well together. Board meetings provide a forum for good discussions and sound decisions. The team of contractors that support the organization are long term contractors with a sense of ownership to the Airshed. With these combined assets, the organization meets and exceeds its goal of collecting and communicating high quality regional air quality data.

### Highlights for 2008:

- Steeper air-monitoring station re-commissioning
- Replacement of three air-monitoring stations
- Addition of an SO<sub>2</sub> analyzer to the Edson station

- Relocation of the Wagner air-monitoring station
- Participation in the Capital Region PM and Ozone Management plan development
- Decision to rerun the agriculture bio-monitoring model in 2009
- Operation of the Drayton Valley office three days a week
- Continued improvement of the Hightower alternate power system
- New data acquisition system implemented
- Participation in the development of the Alberta Airshed Council
- Participation in a number of community events, giving WCAS presentations on regional air quality

It is anticipated 2009 will bring challenges on the economic front; it may be difficult to solicit voluntary funds from industries that have been affected by the world economic slow down. This will be carefully monitored throughout the year and may have an effect on the monitoring program.



## Wood Buffalo Environmental Association

The Wood Buffalo Environmental Association (WBEA) expanded its continuous air monitoring network with the addition of Station 15 located at the Canadian Natural Resources Limited plant site, in January of 2008.

WBEA underwent an Alberta Environment audit in October 2008. All issues and follow up items were addressed and signed off by the end of November.

WBEA has designed and built an OSI PI database and is in the process of populating the database with current and historical (10+ years) continuous monitoring data. A database for passive and integrated monitoring results is being built in 2009. The next steps in implementing the data management system will focus on data access and availability internally, and on facilitating data utilization within member organizations. Further development will support routine monitoring network operations with utilities for documentation entry and utilization, automated monitoring of data for critical conditions (exceedences, equipment failure) in real time to detect and notify of operational issues, and expanding features of the system to optimize routine operational procedures, including reporting and required data distributions.

WBEA created and implemented a Quality Assurance Plan in response to, and in compliance with, Alberta Environment's request and air monitoring directive. WBEA also plans to have the Quality Assurance Plan audited in 2009.

In 2008 the Strategic Siting committee continued to work on determining the effectiveness and appropriateness of the location of current air monitoring stations and passive samplers.

The Human Exposure Monitoring Program (HEMP) is an ongoing long term program that monitors, records and examines personal exposure to air contaminants in the Wood Buffalo region. In 2008, we received the results of the Fort McKay and Fort McMurray First Nations study. Sampling took place in Fort Chipewyan during the summer of 2008. The HEMP committee has committed to conducting a Program Review in early 2009.

The Terrestrial Environmental Effects Monitoring (TEEM) committee continued its work in 2008. WBEA is pleased to announce that Dr. Kevin Percy has officially begun consulting as the lead WBEA Scientist. Dr. Percy's main role will be to provide WBEA with strong program guidance and scientific oversight.

WBEA is scaling up the science to support good environmental decision making in the region and the new TEEM programs include:

- deposition mapping using lichens
- source characterization
- passive monitors for ammonia and nitric acid
- new instrumentation with capacity to report real time data on other parameters not currently being measured

WBEA will be looking at the co-measurement of climate and air pollution and will be using very specific and robust indicators of forest health change in both the trees and soil. Monitoring of good bio-indicators will allow for early warning capabilities in forest ecosystems. Another goal of the TEEM program is to replace monitoring sites that have been depleted due to development. In October 2008, the TEEM committee held a conference in Banff to bring the TEEM scientists together to share work progress updates and preliminary results.

In 2008, a mobile air monitoring van was introduced into WBEA's air monitoring network. Donated by Syncrude Canada Ltd., the van has three main uses:

- establishing background air quality data and helping industry members to remain compliant (i.e. prior to industry expansions or new start-ups)
- responding to odour complaints (as per Alberta Environment odour protocol)
- unplanned emergency events (in conjunction with local fire and emergency response systems)

The mobile van will allow WBEA to be more responsive to public concerns during odours and other air events.

The Wood Buffalo Air Information line was officially launched in August 2008 to provide a means for the public to receive up-to-date information during odours and other air events in the region. The new information line can be accessed by the general public by calling 1-866-685-3699.

WBEA has over 10 years of air quality data. In 2009 WBEA will be conducting a trend analysis of that data in response to stakeholder and member requests to see the data presented in a meaningful, easy-to-understand way. WBEA data experts are working with the University of Alberta to produce the trending report. The report is expected to be complete by April of 2009.



photo



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### ECOLOGICAL FOOTPRINT REDUCTIONS:

Using 1,165 lbs. of Rolland Enviro100 Print instead of virgin fibres reduces our ecological footprint by:

Trees: 10  
Solid waste: 286kg  
Water: 27,093L  
Suspended particles in the water: 1.8kg  
Air emissions: 629kg  
Natural gas: 41m<sup>3</sup>



Cert no. SW -COC-001501  
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