

# Memorandum



**Date:** September 14, 2012

**From:** Norman MacLeod, Executive Director

**To:** CASA Directors & Alternates

**Subject:** Board Briefing Package for September 27<sup>th</sup>

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Please find attached the draft agenda and briefing materials for the regular meeting of the CASA Board of Directors, which is scheduled from **9:00 a.m. to 2:45 p.m.** on Thursday, September 27, 2012. The meeting will be held at:

McDougall Centre – Rosebud Room  
455 – 6th Street S.W.  
Calgary, Alberta

We look forward to seeing you in Calgary.

Norm MacLeod  
780-427-9793

*September 27, 2012*

*Board of Directors Meeting*

## ***ABOUT CASA***

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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:**

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

***Annual General Meeting  
(AGM)***

***Administration***

***Project Management***

***Statement of Opportunity***

***Communications***

***New/Other Business***

**Clean Air Strategic Alliance – Annual General Meeting  
McDougall Centre – Rosebud Room  
455 – 6th Street S.W.  
Calgary, Alberta**

**September 27, 2012**

**Draft AGM Agenda**

	<b>1.0 ANNUAL GENERAL MEETING</b>	<b>1</b>
9:30 – 9:45 (15 min)	<b>1.1 Welcome, Approve AGM Agenda</b> <i>Objective: Convene Annual General Meeting and approve agenda.</i>	
	<b>1.2 Minutes of Last Annual General Meeting</b> <i>Objective: Approve minutes from the last Annual General Meeting on June 8, 2011.</i>	
	<b>1.3 CASA Membership</b> <i>Objective: Reaffirm the membership of CASA's board of directors.</i>	
	<b>1.4 Audited 2011 Financial Statements</b> <i>Objective: Present CASA's 2011 audited financial statement to members.</i>	

## ***DECISION SHEET***

- ITEM:***                    1.2     **Minutes of Last Annual General Meeting June 8, 2011**
- ISSUE:***                    Minutes from the previous annual general meeting on June 8, 2011 are subject to approval by the members at the subsequent annual general meeting.
- BACKGROUND:***         Draft minutes and Executive Summary are sent to the CASA executive committee for review prior to distribution to the members. Once members receive the minutes, they are asked to review them for accuracy and report any errors or omissions to the board at the subsequent meeting at which time final approval is given to the minutes.
- ATTACHMENT:***         A.       Draft Minutes from June 8, 2011
- DECISION:***               Approve the minutes from the June 8, 2011 annual general meeting.

# DRAFT Minutes

*CASA Annual General Meeting*

**June 8, 2011**

**Banff Room, Grande Rockies Resort, Canmore, Alberta**

## **In attendance**

### **CASA Board Members and Alternates:**

Ann Baran, NGO Wilderness  
Cindy Christopher, Petroleum Products  
Bill Clapperton, Oil and Gas – Large Producers  
Peter Darbyshire, Mining  
Brian Gilliland, Forestry  
Jim Hackett, Utilities  
Tony Hudson, NGO Health  
Holly Johnson-Rattlesnake, Samson Cree First Nation  
Myles Kitagawa, NGO Pollution  
Carolyn Kolebaba, Local Government-Rural  
Yolanta Leszcynski, Chemical Manufacturers  
Dwayne Marshman, Agriculture  
Keith Murray, Forestry  
Louis Pawlowich, Aboriginal Government-Metis  
Al Schulz, Chemical Manufacturers  
Chris Severson-Baker, NGO Pollution  
Rich Smith, Agriculture  
David Spink, NGO Wilderness  
John Squarek, Oil and Gas – Small Producers  
Ted Stoner, Petroleum Products  
Don Szarko, NGO, Consumer/Transportation  
Peter Watson, Provincial Government  
Don Wharton, Utilities  
Ruth Yanor, NGO Pollution  
Bev Yee, Provincial Government  
Norman MacLeod, Clean Air Strategic Alliance

### **CASA Secretariat:**

Alison Hughes  
Linda Jabs  
Robyn Jacobsen  
Jillian Kaufman  
Jean Moses

### **Guests:**

Randy Angle, R. Angle Consulting  
Stephanie Clarke, Alberta Environment  
Jillian Flett, Alberta Environment  
Alex Grzybowski, Pacific Resolutions  
Sharon Willianen, Alberta Environment

### **Regrets**

Jim Ellis, Provincial Government  
Eileen Gresl, NGO Health  
Cindy Jefferies, Local Government-Urban  
Margaret King, Provincial Government  
David Lawlor, Alternate Energy  
Alex MacKenzie, Provincial Government  
Rachel Mintz, Federal Government  
Linda Sloan, Local Government  
Jennifer Steber, Provincial Government  
Dan Thillman, Mining

Peter Watson convened the AGM at 3:50 p.m.

## **1.1 Approve AGM Agenda**

*The board approved the AGM agenda as circulated.*

## **1.2 Minutes of Last AGM, June 9, 2010**

The minutes of the June 9, 2010 annual general meeting were circulated.

*The board approved the minutes by consensus.*

### **1.3 CASA Membership**

Both the board structure and membership are reviewed annually, giving members an opportunity to re-evaluate the composition and structure, and to determine if the membership is satisfactory and in accordance with CASA bylaws. The CASA bylaws allow for 22 member groups comprising members from industry, government, and non-government organizations. At present, the board has 22 member groups: nine from the industry sector, eight from the government (provincial, federal, municipal and Aboriginal) sector, and five from the non-government sector.

The board has discussed the need for a more thorough membership review and this will be done after other work has been completed on the strategic review. The executive is not proposing any changes to membership at this time, but may want to reconsider this item at a later date if there are future implications.

*The board approved the structure and composition of the board by consensus.*

### **1.4 Audited Financial Statements and Annual Report (2010)**

The audited financial statements for 2010 were formally approved at the March 10, 2011 CASA board meeting and are included in the annual report. The statements were formally tabled at this meeting to fulfill a requirement of the *Societies Act of Alberta*. The financial statements will be posted on the CASA website as part of the Annual Report.

*The board accepted the financial statements by consensus.*

### **1.5 Minutes from March 10, 2011 Board Meeting**

The minutes from the March 10, 2011 board meeting were circulated to the board for approval. Due to the strategic focus of the June Board meeting and the next regularly scheduled meeting for the board not being until September, it was felt that the minutes should be discussed at this AGM only. Alberta Environment proposed some revisions to the minutes in Attachment “B” that clarified their presentation.

*The board approved the minutes as revised by consensus.*

### **1.6 CASA Executive Committee Membership**

This agenda item is typically carried out at the regular June Board meeting, but as the June 2011 meeting was focused exclusively on strategic planning, for this year only it will be handled during the AGM.

Executive members serve two-year, staggered terms and the president’s term expires in 2011. The Government Caucus recommended that Peter Watson be reappointed as CASA president. The board strongly supported Peter’s continued leadership of CASA.

**The board appointed Peter Watson as CASA President until June 2013 by consensus.**

The AGM was adjourned at 4:15 p.m.



**Clean Air Strategic Alliance  
List of Stakeholder Groups and Representatives**

<b>Stakeholder Group</b>	<b>Sector</b>	<b>Member</b>	<b>CASA Board Representative</b>	
			<b>Director, Association/Affiliation</b>	<b>Alternate Director, Association/Affiliation</b>
NGO	NGO Health	The Lung Association - Alberta & NWT	<b>Leigh Allard</b> , President & CEO The Lung Association - Alberta & NWT	<b>Vacant</b>
Government	Provincial Government – Energy	Alberta Energy	<b>Martin Chamberlain</b> , Assistant Deputy Minister Alberta Energy	<b>Jennifer Steber</b> , Chief of Oil Sands Strategy & Operations Alberta Energy
Industry	Petroleum Products	Canadian Petroleum Products Institute	<b>Cindy Christopher</b> , Manager Environmental Policy & Planning Imperial Oil Limited	<b>Brian Ahearn</b> , Vice President – Western Division Canadian Petroleum Products Institute
Industry	Mining	Alberta Chamber of Resources	<b>Peter Darbyshire</b> , Vice-President Graymont Limited	<b>Dan Thillman</b> , Plant Manager Lehigh Cement
Industry	Forestry	Alberta Forest Products Association	<b>Brian Gilliland</b> , Manager Environmental Affairs Canada Weyerhaeuser Co. Ltd.	<b>Keith Murray</b> , Director Environmental Affairs Alberta Forest Products Association
Industry	Alternate Energy		<b>Vacant</b>	<b>David Lawlor</b> , Manager Environmental Affairs ENMAX
Government	Local Government – Urban	Alberta Urban Municipalities Association	<b>Cindy Jefferies</b> , Director Cities up to 500,000 (City of Red Deer) Alberta Urban Municipalities Association	<b>Tim Whitford</b> , Councillor Town of High River Alberta Urban Municipalities Association
Aboriginal Government	First Nations	Samson Cree Nation	<b>Holly Johnson Rattlesnake</b> Samson Cree Nation	<b>Vacant</b>
Government	Local Government - Rural	Alberta Association of Municipal Districts & Counties	<b>Carolyn Kolebaba</b> , Vice President Reeve, Northern Sunrise County Alberta Association of Municipal Districts & Counties	<b>Tom Burton</b> , Director District 4, MD of Greenview Alberta Association of Municipal Districts & Counties
Industry	Chemical Manufacturers	Canadian Chemical Producers Association	<b>Yolanta Leszczynski</b> , SD/ Env Regulatory Coordinator Scotford Manufacturing	<b>Al Schulz</b> , Regional Director Chemistry Industry Association of Canada

**Clean Air Strategic Alliance  
List of Stakeholder Groups and Representatives**

Government	Provincial Government – Health	Alberta Health and Wellness	<b>Neil MacDonald</b> , Acting Assistant Deputy Minister Family & Population Health Alberta Health	<b>Dawn Friesen</b> , Acting Executive Director Health Protection Alberta Health
Government	Federal	Environment Canada	<b>Mike Norton</b> , Acting Regional Director Environment Canada	<b>Martin Van Olst</b> , Senior Analyst Environment Canada
Aboriginal Government	Métis	Métis Settlements General Council	<b>Louis Pawlowich</b> , Environmental Coordinator Métis Settlements General Council	<b>Vacant</b>
NGO	NGO Pollution	Pembina Institute	<b>Chris Severson-Baker</b> , Managing Director Pembina Institute	<b>Ruth Yanor</b> Mewassin Community Council
Industry	Agriculture	Alberta Beef Producers	<b>Rich Smith</b> , Executive Director Alberta Beef Producers	<b>Humphrey Banack</b> Wild Rose Agricultural Producers
NGO	NGO Wilderness	Prairie Acid Rain Coalition	<b>David Spink</b> Prairie Acid Rain Coalition	<b>Ann Baran</b> Southern Alberta Group for the Environment
Industry	Oil & Gas – Large Producers	Canadian Association of Petroleum Producers	<b>John Squarek</b> , President Oasis Energy	<b>Bill Clapperton</b> , Vice President Canadian Natural Resources Limited
NGO	Consumer Transportation	Alberta Motor Association	<b>Don Szarko</b> , Director Alberta Motor Association	<b>Vacant</b>
Industry	Utilities	TransAlta Corporation	<b>Don Wharton</b> , Vice President Sustainable Development TransAlta Corporation	<b>Jim Hackett</b> , Senior Manager, Aboriginal Relations, Health & Safety, Environment ATCO Group, Utilities
Government	Provincial Government – Environment	Alberta Environment Sustainable Resource Development	<b>Dana Woodworth</b> , Deputy Minister Alberta Environment and Sustainable Resource Development	<b>Bev Yee</b> , Assistant Deputy Minister Alberta Environment and Sustainable Resource Development
NGO	NGO Pollution	Toxics Watch Society of Alberta	<b>Vacant</b>	<b>Vacant</b>
Industry	Oil & Gas – Small Producers	Vacant	<b>Vacant</b>	<b>Vacant</b>

## **DECISION SHEET**

**ITEM:** 1.3 **CASA Membership**

**ISSUE:** The Annual General Meeting provides an opportunity for the CASA board to examine its membership and reaffirm that the balance and composition remain satisfactory.

**BACKGROUND:** CASA's bylaws outline the terms for membership in the organization. In brief, the CASA board approves members and determines under which stakeholder group the member will be classified (industry, government, or non-government). In turn, each member is asked to appoint a director to act as representative at all meetings and has the option to also appoint an alternate director.

CASA's board is limited to a maximum of twenty-two (22) members. Each stakeholder group requires representation of at least 20% but will not exceed 49% of the total number of members. There are no set terms for the duration of membership in CASA, and any member may withdraw by informing the Secretariat in writing of its intent to do so.

In line with the CASA bylaws, the current CASA board consists of twenty-two (22) sectors, including nine (9) from industry, five (5) from non-government organizations, and eight (8) from government (including provincial, federal, local, and aboriginal governments). There are currently two sector vacancies under NGO Pollution and Oil & Gas – Small Producers.

**ATTACHMENT:** A. List of CASA stakeholder groups and representatives.

**DECISION:** Approve CASA's membership as per the attached table.

## **INFORMATION SHEET**

**ITEM:**                    1.4     **Audited Financial Statements 2011**

**BACKGROUND:**     The audited financial statements are tabled each year at CASA's annual general meeting in accordance with the Societies Act of Alberta. In compliance with the act, the statement:

- details income and disbursements,
- details assets and liabilities, and
- is signed by the society's auditor.

At its meeting on March 29<sup>th</sup> of this year, the board approved the audited financial statements for the purpose of including them in the 2011 Annual Report. The tabling of the statements at this time is in compliance with the legal requirement of the Societies Act of Alberta.

In the past, the full audited financial statements were contained in the printed annual report. A summarized version of the statements appears in the 2011 Annual Report to improve readability and efficient use of resources. The full statements are attached to this sheet and will be available from CASA and posted on the CASA website after the September board meeting.

The draft text for the 2011 Annual Report was reviewed by the board at their meeting on March 29, 2012. The executive committee approved the report by email in February. The final version of the annual report was mailed out in July and is available on the CASA website.

**ATTACHMENTS:**     A.     Audited Financial Statements (2011)

**THE CLEAN AIR STRATEGIC  
ALLIANCE ASSOCIATION**

**EDMONTON, ALBERTA**

**FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED DECEMBER 31, 2011**

# Hawkings Epp Dumont LLP

**Chartered Accountants**

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Edmonton, Alberta  
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## INDEPENDENT AUDITORS' REPORT

To the Members of The Clean Air Strategic Alliance Association

We have audited the accompanying financial statements of the The Clean Air Strategic Alliance Association, which comprise the statement of financial position as at December 31, 2011, and the statements of operations and changes in fund balances and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the financial statements present fairly, in all material respects, the financial position of the The Clean Air Strategic Alliance Association as at December 31, 2011, and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.



Edmonton, Alberta  
February 24, 2012

HAWKINGS EPP DUMONT LLP  
Chartered Accountants

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**THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION**

**STATEMENT OF FINANCIAL POSITION**

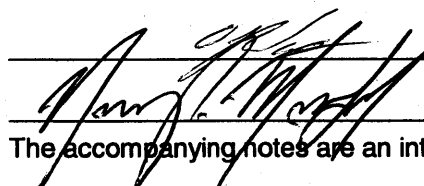
**AS AT DECEMBER 31, 2011**

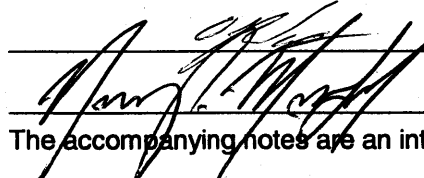
	<u>ASSETS</u>		Total	
	<u>Core</u>	<u>External Projects</u>	<u>2011</u>	<u>2010</u>
<b>Current Assets</b>				
Cash and cash equivalents (Note 4)	\$ 1,123,097	\$ 156,439	\$ 1,279,536	\$ 1,373,294
Receivables (Note 5)	12,458	324	12,782	28,948
Interfund receivable (payable)	(3,862)	3,862	-	-
Prepaid expenses	<u>5,136</u>	<u>-</u>	<u>5,136</u>	<u>4,611</u>
	1,136,829	160,625	1,297,454	1,406,853
Property and Equipment (Note 6)	<u>15,700</u>	<u>29,343</u>	<u>45,043</u>	<u>36,684</u>
	<u>\$ 1,152,529</u>	<u>\$ 189,968</u>	<u>\$ 1,342,497</u>	<u>\$ 1,443,537</u>

**LIABILITIES AND FUND BALANCES**

<b>Current Liabilities</b>				
Accounts payable and accrued liabilities	\$ 57,994	\$ -	\$ 57,994	\$ 38,530
Deferred contributions (Note 7)	<u>698,674</u>	<u>160,625</u>	<u>859,299</u>	<u>1,005,778</u>
	756,668	160,625	917,293	1,044,308
<b>Long-term Liabilities</b>				
Deferred contributions - property and equipment (Note 8)	<u>15,700</u>	<u>29,343</u>	<u>45,043</u>	<u>19,061</u>
	<u>772,368</u>	<u>189,968</u>	<u>962,336</u>	<u>1,063,369</u>
<b>Fund Balances</b>				
Internally restricted (Note 2 (a))	290,000	-	290,000	290,000
Unrestricted				
Invested in property and equipment	-	-	-	17,637
Available for operations	<u>90,161</u>	<u>-</u>	<u>90,161</u>	<u>72,531</u>
	<u>380,161</u>	<u>-</u>	<u>380,161</u>	<u>380,168</u>
	<u>\$ 1,152,529</u>	<u>\$ 189,968</u>	<u>\$ 1,342,497</u>	<u>\$ 1,443,537</u>

**ON BEHALF OF THE BOARD:**

 Director

 Director

The accompanying notes are an integral part of these financial statements.

**THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION**  
**STATEMENT OF OPERATIONS AND CHANGES IN FUND BALANCES**  
**FOR THE YEAR ENDED DECEMBER 31, 2011**

	<u>Core</u>	<u>External Projects</u>	<u>2011</u>	<u>Total 2010</u>
<b>Revenue</b>				
Grants (Note 7)	\$ 962,976	\$ 100,667	\$ 1,063,643	\$ 1,441,859
Amortization of Deferred Contributions - Property & Equipment (Note 8)	6,643	8,542	15,185	-
Interest	<u>13,700</u>	<u>527</u>	<u>14,227</u>	<u>7,398</u>
	<u>983,319</u>	<u>109,736</u>	<u>1,093,055</u>	<u>1,449,257</u>
<b>Expenses (Schedule 1)</b>				
Projects	314,437	-	314,437	309,500
General and administrative	389,703	-	389,703	391,948
Board support	142,168	-	142,168	103,559
Communications	136,285	-	136,285	118,118
Other	726	2,525	3,251	285
External projects	<u>-</u>	<u>107,211</u>	<u>107,211</u>	<u>520,818</u>
	<u>983,319</u>	<u>109,736</u>	<u>1,093,055</u>	<u>1,444,228</u>
<b>Excess of Revenue over Expenses before Other Items</b>	-	-	-	5,029
<b>Other Items</b>				
Loss on disposal of property & equipment	<u>-</u>	<u>-</u>	<u>-</u>	<u>(5,029)</u>
<b>Excess of Revenue over Expenses</b>	-	-	-	-
<b>Fund Balances, Beginning of Year</b>	<u>380,168</u>	<u>-</u>	<u>380,168</u>	<u>380,168</u>
<b>Fund Balances, End of Year</b>	<u>\$ 380,168</u>	<u>\$ -</u>	<u>\$ 380,168</u>	<u>\$ 380,168</u>



**THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION**

**STATEMENT OF CASH FLOWS**

**FOR THE YEAR ENDED DECEMBER 31, 2011**

	<u>2011</u>	<u>2010</u>
<b>Operating Activities</b>		
Excess of revenues over expenses		
Excess of revenue over expenses	\$ -	\$ -
Amortization of property and equipment	15,185	3,106
Amortization of deferred contributions - property and equipment	(15,188)	-
Loss on disposal of property and equipment	<u>-</u>	<u>5,029</u>
	(3)	8,135
 Change in non-cash working capital balances related to operations:		
Decrease in accounts receivable	16,166	17,849
Decrease in prepaid expenses	(525)	2,769
Increase (decrease) in accounts payable and accrued liabilities	19,464	(4,138)
Increase (decrease) in deferred contributions	<u>(146,479)</u>	<u>(269,252)</u>
	<u>(111,377)</u>	<u>(244,637)</u>
 <b>Financing Activities</b>		
Deferred contributions received - property and equipment	<u>41,170</u>	<u>19,061</u>
 <b>Investing Activities</b>		
Purchase of property and equipment	(23,551)	(33,640)
Proceeds on disposal of property and equipment	<u>-</u>	<u>225</u>
	<u>(23,551)</u>	<u>(33,415)</u>
 Change in Cash and Cash Equivalents During the Year	(93,758)	(258,991)
 Cash and Cash Equivalents, Beginning of Year	<u>1,373,294</u>	<u>1,632,285</u>
 Cash and Cash Equivalents, End of Year	<u>\$ 1,279,536</u>	<u>\$ 1,373,294</u>
 <b>Additional Cash Flow Information:</b>		
Interest received	<u>\$ 7,012</u>	<u>\$ 7,372</u>

## THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION

### NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2011

#### 1. NATURE OF OPERATIONS

The Clean Air Strategic Alliance Association (the "Association") is a non-profit organization incorporated March 14, 1994 under the *Societies Act* of Alberta and is not taxable under the Canadian *Income Tax Act*. The Association is comprised of members from three distinct stakeholder categories: industry, government and non-government organizations. The Association has been given shared responsibility by its members for strategic air quality planning, organizing and coordination of resources, and evaluation of results in Alberta. In support of these objectives, the Association receives cash funding from the Province of Alberta as well as cash and in-kind support from other members.

#### 2. ACCOUNTING POLICIES

The financial statements have been prepared on a fund accounting basis using the deferral method of accounting for contributions in accordance with Canadian generally accepted accounting principles ("GAAP") and include the following significant policies:

##### (a) Fund Accounting

The Core Project Fund accounts for funds provided by governments together with interest earned that are used to support general operations. The Board of Directors has internally restricted accumulation of this fund to pay necessary expenses in the event of the wind down of the Association. The unrestricted portion of this fund consists of the undepreciated balance of property and equipment, entitled investment in property and equipment and the remainder of the fund entitled available for operations.

The External Projects Fund accounts for funds provided by Association stakeholders together with interest earned that are raised and expended by project teams for specific purposes.

##### (b) Property and Equipment

Property and equipment are recorded at cost. Amortization, which is based on the cost less the residual value over the useful life of the asset, is computed using the following methods and rates:

Computer equipment	Declining-balance	30%
Furniture and equipment	Declining-balance	30%

Long-lived assets are tested for recoverability whenever events or changes in circumstances indicate their carrying amount may not be recoverable. An impairment loss is recognized when its carrying value exceeds the total undiscounted cash flows expected from their use and eventual disposition. The amount of the impairment loss is determined as the excess of the carrying value of the asset over its fair value.

##### (c) Non-Monetary Support

Association members contribute non-monetary support including staff resources, meeting space and publication support. The value of this non-monetary support is not reflected in these financial statements.

##### (d) Revenue Recognition

Grants are recognized as income at an amount equal to expenses incurred for related projects. Interest is earned from short-term investments computed on the accrual basis.

(CONT'D)

**THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION**

**NOTES TO FINANCIAL STATEMENTS (CONT'D)**

**DECEMBER 31, 2011**

**(e) Use of Estimates**

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the recorded amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenditures during the reporting period. Actual results could differ from these estimates. Significant areas requiring the use of management's estimates include the collectible amounts of accounts receivable, the useful lives of property and equipment and the corresponding rates of amortization and the amount of accrued liabilities.

**(f) Financial Instruments**

The Association AHS classified its cash as financial assets held for trading which are subsequently recognized at fair value as determined on the basis of market value. Interest income and expense are recognized in the period in which they occur. Accounts receivable are classified as loans and receivables. Accounts payable and accrued liabilities are classified as other liabilities

Unless otherwise noted, the fair values of these financial instruments approximate their carrying value. It is management's opinion that the Association is not exposed to significant currency or credit risks arising from these financial instruments.

The Association is exposed to interest rate risk on interest earned from short-term investments because the interest rate fluctuates with the prime rate.

**3. FUTURE ACCOUNTING POLICY CHANGES**

The Canadian Institute of Chartered Accountants is transitioning from Canadian generally accepted accounting principles (CGAAP - Part IV) to CGAAP - Part III - Accounting Standards for Not-for-Profit Organizations.

The Association's financial statements will be prepared in accordance with CGAAP - Part III for the fiscal year commencing January 1, 2012 and will include comparative information for the prior year. The Association's transition date is January 1, 2011 and accordingly, the Association will prepare its opening Part III balance sheet at that date.

The Association does not believe the transition to the Part III standards will have an impact on their financial statements.

**THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION**

**NOTES TO FINANCIAL STATEMENTS (CONT'D)**

**DECEMBER 31, 2011**

**4. CASH AND CASH EQUIVALENTS**

	<u>2011</u>	<u>2010</u>
Guaranteed Investment Certificates	\$ 1,110,155	\$ 63,839
Operating accounts	118,796	124,070
Savings accounts	<u>50,585</u>	<u>1,185,385</u>
	<u>\$ 1,279,536</u>	<u>\$ 1,373,294</u>

Guaranteed Investment Certificates bear interest at rates ranging from 1.15% - 1.51% (2010 - 1.13% - 1.51%) and mature between January 3, 2012 and September 12, 2012.

**5. RECEIVABLES**

	<u>2011</u>	<u>2010</u>
Accrued interest	\$ 7,265	\$ 50
Goods and Services Tax	5,517	9,581
Grants	<u>-</u>	<u>19,317</u>
	<u>\$ 12,782</u>	<u>\$ 28,948</u>

**6. PROPERTY AND EQUIPMENT**

	<u>Cost</u>	<u>Accumulated Amortization</u>	<u>2011</u>	<u>2010</u>
Computer equipment	\$ 86,635	\$ 45,624	\$ 41,011	\$ 36,654
Furniture and equipment	<u>8,819</u>	<u>4,787</u>	<u>4,032</u>	<u>30</u>
	<u>\$ 95,454</u>	<u>\$ 50,411</u>	<u>\$ 45,043</u>	<u>\$ 36,684</u>

**THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION**

**NOTES TO FINANCIAL STATEMENTS (CONT'D)**

**DECEMBER 31, 2011**

**7. DEFERRED CONTRIBUTIONS**

(a) Core Fund

During the year, the Association received grants totaling \$850,000 (2010 - \$850,000) 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.

	<u>2011</u>	<u>2010</u>
Balance, Beginning of Year	\$ 833,995	\$ 906,140
Grants Received and Receivable During the Year	850,000	850,000
Transfer to Deferred Contributions - Property & Equipment	(22,345)	-
Transfer to External Projects	-	(800)
Revenue Recognized to Cover Expenses During the Year	<u>(962,976)</u>	<u>(921,345)</u>
Balance, End of Year	\$ <u>698,674</u>	\$ <u>833,995</u>

(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.

	<u>2011</u>	<u>2010</u>
Balance, Beginning of Year	\$ 171,783	\$ 368,890
Grants Received and Receivable During the Year	108,334	322,607
Transfer to Deferred Contributions - Property & Equipment	(18,825)	-
Transfer to Internal Projects	-	800
Revenue Recognized During the Year	<u>(100,667)</u>	<u>(520,514)</u>
Balance, End of Year	\$ <u>160,625</u>	\$ <u>171,783</u>

**THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION**

**NOTES TO FINANCIAL STATEMENTS (CONT'D)**

**DECEMBER 31, 2011**

**8. DEFERRED CONTRIBUTIONS RELATED TO PROPERTY AND EQUIPMENT**

Deferred contributions related to property and equipment represent restricted contributions with which some of the Association's property and equipment was purchased. The changes in the deferred contributions related to property and equipment are as follows:

	<u>2011</u>	<u>2010</u>
Balance, Beginning of Year	\$ 19,061	\$ -
Transfer from Internal Deferred Revenue (Note 7)	22,345	19,061
Transfer from External Deferred Revenue (Note 7)	18,825	-
Less: Amounts Recognized During the Year	<u>(15,188)</u>	<u>-</u>
Balance, End of Year	<u>\$ 45,043</u>	<u>\$ 19,061</u>

**9. ECONOMIC DEPENDENCE**

The Association's primary source of revenue is grants from the Province of Alberta. The Association's ability to continue viable operations is dependent on this funding.

**10. CAPITAL MANAGEMENT**

The Association's objectives when managing capital are to maintain a sufficient Core Fund balance to achieve the purpose of the funds and to ensure compliance with internal and external restrictions placed on those funds.

In the management of capital, the Association includes fund balances in the definition of capital. As at December 31, 2011, the Association has \$380,161 (2010 - \$380,168) in capital.

Capital management objectives, policies and procedures are unchanged since the preceding year.

**11. BUDGET FIGURES**

Budget figures are provided for informational purposes only and are unaudited

**12. COMPARATIVE FIGURES**

Certain comparative figures have been reclassified to conform with the current year's presentation.

**THE CLEAN AIR STRATEGIC ALLIANCE ASSOCIATION**

**Schedule 1**

**SCHEDULE OF EXPENSES BY OBJECT**

**FOR THE YEAR ENDED DECEMBER 31, 2011**

	<u>2011</u> (Budget) (Note10)	<u>2011</u> (Actual)	<u>2010</u> (Actual)
<b>Supplies and Services</b>			
Travel	\$ 82,308	\$ 58,776	\$ 48,195
Computer equipment	38,890	31,244	35,783
Stakeholder honoraria	37,089	19,374	37,334
Meetings	27,105	16,526	18,173
Amortization of property and equipment	5,195	15,185	3,106
Printing	17,392	13,257	17,074
Subscriptions	7,000	8,854	7,069
Furniture and equipment	11,000	7,288	3,227
Office supplies	6,020	7,069	5,778
Telecommunications	13,059	6,821	10,370
Advertising	11,160	4,374	8,918
Insurance	3,777	3,868	3,697
Courier	2,050	2,147	1,477
Bank charges	2,000	1,945	1,901
Records storage	2,700	1,549	1,541
Stakeholder development	<u>5,125</u>	<u>1,083</u>	<u>2,562</u>
	<u>271,870</u>	<u>199,360</u>	<u>206,205</u>
<b>Professional Fees</b>			
Consulting	244,094	218,513	583,653
Audit	<u>8,800</u>	<u>9,531</u>	<u>8,000</u>
	<u>252,894</u>	<u>228,044</u>	<u>591,653</u>
<b>Human Resources</b>			
Salaries and wages	552,160	563,383	496,666
Benefits	83,020	83,020	76,577
Staff development	16,005	13,564	8,599
Recruiting	6,000	3,254	23,452
Employee recognition	2,500	2,430	2,439
Contracted services	<u>2,500</u>	<u>-</u>	<u>38,637</u>
	<u>662,185</u>	<u>665,651</u>	<u>646,370</u>
<b>Total Expenses</b>	<b><u>\$ 1,186,949</u></b>	<b><u>\$ 1,093,055</u></b>	<b><u>\$ 1,444,228</u></b>

**Clean Air Strategic Alliance – Board Meeting  
McDougall Centre – Rosebud Room  
455 – 6th Street S.W.  
Calgary, Alberta**

**September 27, 2012  
Draft Annotated Agenda**

9:00 – 9:15 (15 min)		The Annual General Meeting will be held from 9:00-9:15 am and the business meeting of the board will follow.	
	<b>2.0</b>	<b>ADMINISTRATION</b>	<b>2</b>
9:15 – 9:45 (30 min)	<b>2.1</b>	<b>Convene Business Meeting and Approve Agenda</b> <i>Objective: Convene business meeting and approve agenda.</i>	
	<b>2.2</b>	<b>Minutes and Action Items from March 29, 2012</b> <i>Objective: Approve the minutes from the March 29, 2012 board meeting and review the board action items.</i>	
	<b>2.3</b>	<b>Board Decisions Approved in June</b> <i>Objective: To receive a copy of the board decisions that were approved electronically in June.</i>	
	<b>2.4</b>	<b>New Representatives</b> <i>Objective: Introduce and welcome new CASA board representatives.</i>	
	<b>2.5</b>	<b>CASA Executive Committee Membership</b> <i>Objective: To approve the renewal of Norman MacLeod as Secretary/Treasurer to the Board for a two-year term.</i>	
	<b>2.6</b>	<b>Executive Director's Report/Financial Statements</b> <i>Objective: Receive a report on secretariat activities, income and expense statements and provide any feedback.</i>	
	<b>3.0</b>	<b>PROJECT MANAGEMENT</b>	<b>3</b>
9:45 – 10:05 (20 min)	<b>3.1</b>	<b>CFO Project Team</b> <i>Objective: Approve the final report and recommendation.</i>	
	<b>4.0</b>	<b>STATEMENT OF OPPORTUNITY</b>	<b>4</b>
10:05 – 10:30 (25 min)	<b>4.1</b>	<b>Odour Management</b> <i>Objective: To receive a statement of opportunity on the development of an odour management framework.</i>	
10:30 – 10:45 (15 min)		<b>BREAK</b>	
10:45 – 11:30 (15 min)	<b>4.1</b>	<b>Odour Management Continued</b> <i>Objective: To receive a statement of opportunity on the development of an odour management framework.</i>	



	<b>3.0</b>	<b>PROJECT MANAGEMENT CONTINUED</b>	<b>3</b>
11:30 – 12:00 (30 min)	<b>3.2</b>	<b>CASA &amp; AAC Joint Standing Committee</b> <i>Objective: Receive an update on the status of the committee and the Joint Standing Committee Discussion paper.</i>	
12:00 – 1:00 (1 hr)		<b>LUNCH</b>	
1:00 – 1:40 (40 min)	<b>3.3</b>	<b>Performance Measures Review Working Group</b> <i>Objective: Receive an update on the status of the performance measures review process.</i>	
1:40 – 2:00 (20 min)	<b>3.4</b>	<b>Status Reports</b> <i>Objective: To receive information on project activity.</i> <ul style="list-style-type: none"> <li>• Electricity Framework Review</li> <li>• Human and Animal Health Team</li> <li>• Operational Steering Committee</li> <li>• PM and Ozone Implementation Team</li> </ul>	
	<b>5.0</b>	<b>COMMUNICATIONS</b>	<b>5</b>
2:00 – 2:20 (20 min)	<b>5.1</b>	<b>Coordination Workshop</b> <i>Objective: Hear a report on the outcome of the 2012 Coordination Workshop.</i>	
	<b>6.0</b>	<b>NEW/OTHER BUSINESS</b>	<b>6</b>
2:20 – 2:45 (25 min)	<b>6.1</b>	<b>New/Other Business</b> <i>Objective: Introduce new business and/or complete any unfinished business of the day.</i>	
	<b>6.2</b>	<b>Review of CASA Board Membership</b> <i>Objective: To determine the best approach to review and change CASA Board membership, as necessary, in light of pending applications and the focus of upcoming air quality issues.</i>	
	<b>6.3</b>	<b>Updated Mailing and Membership Lists</b> <i>Objective: Provide up-to-date information on CASA board members.</i>	
	<b>6.4</b>	<b>Evaluation Forms</b> <i>Objective: Receive the results from the last evaluation and provide time for board members to fill out their evaluation forms.</i>	

## ***DECISION SHEET***

***ITEM:***                    **2.2    Minutes and Action Items from March 29, 2012**

***ISSUE:***                    Minutes from the March 29<sup>th</sup> board meeting are subject to approval.

***STATUS:***                    Members have received the minutes from the March 29, 2012 board meeting and are invited to report any errors or omissions to the board at its September 27, 2012 regular meeting. Board members will be asked to give final approval to the minutes of March 29, 2012 and the final version will be posted to the website as per usual practice.

At the March 29, 2012 meeting it was agreed that the board action items be reviewed immediately following the minutes.

***ATTACHMENTS:***        A.     Draft meeting minutes from March 29, 2012 board meeting.  
                                  B.     Board Action Items

***DECISIONS:***            Approve the minutes from the March 29, 2012 board meeting.

# Draft Minutes

*CASA Board of Directors*

**March 29, 2012**

**McDougall Centre, Calgary, Alberta**

## **In attendance**

### **CASA Board Members and Alternates:**

Ann Baran, NGO Wilderness  
Tom Burton, Local Government  
Cindy Christopher, Petroleum Products  
Peter Darbyshire, Mining  
Jim Hackett, Utilities  
Holly Johnson-Rattlesnake, Samson Cree First Nation  
Myles Kitagawa, NGO Pollution  
Carolyn Kolebaba, Local Government -Rural  
David Lawlor, Alternate Energy  
Yolanta Leszczynski, Chemical Manufacturers  
Louis Pawlowich, Aboriginal Government-Métis  
Al Schulz, Chemical Manufacturers  
Chris Severson-Baker, NGO Pollution  
Rich Smith, Agriculture  
John Squarek, Oil and Gas, Large Producers  
Don Szarko, NGO Consumer/Transportation  
Don Wharton, Utilities  
Ruth Yanor, NGO Pollution  
Bev Yee, Provincial Government  
Norman MacLeod, Clean Air Strategic Alliance

### **CASA Secretariat:**

Celeste Dempster  
Robyn Jacobsen  
Asia Szkudlarek  
Linda Jabs

### **Guests:**

Jenny Hong, Alberta Health and Wellness  
Sharon Willianen, Alberta Environment and Water

### **Regrets:**

Leigh Allard, NGO Health  
Bill Clapperton, Oil and Gas, Large Producers  
Dawn Friesen, Provincial Government  
Brian Gilliland, Forestry  
Eileen Gresl Young, NGO Health  
Ernie Hui, Provincial Government  
Cindy Jefferies, Local Government -Urban  
Margaret King, Provincial Government  
Dwayne Marshman, Agriculture  
Keith Murray, Forestry  
Mike Norton, Federal Government  
David Spink, NGO Wilderness  
Jennifer Steber, Provincial Government  
Dan Thillman, Mining  
Martin Van Olst, Federal Government

## **Presenters:**

**Norman MacLeod**, CASA (*Item 1.4, 2011 Audited Financial Statements; Item 1.5 Executive Director's Report/Financial Statements; Item 2.1 Final Approval of 2012-2106 Strategic Plan; Item 3.1 CASA Provision of Extension Services*)

**Bev Yee**, Alberta Environment and Water (*Item 1.6 Update on Government of Alberta Initiatives*)

**Peter Darbyshire** Graymont Western Canada Inc; **Ruth Yanor**, Mewassin Community Council (*Item 3.2, Performance Measures Committee*)

**Robyn Jacobsen**, CASA (*Item 3.3, Status Reports*)

**Yolanta Leszczynski**, Scotford Manufacturing (*Item 4.1 2011 Communications Committee Report and the 2012 Strategic Communications Plan; Item 4.2 2011 Annual Report; and Item 4.3 Coordination Workshop*)

**Clean Air Strategic Alliance  
Board of Directors Meeting  
March 29, 2012**

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**Executive Summary**

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CASA is in year 2 of a 3 year contract with the auditor, Hawkings Epp Dumont LLP. While the auditor conducted the same type of audit as has been done in previous years, the Executive Director suggested that the Board might want to consider undertaking a different type of audit every second year; one that would focus on CASA's management systems. A description of the various types of audits will be provided to the Executive Committee for consideration. CASA's Board approved the 2011 audited financial statements for inclusion in the 2011 Annual Report.

Norm provided an update on his recent annual one-on-one meetings with board members. The meetings provide an opportunity to build agreement on potential candidates for the development of Statements of Opportunity. Two of the recurring issues that Board members are interested in scoping include vehicle emissions and odour.

The Secretariat has started researching these issues and is in the process of determining how best to move forward. The Secretariat will be reporting back to the Board on their progress. The work is enabling the Secretariat to test parts of the "Managing Collaborative Processes" Guidebook, particularly with respect to the screen and scope process.

Bev Yee gave a presentation about the government-led initiatives underway relating to air quality management in Alberta. AEW will be hosting an information session on April 2<sup>nd</sup> which will be attended by CASA, airshed zone representatives and AEW staff. AEW will use this upcoming session to reassure CASA and the airshed zones that AEW considers these partnerships critically important. AEW is also looking to work more closely with municipalities and the federal government.

The Board approved the 2012-2016 Strategic Plan, as well as the 2012 Strategic Communications Plan.

The next CASA board meeting will be June 28, 2012 in Edmonton.

**Clean Air Strategic Alliance  
Board of Directors Meeting  
March 29, 2012**

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**Draft Minutes**

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Cindy Christopher convened the board meeting at 9:09 am. She welcomed everyone to the first meeting of 2012 in Calgary.

1 Administration

**1.1 Convene Business Meeting and Approve Agenda**

Those present introduced themselves. The agenda was amended to include Item 1.6 *Update on Government of Alberta Initiatives*.

*With this amendment, the revised agenda was approved by consensus.*

**1.2 Minutes from December 1, 2011**

Although Dawn Friesen was not present, Norm MacLeod advised of her requested revision to the minutes with respect to agenda item 2.2. The wording currently states:

*The board agreed to reconvene the HAHT to: Coordinate with Alberta Health and Wellness and Alberta Health Services on what could be added to ARTSSN to fulfill the intention of the team's recommendation.*

Alberta Health and Wellness advised that adding to ARTSSN is not currently an option. The HAHT should consider what work is outstanding and determine if there is future work for the team. The suggested wording change is:

The board agreed to reconvene the HAHT to: Coordinate with Alberta Health and Wellness and Alberta Health Services on what could be *done* to fulfill the intention of the team's recommendation.

In addition, Item 6.1 should be amended from "It was also suggested that the team revisit their terms of reference and membership..." to "*The team was directed to revisit their Terms of Reference and .....*"

*With the above noted changes, the Board approved the December 1, 2011 Board minutes.*

**1.3 Appointment of new signing officer**

CASA's by-laws require that new signing officers be approved by the CASA board.

*The Board authorized the Executive Director to establish Ernie Hui as a signing authority for CASA.*

**1.4 2011 Audited Financial Statements**

CASA is in year 2 of a 3 year contract with the auditor, Hawkings Epp Dumont LLP . While the auditor conducted the same type of audit as has been done in previous years, Norm

suggested that the Board might want to consider undertaking a different type of audit every second year; one that would focus on CASA's management systems. A description of the various types of audits will be provided to the Executive for consideration.

Norm made note of the following with respect to the audit:

1. As per the 2010 fiscal year, the 2011 audit again mentioned that there is an "immaterial misstatement" related to the way in which CASA accounts for the provision of IT services. This is the result of a decision taken by the Secretariat (in consultation with the auditor), to simplify bookkeeping requirements.
2. CASA has a "buffer" of internal funds that allows it to continue operations and to bridge the gap between the end of its fiscal year and the beginning of government's new fiscal year. The reduction in CASA's grant from \$1,000,000.00 to \$850,000.00 for the last two years and a concurrent rise in expenses has resulted in this buffer being eroded. The Province has committed to an \$850,000.00 grant to CASA for 2012.

The following points were made in discussion of the audit:

- CASA's cash equivalent reserves are the product of: 1) the amount of the annual grant from government and 2) annual expenditures coming in under budget in successive years. #2 is due, in part, to the reduced number of project team meetings in the last two years. The Secretariat expects that the number of project team meetings will rise again in 2012.
- CASA's "wind down" fund was established to cover costs in the event that CASA were to cease operations. The fund has been invested to increase interest income while retaining required liquidity .
- Every grant letter from government includes a statement that unexpended grant funds may have to be repaid, but this has not happened since the inception of CASA.

Norm commended the work of the financial administrator, Karen Bielech, for her hard work over the course of the year, and particularly during the audit.

***The Board agreed by consensus to include the audited statement for publication in the 2011 Annual Report.***

## **1.5 Executive Director's Report/Financial Statements**

Norm provided an update on his recent annual one-on-one meetings with board members. The meetings provide an opportunity to build agreement on potential candidates for the development of Statements of Opportunity. Two of the recurring issues that Board members are interested in scoping include vehicle emissions and odour.

The Secretariat has started researching these issues and is in the process of determining how best to move forward. The Secretariat will be reporting back to the Board on their progress. The work is enabling the Secretariat to test parts of the "Managing Collaborative Processes" Guidebook, particularly with respect to the screen and scope process.

Other issues of interest are human and animal health, the provincial monitoring framework, and the relationships between CASA, individual airsheds, and the Alberta Airsheds Council.

Jean Moses retired in January and in the coming weeks the Secretariat will be interviewing candidates who have a combination of project management skills and strategic/tactical communications experience.

- It was noted that Board actions are appended to the ED's report. It would make more sense if they were reviewed during the discussion of minutes.

*In future, Board action items will follow the minutes.*

- Asked for his personal appraisal of board member conversations, Norm said that CASA members are pleased that we have produced several reports/products over the past year to a high standard, but there is also a certain amount of frustration regarding the delay in implementing the Clean Air Strategy and the Ambient Monitoring Strategic Plan. He also noted that all CASA members remain very committed to the consensus-based process.

Cindy Christopher expressed the Board's satisfaction with the work of the Executive Director and the Secretariat.

## **1.6 Update on Government of Alberta Initiatives**

Bev Yee gave a presentation about the government-led initiatives underway relating to air quality management in Alberta. AEW will be hosting an information session on April 2<sup>nd</sup> which will be attended by CASA, airshed zone representatives and AEW staff. AEW would like to use this upcoming session to reassure CASA and the airshed zones that AEW considers these partnerships critically important. AEW is also looking to work more closely with both municipalities and the federal government.

The Cumulative Effects Management Systems (CEMS) is the umbrella under which all other initiatives in Alberta operate. CEMS will look comprehensively at emissions from both point and non-point sources and will consider total capacity when allocating natural resources. It also considers health, economic and societal values. To facilitate this holistic approach and integrate efforts across government departments, three government "pods" have been created: the natural resources pod (includes AEW, Alberta Energy, Intergovernmental, International and Aboriginal Relations, Sustainable Resource Development and Agriculture and Rural Development), the social pod and the economic pod. CEMS is focused on proactive planning and management (ex. LUF and air quality management frameworks), is outcomes/results-based, collaborative, flexible, adaptive and knowledge-based. CEMS is moving ahead and is supported by the Integrated Monitoring, Evaluation and Reporting Framework (IMERF).

The Land Use Framework (LUF) is the mechanism by which CEMS will be implemented on the ground in Alberta. It translates the provincial direction into regional application. The place-based quantitative outcomes are being aligned with the strategic direction of the national AQMS. Bev directed the Board's attention to slide 3 in the powerpoint presentation which was a graphical representation of the linkages and alignment of the various initiatives. Alberta initiatives need to align with the national AQMS.

A detailed action plan to implement the Clean Air Strategy (CAS) has been proposed which was developed using input provided by CASA. The strategic direction speaks to a CEMS approach which is comprehensive, place-based and collaborative. AEW has responded to

feedback that more clarity was needed with respect to the role of partners in the CAS. The Minister's report is prepared and is awaiting government approval.

The key components of the national Air Quality Management System (AQMS) are:

- Canadian Ambient Air Quality Standards (CAAQS)
  - The first substances to obtain agreement are PM and Ozone. The Particulate Matter and Ozone Management Framework developed by CASA will be adopted nationally. CASA should be very proud of this accomplishment.
- Place-based air quality management
  - Air zones are within provinces and jurisdictions. Airsheds are across jurisdictions and will examine transboundary issues. Work is actively underway to delineate what air zones will look like and all of our geography will be covered by air zones.
- Base-level Industrial Emission Requirements (BLIERS)
  - Work on the BLIERS is ongoing. If consensus is not achieved, it will fall to the provincial and territorial governments to try to reach agreement; if at that point consensus is not achieved it will fall to the federal government to make a decision. Challenges are being encountered with treatment of existing facilities and, for some pieces of the BLIERS, there could be other tools to use rather than a straight regulatory approach.
- Transportation and other non-point source emissions

The AQMS will be considered for final approval by CCME Ministers in fall 2012. Alberta is currently the chair of the CCME and this meeting will be held in Alberta. Work at the ADM level will be completed by May 2012.

The Management Frameworks provide a regional context for decision-making for future activities and establish indicators, triggers and limits. We are working to establish a common vocabulary. Proactive triggers are being developed for proactive management action. The term "target" has not yet been introduced but it will be particularly important in areas experiencing rapid development. Management must be more proactive in these areas, with ongoing monitoring and assessment relative to the triggers and limits. This could be an opportunity for CASA to provide expertise and recommendations.

Both the Air Quality Management Framework and the Water Management Framework for the Lower Athabasca Regional Plan (LARP) have been completed. The Groundwater Management Framework approach has been approved with triggers and limits to be developed. There is a commitment to develop both a Water Quantity Framework and a Biodiversity Framework. Government took the lead in LARP and stakeholders were invited to give advice along the way. The regional plan has been an iterative process with stakeholders. It is important to note that the LARP is not dependent on having a regional plan. Even in the face of political change, Alberta will continue to manage in a regional way. CASA could also be asked to participate in the development of air management frameworks at the regional level.

The draft South Saskatchewan Regional Plan (SSRP) is underway and will have similar frameworks to the LARP. Some preparatory works is being introduced in the Lower Peace. CEMS is not dependent on a regional plan; rather it supports the regional plan.

Bev directed the Board to two diagrams – one for 2011 and another for 2015. The 2011 diagram gave an indication of the existing air, water and biodiversity monitoring in the



province. The joint effort is intended to increase coverage, sampling frequency and in some cases, examine more substances. The 2015 diagram proposes new air sites with more upwind and downwind monitors. The technical pieces are still being reviewed and it is intended to align well with both the national AQMS and the Alberta Ambient Monitoring Strategy. The other critical piece is alignment with the airsheds and other partners in air quality management. The intent is a single monitoring program with some of the work being done by government and some being done by partners. It will take some time to get to full alignment.

The Provincial Monitoring System is currently being reviewed and is subject to third-party scientific oversight. From a systems standpoint, there is the overall CEMS system, with a knowledge and performance management system being achieved through IMERF, the outcome of which is regional effects monitoring. The focus for the system is effects-based monitoring, the components of which are policy, scientific oversight, field delivery, data reporting and management.

In February 2012 AEW announced an integrated plan with respect to the Oil Sands, with a comprehensive monitoring plan for the region. The broader objective is to have a more enhanced monitoring system for the province as a whole.

The Oil Sands partnership with the federal government will determine what and how will be delivered and the partnerships required for delivery. The GoA has been in discussions with the Regional Aquatic Monitoring Program (RAMP) as to how it will be transitioned into the Oilsands partnership. In addition, talks are ongoing with the Wood Buffalo Environmental Association (WBEA) as to how it will potentially fit into the system.

A scientific review is anticipated every three years, with an independent review undertaken every five years. The Oil Sands Information Portal (OSIP) is intended to be the one stop shop for all regional monitoring data. The provincial monitoring systems is looking at the following components: knowledge and performance management, integrated monitoring, evaluation and reporting and the regional effects monitoring which itself could encompass many components or be limited to scientific oversight.

Field delivery is important and this is the linkage to the airsheds. Airsheds will continue to do the monitoring. Work still needs to be done on compliance monitoring and industry has raised this issue with respect to the Oil Sands. The timeline for the working group is to have a report delivered by June 30<sup>th</sup> with the ensuing decision moving fairly quickly. The decision will include government options and structure, sustainable funding and integration of organizations.

Place-based management actions will be adaptive, based on monitored conditions and proportional to the level of risk. Knowledge and data management are critical components of IMERF.

The subsequent Board discussion is summarized below:

- During the last update, AEW described how the emerging Clean Air Strategy aligns with CASA recommendations.
- If development of the plan for the Peace region begins soon, there could be potential for CASA to do some work.

- Industry has agreed to fund the monitoring system in the Oil Sands, which could cost up to \$50 million/year for the next 3 years. Once the infrastructure is completely in place, this amount is expected to go down. The Monitoring Panel is tasked with creating a core base of funding.
- The work going into this is impressive. There is some concern about the emphasis on the health numbers as they are not set at ambient air quality objective (AAQO) levels which are protective of health. While the national piece looks at communities of 100,000 or more, the ambient air quality levels in the LARP will be based on sub-regional planning.
- Targets establish a limit we do not wish to exceed. The work is ongoing internally and the level of detail required for a target is not completely fleshed out yet. Target establishment is a potential area where CASA could assist.
- There is an array of actions, frameworks, policies and initiatives that are all moving toward an effective cumulative effects management approach. The challenge is knitting the pieces together and doing respectful work with partners to achieve this system. The GoA is committed to working with partners in a significant way to deliver a credible system that will stand up to scientific scrutiny. We are looking forward to working with CASA and our other partners.

The Board thanked Bev for her presentation.

***The Board directed the Secretariat to prepare a submission to the new Alberta Environmental Monitoring Panel and to extend an offer to assist where needed. The Executive will review and approve the Secretariat's draft submission to the panel.***

## 2 Strategic Planning

### 2.1 Final approval of 2012-2016 Strategic Plan

The Board was asked to give final approval to the 2012-2016 Strategic Plan. Prior to giving approval, the following points were made:

- Since the presentation at the December 2011 Board meeting, caucuses were given additional time for internal review.
- The Government caucus confirmed that they have reviewed the plan, provided minor editorial comments and given its approval for the plan.
- The Secretariat will retain any comments received and bring them forward for consideration during the next scheduled review of the plan.
- The Strategic Plan will be posted to the CASA website and a limited number of hard copies will be made available upon request.

***The Board agreed by consensus to adopt the 2012-2016 Strategic Plan and directed the Secretariat to proceed with implementation of the plan.***

Myles Kitagawa assumed the chair for the remainder of the meeting.

### 3 Project Management

#### 3.1 CASA Provision of Extension Services

The Ministry of Energy in British Columbia has asked for CASA's advice regarding the potential to apply Alberta airshed experience in northeast BC. The Executive Committee agreed that the Secretariat could do some preliminary research and provide some initial advice, based on existing studies and documents. However, it was agreed that any work beyond this must be subject to a discussion and guidance from the Board.

While a relatively robust air quality management system exists in BC, Alberta has several established airshed groups, a repository for the data (the CASA Data Warehouse) and CASA itself. The Alberta system is based on significant multi-stakeholder involvement at all levels. BC realized that they had some elements in common with the Peace Airshed Zone Association (PAZA), such as geography and the mix of resource development pressures.

BC has also taken into account guidance from the national AQMS on setting up an air zone management team, which is closely aligned with how things work in Alberta. All the O&G industry operators in northeast BC seem supportive of engaging stakeholders in air quality monitoring discussions.

***The secretariat will forward a copy of the report and advice to Board members once the BC government has released it to their stakeholders.***

Norm noted that, it would be very helpful if the Board were able to provide some direction with respect to CASA's role, if CASA receives more requests of this nature, from BC or elsewhere (e.g. in the short term, CASA may be asked to help establish a dialogue between BC and Alberta stakeholders).

The following points emerged in Board discussion:

- Since the Alberta government provides CASA's primary funding, the issue should be relevant and have value in an Alberta air quality management context. The issue should be gauged in terms of its strategic leverage for Alberta and should not compromise the interests of CASA or Alberta.
- One of the outcomes of Goal 4 in the Strategic Plan is to establish CASA as a model that exemplifies the application of collaborative processes. The environmental medium matters less than the need to focus on building a multi-stakeholder consensus.
- CASA does have a role to play in providing information to other jurisdictions and advocating for collaborative processes, but it should not take a disproportionate amount of the Secretariat's time or compromise CASA's priorities and internal needs.
- If the work is outside Alberta, the secretariat should be compensated. We should proceed with caution on this front, as CASA currently doesn't have a "work for hire" business model.
- CASA needs to maintain a focus on rebuilding; this means doing a few things really well. Emphasis should be on implementation of the new Strategic Plan and any new initiatives should be considered in terms of how they would contribute to the plan.
- The BC work thus far has been acceptable because it focused on existing literature, models and processes for developing successful airsheds. Individual airsheds would be better positioned to provide any further guidance, given their operational experience.

*The Board directed that the Executive and Secretariat evaluate any subsequent request from BC, as well as all future requests from other parties, based on the following criteria:*

- *Does the request focus on building consensus among stakeholders?*
- *Will the request compromise the interests of CASA and/or air quality management in Alberta?*
- *Will the work provide strategic leverage, without taxing CASA's resources?*

### **3.2 Performance Measures Committee**

Ruth Yanor and Peter Darbyshire made a presentation on behalf of the Performance Measures Committee (PMC). The 2011 Performance Measures Report included performance measures #3 and #5, as well as follow up on low-rated recommendations from previous years. While performance measure #5 is reported by the PMC, it is calculated by the Communications Committee and is based on the number of return visitors to the website and number and quality of news stories about CASA. The numbers decreased from 2010 and the committee suggested that this could be attributed, in part, to fewer project teams being active in 2011.

Performance measure #3 expresses, as a percentage, the degree of implementation of the substantive recommendations approved by the CASA Board from four years previous. For 2007, the Renewable and Alternative Energy Project team was the only team to report to the CASA Board. One of the team's recommendations was deemed substantive by the PMC and has been rated as being 30% implemented. This recommendation asks Alberta Energy to develop and implement a policy framework to increase the supply of and demand for renewable and alternative electrical energy in Alberta. The policy framework and an action plan to implement it will be delivered to the Minister of Energy by the end of 2012. The PMC recommended that this recommendation be added to the low-rated recommendation matrix for follow-up in December 2012.

When the PMC evaluates recommendations under PM3, recommendations that receive a rating of 3 or less (on a scale of 0 to 10) are placed into the low-rated recommendation matrix for additional follow-up. The PMC can provide advice to the Board on low-rated recommendations, including the following actions:

- Close the recommendation and document the explanation;
- Recommend further work be completed, e.g. striking an implementation team or a new project team; or
- Request further information in order to make a decision.

In September 2009, the CASA Board approved 3 decision-making criteria with respect to closing recommendations – priority level, need for the recommendation, and practical challenges. Based on these criteria, the PMC is recommending that the following nine (9) low-rated recommendations be closed because they are deemed complete:

- 1997 – Acidifying Emissions Management Implementation #16
- 1998 – Flaring and Venting recommendations #16, 18, 31, and 32
- 2002 - Flaring and Venting recommendation # 4 and Acidifying Emissions #2(ii) and 2(v)
- Renewable and Alternative Energy – #12(b)

Two additional recommendations have been deemed irrelevant and the PMC recommended that they be closed as well:

- 1998 – Flaring and Venting #15
- 2002 – Flaring and Venting #13

The PMC further recommended that the CASA Board reassess, or appoint a group to reassess, the 2003 Electricity Project Team recommendation 67(b) to determine if resources could be allocated for implementation. If not, the recommendation should also be closed.

The following discussion points emerged:

- Recommendation 67(b) relates to the issue of “take or pay” contracts which are 5 to 10 years in length and are not currently up for review. It was noted that they have little relevancy in today’s market.
- The 2002 Flaring and Venting recommendation #13 relates to Directive 60 and under the current context does not work as the vent sources are too small to be economically viable. It was noted that any work to revise the requirements of Directive 60 should be considered over and above the intent of this recommendation.

***The Board approved the 2011 Performance Measures Report and agreed to close Recommendation 67(b) from the 2003 Electricity Project Team, as it is no longer relevant.***

### 3.3 Status Reports

Robyn Jacobsen directed the Board to the Status Reports and provided some clarity with respect to the work being completed by the project teams:

- **CASA and AAC Joint Standing Committee** – initially, the committee will focus their work on key task #3 from their Terms of Reference; it requires the committee to address the roles and responsibilities of CASA and the AAC. They have contracted a consultant to write a report that will inform their discussions.
- **Confined Feeding Operations** – the CASA Secretariat hosted a workshop on March 15 to review the implementation status of the 2008 recommendations. A second workshop will be held in May 2012 to review feedback from stakeholder constituencies and determine the future of the team.
- **Human and Animal Health Team** – the team has reviewed previous recommendations and the original goals of the Comprehensive Human Health Management System (CHHMS). Next steps include inventorying inputs into the CHHMS and considering linkages and coordination. This will assist in determining what more can be done to implement the CHHMS.
- **Performance Measures Working Group** – this group is completing CASA’s 3-year performance measures review process. They will be considering the relevance of CASA’s current performance measures and considering the potential for new performance measures.

- **Other Initiatives:**
  - The secretariat is considering how to increase the value of CASA’s website by updating the information and looking for ways to make the website more of a community of practice.
  - Several new projects are being screened for relevance, using the Beta version of the “Managing Collaborative Processes” Guidebook as a model.
  - The status of all project teams will be reviewed and clarified, especially the Operations Steering Committee and the Particulate Matter and Ozone Implementation team.
  - The secretariat is researching options for building a searchable database, which is the first step in a knowledge management system for CASA.
  - The secretariat is continuing to receive advice on the best ways/means to develop effective aboriginal engagement in air quality management discussions.

The following comments arose in Board discussion:

- In light of the national AQMS and the new CAAQS for PM and Ozone, it was suggested that the PM and Ozone team could probably be disbanded.

***The earlier amendments to the Board minutes regarding the Human and Animal Health Team should be reflected in the Status Report.***

### **3.4 Beta (Testing) Version of the Managing Collaborative Processes (MCP) Guide**

Norm advised the Board that the advice received at the December 2011 Board meeting has been incorporated into a new Beta (testing) version of the *Managing Collaborative Processes Guidebook*. Once field testing is complete, the Secretariat will present the final draft to the Board for review and finalization. In general, Section B, the steps in the collaborative decision-making process, have been captured relatively well. However, the characterizations of the collaborative process and interest-based negotiation in Section A still require further work.

The most recent version of the guidebook will be introduced at the Coordination Workshop on May 29 and 30, 2012 in Red Deer.

Comments and feedback on the guide can also be provided to the Secretariat.

The following comment was made with respect to the MCP Guide:

- Under “Preliminary Assessment”, Step 1 of the guide (p. 18), the Executive Committee should not have the authority to refer an issue to another organization. Rather, they could “propose” alternative actions to the Board.

The meeting reconvened at 12:30 p.m.

## 4 Communications

### **4.1 2011 Communications Committee Report and the 2012 Strategic Communications Plan**

Yolanta Leszczynski provided a presentation on the 2011 Communications Committee achievements which included:

- **The Communications Awareness Benchmark Survey** – the general public and CASA stakeholders were surveyed to learn more about their perspectives on CASA and air quality issues. This information will help the committee in their tactical and strategic planning.
- **CASA audiences confirmed** –Five general groups were defined as CASA audiences (CASA members, direct stakeholders, indirect stakeholders, government and media). Issue-specific sub-group audiences were also confirmed. Next steps include building on the base template and developing a searchable database.
- Other highlights included ongoing collaboration to organize Environment Week/Clean Air Day. Presentations were made to the Air & Waste Management Association Conference, the Synergy Alberta conference and the United Nations Environment Programme Conference on Mediation.

### **Strategic Communications Plan**

The Strategic Communications Plan was presented at the December 2011 Board meeting. Based on the feedback at that meeting, the committee revised the key messages in the plan. Two further changes were noted:

- Under “Communications Goals” #2, the wording should read:  
Develop the tools necessary to enable CASA to deliver on *the communications aspects* of its strategic goals.
- Under key message #3, the wording should read:  
With over 15 years experience, CASA has a proven track record of achievement, *most notably:*

***With these changes, the Board agreed to approve the 2012 Strategic Communications Plan on the condition that activities requiring incremental funding proceed only if the required funding is acquired.***

## **4.2 2011 Annual Report**

Yolanta referred the Board to the Annual Report and the schedule of dates for completion. All input from the Board must be sent to the Secretariat by April 6.

The following points were made during discussion:

- On page 7, “Past Members” should be changed to those who helped lead us in 2011.
- Throughout the Performance Measures section, 2010 should be changed to 2011.
- On page 9, the first paragraph under “Results” should be moved to the front of that section.
- Board members were also reminded to provide digital photos for inclusion in the Annual report. Both the President’s message and the Executive Director’s message were approved.

***The Board authorized the Executive to approve the Annual Report for printing after comments from board members are incorporated.***

## **4.3 Coordination Workshop**

Yolanta provided an update on the 2012 Coordination Workshop being held on May 29 and 30, 2012 at the Sheraton (formerly Capri) Hotel in Red Deer. Based on feedback from the 2010

Coordination Workshop, the 2012 workshop has been developed to provide more opportunity for interactive sessions. As in 2010, day one of the workshop will provide information on major initiatives shaping Alberta's regulatory landscape. There will be a series of presentations followed by facilitated interactive discussions.

The second day will focus on the collaborative process and the new "Managing Collaborative Processes Guide" will be introduced. There will be an emphasis on small group discussion regarding the mechanics of effective collaboration.

***The Board authorized the Communications Committee to organize the 2012 Coordination Workshop.***

***The Board directed the Committee to send an invitation to parties who have expressed an interest in establishing an airshed in northeast BC.***

## 5 New/Other Business

### **5.1 New/Other Business**

No new business was introduced at the meeting.

### **5.2 Membership Description for the Alberta Environmental Network (AEN)**

Myles directed the board to a letter from the Alberta Environmental Network that provided a better description of the Clean Air Caucus interests and specializations.

### **5.3 Member Resignation from Board of Directors**

Norm advised the Board that SEPAC has resigned from the CASA Board. SEPAC indicated that they will continue to track CASA activities through other members of the industry caucus. Discussions are ongoing with the Canadian Energy Pipeline Association regarding their interest in becoming a CASA board member.

### **5.4 Updated Mailing and Membership Lists**

Board members were asked to provide any updated contact information to the Secretariat.

### **5.5 Evaluation Forms**

Board members were reminded to fill in the evaluation form; responses to the questions would help inform future Board discussions regarding membership.

The next Board meeting will be held in Edmonton on June 28, 2012. The AGM will also be held in conjunction with that meeting.

Myles thanked Board members and the Secretariat for their work and participation in the meeting.

The meeting adjourned at 2:15 pm.



## Board Action Items For Discussion – September 27, 2012

### Carried Forward Action Items

Action items	Meeting	Status
<b>3.1 – CASA Provision of Extension Services</b> The Secretariat will forward a copy of the report and advice to Board members once the BC government has released it to their stakeholders	March 29, 2012	Carried forward. Report not yet released.
<b>1.5 – Core Budget for 2012</b> The Board charged Norm and the Executive Committee with exploring alternative funding mechanisms and models and bring back their finding to a subsequent Board meeting.	December 1, 2011	Carried forward. To be discussed at a forthcoming Executive Meeting.

### Completed Action Items

Action items	Meeting	Status
<b>1.6 – Update on GOA Initiatives</b> The Board directed the Secretariat to prepare a submission to the new Alberta Environmental Monitoring Panel and to extend an offer to assist where needed. The Executive will review and approve the Secretariat's draft submission to the panel.	March 29, 2012	Completed.
<b>1.2 – December 1, 2011 Minutes</b> Revise the wording under 2.2 & 6.1 – HAHT as described in the March 29, 2012 board minutes.	March 29, 2012	Completed
<b>3.3 – Status Reports – HAHT</b> Revise the wording in the HAHT status report as described in the March 29, 2012 board minutes.	March 29, 2012	Completed.
<b>4.1 – 2012 Strategic Communications Plan</b> Change the wording under Goal #2 and Key Message #3 as described in the March 29, 2012 board minutes.	March 29, 2012	Completed.
<b>4.3 – Coordination Workshop</b> The Board directed the Communications Committee to send an invitation to parties who have expressed an interest in establishing an airshed in northeast BC.	March 29, 2012	Completed.
<b>3.1 – Strategic Plan Presentation and Sign-Off</b> The Board directed that the 2012 Operational Plan be linked back to both the Strategic Plan and the Clean Air Strategy, where appropriate.	December 1, 2011	Completed.
<b>Item 3.2 – Status Reports</b> The Board directed the Secretariat to proceed with guidebook completion and testing the guidebook using the suggested approach.	September 8, 2011	Completed.

## INFORMATION SHEET

**ITEM:** 2.3 Board Decisions Approved in June

**ISSUE:** With the cancellation of the June 2012 board meeting, several important decisions were sent to board members for approval via electronic means.

**BACKGROUND:** The CASA Board has an Executive Committee that is comprised of a representative from each stakeholder group; government, industry and non government. Executive members Ernie Hui and Myles Kitagawa resigned from their positions and the term for Cindy Christopher expired in June 2012. Board members were asked to vote electronically to approve Dana Woodworth as President (GOV), Chris Severson-Baker as Vice President (NGO) and reaffirm Cindy Christopher as Vice President (IND) for an additional two year term.

With the resignation of signing officers Myles Kitagawa and Ernie Hui, there were no designated directors to sign cheques over \$5000. CASA bylaws require that new signing officers be approved by the CASA board. The board was asked to electronically vote to approve Cindy Christopher, Dana Woodworth and Bev Yee as signing officers for the organization.


**ATTACHMENTS:**

- A. Board approvals for Cindy Christopher
- B. Board approvals for Dana Woodworth, Chris Severson-Baker and Bev Yee.

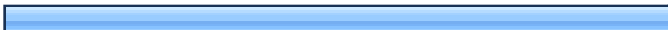
## Board Approval - June 2012



## 1. Do you approve the reappointment of Cindy Christopher until June 2014?

		Response Percent	Response Count
Yes		100.0%	23
No		0.0%	0
answered question			23
skipped question			0

## 2. Do you authorize the Executive Director to establish Cindy Christopher as a signing officer for CASA?

		Response Percent	Response Count
Yes		100.0%	23
No		0.0%	0
answered question			23
skipped question			0

## 3. Your Name (required):


	Response Count
	23
answered question	23
skipped question	0

**Q3. Your Name (required):**


1	Eileen Gresl Young	Jun 21, 2012 2:27 PM
2	Dan Thillman	Jun 20, 2012 5:49 PM
3	Leigh Allard	Jun 20, 2012 3:29 PM
4	Rich Smith	Jun 20, 2012 2:41 PM
5	Chris Severson-Baker	Jun 20, 2012 2:08 PM
6	Cindy Jefferies	Jun 20, 2012 2:05 PM
7	Peter Darbyshire	Jun 20, 2012 1:46 PM
8	Ann Baran	Jun 20, 2012 1:37 PM
9	Peter Darbyshire	Jun 20, 2012 1:27 PM
10	Don Wharton	Jun 20, 2012 1:27 PM
11	David Lawlor	Jun 20, 2012 1:27 PM
12	John Squarek	Jun 20, 2012 1:27 PM
13	Margaret King, Alberta Health	Jun 20, 2012 12:48 PM
14	Don Szarko	Jun 20, 2012 12:24 PM
15	Yolanta Leszczynski; CIAC	Jun 20, 2012 11:48 AM
16	David Spink	Jun 20, 2012 11:46 AM
17	Humphrey Banack Wild rose agricultural producers.	Jun 20, 2012 11:35 AM
18	Brian Gilliland	Jun 20, 2012 11:11 AM
19	Holly Johnson-Rattlesnake	Jun 20, 2012 11:10 AM
20	Jennifer Steber	Jun 20, 2012 11:10 AM
21	Keith Murray	Jun 20, 2012 11:07 AM
22	Bev Yee	Jun 20, 2012 11:06 AM
23	CArolyn Kolebaba	Jun 20, 2012 11:06 AM

# Board Approval: Exec Committee/Signing Officers


## 1. Do you approve Dana Woodworth as CASA's President to June 2014?

		Response Percent	Response Count
Yes		100.0%	19
No		0.0%	0
answered question			19
skipped question			0


## 2. Do you approve Chris Severson-Baker as CASA's Vice President (NGO) to June 2013?

		Response Percent	Response Count
Yes		100.0%	19
No		0.0%	0
answered question			19
skipped question			0

## 3. Do you authorize the Executive Director to establish Dana Woodworth as a signing officer for CASA?

		Response Percent	Response Count
Yes		100.0%	19
No		0.0%	0
answered question			19
skipped question			0

**4. Do you authorize the Executive Director to establish Bev Yee as a signing officer for CASA?**

		Response Percent	Response Count
Yes		100.0%	19
No		0.0%	0
<b>answered question</b>			<b>19</b>
<b>skipped question</b>			<b>0</b>

**5. Your Name (required):**

		Response Count
		19
<b>answered question</b>		<b>19</b>
<b>skipped question</b>		<b>0</b>

**Q5. Your Name (required):**

1	M. Ruth Yanor	Jul 2, 2012 4:58 PM
2	Ann Baran	Jul 2, 2012 12:15 AM
3	Leigh Allard	Jun 29, 2012 1:56 PM
4	Tom Burton	Jun 29, 2012 1:56 PM
5	Margaret King	Jun 29, 2012 11:22 AM
6	Cindy Christopher	Jun 29, 2012 6:49 AM
7	Eileen (Gresl) Young	Jun 28, 2012 2:29 PM
8	Dan Thillman	Jun 28, 2012 2:27 PM
9	John Squarek	Jun 28, 2012 1:50 PM
10	David Spink	Jun 28, 2012 1:31 PM
11	Don Wharton	Jun 28, 2012 1:25 PM
12	Keith Murray	Jun 28, 2012 1:09 PM
13	Holly Johnson-Rattlesnake	Jun 28, 2012 1:04 PM
14	Peter Darbyshire	Jun 28, 2012 12:43 PM
15	Carolyn Kolebaba	Jun 28, 2012 12:24 PM
16	Rich Smith	Jun 28, 2012 11:36 AM
17	Al Schulz	Jun 28, 2012 11:18 AM
18	Brian Gilliland	Jun 28, 2012 10:51 AM
19	Yolanta Leszczynski CIAC	Jun 28, 2012 10:35 AM

## INFORMATION SHEET

**ITEM:** 2.4 New Representatives

**ISSUE:** Three new directors and three new alternate directors have been chosen by their respective member organizations as representatives on the CASA board.

**STATUS:** **Martin Chamberlain**, Assistant Deputy Minister, Alberta Energy has been appointed as the director representing Provincial Government – Energy.

**Neil MacDonald**, Acting Assistant Deputy Minister, Alberta Health, has been appointed to replace Margaret King as the director representing Provincial Government – Health.

**Dana Woodworth**, Deputy Minister, Alberta Environment and Sustainable Resource Development has been appointed to replace Ernie Hui as the director representing Provincial Government – Environment. In June 2012, the Board of Director's approved Mr. Woodworth as CASA President.

**Brian Ahearn**, Vice President – Western Division, Canadian Petroleum Products Institute has been appointed as the alternate director representing Industry – Petroleum Products.

**Humphrey Banack**, 2nd Vice President, Wild Rose Agricultural Producers has been appointed as the alternate director representing Industry - Agriculture, replacing Dwayne Marshman.

**Tim Whitford**, Councillor, Town of High River, Alberta Urban Municipalities Association has been appointed as the alternate director representing Local Government – Urban.

A biography for Martin Van Olst is also attached as it was not previously available.

**ATTACHMENTS:** A. Biographies of New Members



**Biography**

**Director**

**Martin Chamberlain  
Assistant Deputy Minister  
Alberta Energy**

Martin Chamberlain graduated from the University of Alberta in 1982 with a degree in mechanical engineering and in 1985 with a degree in law.

After a number of years in private practice, Martin joined Alberta Justice and the Environmental Law team in 2002. In 2003, he moved to Alberta Health and Wellness as the leader of the Health Law team.

While at Health, Martin took on the acting role of Assistant Deputy Minister (ADM) of Financial Accountability in April 2008, and in July 2009 was appointed to ADM of the Corporate Support Division.

On July 3, 2012, Martin became the ADM for the Resource Development Policy Division with Alberta Energy.

**Biography**

**Director**

**Neil MacDonald  
Acting Assistant Deputy Minister  
Alberta Health**

Neil MacDonald, the Executive Director of the Wellness Branch of Alberta Health has over 25 years of health related experience in the areas of acute care, public and population health. He has an in-depth working knowledge of health promotion, disease and injury prevention as well as extensive experience in community development and partnership building processes.

Neil oversees Alberta's provincial strategies, initiatives and action relating to public health policy development, health promotion and illness and injury prevention. His passion and commitment to health promotion is demonstrated through his participation on numerous national committees of the Pan-Canadian Public Health Network. He was instrumental in unifying Provincial and Territorial support for the Curbing Childhood Obesity: An FPT *Framework for Action to Promoting Health Weights*. This Framework was endorsed by the Federal/Provincial/Territorial Minister's of Health and Healthy Living in September 2010. Through Neil's active participation in Pan-Canadian Healthy Living initiatives, he continues to contribute to the development and implementation of concrete action plans to promote healthy weights in children and youth demonstrated through the November 2011 release of *ACTIONS TAKEN AND FUTURE DIRECTIONS 2011 – Curbing Childhood Obesity: A Federal, Provincial and Territorial Framework for Action to Promote Health Weights*.

**Biography**

**Director**

**Dana Woodworth, MSC, BSc (Applied), MBA  
Deputy Minister  
Alberta Environment & Sustainable Resource Development**

On May 24, 2012, Dana Woodworth became Deputy Minister of Alberta Environment and Sustainable Resource Development. Mr. Woodworth came to the ministry from Alberta Energy, where he was Chief of Oil Sands Strategy and Operations from October 2011 to May 2012.

Mr. Woodworth first joined the Government of Alberta in November 2010, as Managing Director of the Alberta Emergency Management Agency. During his tenure, the Agency effectively coordinated the Government of Alberta's support to numerous emergency events, including the unprecedented interface fire that swept through the Town of Slave Lake on May 15, 2011.

Mr. Woodworth worked for 28 years with the federal government, followed by one year of private sector business management in the surface mining and construction industry as part of Nuna Logistics Ltd.

In June 2010, Mr. Woodworth received the Meritorious Service Cross (MSC) from the Governor General of Canada for his leadership while deployed as the Commanding Officer of the Kandahar Provincial Reconstruction Team.

Mr. Woodworth lives on an acreage north of Calmar with his wife, Shannon, and their two dogs, Finnegan and Roxy. He enjoys motocross, fly fishing and reading. The Woodworth's have two daughters, Sarah and Rachelle, who also reside in Alberta.

**Biography**

**Alternate Director**

**Brian Ahearn  
Canadian Petroleum Products Institute**

Mr. Ahearn is Vice-President, Western Canada Division of the Canadian Petroleum Products Institute, the national association of major Canadian companies involved in the refining, distribution and/or marketing of petroleum products for transportation, home energy and industrial uses.

CPPI work focuses on the development of public policy and regulation that serves the long term interests of the Canadian consumer and the Canadian petroleum industry, with emphasis on environment, health and safety issues.

Brian joined Imperial Oil (Canadian affiliate of ExxonMobil) in 1978 and his career with the company spanned 34 years. As a Professional Engineer, he has had responsibility for fuels regulation advocacy and long term facility planning for the refining and supply facilities. His career encompassed supervisory and technical positions in Toronto, Edmonton and Calgary, including the Imperial Oil refinery in Edmonton.

Mr. Ahearn retired from Imperial in 2012 and joined the Canadian Petroleum Products Institute (CPPI) as Vice-President of Western Region with responsibility for four provinces and two territories. He is a member of the Board of Directors of BCUOMA and SARRC – the British Columbia and Saskatchewan used oil management associations, and is an Alternate Director with Alberta's Clean Air Strategic Alliance (CASA).

Mr. Ahearn holds a Bachelor's degree in Engineering from Carleton University, and is an avid skier while enjoying family and cottage life.

**Biography**

**Alternate Director**

**Humphrey Banack  
Wild Rose Agricultural Producers**

Humphrey Banack started his Wildrose Agricultural Producers experience as a regional director in 2004. From January 2008 to January 2012, Humphrey served as president where he enjoyed the opportunity to represent Alberta producers on a wide range of issues. Humphrey currently serves on the executive as vice president.

In February of 2011, Humphrey was elected 2nd vice president of the Canadian Federation of Agriculture. This provided him with the opportunity to represent over 200,000 agricultural producers from across Canada, in all sectors of the industry, both on a national platform and internationally.

Humphrey and his wife operate a 4200 acre third generation mixed operation in the Round Hill area of Alberta, which is 50 miles southeast of Edmonton. They crop 3700 acres of pulses, oilseeds and coarse grains. The balance of their acres is used in a 50 head cow/calf operation. His brother and son run separate operations nearby and they share equipment and management resources. They strive to maintain the sustainability of their operation with both environmental and financial aspects in mind.

Their children have expressed an interest in entering the operation but at present are attending post-secondary school or working off farm.

Humphrey and his wife have a strong commitment to a viable agricultural industry and as such are involved in a wide array of interests that work toward the achievement of this vision.

**Biography**

**Alternate Director**

**Tim Whitford  
Town of High River  
Alberta Urban Municipalities Association**

Tim is returning to CASA participation after an absence of 14 years. Tim is a Power Engineer with experience in oil and gas processing, power generation and pulp and paper manufacturing processes.

Tim has 17 years of experience in regulatory affairs, eight of which Tim was self-employed consultant as an environmental policy advisor.

Tim was the first chair of the WCAS board and an alternate board member (forest products) for three years.

Tim is serving his first term as a councillor in High River and is a member of the AUMA sustainability and environment committee.

**Biography**

**Alternate Director**

**Martin Van Olst  
Senior Analyst  
Environment Canada**

Martin Van Olst is a Senior Analyst with the Regional Analysis and Relationships unit, based in Environment Canada's regional headquarters in Edmonton. Martin has a B.Sc. with a Specialization in Meteorology from the University of Alberta and an Environmental Management Certificate from the University of Calgary. Martin has worked at Environment Canada since 1990, first as a Meteorologist in the Winnipeg, Saskatoon and Calgary weather offices and then transitioned into environmental policy and corporate affairs in 2004.

## **DECISION SHEET**

**ITEM:** 2.5 **CASA's Executive Committee Membership**

**ISSUE:** Each executive committee member serves a two-year term. The term of the secretary treasurer is up for renewal at this time.

**BACKGROUND:** **Norman MacLeod** has completed his two-year appointment as secretary treasurer. The secretary treasurer is appointed to keep appropriate records for the board, send notices of meetings, receive all monies paid to CASA, properly account for funds of CASA, keep such books as may be directed, and present a full detailed account of receipts and disbursements to the board whenever required. When CASA was first established, the executive committee and the board of directors agreed that it would be in CASA's best interest for the Executive Director to hold the office of secretary treasurer. In keeping with the original agreement, Norman MacLeod would assume that role for another two years to September 2014.

**DECISION:** Renew Norman MacLeod as secretary treasurer to September 2014.

**ATTACHMENTS:** None

## **INFORMATION SHEET**

**ITEM:** 2.6 Executive Director's Reports and Financial Statements

**BACKGROUND:** The Board is provided with regular reports from the Executive Director at each Board meeting. At the September board meeting, the Board usually receives a mid-year budget update.

**ISSUE:** 1. Executive Director's Reports

**ATTACHMENTS:**

- A. Executive Directors Report
- B. Legal Requirements - June 30, 2012
- C. Stakeholder Support – June 30, 2012

**ISSUE:** 2. Financial Reports

**ATTACHMENTS:**

- D. Status of Revenue and Grants – June 30, 2012
- E. Consolidated Core Expenses – June 30, 2012
- F. Mid Year Update of 2012 Core Budget – June 2012
- G. Commitment of CASA Funding 2013

# Executive Director's Report

## Overview of Key Events and Initiatives

### Core Funding for 2013

CASA has prepared a 2013 grant commitment letter for sign-off by Alberta Energy and for inclusion in the Sept. 27<sup>th</sup> Board package. The commitment letter is for a grant of \$850 K, consistent with the grants received for 2010, 2011 and 2012. While this amount will allow for CASA's continued support of new and anticipated projects in 2013, it will require a reconfiguration of the Secretariat to avoid a reduction of CASA's \$250K buffer, provided in 2009 to bridge the gap between our fiscal year end and April 1<sup>st</sup> (government's budget cycle).

### Staffing Changes

The CASA Secretariat staff complement will soon be reduced to seven: an Executive Director, four staff managing specific projects/outreach/communications, and two providing stakeholder support, board support and financial services. Since 2010 the Secretariat has moved to a delivery model that draws more frequently on the use of consultants to deliver specific products rather than full-time employees.

The Secretariat is continually looking for ways in which we can work more effectively at less cost. In the Fall of 2012 CASA will be moving to a team-based approach to project support. Individual project teams will be covered by both a lead project manager and a second staff member to provide in-meeting help. This approach will give the Secretariat a better strategic capability between meetings and ensure there is continuity if project managers leave the Secretariat. Each project manager will be exposed to more projects and gain more in-session experience. They will also be able to discuss project strategy with a colleague who can provide valuable feedback.

Following the departure of Jean Moses in January, the Secretariat hired Kaylyn Airey to work as both a project manager and communications advisor. This dual role is consistent with our intention to provide more efficient delivery at reduced cost. Kaylyn has a strong background in multi-stakeholder facilitation and communications, having served as the Public Consultation Coordinator for the Eagle Point – Blue Rapids Council while they developed their management plan.

Asia Szkudlarek's one year appointment ended on Aug 24<sup>th</sup>. Asia's work focused on delivery of the Coordination Workshop, website redevelopment and scoping a CASA Community of Practice.

### Statements of Opportunity

A Statement of Opportunity that proposes the development of an Odour Management Framework for Alberta will be presented to the Board at the Sept 27<sup>th</sup> meeting. A second Statement of Opportunity will follow in December (or earlier) dealing with air emissions associated with transportation. For both of these SOOs project managers are doing extensive research on policies, regulation and management practices in other jurisdictions and are engaging a broad range of CASA stakeholders (consistent with Board expectations from June 2011).

At the same time the Secretariat is working with co-chairs to conclude the work of several long-standing CASA project teams, allowing CASA stakeholders to focus on a significantly reduced agenda of current air quality issues. The Confined Feeding Operations and Particulate Matter and Ozone project teams and the Operations Steering Committee may all finish their work this Fall.

### Coordination Workshop

On May 29-30 in Red Deer 70 participants came together for a 2-day workshop to share information about CASA-related initiatives and to learn more about consensus-building approaches and tools. Feedback from participants affirmed that CASA should continue with these “Coordination Workshops” periodically, and that their value, in part, is determined by the ability of government presenters to provide the most current information about government priorities and the related implications for stakeholders. Day 2 of the workshop was highly valued, providing an opportunity for stakeholders with extensive collaborative experience to discuss the strengths and challenges of multi-stakeholder negotiations.

### Creating a Knowledge System

CASA’s strategic plan requires CASA to contribute to an improved knowledge system with respect to air quality in Alberta. This is a significant undertaking, but one that is critical to informing the policy discussions of our stakeholders. Goal 3 of the plan says:

CONTRIBUTE TO THE DEVELOPMENT OF A RELIABLE, COMPREHENSIVE, OBJECTIVE KNOWLEDGE SYSTEM WITH RESPECT TO AIR QUALITY (E.G. INFORMATION ON EMISSIONS, AMBIENT AIR QUALITY, HEALTH, AND ENVIRONMENTAL IMPACTS, AND MANAGEMENT AND MITIGATION MECHANISMS.

A principal strategy requires CASA to:

- Develop an inventory of the information that has been developed by CASA and conduct timely and ongoing gap analyses that enable CASA stakeholders and others to address emerging air quality challenges.

In practice, each project team will continue to meet issue-specific information requirements under contract as and when needed, in effect conducting their own gap analysis. Still, the CASA



Secretariat has over 18 years of data, reports, research and meeting products. They provide valuable context and lessons that can be applied to address emerging issues. In paper form, much of this information has been inaccessible and has led to a loss of “institutional memory”. After 6 months of work, the Secretariat will soon have electronic records of all this information and will begin to create a searchable database. This will be an ongoing process; one that will soon have operational value and one that respects the work of nearly 1000 stakeholders over the last 18 years.

### Training

Over the past year several board members have expressed frustration with their involvement in a number of non-CASA multi-stakeholder processes and expressed an interest in CASA providing training or other more directed assistance. Training external stakeholders to work collaboratively, while consistent with CASA’s strategic plan, is generally viewed by the Board as falling outside of CASA’s core activities. Any assistance to others can only be provided if it does not detract from CASA’s ability to support its own teams. CASA may be able to offer a limited number of seats to external parties in training sessions scheduled for this Fall.

### Communications

CASA is working with AESRD, Environment Canada and The Lung Association to find ways in which we can leverage limited funds to raise awareness of air quality initiatives in Alberta. These parties already collaborate through events like Environment Week and providing information about the CASA Data Warehouse and the Air Quality Health Index. Still, opportunities remain to pool expertise and resources and to raise awareness in an increasingly crowded communications landscape. Specific opportunities for collaboration will be presented to the Executive Committee for decision.

Individual CASA staff members continue to attend as guest speakers at a broad range of air-related forums in Alberta.

### Strategic Planning

Following on Board approval of a new 5-year plan in March, the Secretariat is preparing several products that will ensure plan roll-out. These include:

- The Secretariat is committed to implementation of each of the 4 plan goals and this will be reflected in 4<sup>th</sup> quarter revisions to the 2012 Ops Plan and preparation of the 2013 Ops Plan.
- The Strategic Plan included a placeholder that requires the Secretariat to develop a simple risk management matrix, sufficient to inform Board/Executive/Secretariat decisions..

- The Board has set an expectation that the Strategic Plan will be an “evergreen” document, revised as necessary, based on the practice of strategic foresight. The Secretariat will provide a proposal for Executive approval.

#### Clean Air Strategy

There is considerable anticipation among CASA stakeholders that the GoA will provide more context for Board discussions about air quality through the release of a new Clean Air Strategy for Alberta and an associated environmental monitoring plan this Fall.

**Clean Air Strategic Alliance  
Legal Requirements Completed for 2012  
January to July 2012**

<b>Description</b>	<b>Requirements</b>	<b>Completion Date</b>
Revenue Canada	Annual Filing of Return & Audited Financial Statements	March 2012
Annual General Meeting	Annual Meeting of Members of the Alliance.  Presentation of CASA's Audited Financial Statements	September 27, 2012  September 27, 2012
Revenue Canada – GST Return	Return Filed Quarterly	April 27, 2012 July 26, 2012
Revenue Canada – Payroll Deductions	Payment is made on about the 15 <sup>th</sup> of the following month	Feb 15/12- Ceridian- for Jan. Mar 15/12- Ceridian- for Feb. Apr 16/12- Ceridian- for Mar. May 15/12- Ceridian- for Apr. June 15/12- Ceridian- for May. July 16/12- Ceridian- for June.
Board of Directors Liability Insurance	Annual Payment for Liability Insurance	January 10/12 (for 2012)
Alberta Tax Return	Annual Filing	March 2012(for 2011)

**Stakeholder Support  
January 1 to June 30, 2012**

<b>Name</b>	<b>Organization</b>
Beth Nanni	The Lung Association
Ann Baran	Southern Alberta Group for the Environment
Myles Kitagawa	Toxics Watch Society of Alberta
Denis Sauvageau	Friends of an Unpolluted Lifestyle
Chris Severson-Baker	Pembina Institute
Wayne Ungstad	Ponoka Fish & Game Association
Ruth Yanor	Mewassin Community Action Council

Note: The above stakeholders received stakeholder support from CASA during 2012. This list also includes stakeholders who received travel support.

## CASA Core Revenue and Expense Summary

<u>Revenue</u>	<u>Amount</u>	<u>Note</u>
<b>Grants Carried Forward from 2008</b>	<b>\$547,730</b>	Includes Pre-payment for 2009 Operations from Alberta Environment
Grants Received in 2009		
Alberta Energy - 2nd Quarter Pre-Payment	<b>\$250,000</b>	Intended to be carried forward to future years
Alberta Energy - Annual Contribution	<b>\$1,000,000</b>	Intended for operations to March 31, 2010
<b>Total Grants Received in 2009</b>	<b>\$1,250,000</b>	
Transfers to Projects	<b>-\$55,000</b>	To Martha Workshop and Priority Setting Workshop, as agreed by Alberta Environment
<b>Total Expenses 2009</b>	<b>-\$836,590</b>	Year-end actual
<b>Balance End of 2009</b>	<b>\$906,140</b>	
<b>Revenue 2010 -Alberta Energy</b>	<b>\$850,000</b>	For operations to March 31, 2011
Transfer to external projects	<b>-\$800</b>	
<b>Total Expenses 2010</b>	<b>\$923,410</b>	Year end actual
<b>Balance End of 2010</b>	<b>\$831,930</b>	
<b>Revenue 2011-Alberta Energy</b>	<b>\$850,000</b>	For operations to March 31, 2012
<b>Total Expenses 2011</b>	<b>\$983,319</b>	Year end actual
<b>Balance End of 2011</b>	<b>\$698,611</b>	
<b>Revenue 2012-Alberta Energy</b>	<b>\$850,000</b>	For operations to March 31, 2013
<b>Expenses as per budget July 2012</b>	<b>\$1,071,137</b>	
<b>Balance End of 2012</b>	<b>\$477,474</b>	
<b>Revenue 2013- Alberta Energy</b>	<b>\$850,000</b>	For operations to March 31, 2014 Forecast
<b>Expenses based on 2012</b>	<b>\$1,050,000</b>	Forecast
<b>Balance End of 2013</b>	<b>\$268,874</b>	Forecast

As of June 30, 2012

**Clean Air Strategic Alliance  
Consolidated Core Expenses  
June 30, 2012**

Expense Account	Total Actual	Total Budget July 2012 Revision	Variance
<b>Supplies &amp; Services</b>			
Advertising	1,602	5,000	3,398
Finance Charges	1,005	2,100	1,095
Computers & IT	15,680	36,445	20,765
Courier	442	1,935	1,493
Depreciation	0	0	0
Development- Stakeholders	0	5,125	5,125
Furniture & Display	109	5,000	4,891
Office Reconfiguration	0	1,000	1,000
Honoraria - Stakeholders	14,857	38,270	23,413
Insurance	2,181	3,885	1,704
Meeting Expenses	16,167	34,858	18,691
Office Supplies	1,993	6,600	4,607
Print & Reproduction Services			
Annual Report	8,322	8,500	178
General	1,583	16,300	14,717
Repairs & Maintenance	75	0	(75)
Records Storage	1,085	2,000	915
Subscriptions	4,607	7,000	2,393
Telecommunications	3,498	8,100	4,602
Travel			
Consultants	6,705	0	(6,705)
Stakeholders	9,046	18,027	8,981
Staff	10,391	23,651	13,260
<b>Total Supplies &amp; Services</b>	<b>99,348</b>	<b>223,796</b>	<b>124,448</b>
<b>Professional Fees</b>			
Legal Fees	0	3,000	3,000
Audit	8,952	8,952	0
Consulting Expense			
Alberta Environmental Network	0	21,000	21,000
Consulting Expense - Other	107,467	152,239	44,772
<b>Total Professional Fees</b>	<b>116,419</b>	<b>185,191</b>	<b>68,772</b>
<b>Human Resources</b>			
Salaries & Wages	266,278	542,616	276,338
Employer Contributions	15,887	24,002	8,115
Group Benefits	14,317	30,714	16,397
Group Retirement Savings Plan	19,214	39,813	20,599
Performance Pay	0	0	0
Employee Recognition	1,312	2,500	1,188
Staff Development			
Membership Fees	50	1,005	955
Training	2,381	16,000	13,619
Temporary Staff & Contract Labour	0	2,500	2,500
Recruitment	2,267	3,000	733
<b>Total Human Resources</b>	<b>321,706</b>	<b>662,150</b>	<b>340,444</b>
<b>Total Expenses</b>	<b>537,473</b>	<b>1,071,137</b>	<b>533,664</b>

	TOTAL INTERNAL	ADMINISTRATION	COMMUNICATIONS	BOARD	PROJECTS	STATEMENT OF OPPO
<b>Supplies &amp; Services</b>						
Advertising	5,000		5,000			
Finance Charges	2,100	2,100				
Information Technology	36,445	36,445				
Courier	1,935	265	100	1,570		
Depreciation	-					
Development/Training	-					
Stakeholder	5,125				5,125	
Furniture & Display	5,000	5,000				
Office Reconfiguration	1,000	1,000				
Insurance	3,885	1,000		2,885		
Meeting - Meals	34,858		1,033	6,000	27,825	
Office supplies	6,600	5,000		1,000	600	
Honoraria - Stakeholder	38,270		2,250	8,008	28,012	
Telecommunications	8,100	6,600			1,500	
Photocopying/Printing	-					
Annual Report	8,500		8,500			
General	16,300	1,800	11,000	2,500	1,000	
Records Storage	2,000	2,000				
Repairs & Maintenance	-	-				
Subscriptions	7,000		7,000			
Travel	-					
Consultants	-					
Stakeholder	18,027		2,150	4,989	10,888	
Staff	23,651	8,250	3,000	4,576	7,325	500
<b>Total Supplies &amp; Services</b>	<b>223,796</b>	69,460	40,033	31,528	82,275	500
<b>Professional Fees</b>						
Accounting	-					
Audit	8,952	8,952				
Legal	3,000	3,000				
Other	152,239		12,000	3,500	136,239	500
NGO sector	21,000				21,000	
<b>Total Professional Fees</b>	<b>185,191</b>	11,952	12,000	3,500	157,239	500
<b>Human Resources</b>						
Salaries & Wages	542,616	195,342	87,671	75,966	173,637	10,000
Employer Contributions	24,002	24,002				
Group Benefit Plan	30,714	30,714				
Group RSP	39,813	39,813				
Temporary Staff	2,500	2,500				
Performance Pay	-					
Employee Recognition	2,500	2,500				
Recruitment	3,000	3,000				
Staff Development						
Membership Fees	1,005	200	280		525	
Training	16,000	16,000	-			
<b>Total Human Resources</b>	<b>662,150</b>	314,071	87,951	75,966	174,162	10,000
<b>TOTAL EXPENSES</b>	<b>1,071,137</b>	395,483	139,984	110,994	413,676	11,000

## Alison Hughes

---

**From:** Jim Ellis <Jim.Ellis@gov.ab.ca>  
**Sent:** Wednesday, September 05, 2012 1:15 PM  
**To:** Alison Hughes  
**Cc:** Dana Woodworth  
**Subject:** RE: Commitment of CASA Funding

Alison,

In response to your request below from the Clean Air Strategic Alliance (CASA) and pursuant to the 1994 Ministerial Order requiring CASA to report on:

- The conduct of strategic air quality planning for Alberta through the utilization of a consensus building collaborative approach. Planning shall include, but is not limited to:
  - Clear identification of issues and problems;
  - Prioritization of specific problems;
  - Allocation and coordination of resources;
  - Development of actions plans; and
  - Evaluation of results.
  
- Recommendations as to the priority of problems with respect to strategic air quality in Alberta and to specify action plans and activities to resolve such problems. The action plans will prescribe guidelines for the initiatives to be undertaken and what outcomes are expected from each initiative;

I confirm that Alberta Energy has made a commitment of \$850,000.00 to CASA Core Operational Funding for 2013.

---

Jim Ellis  
Deputy Minister  
Alberta Energy  
8th Floor, 9945 - 108 Street  
Edmonton, Alberta T5K 2G6  
780-415-8434; Fax: 780-427-7737

---

**From:** Alison Hughes [mailto:ahughes@casahome.org]  
**Sent:** August 21, 2012 12:01 PM  
**To:** Jim Ellis  
**Cc:** Dana Woodworth; Martin Chamberlain; Sue Donnelly; Michelle Miller; Christie-Anne Silverthorn  
**Subject:** Commitment of CASA Funding

Dear Mr. Ellis

Each year at this time, the Clean Air Strategic Alliance (CASA) Board asks the Secretariat to document the Government of Alberta's commitment to provide core funding for CASA operations for the coming year. CASA's 2013 fiscal year runs from January, 1 2013 to Dec 31, 2013. The Government of Alberta assurance of funding is normally provided through the sign-off of a commitment letter, provided by the funding agency. For the past 5 years CASA's core funding has been



provided by Alberta Energy. Accordingly, we have attached a draft letter of commitment for your consideration and signature. The commitment letter will be provided to the CASA Board for their information at their September 27, 2012 meeting.

Please know that CASA very much appreciates Alberta Energy's continued support for our work and we look forward to working with you and your colleagues in the coming year.

If you or your staff have any questions regarding this request, please call our office at 780 427 9793.

Sincerely,

Alison Hughes | Executive Assistant | Clean Air Strategic Alliance | 780-422-1039 | [AHughes@casahome.org](mailto:AHughes@casahome.org) | [www.casahome.org](http://www.casahome.org)

 Please consider the environment before printing this email.

on behalf of,

The Clean air Strategic Alliance  
Board of Directors

***Norman MacLeod***

Executive Director  
Clean Air Strategic Alliance (CASA)  
PH: 780 644 5160  
Fax: 780 422 3127  
[nmacleod@casahome.org](mailto:nmacleod@casahome.org)  
website: [www.casahome.org](http://www.casahome.org)

## **DECISION SHEET**

**ITEM:** 3.1 2012 CFO Project Team Report

**ISSUE:** Approve the 2012 CFO Project Team Report.

**BACKGROUND:** In March 2008, the CFO project team brought forward its final report to the CASA Board entitled "Managing Air Emissions from Confined Feeding Operations in Alberta". The report contained ten recommendations. Recommendation 10 asked the Secretariat to reconvene the team in January 2011 to conduct three tasks:

- a) review the implementation status and outcomes of recommendations made in the 2008 report,
- b) assess the success of these activities, and
- c) make any further recommendations, if needed, to reduce air emissions from CFOs in Alberta related to the strategic plan.

Until that time, the CFO project team was put into abeyance.

In September 2010, a Statement of Opportunity came to CASA asking that a team be formed to report on the implementation of the 2008 recommendations to prepare for the reconvening of the full project team. Subsequently, the CFO Implementation Review Team (CFO-IRT) was formed and in March 2011 the CFO-IRT submitted its final report to the CASA Board. The CFO-IRT concluded that, although implementation was not complete for all recommendations, progress was sufficient to reconvene the full CFO project team in November 2011.

In November 2011, a small working group advised that it would be beneficial to allow implementers a further extension to complete their work after which enough progress would be made on the recommendations to reconvene the full CFO project team in early 2012.

In 2012, the CASA Secretariat hosted two workshops on March 15<sup>th</sup> (Part 1) and May 24<sup>th</sup> (Part 2) for all CFO team members. The ultimate goal of the workshops was to reach agreement on the team's findings with respect to Recommendation 10 and to advise the Board as to the future of the CFO project team. Workshop Part 1 focused on tasks (a) and (b) (which were initiated by the CFO-IRT in 2011) while Workshop Part 2 focused on task (c).

**STATUS:** At Workshop Part 1, team members heard updates on the implementation status and outcomes of the recommendations, and discussed successes, gaps and considerations. Team members then had time to share and discuss this information with their stakeholders prior to Workshop Part 2.

At Workshop Part 2, the team shared the feedback they had heard from their stakeholders and discussed what advice to give the CASA Board with respect to the future of the CFO project team. Recognizing that there is still progress to be made in the area of air emissions from CFOs in Alberta, team members agreed that the current CFO project team had completed its terms of reference and that the team should be disbanded.

The results from the two workshops are presented in the 2012 CFO Project Team Report. The report:

- provides a brief history of the CFO project team,
- reviews the key outcomes and next steps for each of the recommendations from the 2008 report,
- discusses successes, gaps, and considerations and
- presents the team's final recommendation regarding the future of the CFO project team.

There is one consensus recommendation for the Board to approve.

**ATTACHMENTS:** A. 2012 CFO Project Team Report.

**DECISIONS:**

1. Approve the 2012 CFO Project Team Report.
2. Disband the CFO Project Team.

# Confined Feeding Operations Project Team Report



Prepared by the  
Confined Feeding Operations (CFO) Project Team  
for the  
Clean Air Strategic Alliance  
Board of Directors

27 July 2012

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## **Preface**

The CFO project team worked diligently and in good faith to reach consensus on this submission to the CASA Board. Throughout the process, representatives from all sectors provided their views and perspectives, raised concerns and participated in deliberations. This report is the culmination of these discussions, negotiated by the team and agreed to as a package. The report must be considered in its entirety and not fragmented in any way.

It should also be noted that Appendices 1 and 2 are a record of the discussions that occurred at the Workshop Part 1 on March 15<sup>th</sup> and are taken directly from the Proceedings of Workshop Part 1. They have been included for information purposes only and are not part of the consensus document.

## **Acknowledgements**

The Confined Feeding Operations (CFO) project team would like to thank all the project team members and implementers for the time and effort spent reviewing the implementation of the CFO recommendations and preparing the team's advice to the CASA Board.

It is important to note that four years have passed since the CFO project team was placed in abeyance. In that time, many people from the original team have moved on and were no longer available to participate. New representatives were asked to attend in their place and, as such, there are many participants who were both new to the CFO project team and to the CASA consensus process.

**CFO Project Team Members**

<b>Name</b>	<b>Organization</b>
Ron Axelson	Intensive Livestock Working Group
Ann Baran (co-chair)	Southern Alberta Group for the Environment
Bob Barss	Alberta Association of Municipal Districts and Counties
Laura Blair	Alberta Environment and Water
Darren Bruhjell (corresponding)	Agriculture and Agri-Food Canada
Darcy Fitzgerald	Alberta Pork
Jenny Graydon (alternate)	Alberta Health
Sandi Jones (co-chair)	Alberta Agriculture and Rural Development
Albert Kamps (co-chair)	Alberta Milk
Jim McKinley	Natural Resources Conservation Board
Tanya Mrowietz (alternate)	Alberta Health Services
Lynn Que	Alberta Health Services
Ashley Rietveld	Alberta Poultry Producers
Denis Sauvageau	Friends of an Unpolluted Lifestyle
Rich Smith	Alberta Beef Producers
Leonard Standing on the Road (alternate)	Ponoka Fish and Game
Karina Thomas	Alberta Health
Wayne Ungstad	Ponoka Fish and Game
Martin Van Diemen	Alberta Milk
Opel Vuzi	Health Canada
Kevin Warren	Parkland Airshed Management Zone
Martin Zuidhof	Alberta Cattle Feeders Association/Alberta Beef



## **Acronyms**

AAAQOSAC: Alberta Ambient Air Quality Objective Stakeholder Advisory Committee

AAQO: Ambient Air Quality Objective

APMEICA: Ammonia and Particulate Matter Emissions Inventory for CFOs in Alberta

AQM: Air Quality Management

ARD: Alberta Agriculture and Rural Development

BMP: Beneficial Management Practice

CFO: Confined Feeding Operation

CFO-IRT: Confined Feeding Operation-Implementation Review Team

ESRD: Alberta Environment and Sustainable Resource Development

ILWG: Intensive Livestock Working Group

MAG: Multi-stakeholder Advisory Group

MDS: Minimum Distance Separation

NRCB: Natural Resource Conservation Board

## Executive Summary

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In March 2008, the CFO project team brought forward its final report to the CASA Board entitled “Managing Air Emissions from Confined Feeding Operations in Alberta”. The report contained ten recommendations, nine of which constituted substantive work, while the tenth asked the team to reconvene in January 2011. Until that time, the CFO project team was put into abeyance.

In 2012, the CASA Secretariat hosted two workshops on March 15<sup>th</sup> (Part 1) and May 24<sup>th</sup> (Part 2) for all CFO project team members. The ultimate goal of the workshops was to reach agreement on the team’s findings with respect to Recommendation 10 and to advise the Board as to the future of the CFO project team. Recommendation 10 asked the CFO project team to conduct three tasks:

- a) review the implementation status and outcomes of recommendations made in the 2008 report,
- b) assess the success of these activities, and
- c) make any further recommendations, if needed, to reduce air emissions from CFOs in Alberta related to the strategic plan.

At the Workshop Part 1, team members heard updates on the implementation status and outcomes of the recommendations, and discussed successes, gaps and considerations. Team members then had time to share and discuss this information with their stakeholders prior to the Workshop Part 2.

At the Workshop Part 2, the team shared the feedback they had heard from their stakeholders and discussed what advice to give the CASA Board with respect to the future of the CFO project team. After much discussion, team members agreed that the CFO project team should be disbanded.

## 1. Introduction

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In 2012, the Confined Feeding Operations (CFO) project team reconvened to review the implementation of the recommendations from their 2008 report “Managing Air Emissions from Confined Feeding Operations in Alberta” and to advise the CASA Board as to the future of the CFO project team. This report:

- provides a brief history of the CFO project team,
- reviews the key outcomes and next steps for each of the recommendations from the 2008 report,
- discusses successes, gaps, and considerations and
- presents the team’s final recommendation regarding the future of the CFO project team.

## 2. Background Information

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In response to a statement of opportunity presented by the Intensive Livestock Working Group (ILWG) and Alberta Agriculture and Rural Development (ARD), the CASA Board established the CFO project team in September 2005. The CASA consensus process was viewed as a useful and appropriate way to address stakeholder concerns.

The goal of the CFO project team was to develop a strategic plan to improve the management of air emissions from existing and future CFOs in Alberta and to improve relationships between stakeholders. In developing the plan, the team was to consider the following principles:

- continuous improvement and pollution prevention to protect air quality;
- prevention of short and long-term adverse effects on human, animal and ecosystem health due to air emissions; and
- assurance that air quality recommendations maximize social, economic, environmental and health benefits and minimize social, economic, environmental and health costs.

Among the substances emitted by CFOs, the team identified five priority substances: ammonia, hydrogen sulphide, volatile organic compounds, particulate matter, and bioaerosols/pathogens. It was agreed that odour was a priority issue, recognizing that there are fundamental differences between odour and the priority substances.

The team undertook a great deal of work in subgroups to compile and assess information on emissions, health effects, potential management mechanisms, and approaches taken by other jurisdictions to address these issues. The subgroups produced detailed reports that enhanced the knowledge base of the project team and provided much of the necessary information for the strategic plan. The subgroups also suggested recommendations to the project team. All of the recommendations were considered and many became part of the project team’s strategic plan.

The CFO project team strived to develop a common understanding of stakeholder concerns related to CFOs. The project team agreed that stakeholder relationships around the table were improved over the course of the team’s work. Greater understanding, combined with the

information gathered, enabled the multi-stakeholder team to reach consensus on the final package of recommendations.<sup>1</sup>

In March 2008, the CFO project team brought forward its final report to the CASA Board entitled “Managing Air Emissions from Confined Feeding Operations in Alberta”. The report contained ten recommendations, nine of which constituted substantive work, while the tenth asked the team to reconvene in January 2011. Until that time, the CFO project team was put into abeyance.

In September 2010, a Statement of Opportunity came to CASA asking that a team be formed to report on the implementation of the 2008 recommendations to prepare for the reconvening of the full project team. Subsequently, the CFO Implementation Review Team (CFO-IRT) was formed and in March 2011 the CFO-IRT submitted its final report to the CASA Board. The CFO-IRT concluded that, although implementation was not complete for all recommendations, progress was sufficient to reconvene the full CFO project team in November 2011.

In November 2011, a small working group advised that it would be beneficial to allow implementers a further extension to complete their work after which enough progress would be made on the recommendations to reconvene the full CFO project team in early 2012.

In 2012, the CASA Secretariat hosted two workshops on March 15<sup>th</sup> (Part 1) and May 24<sup>th</sup> (Part 2) for all CFO stakeholders. The ultimate goal of the workshops was to reach agreement on the team’s findings with respect to Recommendation 10 and to advise the Board as to the future of the CFO project team. Recommendation 10 asked the CFO project team to conduct three tasks:

- a) review the implementation status and outcomes of recommendations made in the 2008 report,
- b) assess the success of these activities, and
- c) make any further recommendations, if needed, to reduce air emissions from CFOs in Alberta related to the strategic plan.

Workshop Part 1 focused on tasks (a) and (b) (which were initiated by the CFO-IRT in 2011)<sup>2</sup> while Workshop Part 2 focused on task (c).

It is important to note that four years had passed since the CFO project team was placed in abeyance. In that time, many people from the original team moved on and were no longer available to participate. New representatives were asked to attend in their place and, as such, there were many participants in this process who were both new to the CFO project team and to the CASA consensus process.

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<sup>1</sup> See the CFO project team 2008 report “Managing Air Emissions from Confined Feeding Operations in Alberta” for more information and detail.

<sup>2</sup> See the CFO-IRT 2011 report “Confined Feeding Operations Report on Implementation of Recommendations” for more information and detail.

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### 3. Status of the 2008 Recommendations

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Part (a) of Recommendation 10 asked the team to review the implementation status and outcomes of the nine recommendations included in the 2008 CFO report. This section provides a summary of the key outcomes from each recommendation and describes next steps that are planned by implementers. Please refer to the CFO-IRT 2011 report “Confined Feeding Operations Report on Implementation of Recommendations” for full details. This report can be found on the CASA website or requested from the CASA office.

#### 3.1. Recommendation 1: Development of a New Emissions Inventory

The CFO project team recommends that:

The Government of Alberta, led by Alberta Agriculture and Rural Development, with support from Alberta Environment and advice from a multi-stakeholder group formed for this purpose, compile an inventory for CFO air emissions in Alberta based on the US EPA National Air Emissions Monitoring Study, with the inventory to be completed by March 31, 2011.

Emission inventories are a key component of Alberta’s air quality management system. Developing an accurate inventory that precisely reflects the impact of livestock production on air quality will aid policy makers in making decisions that will not only benefit Albertans in general, but the CFO industry in particular.

The new CFO emissions inventory will facilitate effective livestock air quality management in Alberta. It will also help assess the levels of emissions of interest released into the atmosphere from various CFO sources in Alberta and provide a perspective on what the potential impact of such emissions might be, using tools such as air quality models.

#### *Summary of key outcomes:*

- ARD developed an inventory to estimate emissions of ammonia (NH<sub>3</sub>) and particulate matter (PM) from CFOs called the Ammonia and Particulate Matter Emissions Inventory for CFOs in Alberta (APMEICA). This work was completed in December 2011.
- Preparatory work included:
  - CFO emission inventory preparation plan
  - QA/QC plan
  - Methodology plan for developing Ammonia and Particulate Matter emission inventory
  - Emissions inventory compilation
  - Data analysis
  - Emission inventory report

#### *Next steps:*

- The APMEICA database will be maintained on an annual basis.

- The emission factors and activity factors will be updated as new data becomes available.
- As newer data from Statistics Canada becomes available, it will be incorporated into the study.

### 3.2. Recommendation 2: Source Apportionment

The CFO project team recommends that:

Alberta Environment, with support from Alberta Agriculture and Rural Development and the intensive livestock industry, conduct specific studies in areas with CFOs, using suitable source apportionment methods to estimate the contribution of CFO emissions of the five priority substances relative to other sources of these emissions. These studies are to be completed by December 31, 2010.

Source apportionment is a method of identifying types of emission sources and their relative contributions to measured air pollution. CFOs are only one source of the priority substances emitted into the ambient air.

*Summary of key outcomes:*

- Due to resourcing issues, this recommendation could not be implemented as stated above. Instead, Alberta Environment and Sustainable Resource Development (ESRD) and ARD selected a contractor to identify the best available methods for conducting CFO source apportionment studies and to develop a workplan for the study, including a feasibility assessment for completing Recommendation 2. This work was completed in May 2012.
- The literature review and workplan were discussed at Workshop Part 2 on May 24<sup>th</sup>. After reviewing the information, it was agreed that it would not be advantageous to proceed with the source apportionment project at this time as the research field has not sufficiently evolved to provide the required information, costs to implement are high, and there is a lack of province-wide applicability.<sup>3</sup>

*Next steps:*

- As ESRD was the lead agency, they will keep the literature review and workplan on file.

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<sup>3</sup> Please refer to the CFO project team proceedings from Workshop Part 2 on May 24<sup>th</sup> for the full discussion on the subject of Recommendation 2. These are available from the CASA website.

### 3.3. Recommendation 3: Monitoring for Ammonia, H<sub>2</sub>S, PM and VOCs

The CFO project team recommends that:

Alberta Agriculture and Rural Development:

- a) develop, with input from all stakeholders, an ambient monitoring plan for ammonia, H<sub>2</sub>S, PM and VOCs to determine current ambient levels around CFOs. The plan will include timelines, budget, methodology (with reference to the Air Monitoring Directive) and responsibilities;
- b) undertake ambient air monitoring of ammonia, H<sub>2</sub>S, PM and VOCs around CFOs, based on the above plan, beginning in 2008; and
- c) submit a status report by March 31, 2009 with a final report on results to be submitted by March 31, 2010 to CFO project team stakeholders and the Alberta Ambient Air Quality Objectives Stakeholder Advisory Committee.

The intent of this recommendation was to measure concentrations of the four substances in the air to provide a representative indication of air quality around CFOs and the relative impact of CFOs on air quality. Both upwind (background) and downwind concentrations were measured to assess the relative contribution of CFOs to air quality.

#### *Summary of key outcomes:*

- In 2008, an ambient air quality measurement (AQM) plan was developed by ARD in collaboration with a multi-stakeholder advisory group (MAG).
- Ambient air concentrations of five air quality parameters-of-interest were measured over a 14-month period, at the category one minimum distance separation (MDS), along the path of the prevailing bi-directional wind, both upwind and downwind of a beef cattle, a dairy cattle, a poultry and a swine CFO in Alberta. The five parameters-of-interest were: ammonia (NH<sub>3</sub>), hydrogen sulphide (H<sub>2</sub>S), respirable particulate matter (PM<sub>2.5</sub>), total suspended particulates (TSP) and volatile organic compounds (VOCs).
- The final project report was completed in December 2011. The report included information on how the measurements were conducted in the field, what data were gathered, how the data were analyzed, a summary and discussion of the results (including a comparison of the measured concentrations to existing and proposed Alberta Ambient Air Quality Objectives - AAQOs), and recommendations.

#### *Next steps:*

- ARD will share the results and outcomes of the study with the CFO industry and other stakeholders.
- ARD will continue to use the two monitoring stations developed to implement this recommendation, in research studies that are designed to assess the ability of Beneficial Management Practices (BMPs) to effectively mitigate the impact of CFO air emissions on ambient air quality.

### 3.4. Recommendation 4: The 24-hour AQO for Ammonia

The CFO project team recommends that:

The Alberta Ambient Air Quality Objective Stakeholder Advisory Committee (AAAQOSAC) defer its decision on a 24-hour ambient objective for ammonia until April 2009, at which time the AAAQOSAC will determine if they have sufficient information from the ambient air monitoring study on which to base a decision.

In 2000, a multi-stakeholder workshop recommended that Alberta Environment's Ambient Air Quality Objective Stakeholder Advisory Committee (AAAQOSAC) should review the ambient air quality objective (AAQO) for ammonia. Following the review by the Committee's ammonia subgroup, the one-hour AAQO did not change, but a new 24-hour objective for ammonia of 200 µg/m<sup>3</sup> was proposed, based on a health effects threshold. The primary intent was to address emissions from industries other than CFOs (e.g., fertilizer manufacturing).

There is still some uncertainty around whether or not CFOs would be able to meet the proposed 24-hour ambient objective for ammonia. Therefore, the AAAQOSAC deferred the decision on implementing a 24-hour ambient air quality objective for ammonia until the ambient monitoring study results became available (Recommendation 3).

*Summary of key outcomes:*

- The AAAQOSAC deferred its decision until the results from Recommendation 3 became available which found that there were no exceedances of either the 1-hour average or proposed 24-hour average NH<sub>3</sub> AAQOs during the study.
- Additionally, stakeholders at the 2009 Priority Setting Workshop (which was organized by CASA for Alberta Environment) indicated that an annual objective for ammonia was a priority.

*Next steps:*

- The workplan for an annual ecological effects objective is currently being developed and work will likely begin in late 2012 or early 2013. The process to finalize an objective usually takes 1-3 years.

### 3.5. Recommendation 5: Management Mechanisms Research Plan

The CFO project team recommends that:

Alberta Agriculture and Rural Development and the CFO industry develop a plan to submit to the Government of Alberta and research agencies for funding to do a study to quantify the reductions in priority emissions and odour, and any other benefits, from frequent manure removal, manure application, and moisture management.

The CFO project team identified the three management mechanisms listed above as practices that were being increasingly adopted by CFOs. However information was lacking on the



potential for these BMPs to reduce emissions of ammonia, hydrogen sulphide, odour, particulate matter, pathogens or volatile organic compounds, or to minimize the impact of these substances downwind of CFOs. A research plan was developed to investigate the mitigation potential and co-benefits or limitation of these mechanisms.

*Summary of key outcomes:*

- ARD developed a research plan and furthered this work by conducting scientific and technical reviews on three BMPs to assess the effects of these BMPs on the emissions of six substances-of-concern, ambient air quality, nutrient recovery and other potential benefits.
- ARD also conducted a social and economic impact assessment of the BMPs.
- This work was completed in March 2012.

*Next steps:*

- In addition to the work already completed, ARD and the CFO industry will develop a research plan that expands on the 3 BMPs from Recommendation 5 and the 5 BMPs from Recommendation 6 (below) and considers the outcomes from all ten of the CASA CFO recommendations. The focus of the research plan will include:
  - Developing a list of research options following consultation with CFO operators and experts.
  - Sharing and discussing the research options with the CFO industry.

### **3.6. Recommendation 6: Paper Study on Potential Management Mechanisms**

The CFO project team recommends that:

Alberta Agriculture and Rural Development lead a paper study on the following five management mechanisms, to assess their potential to favorably affect emissions, ambient air quality, nutrient recovery and other potential benefits, and report back to CFO project team stakeholders by March 31, 2009, at which time consideration will be given as to where the research might be applied.

- Biocovers
- Bottom loading
- Shelterbelts
- Composting
- Dust palliatives

These five management mechanisms were prioritized by the industry, non-government organization and government as the mechanisms that had the most promise for reducing emissions from CFOs in Alberta. There was limited information on the potential for these mechanisms to reduce emissions of ammonia, hydrogen sulphide, odour, particulate matter, pathogens or volatile organic compounds, or to minimize the impact of these substances. A study was conducted to investigate the mitigation potential and other co-benefits or limitations of these mechanisms.

*Summary of key outcomes:*

- ARD completed a final report detailing a scientific, technical, social and economic review of the five beneficial management practices (BMPs). This work was completed in December 2011.
- The study reviewed published literature and expert subject matter opinions pertaining to the impacts of the five BMPs on emissions of ammonia, hydrogen sulphide, odour, particulate matter, pathogens, and volatile organic compounds.
- The final report also included recommendations to address key knowledge gaps in relation to the five BMPs.

*Next steps:*

- ARD will develop extension and communication plans to promote the adoption of select BMPs by the CFO industry.
- As noted above, in addition to the work already completed, ARD and the CFO industry will develop a research plan that expands on the 3 BMPs from Recommendation 5 (above) and the 5 BMPs from Recommendation 6 and considers the outcomes from all ten of the CASA CFO recommendations. The focus of the research plan will include:
  - Developing a list of research options following consultation with CFO operators and subject-matter experts.
  - Sharing and discussing the research options with the CFO industry.

### **3.7. Recommendation 7: Odour Management Plan Template**

The CFO project team recommends that:

The CFO industry develop an odour management plan template for use by operators in the intensive livestock industry. The plan will be based on economic feasibility, scientific evidence of odour reductions, and new technology, specifically best available technology economically achievable (BATEA), and will be ready for use by January 2009.

The intent of this recommendation was to provide operators of CFOs with information on factors that can influence odour generation, considerations for odour management planning, and sources of information and assistance on odour management. An assessment tool was developed to:

- 1) Allow operators to assess their operation from an odour management perspective and identify those areas that may be improved.
- 2) Help identify options to improve odour management plans.

*Summary of key outcomes:*

- The ILWG, ARD and the Natural Resources Conservation Board (NRCB) collaborated to create the Odour Management Plan Template. This work was completed in September 2011.
- It will be used by livestock organizations and ARD as an extension/education tool to improve the awareness of various techniques and tools that CFOs can use to better manage odour and foster good neighbour relations.

*Next steps:*

- ARD is working with their CFO Extension Services branch to promote the use of the template.

### **3.8. Recommendation 8: Managing Odour in Problem Areas**

The CFO project team recommends that:

The CFO industry work with operators in problem areas to develop a site specific odour management plan. The Government of Alberta will provide resources (expertise, skills, knowledge) to assist with plan development and implementation. Problem areas will be identified using information from the NRCB and the industry. In working with operators, the industry and government may want to consider measuring odour around CFOs.

The intent of this recommendation was to use the NRCB's complaint database to identify areas in the province receiving the most odour complaints and subsequently focus resources on problem areas.

*Summary of key outcomes:*

- The ILWG, ARD and NRCB completed a report in September 2011 which:
  - Determined the number of total odour complaints in the province using the NRCB database,
  - Identified, where possible, the reasons for the odour complaints,
  - Identified areas in the province where odour is a significant issue, and
  - Identified management options that may address odour in problem areas.
- Operations with more than 10 complaints over the nine year period beginning in 2002 were classified as "problem areas". Further analysis concluded that 36 operations fit into this category and that these 36 operations were not located in one specific region of the province. It was concluded that odour issues and odour problem areas are not regional in nature, but rather defined by site specific conditions related to the specific operation.

*Next steps:*

- Moving forward with site specific odour management, the industry will utilize the Odour Management Plan Template (Recommendation 7) as its primary tool. This tool will be made available to ILWG organizations and to ARD to support extension services and, in particular, will assist in providing one on one consultation with those operations identified in the study that may require odour management improvements.

### 3.9. Recommendation 9: Improving Communications

The CFO project team recommends that:

The NRCB and Alberta Agriculture and Rural Development work with all involved parties to develop a plan by March 31, 2009 to improve communications and relationships among stakeholders regarding information related to CFOs. The following are areas where attention should be focused to improve communications and stakeholder relationships:

- Alternative dispute resolution processes
- Communications between agencies and Government of Alberta departments, and
- Communications between the NRCB and complainants.

This recommendation focussed on improving communication about the processes that involve or affect CFOs and their neighbours and improving communication among all parties during the complaint resolution process. The main objective of the communication plan was to increase stakeholder awareness of the tools and resources available to them; the roles and responsibilities of various Government of Alberta agencies and departments; and the NRCB compliance and enforcement policy and process.

*Summary of key outcomes:*

- The Communication Plan was a joint partnership between ARD and NRCB and was drafted and approved in 2009. Since then, all the implementation strategies have been completed. For a complete list, please refer to the CFO-IRT 2011 report.

*Next steps:*

- There will be ongoing tool and resource development as needed. For example:
  - Updates to the “Where Neighbours Fit In” factsheet series; and
  - Updates to phone numbers (for complaints, etc.) in the Government Blue Pages as reprints occur.

### 3.10. Recommendation 10: Evaluating the Strategic Plan

The CFO project team recommends that:

The CASA Secretariat reconvene the CFO team in January 2011 to:

- a) Review the implementation status and outcomes of recommendations made in this report,
- b) Assess the success of these activities; and
- c) Make any further recommendations, if needed, to reduce air emissions from CFOs in Alberta related to this strategic plan.

*Summary of key outcomes:*

- In March 2011, the CFO-IRT presented its final report which assessed the accomplishments, challenges and lessons learned related to implementing the CFO recommendations. The work of the CFO-IRT focused on part (a) and (b) of Recommendation 10.

- In 2012, the CFO project team participated in two workshops where members heard updates on the implementation of the recommendations, building on the work of the CFO-IRT, and discussed the future of the CFO project team, part (c) of Recommendation 10. Section 5 of this report provides a recommendation to the CASA Board as to the future of the CFO project team.

## **4. Successes, Gaps, and Considerations**

Part (b) of Recommendation 10 asked the team to assess the success of the work done to implement the recommendations. This section reviews the team's discussion on this topic and speaks to the successes, gaps, and future considerations that the team identified, as well as the concerns that were discussed during the two workshops.

Over the course of the two workshops in 2012 (on March 15<sup>th</sup> and May 24<sup>th</sup>), the CFO project team concluded that the team has achieved a great deal – documentation of specific successes brainstormed by the team at Workshop Part 1 can be found in Appendix 1.

It was recognized that this work has been a starting point rather than an ending point. It is important that the work completed by the CFO project team be used to inform future emission reduction efforts. The management of CFOs will be an ongoing issue in Alberta and a great deal of work has been done to identify gaps and areas for future work. The CFO project team had a discussion around gaps and considerations related to recommendation implementation that can be found in Appendix 2. It should be noted that some of the issues identified in Appendix 2 have since been addressed or may be resolved by the next steps identified by implementers.

It should also be noted that, as part of the CASA performance measurement process (Performance Measure 3), the CASA Performance Measures Committee continues to follow-up on recommendations to assess their implementation status. Depending on the circumstances, the CASA Board may make a determination that further action is required.

Recurring or new issues that are considered appropriate to work on in a consensus process could be brought to the CASA Board through the Statement of Opportunity process. The human health effects of air emissions from CFOs, dust and particulate matter, and Cumulative Effects Management (CEMS) were identified as possible areas for future work.

In determining the extent to which the recommendations from the 2008 report were implemented, all team members were encouraged to meet with their constituents to discuss project successes, ongoing air quality challenges and any related considerations. While most participants reported that their constituents were pleased with the progress that has been made and felt that the CFO project team has met their objectives, some participants have noted that work remains to be completed. Recognizing that all stakeholders represented by the project team remain committed to making progress on CFO-related air quality issues through ongoing measures and processes (many of which are described in this document), there was general agreement that the CFO project team should disband.

## **5. Conclusion and Recommendation**

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Part (c) of Recommendation 10 asked the CFO project team to provide advice to the CASA Board as to the future of the CFO project team.

Recognizing that there is still progress to be made in the area of air emissions from CFOs in Alberta, team members feel that the current CFO project team has completed its terms of reference and recommends that the team be disbanded.

**Recommendation 1: Disband the CFO Team.**

The CFO project team recommends that the team be disbanded.

## **Appendix 1: List of Successes (Workshop Part 1)**

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At the Workshop Part 1 on March 15<sup>th</sup>, the CFO project team brainstormed a list of successes relating to the implementation of the nine recommendations. This is a record of the team's discussion taken from the Workshop Part 1 Proceedings and is not part of the consensus document. It has been included for information purposes only.

- Recommendation 1: Development of an emissions inventory
  - This inventory can continue to be updated. It provides a benchmark and tool for assessing emissions. It also goes beyond fluctuations in animal numbers.
- Recommendation 3: Monitoring for ammonia, H<sub>2</sub>S, PM and VOCs
  - This air quality monitoring project has increased our knowledge base and our understanding of the complexity of the issue.
- Recommendation 7: Odour management plan template
  - This has increased understanding of odour sources and how to practically manage the odour from these sources.
- Recommendation 8: Managing odour in problem areas
  - This has led to increased understanding on the nature of problem operations in Alberta and what action has been taken to manage problem operations. It has also demonstrated that problem operations are not clustered geographically.
- Recommendation 9: Improving communication
  - The development of communications tools has been valuable to help improve neighbour relations.
- The CFO Project Team has provided the opportunity for collaboration among diverse groups and helped to improve relations, understanding and awareness among stakeholders. It has acted as a valuable forum for discussion and helped to encourage discussion about the relevant issues.
- The CFO Project Team has achieved a great deal - a number of projects have been completed and a large amount of information has been generated. A great deal of work has been done to identify gaps. It has helped to create ownership of the issues and forward momentum.
- In general, in Alberta, great strides have been made around CFOs since the 1990s and there is ongoing commitment to work on this issue.

## **Appendix 2: List of Gaps & Considerations (Workshop Part 1)**

At the Workshop Part 1 on March 15<sup>th</sup>, the CFO project team brainstormed a list of gaps and considerations relating to the implementation of the nine recommendations. This is a record of the team's discussion taken from the Workshop Part 1 Proceedings and is not part of the consensus document. It has been included for information purposes only.

- Recommendation 2: Source Apportionment
  - The literature review and work plan need to be completed and next steps need to be considered and prioritized. This could be an opportunity to seek input from the CFO Project Team.
  - *Update: The completed literature review and workplan were presented to the team at the Workshop Part 2.*
- Recommendation 3: Monitoring for ammonia, H<sub>2</sub>S, PM and VOCs
  - The existing information on Recommendation 3 needs to be refined in order to work towards addressing Recommendation 4 (Recommendation 3 is a prerequisite to Recommendation 4).
  - It would be helpful to have more specific data from Statistics Canada.
  - There is no correlation between results and the size of the operation due to confidentiality.
  - A next step could be to relate this Recommendation to the emissions inventory (Recommendation 1).
- Recommendation 4: The 24-hour AQO for ammonia
  - This recommendation needs to be completed.
  - *Update: The results of Recommendation 3 were made available to ESRD. This recommendation is now complete and details are outlined in Section 3 of this report.*
- Recommendation 5: Management mechanisms research plan
  - This work needs to be finalized and the next steps determined with regard to plans to move things forward in a deliberate, strategic way using all the information from Recommendations 1, 3, and 6.
- Recommendation 7: Odour management plan template
  - Time will be needed to determine if the Odour Management Template is effective.
  - There may also be more information required to link odour and management practices.
  - Follow-up work could include further efforts to increase awareness and adoption of the template.
- Recommendation 8: Managing odour in problem areas
  - Continued effort is required to find ways to manage problem operations.



- Work is required to ensure the use/adoption of the tools developed by the recommendations. For example:
  - Best management practices (Recommendation 5, 6)
  - Odour management template (Recommendation 7)
  - Problem operations (Recommendation 8)
- There are still gaps in information. Some of the gaps have been pointed out by the final reports resulting from the implementation of the recommendations. Other gaps may include:
  - Human and animal health effects
  - Dust and particulate matter
  - Cumulative Effects Management.
- There are legislative issues that remain unaddressed. For example, relating to the management of problem operations.
- There may be a need to include other stakeholders in CFO related discussions, particularly airsheds.
- Moving forward it is important to consider economic/resource feasibility in order to achieve the most value for expense. It is also important to prioritize issues so that the most pressing rise to the top.
  - *NB: One of CASA's seven operating principles (as described in CASA's Strategic Plan) is 'Integration': CASA supports integrated air quality decision-making that seeks a synergy between: (a) environmental protection to prevent short- and long-term adverse health effects, (b) economic performance and efficiency, and (c) continuous improvement and pollution prevention.*

## **INFORMATION SHEET**

**ITEM:** 3.2 **CASA and AAC Joint Standing Committee (JSC)**

**ISSUE:** Provide an update on the work of the Committee.

**BACKGROUND:** This Committee was struck to implement the recommendations made by the Airshed Zones Board Committee as well as to strengthen the relationship between CASA, the AAC and the individual airshed zones.

**Key Tasks:**

1. Ensure that draft CASA recommendations have been assessed and evaluated to determine their potential effect on AAC and its members.
2. Monitor implementation of 2010 recommendations from the Airshed Zones Board Committee, assessing progress and proposing other options if necessary.
3. Identify, discuss and make recommendations related to:
  - policies and strategies that could potentially affect CASA and AAC and its members,
  - overall policy pressures resulting from government initiatives, and pressures coming from stakeholders or the public with respect to air quality management, and
  - further clarification of the roles, interests and relationship between AAC, airshed zones and CASA.
4. Develop performance measures for the committee's work.
5. Review the "*CASA Airshed Zone Guidelines*" and, if necessary, revise the document.
6. Propose resolution to the question of AAC membership on the CASA Board by 2013.
  - Communicate and share information about AAC and its members with CASA Board members and others, as opportunities arise.
7. Report annually to the CASA Board, including an assessment of progress against the terms of reference and performance measures. Based on content of the CASA board book, the committee may want to prepare updates more than once a year.

**STATUS:** The JSC focused on its first prioritized task – key task 3 – and contracted consultants to write a discussion paper to inform the Committee's deliberations about roles, responsibilities and relationships regarding Alberta's AQMS. It provides information about:

- functional components of Alberta's Air Quality Management System,

- roles and responsibilities of the organizations delivering aspects of the system;
- relationships among organizations;
- government initiatives related to the delivery of air quality management; and
- strengths, issues or inconsistencies that the Committee may wish to address.

***NEXT STEPS:***

The JSC will review the consultant's discussion paper and determine where the JSC could most effectively focus its efforts. The JSC has asked the Secretariat to prepare a document that will propose options for moving forward on each of the eight key tasks which the Committee will consider at their next meeting in late fall.

***ATTACHMENTS:***

- A. A Discussion Paper for the CASA & AAC Joint Standing Committee

# **Roles, Responsibilities and Relationships in Alberta's Air Quality Management System**

## **A Discussion Paper for the CASA and AAC Joint Standing Committee**

**Prepared for the Committee by  
Erlandson Consulting Inc. and R. Angle Consulting**

**August 20, 2012**



## JSC Discussion Paper

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## JSC Discussion Paper

# Roles and Responsibilities in Alberta's AQMS

## A Report to the CASA and AAC Joint Standing Committee

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### PURPOSE OF THIS PAPER

The *CASA and AAC Joint Standing Committee* (JSC or the Committee) works to strengthen the relationship between the Clean Air Strategic Alliance (CASA), the Alberta Airsheds Council (AAC) and the individual Airshed Zones (AZs), all of which are incorporated under the *Alberta Societies Act*. The JSC provides a forum for discussing and addressing strategic issues related to effective air quality management in Alberta

CASA and Airshed Zones play key roles in Alberta's Air Quality Management System (AAQMS), and their work is increasingly linked. Airshed monitoring supports the policy development and planning at CASA, while CASA project teams make recommendations that may affect the work of AZs. These organizations are also linked, directly or indirectly, to other players in air quality management including government agencies, licensed emitters and various non-government organizations. With Alberta's growing emphasis on place-based environmental management, CASA, AZs and the AAC have a common interest in addressing strategic issues and challenges.

An early priority for the JSC is to examine and clarify the roles, responsibilities and relationships among CASA, AAC and AZs, and how they relate to other organizations and stakeholders in air quality management. This is a first step in understanding how working relationships might be improved, and also necessary to assess the implications of several government initiatives that, as implementation proceeds, could affect AAQMS functions and responsibilities.

This *Discussion Paper* has been prepared to help inform the JSC's deliberations about roles, responsibilities and relationships, now and in the near future. It provides information about:

- functional components of Alberta's Air Quality Management System,
- roles and responsibilities of the organizations delivering aspects of the system;
- relationships among organizations;
- government initiatives with implications for delivery of air quality management; and
- issues or inconsistencies that the JSC may wish to address.



## JSC Discussion Paper

### Report Content

The Discussion Paper is laid out in the following way:

1. **Description of Alberta's Air Quality Management System**, which provides the basis upon which roles and responsibilities are defined.
2. **Description of the organizations involved in delivering Alberta's AQMS**, their respective roles and responsibilities, and the relationships between them.
3. **Description of government initiatives** that could potentially affect the way in which air quality management is structured and the roles of the players.
4. **Observations and Conclusions** about system attributes, as well as gaps or uncertainties.
5. **Challenges** that the Joint Standing Committee may wish to address.

For reference, a **Glossary of Terms** used in this paper can be found in the *Appendix A*.

#### List of Acronyms

AAC	Alberta Airshed Council
AAQMS	Alberta Air Quality Management System
AESRD	Alberta Environment and Sustainable Resource Development
AMD	Air Monitoring Directive
AQ	Air Quality
AZ	Airshed Zone (Society or Association)
BLIER	Base Level Industrial Emission Requirement
CAAQS	Canadian Ambient Air Quality Standards
CASA	Clean Air Strategic Alliance
CCME	Canadian Council of Ministers of Environment
CEMS	Cumulative Effects Management System
EC	Environment Canada
EPEA	Environmental Protection and Enhancement Act (Alberta)
GoA	Government of Alberta
IMER	Integrated Monitoring, Evaluation and Reporting
JSC	CASA and Alberta Airsheds Council Joint Standing Committee
LUF	Land Use Framework
NAQMS	National Air Quality Management System (formerly CAMS)
NGO	Non-Government Organization
PM 2.5	Particulate Matter less than 2.5 µm in diameter

## JSC Discussion Paper

## OVERVIEW OF ALBERTA'S AQMS

Alberta's Air Quality Management System (AAQMS) consists of two main subsystems, namely, an Industrial Air Quality Regulatory System and a Regional Air Quality Management System, both informed by strategic planning through CASA and CCME.<sup>1</sup> The components of these systems all relate to the releases of pollutants into the atmosphere, the subsequent transport and dispersion of these pollutants within the atmosphere, and the final removal of these pollutants from the atmosphere by environmental receptors. Both systems, as with environmental management systems in general, follow an adaptive management or PDCA cycle.<sup>2</sup>

A number of supporting services are needed for the successful operations of both of these systems. There must be communications among all of the participants and coordination of the actions of the various players. Skilled personnel must be available for carrying out the technical work required in each component. Few educational institutions provide such specific training; most qualified individuals have learned their craft under the tutelage of experienced practitioners. Sufficient research and development must have been done to provide appropriate control technologies, understand the potential effects of air pollution, be able to model the concentrations resulting from emissions and have appropriate equipment for monitoring air quality.

### Alberta's Industrial Air Quality Regulatory System

Under the *Environmental Protection and Enhancement Act (EPEA or Act)*, air quality management is directed at industrial emission sources through environmental impact assessment, approvals, and compliance. Regulations under the Act place limits on the release of some specific substances, impose reporting requirements and specify administrative procedures. Other regulatory requirements appear in ambient air quality objectives, source performance standards, plume dispersion modeling guidelines, ambient air monitoring directives, and approval clauses requiring source sampling, ambient air quality monitoring, and environmental reporting. Government compliance and enforcement ensures that the rules are followed by industrial operators (licensed emitters). The industrial air quality regulatory system is shown in *Figure 1*.

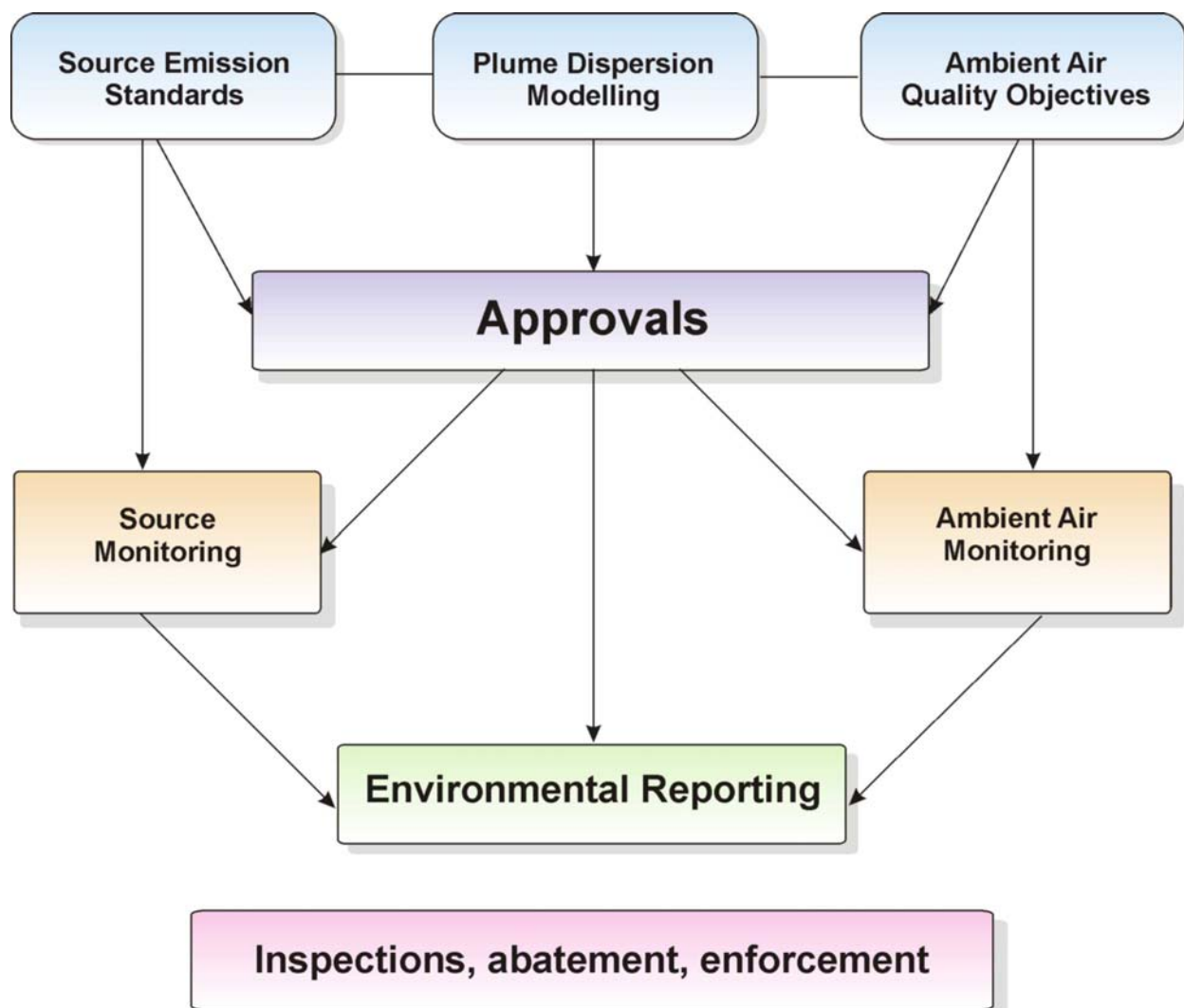
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<sup>1</sup> *Air Management in Alberta*. 2009, Alberta Environment. Edmonton.

<sup>2</sup> PDCA is the iterative four-phase Shewhart or Deming cycle, commonly known as Plan-Do-Check-Act (PDCA). *Plan* is about analyzing a problem and developing a solution. *Do* is about implementing the plan. *Check* is about measuring the effectiveness of the solution. *Act* is about correcting for significant differences between actual and planned results and revising the plan as necessary.

## JSC Discussion Paper

Figure 1: Alberta industrial air quality regulatory system



Source: Air Management in Alberta, Alberta Environment, 2009.

Elements of the industrial air quality regulatory system are defined below for purposes of this report.

- *Environmental impact assessments* identify possible adverse environmental effects, propose measures to mitigate these effects, and provide an opportunity for those who may be affected by the industrial operation to provide input and advice.
- *Source emission standards* (also known as source performance standards) place general limits on the amount of waste that can be released to the atmosphere, based primarily on technology.

## JSC Discussion Paper

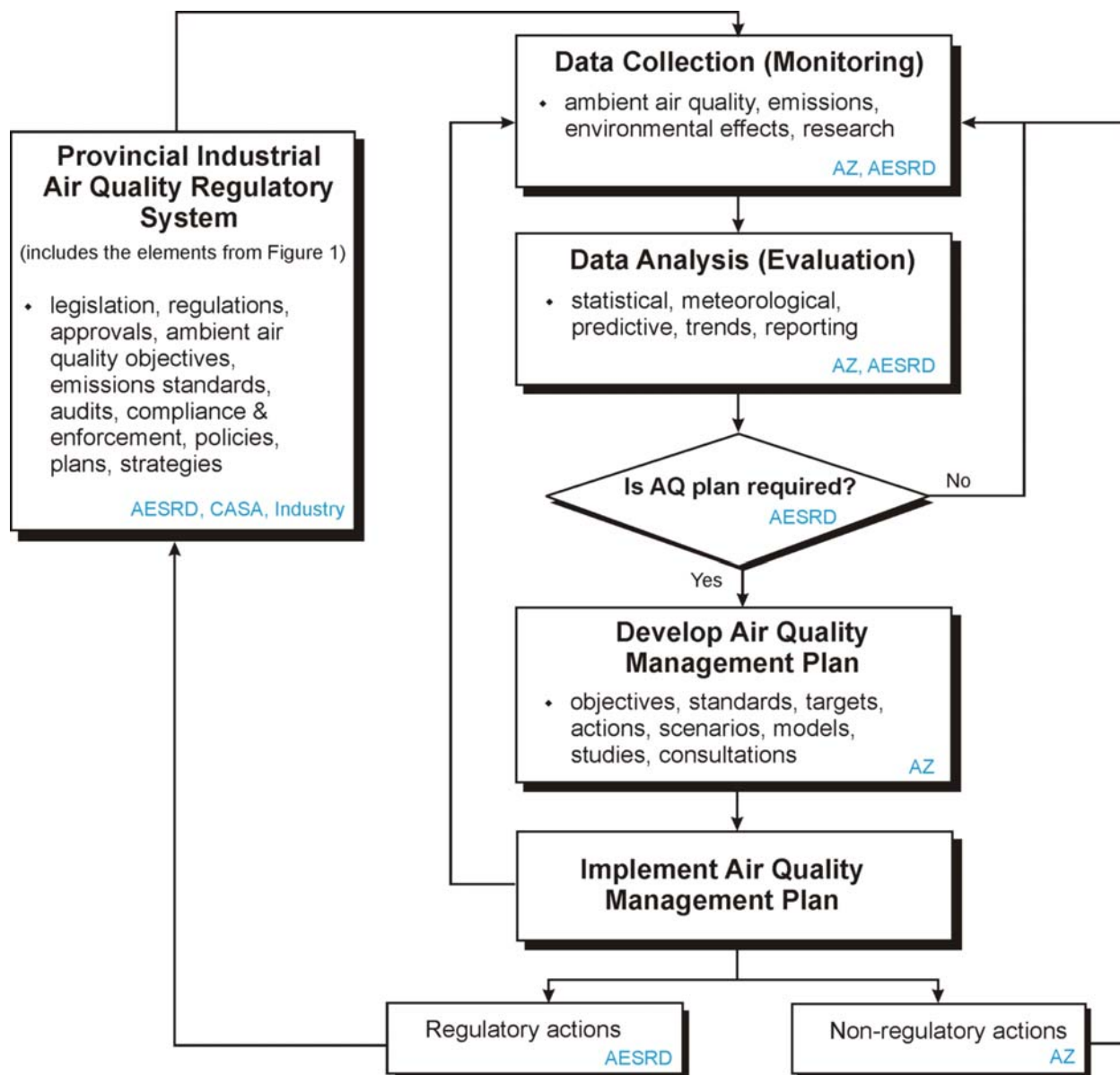
- ▶ *Plume dispersion modelling determines* the adequacy of stack to disperse residual emissions to concentrations below the ambient air quality objectives. *Ambient air quality objectives* specify the upper limit of acceptable air quality in Alberta (not “pollute up-to” values).
- ▶ *Approvals* specify source emission limits, the required equipment/technologies, the allowable emission sources, certain operational procedures and monitoring and reporting requirements.
- ▶ *Ambient air quality monitoring* measures air quality in the vicinity of industrial operations to ensure that the ambient air quality objectives are being met. *Source monitoring* measures the amounts released from industrial sources to ensure compliance with emission standards or the emission limits in Approvals.
- ▶ *Environmental Reporting* means that an industrial operator submits periodic reports (annual and sometimes monthly) summarizing performance and monitoring data (ambient and source).
- ▶ Through the government’s *inspections and abatement program*, operator performance is reviewed, monitoring reports are followed up if there appears to be a problem, monitoring is audited, and independent testing carried out. If necessary, *enforcement* action might occur using tools such as warning letters, administrative penalties, protection orders, prosecutions in court, court orders or cancellation of approvals.

### Alberta’s Regional Air Quality Management System

Different parts of the Province often face different air quality issues. Airshed Zones were created to address these local concerns primarily through local monitoring of air quality. If monitoring identifies a problem, then an air management plan may be developed and implemented. Monitoring then serves as the “check” function of PDCA to determine whether air outcomes are being achieved. *Figure 2* shows the regional air quality management system.

JSC Discussion Paper

Figure 2: Alberta's regional air quality management system.



The blue letters in the lower right hand corner of each box identify the main players involved in that function.

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**Data Collection (Monitoring)** is mainly for ambient air quality but also includes emissions, and environmental effects. The collection of reliable *ambient air quality data* is a complex undertaking with many tasks:

- Define clear and realistic monitoring objectives.
- Set appropriate data quality objectives (for accuracy, precision, representativeness, geographical coverage, comparability, consistency and data capture) to meet the monitoring objectives.
- Choose the specific pollutants that will be measured, the time-scales for measurement, the equipment that will be used, the number of sites and their locations. If real-time, minute-by-minute data are needed, then continuous analyzers will be used. If longer time averages are adequate, then integrated samplers can be selected. If 'snapshots' in time will meet the objectives, then intermittent sampling can be used, either randomly or systematically (e.g., every six days). The number and location of monitoring sites must be chosen in light of budgets and other constraints such as public safety, visual intrusiveness, risk of vandalism, access to utilities, zoning permission, and aerodynamic disturbance by nearby obstacles. Supporting meteorological and other measurements must be decided, and suitable equipment installed.
- Develop a quality system. Quality Assurance addresses the pre-measurement phase and is concerned with the processes of making the measurements. Quality control addresses the measurement-related activities and is concerned with the output.
- Check equipment to ensure that it is operating within specifications. Operational procedures must be established for equipment maintenance during regular site visits. Calibrate equipment against standards at regular intervals.
- Audit the stations by arranging with someone other than the site operator to review the entire operation so that data will be comparable with other networks.
- Validate data by having operators screen the measurements for any obvious problems before the data is submitted to a database.
- Ratify the data by periodic review (often quarterly) in conjunction with other stations, other pollutants, instrument histories, meteorological conditions, season, terrain and other factors. This prevents long-term errors from propagating in the database.
- Maintain a database to store the measurements for subsequent retrieval and analysis both by the station owners and others.
- Analyze the data for statistical characteristics, for relationships with meteorological conditions and for comparison with ambient air quality objectives or trigger levels.
- Report the results of monitoring to interested parties on websites and/or in formal publications.
- Review the monitoring program periodically to ensure its ongoing relevance.

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*Emissions inventories* are collections of data on releases to the atmosphere. There are a number of steps.

- List sources and pollutants emitted.
- Obtain available measurements of emissions. For large industrial sources and common pollutants, measurements are usually available, either continuously or from periodic sampling of the stack gases. Obtaining the data along with the supporting information is often done through questionnaires, although there is mandatory reporting to government agencies in many instances.
- Estimate emissions for other sources. Generally, there are no measurements for small sources, transportation sources, or natural sources. From available studies, emission factors are derived and then used to estimate the emissions. A great deal of work is needed to calculate these emissions and there is much uncertainty.
- Maintain a database of pollutant releases for subsequent retrieval and analysis.
- Analyze emissions data in various ways, for example, looking at trends, running dispersion models to predict the resulting ambient air quality, or making forecasts about future emission possibly using economic models.
- Report the emissions data regularly so that air quality managers and the public understand the pressures being placed on an airshed.

*Environmental effects* information is generally derived from various types of health and ecological studies. Biomonitoring programs are long-term and reporting may be infrequent. There are many variables that affect plants and animals, making it difficult to attribute definitively any observed effects to air quality.

The need for an *air quality management plan* has generally been determined by AESRD based on trigger levels in various air quality management frameworks.<sup>3</sup> Such plans detail what needs to be done, the timelines, how it will be achieved and who will do it. The planning will be informed by a variety of inputs. Generally the steps would be:

- Establish objectives for solving the problem and any related issues.
- Explore future scenarios, looking at industrial and urban growth and expected developments over various time frames.
- Formulate alternative actions that would change the air quality expected in the future from the “business as usual” case.

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<sup>3</sup> Historically the Clean Air Strategic Alliance developed a number of provincial frameworks such as the Acid Deposition Management Framework, Particulate Matter and Ozone Management Framework, and Electricity Sector Emission Management Framework. More recently the Alberta Government has published the Lower Athabasca Regional Air Quality Management Framework for NO<sub>2</sub>/SO<sub>2</sub> and is developing a Capital Region Air Quality Management Framework. The NAQMS also provides a tiered management framework based on CAAQS.

## JSC Discussion Paper

- ▶ Evaluate alternatives. Air quality models may be used to provide estimates of ambient air quality resulting from projected future emissions under various sets of actions. Research may be accessed or initiated to answer questions about such things as natural emissions, thresholds for vegetation effects, chemical composition of emissions from various sources, and leading edge control technologies. Social, technical and economic analysis may be used to compare costs, benefits, and other implications of the alternatives being considered for the plan.
- ▶ Consult with the public to get input from those whose activities will invariably be affected either directly or indirectly by the planned actions.
- ▶ Set targets for the suite of actions that are chosen after the evaluation and public review. Such plans generally require coordinated actions by government, business, industry, and the public.

*Regulatory actions* fall to the government agencies to implement. They can be reflected in any of the regulatory instruments that the government has at its disposal.

*Non regulatory actions* may be taken by any of the players. Such actions include informational outreach to educate, convince and motivate (also referred to as social marketing), partnerships, agreements, voluntary undertakings, monetary incentives, and recognition programs.

*Monitoring* continues to assess the results of the actions taken under the air quality management plan. The results are used to make course corrections and update the plan so that the desired outcomes are achieved.



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## ROLES AND RESPONSIBILITIES IN AAQMS

### The Players

Following is a summary description of the current set of players engaged in delivering aspects of Alberta's air quality management system.

#### **Alberta Environment and Sustainable Resource Development (AESRD)**

##### **Functions**

Alberta ESRD sanctions, directs, coordinates and implements air quality management at the provincial level, and represents Alberta at air quality management discussions with neighbouring jurisdictions and at the national level.

##### **Deliverables**

Maintenance and oversight of the provincial policy and regulatory regime for air quality management. Implementation of NAQMS in Alberta. Development and implementation of Alberta Government initiatives with implications for Alberta's AQMS:

- Cumulative Effects Management System (CEMS)
- Integrated Monitoring, Evaluation and Reporting (IMER)
- Air Quality Management Frameworks under the Land Use Framework (LUF)
- Clean Air Strategy (CAS)
- Monitoring Working Group.

##### **Authority/Accountability**

*Alberta Environmental Protection and Enhancement Act (EPEA)* and regulations.

##### **Structure/Funding**

Provincial government ministry responsible for the AQMS, operating with an annual budget voted by the members of the Alberta Legislature.

#### **Clean Air Strategic Alliance (CASA)**

##### **Functions**

CASA is a multi-stakeholder association composed of representatives selected by industry, government and non-government organizations to provide strategies to assess and improve air quality for Albertans, using a collaborative consensus process.

##### **Deliverables**

Gathers representatives from industry, government and NGOs in order to provide strategic (policy) advice on air quality management to the GoA. Multi-stakeholder teams produce recommendations concerning agreed air quality issues, directed at government, industry and NGOs for implementation.

## JSC Discussion Paper

### **Authority/Accountability**

Established by ministerial order in 1994, CASA reports to Ministers responsible for Energy, Environment, and Health. CASA has grant reporting requirements to GoA, including financial audits, and reporting and other requirements under the *Alberta Societies Act*.

### **Structure/Funding**

Incorporated as an association under the *Alberta Societies Act*, CASA has a multi-stakeholder membership (governments, industries, and NGOs). Each member sits on the Board of Directors; chaired by members of an Executive Committee representing the range of stakeholders. CASA is funded through annual grants from Alberta Energy.

## **Alberta Airshed Council (AAC)**

### **Function**

Provides a forum to identify and advocate for the common interests of the nine established airshed zones.

AAC is registered as a non-profit.

### **Deliverables**

Holds meetings to enhance communication between Airshed Zones; organizes periodic Airshed Zones' conferences; liaises on behalf of the Airshed Zones with other bodies (e.g., CASA, GoA).

### **Authority/Accountability**

Following from earlier recognition that there was a need for a forum for Airshed Zones to discuss common issues, formation of the Alberta Airsheds Council was recognized in a recommendation from CASA's "In the Zone Conference" held in October 2005. The AAC's first meeting was held in May 2006. The AAC is responsible to its member Airshed Zones. It also has the reporting and other requirements imposed by the *Alberta Societies Act*.

### **Structure/Funding**

Council of representatives of participating Airshed Zones, constituted under the *Societies Act* and operating by donations.

## **Airshed Zones (Consolidated)**

### **Functions**

Multi-stakeholder groups consisting of individuals, industries, environmental organizations, municipalities and other levels of government, all dedicated to clean air and healthy communities.

### **Deliverables**

Monitoring and reporting air quality data; local education and outreach with respect to air quality management; preparation of PM and ozone management plans if required.

## JSC Discussion Paper

### **Authority/Accountability**

Accountable to their Boards and members. Contractual obligations to industrial licensed emitters and AESRD for monitoring and reporting. Also must comply with the reporting and other requirements of the Alberta *Societies Act*.

### **Structure/Funding**

Multi-stakeholder organizations incorporated under the *Societies Act* and managed by Boards of Directors and paid staff. Funding is primarily by industrial licensed emitters in the geographical area (averaging 95% of revenues). Many AZs have contracts with AESRD for operation of provincial stations. From time to time AZs can also access grant funds from AESRD. GoA financial contributions to AZ operations are generally small compared to industry contributions. The fraction can range from as little as 1% to as much as 36% of annual AZ revenue (from data in Urban Systems<sup>4</sup> report).

## **Environment Canada (EC)**

### **Functions**

Preserve and enhance the quality of the natural environment, including water, air, soil, flora and fauna. Conserve Canada's renewable resources. Forecast daily weather conditions and provide detailed meteorological information to all of Canada. Coordinate national environmental policies and programs for the federal government.

### **Deliverables**

Federal policy on air quality management National AQMS.

### **Authority/Accountability**

*Canadian Environmental Protection Act (CEPA)*.

### **Structure/Funding**

Federal government ministry responsible for the National AQMS at the federal level, operating with an annual budget voted by the members of the Parliament of Canada.

## **Canadian Council of Ministers of Environment (CCME)**

### **Functions**

Minister-led intergovernmental forum (provincial-federal-territorial) for collective action on environmental issues of provincial, national and international concern.

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<sup>4</sup> Urban Systems and University of Alberta School of Business (2011); *Review of Value and Funding Options for Airshed Zones and Watershed Planning & Advisory Councils to Support Cumulative Effects Management*. Alberta Environment March 31, 2011.

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### **Deliverables**

Achieve positive environmental results, focusing on issues that are national in scope and that require collective attention by a number of governments.

Direct development of national strategies, norms, and guidelines that each environment ministry across the country can use; the National Air Quality Management System (National AQMS) is a CCME initiative.

### **Authority/Accountability**

Sanction for ministerial participation by respective jurisdictions.

### **Structure/Funding**

Contributions by participating governments.

## **Other Alberta Government Agencies**

### **Functions**

A number of provincial government agencies have air-related policies and duties, including: Energy; Agriculture and Rural Development; Health and Wellness; and Municipal Affairs. Policies are integrated and coordinated through the provincial government's Policy Coordination Office.

### **Deliverables**

Air quality relevant activities within their mandates.

### **Authority/Accountability**

Respective ministry mandate legislation and associated acts and regulations.

### **Structure/Funding**

Operate within an annual budget voted by the members of the Alberta Legislature.

## **Municipal Governments and Associations**

### **Functions**

Municipal governments provide essential services (e.g. road, water, sewage, garbage collection), local community programs and local land use planning. The Alberta Association of Municipal Districts and Counties (AAMDC) helps rural municipalities through advocacy and aggregated business services. The Alberta Urban Municipalities Association (AUMA) helps urban municipalities develop strategies and resources for the future.

### **Deliverables**

Municipal governments produce bylaws, land use bylaws, municipal development plans, area structure plans (framework for subsequent subdivision and development of land), area redevelopment plans, and programs for residents. Municipal government associations coordinate and assist member municipalities.

## JSC Discussion Paper

### **Authority/Accountability**

As prescribed by the *Municipal Government Act*; officials are accountable to elected councils; elected councils are accountable to the electorate. Associations are accountable to their member municipalities.

### **Structure/Funding**

Municipalities are funded through local taxes, grants and fees. Municipal associations are funded by member governments and service charges.

## **Industry/Business Associations**

### **Functions**

Corporations working together for the welfare of a particular economic sector.

### **Deliverables**

Various aspects of public relations, advertising, education, lobbying, publishing, corporate collaboration and industry standardization. Provide input to policy and regulatory regime adjustments.

### **Authority/Accountability**

Accountable to association members.

### **Structure/Funding**

Contributions by way of memberships.

## **Licensed Emitters<sup>5</sup>**

### **Functions**

Economic enterprises producing goods for market.

### **Deliverables**

Produce products for the economy, and emissions in the process.

### **Authority/Accountability**

Designated industrial activities require an Approval under the *Alberta Environmental Protection and Enhancement Act* (EPEA) Industrial corporations participate on Airshed Zones as part of their regulatory approval or on a voluntary basis. Corporations report to Boards of Directors (and shareholders) and to AESRD with respect to regulatory obligations.

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<sup>5</sup> The current regulatory system under *EPEA* is directed at designated emitters who must obtain a regulatory approval to operate. (licensed emitters). The regional AQMS includes licensed emitters, as well as other emitters (e.g., agriculture, transportation).

## JSC Discussion Paper

### **Structure/Funding:**

Provide funding to Airshed Zones in return for Airshed Zone monitoring and reporting on regulated emissions in a manner that fulfills regulatory requirements.

## **Non-Government Organizations (NGOs)**

### **Functions**

Individual citizens sharing a common interest, and in the case of environmental NGOs, promoting sustainable development and environmental health.

### **Deliverables**

Input/advice to air management policy and processes.

### **Authority/Accountability**

Flows from respective organizational membership.

### **Structure/Funding**

May be volunteer operated or with a paid staff. Funding received through paid memberships and donations.

## **Differences among Airshed Zones**

As might be expected with grass-roots organizations established to address local issues, each of Alberta's nine Airshed Zones has unique features. They differ in their main air quality issues, the area within their boundaries, populations served, numbers and interests of members, budgets, committee structures, and administrative procedures. Some characteristics of AZs are summarized in *Appendix D*.

AZs have different numbers of continuous monitoring stations, measure different parameters, make different supporting meteorological measurements, and have differing numbers of passive monitoring sites. A few AZs do environmental effects monitoring, and several have undertaken ozone planning. Many AZs are heavily engaged in outreach and public education, especially in conjunction with implementing an ozone management plan, although all have different and separate websites.

There are also differences in the membership makeup and methods of funding. Industrial members may be invoiced on the basis of respective emissions, or by way of a more complicated formula related to various aspects of operation. In some AZs, an industry association provides block funding and the apportionment among its members is internal to that organization.

Municipalities may participate fully, sporadically, or not at all. Some AZs charge flat amounts to towns, villages, and counties/districts. Others have a population-based formula for municipal contributions.

## JSC Discussion Paper

Most AZs contract out their monitoring operations, but two have recently decided to operate with own staff. Laboratory analysis is always contracted out.

### Allocation of Functional Responsibilities

Seven broad air quality management system functions have been used for purposes of explaining the Alberta AQMS, as outlined in Figure 2 and its accompanying text:

- Air quality monitoring and reporting;
- Emissions Inventory;
- Environmental effects information;
- Air quality plan development;
- Air quality plan implementation;
- Provincial policy and regulatory control; and
- Provision of supporting services.

In the preceding section, the roles and responsibilities of the organizations involved in delivering the AAQMS are described. The roles and responsibilities of those involved in air quality management must be explained in relation to the management system functions to be performed. To do this, the system functions have been mapped against the key players with responsibilities for delivery of aspects of the system. *Table 1: Summary of Functional Responsibilities in the Alberta AQMS* illustrates these relationships.

Table 1 lays out the functions of the system using the conventional groupings, listed above, and maps these against the general roles of the main delivery agents for the overall system (AESRD, Environment Canada, AZs, AAC, CASA and Licensed Emitters). For each function, the Table notes which organization is 'Responsible' and which is 'Contributing', either directly providing supporting information/analysis, or providing consultative advice. The 'Commentary' provides an explanation of important considerations relative to these roles and responsibilities.

Looking across Table 1 rows, it is apparent that at this high level, most functions have several players responsible for different aspects of the function as outlined in the commentary. Looking down the columns in Table 1, it can be seen that some players are more heavily involved in the system than others. The relative number of R's and C's speaks to the nature of the involvement.

It is important to note that the system functions listed in Table 1 are really categories within which a number of functional activities occur in practice. A breakdown of these detailed functions and associated responsibilities can be found in *Appendix B, Air Quality Management System Functions and Responsibilities*.

The *Glossary of Terms* in *Appendix A* defines air-related terminology, including definitions for the functional components listed in *Appendix B*.

## JSC Discussion Paper

**Table 1: Summary of functional responsibilities in the Alberta AQMS**

**R = Responsible:** The body responsible and/or accountable for this function/part of the system. Commentary defines distinctions.

**C = Contributing:** Those who provide consultative advice or supporting information/analysis. Commentary clarifies differences.

	AESRD/ GoA	CASA	AAC	AZ	Licensed Emitters	EC	Municipal Gov't.	Commentary
<b>1.0 Air quality monitoring and reporting</b>	R	C		R	C	R	C	AZs do the vast majority of monitoring; AESRD operates some stations, funds the operation of other stations, and supports the CASA Data Warehouse. EC supports National Air Pollution Surveillance stations.
<b>2.0 Emissions inventory</b>	R			R	R	R	C	EC requires industrial licensed emitters to submit data to National Pollutant Release Inventory. AESRD compiles data for provincial planning. Some AZs use emission data for polluter pay billings. Municipal governments may have data on traffic and some area sources.
<b>3.0 Environmental effects information</b>	R	C		R	C	C		Three AZs do environmental effects monitoring. The Casa Data Warehouse contains descriptions of bio-monitoring projects.
<b>4.0 Air quality plan development</b>	R	C		R	C		C	Frameworks from CASA, AESRD or EC can trigger the need for planning by individual AZs.
<b>5.0 Air quality plan implementation</b>	R			R	R		R	AZs undertake non-regulatory actions as budgets permit. Municipal governments act within their authority.
<b>6.0 Government regulatory systems</b>	R	C		C	C	R	R	Legislation by elected representatives enables federal and provincial regulatory regimes (for industry) to which the other players may provide input. Municipal government bylaws control land-use and other local activities.
<b>7.0 Supporting services</b>	R	R	R	R	R	R	R	All players coordinate and communicate. Training, other than on-the-job, is outside of current players, as is Research & Development.



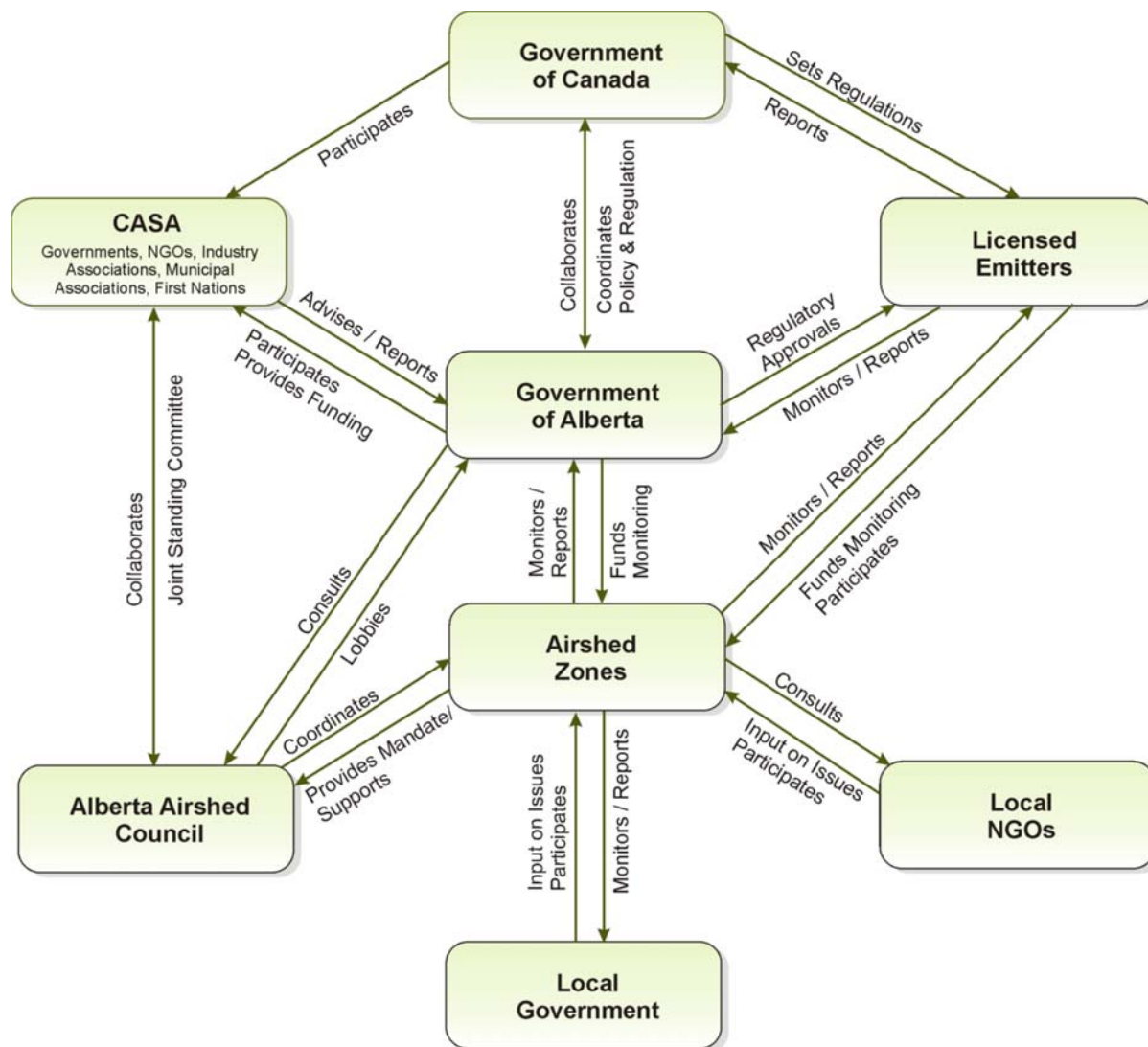
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### Relationships Among Players

The players relate to one another in a variety of ways. *Figure 3* below illustrates the major connections central to the functioning of the system, and labelled arrows indicate the services/support that one player provides to another. These connections do not preclude any of the players from providing input to AAQMS policy development and implementation through interactions other than those shown.

Where single arrows link players (CASA-AAC, Alberta-Canada), a reciprocal relationship exists. Some linkages are directly related to regulatory requirements for monitoring, reporting and oversight, while a number are supportive or discretionary. Other connections exist, but are not central to the functioning of the system. The Table in *Appendix C* provides a summary of the primary relationships relative to the AAQMS, in chart form.

**Figure 3: Pictorial view of relationships among players in Alberta's AQMS**



## JSC Discussion Paper

### System Accountabilities and Responsibilities

Table 2 below provides a summary of the key functional responsibilities of each of the players in the AAQMS, and to whom they are accountable. Although some system delivery responsibilities are more direct than others, the juxtaposition of responsibilities and accountabilities helps illustrate the diffuse nature of the current system.

The most notable role is that of the Airshed Zones which have an unusual set of responsibilities and accountabilities. While being the primary agent for conducting air quality monitoring, AZs have no 'system accountabilities' back to government, other than by way of contractual obligations with AESRD for operating a few monitoring stations or for the preparation of air management plans when those have been necessary. The only link for AZs to the air quality regulatory system is through an implicit contract with licensed emitters that AZ monitoring fulfills an emitter's regulatory monitoring obligations as set out in approvals.

**Table 2: Accountability relationships**

<b>Players</b>	<b>Responsible For</b>	<b>Accountable To</b>
<b>AESRD / GoA</b>	Provincial policy, planning, regulation, enforcement	Minister/Cabinet/Legislature
<b>CASA</b>	Multi-stakeholder advice to GoA on air management policy matters; mandate under Ministerial Order	Alberta Ministers of Energy, Environment, and Health
<b>Airshed Zones</b>	Monitoring air quality and reporting data under informal arrangements with Licensed Emitters; operating provincial monitoring stations within the zone; conducting air quality outreach and public education	Licensed Emitters in relation to expectations for air monitoring; AESRD under operating contracts where these exist; AZ members
<b>AAC</b>	Coordinating discussions among Airshed Zones	Members AZs through respective designated AAC representatives
<b>Municipal Governments and Associations</b>	Providing the services specified in the <i>Municipal Government Act</i> ; associations for the welfare of member governments	Minister of Municipal Affairs and to electors; associations to their member municipal governments
<b>Industry Associations</b>	Welfare of economic sector	Association Members
<b>NGOs</b>	Advancement of stated objectives	NGO Members
<b>Licensed Emitters</b>	Regulatory compliance	Regulator; corporate shareholders

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# GOVERNMENT INITIATIVES AND THE AAQMS

Following is a summary description of the current set of government initiatives related to Alberta's air quality management system.

## National Air Quality Management System (NAQMS)

### Purpose

An initiative of the Canadian Council of Ministers of the Environment (CCME), the NAQMS is a collaboration between federal, provincial and territorial governments, with stakeholder involvement, to develop and implement a new system for air management in Canada. It features new Canadian Ambient Air Quality Standards (CAAQS) for place-based air quality management (led by provinces and territories), base-level requirements for major industrial sectors regardless of air quality where facilities are located, six national airsheds that cross provincial and territorial borders to address trans-boundary pollution, and a national working group on monitoring and reporting. Alberta, Ontario and Environment Canada are the champions for this initiative, to be considered by CCME for approval in the fall of 2012.

### Products/Deliverables

Six national air sheds across the country and guidance for delineation of regional airsheds; defined base level industrial emission requirements (BLIERS); CAAQS set initially for PM 2.5 and ozone (with other substances to follow); implementation roles agreed upon by governments; and a national framework for air quality management and reporting.

### Possible Implications for AAQMS

Each province and territory is responsible for integrating national air quality standards into regulatory systems, delineating air zones that cover their entire jurisdiction, and collaborating between jurisdictions to address trans-boundary pollution where national air zones are shared responsibilities. Under the NAQMS provinces and territories will be responsible for managing air quality against the CAAQS, using a national framework of management levels and actions if air quality deteriorates, and reporting on air quality and management actions by airshed. The NAQMS, as proposed, appears well-aligned with Alberta's AQMS and with air frameworks contemplated for Land Use Framework regional plans.

## Land Use Framework (LUF)

### Purpose

An initiative of Alberta ESRD to manage growth by balancing environmental, economic and social values and objectives, and translating provincial-level policy direction on land use for local land use decision-making.

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### **Products/Deliverables**

Land use plans at regional and sub-regional scales, and issue-specific plans, containing legally defined objectives pursuant to the *Alberta Land Stewardship Act*. A draft of the Lower Athabasca Regional Air Quality Management Framework for NO<sub>2</sub>/SO<sub>2</sub> has been published and work is underway on a Capital Region Air Quality Management Framework.

### **Possible Implications for AAQMS**

Regional plans are intended to encompass air quality management objectives which will in turn require monitoring air quality indicators in relation to approved objectives. Legal objectives bring obligations for sustainable and consistent monitoring and reporting. It is not yet clear how regional objectives for air quality will be set or monitored differently than is currently the case. Future roles for CASA or for Airshed Zones have not been defined within either the Land Use Framework or the Cumulative Effects Management System.

## **Cumulative Effects Management System (CEMS)**

### **Purpose**

Dovetailed with the Land Use Framework, the Cumulative Effects Management System is an approach that establishes outcomes for an area by balancing environmental, economic and social considerations and implementing appropriate plans and tools to ensure those outcomes are met. Cumulative effects management clearly defines the desired end-state (outcomes-based), meets the differing needs of regions within the province (place-based), uses adaptive approaches to ensure results are measured and achieved (performance-management-based), builds on a culture of shared stewardship (collaborative), and uses both regulator and non-regulatory approaches (comprehensive).

### **Products/Deliverables**

Cumulative Effects Management Frameworks will bring all contributing parties together in a particular area into solution development for issues at an early stage. They may be focused on air, land, water and/or bio-diversity issues, will incorporate social and economic considerations, and must align with other scales of planning (provincial to site-specific).

A draft of the Lower Athabasca Regional Air Quality Management Framework for NO<sub>2</sub>/SO<sub>2</sub> has been published and work is underway on a Capital Region Air Quality Management Framework.

### **Possible Implications for AAQMS**

The same “plan-do-check-act” approach will be used in setting, meeting and evaluating place-based outcomes. The foundation of a functioning system is knowledge and performance management, and having the best information possible to set outcomes, continuously assess them, and determine when management actions are required. CEMS represents a shift in scale from managing air quality on a provincial basis to managing air quality on a regional basis. It also places great emphasis on information. Future roles for CASA or for Airshed Zones have not been defined within either the Land Use Framework or the CEMS (refer also to Figure 3).

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### **Integrated Monitoring, Evaluation and Reporting (IMER)**

#### **Purpose**

An initiative of Alberta ESRD to integrate monitoring, evaluation and reporting for air, land, water and biodiversity, in support of CEMS.

#### **Products/Deliverables**

Enhanced data acquisition and reporting, and support for environmental management at a variety of spatial scales.

#### **Possible Implications for AAQMS**

Potential exists for greater reliance on data from the CASA Data Warehouse (CDW) or replacement of the CDW by a new government database. There has been no suggestion as to how monitoring air quality within realistically defined airsheds fits spatially or in a scalable way with other media (e.g., water).

### **Clean Air Strategy for Alberta**

#### **Purpose**

An initiative of Alberta ESRD to renew the 1991 Clean Air Strategy, including the impact of non-point source emissions.

#### **Products/Deliverables**

Strategy and Action Plan with three outcomes and four key directions: (1) management of non-point sources and airshed planning, (2) shared responsibility and partnerships, (3) integrated monitoring, evaluation and reporting, and (4) knowledge enhancement.

#### **Possible Implications for AAQMS**

The GoA has signalled the following general intent:

- integrating planning within and across provincial, regional and sub-regional boundaries, and developing management frameworks to identify and address air quality issues;
- developing educational programs and best management practices to ensure all parties are equipped to contribute to collective goals; clarifying and articulating the roles of cross-government and cross-ministry stakeholders and partners in air quality management; and coordinating policy development and integration across environmental media and government;
- rationalizing monitoring programs in the province; enhancing the data management system; developing monitoring and performance indicators to assess the state of Alberta's air and the effectiveness of policies; and ensuring the transparency and accessibility of data; and
- increasing public knowledge related to air quality; pursuing and prioritizing research and development activities; encouraging continuous improvement in technology development and management approaches; and improving knowledge of emission sources through emissions inventories.

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### Regulatory Enhancement Project

#### Purpose

An initiative of Alberta Energy to ensure Alberta's regulatory system for energy development is efficient; supports the province's competitiveness; and effectively supports the achievement of Alberta's public safety, environmental management, and resource conservation objectives and respects the rights of landowners.

#### Products/Deliverables

A single regulator with responsibility for the regulatory functions required to issue approvals, and to monitor compliance with approvals, for all upstream oil and gas activities.

#### Possible Implications for AAQMS

The single regulator for the energy sector will take over the regulatory functions of AESRD and the ERCB.

### Monitoring Working Group

#### Purpose

Provide expert advice, viable options and recommendations on the future governance and funding of a new provincial monitoring, evaluation and reporting system. This advice is to include the mandate, scope, and roles and responsibilities of the various parties who could be involved in the provincial system.

#### Products/Deliverables

A report that outlines and assesses governance options ranging from an arms-length public agency to a structure internal to the Government of Alberta. For each option identified, the report will describe: the proposed structure, its intended responsibilities, products and deliverables, and its relationships of authority, consultation, advice or accountability; how the option provides for effective management of the monitoring system; how the option contributes as part of the broader system of natural resource and environmental management; options, recommendations and implications of sustainable funding mechanisms and budgetary accountability; how and by whom decisions relating to allocating scarce resources will be made; transitional steps required to implement the option.

#### Possible Implications for AAQMS

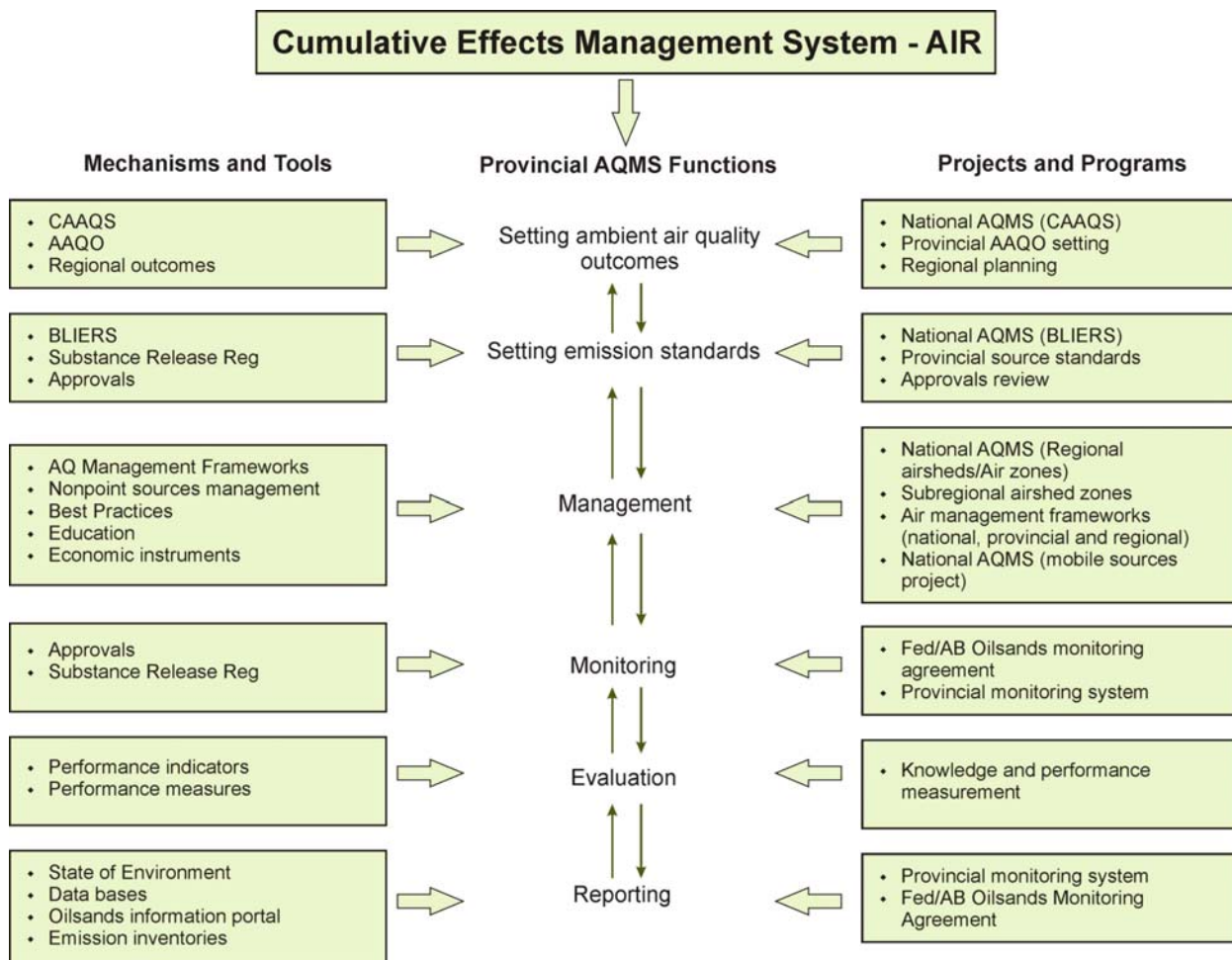
If the government accepts a recommended option, then some of the current uncertainties around monitoring may be resolved.

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### Linkages Among Government Air Quality Initiatives

The GoA has summarized its initiatives in relation to Cumulative Effects Management as the delivery mechanism, as shown in *Figure 4*.

**Figure 4: Linkages among government air quality initiatives**



Source: *Air Quality Management in Alberta: How the Pieces Fit Together*. Stephanie Clarke, CASA Coordination Workshop, 29 May 2012.

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### Summary of Implications of Current Government Initiatives

The **National AQMS** will bring new emissions standards and ambient air quality objectives that will require adjustments by the Alberta government. The trigger levels, if more stringent, will replace those in existing provincial or CASA frameworks. Air zones are to be created for the entire province to manage air quality, if required. This could lead to a change in the boundaries of existing Airshed Zones, if they are to assume this role.

**CEMS and Land Use Framework** regional plans are also likely to create sets of trigger levels similar to those set out for the Lower Athabasca Regional Plan in its Air Quality Management Framework. AZs may be asked to take on additional tasks related to increased education and promotion of clean air practices. This would require continuity in funding to be effective.

**Integrated Monitoring, Evaluation and Reporting** suggests that air quality data may be combined with other environmental data, perhaps replacing the CASA Data Warehouse. This may result in a different set of reporting formats and standards for Airshed Zones.

The **Clean Air Strategy for Alberta** will set out actions that AESRD and GoA will take with respect to managing air quality in the future. It may change the roles that various players will have as the strategy is implemented.

The **Regulatory Enhancement Project** could make a new single regulator for the energy sector a more significant player at both AZs and CASA.

The **Monitoring Working Group** is tasked with developing an implementation plan for recommendations from the Alberta Environmental Monitoring Panel, including the development of an arms-length monitoring agency. Such an agency with sustainable funding for monitoring could significantly change the current funding sources and rules for AZs. It could resolve the long-standing problem AZs have had with respect to emitters who do not presently contribute to AZ monitoring activities. If AZs continue to be responsible for zonal monitoring, then there will likely be a stronger reporting relationship to this new entity. If funding originates within the central monitoring agency, then AZs may become accountable to that agency and this in turn could affect their local autonomy.



## OBSERVATIONS AND CONCLUSIONS

### Strengths of the Current System

Since the mid 1990s Alberta has encouraged and assisted in the funding of a “distributed” air quality management model; one that engages stakeholders in:

- planning regional air quality networks;
- managing the deployment and operation of monitoring equipment;
- collecting air quality data;
- reporting data to a central repository;
- participating in data quality discussions with government staff; and
- communicating with local residents on locally relevant air quality issues.

This high level of stakeholder engagement in the business of air quality management extends through the whole of the air quality management system, up to and including the development of policy advice to Government of Alberta Ministers on major air quality issues important to Albertans.

While it may be difficult to quantify all of the benefits associated with this high level of stakeholder engagement, there is no doubt that it has resulted in very committed groups of knowledgeable stakeholders that enjoy the broad support of their communities. Alberta’s unique experience with local stakeholder engagement in air quality monitoring may well be reflected in emerging national AQMS guidance regarding the establishment of AZMTs within provinces.

The ability of regionally-based airshed zone management teams to communicate with local interests and to respond quickly and effectively to emerging air quality issues is critical to the effective delivery of a trusted and credible air quality management system. The challenge then is to determine the best means to build on Alberta’s enviable track record at the regional level (e.g. other jurisdictions are now looking to emulate Alberta’s provision for local stakeholder inclusion), while making improvements upon the air quality management system overall, including scientific rigor, standards and sustainable resourcing.

Maintaining the widespread interest and support of regional stakeholders who are already heavily engaged in, and committed to, the development of a high quality air quality management system will be central to the success of planned system improvements.

## JSC Discussion Paper

### Uncertainties and Gaps

Any discussion about the design and delivery of the AAQMS should be prefaced with the understanding that, on the whole, roles and responsibilities within the air quality management system are reasonably well understood and the current system functions reasonably well.

There are however a number of uncertainties or gaps worth noting.

- ▶ The plethora of current government initiatives has led to considerable uncertainty about the future with respect to: airshed boundaries, the extent of monitoring that may be required, the extent of air quality planning that may be required, the amount of outreach and education expected, the resources to undertake expanded tasks, reporting relationships, and potential loss of local autonomy. Uncertainty stems from the fact that initiatives are incomplete and implications not clarified, and from disruption due to government restructuring.
- ▶ Airshed Zones already experience a number of pressures, such as participation by NGOs and the public being voluntary, small emitters not contributing funding, not all emitters participating, and timeliness of data delivery.
- ▶ Some perceive a gap in that not all areas of the province are covered by AZs and hence are lacking in air quality monitoring.
- ▶ AZs have no formal reporting relationship with government except through contracts for operating a limited number of provincial monitoring stations. Historically CASA has 'endorsed' AZs, but the significance of that endorsement, beyond ensuring that a prospective AZ has met certain start-up requirements, has been questioned.
- ▶ From time to time AZs are called upon to justify the value of their work, and it has been suggested that a reporting tool should be created to demonstrate the ongoing value of AZs. Local perspectives and local input are valued within their respective communities and there is a concern that government initiatives will introduce a more top-down approach, at the expense of that local focus.
- ▶ The link between regulatory requirements of industry and AZ activities is somewhat tenuous. For AZs that base funding on emissions, there are struggles to obtain recent emissions data, get consistent emissions estimates for all sources, and keep ownership (and addresses) up-to-date. While licensed emitters pay to support monitoring that fulfills their regulatory obligations, they do not pay for the development of air management plans.
- ▶ Human resource capacity is an issue; experienced personnel are difficult to recruit and retain. Formal training for personnel in most parts of the air quality management system is hard to find; most practitioners learn on-the-job.
- ▶ Research and development specific to air quality is diffuse and difficult to track and apply.
- ▶ Environmental effects monitoring is sporadic and no standardized reporting systems exist in Alberta.

## JSC Discussion Paper

### System Challenges

In this discussion paper, the structure of the Alberta Air Quality Management System has been described, along with the organizations that are involved, how they relate to one another, and issues these organizations currently face. Recent government initiatives have led to uncertainty about the future of these organizations and their relationships. The Alberta Air Quality Management System as a whole faces four main challenges related to mandates, funding, effectiveness and evolution. Each of the challenges described below has 2-3 key questions that need to be answered. The Joint Standing Committee may choose to answer some of the questions directly, provide analysis to assist the government in answering the question, or leave the deliberations entirely to government.

#### 1. Mandates, Authorities and Accountabilities

Currently AZs exist as not-for-profit corporations under the Alberta *Societies Act* for the purpose of conducting regional air quality monitoring in lieu of compliance monitoring for industrial facilities holding *EPEA* approvals. They also operate a few provincial stations under contract to AESRD, and undertake public education on air quality. Designated AZs have developed ozone management plans under contract to AESRD.

Government has not authorized or delegated to AZs a formal regulatory role, beyond the indirect reporting of air quality data on behalf of licensed emitters. Similarly, the AAC has no formal system mandate beyond that provided by its AZ sponsors.

The possibility of greater discipline in the system with respect to governance and funding (i.e., as a result or pending recommendations from the Interim Monitoring Working Group), may need to be rationalized against the historic local autonomy that AZs enjoy, and a greater degree of accountability that comes with sustainable public funding or delegated authority as an agent of government (e.g., a 'delegated organization').

Key questions for consideration:

- 1.1 Where do AZs get their mandate? Should AZs receive a formal mandate for the functions they deliver? What degree of accountability and reporting is appropriate for delivery of important parts of the Alberta AQMS?
- 1.2 Should AZs be more closely integrated with the regulatory regime? Should there be a formal reporting relationship to AESRD? How would formal authority mesh with the local autonomy of AZs? Would local issues be addressed appropriately in a more closely integrated and managed governance structure?

## JSC Discussion Paper

- At what point does the role of AZs become more onerous than the existing volunteer system can handle? Can the AAQMS operate effectively into the future given its discretionary nature? How can the current network of volunteers be held responsible for monitoring linked to industrial approvals?

1.3 What is the purpose and fit for the Alberta Airsheds Council in the AAQMS? What functional gaps can it fill?

- Can AAC and CASA roles be made complementary?
- Should CASA play a greater role in aligning or supporting AZ roles and responsibilities?

## 2. Sustainable Resourcing

For the Alberta AQMS to function effectively, all parts of the system must be sustainable – financially, technically, and from a human resource perspective. The capacity of government and its partners in the AAQMS is often strained and over-taxed. Formal training is limited and there is little targeted research and development in air quality. Government scientific and technical capacity has also been strained in recent years.

Airshed Zones, which collect the bulk of ambient air monitoring data in the province and to date have done most of the regional air quality planning, do not have any assurances about the level of financial support they will receive from year-to-year. AZs also operate with volunteers on their Boards of Directors. NGO and public participation on AZs can be difficult to secure because those members also donate their time. Although personnel in industry and government are paid for their time, staff turnover often means that new representatives have little knowledge about the operations of the AZs or the AAQMS.

Key questions for consideration:

2.1 How can the AQMS be assured of a more consistent and sustainable resourcing stream to allow for multi-year planning and delivery?

- Whose job is it to pay for supporting sub-regional air monitoring activities? Should education and planning activities be funded entirely by polluters, by government, or both?
- What is a fair and equitable means of determining financial contributions? Should all emitters be brought to the table? By what means would diffuse emitters like transportation and agriculture make the appropriate contribution?
- What would funding guarantees mean in terms of accountability or the need for consistency and structure across AZs?
- What level of management/technical/science capacity needs to be maintained across the system to support credible levels of air quality management for Albertans?

## JSC Discussion Paper

### 3. Operational Effectiveness

Although AZs share many common features, they also differ greatly in many ways. There are advantages in terms of flexibility to address local issues, but also disadvantages in terms of efficiencies.

The AAQMS currently relies on an informal set of connections to communicate with constituencies with interests in air quality monitoring and management. Much depends on the volunteer efforts of those constituency representatives who are at the table. The result is reliance on an informal and inconsistent network to carry important air management guidance to and from affected interests.

There is the potential to develop tools, templates and common messages to enhance air quality communications and public awareness. This could happen in a variety of ways, but might best be handled through some sharing mechanism where AZs, AAC, CASA, AESRD all contribute to some form of open source resource (e.g., an interactive community of practice section on a website). All parties would like to do more, but resources are limited.

Key questions for consideration:

- 3.1 How much standardization is desirable? Should there be consistent sets of core parameters (ambient air quality, environmental effects) or basic data analysis? Should there be a common toolbox?
- 3.2 To what extent should AZ business models and operating practices be aligned? Can operational effectiveness be improved across the system? Are efficiency gains possible through realignment, pooling of resources, common administration or other operational changes?

- Are there economies of scale (e.g. laboratory analysis or data review)? Are there common functions that can be shared (e.g. administration, websites, emissions inventorying, databases, methodologies, training)? What things lend themselves to coordinated action (e.g. messaging, communications tools, information sources)?

### 4. Evolving the Alberta AQMS

The many recent government initiatives have raised questions about the future roles of AAQMS players in delivering the operational functions of the system. There are opportunities to prescribe what gets monitored, how it gets monitored, and to what standards.

## JSC Discussion Paper

The AESRD has developed a new air monitoring directive that may cover much of this requirement and which may, in any case, be assigned to a new independent monitoring body (e.g, commission or delegated authority). The future role of stakeholders in offering advice with respect to the accessibility, transparency, and utility of data, and other matters of interest to stakeholders, is not addressed in any guidance.

Key questions for consideration:

4.1 How can air quality management be “integrated” with water, land and biodiversity? What does “integrated” mean in the monitoring world and what are the implications for deliverers? Who is the consolidator/integrator?

- What will be expected of AZs in the future? Who will do local air quality monitoring, evaluation and planning in parts of the province where airsheds have not been designated? Would Airsheds Zones need to change their make-up in some way?
- Is a more homogenous approach to air management planning needed given the direction being taken by LUF and CEMS? What will constitute an air management plan under the new planning and monitoring framework? Is there a template that can be used and how will it be administered? How can CASA, the AAC or AZs assist in developing regional plans?

4.2 What adjustments would make sense in order to effectively implement the new National AQMS? Could AZ boundaries be re-aligned? What new members would be brought onboard? What new monitoring might be required?

4.3 How will continuous improvement be assured? How do we improve our understanding of the air quality system?

- Is the level of dependence on voluntary engagement delivering expected science-based outcomes?

## JSC Discussion Paper

**APPENDIX A – GLOSSARY OF TERMS**

The following defines terms as they are used in this report.

Air Management Framework	approach to air quality management in Alberta's regional land-use plans using indicators of air quality, with triggers and limits to define management responses to the cumulative effects of development.
Air quality dispersion modelling	applying a mathematical representation of atmospheric processes to determine the behaviour of airborne pollutants, and the resulting ambient air quality concentrations.
Air quality monitoring	periodic or continuous measurements to determine the concentrations of substances in the atmosphere.
Alberta Association of Municipal Districts and Counties (AAMDC)	an independent association comprised of Alberta's 69 counties and municipal districts, which provides advocacy and aggregated business services to assist rural municipalities achieve effective local government.
Alberta Urban Municipalities Associations (AUMA)	an independent association comprised of Alberta's 277 urban municipalities including cities, towns, villages, summer villages, specialized municipalities, and affiliated members, which represents and advocates the interests of all members to the provincial and federal governments, and provincial and federal organizations.
Ambient air	outside air; air not confined by walls and a roof.
Ambient air quality	relative amounts (concentrations) of gases, liquids or solids in the atmosphere, especially those substances that are not normal constituents.
Ambient air quality objective (AAQO)	numerical level of concentration or deposition that provides protection for human health and the environment, and provides the basis for air quality management plans.
Ambient objectives determination	process of developing ambient air quality objectives.
Applied Research and Development	investigations directed at the discovery of new knowledge, having specific practical objectives with respect to products, processes, or services. Development is the systematic utilization of the knowledge or understanding toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes.

## JSC Discussion Paper

Clean Air Strategy	general plan for maintaining or improving air quality. It expresses context and direction, major goals and broad courses of action, responsibilities and processes, priorities and resource allocations.
Communication	two-way process of reaching mutual understanding in which participants exchange information and create and share meaning.
Compliance	conforming to all air quality rules.
Consultation	communication between stakeholders and a sponsor through which both become better informed. Consultation provides participants with the opportunity to influence decision making.
Coordination	organization of the different elements of a complex activity so as to enable them to work together effectively.
Database	comprehensive collection of related quantitative or qualitative information organized for convenient access, generally in a computer.
Data management	administrative processes by which air quality measurements are acquired, validated, stored, protected, and processed, and by which accessibility, reliability and timeliness are ensured to satisfy the needs of users.
Data Quality Objectives	criteria for acceptable measurements.
Data ratification	periodic review perhaps quarterly or half-yearly, to assess long-term instrument performance. It is the final stage of data acceptance based on judgment and experience, using a wide variety of inputs. It is generally carried out by someone who is not part of the routine operations.
Data validation	rapid screening of measured values to catch errors and problems before the data enters permanently into a database. It is generally carried out by the network operator.
Dispersion	process of moving, breaking up and scattering substances released into the atmosphere.
Dispersion model	set of mathematical relationships, based on scientific principles, that relate emission rates of an air contaminant to the resulting ambient concentrations.
Education	learning process that increases knowledge and awareness about air quality and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action.



## JSC Discussion Paper

Emission standard	quantitative or qualitative specifications of what may be released into the atmosphere; also known as source performance standards, technology standards, or equipment design standards. Quantitative standards specify numerical maximum values for properties, such as intensity (mass per unit production), concentration in a fuel or effluent (for example in mg/kg), or opacity (darkness of the emitted plume). Qualitative standards specify the type of equipment that may be used, the control devices that must be installed, or the type of the fuel that may be burned.
Emission target	total quantity of releases, or the reduction in releases, to the atmosphere by a source or group of sources, to be achieved at some specified date in the future.
Emissions inventory	database listing, by source, estimates of the quantity of specified air pollutants discharged into the atmosphere from within a defined area during a given time period (typically a specified year).
Emitter	an activity or operation that releases pollutants to the atmosphere.
Environmental effects monitoring	process of measuring the changes in a receptor over time, that may be attributable to air pollution.
Equipment calibration	multipoint checks of instrument output when known concentrations are introduced. For continuous air quality analyzers, this generally consists of zero verification and a minimum of three upscale points across the operating range of the analyzer.
Equipment check	regular visit to a monitoring station to verify proper operation. Activities typically include: zero/span verification, adjustments when outside of control acceptability, filter changes, replacement of consumables, cleaning of manifold lines, repairing any malfunctioning components.
Equipment maintenance	actions necessary to keep a monitoring instrument operating within its performance specifications.
Integration with economic activities	linking air quality management plans with other provincial plans for energy, transportation, agriculture, industry and municipal development.
Laboratory accreditation	assurance from a third party that a chemical analytical service has the capability and competence to perform the required analysis within the quality specifications.
Laboratory analysis	determining the chemical content of a sample in a facility containing specialized scientific equipment dedicated to making the required measurements.

## JSC Discussion Paper

Licensed emitter	operation (normally industrial) holding an <i>EPEA</i> approval to release pollutants into the atmosphere, with requirements to monitor ambient air quality.
Meteorological analysis of data	search for relationships between atmospheric conditions and measured pollutant concentrations.
Monitoring Objective	goal or purpose of collecting ambient air quality data, such as addressing a problem, answering a specific question, determining trends, or checking for achievement of an outcome.
Non-regulatory actions	Activities aimed at changing attitudes and behaviors. Such actions include informational outreach to educate, convince and motivate (also known as social marketing), partnerships, agreements, voluntary codes of conduct, monetary incentives, and recognition programs.
Outreach	process of engagement with individuals and organizations, with the primary purpose of serving as a resource. Outreach is driven by two-way communication, and is focused on creating and sustaining mutually beneficial relationships, rather than on immediate outcomes. In contrast, sales and marketing are mechanisms for one-way messaging intended to achieve immediate actions for the benefit of the selling or marketing organization.
Parameter	measurable factor forming one of a set that defines a system or sets the conditions of its operation.
Program Review	assessment of an ongoing set of activities with respect to some combination of: cost and efficiency, outcome or impact, implementation according to plan, design and logic/theory, need.
Quality assurance (QA)	planned and systematic activities to ensure that data quality objectives are met.
Quality Control (QC)	techniques to prevent the generation of unacceptable data and take corrective action when data is determined to be unacceptable.
Quality system	organizational structure, procedures, processes and resources needed to ensure the acceptability of the output.
Reporting	submitting specified data to the regulatory agency or making data and information about air quality and emissions available to the general public, as the case may be.

## JSC Discussion Paper

Regulatory instruments	legal means by which governments implement air quality management plans. These consist of: (a) legislation (by elected representatives), (b) statutory regulations (under legislation) and (c) requirements such as standards, guidelines, permits, approvals, and mandatory codes of practice issued by government departments under authority of an Act or Regulation.
Research	systematic and methodical process of inquiry and investigation that increases knowledge and/or solves a particular problem.
Scenario exploration	consideration of alternative future industrial and urban development, and the implications for air quality.
Socio-economic analysis	evaluation of the costs and benefits an action will create for society by comparing what will happen if this action is implemented as compared to the situation where the action is not implemented. The analysis typically attempts to include also the effects that are indirect or incompletely reflected by market transactions. The analysis can be used to better understand how the various costs and benefits are distributed over the various affected parties in society.
Source	any activity that causes pollutants to be emitted into the atmosphere.
Source emission conditions	limits placed on releases to the atmosphere from a specific piece of equipment or facility. For a smokestack, this might include temperature, exhaust speed, quantity of pollutant, and methods for measuring the releases.
Source standard-setting	process of establishing emissions standards.
Station audit (Technical System Audit)	on-site review and inspection, conducted by an outside party, of an ambient air monitoring station to assess its compliance with established standards and practices governing the collection, validation, and reporting of ambient air quality data.
Statistical analysis of data	examining, summarizing, manipulating and interpreting air quality measurements to discover underlying patterns, relationships and trends.
Strategy	course of action selected from among alternatives as a means of achieving a goal or objective (or interest). The definition of a strategy is broad. A strategy may be general or specific in nature, and may describe a pattern, management standard, guideline, action, procedure or policy. Strategies express how, where and when to commit resources to achieve objectives.
Target	mark to shoot for; an aspiration or desirable goal.

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Technology Transfer	movement of new technology from its creator or researcher to a user.
Training	acquisition of specific skills and competencies to be able to carry out some technical activity related to air management, for example, operating monitoring equipment, analyzing monitoring data or running dispersion models.
Trend	general direction in which something tends to move.
Trend prediction	extrapolating into the future an underlying pattern of changes in emissions or ambient air quality.

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## APPENDIX B – AIR QUALITY MANAGEMENT SYSTEM FUNCTIONS AND RESPONSIBILITIES

**R = Responsible:** The body responsible this function/part of the system. Commentary defines distinctions.

**C = Contributing:** Those who provide consultative advice or supporting information/analysis. Commentary defines the role.

	AESRD/ GoA	CASA	AAC	AZ	Licensed Emitters	EC	Municipal Gov't.	Commentary
<b>1.0 Air quality monitoring</b>								
1.1 Define monitoring objectives	C	C		R	C		C	AZs set their own objectives to address local issues, guided by the CASA Air Monitoring Strategic Plan and AESRD guidance. AESRD and Industry are represented on AZ design teams.
1.2 Set data quality objectives	C	C		R	C			AESRD requires a quality system under the AMD.
1.3 Choose parameters, equipment & locations	C	C		R	C		C	The CASA Air Monitoring Strategic Plan, AESRD approvals and AESRD directives provide guidance.
1.4 Develop quality system	C			R	C	C		Includes assurance that accredited laboratories are used (AESRD policy) and may include checks in the form of spiked samples, replicate samples, or blank samples.
1.5 Check equipment				R				AZs generally out, except WCA and WBEA who operate with own staff.
1.6 Calibrate equipment				R				Completed by operators.
1.7 Audit stations	R					R		AESRD audits AZ stations; EC audits NAPS stations.
1.8 Validate data				R				Operators check the data before submitting it.

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	AESRD/ GoA	CASA	AAC	AZ	Licensed Emitters	EC	Municipal Gov't.	Commentary
1.9 Ratify data	C	R		C		R		Usually a quarterly activity reviewing the data in conjunction with a variety of other information inputs. AESRD ratifies data for the CASA Data Warehouse. EC ratifies data for NAPS stations. AZs may also do further checking on their data.
1.10 Maintain database	C	C		R		R		AZs keep their own data and submit to CASA Data Warehouse, operated by AESRD. EC stores NAPS data.
1.11 Analyze ambient data (statistical, meteorological)	R	C		R	C	R	C	AZs interpret their data against their objectives and other requirements; AESRD, against provincial frameworks; EC, against federal requirements.
1.12 Report ambient air quality data	C	R		R	C	R		AZs report on their own websites and in various publications. CASA offers user-generated reports from the CASA Data Warehouse and produces annual performance measures. EC publishes periodic reports. The AZs report data on behalf of their member companies to fulfill legal requirements of approval holders.
1.13 Review program	C	R		R	C	R	C	Periodically CASA does a strategic plan for province. AZs also do periodic reviews of their monitoring networks. EC's program is overseen by a federal-provincial committee.
<b>2.0 Emissions inventory</b>								
2.1 List sources and pollutants emitted	R			R	R	R	C	EC requires emitters above a certain size to report to the National Pollutant Release Inventory. AESRD uses these data and questionnaires to compile inventories for provincial planning. AZs use information to determine who could be members and who should be billed.

## JSC Discussion Paper

	AESRD/ GoA	CASA	AAC	AZ	Licensed Emitters	EC	Municipal Gov't.	Commentary
2.2 Obtain available measurements of emissions	R			R	R	R		Industry submits data to the Energy Resources Conservation Board, AESRD, and Environment Canada. AZs obtain the data for their zones.
2.3 Estimate emissions for sources without measurements, including natural sources	R			C	C	R	C	Urban, transportation, area and natural source emissions need to be estimated from emission factors and models.
2.4 Maintain database	R			R		R		EC has the National Pollutant Release Inventory which is publicly accessible. AESRD has a database which is currently not publicly accessible. AZs keep their data in spreadsheets.
2.5 Analyze emissions data (trends, forecasts, dispersion)	R				C	R	C	Changes over time, forecasts into the future, and predicted ambient air concentrations using dispersion models are used to interpret the data.
2.6 Report emissions data	R				C	R		EC produces annual reports. AESRD reports periodically.
<b>3.0 Environmental effects information</b>								
3.1 Environmental effects information (ecosystem, health)	R	C		R	C	C	C	The Wood Buffalo Environmental Association has extensive terrestrial environmental effects program. The West Central Airshed Society and the Lakeland Industry and Community Association both do some ecological monitoring. The CASA Data Warehouse contains descriptions of various ecological monitoring projects in Alberta.

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	AESRD/ GoA	CASA	AAC	AZ	Licensed Emitters	EC	Municipal Gov't.	Commentary
<b>4.0 Air quality plan development</b>								
4.1 Establish objectives	R	C		R	C	R	C	The framework (from NAQMS or AESRD) triggering the need for the plan provides the primary objective. AZs can add related objectives.
4.2 Explore scenarios	C			R	C	C	C	AESRD and EC may provide technical assistance to AZs.
4.3 Formulate alternatives	C			R	C	C	C	AESRD and EC may provide technical assistance to AZs.
4.4 Evaluate alternatives (dispersion models, social, technical & economic analysis)	C			R	C	C	C	AESRD and EC may provide technical assistance to AZs.
4.5 Consult with public	C	C		R	C		C	CASA and AESRD may assist the AZ with public consultations.
4.6 Set targets	C			R	C		C	Emission targets can be global or sector-specific.
<b>5.0 Air quality plan Implementation</b>								
5.1 Regulatory actions	R	C			R	R	R	EC and AESRD would implement regulatory actions, industry would respond to the regulatory requirements. EC and AESRD would address any interprovincial or international aspects.
5.2 Non-regulatory actions	R	C	C	R	R	R	R	EC and AESRD may also use non-regulatory tools. AZs take non-regulatory actions commensurate with their resources. Industry may also volunteer to do more than is legally required.



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	AESRD/ GoA	CASA	AAC	AZ	Licensed Emitters	EC	Municipal Gov't.	Commentary	
<b>6.0 Government Regulatory Systems</b>									
6.1	Develop legislation	R	C			C	R	R	AESRD has <i>EPEA</i> ; EC has the <i>Canadian Environmental Protection Act</i> ; Municipalities have Bylaws.
6.2	Develop regulatory instruments	R	C	C		C	R		Under the relevant Acts, includes codes of practice, directives, objectives, and guidelines.
6.3	Issue Approvals	R				C			Contain emission limits and monitoring requirements, both source and ambient.
6.4	Develop Regional Air Quality Management Frameworks	R	C	C	C	C		C	Developed under the Regional Land Use Plans and Cumulative Effects Management System.
6.5	Develop Provincial Strategies	R	C	C	C	C	C	C	The Clean Air Strategy for Alberta, developed with input from CASA, will be the main air strategy. Both the Energy Strategy and the Climate Change Strategy have linkages to air quality.
6.6	Develop provincial air quality policies	R	C	C	C	C		C	CASA provides advice on selected policies. AZs are consulted on policies related to monitoring.
6.7	Establish ambient air quality objectives	R	C			C	R		CASA holds a periodic workshop for AESRD to set priorities for developing ambient air quality objectives; EC plans to establish Canadian Ambient Air Quality Standards (CAAQS).
6.8	Establish emission standards	R	C			C	R		CASA has assisted AESRD in setting standards for the Electricity Sector, and the Energy Resources Conservation Board, for Flaring and Venting. EC plans to set new standards (BLIERS) for a number of industrial sectors.
6.9	Ensure compliance	R				R	R		Industry must meet its legal obligations, assurance provided by EC nationally and AESRD provincially.

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	AESRD/ GoA	CASA	AAC	AZ	Licensed Emitters	EC	Municipal Gov't.	Commentary
<b>7.0 Supporting Services</b>								
7.1 Communication	R	R	R	R	R	R	R	Includes education to inform and induce behavior change, outreach to build relationships, and marketing to promote programs. Every organization undertakes such activities.
7.2 Coordination	R	R	R	R	C	C	R	AESRD coordinates the government of Alberta. CASA coordinates government, industry and NGOs for provincial air policies. AAC coordinates AZs and provides a link with CASA. AZs coordinate air activities among their members.
7.3 Training								Skills in ambient monitoring, modelling, emissions measurement, data analysis etc. are mostly learned on-the-job; educational institutions provide only general background; some short-term training programs are available sporadically through the US Environmental Protection Agency, the Air & Waste Management Association and private firms.
7.4 Research & Development								Control technology is often undertaken by Industry Associations. Alberta Innovates has some programs as does the federal government. Measurement technology improvements reside with instrument manufacturers. Pollutant effects are studied sporadically by academics with grants from various sources. EC investigates atmospheric processes. Model development for use in planning relies on the United States Environmental Protection Agency.

## JSC Discussion Paper

**APPENDIX C – RELATIONSHIPS AMONG THE PLAYERS IN AAQMS**

Reading from left to right, the party in the left hand column performs the action indicated for the party in the respective column across the page. A dash means that any connection is indirect.

**Relationships among the players in AAQMS**

	AESRD/GoA	CASA	AZs	AAC	Municipal Governments	Industry Associations	NGOs	Licensed Emitters	EC/GC
AESRD/GoA		Provides core funding; contracts for Data Warehouse through CASA; funds specific projects	Enables Licensed Emitter participation through Approval clauses; contracts for operation of a few provincial monitoring stations; contracts for development of AQ plans; provides some grant money for general activities	–	Coordinates with Municipal Affairs; ensures monitoring data available for major cities	Consults on policies, rules, and regulations	Consults on policies, rules, and regulations	Sets out the rules for operation; issues approvals; requires monitoring	Provides provincial viewpoint; coordinates on national activities; fulfills requirements under NAQMS
CASA	Provides Multi-stakeholder advice; arranges CDW operation		Provides process support and start-up assistance	Coordinates through a Joint Standing Committee	Provides forum for discussion of air issues	Provides forum for discussion of air issues	Provides forum for discussion of air issues	–	Provides window into provincial air quality activities

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	AESRD/GoA	CASA	AZs	AAC	Municipal Governments	Industry Associations	NGOs	Licensed Emitters	EC/GC
AZs	Operate a few provincial monitoring stations under contract; may develop local air quality management plans	Provides data to CASA Data Warehouse		Bring common issues for discussion	Provides monitoring data and educational campaigns	-	Provide forum for local air quality issues	Provide forum for community relations	-
AAC	Lobbies on behalf of AZs	Coordinates through JSC	Determines common interests and lobbies on behalf		-	-	-	-	-
Municipal Governments and Associations	Associations provide input	Associations participate	Participate	-		-	-	Approve land use	-
Industry Associations	Provide input on policy proposals	Participate	-	-	-		-	Represent common interests	Provide response to policy proposals
NGOs	Provide input on policy proposals	Participate	Participate locally	-	Provide input locally	-		Critique new projects and performance of existing operations	Provide response to policy proposals
Licensed Emitters	Operate within rules; report on performance-emissions and ambient	-	-	-	Comply with bylaws	Bring common issues for discussion	Respond to critiques		Operate within rules

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	AESRD/GoA	CASA	AZs	AAC	Municipal Governments	Industry Associations	NGOs	Licensed Emitters	EC/GC
EC/GC	Consults and coordinates on national air quality management	Participates on Board of Directors	May provide some technical support	-	-	Consults on policy and regulations	Consults on policy and regulations	Establishes federal operating requirements	

## JSC Discussion Paper

**APPENDIX D – SOME CHARACTERISTICS OF AIRSHED ZONES**

Based on 2009 data

<b>Airshed Zones</b>	<b>Airshed Area km<sup>2</sup></b>	<b>Airshed Population</b>	<b>Continuous Monitoring</b>	<b>Passive Monitoring</b>	<b>Bio-Monitoring</b>	<b>Ozone Mgmt Plans</b>	<b>Members</b>	<b>Budget</b>
Alberta Capital Airshed Alliance	4,500	960,000	0	0	0	Y	18	134,000*
Calgary Regional Airshed Zone	29,900	1,124,300	3	0	0	Y	34	321,000
Fort Air Partnership	4,500	76,800	8	57	0	Y	33	749,000
Lakeland Industry and Community Association	18,000	30,000	4	25	1	N	12	344,000
Palliser Airshed Society	40,000	100,000	2	20	0	N	61	203,000
Parkland Airshed Management Association	42,000	260,000	4	34	0	Y	60	746,000*
Peace Airshed Zone Association	38,500	85,000	6	48	0	N	66	580,000
West Central Airshed Society	46,000	113,000	13	14	7	Y	64	840,000
Wood Buffalo Environmental Association	68,500	104,300	15	40	20	N	27	8,389,000

\* 2008 data only

Source: Zirnhelt, N., Suzuki, N., Angle, R., Bates-Frymel, L., Gilbert, M. and Melancon, S. (2012); "Airshed Planning: Involving Communities". In: Taylor, E. and McMillan, A. (editors) *Air Quality Management - Canadian Perspectives on a Global Issue*. Springer (in press).

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## **INFORMATION SHEET**

<b>ITEM:</b>	<b>3.3 Performance Measures Review Working Group (PMRWG)</b>
<b>ISSUE:</b>	Provide an update on the performance measures review process.
<b>BACKGROUND:</b>	<p>In 2007, the Board approved a performance measures review process, to be carried out every three years, which should include the following steps:</p> <ul style="list-style-type: none"><li>• review the relevancy to the CASA identity, mission, vision, mandate, and goals of the existing performance measures;</li><li>• review the consistency with the principles and criteria for indicators of the existing indicators for each performance measure;</li><li>• solicit input from the Board on all aspects of the performance measures, including the principles and criteria for indicators, the existing performance measures and indicators and desirable additional measures and indicators;</li><li>• solicit input from CASA teams and review past team reports regarding all aspects of the performance measures;</li><li>• review relevant reports and documents for ideas and information on all aspects of the performance measures;</li><li>• from information gathered in these ways decide what measures and indicators should be dropped, revised or added;</li><li>• develop calculation protocols for new and revised indicators; and</li><li>• report to the Board.</li></ul> <p>The last review occurred in 2009. In December 2011, the Performance Measures Committee requested input from the Board on performance measures and asked for volunteers to help with the 2012 performance measures review. Subsequently, the Performance Measures Review Working Group (PMRWG) was formed.</p>
<b>STATUS:</b>	<p>In 2012, the PMRWG met to complete the steps outlined in the review process. The group has researched best practices in the realm of performance measurement; reviewed the relevancy of current performance measures to CASA's identity, mission, vision, mandate and goals; and reviewed the consistency with the principles and criteria for indicators. The PMRWG is currently consulting with project teams.</p> <p>The PMRWG has agreed to consolidate CASA's information on performance measurement by creating a Performance Measurement Strategy.</p>
<b>NEXT STEPS:</b>	The PMRWG will complete consultations with project teams, complete the remaining steps in the performance measures review process and prepare the Performance Measurement Strategy.

**ATTACHMENTS:** Membership list for the Performance Measures Review Working Group (PMRWG) and the Performance Measures Committee

**Performance Measures Review Working Group (PMRWG) members:**

<b>Name</b>	<b>Organization</b>	<b>Membership Status</b>
Ann Baran	Southern Alberta Group for the Environment	Member
Cindy Christopher	Imperial Oil Limited	Member
Peter Darbyshire	Graymont Western Canada Inc.	Member
Celeste Dempster	CASA	Project Manager
Robyn Jacobsen	CASA	Member
Carolyn Kolebaba	Alberta Association of Municipal Districts and Counties	Member
David Lawlor	ENMAX	Member
Crystal Parrell	Alberta Environment and Sustainable Resource Development	Member
Ruth Yanor	Mesassin Community Council	Member

**Performance Measures Committee (PMC) members:**

<b>Name</b>	<b>Organization</b>	<b>Membership Status</b>
Peter Darbyshire	Graymont Western Canada Inc.	Member
Celeste Dempster	CASA	Project Manager
Crystal Parrell	Alberta Environment and Sustainable Resource Development	Member
Ruth Yanor	Mesassin Community Council	Member

## *Status Report*

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**Project:** **Electricity Framework Review (EFR) Project Team**

**Background:** The Emissions Management Framework for the Alberta Electricity Sector recommends that a formal review process of the framework be undertaken every 5 years. This review should include a multi-stakeholder group consisting of industry, government, non-government organizations, and communities with an interest in the electricity sector.

The intent of the 5-year review is to assess new emission control technologies, update emission limits for new generation units, determine if emission limits for new substances need to be developed, review implementation progress, and determine if the Framework is achieving its emission management objectives.

The first 5-year review occurred in 2008 and the second 5-year review should commence in 2013.

### First 5-Year Review

The Electricity Framework Review Team submitted their final report and recommendations on the first 5-year review to the CASA Board in June 2009. The report contained ten consensus recommendations and one non-consensus item. The non-consensus recommendation pertained to NO<sub>x</sub> emissions for new gas-fired generation for peaking and non-peaking units. The report, including the interests and rationale with respect to the non-consensus recommendation, was forwarded to the Government of Alberta in March 2010 for a final decision.

### Electricity Working Group

Further to this work, the Board formed a Working Group to prepare a report for input into the national Air Quality Management System (AQMS) process. In December 2011, the working group presented their final report to the Board, which compared the CASA Electricity Framework, the Base Level Industrial Requirements (BLIERs) for the Electricity Sector proposed under the national Air Quality Management System (AQMS), and the Federal CO<sub>2</sub> Regulations for Coal-Fired Units. The report also modelled the expected outcomes for the CASA Framework and the BLIERs proposal.

The Board accepted the report by consensus and commended the group on what they achieved. The Government of Alberta committed to



presenting the report as a minority report at the Canadian Council of Ministers of the Environment Champion's table. BLIERs participants were also encouraged to use this document as required in their own groups.

In their discussions, the Working Group also concluded that the relationship between the CASA Electricity Framework, the AQMS, and the CO<sub>2</sub> Regulations for Coal-Fired Units would require further consideration once the Federal initiatives are finalized.

**Status:** The commencement of the second 5-year Electricity Framework Review would be preceded by the receipt of a Statement of Opportunity from the Government of Alberta, describing the work to be undertaken.

**Attachments:** None.

## *Status Report*

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**Project:** Human and Animal Health Implementation Team

**Task:** Update on the Human and Animal Health Team (HAHT).

**Background:** In March 1997, the CASA Board approved the "Executive Framework for A Human Health Monitoring System" and the development of a multi-stakeholder project team to develop and implementation plan, as recommended by the Human Health Resource Group.

Since this time, the Board has been presented with four reports on the topic of human and/or animal health as it relates to air quality:

- Human Health Project Team, Final Report to the CASA Board of Directors, November 1998.
- Human Health Project Team, Human Health Monitoring Framework, Implementation Plan, May 1990.
- Animal Health Project Team, Final Report and Recommendations, March 2003.
- Human and Animal Health Team, Final Report to the CASA Board, August 2007.

Recommendation 1 in the 2007 report advised that the team be disbanded, but the government members suggested a review of existing mechanisms to determine if there were other options. Upon government's suggestion, the CASA Board accepted a project being piloted by Alberta Health and Wellness - the Alberta Real Time Syndromic Surveillance Net (ARTSSN) - as a means of implementing the Comprehensive Human Health Monitoring System (CHHMS).

At the December 1 Board meeting, it was concluded that ARTSSN may not necessarily fulfill the intent of the CHHMS. The Board agreed to reconvene the HAHT to:

- Coordinate with Alberta Health and Wellness and Alberta Health Services on what could be done to fulfill the intention of the team's recommendation; and
- Revisit their Terms of Reference and membership.

**Status:** The Human and Animal Health Team has met 3 times since the December 2011 Board Meeting. Accomplishments to-date include:



- Reviewing the implementation of recommendations from the four previous reports. For recommendations that were not complete, the team discussed their current relevance and the path forward.
- The team has agreed to create an inventory of how all agencies currently contribute to the CHHMS and discuss if/how these inputs can be better coordinated.

**Attachments:**

None. A complete list of project team membership is provided in the December Board book.

## *Status Report*

**Project:**                   **Operations Steering Committee (OSC)**

**Task:**                      To provide overall direction for the cooperative Ambient Air Monitoring System for Alberta.

**Project Chair/  
Co-Chair:**               Tom Dickson (Alberta Environment)

**Status:**

On Sept. 8<sup>th</sup> of 2011 Bev Yee and Bob Myrick provided an update to the CASA board regarding current inter-governmental initiatives related to implementation of the AMSP and the funding of monitoring activities.

OSC participants have a particular interest in the architecture that government will use to deliver air quality monitoring. This is dependent on outcomes from AQMS discussions, the federal-provincial monitoring agreement, the reports from the fed/prov. monitoring panels and AESRD's own monitoring plans (including oversight and management of the CDW). Key government decisions are anticipated in the Fall that will allow all interested parties to proceed with implementation.

AESRD has convened discussions with CASA, the AAC and all of the airsheds directed at answering questions about the roles and responsibilities of airsheds and associated funding. The CASA/AAC Joint Committee is also providing input to these discussions. This dialogue will continue at a workshop organized by AESRD on Sept. 24, 2012.

Despite the OSC not having a meeting since September 14, 2010, the oversight of the CASA Data Warehouse (CDW) continues to proceed with a reduced range of players. In June 2011, Alberta Environment and Water implemented the Air Quality Health Index (AQHI), which replaced the Air Quality Index (AQI). The CDW has been updated to reflect the AQHI implementation. Major changes include:

1. The AQHI is measured in more than 20 communities across Alberta. Communities may contain one or more monitoring stations providing data for the AQHI. Two or three monitoring stations provide AQHI data for the Calgary, Edmonton and Fort McMurray communities.
2. The AQHI illustrates the level of risk with a number and colour scale from 1 to 10+, the AQHI can exceed 10 on occasion – such as when a community is affected by wildfire smoke.

The Alberta AQHI differs from the national AQHI in the following ways:

- a. The national AQHI is based on three-hour average air pollutant concentrations of ground-level ozone ( $O_3$ ), particulate matter ( $PM_{2.5}$ ) and nitrogen dioxide ( $NO_2$ ). However Alberta frequently has rapidly changing air quality conditions; for example wild fire smoke transported to populated communities can quickly change air quality from low risk to high risk. The Alberta AQHI is more responsive to quickly changing conditions as it is based on one-hour average air pollutant concentrations.
  - b. Unlike the national AQHI, and because of Alberta's energy based economy, the AQHI in Alberta considers hourly concentrations of sulphur dioxide ( $SO_2$ ), hydrogen sulphide ( $H_2S$ ), total reduced sulphur (TRS) and carbon monoxide (CO).
  - c. Alberta's AQHI includes hourly comparisons of individual pollutant concentrations - particulate matter ( $PM_{2.5}$ ), ozone ( $O_3$ ), nitrogen dioxide ( $NO_2$ ), sulphur dioxide ( $SO_2$ ) and carbon monoxide (CO) to Alberta's Ambient Air Quality Objectives (AAQOs). If hourly air pollutant concentrations exceed these objectives, the AQHI value is replaced with the appropriate high or very high risk value. In addition, if hydrogen sulphide ( $H_2S$ ) and total reduced sulphur (TRS) concentrations exceed a specified health threshold, the AQHI will reflect that. This gives an added level of detail to Alberta's AQHI.
  - d. Alberta's AQHI includes special community-based messaging when odour or visibility events occur. This messaging is provided when concentrations of specific pollutants are higher than specified odour or visibility thresholds and the AQHI is rated as low or moderate risk. This messaging is used for particulate matter ( $PM_{2.5}$ ), sulphur dioxide ( $SO_2$ ), hydrogen sulphide ( $H_2S$ ) and total reduced sulphur (TRS). Even if the air quality is rated as low or moderate risk, odour or visibility may be affected, and although it is not likely to cause a health issue for most people a message will be provided.
3. The Alberta AQHI differs from the former AQI as follows:
- a. The former Alberta AQI was based on hourly concentrations of five major air pollutants compared to provincial air quality objectives and federal air quality objectives. The Alberta AQHI is based on the relative risks of a combination of common air pollutants known to be harmful to human health.





- b. The AQI was calculated and provided on a station by station basis. The AQHI is calculated on a community basis. For instance in Edmonton, with three monitoring stations, there would be three AQI values provided each hour, with the AQHI there is one value.
  - c. The Alberta AQHI contains advantages of both of these methods, making it an effective tool for all areas of the province, urban or rural.
4. For more information on the AQHI, go to [Alberta Environment and Water - AQHI](#)

# *Status Report*

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**Project:** Particulate Matter and Ozone Implementation Team

**Background:** In September 2003, the CASA board approved the CASA PM & Ozone Management Framework and the PM & Ozone team was subsequently disbanded. In March 2006, the Terms of Reference for the PM & Ozone Implementation Team was approved. The goal of this team is to support and when required, facilitate the timely implementation of the 2003 Alberta Particulate Matter and Ozone Management Framework. The key tasks for this team are to:

1. Review and assess regularly the progress made towards implementing the PM and Ozone Framework.
2. Identify appropriate mechanisms for tracking and reporting progress.
3. Develop reports on progress of implementation of the PM and Ozone framework.
4. Discuss and provide advice on plans, including timelines, for implementation work.
5. Identify needs for future implementation work and make recommendations to fill the gaps.
6. Liaise with relevant stakeholders, including CASA project teams, governments, airshed zones and other stakeholders involved in particulate matter and ozone management.
7. Determine if any public consultation activities are required.
8. Report to the board.
9. Report to stakeholders.

**Status:** The team last met on September 30<sup>th</sup> 2011 where they prepared a document providing comment on the Proposed Guidance Document for the Achievement Determination of the PM<sub>2.5</sub> and Ozone CAAQS which was transmitted to the Air Management Committee (AMC) and the Canadian Council of Ministers of the Environment (CCME) to contribute to their discussions on the development of CAAQS for PM<sub>2.5</sub> and Ozone.

At this time the team also considered the future of the team. During this discussion it was noted that:

- The majority of the key tasks in the Terms of Reference had been completed; and
- The impacts of the national AQMS on the Framework should be considered.



The Secretariat plans to meet with the team Co-Chairs to discuss the team's future, including:

- Next steps with respect to outstanding recommendations from the Framework;
- Progress towards completing the Terms of Reference; and
- Discuss the future of the team.

The Board will receive an update on these discussions at the December 2012 Board meeting.

**Attachments:** None

## DECISION SHEET

<b>ITEM:</b>	<b>4.1 Statement of Opportunity – Odour Management in Alberta</b>
<b>ISSUE:</b>	Review and discuss the Statement of Opportunity for CASA to develop a provincial odour management framework.
<b>BACKGROUND:</b>	<p>Odour management in Alberta was identified as an emerging issue by CASA's government, non-government, and industry stakeholders. The CASA Secretariat subsequently undertook a preliminary assessment of the issue to enable the Board of Directors to determine whether further action through a collaborative, multi-stakeholder process at CASA is advisable.</p>
<b>STATUS:</b>	<p>Over the past 18 years, CASA has made significant contributions to Alberta's air quality management system. CASA has tackled many complex issues, but to date there is no comprehensive framework that deals with air quality issues related to odour. Although air quality complaints to Alberta's regulatory agencies are most frequently related to odour concerns, odour management has not been explored through a CASA process or through any other consolidated response.</p> <p>Odour issues present complex management challenges and working to address odour management in a multi-stakeholder collaborative forum such as CASA presents a unique opportunity for Alberta to develop a comprehensive framework for managing odour that addresses the concerns, needs and interests of a broad range of stakeholders.</p> <p>During July and August of 2012, a draft Statement of Opportunity for odour management in Alberta was developed. The following inputs formed the basis of the first draft:</p> <ul style="list-style-type: none"><li>• Initial submissions from both the Government of Alberta and a non-government organization;</li><li>• A literature review and cross-jurisdictional review; and</li><li>• Discussions with a broad range of stakeholders who were canvassed with respect to their concerns and expectations related to the development of an odour management framework for Alberta.</li></ul> <p>This draft was distributed to interested stakeholders whose feedback shaped the revised Statement of Opportunity (attached). This document provides:</p> <ul style="list-style-type: none"><li>• An overview of our current understanding and characterization of odour.</li><li>• A summary of odour in Alberta, including sources of odour, legislation and what we heard from interested parties.</li></ul>

- The full range of possible components that a provincial odour management framework might include.
- A description of next steps.

The proposal is for CASA to develop a provincial odour management framework for Alberta. This work would result in a document that could guide actions and the development of place-based management plans in areas of the province where odour and its effects are of concern. The desired outcome of the framework would be a reduction in the frequency, intensity, and duration of odour events.

#### *Next Steps*

The statement of opportunity describes the current state of odour management in Alberta and the desired outcome of a provincial odour management framework. If the Board agrees to further screening and scoping of the issue, a working group would develop a detailed project charter that describes the scope, deliverables, outcomes, projected resources and costs, timelines, stakeholder analysis and plan for engagement, a high level communication plan, and draft ground rules for the Project Team. The Board of Directors would be asked to approve the project charter and direct the secretariat to form a project team.

**ATTACHMENTS:** A. Statement of Opportunity – Odour Management in Alberta

**DECISIONS:** Form a multi-stakeholder working group that will further screen and scope the issue and develop a Project Charter for the Board's Approval by December 2012.

**Statement of Opportunity**  
**Odour Management in Alberta**

**\* FOR DISCUSSION PURPOSES ONLY \***

A Statement of Opportunity

to

The Clean Air Strategic Alliance Board of Directors

**September 2012**

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## 1. Introduction

The issue of odour management came to the attention of CASA through its government, non-government, and industry stakeholders. The CASA Secretariat subsequently undertook a preliminary assessment of the issue to enable the Board of Directors to determine whether further action through a collaborative, multi-stakeholder process at CASA is advisable.

CASA's vision for Alberta's air is that:

*“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.”*

Over the past 18 years, the Clean Air Strategic Alliance (CASA) has made significant contributions towards this vision and advancing Alberta's air quality management system. CASA has tackled complex issues such as emissions from electricity generation, particulate matter and ozone emissions management, emissions from confined feeding operations, and the flaring and venting of solution gas. One notable gap in Alberta's air quality management system is a comprehensive framework that deals with air quality issues related to odour. Though air quality complaints to Alberta's regulatory agencies are most frequently related to odour concerns, odour management has not been explored through a CASA process or through any other consolidated response. Odour issues present complex management challenges and working to address odour management in a multi-stakeholder collaborative forum such as CASA presents a unique opportunity for Alberta to develop a comprehensive framework for managing odour that addresses the concerns, needs and interests of the broad range of stakeholders that have an interest in odour issues.

## 2. Background

Air quality can be measured or assessed in many different ways, but sensory perception, e.g. smell, taste, visibility and eye, nose, or throat irritation, is the method most people use to judge air quality. Odours are one of the most common air pollution complaints and can have significant direct and indirect effects on health and quality of life.

Odour management is complex. The compounds contributing to odour and sources of odour are diverse and the range of potential adverse effects is varied. Individual odour perception, preferences, and sensitivity, as well as the transient nature of odour, make it challenging to find reliable methods of assessing odour. It is also difficult to establish a firm link between health and quality of life impacts and odour. Adding to this complexity is the cumulative impact of industrial activities and regional considerations, as well as the corresponding array of regulators, interested sectors, and government departments. Lastly, with more people living closer to industrial and agricultural development, the possibility for conflict between odour-producing activities and people is increasing.



Currently there are no clear management expectations or legislative guidance for the management of odours in Alberta. This is at least in part due to the subjective nature of defining and assessing odours. However, air emissions that have the potential to create odour problems can be treated and managed like other air contaminants.

This proposal is for the CASA to develop recommendations and an overall strategy for odour management in Alberta. This work will result in a provincial odour management framework that is broadly supported by government, industry, NGOs and the broader community and will guide management actions and the development of place-based odour management plans in areas of the province where odours and their effects are a concern.

### 3. Understanding and Characterizing Odour

There is a subjective element associated with the acceptability or degree of nuisance or offensiveness associated with a particular odour. This subjectivity is related to the circumstances or locations in which the impact is occurring. For example, some level of odour may be tolerated if an individual is travelling through an area of industrial development but that same level of odour may not be tolerated if it occurs in a residential area.

Responses to odour vary from individual to individual and can cause a variety of reportable effects, especially if the odour is noted as problematic and occurs on a frequent basis. Some individuals are able to detect an odour at much lower concentrations than others. In addition, one person may find an odour to be objectionable while another may not.

Whether an odour causes a health or quality of life impact will depend on the frequency, intensity, duration, offensiveness, and location of the odour event. These factors are commonly referred to as FIDOL and are described in Table 1. Table 2 describes some other factors that should be considered in assessing the degree of effects of odour.

**Table 1: Dimensions of Odour (FIDOL)**

<b>Frequency</b>	Number of times an odour is detected during a time period.
<b>Intensity</b>	Concentration or strength of the odour.
<b>Duration</b>	Period in which the odour remains detectable.
<b>Offensiveness</b>	Hedonic tone of the odour, which may be pleasant, neutral, or unpleasant.
<b>Location</b>	Type of land use and/or human activities in the vicinity of the odour.

**Table 2: Factors to consider in assessing odour**<sup>1</sup>

<b>Environmental Conditions</b>	Temperature and relative humidity; background odours; work environments; context; time of day; meteorological conditions.
<b>Chemical Properties</b>	Concentration and the synergistic effects of mixtures.
<b>Odour Exposure Events</b>	Adaptation, sensitization, conditioning, and memory.
<b>Health Effects</b>	<p>Perception or experience of health effects due to exposure to odours. Effects of exposure to odours may be direct (physiological effects, such as nausea, headache, impaired breathing, aggravation of existing symptoms and allergic reactions) or indirect (nuisance and effects on quality of life). Health effects from odours can occur, but it may be difficult to ascertain a cause and effect relationship.</p> <p>For accurate health risk assessments, it is important to ascertain both the chemical identity of the odour, and the appropriate health-based ambient criteria, such as acceptable ambient concentrations, and occupational exposure limits.</p>

#### 4. Overview of Odour in Alberta

Air quality complaints to Alberta regulatory agencies and municipalities are predominantly related to odour concerns. Sources of odour in Alberta include development associated with industry, agriculture, and municipalities (see Appendix 1 for more details). Complaints about odour issues are generally most acute at the interface between new or existing development and residents in both urban and rural settings. A great deal of time and resources are expended by Alberta's regulatory agencies in addressing odour-related complaints, which in many cases are not effectively resolved. The satisfactory resolution of these complaints is problematic for a number of reasons: the subjectivity involved in odour complaints, the difficulty in identifying and measuring odourous compounds, the limitations of current legislation (see Table 3), the absence clear odour management approaches and outcomes, and the lack of clearly defined roles and responsibilities with respect to who is accountable for addressing complaints.

It should be noted that although there are legislative limitations in addressing odour specifically, some air emissions are regulated for other reasons and this may have the co-benefit of reducing odour-causing emissions.

<sup>1</sup> Policy and Planning Department, Greater Vancouver Regional District. 2005. GVRD Odour Management Strategy.

**Table 3: Regulating Agencies and Provisions**

Legislation	Agency	Provisions
Environmental Protection and Enhancement Act	Alberta Environment and Sustainable Resource Development	<ul style="list-style-type: none"> <li>○ Section 109 applies to non-licensed facilities and states that “No person shall release or permit the release into the environment of a substance in an amount, concentration or level or at a rate of release that causes or may cause a significant adverse effect.”</li> <li>○ Section 116 contains guidance on the issuance of an environmental protection order if “a substance or thing is causing or has caused an offensive odour.” It specifies that it does not apply to an “agricultural operation that is carried out in accordance with generally accepted practices.”</li> <li>○ The release of a substance for approved facilities may be expressly prescribed in an approval.</li> </ul>
Ambient Air Quality Objectives	Alberta Environment and Sustainable Resource Development	<ul style="list-style-type: none"> <li>○ Hydrogen Sulphide has a 1-hour average (based on odour perception) and a 24-hour average.</li> <li>○ Ammonia has a 1-hour average (based on odour perception)</li> <li>○ Carbon Disulphide has a 1-hour average (based on an odour threshold)</li> </ul>
Public Health Act (Nuisance and General Sanitation Regulation)	Alberta Health	<ul style="list-style-type: none"> <li>○ Section 2 states that “no person shall create, commit or maintain a nuisance” and describes the circumstances where odour would be deemed a nuisance.</li> </ul>
Agriculture Operations Practices Act	Alberta Agriculture and Rural Development	<ul style="list-style-type: none"> <li>○ Section 1 defines a nuisance as any activity that “creates smoke, odour, noise or vibration that interferes with the reasonable and comfortable use of a person’s property.”</li> <li>○ Section 3 describes how a person can make an application regarding a disturbance resulting from an agricultural operation.</li> </ul>
Directives Directive 060	Energy Resources and Conservation Board	<ul style="list-style-type: none"> <li>○ D019 specifically focuses on the prevention and enforcement aspects of compliance assurance and applies to all ERCB requirements and processes</li> <li>○ D060 provides regulatory requirements and guidelines for flaring, incinerating, and venting in Alberta. This includes limitations on H<sub>2</sub>S emissions and exceedances of the AAAQOs.</li> </ul>

Legislation	Agency	Provisions
Oil and Gas Conservation Regulations	Energy Resources and Conservation Board	<ul style="list-style-type: none"> <li>○ Section 9.050, subsection 2 requires operators to “control the emission of odourous materials to the satisfaction of the Board and the Department of Environment and Water.”</li> </ul>
Bylaws	Municipalities	<ul style="list-style-type: none"> <li>○ Municipal Bylaws may be reviewed in the event of an odour complaint, as municipal enforcement action (e.g. through zoning, business licensing, or nuisance bylaws) may assist in the overall resolution of the issue.</li> </ul>

### 4.1. What We Heard

During July and August of 2012, a broad range of stakeholders were canvassed with respect to their concerns and expectations related to the development of an odour management framework for Alberta. Although there was a diverse range of views represented by the interested parties, some common themes emerged:

- Odour occurs infrequently and only for short periods of time.
- Sources of odour are managed to an acceptable level/standard, drawing on a range of techniques and tools.
- Technological remedies are economically viable.
- Expectations and definitive legislative outcomes are clear to all interested parties.
- Complaints and concerns are addressed systematically and relevant and effective management options are available.
- People’s understanding of existing and future measures to manage odour is improved.
- Expectations are managed. For example, in some instances, all reasonable efforts may have been made to manage a source of odour, but eliminating it may not be feasible.

A common thread that emerged across all of these discussions with stakeholders was the need to address odour issues through the development and implementation of a comprehensive provincial odour management framework that is applicable to all industries and sectors.

## 5. An Odour Management Framework for Alberta

This proposal is for the CASA to develop a provincial odour management framework for Alberta. This work would result in a document that would guide actions and the development of place-based management plans in areas of the province where odour and its effects are of concern. The desired outcome of the framework would be a reduction in the frequency, intensity, and duration of odour events. The framework would support integrated air quality decision-making that seeks a synergy

between: (a) environmental protection to prevent short- and long-term adverse health effects, (b) economic performance and efficiency, and (c) continuous improvement and pollution prevention.

There are a wide range of potential sources of odour in Alberta, including industrial, commercial, municipal, and agricultural development and activities. Sources of odour are often unique in character and impacts vary depending on local and/or regional factors. Although an odour management framework would apply equitably across the province and across sectors/industries, components of the framework may need to address distinct activities, considering the regional dimensions of the issue.

The initial scoping for an odour management framework in Alberta has revealed a comprehensive range of management options that reflect effective practices in other jurisdictions, as well as the particular interests of stakeholders in Alberta. Section 5 and the following sub-sections include the full range of possible components that a provincial odour management framework might include. An effective provincial odour management framework may include some/all of these components. Work towards developing a project charter for a CASA project team could consider the following components:

- A review of odour management approaches in other jurisdictions.
- A gap analysis for odour management in Alberta.
- An investigation of **odour assessment** options, including a review of health and quality of life impacts, priority compounds, odour thresholds, and measurement methodologies.
- A consideration of **odour management** options, including complaint investigation and analysis, avoidance and mitigation strategies, and awareness and education.
- Enhancements to **performance monitoring, regulation, and enforcement**.

## 5.1. Cross-Jurisdictional Comparison

### Objective:

An overview of tools and methods used in other jurisdictions to manage odours.

### Potential Outcomes:

- An assessment of the tools and approaches used to measure odour or monitor for priority compounds.
- Identification of the components of odour management in Alberta that are not being addressed and recommendations on a path forward to fill the gaps.

To reduce the potential for a duplication of effort, all existing and proposed odour management initiatives in Alberta should be considered (e.g. work being currently undertaken by the Cumulative Effects Management Association and the Human Exposure Monitoring Program).

## 5.2. Odour Assessment

### Objective:

Specify the protocols and criteria for investigating and assessing odour and its impacts.

### 5.2.1. Health and Quality of Life Impacts

#### Potential Outcomes:

- A review of existing science on direct (physiological effects) and indirect (nuisance and effects on quality of life) health impacts of odours.

### 5.2.2. Priority Compounds

#### Potential Outcomes:

- A comprehensive list of compounds that contribute to odour in Alberta.
- Priority compounds that are potential candidates for further work in a criteria/objective setting process.
- An understanding of interactions between mixtures of odorous compounds, known as the synergistic effects of odour.

### 5.2.3. Thresholds

#### Potential Outcomes:

- Criteria/objectives for the priority compounds that contribute to odour based on observed effects (e.g. detection, recognition, annoyance, intolerance, perceived irritation, physical irritation, toxicity). This could include considering both health and odour as limiting effects for a specified list of compounds, to potentially be included in Alberta's Ambient Air Quality Objectives (AAQOs) or used as a guide for assessing odour.
- Criteria for the assessment of mixtures of odours.

### 5.2.4. Measurement Methodology

#### Potential Outcomes:

- An assessment of all available and practical options for measuring and modeling odour and how they might be applicable in Alberta.
- Approved methods for modeling odour to predict the concentration of an odour downwind of the source, including a discussion of key issues and limitations.

## 5.3. Odour Management

### Objective:

Provide guidance on avoiding and mitigating potential or existing odour impacts at the source, in the pathway (in between the source and the receptor), and at the receptor.

### 5.3.1. Complaints Investigation and Analysis

#### Potential Outcomes:

- A predictable, flexible process to document, investigate and address odour complaints that incorporates the interests of all parties, including a clear process flow and guidance for decision-making.
- Defined roles and responsibilities and coordination of the various aspects of odour management.

### 5.3.2. Avoidance and Mitigation Strategies

#### Potential Outcomes:

- Templates and guidance for developing Odour Management Plans that describe the systems required to ensure the reliable operation of odour controls, performance monitoring, and reporting. Consideration could be given to including these Plans in facility approvals.
- Support for odour generating facilities to manage and mitigate odour at the source, including recommendations on:
  - Beneficial Management Practices (BMPs): operational procedures and best practices that minimize odour while retaining or improving efficiency.
  - Best Available Control Technology (BACT): guidelines for reviewing the best available control technologies and selecting the appropriate control equipment for the specified activity.

### 5.3.3. Awareness and Education

#### Potential Outcomes:

- Clarity regarding the nature and extent of what is possible for the management of odour in Alberta.
- Improved relationships, coordination, and cooperation among stakeholders regarding the management of odour in Alberta.
- Increased awareness of on-going initiatives to assess and manage odour in Alberta. Consideration should be given to including odour in air quality reporting.

## 5.4. Performance Monitoring, Regulation, and Enforcement

### Objective:

Develop options for a regulatory approach to odour management that provides clarity with respect to expectations, outcomes, and enforcement.

### Potential Outcomes:

- Recommendations for cumulative effects management based on emissions or number of industrial facilities within an area.
- Procedures to provide fair and consistent enforcement under applicable legislative authority.
- A requirement to include Odour Management Plans in approvals for licensed facilities.
- An AAQO for odour or for the priority compounds contributing to odour.
- A regulatory provision that establishes a minimum performance requirement for odour management.

## 6. Next Steps

Consistent with CASA's *Managing Collaborative Processes Guide*, the next step involves CASA forming a Working Group to further screen and scope the issue and gain approval from CASA's Board to move forward with the project. The Working Group would be led by a Project Manager from CASA's Secretariat and have at least one board member that is prepared to act as a "champion". The group would consist of 3-5 people that represent government, industry and non-government organizations that are knowledgeable about the issue and collaborative decision-making processes.

The Project Working Group would develop a Project Charter which is the collection of all information relevant to informing the project's parameters and outcomes. Specifically, the charter describes the scope, deliverables, outcomes, projected resources and costs, timelines, stakeholder analysis and plan for engagement, a high level communication plan<sup>9</sup>, and draft ground rules for the Project Team. The Project Charter serves several different purposes including:

- It is used to obtain support and approval from CASA's Board;
- It defines the scope of the project and provides a starting point for discussion and further analysis by the Project Team; and
- It communicates the project scope to stakeholders.

Following CASA Board approval of the Charter, the Project Team would further develop the document.



## Appendix I – Sources of Odour in Alberta

This appendix provides a list of possible sources of odour in Alberta, without indicating the extent to which any of these sources of odour are regulated or are subject to mitigation measures that may lessen their impact.

### Industrial Development

#### 1. Energy and Utilities

- Coal-fired power generation
- Gasification

#### 2. Chemical and Petrochemical Manufacturing

Air emissions from chemical manufacturing can contain a wide range of substances. Emissions that may generate odours can result from:

- Reaction or distillation facilities.
- Combustion plants.
- Products used in specific chemical processes, e.g. chlorophenols.
- Storing raw materials such as solvents, e.g. ethyl acetate, toluene and xylene.
- Using certain chemical groups, e.g. volatile organic compounds (VOCs) or sulfurous compounds.
- Waste and wastewater treatment processes.

#### 3. Forestry

- Pulp and paper mills.
  - Use of reduced sulfides, ammonia, and other organic compounds.
  - Kraft and sulfite pulp mills.
  - Wastewater treatment plants and landfills.

#### 4. Mining

- Coal-fired combustion manufacturing processes.
- Waste material landfills.
- Fugitive and stack emissions from process plants.
- Exhaust emissions related to the use of heavy mobile equipment in quarries and manufacturing plants.
- Storage of solvents for plant use and chemicals for laboratory use.

## 5. Oil & Gas

The development of Alberta's oil and gas deposits and its proximity to Alberta's expanding population has led to complaints and concerns with respect to odours and the potential impacts on human and animal health, and quality of life. Activities that generate odour related to oil and gas development include:

- Development and testing of new oil and gas resources.
- Processing at existing facilities, mostly from fugitives emissions and venting.
- Wells with crude oil cold flow tanks that vent to the atmosphere.
- Oil batteries, trucking, and transfer of heated oil.
- Transportation-related diesel exhaust emissions, especially from hydraulic fracturing (fracking).

Odour complaints related to oil and gas development/activities seem to radiate from a few regional nodes in Alberta, including:

- Regional Municipality of Wood Buffalo (Fort McMurray)
- Alberta's Industrial Heartland
- Cold Lake (heavy oil)
- High River (recent oil and gas development)
- Northern Sunrise County (Three Creeks)

### Municipal Development

The majority of air quality complaints received by municipalities are odour-related, especially at the interface between residential and industrial developments. Some examples include:

- Commercial activities using and emitting solvents or other odour-causing substances, such as commercial printers, dry cleaners, auto-body repair and paint shops, and fiberglass repair.
- Waste treatment, including sewage treatment, bio-solids lagoons, drainage collection systems.
- Industrial facilities such as refineries, breweries, factories, and rendering plants.
- Residential issues, such as gas leaks.

### Agricultural Development

Sources of odour from agricultural development include, but are not limited to:

- Confined feeding operations
- Processing of agricultural products

- Farming, including the application of fertilizers, pesticides, and herbicides; harvesting; and diesel emissions from equipment.
- Natural gas regulating, metering, and odorizing stations.

**Other Development/Activities**

- Indoor air quality
- Wood smoke
- Forest fires
- Transportation

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## Appendix II – Odour Management in Other Jurisdictions

The following section is taken directly from a report prepared for the British Columbia (BC) Ministry of Water, Land and Air Protection. The objective of the report was to provide recommendations for odour management approaches that would be effective in BC, based on a review of odour management programs in other jurisdictions. Nine jurisdictions were interviewed using a standard set of questions<sup>2</sup>.

1. **Ontario, Canada:** Ontario does not have an odour management program per se. It has a nuisance law that forbids the discharge of a contaminant that may cause an adverse effect and odour is included in the definition of a contaminant. Ontario also has a number of point of impingement (POI) standards and guidelines and ambient air quality criteria (AAQC), some of which have thresholds for both health and odour. In addition, there is a proposed ambient odour limit of 1 OU/m<sup>3</sup> that has been used to-date on a case-by-case basis. Finally, Ontario makes use of minimum distance separation guidelines for agricultural operations and sewage treatment plants.

The determination of odour potential is based on the “odour detection threshold” (ODT) which is essentially a number that is determined subjectively through the use of an odour panel. The panel would consist of individuals who have been certified to make that determination. The methodology for determining the ODT is a scientific approach for using human senses as analytical instruments and has become a well known standard for testing and determining odour concentration. The standard has been adopted by many European countries as well as by Australia and New Zealand.

2. **Bay Area Air Quality Management District, California, USA:** The BAAQMD considers its odour management program to be successful. Its odour management framework consists of a nuisance law, quantitative ambient concentration limits for individual chemicals and odour, complaint criteria, and quantitative emission criteria. The BAAQMD has considerable resources with a staff of 350 with over 100 inspectors and field personnel as well as a team of lawyers who prosecute court cases. As a result, the most effective element of their odour management framework has been the general odour nuisance law and associated good case law.
3. **King County, Washington, USA:** The King County Department of Natural Resources and Parks Wastewater Treatment Division has an Odour Prevention Policy that defines odour prevention levels and includes recommendations for retrofitting existing facilities and for designing new facilities. The focus is on odour prevention not just odour control. One of the most interesting features of this policy is that it includes a number of methods of measuring the success of the program. To date, this program has been successful.

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<sup>2</sup> RWDI Consulting Engineers & Scientists. 2005. Final Report, Odour Management in British Columbia: Review and Recommendations.

4. **New South Wales, Australia:** New South Wales (NSW), Australia has a very comprehensive policy for assessing and managing odour from stationary sources. It includes an over-arching nuisance law, odour performance criteria, a three-level system of odour impact assessment, avoidance and mitigation strategies, negotiation between stakeholders, performance monitoring and complaint management, and regulation and enforcement options. The odour management program set out in the policy is considered to be a big improvement on the previous ad-hoc system and is believed to be successful<sup>3</sup>.
5. **South Australia:** The primary tool that South Australia uses to manage odour is minimum separation distance, both fixed and variable. A more detailed odour impact assessment using dispersion models may be required for development applications depending on the size or nature of the industry, the sensitivity of the location or the sensitivity of neighbouring receptors. South Australia also has a nuisance law, ambient odour criteria, and technology criteria. The odour management program of this jurisdiction is considered to be successful.
6. **Wellington, New Zealand:** The Wellington Regional Council developed an Air Quality Management Plan for the Wellington Region that includes odour. They make use of technology criteria in the form of the “Best Practicable Option” to prevent or minimize adverse effects. They do not have ambient or emission criteria but they could include an emission limit in a permit. They also have an odour intensity scale that is used by inspectors in the field. They also have a minimum threshold of 10 complaints before responding for facilities with chronic odour problems. This odour management program is not considered to be successful.
7. **Germany:** Germany has a unique approach to managing odours that incorporates all of the Frequency, Intensity, Duration, Offensiveness, Location (FIDOL) factors. The frequency, duration and intensity are measured using odour-hours. The emission limit values used to evaluate the measured odour-hours differ depending on the land use (residential vs. industrial and commercial). Recently, a system was developed to assess the hedonic tone or offensiveness of the odour as well. Pleasant odours are treated differently from neutral or unpleasant odours because they are less annoying. Several other approaches are also used to manage odours in Germany including an odour nuisance law, minimum separation distances (used primarily for agricultural and waste sources), an odour

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<sup>3</sup> The framework uses a metric of **odour units** (OU) per cubic meter odour units; concentration of odorous mixtures in odour units. The number of odour units is the concentration of a sample divided by the odour threshold or the number of dilutions required for the sample to reach the threshold. This threshold is the numerical value equivalent to when 50% of a testing panel correctly detect an odour (Department of Environment and Conservation, New South Wales. 2006. Technical Framework: Assessment and management of odour from stationary sources in NSW)

intensity scale, and quantitative emission criteria. The German odour management program is considered to be successful.

8. **The Netherlands:** The Netherlands has a relatively prescriptive, source-specific approach to managing odours. Some of the most interesting features of their approach are: the ambient odour criteria reflect the degree of offensiveness of the odour: criteria are more stringent for industries that emit odours that are more unpleasant; for many industries, emission factors have been developed for use in assessing the odour impact of a facility; source-specific odour abatement measures are provided; the licensing authority can revise existing permits as a result of new insights, facts or circumstances; and biannual national surveys are conducted to gauge the level of annoyance due to odours. The odour management program in the Netherlands is successful.
9. **Japan:** The odour management program in Japan is quite different from that of any other jurisdiction that was interviewed. The program itself is embodied in a national law. There are a number of ambient and emission standards that are enforceable by law and significant penalties for disobeying the law. There are also detailed measurement methodologies. They consider their odour management program to be successful at addressing issues related to large industry but not those related to household activities or smaller businesses.

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The following section is taken directly from a paper published in *Chemical Engineering Transactions*. The excerpt below summarizes the approaches to legislate environmental odours in Canada and the United<sup>4</sup>.

#### **Canada**

Federal legislation does not contain any regulations pertaining to the emission of odours from industrial or agricultural facilities. Instead, the individual provinces and territories have a responsibility for odour emissions.

Acts (or statutes) approved by the legislature provide the legal framework for addressing odour emissions whereas the provinces or territories are responsible for the odour regulations which are used to administer the acts.

In Ontario, under the Environmental Protection Act, odour is a contaminant to the degree that it may cause discomfort, loss of enjoyment of normal use of property, or interfere with the normal conduct of business. Another section of the Act prescribes maximum point of impingement concentrations of a variety of compounds. A number of these are based on the odour potential of these compounds. Dispersion models are included in the regulation for calculating maximum point impingement

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<sup>4</sup> Bokowa, Anna H. (2010). *Review of Odour Legislation*. *Chemical Engineering Transactions*, volume 23, 31-36.

concentrations from emission rate data. Odour issues are routinely addressed in Certificates of Approval (permits). Requirements for odour emission tests are often included as conditions for industrial sources, which are judged by the Ontario Ministry of the Environment to have a potential for odour impact. Emission test results are used with the regulatory dispersion models to estimate maximum point impingement odour levels. There is a guideline of 1 odour unit based on the production of the model, when a 10 minute averaging time is used. The Ontario Municipal Act, 2001 allows municipalities to control odours within their jurisdictions.

### **United States**

The United States Code of Federal Regulations does not contain any regulations pertaining to the emissions of odours from industrial or agricultural facilities. Instead, the individual states generally have a responsibility for odour emissions although for some states this responsibility lies with regions, such as counties or municipalities.

For the states themselves. Acts (or statutes) approved by the legislature provide the legal framework for addressing odour emissions whereas the state departments are responsible for the odour regulations (or rules) which are used to administer these acts.

Essentially all states have differences and some states apparently have no odour acts or regulations at all, although odour may be addressed under nuisance legislation.

### **Human Exposure Monitoring Program<sup>5</sup>**

#### **~ Wood Buffalo Environmental Association, Alberta**

Following internal and external scientific peer reviews of the Human Exposure Monitoring Program (HEMP), conducted in 2009, Wood Buffalo Environmental Association (WBEA) refocused HEMP toward odour detection and chemistry, and a new program commenced in July 2010. As part of the new HEMP, WBEA air quality data now contributes to Environment Canada's (EC) Air Quality Health Index (AQHI) and is investigating an addendum to the AQHI that will account for reduced sulphurs that contributed to odours in the region.

In 2009, WBEA evaluated new odour-related measurement technology. The Pneumatic Focusing Gas Chromatograph (PFGC) can simultaneously detect volatile organic compounds (VOCs) and sulphur-containing compounds. Discussions are also underway with ODOTEC Inc., specialists in the measurement and monitoring of odours, to put in place an electronic nose. The "e-nose" measures the strength and frequency of odours.

<sup>5</sup> *Wood Buffalo Environmental Association*. (2012). Retrieved September 14, 2012 from <http://www.wbea.org/human-exposure-monitoring>

## Appendix III – Standards and Guidelines for Assessing Odour

### 1. Interim Guidelines for Setting Odour-Based Effects Screening Level<sup>6</sup>

#### ~ Texas Commission on Environmental Quality (TCEQ)

The TCEQ Toxicology Division (TD) proposes selection criteria as interim guidelines for setting an odor-based Effects Screening Level until the TD revises its 2006 regulatory guidance document, Guidelines to Develop Effects Screening Levels, Reference Values, and Unit Risk Factors (RG-442) (TCEQ 2006).

### 2. European Standard, EN 13725<sup>7</sup>

#### ~ Air quality – Determination of odour concentration by dynamic olfactometry

A European Standard (EN) is a standard that has been adopted by one of three recognized European standardization organizations. It is produced by all interested parties through a transparent, open and consensus based process.

The European Standard, EN 13725, Air quality – Determination of odour concentration by dynamic olfactometry, provides a sound, scientifically objective method for assessing odours. It is the result of several years of research and inter-laboratory comparisons carried out on a European scale. It unifies the olfactometry standards for many countries and follows ISO quality assurance and scientific testing protocols. Australia and New Zealand have combined to write a new standard essentially identical to the European Standard.

### 3. ASTM E679 - 04(2011)<sup>8</sup>

#### ~ Standard Practice for Determination of Odor and Taste Thresholds By a Forced-Choice Ascending Concentration Series Method of Limits

ASTM is a globally recognized leader in the development and delivery of international voluntary consensus standards. Working in an open and transparent process ASTM members deliver the test methods, specifications, guides, and practices that support industries and governments worldwide.

This standard describes a rapid test for determining sensory thresholds of any substance in any medium. It prescribes an overall design of sample preparation and a procedure for calculating the results.

<sup>6</sup> *Texas Commission on Environmental Quality, Toxicology Division.* (2010). Interim Guidelines for Setting Odor-Based Effects Screening Levels. Retrieved September 14, 2012, from [www.tceq.state.tx.us/assets/public/.../tox/esl/guidelines/odor.pdf](http://www.tceq.state.tx.us/assets/public/.../tox/esl/guidelines/odor.pdf)

<sup>7</sup> *European Committee for Standardization.* (2009). Retrieved September 14, 2012, from <http://www.cen.eu/CEN/news/pressreleases/Pages/odours.aspx>

<sup>8</sup> *ASTM International – Standards Worldwide.* (2011). Retrieved September 14, 2012, from <http://www.astm.org/Standards/E679.htm>



## **INFORMATION SHEET**

**ITEM:** 5.1 2012 Coordination Workshop

**ISSUE:** Provide an update on the 2012 Coordination Workshop

**BACKGROUND:** The 2012 workshop agenda was designed primarily with interactivity and engagement in mind. It was expanded to two days and was held at the Sheraton Hotel in Red Deer, Alberta on May 29-30. It attracted approximately 70 participants, drawn from industry (18), government (23) and NGOs (16) as well as the CASA secretariat (8) and presenters (5). The goals for the 2012 Coordination Workshop were based on feedback from previous events and an agreed purpose. This year's goals were:

- 1) Provide a venue for stakeholders to receive quality information and updates about the major government and multi-stakeholder processes related to the management of air quality in Alberta.
- 2) Provide an opportunity for participants to discuss how stakeholder engagement could be made more effective for Alberta specific programs and initiatives.
- 3) Improve participants' understanding of interest-based negotiation and its application in multi-stakeholder discussions.
- 4) Provide an opportunity for stakeholders to learn about and/or test ideas for overcoming common challenges at various stages of a consensus-seeking process.

The first day of the workshop provided stakeholders with information about major initiatives that are shaping Alberta's regulatory landscape and providing the foundation for multi-stakeholder dialogue. This exchange of information was delivered through a series of presentations; each one was followed by a facilitated, interactive discussion with participants.

The second day of the workshop engaged participants in a discussion about CASA's new Managing Collaborative Processes Guide, and provided venues for small group discussion about the mechanics of effective collaborative dialogue and reaching consensus.

**STATUS:** An initial review of feedback indicates that participants felt that the workshop provided a valuable opportunity to discuss stakeholder engagement and receive updates on current issues. Participants were interested in how the feedback they provided to presenters would be used - some insight as to whether their comments would be used to inform or

refine programs or future engagement would have been useful to participants.

Participants had very positive feedback regarding the second day of the workshop. They felt that the breakout sessions and group discussions were well-organized and facilitated. They appreciated learning how to differentiate between positions and interests, as well as the opportunity to generate ideas on how to overcome challenges in multi-stakeholder planning processes. It was useful to learn that other organizations are struggling with similar issues and roadblocks, and to hear the various perspectives on how they can be dealt with. Although little feedback was provided regarding being able to test ideas for overcoming challenges, participants appreciated being able to participate in discussions setting the stage for multi-stakeholder engagement, how to build trust and maintaining momentum.

The workshop format furthered two strategies of Goal 4 in the Business Plan. The number of non-CASA stakeholders present, helped to increase awareness of CASA's mandate and activities. It also furthered the collection and sharing of cross-jurisdictional information on air monitoring, mitigation measures and best management practices.

**ATTACHMENTS:** A. 2012 CASA Coordination Workshop Agenda

# Clean Air Strategic Alliance

## 2012 Coordination Workshop



**Tuesday, May 29**

<b>7:30 am</b>	<b>Registration &amp; Breakfast</b>
<b>8:30 am</b>	<b>Welcome, Introduction &amp; Agenda Review</b> <i>Alex Grzybowski, Facilitator</i>
<b>8:45 am</b>	<b>Clean Air Strategic Alliance</b> <i>Norman MacLeod, Executive Director</i> <ul style="list-style-type: none"> <li>• Key developments</li> <li>• Implications for stakeholders</li> <li>• Questions &amp; Clarification</li> <li>• Table Discussions &amp; Plenary</li> </ul>
<b>9:45 am</b>	<b>Networking Break</b>
<b>10:00 am</b>	<b>Key Government Initiatives: National to Regional</b> <i>Lisa Sadownik, Director of Strategic Relationships and Engagement, AESRD</i> <ul style="list-style-type: none"> <li>• Key developments</li> <li>• Implications for stakeholders</li> <li>• Questions &amp; Clarification</li> <li>• Table Discussions &amp; Plenary</li> </ul>
<b>11:00 am</b>	<b>Key Government Initiatives: The GoA View of Air Quality in Alberta – How The Pieces Fit Together</b> <i>Stephanie Clarke, Director of Strategy Development and Foresight, AESRD</i> <ul style="list-style-type: none"> <li>• Key developments</li> <li>• Implications for stakeholders</li> <li>• Questions &amp; Clarification</li> <li>• Table Discussions &amp; Plenary</li> </ul>
<b>12:00 pm</b>	<b>Lunch</b>
<b>1:00 pm</b>	<b>Land Use Framework</b> <i>Glen Tjostheim, Senior Policy Manager, Land Use Secretariat</i> <ul style="list-style-type: none"> <li>• Key developments</li> <li>• Implications for stakeholders</li> <li>• Questions &amp; Clarification</li> <li>• Table Discussions &amp; Plenary</li> </ul>
<b>2:00 pm</b>	<b>Alberta Water Council</b> <i>Gord Edwards, Executive Director</i> <ul style="list-style-type: none"> <li>• Key developments</li> <li>• Implications for stakeholders</li> <li>• Questions &amp; Clarification</li> <li>• Table Discussions &amp; Plenary</li> </ul>
<b>3:00 pm</b>	<b>Networking Break</b>
<b>3:15 pm</b>	<b>Alberta Airshed Council</b> <i>Bob Scotten, Co-Chair</i> <ul style="list-style-type: none"> <li>• Key developments</li> <li>• Implications for stakeholders</li> <li>• Questions &amp; Clarification</li> <li>• Table Discussions &amp; Plenary</li> </ul>
<b>4:15 pm</b>	<b>Day 1 Summary</b> <i>Alex Grzybowski, Facilitator</i>
<b>4:45 pm</b>	<b>Adjournment</b>

# Clean Air Strategic Alliance

## 2012 Coordination Workshop



### Wednesday, May 30

<b>7:30 am</b>	<b>Registration &amp; Breakfast</b>
<b>8:30 am</b>	<b>Introduction &amp; Agenda Review</b> <i>Alex Grzybowski, Facilitator</i>
<b>8:45 am</b>	<b>The Tree/ A Negotiation</b> <ul style="list-style-type: none"> <li>Brief role-play exploring the negotiation dynamic</li> <li>Debrief of interest-based vs. positional tactics, and implications for building consensus</li> </ul>
<b>9:15 am</b>	<b>Managing Collaborative Processes Guide – Overview</b> <ul style="list-style-type: none"> <li>An interactive presentation on the Guide purpose and content</li> <li>Application of the Guide in building consensus</li> </ul>
<b>9:35 am</b>	<b>Introduction to Breakout Groups</b>
<b>9:45 am</b>	<b>Networking Break</b>
<b>10:00 am</b>	<b>Breakout Group Discussions</b> Four breakout groups consider the challenges they have experienced, as well as lessons learned, at 4 key stages in the collaborative process: <ul style="list-style-type: none"> <li>Convening &amp; Designing Collaborative Processes</li> <li>Gathering &amp; Managing Information</li> <li>Building Solutions</li> <li>Overcoming Impasse/Getting Consensus</li> </ul>
<b>11:20 pm</b>	<b>Breakout Group Reports</b> <ul style="list-style-type: none"> <li>Presentation of group highlights and plenary discussion</li> </ul>
<b>12:00 pm</b>	<b>Lunch</b>
<b>1:00 pm</b>	<b>World Café with Multi-Stakeholder Process Focus</b> The World Café is an interactive method for creating meaningful and cooperative dialogue around topics of discussion generated by workshop participants. Participants will discuss these topics during small, intimate conversations that link and build on one another throughout the afternoon. This format will allow participants to share knowledge and think creatively as part of a single, connected conversation.
<b>3:15 pm</b>	<b>World Café Wrap-Up</b>
<b>3:45 pm</b>	<b>Summary of Recurring Themes &amp; Key Learnings</b> Drawn from all elements across both days of the workshop.
<b>4:15 pm</b>	<b>Workshop Adjournment</b>

**PLACEHOLDER**

**ITEM:**                    **6.1    New/Other Business**

***ISSUE:***                    At the time of printing there was no other new business.

**PLACEHOLDER**

**ITEM:**                    **6.2    Review of CASA Board Membership**

**ISSUE:**                    Further information will be provided at the September 27, 2012 meeting.

**CASA Board of Directors  
Mailing List**

<b>Member Representative</b>	<b>Alternate</b>	<b>Sector</b>
<b>Leigh Allard</b> President & CEO The Lung Association, AB & NWT P.O.Box 4500, Stn South Edmonton, AB T6E 6K2 1-888-566-5864 x 2241 Fax: (780) 488-7195 lallard@ab.lung.ca	<b>Vacant</b>	NGO Health
<b>Martin Chamberlain</b> , Assistant Deputy Minister Resource Development Policy Division Alberta Energy 8th fl Petroleum Plaza NT 9945 - 108 Street Edmonton, AB T5K 2G6 Bus: (780) 422-1045, Fax (780) 427-7737 Martin.chamberlain@gov.ab.ca	<b>Jennifer Steber</b> , Chief of Oil Sands Strategy and Operations Alberta Energy 6th Floor, Petroleum Plaza North Tower 9945 - 108 Street Edmonton, AB T5K 2G6 Bus: (780) 422-1781, Fax (780) 422-0692 jennifer.steber@gov.ab.ca	Provincial Government
<b>Cindy Christopher</b> , Manager Environmental Policy & Planning Imperial Oil Limited 237 Fourth Avenue S.W. Calgary, Alberta T2P 0H6 Bus: (403) 237-4049, Fax: (403) 237-2075 cindy.l.christopher@esso.ca	<b>Brian Ahearn</b> , Vice President – Western Division CPPI Canadian Petroleum Products Institute 2100, 350 – 7th Avenue SW Calgary Alberta T2P 3N9 Bus: (403)-266-7565 brianahearn@cppei.ca	Petroleum Products
<b>Peter Darbyshire</b> , Vice-President Graymont Limited Suite 260, 4311 - 12th Street NE Calgary, AB T2E 4P9 Bus: (403) 250.9100, Fax: (403) 291-1303 pdarbyshire@graymont.com	<b>Dan Thillman</b> , Plant Manager Lehigh Cement 12640 Inland Way Edmonton, AB T5V 1K2 Bus: (780) 420-2691, Fax: (780) 420-2528 dthillman@lehighcement.com	Mining
<b>Brian Gilliland</b> , Manager, Environmental Affairs, Canada Weyerhaeuser Co. Ltd. 201, 2920 Calgary Trail Edmonton, Alberta T6J 2G8 Bus: (780) 733-4205, Fax: (780) 733-4238 brian.gilliland@weyerhaeuser.com	<b>Keith Murray</b> , Director, Environmental Affairs Alberta Forest Products Association #500, 10709 Jasper Avenue Edmonton, Alberta T5J 3N3 Bus: (780) 452-2841, Fax: (780) 455-0505 kmurray@albertaforestproducts.ca	Forestry
<b>Vacant</b>	<b>David Lawlor</b> , Manager, Environmental Affairs ENMAX 141 50th Avenue SE Calgary, Alberta T2G 4S7 Bus: (403) 514.3296, Fax: (403) 514.6844 dlawlor@enmax.com	Alternate Energy
<b>Cindy Jefferies</b> , Director Cities up to 500,000 (Red Deer) Alberta Urban Municipalities Association 4914 48 Avenue Red Deer, AB T4N 3T4 Bus: (403) 342-8132 cindy.jefferies@reddeer.ca	<b>Tim Whitford</b> , Councillor Town of High River Alberta Urban Municipalities Association 435 Riverside Green NW High River, AB Bus: (403) 336-1137 twhitford@highriver.ca	Local Government – Urban
<b>Holly Johnson Rattlesnake</b> Samson Cree Nation PO Box 159 Hobema, AB T0C 1N0 Bus: (780) 585-3793 ext. 291, Fax.: (780) 585-2256 hjrattlesnake@gmail.com	<b>Vacant</b>	Aboriginal Government - First Nations

<p><b>Carolyn Kolebaba</b>, Vice President Alberta Association of Municipal Districts &amp; Counties Box 178 Nampa, AB T0H 2R0 Bus: (780) 955-4076 Fax: (780) 955-3615 ckolebaba@aamdc.com</p>	<p><b>Tom Burton</b>, Director Alberta Association of Municipal Districts &amp; Counties Box 419 DeBolt, AB T0H 1B0 Bus: (780) 955.4076, Fax: (780) 955.3615 Cell: (780) 512-1558 tburton@aamdc.com</p>	Local Government - Rural
<p><b>Yolanta Leszczynski</b>, P.Eng SD/ Env Regulatory Coordinator Scotford Manufacturing PO Bag 22 Fort Saskatchewan, AB T8L 3T2 Yolanta.Leszczynski@shell.com</p>	<p><b>Al Schulz</b>, Regional Director Chemistry Industry Association of Canada 97-53017, Range Road 223 Ardrossan, Alberta T8E 2M3 Bus: (780) 922-5902, Fax: (780)-922-0354 alschulz@telusplanet.net</p>	Chemical Manufacturers
<p><b>Neil MacDonald</b>, Acting Assistant Deputy Minister Family &amp; Population Health Alberta Health 24<sup>th</sup> Floor, Telus Plaza NT 10025 Jasper Avenue Edmonton, AB T5J 1S6 Bus: (780) 415-2759 Neil.macdonald@gov.ab.ca</p>	<p><b>Dawn Friesen</b>, Acting Executive Director Health Protection Alberta Health 23rd fl Telus Plaza NT 10025 Jasper Avenue Edmonton, AB T5J 1S6 Bus: (780) 415-2818, Fax: (780) 427-1470 dawn.friesen@gov.ab.ca</p>	Provincial Government
<p><b>Mike Norton</b>, Acting Regional Director Environment Canada Room 200, 4999 – 98 Avenue Edmonton, Alberta T6B 2X3 Bus: (780) 951-8869 Fax: (780) 495-3086 mike.norton@ec.gc.ca</p>	<p><b>Martin Van Olst</b>, Senior Analyst Regional Analysis and Relationships Environment Canada Room 200, 4999 – 98 Avenue Edmonton, Alberta T6B 2X3 Bus:(780)951-8958 Fax: (780)495-3086 Martin.vanOlst@ec.gc.ca</p>	Federal Government
<p><b>Louis Pawlowich</b>, Environmental Coordinator Métis Settlements General Council B10 Terrace Park Peace River, AB T8S 1N6 Bus: (780) 618-7020, Fax: (780) 624-9797 lpenviro@telus.net</p>	<b>Vacant</b>	Aboriginal Government - Metis
<p><b>Chris Severson-Baker</b>, Managing Director Pembina Institute Suite 200, 608 - 7th Street SW Calgary, Alberta T2P 1Z2 Bus: (403) 269-3344, Fax: (403) 269-3377 chrissb@pembina.org</p>	<p><b>Ruth Yanor</b> Mewassin Community Council RR 1 Duffield, AB T0E 0N0 Bus : (780) 504-5056 ruth.yanor@gmail.com</p>	NGO Pollution
<p><b>David Spink</b>, Environmental Sciences and Policy Consultant Prairie Acid Rain Coalition 62 Lucerne Crescent St. Albert, AB T8N 2R2 Bus: (780) 458-3362, Fax: (780) 419-3361 dspink@shaw.ca</p>	<p><b>Ann Baran</b> Southern Alberta Group for the Environment Box 243 Turin, AB T0K 2H0 Bus: (403) 738-4657 couleesedge1@hotmail.com</p>	NGO Wilderness
<p><b>Rich Smith</b>, Executive Director Alberta Beef Producers 320, 6715 - 8th Street NE Calgary, AB T2E 7H7 Bus: (403) 451-1183, Fax: (403) 274-0007 richs@albertabeef.org</p>	<p><b>Humphrey Banack</b> Wild Rose Agricultural Producers RR #2 Camrose, AB T4V 2N1 Bus: (780) 672-6068 Fax: (780)679-2587 gumbo_hills@hotmail.com</p>	Agriculture
<p><b>John Squarek</b>, President Oasis Energy 3056 - 40th Avenue South Lethbridge, Alberta T1K 6Z9 Bus: (403) 388-0969 jsquarek@shaw.ca</p>	<p><b>Bill Clapperton</b>, Vice President Regulatory, Stakeholder and Environmental Affairs Canadian Natural Resources Limited #2500, 855-2<sup>nd</sup> Street S.W. Calgary, Alberta T2P 4J8 Bus: (403) 517-6784, Fax: (403) 517-7367 billc@cnrl.com</p>	Oil & Gas – large producers



<b>Don Szarko</b> , Director Advocacy and Community Services Alberta Motor Association Box 8180, Station South Edmonton, AB T6J 6R7 Bus: (780) 430-5733, Fax: (780) 430-4861 don.szarko@ama.ab.ca	<b>Vacant</b>	Consumer/Transportation
<b>Don Wharton</b> , Vice President Sustainable Development TransAlta Corporation 110 - 12th Avenue SW P.O. Box 1900, Station M Calgary, Alberta T2P 2M1 Bus: (403) 267-7681, Fax: (403) 267-7372 don_wharton@transalta.com	<b>Jim Hackett</b> , Senior Manager, Aboriginal Relations, Health & Safety, Environment ATCO Group, Utilities 1000, 909 - 11 Avenue S.W. Calgary, AB T2R 1N6 Bus: (403) 245-7408, Fax: (403) 245-7265 jim.hackett@atcopower.com	Utilities
<b>Dana Woodworth</b> , Deputy Minister Alberta Environment & Sustainable Resource Development 11th fl Petroleum Plaza ST 9915 - 108 Street Edmonton, AB T5K 2G8 Bus: (780) 427-1799 Fax (780) 415-9669 dana.woodworth@gov.ab.ca	<b>Bev Yee</b> , Assistant Deputy Minister Alberta Environment & Sustainable Resource Development 10th Floor, South Petroleum Plaza 9915 - 108 Street Edmonton, Alberta T5K 2G8 Bus: (780) 427-6247, Fax: (780) 427-1014 bev.yee@gov.ab.ca	Provincial Government
<b>Norman MacLeod</b> , Executive Director Clean Air Strategic Alliance 10 <sup>th</sup> Floor, Centre West 10035-108 Street Edmonton, Alberta T5J 3E1 Bus: (780) 427-9193, Fax: (780) 422-1039 nmacleod@casahome.org		
<b>Vacant</b>	<b>Vacant</b>	NGO Pollution
<b>Vacant</b>	<b>Vacant</b>	Oil & Gas – small producers

**Board Members to Receive Electronic Board Book Only:**

John Squarek  
Chris Severson-Baker  
Bev Yee  
Eileen Gresl-Young  
Don Szarko

**Clean Air Strategic Alliance  
List of Stakeholder Groups and Representatives**

<b>Stakeholder Group</b>	<b>Sector</b>	<b>Member</b>	<b>CASA Board Representative</b>	
			<b>Director, Association/Affiliation</b>	<b>Alternate Director, Association/Affiliation</b>
NGO	NGO Health	The Lung Association - Alberta & NWT	<b>Leigh Allard</b> , President & CEO The Lung Association - Alberta & NWT	<b>Vacant</b>
Government	Provincial Government – Energy	Alberta Energy	<b>Martin Chamberlain</b> , Assistant Deputy Minister Alberta Energy	<b>Jennifer Steber</b> , Chief of Oil Sands Strategy & Operations Alberta Energy
Industry	Petroleum Products	Canadian Petroleum Products Institute	<b>Cindy Christopher</b> , Manager Environmental Policy & Planning Imperial Oil Limited	<b>Brian Ahearn</b> , Vice President – Western Division Canadian Petroleum Products Institute
Industry	Mining	Alberta Chamber of Resources	<b>Peter Darbyshire</b> , Vice-President Graymont Limited	<b>Dan Thillman</b> , Plant Manager Lehigh Cement
Industry	Forestry	Alberta Forest Products Association	<b>Brian Gilliland</b> , Manager Environmental Affairs Canada Weyerhaeuser Co. Ltd.	<b>Keith Murray</b> , Director Environmental Affairs Alberta Forest Products Association
Industry	Alternate Energy		<b>Vacant</b>	<b>David Lawlor</b> , Manager Environmental Affairs ENMAX
Government	Local Government – Urban	Alberta Urban Municipalities Association	<b>Cindy Jefferies</b> , Director Cities up to 500,000 (City of Red Deer) Alberta Urban Municipalities Association	<b>Tim Whitford</b> , Councillor Town of High River Alberta Urban Municipalities Association
Aboriginal Government	First Nations	Samson Cree Nation	<b>Holly Johnson Rattlesnake</b> Samson Cree Nation	<b>Vacant</b>
Government	Local Government - Rural	Alberta Association of Municipal Districts & Counties	<b>Carolyn Kolebaba</b> , Vice President Reeve, Northern Sunrise County Alberta Association of Municipal Districts & Counties	<b>Tom Burton</b> , Director District 4, MD of Greenview Alberta Association of Municipal Districts & Counties
Industry	Chemical Manufacturers	Canadian Chemical Producers Association	<b>Yolanta Leszczynski</b> , SD/ Env Regulatory Coordinator Scotford Manufacturing	<b>Al Schulz</b> , Regional Director Chemistry Industry Association of Canada

**Clean Air Strategic Alliance  
List of Stakeholder Groups and Representatives**

Government	Provincial Government – Health	Alberta Health and Wellness	<b>Neil MacDonald</b> , Acting Assistant Deputy Minister Family & Population Health Alberta Health	<b>Dawn Friesen</b> , Acting Executive Director Health Protection Alberta Health
Government	Federal	Environment Canada	<b>Mike Norton</b> , Acting Regional Director Environment Canada	<b>Martin Van Olst</b> , Senior Analyst Environment Canada
Aboriginal Government	Métis	Métis Settlements General Council	<b>Louis Pawlowich</b> , Environmental Coordinator Métis Settlements General Council	<b>Vacant</b>
NGO	NGO Pollution	Pembina Institute	<b>Chris Severson-Baker</b> , Managing Director Pembina Institute	<b>Ruth Yanor</b> Mewassin Community Council
Industry	Agriculture	Alberta Beef Producers	<b>Rich Smith</b> , Executive Director Alberta Beef Producers	<b>Humphrey Banack</b> Wild Rose Agricultural Producers
NGO	NGO Wilderness	Prairie Acid Rain Coalition	<b>David Spink</b> Prairie Acid Rain Coalition	<b>Ann Baran</b> Southern Alberta Group for the Environment
Industry	Oil & Gas – Large Producers	Canadian Association of Petroleum Producers	<b>John Squarek</b> , President Oasis Energy	<b>Bill Clapperton</b> , Vice President Canadian Natural Resources Limited
NGO	Consumer Transportation	Alberta Motor Association	<b>Don Szarko</b> , Director Alberta Motor Association	<b>Vacant</b>
Industry	Utilities	TransAlta Corporation	<b>Don Wharton</b> , Vice President Sustainable Development TransAlta Corporation	<b>Jim Hackett</b> , Senior Manager, Aboriginal Relations, Health & Safety, Environment ATCO Group, Utilities
Government	Provincial Government – Environment	Alberta Environment Sustainable Resource Development	<b>Dana Woodworth</b> , Deputy Minister Alberta Environment and Sustainable Resource Development	<b>Bev Yee</b> , Assistant Deputy Minister Alberta Environment and Sustainable Resource Development
NGO	NGO Pollution	Toxics Watch Society of Alberta	<b>Vacant</b>	<b>Vacant</b>
Industry	Oil & Gas – Small Producers	Vacant	<b>Vacant</b>	<b>Vacant</b>

## **INFORMATION SHEET**

**ITEM:**                    6.4    **Evaluation Results from March 29, 2012 and New Evaluation Form**

**BACKGROUND:**        As per direction provided in December 2011, the consolidated results of the last Board meeting evaluation are attached for your information.

Directors are also encouraged to respond to the new questions, also attached. Your responses are valued and will be reviewed by the Executive Committee at their next meeting.

**ATTACHMENTS:**      A. Consolidated responses to last evaluation

A new evaluation form will be provided at the meeting on September 27<sup>th</sup>.

## Board of Directors meeting, March 29, 2012



**1. Do you believe that CASA Board membership should change as often as is necessary to ensure that issues before the Board are addressed by: a. those organizations most able to contribute and/or b. those organizations most directly affected?**

Response  
Count

8

answered question

8

skipped question

0

**2. Are you satisfied with the existing size of the Board or do you believe it should change in some way?**

Response  
Count

7

answered question

7

skipped question

1

**3. Would you be in favour of the Board convening a small Working Group to: a. Identify the range of interests and organizations that are associated with upcoming CASA discussions? b. Assess the alignment of the current Board membership with anticipated issues, identifying gaps in representation? c. Recommend specific changes for Board approval?**

Response  
Count

8

answered question

8

skipped question

0

**Q1. Do you believe that CASA Board membership should change as often as is necessary to ensure that issues before the Board are addressed by:**

- a. those organizations most able to contribute and/or  
b. those organizations most directly affected?**

1	b. My belief is that coverage is important and perhaps each caucus (eg. Industry) could select a number of constituents to sit on the Board.	Mar 30, 2012 10:12 AM
2	Yes the Board membership should be reviewed and changed as necessary.	Mar 30, 2012 10:10 AM
3	The CASA Board is open to new membership at any time. We should not have to solicit. They can apply if interested.	Mar 30, 2012 10:08 AM
4	a. Although a & b should go hand in hand.	Mar 30, 2012 10:08 AM
5	You need to engage membership from Alberta Agriculture as they are an important component of the Alberta Landscape.	Mar 30, 2012 10:02 AM
6	b.	Mar 30, 2012 9:56 AM
7	No	Mar 30, 2012 9:46 AM
8	Both	Mar 30, 2012 9:44 AM

**Q2. Are you satisfied with the existing size of the Board or do you believe it should change in some way?**

1	It's getting quite large - industry groups are many. Is public (NGO) properly represented?	Mar 30, 2012 10:12 AM
2	I am satisfied with the size and diversity of the Board	Mar 30, 2012 10:10 AM
3	Fine as is except for possible Airshed membership (council)	Mar 30, 2012 10:08 AM
4	would not expand beyond current size.	Mar 30, 2012 10:08 AM
5	Size is good. It seems the structure allows for representatives from all sectors to be represented - justifies the value of "alternates"	Mar 30, 2012 10:02 AM
6	Yes- For this case the more stakeholders, better/more insights & perspectives. Still feel to expand First Nation Reps.	Mar 30, 2012 9:46 AM
7	Add consumer advocacy group (cover consumer behaviour) & Non point source rep(s)?	Mar 30, 2012 9:44 AM

**Q3. Would you be in favour of the Board convening a small Working Group to:**

- a. Identify the range of interests and organizations that are associated with upcoming CASA discussions?  
 b. Assess the alignment of the current Board membership with anticipated issues, identifying gaps in representation?...

1	Yes to all above	Mar 30, 2012 10:12 AM
2	Yes I would support the idea of a small working group reviewing Board membership and making recommendations	Mar 30, 2012 10:10 AM
3	Not necessary	Mar 30, 2012 10:08 AM
4	c. Might consider a second tier for organizations to be involved in CASA. Rather than being in the board consider a category of "consultation agencies" specific to issues working groups created from time to time.	Mar 30, 2012 10:08 AM
5	A Working Group convene for (a) would help to flush out "issues" of concern. For (b) to align Board membership would need to come back to the Board as there may need to be a change in Board structure. As for (c) - Their changes would keep the Board "current"	Mar 30, 2012 10:02 AM
6	a,b,c.	Mar 30, 2012 9:56 AM
7	Always a need to assess & evaluate. If need is there, by all means.	Mar 30, 2012 9:46 AM
8	Definitely!	Mar 30, 2012 9:44 AM

**Q4. Name (optional)**

1	Y. Leszczynski	Mar 30, 2012 10:12 AM
2	John Squarek	Mar 30, 2012 10:08 AM
3	Don Szarko	Mar 30, 2012 10:08 AM