Clean Air Strategic Alliance

Annual Report
1997

Contents

1.0 Highlights from 1997

The following list provides a quick look at the highlights from Alliance projects that are covered in more detail throughout the report.

Mandate Renewal

- Based on a comprehensive performance review, the Board and its stakeholder groups unanimously renewed the mandate of the Alliance for three more years. The renewal was supported by a revised, equally-shared core funding commitment from the three participating provincial government departments.

Air Quality Management Solutions

- A Solution Gas Flaring Project Team was formed in response to a statement of concern filed in November 1996. In less than a year, and after extensive consultation and research, there is now a plan in place to work towards the elimination of routine solution gas flaring in the province over the next several years.
- The Ecological Effects Monitoring Team completed its work, and recommended priorities for a bio-monitoring program to the Board. The Board approved further design work on a proposal to address the effects of ozone on agricultural crops, and a program to monitor the effects of acid deposition on forested ecosystems.
- The Vehicle Emissions Working Group proposed four initiatives to guard against adverse effects on public health and the eco-environment from vehicle emissions. The Smog Free and AutoSmart programs were the first of the four initiatives to be launched.
- The SO_2 Management Team presented its final report to the Alliance Board early in the year and received approval for the formation of an Implementation Coordination Team. The Target Loading subgroup made significant progress towards developing region-specific acid deposition targets for the province.

Strategic Direction

- The Alliance revisited its strategic direction, and a team was formed with the task of developing long-term goals, mid-term objectives and priorities, and an agreed-upon strategy to move toward the Alliance's existing vision for clean air. This work will help define the scope of Alliance activities and will form the basis for evaluating new initiatives.

Information Outreach

- The Communications Committee developed a strategic plan to guide Alliance outreach activities for the next three years. The committee also produced a communications guide for project teams.
- Alliance stakeholders made Alberta's second annual Clean Air Week a success. The theme of the week, held May 26 to June 1, was "Clean Air Everywhere," addressing the importance of both indoor and outdoor air quality.
- The Alberta Ambient Air Quality Data Management System was launched on the World Wide Web in August. It links the Alliance homepage, **www.incentre.net/casa/**, with air monitoring stations measuring a range of air quality parameters. The site is a product of the Ambient Air Quality Monitoring Team.

Value to the Stakeholders

- The Canadian Association of Petroleum Producers, supported by regulatory agencies, recommended the Alliance develop a management response to solution gas flaring in the province.
- Production costs for *Clean Air Views* were sponsored by Imperial Oil Limited for 1997.
- New multi-stakeholder teams are being formed to implement the recommendations of both the Ambient Air Quality and Ecological Effects Monitoring teams.

2.0 Presidents' Message

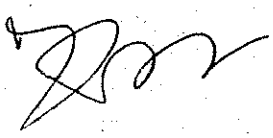
1997 was a benchmark year for the Clean Air Strategic Alliance. The renewal process was completed, and the Board affirmed the Alliance's direction for the next three years.

Our organization continues to evolve as we learn from our own experiences and from the experiences of other groups. Like a tree, we spent the first phase of the organization's life putting down a solid, less visible, root system to support and nurture the branches of activity that accomplish the more conspicuous, public part of the Alliance's work.

With this foundation in place, we saw substantial progress by several teams in 1997. A key milestone was the successful testing and implementation of an integrated system for monitoring ambient air quality in Alberta. Establishing a network of partners allowed the system to build on an existing solid base of information and use existing resources to develop a truly cost-effective product. The results of the system are now publicly accessible via an innovative, user-friendly Internet web site. Data is being provided to this provincial system by the "backbone" stations as well as by the zones, giving Albertans easy access to air quality data from across the province.

One of the most complex, controversial, and urgent areas for the Alliance in the last year has been the issue of solution gas flaring in Alberta. In a strong vote of confidence for our process, the Canadian Association of Petroleum Producers asked the Alliance to seek resolution of this emerging issue. Representatives of many diverse organizations expended considerable time and expense in 1997 to address this matter. In December, their work resulted in the Alliance Board's approval of a Flaring Management Framework that will guide the Project Team as it develops specific economic and regulatory recommendations in the first part of 1998 for the reduction of emissions associated with solution gas flaring.

Late in 1997, the Board undertook a strategic planning initiative to develop long-term goals for the next two decades. As part of this process, pollution prevention will be incorporated into the work of the Alliance. This will supplement and enhance the Alliance's evidence-based approach to dealing with air quality issues and allow for the development of more comprehensive and anticipatory solutions.



Tom Marr-Laing
(Co-President)

As it works internally to entrench the consensus process in all aspects of its work, the Alliance is showing that a multi-stakeholder, consensus-based approach can address Alberta's air quality issues. We believe the appeal of this approach is demonstrated by the willingness of diverse stakeholders to participate in project team activities as well as serve on the Alliance Board. As with any organization, there has been a transition in Alliance membership. As dedicated and capable members have moved on, however, we have been very pleased to see outstanding new members step up to fill these positions as directors and alternates on the Board. At the end of 1997, 18 sectors from the three stakeholder categories of government, industry, and non-government organizations were represented on the Alliance Board. Supported by an Edmonton-based Secretariat, the Board met three times in 1997, reviewing the results of over 200 project team meetings, workshops, and conference calls.

This year saw another important change in that all three Government members of the Alliance are now contributing equal amounts to core funding: Alberta Environmental Protection, Alberta Department of Energy, and Alberta Health. Much of the funding load to get the Alliance started was carried by Alberta Environmental Protection, and this more balanced sharing of costs acknowledges the importance of clean air to our health and economy as well as to the environment. These core contributions are essential to maintaining the day-to-day functions of the Alliance and ensuring that the thousands of hours of volunteer effort and the substantial in-kind contributions can be adequately supported and optimized.

One of the Alliance's strengths continues to be its role as a forum in which air quality concerns can be raised and discussed by knowledgeable and experienced stakeholders. As 1998 unfolds, we anticipate further results in areas such as ecological effects monitoring, ambient air quality monitoring, flaring reduction, and energy efficiency.

The many, many hours of time and the valuable in-kind contributions of Alliance stakeholders are essential to our work. This sharing of experience, expertise, and resources leads to cost-effective, innovative responses. We thank each person and acknowledge each of the Alliance stakeholders for their contributions this year. With this continued commitment, we can maintain our momentum to improve air quality management in Alberta well into the next century.

Doug Baldwin
(Co-President)

3.0 Strength Through Consensus

The mandate of the Clean Air Strategic Alliance is to solve air quality problems by bringing together stakeholders with diverse interests and using a consensus approach for decision-making. The overarching goal is to build and operate a new air quality management system for Alberta that can address emerging issues. To carry out its mandate, the Alliance will:

- clearly identify the most important air quality issues;
- prioritize specific problems and opportunities;
- allocate and coordinate resources;
- develop solution-oriented action plans; and,
- evaluate results.

The Alliance is accountable to its members and to the people of Alberta for its decisions. It is funded by its members, including the Provincial Government. The Government of Alberta will generally sanction and implement Alliance decisions that meet two criteria: consensus is reached among the stakeholders (including government), and decisions are based on that consensus. Consensus requires innovative thinking to solve problems and address opportunities; it does not mean simply reducing the solution to the "lowest common denominator" to gain acceptance. All project teams associated with the Alliance also use consensus to make their decisions. This approach resulted in many solid and creative solutions to clearly-defined problems in 1997. A clear process also exists for the Alliance to move forward in cases where consensus is not achieved.

To guide and provide discipline to its decision-making processes, the Alliance has put in place a multi-step Comprehensive Air Quality Management System (CAMS). As the Alliance's key strategy tool for improving air quality in Alberta, the CAMS clearly defines the steps required in making decisions that affect air quality. The CAMS provides an opportunity for members of the public to bring an air quality concern to the Alliance by filing a statement of concern. If the issue is within the Alliance's mandate and is deemed a high priority, a project team is put in place to clarify the environmental, economic, and health implications of the issue, develop an action plan, and solve the problem.

The Clean Air Strategic Alliance was incorporated in 1994 as a non-profit association under the *Societies Act of Alberta*. Air quality has been and continues to be important to the people of this province because:

- it may affect the health of Albertans;
- it influences the overall health of our ecosystems;
- many national and international agreements affect Alberta's air quality; and,
- our economy is energy-intensive, generating emissions that must be managed in an environmentally responsible and cost-effective manner.

4.0 Alliance Activities

Much of the Alliance's work is done by teams with a mix of individuals from organizations that share an interest in a particular issue. The various teams and their terms of reference are ratified by the Alliance Board. Individual members of each team are accountable to their stakeholder groups, and the teams are accountable to the Board. Teams are formed when the Alliance assumes responsibility for a project for one of the following reasons:

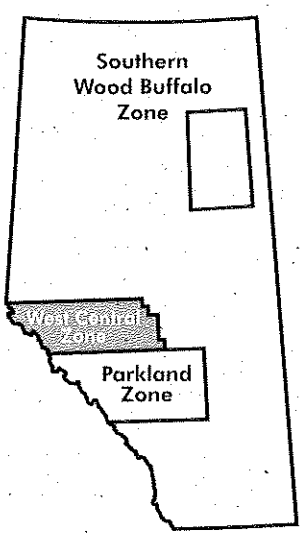
- no existing agency has sole responsibility;
- no other agency is working in that area;
- key stakeholders agree that the Alliance provides the best approach;
- the matter requires cross-departmental and cross-sectoral cooperation to be effectively resolved;
- the Alliance is particularly well-positioned to advance and nurture the work; or,
- the project is critical to the success of other work to which the Alliance is committed.

The work of many teams has intensified over the last three years. To help them make the best possible decisions and to provide access to leading-edge research and innovative techniques being used in other jurisdictions, the Alliance and its partners will continue to host symposia and scientific workshops. The expectation is that by improving communications between scientists, health managers, and policy makers, we can better align the needs of each to find better solutions.

One of the continuing challenges for the Alliance has been to make sure project team work is done in an integrated manner that allows teams to develop synergy and share resources. This means maintaining excellent communications to avoid duplication, building on the work of others, and ensuring that critical tasks don't "fall through the cracks." Integration workshops, which bring together representatives from each Alliance team, provide an important venue for such communication. A communications planning model for Alliance teams, completed in 1997, helps focus team reporting and clarifies the responsibilities of stakeholders in the communications process. The goals, progress, and results of various Alliance groups are summarized in the following sections.

4.1 Air Quality Management Zones

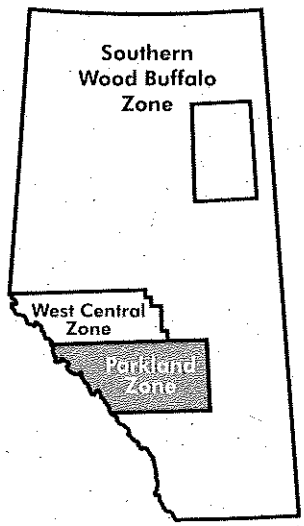
The following zones were ratified by the Alliance, and operate according to Alliance principles. Their Boards of Directors are separate from the Alliance's, however, and include representatives from local government, health authorities, industries, and communities.



West Central Airshed Society

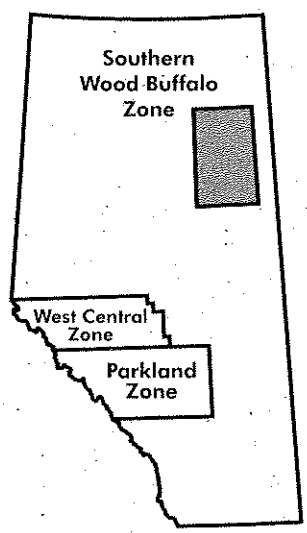
The West Central Airshed Society (WCAS) is an independent, self-funded society responsible for managing Alberta's first airshed zone, located west of Edmonton. The zone was incorporated in 1995 with its Board of Directors composed of representatives of nine sectors with an interest in regional air quality. During 1997, the WCAS increased its air monitoring program by adding a fourth site to its network of continuous air monitoring and meteorological stations. The agricultural biomonitoring program emphasized the use of a computer model to determine the influence of air quality on biomass production, with intense data collection at two of five biomonitoring sites. Baseline data was collected in cooperation with the Canadian Forest Service at two WCAS forest ecosystem monitoring sites. With the exception of ozone, concentrations of all pollutants were well within the provincial guidelines. The provincial ozone guideline of 82 parts per billion for a

one-hour average was exceeded three times, once at a remote background monitoring location and for two hours at a site in the most heavily industrialized eastern part of the zone. No visible symptoms of vegetation stress due to air pollution were found at any of the WCAS sites. As part of the Society's commitment to improve the understanding of air quality and its effects within the zone, an additional air quality monitoring station will be commissioned in 1998 and further biological measurements will be made at agricultural sites. An annual report of WCAS activities is available.



Parkland Airshed Management Zone

The Parkland Airshed Management Zone occupies a large region that lies mainly to the south and west of Red Deer. This region is a highly active oil and gas development area that contains the greatest concentration of sour gas plants in Alberta and is an area where flaring is a major concern to many of the residents. The dominant industries in the region are agriculture, oil and gas, and forestry. In 1995, representatives of industry, government, and the public formed a steering committee to investigate the advantages of establishing a zone. Alliance approval to form a zone was received that year. Early in 1997, the Parkland Airshed Management Zone (PAMZ) was registered as a corporation under the *Societies Act* and a board of directors was elected. Four working groups (Technical, Communications, Issues Response, and Finance) were established. A workshop on the objectives of a monitoring program was held, after which the Technical working group proposed a redesigned, phased-in monitoring program for consideration and approval by the Board. During 1997, the Issues Response working group held a well-attended flaring workshop, and a strategy to expand corporate participation in all sectors of industry is underway.



Southern Wood Buffalo Zone

1997 was a very exciting, productive year for the zone. On December 1, 1997, the Regional Air Quality Coordinating Committee (RAQCC) took over, from government and industry, the operation and management of air monitoring for the Southern Wood Buffalo Zone. The Regional Air Quality Coordinating Committee's main goal is to provide scientifically credible data that can be used to protect the public's health and the environment. Seven air monitoring stations were connected into a new data acquisition system. Through this system, continuous measurements of ozone, oxides of nitrogen, sulphur dioxide, hydrogen sulphide, non-methane hydrocarbons, inhalable particulates, total reduced sulphur, wind, and temperature are collected. Intermittent measurements of inhalable particulates, volatile organic compounds, and polycyclic aromatic hydrocarbons are also collected. The network was also designed to respond to compliance requirements of government and industry, producing monthly and annual reports as required by the Air Monitoring Directive. The success of the project is a reflection of the commitment and cooperation of the community, government, and industry. All stakeholders donated extensive expertise and resources.

4.2 Project Teams and Working Groups

Air Toxics

This project team was established in early 1996. Its task is to develop a process for dealing with airborne toxic substances that are considered to be a high priority in Alberta and are not being addressed through other management programs. Working with a consultant, the group concluded that between five and eight substances or classes of air toxic substances required further investigation to determine an appropriate management response for Alberta. The group will be recommending a management plan to the Alliance Board in 1998.

Ambient Air Quality Monitoring

The year saw the Implementation Design Team complete its work in designing and testing a solid, cost-effective "backbone" system for ambient air quality monitoring in Alberta. Early in 1997, a consultant was engaged to develop an electronic data management system for collecting, managing, and reporting data. This system was successfully piloted during the first half of 1997 using data from 11 existing ambient monitoring stations, selected to provide a variety of data types and geographical distribution. The system was launched to the public in September and is accessible through the Alliance home page. The Team developed a cooperative network of owners for strategic provincial sites, forming partnerships with Alberta Environmental Protection, Environment Canada, the Strathcona Industrial Association, and the West Central Airshed Society. Additional partnerships are being formed to enable the establishment of new monitoring stations in 1998. Work continued with the Ecological Effects Monitoring Team and, as data from this group is acquired, it will be added to the data management system. The Alliance Board approved the Team's recommendation to establish an ongoing multi-stakeholder Operations Steering Committee to oversee the implementation activity. Seven more stations will be added to the system in 1998 and additional enhancements will be made to the web site as funding permits.
To visit the web site, access the Alliance web site: **www.incentre.net/casa/**

Ecological Effects Monitoring

The Ecological Effects Monitoring (EEM) Project Team was formed in 1995 in response to concerns about the impact of air pollution on natural and managed ecosystems in Alberta. Stakeholders agreed that: (1) an improved capacity for ecological effects monitoring was needed, and that (2) ecological effects monitoring should be integrated with ambient air quality monitoring in order to assess any impacts detected, and to determine their causal relationships with air pollutants and air quality. The EEM project team, made up of scientists and representatives from key stakeholder groups, has designed and piloted a program to address key monitoring questions. The base monitoring question is: are ecosystems in Alberta being adversely affected by air quality? Since this question is too broad to be answered directly, the EEM program focusses on two specific questions that fall out from the original: (1) are forested ecosystems in Alberta being adversely affected by acid deposition, and (2) are agricultural systems in Alberta being adversely affected by ground-level ozone? A proposal to address these two questions was prepared and presented to the Alliance Board of Directors late in 1997. The Board approved the EEM's plans to proceed with the design of an implementation plan for the proposed program, including more details on costs, funding options, and operational partnerships with other agencies. The success of the EEM pilot program has largely been the result of effective collaboration with other monitoring programs, such as the Canadian Forest Service's ARNEWS program and zonal ecological monitoring initiatives in the Southern Wood Buffalo Zone and the West Central Airshed Zone.

Energy Efficiency Advisory Group

This group was formed in 1996 to assess what opportunities currently exist to advance energy efficiency work. It decided the first step required was an assessment of progress towards achieving energy efficiency in Alberta. A report, *A Review of Energy Efficiency in Alberta*, was produced through contract. The group developed a terms of reference that was accepted by the Alliance Board in December 1997, and is now expanding membership. It expects to deliver a final report in mid-1998. This report will include recommendations to government on how energy efficiency can contribute to reducing greenhouse gas emissions in Alberta and recommendations to industry on energy efficiency business opportunities.

Human Health

Over the past year, the Human Health Resource Group (HHRG) has worked on the necessary components of a "comprehensive human health monitoring system" that would provide information to Albertans on an ongoing basis about associations between air quality and human health status. In March 1997, the group presented to the Board a conceptual framework and outline of some of the components that would need to be integrated to implement the human health monitoring system. The Board accepted the direction proposed by the HHRG and directed the team to flesh out further details, including an implementation plan and estimate of costs. Discussions within the HHRG include the need to design a system capable of allowing special monitoring following the occurrence of a special event (such as a major accident or air pollution incident), and incorporating some form of public dial-in service. Such a system would be precedent-setting, and therefore challenging to design. The team found that several of the components presently exist, but need to be integrated to provide consistent and comprehensive data that can then be used for further investigation and research. Currently, the HHRG plans to take the detailed design and implementation plan for the system to the Board in June, and is optimistic that implementation can begin in 1998.

Solution Gas Flaring

In response to a statement of concern filed in 1996 by the Canadian Association of Petroleum Producers, the Alliance Board approved the establishment of the Solution Gas Flaring Project Team in March 1997, to address impacts associated with flaring. Building on the innovative research the team had access to and strong stakeholder support, it presented its recommendations to the Board on December 4, 1997. The Team's report describes a Management Framework that includes a goal statement, a policy objective hierarchy, and a decision tree. The Board approved the Framework and ongoing work by the Team to develop the operational details.

The goal is for Alberta to work toward elimination of routine solution gas flaring. This goal cannot be accomplished easily in a short time; however, some actions can be taken immediately and in the midterm. It is recognized that there will be circumstances under which flaring may be necessary. The following hierarchy will guide decisions on the management of flaring in a stepwise manner:

1. Is it feasible to eliminate routine solution gas flaring?
2. How can we reduce volumes of solution gas flared?
3. How can we improve the efficiency of solution gas flares?

The Team also recommended establishment of threshold values and timelines for reductions in flaring volumes as well as efficiency standards for flares. The details of these will be developed early in 1998. The former will describe a schedule, targets and timelines toward the goal of elimination of routine solution gas flaring. Flaring Efficiency Standards will set forth performance requirements for flares and timelines to achieve these standards. The recommendations, once completed, will be presented, along with the Team's other recommendations, to the Energy and Utilities Board for its consideration.

SO_2 Management

The SO_2 Management Team was formed in 1995 to address concerns that sulphur dioxide was having an impact on the environment, and to find an improved, cost-effective system to manage these emissions in the province. The team presented its final report to the Alliance Board early in 1997 and received approval for the formation of an Implementation Coordination Team. The new team will implement the management system proposed by the original group and report back to the Alliance Board of Directors. The Target Loading subgroup is developing region-specific acid deposition targets for the province to prevent cumulative effects from damaging sensitive ecosystems. The identification of target and critical loads for acid deposition in the environment (due to sulphur and nitrogen oxides) is considered a breakthrough approach.

Vehicle Emissions

The mission of this group is to recommend initiatives to help protect public health and the eco-environment from vehicle emissions produced in Alberta. The group received approval from the Alliance Board for four initiatives: SMOG FREE (voluntary vehicle emission testing), a pilot vehicle scrappage program, a pilot remote sensing project, and AutoSmart (student driver education). The group is searching for sponsors for SMOG FREE, scrappage, and remote sensing. The AutoSmart information package has been offered to all driver trainers in Alberta and over sixty of those organizations are currently using it. The group continues to explore other options and intends to bring its final report to the Board in June 1998.

4.3 Implementation Initiatives — Alliance Recommendations in Action

Eco-Efficient Communities

This project was initiated to provide small and mid-sized municipalities in Alberta with the detailed tools and information to voluntarily develop and implement actions that will save money and reduce greenhouse gas emissions. It is being managed by the Pembina Institute and supported by a number of Alliance stakeholders. The project's key printed resource — a 250-page document entitled *Building Eco-Efficient Communities: A How-To Guide* — was published early in 1997. The electronic database of municipal success stories was added to the Pembina Institute's Internet home page at the same time (**www.piad.ab.ca**). A technical director was hired in the spring to recruit member municipalities and help them identify priorities and develop eco-efficiency action plans. The first technical conference, "Energy Efficiency in Municipal Facilities," was held in October, bringing energy service providers together with municipal officials, administrators and some delegates from the private sector. Eight municipalities joined the Initiative in 1997: the Towns of Drayton Valley, Claresholm, Slave Lake, Canmore, and Okotoks; the Village of Onoway; the Municipal District of Woodlands; and the County of Strathcona. They are now developing baseline inventories of energy use, water use, and waste production, establishing performance targets for environmental and economic improvements, and developing action plans to meet these targets.

Energy Efficiency and Climate Change

Adaptation to Climate Change and Variability on the Prairies
Contact: Alberta Environmental Protection

Energy Efficiency Standards for Appliances
Contact: Alberta Labour

Energy Efficiency Codes for Buildings and Houses
Contact: Alberta Labour

Energy Efficiency in Government Buildings, and
Energy Efficiency Support for the Voluntary Challenge Program
Contact: Alberta Department of Energy

5.0 Alliance Outreach

The Alliance participated in several events in 1997 that helped raise awareness and promote actions that people can take to improve air quality. Participation in these events involved active partnerships with our stakeholders and co-sponsorships — an efficient, cost-effective way of reaching the public. The events supplement the Alliance's ongoing outreach activities. To help make Alliance communications more strategic, a communications planning framework was created in 1997. It identifies a number of key result areas and outlines a broader focus for Alliance outreach over the next three years.

Alliance Sponsored Events

Clean Air Week
Alberta's second annual Clean Air Week was held May 26 to June 1. The theme for 1997, "Clean Air Everywhere," was supported by events that raised awareness of air quality issues both inside and outside the home. These included three vehicle emission testing clinics and a home air quality media tour. Municipalities from across the province again helped recognize the week through official proclamations, supported by stakeholder-sponsored newspaper advertisements. A new feature, the Clean Air Coloring Contest, was also very popular. Alliance stakeholders were instrumental in making the week's events a success.

SMOG FREE (Save Money On Gas — From Reduced Exhaust Emissions)
The Alliance was a proud supporter of the second annual SMOG FREE campaign. Managed by the Alberta Lung Association and supported by Environment Canada, this initiative encourages motorists to keep the air in Alberta clean by visiting participating automotive service centres for a free vehicle emissions test. Hon. Ty Lund, Minister of Environmental Protection, participated in the event's media launch.

Alliance Participation Events

Energy Awareness Week
The 13th annual Energy Awareness Week, held in Edmonton October 20 to 26, 1997, continued the theme "Save Today...Save Tomorrow," which refers to saving energy and money now, to help conserve our natural resources and the environment for future generations. The Alliance and various environmental, industry, and government organizations participated in the week of events that encouraged Edmontonians to examine the way they use energy at home, at work, and on the move, with the goal of using energy more wisely. The Alliance organized a winter cycling clinic to support the theme.

Calgary Mayor's Enviro Expo, Environment Week
The Alliance continued its participation in the City of Calgary Mayor's Enviro Expo in 1997. Held during Environment Week, June 1 to 8, this event gave the Alliance an opportunity to reach thousands of school children, teachers, parents, and local business people with information on air quality management in Alberta. Over 2,000 tree-growing kits, donated by the Tree Canada Foundation, were again distributed at the Alliance display. The kits were used to reinforce the connection between clean air, a healthy ecosystem, and Alberta's quality of life.

Emerging Air Issues for the 21st Century
Team members showcased the unique Alliance approach to air quality management in Alberta at this event in September. The Alberta Ambient Air Data Management System was also officially launched at the conference.

Ongoing Activities

Clean Air Views
Through the generous support of Imperial Oil Limited, the Alliance published three issues of Clean Air Views in 1997. The newsletter is a valuable tool for reaching stakeholders and the broader public. The issues published in 1997 covered the themes of SO_2 management options, ambient air quality monitoring and winter air quality.

Alliance Web Site
Located at **www.incentre.net/CASA/**, the web site provides a publications library, Alliance background, Board meeting executive summaries, project team status reports, event information, Board meeting schedules, and two new features: climate change updates and a link to the Alliance-supported Alberta Ambient Air Data Management System.

6.0 Participating Organizations

Representatives from the following organizations participated in Alliance activities in 1997. Without their commitment and effort and the support of their organizations and agencies, the work of the Alliance would not be possible. Please note that bold text represents member groups that currently have a Director on the Alliance Board (refer to APPENDIX II for the Board member list).

Section 7.0 of this report attempts to quantify the value of these extremely important contributions. If we have omitted any organization or agency, we apologize; please let us know.

• Agrium (formerly Viridian Inc.) • Alberta Agriculture Food and Rural Development • **Alberta Association of Municipal Districts and Counties** • Alberta Cattle Commission • **Alberta Department of Energy** • Alberta Energy and Utilities Board • Alberta Environmental Centre • **Alberta Environmental Network** • **Alberta Environmental Protection** • **Alberta Federation of Rural Electrification Associations** • **Alberta Forest Products Association** • **Alberta Health** • Alberta Labour • **Alberta Lung Association** • **Alberta Motor Association** • Alberta Power Limited • Alberta Research Council • Alberta Transportation and Utilities • **Alberta Urban Municipalities Association** • Albertans for a Clean Environment • Amoco Canada Petroleum Company Limited • **Bert Riggall Environmental Foundation** • Calgary Motor Dealers' Association • **Canadian Association of Petroleum Producers** • **Canadian Chemical Producers Association** • Canadian Forest Service • Canadian Occidental Petroleum Limited • Canadian Parks and Wilderness Society • **Canadian Petroleum Producers Institute** • **Canadian Wind Energy Association** • Cardinal River Coals Limited • Celanese Canada Inc. • Chevron • City of Calgary • City of Edmonton • Clean Air Calgary • **Coal Association of Canada** • County Mountainview 17 • CN Rail • David Thompson Health Authority • Dow Chemical Canada Inc. • Energy Efficiency Association of Alberta • **Environment Canada** • Environmental Resource Centre • EPCOR • First Star Energy Ltd. • Fording Coal Limited • Fort McMurray Environmental Association • Gulf Canada • Home Oil • Husky Oil • Imperial Oil Limited • Inland Cement Limited • M.D. Brazeau 77 • M.D. Yellowhead 94 • Mobil Oil Canada • Morrison Petroleum • Nor'wester Energy Systems Ltd. • Northern Alberta Institute of Technology (NAIT) • Northwestern Utilities Limited • NOVA Gas Transmission • Novacor • Novagas Clearinghouse • Ocelot Energy Inc. • Pembina Agricultural Protection Association (PAPA) • Pembina Institute for Appropriate Development • Petro-Canada Resources • Phoenix Engineering Inc. • Prairie Acid Rain Coalition • Red Deer River Naturalists • Saskatchewan Energy and Mines • Saskatchewan Environment and Resource Management • Saskatchewan Research Council • Shell Canada Limited • Suncor Energy Inc. • South Peace Environmental Association • Sunpine Forest Products • Syncrude Canada Limited • Toxics Watch Society of Alberta • TransAlta Utilities Corporation • Union Carbide Canada Ltd. • University of Alberta • University of Calgary • Weldwood of Canada Limited • Weyerhaeuser Canada Ltd., Grande Prairie Operations • Wildrose Agricultural Producers

7.0 Support for the Alliance

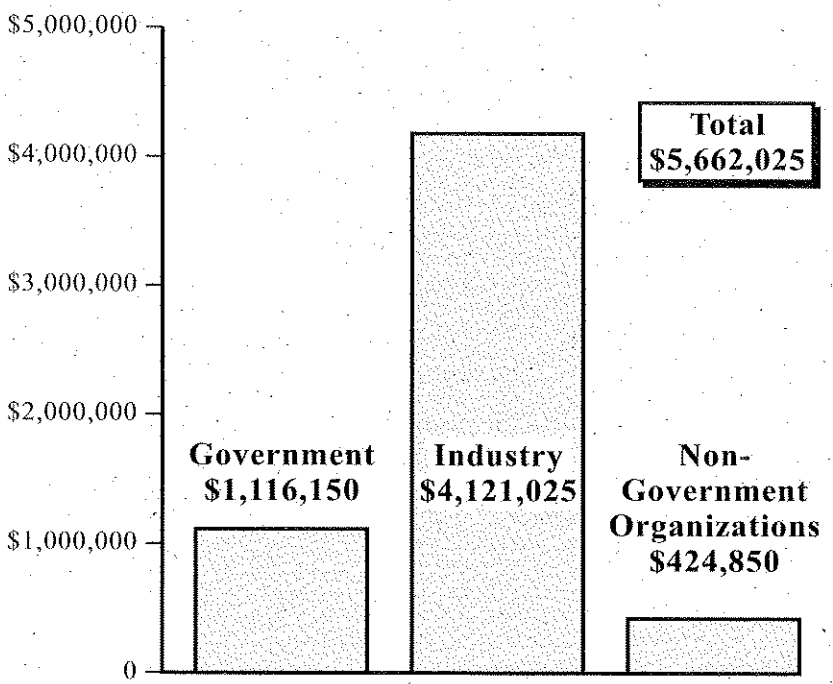
The Alliance has tried to put an actual dollar figure on the support and assistance provided by participating organizations. The figures are preliminary, but are offered in the spirit of acknowledging and formally recognizing participant contributions and to account for the full costs (cash and in-kind) of accomplishing the work of the Alliance in 1997.

In-kind figures were compiled by examining both time and travel costs incurred for representatives to participate in Alliance activities during 1997. Meetings considered in the calculations were Board meetings, zone meetings, project team meetings, and specific workshops to advance the work of the project teams. Further information on the calculation methods used can be obtained from the Alliance Secretariat.

These figures are, according to our stakeholders, almost certainly under-recorded and under-estimated.

1997

In-kind Contributions and Cash Committed



Auditors' Report

To the Members of
The Clean Air Strategic Alliance Association

We have audited the balance sheet of The Clean Air Strategic Alliance Association as at December 31, 1997 and the statements of revenue, expenditures and surplus and changes in financial position for the year then ended. These financial statements are the responsibility of the Association's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Association as at December 31, 1997 and the results of its operations and changes in its financial position for the year then ended in accordance with generally accepted accounting principles.

Deloitte & Touche

Chartered Accountants
Edmonton, Alberta, Canada
February 20, 1998

Balance Sheet

December 31, 1997

	1997	1996
ASSETS		
CURRENT		
Cash	**$ 130,941**	$ 331,618
Treasury Bills	**483,779**	639,360
Accrued interest	**1,127**	1,272
Accounts receivable	**29,544**	29,793
Prepaid expenses	**2,290**	23,066
	647,681	1,025,109
CAPITAL ASSETS (Note 3)	**9,356**	10,968
	$ 657,037	$ 1,036,077
LIABILITIES		
CURRENT		
Accounts payable	**$ 51,537**	$ 48,978
Deferred grant revenue (Note 4)	**282,555**	642,857
Deferred external project revenue (Note 5)	**218,247**	256,750
	552,339	948,585
SURPLUS	**104,698**	87,492
	$ 657,037	$ 1,036,077

APPROVED BY THE BOARD

Co-President

Co-President

Treasurer

Statement of Revenue, Expenditures and Surplus

Year ended December 31, 1997

	1997	1996
REVENUE		
Grants (Note 4)	**$ 510,302**	$ 469,523
External projects (Note 5)	**136,833**	190,703
Interest	**17,206**	30,119
	664,341	690,345
EXPENDITURES		
Projects	**176,845**	167,207
Communications	**109,039**	87,529
External projects	**136,833**	190,703
Board Support	**106,934**	92,619
General and administration	**89,757**	82,109
Non-government organizations	**14,056**	10,896
Statement of concern and other	**13,671**	29,167
	647,135	660,226
EXCESS OF REVENUE OVER EXPENDITURES	**17,206**	30,119
SURPLUS, BEGINNING OF YEAR	**87,492**	57,373
SURPLUS, END OF YEAR	**$ 104,698**	$ 87,492

Statement of Changes in Financial Position

Year ended December 31, 1997

	1997	1996
NET INFLOW (OUTFLOW) OF CASH RELATED TO THE FOLLOWING ACTIVITIES		
OPERATING		
Excess of revenue over expenditures	**$ 17,206**	$ 30,119
Item not affecting cash		
Depreciation	**4,009**	4,701
	21,215	34,820
Changes in non-cash operating working capital items		
Accrued interest	**145**	6,425
Accounts receivable	**249**	13,203
Prepaid expenses	**20,776**	(21,969)
Accounts payable	**2,559**	(70,882)
Deferred grant revenue	**(360,302)**	155,477
Deferred external project revenue	**(38,503)**	189,715
	(353,861)	306,789
INVESTING		
Purchase of capital assets	**(2,397)**	(7,652)
NET CASH INFLOW	**(356,258)**	299,137
CASH POSITION, BEGINNING OF YEAR	**970,978**	671,841
CASH POSITION, END OF YEAR	**$ 614,720**	$ 970,978
REPRESENTED BY:		
Cash	**$ 130,941**	$ 331,618
Treasury Bills	**483,779**	639,360
	$ 614,720	$ 970,978

Notes to the Financial Statements

Year ended December 31, 1997

1. DESCRIPTION OF OPERATIONS

The Clean Air Strategic Alliance Association is a non-profit organization incorporated March 14, 1994 under the Societies Act of Alberta. 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

These financial statements have been prepared in accordance with generally accepted accounting principles and include the following significant accounting policies:

Revenue recognition

Grants monies received are recognized as revenue for accounting purposes when the Association has satisfied the terms of the grant agreements. Funding received in advance is carried as deferred grant revenue.

External project monies received are recognized as revenue for accounting purposes when the Association has satisfied the terms of the projects. Funding received in advance is carried as deferred external project revenue.

Capital assets

Capital assets are recorded at cost. Depreciation, which is based on the cost less the residual value over the useful life of the asset, is computed using the declining-balance method at the rates disclosed in Note 3.

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.

3. CAPITAL ASSETS

		1997			1996
	Depreciation Rates	**Cost**	**Accumulated Depreciation**	**Net Book Value**	Net Book Value
Computer equipment	30%	**$17,492**	**$ 9,608**	**$7,884**	$ 8,865
Furniture and equipment	30%	**3,932**	**2,460**	**1,472**	2,103
		$21,424	**$12,068**	**$9,356**	$10,968

Notes to the Financial Statements

Year ended December 31, 1997

4. DEFERRED GRANT REVENUE

During the period, the Association received grants totalling $150,000 (1996 - $625,000) from the Province of Alberta. The purpose of the grants is to provide core funding in support of the Association's objectives as described in Note 1. The regulations to the Department of the Environment Act, the Department of Energy Act and the Department of Health 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. Accordingly, in the event that 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.

Deferred grant revenue is comprised of the grant monies received which have not yet been expended for the purposes specified in the grant agreements.

	1997	1996
Deferred grant revenue, beginning of year	**$ 642,857**	$ 487,380
Grant monies received	**150,000**	625,000
Revenue recorded based on allowable expenditures	**(510,302)**	(469,523)
Deferred grant revenue, end of year	**$ 282,555**	$ 642,857

5. DEFERRED EXTERNAL PROJECT REVENUE

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

	1997	1996
Deferred external project revenue, beginning of year	**$256,750**	$ 67,035
External project monies received	**98,330**	380,418
Revenue recorded based on allowable expenditures	**(136,833)**	(190,703)
Deferred external project revenue, end of year	**$ 218,247**	$256,750

6. NON-MONETARY SUPPORT

During the year, the Association received non-monetary support in the form of supplies, office space and seconded manpower totalling $70,098 (1996 - $99,875) from the Province of Alberta - Environmental Protection. These amounts have not been reflected in these financial statements.

Appendix 1 - Publications

Alliance Publications

"A Better Way." Alliance brochure. October 1995. Revised December 1997.
Ambient Monitoring Project. Pamphlet. September 1997.
Alliance 1996 Annual Report. May 1997.
The Clean Air Bulletin. Three issues produced in 1997.
Clean Air Views. Three issues produced in 1997.
Taking Action on Gas Flaring in Alberta. Backgrounder. 1997.
Zone Air Quality Management Guidelines. 1994. Revised July 1995.
Procedural Guidelines. May 1995.
Comprehensive Air Quality Management System. December 1994.
Alberta Climate Change Action Plan. October 1994.
Beyond Consultation: Making Consensus Decisions. September 1994.

Project Team Reports and Interim Special Reports

Report from the Alberta Ambient Air Quality Implementation Design Team. Final report to the Alliance Board. December 4, 1997.
Ecological Effects Monitoring Project Team. Final report to the Alliance Board. December 4, 1997.
Sulphur Dioxide Management in Alberta. The report of the SO_2 Management Project Team. An *Executive Summary* is also available. February 13, 1997.
Final Report of the Target Loading Subgroup on Critical and Target Loading in Alberta. 1996.
A Strategic Plan for Air Quality Monitoring in Alberta. A preliminary report to the Alliance Board. 1995.
Terratima Report. Summary proceedings of a two-day SO_2 management workshop. 1995.

Related Publications

A Review of Energy Efficiency in Alberta. A study conducted by T.J. McCann and Associates, with the assistance of the Energy Efficiency Association of Alberta. July 1997.
Preparing for Climate Variability and Change on the Canadian Prairies. Summary of a two-day workshop. February 1997.
West Central Airshed Society 1996 Annual Report. 1997.
Alliance Project Integration and Information Workshop. September 30, 1996.
Ecological Effects Monitoring Literature Survey. May 1996.
Symposium on the Science of Climate Change for Decision Makers. Volume I: Moderator's Comments and Summary of Proceedings. Published by Canadian Energy Research Institute and the Clean Air Strategic Alliance. January 1996.
Acidifying Emissions Symposium Proceedings. 1996.

Appendix II - Board Members and Alternates

The Alliance is proud to acknowledge the contribution of the following former members and the organizations they represented while on the Board:

Bob Anderson;
Alberta Association of Municipal Districts and Counties

Wendy Francis;
Canadian Parks and Wilderness Society

Bill Harlan;
Canadian Association of Petroleum Producers

Rick Hyndman;
Alberta Department of Energy

Gary Lathan;
Alberta Lung Association

Jim Leslie;
TransAlta Corporation

Al Martin;
Coopers & Lybrand

Glen Myers;
Canadian Chemical Producers Association

Brian O'Donnell;
Environment Canada

Canadian Petroleum Products Institute
Steve Griffiths (Bill Levy)

Alberta Environmental Protection
Al Schulz (Jerry Lack)

Alberta Department of Energy
Bob King (John Donner)

Chemical Manufacturers
Ian Brownlie (Wil VandenBorn)

Alternate Energy
Jason Edworthy (David Baker)

NGO Health
Cathy Good (Al Kennedy)

Utilities
David Lewin (Jon Burkinshaw)

Agriculture
Herman Schwenk (Jennifer Bocock)

Oil & Gas
Doug Baldwin (Gord Lambert)

NGO Pollution
James Tweedie (Trent Hardin)

Forestry
Rick Maksymetz (Tim Whitford)

Alberta Health
Cecilie Lord (Stephan Gabos)

NGO Wilderness
Henry Pirker (Martha Kostuch)

Mining
Jim Popowich (Ron Laing)

Local Government
Bob Hawkesworth (Bart Guyon)

NGO Pollution
Tom Marr-Laing (Dan Smith)

Consumer/Transportation
Rob Taylor (Dave Barr)

Environment Canada
Jim Volmershausen (vacant)

Executive Director
Mike Kelly

Vision

The air will be odourless, tasteless, look clear and have no measurable short- or long-term adverse effects on people, animals or the environment.

Mission Statement

The Clean Air Strategic Alliance is a stakeholder partnership that has been given shared responsibility by its members, including the Government of Alberta, for strategic planning, organizing and coordinating resources, and evaluation of air quality in Alberta through a collaborative process.

Clean Air Strategic
Alliance

9th Floor, Sterling Place,
9940 - 106 Street,
Edmonton, Alberta,
Canada T5K 2N2
ph: (403)427-9793
fx:(403)422-3127
em: casa@incentre.net
http://www.incentre.net/casa/