Annual Report 1994



Clean Air Strategic Alliance

Contents

Vision and Mission	*****
Highlights	
President's Message	•
The Alliance Stakeholder Partnership	
Corporate Reporting and Accountability	
The Comprehensive Air Quality Management System Making Consensus Decisions	
	8
Air Quality in Alberta	9
Alliance Activities	10
Participating Organizations	5
Financial Statements	17
In-kind Support	20
Appendices:	21
Appendix 1. Biographies of Directors and Alternates	21
Appendix 2. Publications	23

Vision and Mission

The Clean Air Strategic Alliance is a non-profit association incorporated under the Societies Act of Alberta. It has been given shared responsibility by its members for strategic air quality planning, organizing and coordination of resources, and evaluation of results in Alberta.

The Clean Air Strategy for Alberta Advisory Group recommended, in its 1991 Report to the Ministers, the establishment of an organization to resolve air quality issues in Alberta. This organization would operate within the overall framework offered by the vision that was developed through extensive public consultation and subsequently endorsed by the Government of Alberta. This vision states:

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

The Alliance has several formal objectives:

- a) to plan for, organize and commit resources in support of the vision;
- b) to operate the Comprehensive Air Quality Management System;
- to conduct strategic air quality planning for Alberta through shared responsibility and the use of a consensus-building collaborative approach. The primary basis for this planning is the Comprehensive Air Quality Management System, described later in this report.
- d) to prioritize air quality problems in Alberta and identify specific actions or action plans and activities to resolve them.

The Alliance also sees the sharing of information as a fundamental part of its mission. This includes facilitating the exchange of technical and scientific information among Alliance project teams and others who need it, as well as producing and presenting material for lay and professional audiences.

Alliance members realize they are breaking new ground both in terms of their mandate for addressing air quality management and the processes they use to make decisions and manage their affairs. As experience is gained in these areas and perhaps some new approaches emerge, the Alliance will continue to share the information with those who are interested.

Highlights

The Clean Air Strategic Alliance was formally established in March following Cabinet approval.

The Alliance reached consensus on climate change recommendations to the provincial government; these recommendations were accepted as the basis for Alberta's policy on climate change.

A comprehensive air quality management system for Alberta was put in place to guide decision making and allocation of resources so that health, environment, energy, and the economy are integrated into all Alliance decisions.

Using material prepared prior to the establishment of the Alliance, guidelines for zone air quality management were synthesized, published, and distributed.

The Alliance recognized the need for an integrated provincial approach to ambient air quality monitoring in Alberta. In September, the Alliance endorsed and launched a project to develop such an approach, funded and managed by stakeholders.

The West Central Regional Airshed Monitoring Program was endorsed by the Alliance, and a Zone Management Board is expected to be formed by spring 1995, with stakeholders responsible for funding and management.

Reports were received from seventeen Task Groups. Alliance project teams are now assessing strategies for action on these reports. Some recommendations were being implemented by the end of 1994.

A network of provincial, national, and international experts was established, comprising people from different sectors, with expertise in various areas of air quality.

Four publications were prepared and distributed during 1994, along with a background brochure describing the Alliance's structure and mandate.

President's Message

Since its establishment in March 1994, the Clean Air Strategic Alliance (CASA) has been a key part of activities to improve air quality in Alberta. I am proud to offer this first annual report as a reflection of these accomplishments and to provide a benchmark against which future achievements can be measured. In the context of a society facing complex and difficult demands in the areas of the environment, the economy, and health, the Alliance is an opportunity to change the way air quality management decisions are made in Alberta. Creativity, flexibility, and collaboration are all part of this better way.

Building on the original Clean Air Strategy for Alberta process, the three sectoral groups of stakeholders have embraced the use of consensus to make decisions. Active participation and ongoing commitment from industry, government, and a range of non-government organizations have given the Alliance credibility and integrity in this first year of existence.



Because the Alliance is accountable to Albertans and to its stakeholders for the decisions it makes, our processes must be transparent and reliable. The Comprehensive Air Quality Management System, endorsed by the Board in 1994, provides an objective, consistent basis for assessing issues and allocating resources efficiently and cost-effectively. This management system and the consensus process for making decisions represent innovative breaks with tradition. They were tested this year and will continue to be the backbone of the Alliance's method of operation.

Our stakeholders are deeply interested in the quality of the province's air and how it is managed. The Alliance partnership, combined with the natural physical characteristics of the atmosphere, has meant that matters before us have ranged from local and regional concerns to global issues such as climate change. Indeed, one of the Alliance's most notable achievements in 1994 was the development of a consensus position on climate change. Our recommendations were accepted by the Provincial Government as the basis for Alberta's position in the national discussions, and implementation of a number of the recommendations is now underway.

But the real message of CASA, in its first formal year of operation, lies not in the project successes and work in progress documented in these pages; it lies in the creation of the process itself, and the dedication of its founding members, their support teams, and constituents. Archaic "either/or" approaches to environmental protection and economic health have given way to a collaborative solution-oriented effort by key groups and individuals. The Alliance is a working model for rational review of the coexistence of the natural environment and human activity, and I commend the CASA experience as a response vehicle for many of Alberta's public issue challenges.

It has been a real honor to work with this superb group of individuals with such diverse interests and backgrounds. I extend my special thanks to Rob Macintosh, Doug Baldwin, and Mike Kelly and staff for personal support. We have laid a solid foundation in this first year; many common core values and beliefs have been shaped and tested. I believe 1995 will bring measurable progress and additional innovation, and I urge Albertans to work with us to realize our vision of clean air.

David Manning, Q.C.

The Alliance Stakeholder Partnership

The Clean Air Strategic Alliance was established in March 1994, with members drawn from three distinct stakeholder categories: industry, government, and non-government organizations. The perspectives and priorities of these sectors are varied; nevertheless, all have come together in a bold and innovative partnership because they sought a better way of managing air quality in Alberta.

Each stakeholder contributes on an ongoing basis to the work of the Alliance; these contributions include direct financial support, staff resources, and other in-kind donations, such as meeting space, publication support, and so on. Additional details appear in the Financial Statements of this report.

The original stakeholders were self-selected through a collaborative process within their respective

sectors. Each stakeholder group then appointed one director and one alternate to the Alliance Board. Directors and alternates communicate regularly with their stakeholder organizations, both to ensure that stakeholders are aware of the Alliance's work and to bring stakeholder concerns and issues to the Alliance. The roles and responsibilities of directors and alternates are described in detail in the Alliance's procedural guidelines.

As of December 31, 1994, the following individuals comprised the Board of Directors of the Clean Air Strategic Alliance; alternates and the stakeholder group they represent are also listed. David Manning served as president through the end of 1994. Peter Melnychuk assumed the presidency in April 1995. Additional biographic information on each person is provided in Appendix One.

Stakeholder Group

- Oil and Gas
- Alternate Energy
- Agriculture
- Mining
- Forestry
- Local Government
- Alberta Energy
- Canadian Petroleum
 Products Institute
- Alberta Health 5
- Alberta Environmental
 Protection
- Environment Canada
- NGO Wilderness
- NGO Pollution
- NGO Pollution
- NGO Health
- Chemical Manufacturers
- Utilities
- ex-officio,
 Executive Director

Director/Alternate

Doug Baldwin² / Doug Bruchet Jason Edworthy / David Baker Herman Schwenk / Roy: Jensen Jim Popowich / David Selleck Phil Ebert / Richard Huff*
Duane Roset / Vincent Fabian*
David Manning / John Donner John Maciver / Glen Myers

Don Philippon / George Flynn Peter Melnychuk / Al Schulz

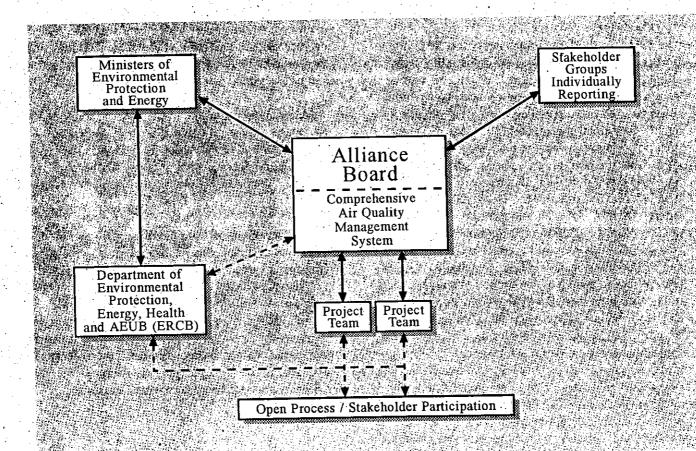
Jim Vollmershausen / Brian O'Donnell Henry Pirker / Wendy Francis Rob Macintosh / Dan Smith Ken Charters / Pat McInnes Gary Lathan / Al Martin Ian Brownlie Jim Leslie / David Lewin Mike Kelly

President Vice Presidents Term as alternate completed as of December 31, 1994

Corporate Reporting and Accountability

The diagram below illustrates the formal reporting structure for the Alliance, which reports directly to the provincial Ministers of Environmental Protection and Energy. In addition to being accountable to the Government of Alberta, the Board is also accountable to the other Alliance stakeholders and to the people of Alberta for its decisions. Funding for the Alliance comes from its members, including the Government of Alberta, thereby making the Alliance also financially accountable to its members.

The Government of Alberta continues to be responsible for overall stewardship of the province's air quality by setting and enforcing standards. However, the Alliance shares decision-making responsibility for many strategic aspects of air quality with the Government through the ministries of Environmental Protection, Energy, and Health, all of whom are represented on the Alliance Board. To guide its decision-making processes and ensure that decisions are defensible and transparent, the Alliance has put in place a multi-step Comprehensive Air Quality Management System (CAMS). The CAMS is the Alliance's key strategy tool to improve air quality in Alberta.



The Comprehensive Air Quality Management System

This system clearly defines the steps required to make decisions affecting air quality, and integrates issues relating to health, environment, energy, and the economy into these decisions. The CAMS will enable the Board to apply finite natural, human, financial, and technical resources in the most economically efficient and environmentally effective manner. When faced with complex and possibly controversial issues, the Alliance can be assured that issues will be assessed objectively and with consistent criteria.

The CAMS provides an opportunity for the public to bring concerns about air quality to the Alliance by filing a statement of concern. The concerns will be screened to determine the appropriate management response, and if the Alliance is the most suitable agency to address the concern. If so, the Alliance then assesses the priority of the concern using agreed-upon criteria. For issues considered to be of high priority, a multi-stakeholder team will prepare detailed terms of reference to be agreed upon by the Board. This project team will develop a proposal for dealing with the issues and bring it back to the Board. Once this proposal is endorsed by the Board and resources allocated, the project team is empowered to design a plan for action and implementation, which will also come back to the Board for review. Approval of the plan involves support of stakeholders and allocation of resources for implementation. Responsibility for implementation will usually rest with a designated implementation team or an existing mandated agency, which will keep the Alliance informed of its progress. When implementation is complete, the Alliance will formally assess the process and actions taken as to their success in resolving the initial problem.

Essential to the success of this system is the smooth functioning and empowerment of the project teams. These teams will comprise individuals from various agencies and sectors and, while they are accountable to the Board, they will have considerable authority, expertise, and experience of their own on which to draw. Each team will have a project leader chosen by the team and the Alliance. As well, each team will have a "champion"; this person will be a Board member or alternate who liaises between the team and the Board and speaks for the team at Board meetings. At the end of 1994, there were three project teams in operation: the Ambient Monitoring team, the Climate Change team, and the West Central Regional Airshed Monitoring team.

Additional details on the CAMS can be found in the Alliance publication Comprehensive Air Quality Management System. While the CAMS is the fundamental decision-making structure for the Alliance, the process used to make decisions is also important.

The Government of Alberta will sanction and implement Alliance decisions that meet two criteria: consensus is reached among the stakeholders, and decisions are based on that consensus. This represents a shift in the way decisions about air quality are made and is a major commitment on the part of all stakeholders. The essence of the Alliance's consensus process is described here; more details are available in the Alliance publication Beyond Consultation: Making Consensus Decisions.

Making Consensus Decisions

The Alliance Board is committed to making its most important decisions by consensus of the parties. Consensus processes try to address differences in interests, values, and positions, they squeeze out all the facts, preferences, prejudices, opinions, options, and ideas for everyone to see. While participants may not agree with every detail of the eventual decision, consensus means that everyone can "live with it" because it reflects the interests of every person around the table. Consensus requires innovation and new ways of thinking to solve problems, and does not mean simply reducing the solution to the "lowest common denominator" to ensure acceptance. When all parties are committed to reaching consensus, the decisions are almost always superior to those that could be reached in other processes.

All project teams associated with the work of the Alliance will also use consensus as their decision-making framework. The use of consensus and the Comprehensive Air Quality Management System are innovative breaks with tradition. Both were tested in 1994 and will continue to be at the core of the Alliance way of doing business.

Ten principles guide the Clean Air Strategic Alliance in its use of consensus, and these are described in more detail in Beyond Consultation: Making Consensus Decisions. While all Alliance members acknowledge the importance of each principle, they especially recognize the significance of being accountable for their decisions. While the Board as a whole has certain responsibilities, individual Board members come to the table representing a particular constituency. This makes two-way communications crucial to reaching consensus and essential to the overall success of the Alliance. To effectively represent the interests of their stakeholders, Board members must communicate regularly with their respective communities to (i) ensure they remain in tune with those whom they represent, and (ii) promote better understanding of air quality issues and progress being made on them. Many Board members routinely meet with their constituents to share information, while others communicate electronically and through organization newsletters. To enhance communications and assist Board members in their outreach activities, a committee was formed to work with the Secretariat in designing and implementing communication strategies.

Communications

The communications committee examined several possibilities for ensuring accurate and regular communications from the Alliance to stakeholders and the public. In November, acting on a recommendation from the committee, the Board accepted an in-kind offer from the Alberta Lung Association to publish a newsletter that would serve as the main Alliance communications vehicle. The Alliance has formed an editorial board to shape the content of this quarterly publication. Gary Lathan, Duane Roset, Wendy Francis, Herman Schwenk, and Jim Popowich served on the communications committee in 1994.

The Alliance produced the inaugural issue of the Clean Air Bulletin in 1994. With the launch of the newsletter and anticipated establishment of new project teams in 1995, the Bulletin will be used as an internal communications tool for those actively working on Alliance projects.

The Secretariat now has an electronic mail address on the Internet and is assessing options for other electronic communications among Board members and project teams. These online communications will be operating in the next year.

Air Quality in Alberta

When asked in surveys, people regularly identify air quality as an important environmental concern. Air quality and its effects on the environment and human health have received considerable attention during the last two decades in Alberta, in Canada, and on a global basis. Among the issues receiving particular attention are acid deposition (connected with emissions of sulphur dioxide and oxides of nitrogen) and global warming (thought to be linked with greenhouse gases, such as carbon dioxide and methane). In Alberta, local air quality in both urban and rural regions is the issue of greatest concern, and management approaches are increasingly recognizing the need for local and regional solutions.

There are various sources of emissions to Alberta's atmosphere, many of which relate to the extraction, processing, and burning of fossil fuels; pulp and paper manufacture; and transportation. There are also natural sources of contaminants, such as particulates from forest fires and methane from animals and certain forms of vegetation.

The extraction, processing, and combustion of fossils fuels play an important role in Alberta's economy. The province produces over 80 percent of the oil and natural gas in Canada, and nearly half the coal. A significant portion (about 36 percent) of the oil and natural gas is exported, which means that emissions associated with extraction and processing are borne by Alberta. Much of Alberta's coal is burned in the province to generate electricity. As a result, Alberta is responsible for about 27 percent of the carbon dioxide (CO₂), 23 percent of the nitrogen oxides, and 16 percent of the sulphur dioxide (SO₂) emissions generated in Canada.

Alberta's air quality is monitored by the Government of Alberta at nine continuous and eight intermittent monitoring stations, over 250 static stations, and 12 precipitation quality stations. Parameters such as carbon monoxide, oxides of nitrogen, ozone, dust and smoke, hydrogen sulphide, sulphur dioxide, hydrocarbons, carbon dioxide, particulates, and precipitation quality are measured by this network. Industry also operates over 1800 continuous and static monitoring stations across Alberta to measure ambient concentrations of sulphur dioxide, hydrogen sulphide, and particulates in the vicinity of their operations.

Emissions of SO₂ have been closely monitored for many years in Alberta; the main sources continue to be sour gas production, thermal power generation, and oil sands. Other sources include gas plant flares, oil refineries, pulp and paper mills, and fertilizer plants. According to the 1994 State of the Environment Report (SOER) for Alberta, annual average concentrations of SO₂ are not high enough to determine a significant trend. Residents in parts of Alberta downwind from sour gas plants have reported human and livestock health problems, but causal connections remain difficult to prove.

Nitrogen dioxide contributes to acid precipitation as well as to urban smog. Major sources include motor vehicle emissions, oil and gas processing, and power plants. A downward trend in nitrogen dioxide concentrations is evident in the downtown cores of Edmonton and Calgary based on data collected from 1976 to 1993. This trend is likely due to lower emissions from newer motor vehicles.

Greenhouse gases make our planet habitable by trapping heat and raising the otherwise very cold temperature of the earth's surface. However, human-generated emissions are increasing the amounts of these gases in the atmosphere, and this is considered by many to contribute to global warming. The three main greenhouse gases are CO₂, methane, and nitrous oxide, with CO₂ making the largest relative contribution. In 1990, Alberta is estimated to have emitted 114,512 kilotonnes of CO₂, 2629.4 kilotonnes of methane, and 27.2 kilotonnes of nitrous oxide. With respect to CO2 emissions, natural gas and petroleum use (including transportation and industrial, commercial and residential heating) contributed 39 percent, coal-burning utilities contributed 31 percent, fossil fuel production about 26 percent, and oil refining and transport the remaining four percent (SOER:15).

All new emitters of air pollutants in Alberta must minimize the amount of pollutants released to the atmosphere as well as meet ambient air quality guidelines. Industries are required to monitor their own emissions and the air quality near the emission source. Results are reported to Alberta Environmental Protection monthly, or as otherwise required.

Alliance Activities

Efforts to maintain and improve air quality based on the Clean Air Strategy for Alberta have been ongoing since the CASA Advisory Group made its report to the Ministers in 1991. Its recommendations were very broad in scope and encouraged action by diverse agencies and organizations. Seventeen priority task groups subsequently formed in response to the recommendations in this report. Their task was to identify what needed to be done to fulfil the original CASA recommendations, not necessarily to begin doing the work. This would be the responsibility of the Alliance. The groups took different approaches but all worked toward having a report and recommendations for further action that could be submitted to the Alliance Board.

In March, the Alliance became responsible and accountable for work done under its mandate. By the end of 1994, most task groups had fulfilled their commitments by submitting their reports and recommendations for action to the Board. The Board has acknowledged the substantial amount of time and

energy that went into the preparation of these reports. The Alliance's challenge is to integrate the different pieces of work into a coordinated strategy for air quality management in Alberta. This will be a significant focus of the Alliance for 1995. The following section reflects the status of the projects at the end of 1994. Three Alliance project teams were established in 1994: Ambient Monitoring, Climate Change, and the West Central Regional Airshed Monitoring Program. The other groups are in various stages of scoping the issues and developing terms of reference. Several task groups completed their work in or prior to 1994 and were disbanded; these are noted at the end.

To allow measurement of progress from year to year, projects for which the Alliance has significant involvement or responsibility have been placed on the chart in Figure 1 on page 14. This chart loosely reflects the structure of the Comprehensive Air Quality Management System.

Project Teams

Ambient Monitoring

The Board endorsed terms of reference to develop a system for ambient air quality monitoring in Alberta that focuses on data needs and optimal means of obtaining and accessing the data. This system will be designed to support long-term decision making related to air quality in Alberta, while allowing for unique regional monitoring systems. At the end of 1994, submissions were being solicited through requests for proposals that meet the terms of reference. This project is expected to be completed by the end of 1995. The project champion is John MacIver with Andy Teal as the project team leader.

Climate Change

This project team completed phase one of its work in 1994 and moved into phase two. Members drafted a series of principles and recommendations, which formed the basis for an Alberta Climate Change Action Plan. This was endorsed by the Alliance, adopted by the Alberta Government, and subsequently used by the Government in climate change discussions at the national level. With additional work underway on a National Climate Change Action Plan, the Board endorsed terms of reference requesting the team to review the national plan against Alberta's objectives and to remain involved with Alberta's voluntary challenge program. The Climate Change project team will be in place until June 1995. The project champion is Jim. Leslie with John Donner as the project team leader.

West Central Regional Airshed Monitoring Program

In keeping with the recommendations and findings of the original CASA task group, a zone monitoring project was established in West Central Alberta. The zone approach allows local and regional concerns to be incorporated into air quality decisions, and ensures resources are used effectively and efficiently to address these concerns. The West Central local project team has determined how ambient monitoring can best be undertaken to meet local information

needs. They have also prepared a business plan and identified funding requirements, with the intention of forming a management board to oversee implementation of the plan, expected to begin in early 1995. They will seek final Alliance approval in February 1995. The project champion is Rob Macintosh with George Collin and Bryan Kemper as project team co-leaders.

Working Groups

Air Toxics

The major recommendation of this group was to establish a multi-stakeholder team to oversee the implementation of two strategies: development of a list of high priority air toxics for which appropriate targets and control mechanisms would be developed; and development of a continuous improvement approach for other named pollutants. Terms of reference are being drafted for a proposal to implement these recommendations. The project co-champions are Al Schulz and Doug Bruchet.

Coordinating Air Quality Research

This new working group arose from the identified need to encourage research in areas that meet Alliance goals, to expedite communications about air quality research, and to avoid duplication. Contacts are being made with Alberta institutions of higher education to discuss ways of meeting this need. Gary Lathan is the project champion.

Ecosystem Health

Ecosystem health is being addressed separately from human health, although the Board recognizes the need for close collaboration between these groups. Terms of reference are being developed and there is strong interest in holding a symposium in 1995 on biological and environmental indicators and target loadings. Henry Pirker is the project champion.

Edmonton Air Quality

A multi-stakeholder group met to define the issues in the Edmonton area and determine how best to address them. The project champion is Ian Brownlie with Dale Rhyason as working group leader.

Education

This group has developed various educational materials. The Board wants to see this work expanded to include more stakeholders in the development and review of materials. Terms of reference are being developed for a new group. The project champion is Wendy Francis with Bev Yee as working group leader.

Flexible Electricity Sources

The original CASA D-3 task group submitted a variety of recommendations, including several that can be implemented by other Alliance teams. Board members are working with members of the task group to determine how to implement the recommendations and to prepare terms of reference for the remaining issues. Jason Edworthy is the project champion with Chris Holly as working group leader.

Human Health

The Alliance recognizes human health issues as an integral part of air quality management. Terms of reference have been drafted and the group is identifying initiatives for the next three years, this group will work closely with the Ecosystems group. Pat McInnes is project champion.

SO₂ Management

In 1994, a multi-stakeholder group identified issues relating to the current management of SO₂ emissions in Alberta. By year's end, they were finalizing terms

of reference, a budget, and a work plan to deal with these issues and to re-examine how SO₂ is managed in Alberta. Project champion is Al Schulz with Dan Smith as working group leader.

Vehicle Emissions Testing

The Board adopted the group's recommendation to establish a pilot vehicle emission testing program, and this recommendation is now with Alberta Transportation. The project champion is Herman Schwenk.

Priority Task Groups

Building Codes for Energy Efficiency

Alberta Labour has agreed to establish an Energy Codes Task Group to provide the Safety Codes Council of Alberta with expertise and input. The Alliance is expected to have three representatives on this new task group. When federal energy codes are published in 1995, they will be reviewed to ensure Alberta concerns are addressed. Rob Macintosh and David Manning are project co-champions with Chris Tye as task group leader.

Energy Efficiency Programs

By the end of 1994, this group had identified several priorities: energy efficiency policy and goals, community-wide programs, education for elementary and secondary students, education for post-secondary students, energy efficiency public information service, and energy efficiency in industry. In 1995, the working group will determine to what extent new programs are needed. Wendy Francis is the project champion with Goldie Edworthy as task group leader.

Energy Efficiency Codes for Appliances and Furnaces

There is general agreement that standards for energy efficient appliances are desirable. The Alliance will work with national and international standard-setting groups, such as the Canadian Standards Association, to incorporate energy efficiency codes into appliance manufacturing processes, most of which occur outside Alberta. An Alliance technical advisory committee will guide Alberta participation in developing national standards. Rob Macintosh and David Manning will continue to act as project co-champions for this work, with Ken Fenning as task group leader.

Energy Efficiency for Government Buildings

Work is underway to realize potential savings in various government facilities; Alberta Public Works, Supply and Services has identified a facility for a pilot energy performance contract, which is out for tender. This work will be expanded in 1995 to include municipalities, universities, hospitals, and schools. John Donner and Duane Roset are the project co-champions with Goldie Edworthy as task group leader.

Government Fleet Fuel Efficiency

This group began implementing several initiatives before the Alliance was established. In particular, it looked at options for "right-sizing" vehicles and at alternative fuels. The group has also been assembling data on fleet fuel efficiency before and after certain changes were implemented, in order to quantify the dollars saved and emissions avoided. The results are expected to be available in 1995. The Alliance Board

supported this work and asked the team to complete a literature search to examine current experience with alternative fuels in other jurisdictions before the Board could endorse purchasing or converting vehicles to run on any of the fuels. John Donner is the project champion with Ray Pasichnuk as task group leader.

Prior Work Completed

Inventory of Greenhouse Gases

The Alberta Departments of Energy and Environmental Protection took the lead to develop an inventory of greenhouse gases and sinks in Alberta based on 1990 data. This report was completed and published in 1993.

Point Sources/Emission Management Alternatives

These two groups developed several recommendations for improving the management of point source emissions. Future proposals for point source/emission management alternatives will be addressed through various other Alliance initiatives.

Regional and National Coordination

CASA was instrumental in forming several committees to help coordinate air issues at the regional and national levels. The Alliance is represented on many of these committees through its various stakeholder groups, including the provincial departments of Energy and Environmental Protection.

Technology Development Activities

Part of the intent of this work will be met by the Network of Experts, established and housed with the Alliance Secretariat. Alliance members agreed that other aspects related to technology development are better done by other existing agencies, or on an "as needed" basis.

Zone Air Quality Management

This task group developed criteria and guidelines to use in establishing zone air quality management systems in Alberta. Their work was endorsed by the Board, completing their task. This work supports the shift to air quality management on a local or regional basis, where this is a superior approach to address specific air quality issues. This work provides the essential background for the formation of the West Central Zone and other zones expected to be established in Alberta. The Alliance published a pamphlet describing the criteria and guidelines in 1994.

Status of Alliance Projects at the End of 1994

The following chart provides a snapshot of Alliance projects as of the end of 1994. This chart reflects the progress of projects as they move from top to bottom; that is, projects nearer the bottom of the chart have already passed through the stages higher up. By the end of 1995, projects near the top of the chart will have moved further down, and new ones may appear at the top.

The Clean Air Strategic Alliance has a very broad mandate for air quality management but, in reality, the role of the Alliance will vary with the nature and the stage of the project. For example, projects currently in the chart are ones the Alliance considers to be very important and for which it takes responsibility. This may be due to one factor or a combination of factors: no other agency is working in this area, 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. As projects move toward the implementation phase, the Alliance intends to empower existing agencies or new bodies established for the purpose of implementing and managing the initiative.

Several task groups came to the Alliance Board with projects that could be better implemented by other agencies. The Alliance endorsed and supported their work, and the Alberta Government has now committed to acting on the action plans. Alliance members continue to participate in advancing the projects as appropriate and as required, but recognize that other agencies are better positioned to lead the implementation of this work.

Figure 1.

Status	Project
Preliminary informal planning	Sundre/Rocky Mountain House AirshedCoordinating Air Quality Research
Screen and scope	Flexible Electricity SourcesEdmonton Air QualityVehicle Emissions Testing
Terms of reference being developed by a working group	 Air Toxics Ecosystems Energy Efficiency Programs Environmental Education Human Health SO₂ Management
Terms of reference endorsed by the Board and action plan being developed by the project team	 Ambient Monitoring Climate Change West Central Regional Airshed Monitoring Program
Action plan being implemented	 Building Codes for Energy Efficiency Energy Efficient Appliance Codes Energy Efficient Government Buildings Government Fleet Fuel Efficiency

Participating Organizations

The work of the Clean Air Strategic Alliance would not be possible without literally thousands of hours of effort on the part of dozens of dedicated individuals and the support of their organizations and agencies. Organizations that participated in Alliance activities and projects in 1994 are noted below. In the Financial Statements of this report, an effort is made to quantify the value of this active support.

Participating Organizations in CASA, 1994

Alberta Advanced Education and Career Development

Alberta Association of Municipal Districts and Counties

Alberta Chamber of Resources

Alberta Cogenerators Council

Alberta Community Development

Alberta Economic Development and Tourism

Alberta Education

Alberta Energy

Alberta Environmental Network (AEN)

AEN Clean Air Caucus

Alberta Environmental Protection

Alberta Federation of Rural Electrification Associations

Alberta Forest Service

Alberta Government Telephones

Alberta Health

Alberta Justice

Alberta Labour

Alberta Liquor Control Board

Alberta Lung Association

Alberta Motor Association

Alberta Municipal Affairs

Alberta Oil Sands Technology and Research Authority

Alberta Power Limited

Alberta Public Works, Supply and Services

Alberta Research Council

Alberta Safety Codes Council

Alberta Transportation and Utilities

Alberta Treasury

Alberta Trucking Association

Alberta Urban Municipalities
Association

. . .

Alberta West Central Health Unit

Amoco Canada Ltd.

Ashmont Community School

Association of Energy Engineers

Automotive Service and Repair Association

Biosphere Solutions

Canadian Association of Petroleum Producers

Canadian Energy Research Institute

Canadian Occidental Petroleum

Canadian Pacific

Canadian Parks and Wilderness Society

Canadian Petroleum Products Institute

Canadian Utilities Limited

Canadian Wind Energy Association

CANOXY

Celanese Canada Inc.

Chevron Canada Resources

City of Calgary

City of Lethbridge

City of Medicine Hat

City of Red Deer

Coal Association of Canada

Consumers' Association of Canada (Alberta)

Coopers & Lybrand

Daishowa-Marubeni International Ltd.

Edmonton Board of Health

Edmonton Power

Energy Efficiency Association of Alberta

Energy Resources Conservation Board

Enron Ltd.

Environment Canada

Environmental Law Centre

Environmental Resource Centre

Environmental Services Association of Alberta

FEESA, An Environmental Education Society

Fording Coal Ltd.

Fort McMurray Environmental Society

Gulf Canada

Home Oil

Husky Oil

Imperial Oil Limited

Independent Power Producers' Society of Alberta

Industrial Power Consumers' Association of Alberta

Inland Cement

Luscar Ltd.

Manalta Coal Ltd.

Mobil Oil Canada

Motor Dealers Association of Alberta

Natural Resources Canada

Natural Resources Conservation Board

Norcen Energy

Northern Air Quality Research Association

Northwestern Utilities Ltd.

Nor'wester Energy Systems

Novacor Chemicals Ltd.

Novacor Research Ltd.

Parks Canada

Pembina Agricultural Protection Association

Pembina Institute for Appropriate Development

Petro-Canada Ltd.

Phoenix Engineering Inc.

Prairie Acid Rain Coalition

Public Utilities Board

Ross Sheppard Composite High School

Shell Canada Ltd.

Small Power Producers' Association of Alberta

Smoky River Coal Ltd.

Solar Energy Society of Canada

South Peace Environment Association

Southwest Alberta Renewable Energy Initiative

Suncor Inc.

Syncrude Canada Ltd.

Talisman Energy Inc.

Toxics Watch

TransAlta Utilities Corporation

Treasury Branches

Unifarm Association

University of Alberta

University of Calgary

Wascana Energy Inc.

Weldwood of Canada Ltd.

Weyerhaeuser Canada Ltd.

Financial Statements

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, 1994 and the statements of revenue, expenditures and surplus and changes in financial position for the period March 14, 1994 to December 31, 1994. 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, 1994 and the results of its operations and changes in its financial position for the period March 14, 1994 to December 31, 1994 in accordance with generally accepted acounting principles.

Chartered Accountants Edmonton, Alberta Canada

February 2, 1995

Balance Sheet as at December 31, 1994

Current Assets	
Cash Treasury Bills	\$ 14,771 477,649
Accrued interest Accounts receivable	2,205 -8,295
Prepaid expenses	<u>2,913</u> 505,833
Capital Assets (Note 3)	306
	<u>\$506,139</u>
Comment I inhilities	
Current Liabilities Accounts payable Deferred grant revenue (Note 4)	\$ 39,848 _451,535
	491,383
Surplus	<u>14,756</u>

\$506,139

Approved by the Board

Melny chul President

Michael L Kelly Treasurer

Statement of Revenue, Expenditures and Surplus

Period March 14, 1994 to December 31, 1994

Revenue	
Grants (Note 4)	\$273,465
Interest	<u>14,756</u>
	288,221
Expenditures	
General and administration	39,098
Communications	62,264
Non-government organizations	7,273
Board support	99,164
Projects	55,763
Statement of concern and other	9,903
	273,465
Excess of Revenue over	
Expenditures, being Surplus,	¢ 14.756
End of Period	<u>9 14,/30</u>

Statement of Changes in Financial Position

Period March 14, 1994 to December 31, 1994

Net Inflow (Outflow) of Cash related to the following activities:

Operating	
Excess of revenue over expenditures	\$ 14,756
Item not affecting cash Depreciation	54
	14,810
Changes in non-cash operating working capital items Accrued interest Accounts receivable Prepaid expenses Accounts payable Deferred grant revenue	(2,205) (8,295) (2,913) 39,848 451,535 492,780
Investing	
Purchase of capital assets	(360)
Net Cash Inflow, being Cash Position, End of Period	<u>\$492,420</u>
Represented by:	
Cash Treasury Bills	\$ 14,771 <u>477,649</u>
	<u>\$492,420</u>

Notes to the Financial Statements

Period March 14, 1994 to December 31, 1994

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.

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 following annual rate:

Computer equipment

30%

In-kind 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

	<u>Cost</u>	Accumulated Depreciation	Net Book <u>Value</u>
Computer equipment	<u>\$360</u>	<u>\$54</u>	<u>\$306</u>

4. Deferred Grant Revenue

During the period, the Association received grants totalling \$725,000 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 and the Department of Energy 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.

Grants monies received	\$725,000
Revenue recorded based on	
allowable expenditures	273,465
Deferred grant revenue	\$451,535

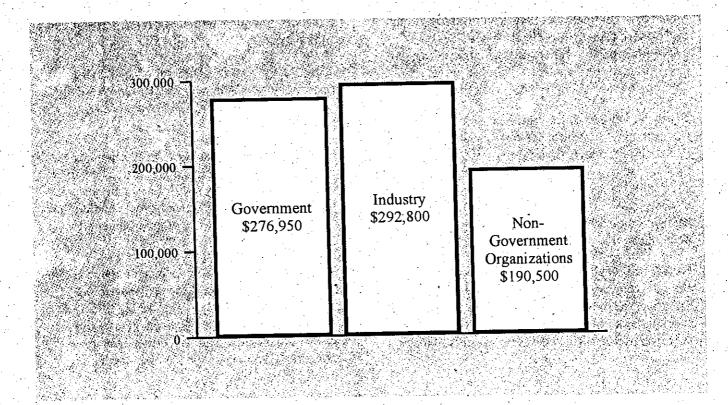
In-kind Support

The Alliance has tried to put an actual dollar figure on the support and assistance provided by participating organizations. These figures are preliminary. They are offered in the spirit of acknowledging and formally recognizing these contributions and to account for the full costs of accomplishing the work of the Alliance in 1994.

In-kind figures were compiled by examining both time and travel costs incurred for representatives to participate during 1994. For example, people travel from various distances and by various modes to meetings, thus a standard rate of \$300 for travel was estimated for any person travelling more than 50 km to attend a meeting or workshop. This was based on the price of a return air ticket between Edmonton and Calgary. Individuals' time was allocated at the rate of

\$700 per day for Directors of the Alliance to attend meetings, \$400 per day for experts and professionals attending task group meetings, and \$125 per day for administrative support.* Meetings considered in the calculations were Board meetings, Working/Task Group meetings, and specific workshops to advance the task group work.

No calculations were made for the time spent inbetween meetings working on Alliance projects or the other expenses incurred by participants. These calculated in-kind contributions are almost certainly underestimated. The Alliance will improve and refine these calculations in succeeding years, to provide a full accounting of both the costs and the benefits of the results of this organization.



^{*}These estimated daily rates were extracted from the October 1994 issue of the Association of Professional Engineers, Geologists and Geophysicist Newsletter, *The PEGG* and reduced by \$100 per day.

Appendices

Appendix 1. Biographies of Directors and Alternates

David Baker is a mechanical engineer with a background in wind and solar energy research. As President of DRB Engineering Consultants Ltd., he has been involved in renewable energy product testing, installation of remote monitoring systems, and development of software for data processing and analysis.

Doug Baldwin is a chemical engineer and is a Vice-President, Imperial Oil Limited. He is a board member of the Canadian Association of Petroleum Producers as well as chairman of the Canadian Oilmen's Executive Association.

Dr. Ian Brownlie is Vice President and General Manager, Chemicals and Industrial Products Group of Celanese Canada Inc. He also chairs the Environmental Committee of the Regional Committee of the Canadian Chemical Producers Association. His background is in applied chemistry.

Doug Bruchet is Vice President, Safety, Health and Environment for the Canadian Association of Petroleum Producers. In a former position with PetroCanada, he gained experience managing environmental activities in Canada and internationally. He is a member of the Canadian Delegation on Climate Change and Federal/Provincial Climate Change Task Force.

Ken Charters is a chemical engineer with industry and government experience. He helped form the Energy Efficiency Association of Alberta, a group of specialists dedicated to promoting the benefits of energy efficiency. He is the Association's Managing Director.

John Donner is Executive Director, Environmental Affairs for Alberta Energy, a position he has held since May 1994. He has been with the Department for 10 years, working in various areas related to market and regulatory policy/forecasting and analysis.

Phil Ebert has been with Daishowa Canada since 1989, and has been Mill Manager since 1993. He has worked in the pulp industry for 26 years in British Columbia and internationally.

Jason Edworthy is President of Nor'Wester Energy Systems Inc., a renewable energy company which he formed in 1980. He has been actively involved in wind and solar energy development in Canada, sitting on a number of related associations and boards.

Vincent Fabian is a Director of the Alberta Association of Municipal Districts and Counties, and has been a Councillor of the County of Newell No. 4 since 1969.

George Flynn is Director of Environmental Health Services for the Public Health Division of Alberta Health. He is currently involved in a number of studies aimed at assessing and understanding the human health implications of environmental conditions.

Wendy Francis is an environmental lawyer and currently Senior Associate with Western Environmental and Social Trends, Inc. She is an active volunteer with the Canadian Parks and Wilderness Society, and has written and spoken extensively on sustainable development and environmental law.

Richard Huff has been with Alberta Energy Company, Ltd. for eight years, and was named Senior Vice President, AEC Forest Products Division in 1993. Prior to joining AEC, he worked with Gulf Canada and two economic consulting firms in eastern Canada.

Roy Jensen is a farmer who has been actively involved in agricultural boards and committees for many years. He was elected President of Unifarm in January 1993.

Mike Kelly is Executive Director of the Alliance. He has diverse project and management experience in natural resource management, business analysis, economics, and the environment.

Gary Lathan has extensive experience with non-government organizations, serving as Executive Director of the Alberta Chapter of the Canadian Diabetes Association, the YMCA, and, currently, the Alberta Lung Association where he has been for four years.

Jim Leslie is Senior Vice President, Sustainable Development with TransAlta Corporation. With a background in engineering and management, he was active in the Economic Instruments Collaborative and is an Associate of the Global World Business Council for Sustainable Development.

David Lewin is Vice President, Rates, Regulatory and Environmental Affairs for Edmonton Power. He is a mechanical engineer with broad international experience in a variety of energy development projects.

Rob Macintosh is Policy Director of the Pembina Institute for Appropriate Development. He is a former teacher and has been active for many years in energy and environment issues at the provincial, national and international levels.

John MacIver has been Refinery Manager at Imperial Oil's Strathcona Refinery since 1991. He has been with Imperial Oil for 26 years, holding positions in eastern Canada before coming to Alberta.

David Manning, Q.C. has been Deputy Minister of Energy in Alberta since January 1, 1994. He is a lawyer with extensive international experience in energy and trade issues.

Al Martin is a partner in Coopers & Lybrand, Chartered Accountants, with a background in accounting and business administration.

Peter Melnychuk is currently Deputy Minister of Alberta Environmental Protection, having joined the Department in 1971. He is a civil engineer with 30 years experience in the Alberta public service.

Pat McInnes is a member and treasurer of the Fort McMurray Environmental Association, whose mandate includes air quality and energy-related issues in the Athabasca Oil Sands Region. She is active with the Regional Air Quality Coordinating Committee and the Alberta Environmental Network.

Glen Myers worked with Shell Canada Products for 32 years, prior to assuming the position of Vice President, Western Division of the Canadian Petroleum Products Institute.

Brian O'Donnell has been Director, Environmental Services for the Prairie and Northern Region of Environment Canada since 1993. He has nation-wide experience in meteorology and related policy and planning issues. **Dr. Donald Philippon** obtained his PhD based on work in the areas of educational and health services administration. He has held senior management positions in Alberta and Saskatchewan and is the Deputy Minister of Health in Alberta.

Henry Pirker has several agricultural-based enterprises in northwestern Alberta, including Pirker Apiaries and Sturgeon Marine. He is active with the South Peace Environmental Association and the Peace Country Agricultural Protection Association.

Jim Popowich has been Vice President, Development and Alberta Operations with Fording Coal Limited since 1990. He has worked on various mining projects in both British Columbia and Alberta.

Duane Roset is an Alderman with the City of Medicine Hat. He also operates a retail jewellery business and has served six years as Chairman of the local Christian school.

Al Schulz is Assistant Deputy Minister, Environmental Regulatory Services and has been with the Alberta Department of Environment since 1968. He is trained in chemical and mechanical engineering. Herman Schwenk and his family operate a co-operative farming business of over 7,000 acres. He has served the agricultural community in many capacities, and is currently President of the Alberta Federation of Rural Electrification Associations.

David Selleck has been with Inland Cement since 1975, holding positions of increasing seniority and becoming Vice President in 1993. He has mining engineering experience in many parts of Canada and internationally.

Dan Smith works on a broad spectrum of environmental matters and has been actively involved in energy and clean air issues for several years. He helped establish the Calgary Eco-Centre and is currently a research associate with the Pembina Institute.

Jim Vollmershausen was named Regional Director General for the Prairie and NWT Region of Environment Canada in 1993. He spent 17 years with Parks Canada and has held several senior positions across Canada within the Department.

Appendix 2. Publications

Principles and Recommendations for The Alberta Climate Change Action Plan

Zone Air Quality Management Guidelines

Beyond Consultation: Making Consensus Decisions

Comprehensive Air Quality Management System

A Better Way

The Clean Air Strategic Alliance is a non-profit partnership that has been given shared responsibility by its members for strategic air quality planning, organizing and coordination of resources, and evaluation of results in Alberta through a collaborative process. This document is one in a series of Alliance publications. For more information on the Clean Air Strategic Alliance, or for additional copies of this publication, contact:

Clean Air Strategic Alliance
6th Floor, Standard Life Centre
10405 Jasper Avenue
Edmonton, Alberta, Canada
T5J 3N4
Tel. (403) 427-9793
Fax (403) 422-3127
Internet CASA@freenet.edmonton.ab.ca

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