

# **Annual Report 2002**

Commission for Environmental Cooperation  
of North America

## **Mission**

The Commission for Environmental Cooperation (CEC) of North America facilitates cooperation and public participation to foster conservation, protection and enhancement of the North American environment for the benefit of present and future generations, in the context of increasing economic, trade and social links among Canada, Mexico and the United States.

Secretariat–Council–JPAC

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# Message from the Council

The North American Agreement on Environmental Cooperation, established in parallel with NAFTA, is the first such regional environmental agreement to link countries at different stages of development, and the first to embed public engagement at the heart of its operations.

In 2002, the World Summit on Sustainable Development (WSSD) marked the tenth anniversary of the UN Earth Summit. We viewed the World Summit as an occasion to uphold the progress and unique strengths of the Commission for Environmental Cooperation—and were pleased to note that the CEC’s work program is quite consistent with, and supportive of, the outcomes and priorities of WSSD. In 2002, this included:

- responding to the Article 13 report on electricity restructuring, which touches on issues related to renewable energy;
- preparing an options paper on freshwater, to determine where the CEC can add the most value;
- furthering action on children’s health and the environment;
- continuing to work on biodiversity projects related to conservation of birds, to protection of terrestrial and marine ecosystems, and addressing aquatic invasive species;
- pursuing the sound management of chemicals through regional implementation of global conventions/protocols; and
- commencing a project related to corporate social responsibility, focusing on making environmental data more “useful” to the financial sector, as well as other projects involving the private sector, such as pollution prevention and environmental management systems.

The year began with the publication of *The North American Mosaic: A State of the Environment Report*, which highlighted where progress has been made, and where pressures are putting ecosystems at risk.

Following the June release of the CEC Secretariat’s report *Environmental Challenges and Opportunities of the Evolving North American Electricity Market*, we agreed to a series of actions to promote health and environmental objectives within the context of expanding the generation and distribution of energy in North America and the trade of energy between our three countries.

We continued progress toward the reduction or elimination of the most toxic chemicals in our environment. Our Sound Management of Chemicals program is a highly successful example of regional cooperation, including capacity building, to improve our shared environment. In addition to ongoing work on chlordane, mercury and PCBs, we initiated a new North American Regional Action Plan to eliminate the use of lindane, a dangerous pesticide.

The value of our cooperative, regional approach was further underlined with the adoption this year of the Cooperative Agenda for Children’s Health and the Environment in North America. This includes actions related to asthma, respiratory disease and the effects of lead and other toxic substances, as well as activities aimed at increasing knowledge and public awareness.

Finally, with the participation of experts from each of our governments, the CEC took steps to secure the environmentally sound management of hazardous wastes. Supported by the CEC, the Parties began to develop a pilot project to track hazardous waste movement between Canada and the United States by means of a sophisticated electronic notification system, and agreed to undertake a feasibility study to

determine the viability of a similar pilot project between Mexico and the United States.

In summary, this year has seen continued progress in supporting regional environmental cooperation to better protect and enhance our common environment and the health of our peoples.

We are pleased to present the 2002 annual report of the CEC.

# Report from the Joint Public Advisory Committee

This has been a year marked by significant progress. The Joint Public Advisory Committee (JPAC) took up some new and challenging issues. JPAC held four regular meetings during the course of the year, with special sessions involving the public organized around the following topics identified in our program of work for the year:

- children's health and the environment, together with the Expert Advisory Board on Children's Health and the Environment in North America;
- capacity building and educational opportunities for the Sound Management of Chemicals program;
- Chapter 11 of the North American Free Trade Agreement;
- freshwater issues in North America; and
- financing for sustainable development.

From these meetings, we produced substantive Advice to Council on several topics, providing concrete recommendations for including public input in future work, improving public participation, and promoting public confidence.

JPAC also continued to pursue other matters that have dominated the CEC agenda for quite some time, notably various issues related to the process for Citizen Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation, although the Council was not persuaded by JPAC's Advice on most of these topics. JPAC anticipates including an analysis of this situation as it participates in the review of the operation of Council Resolution 00-09, "Matters Related to Articles 14 and 15 of the Agreement."

The end of 2002 was marked by the departure of the entire JPAC membership from the United States, myself included. Two of us were founding members, having served on JPAC for eight years. I was privileged over these years to be elected as JPAC chair for three terms. I have had the opportunity to participate in JPAC's growth and maturation into a focused and effective advocate for the North American environment and community.

As I look back over the year 2002, I am confronted with many emotions—great sadness at the sudden death of our dear colleague and North American environmental pioneer, John Wirth, a founding JPAC member from the United States; uncertainty over the push and pull in finding a balance between environment and trade; cautious optimism based on CEC achievement and our inching ever closer to achieving a North American community of common interest in support of the environment; and great pride in the continuing efforts of the North American public to keep environmental considerations at the forefront.

I give my heartfelt thanks to each of my fellow JPAC members over the years. We have all learned and grown together. I would also like to thank the Secretariat and JPAC staff for their fine work and support. I wish and expect from JPAC continuing success.

Jon Plaut

JPAC Chair for 2002

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# Message from the Executive Director of the CEC Secretariat

## Victor Shantora

Acting Executive Director

A core function of the CEC Secretariat is quality research and analysis concerning the environmental impact of liberalized trade and the growing economic integration of our continent. In 2002, that function brought the *big picture* for North America into focus.

We began the year with the first report on the State of the North American Environment. This report revealed that, while there is reason for hope—especially where our three countries have raised the bar for environmental protection—much of North America’s biodiversity is imperiled. At the most general level, we are reminded that the loss of biodiversity has an impact that cascades from species to ecosystems to economies. At first the impact is local, then national, then continental.

Mid-year, the Secretariat’s independent and forward looking report, *Environmental Challenges and Opportunities of the Evolving North American Electricity Market*, examined how North Americans could have an affordable and abundant supply of electricity without compromising environmental and human health objectives. And recommendations by an independent advisory board suggested how NAFTA partners could cooperate to ensure their citizens receive future economic and environmental benefits of an integrated continental electricity market.

The year finished with the presentation of the key *lessons learned* concerning free trade and the environment in North America. The top two lessons are: first, policy matters—trade liberalization supportive of environmental priorities can help achieve sustainable development, just as the opposite is true—freer trade absent strong environmental considerations could trigger degradation; and second, public engagement and transparency are common ingredients in the best environmental policy, as well as something encouraged through all stages of the CEC’s work.

Perhaps the broadest perspective was brought to the consideration of the future when the CEC Council, anticipating the upcoming tenth anniversary of the North American Free Trade Agreement, took the first steps to charting a path forward by initiating a comprehensive review of the first ten years of the North American Agreement for Environmental Cooperation.

I invite you to examine our progress and preparation for the future in this annual report for the year 2002.



# 1 Cooperative Achievements

## *2002 Program Summary*

### **Environment, Economy and Trade**

The complementary goals of the Environment, Economy and Trade program are: to improve the environmental assessment of trade liberalization and expanding sustainable economic activity in North America, and to support environmental protection by improving our understanding of green goods and services and the use of supportive market mechanisms.

#### *Program Initiatives*

- Assessing the Environment in the context of North American Market Integration
- Supporting Environmental Protection and Conservation through Green Goods and Services
- Financing in Support of Environmental Protection and Conservation
- Exploring Market-based Mechanisms for Carbon Sequestration, Energy Efficiency, and Renewable Energy in North America

### **Conservation of Biodiversity**

The mission of work in the Conservation of Biodiversity program area is to promote cooperation among Canada, Mexico and the United States in fostering the conservation of North America's biodiversity.

#### *Program Initiatives*

- Strategic and Cooperative Action for the Conservation of Biodiversity in North America
- North American Bird Conservation Initiative
- Species of Common Conservation Concern
- Mapping Marine and Estuarine Ecosystems of North America
- North American Marine Protected Areas Network
- Closing the Pathways of Aquatic Invasive Species across North America
- North American Biodiversity Information Network

### **Pollutants and Health**

The mission of the Pollutants and Health program is to establish cooperative initiatives to prevent or correct adverse effects, on a North American scale, from pollution to human and ecosystem health.

#### *Program Initiatives*

- Facilitating Trilateral Coordination in Air Quality Management
- Developing Technical and Strategic Tools for Improved Air Quality in North America

- Trilateral Air Quality Improvement Initiative: North American Trade and Transportation Corridors
- Sound Management of Chemicals (SMOC)
- North American Pollutant Release and Transfer Register (PRTR) Project
- Capacity Building for Pollution Prevention
- Children's Health and the Environment in North America

## **Law and Policy**

The goal of the Law and Policy program area is to address regional priorities regarding obligations and commitments in the North American Agreement on Environmental Cooperation related to environmental standards, environmental performance and the continued development and improvement of environmental law.

### ***Program Initiatives***

- Comparative Report on Environmental Standards
- Environmentally Sound Management of Hazardous Waste
- North American Regional Enforcement Issues
- Enforcement and Compliance Capacity Building
- Enforcement/Compliance Reporting
- Sustainable Use and Conservation of Freshwater in North America

## ***Cooperative Achievements***

In addition to the work of each Party in accordance with the North American Agreement on Environmental Cooperation (NAAEC), the CEC Secretariat is responsible for a specific program of action to fulfill NAAEC's objectives. This report provides an overview of activities in 2002 in each program area: environment, economy and trade; conservation of biodiversity; pollutants and health; and law and policy.

### **Environment, Economy and Trade Program Area**

#### ***Assessing the Environment in the Context of North American Market Integration***

Under its mandate to improve environmental assessment of trade liberalization and expanding economic activity in North America, in early 2002, the CEC released the proceedings of an October 2000 North American Symposium on Assessing the Linkages between Trade and Environment and hosted a high-level meeting that took stock of where we are on environmental assessment of trade. Four additional background reports were released for that meeting: (1) an analysis of the effects of market integration and trade liberalization on biodiversity, with an emphasis on agriculture; (2) an analysis of the implications of the evolving North American energy market for energy efficiency and renewable energy development and trade; (3) an update on lessons learned in assessing the environmental effects of trade liberalization; and (4) an assessment of *ex ante* and *ex post* predictions regarding the effects of NAFTA on agriculture and the environment. An advisory group selected 13 papers on agriculture and energy to be presented at a second North American Symposium on Trade and the Environment, to be held in spring 2003.

#### ***Supporting Environmental Protection and Conservation through Green Goods and Services***

A green goods and services project resulted in the creation of the North American Green Purchasing Initiative, which acts as a clearinghouse for information on environmental purchasing news, experience, tools and information across North America, and the publication of the results of several CEC-sponsored surveys on green goods and services—including electricity, tourism, and palm—as well as a palm commercialization report.

#### ***Financing in Support of Environmental Protection and Conservation***

As part of a project on financing and the environment, the CEC released a report on mandatory disclosure of environmental information in each of the three NAFTA countries. At a meeting in New York City in March, financial industry representatives were asked whether and to what extent mandatory and voluntary environmental disclosure affect financial decision-making, and what could increase the role of environmental disclosure in financial decision-making. The CEC began liaising with UNEP-FI (North American Task Force), the Conference Board of Canada, the United Nations Environment Programme (UNEP), the Organisation for Economic Co-operation and Development, and Environment Canada on these matters, and work began with UNEP on developing a background paper on environment-related investments. A follow-up meeting in February 2003 will explore what information would be useful for the financial sector to have in translating environmental risk into financial risk, thereby taking environmental performance into account in investment portfolios.

Work continued towards the establishment of a North American Shade Agriculture Fund. Discussions were carried on with the World Bank and the *Consejo Mexicano del Café*, with the objective of joining forces to increase investment in environmentally-preferable agricultural goods, focusing especially on carbon sequestration in agroforest coffee systems. The Secretariat supported Conservation International in

compiling a manual to show producers in coffee cooperatives how to develop their own credit applications. Some results of this work were presented at a joint JPAC–Environment, Economy, and Trade program meeting on Investing in North America’s Future: Innovative Financing for Sustainable Development, 9–10 December 2002, in Monterrey, Nuevo León, Mexico.

### ***Exploring Market-based Mechanisms for Carbon Sequestration, Energy Efficiency, and Renewable Energy in North America***

As part of this project, the CEC released a report identifying options for Council on market-based mechanisms for reducing carbon and pollution in the atmosphere through carbon sequestration, renewable energy and energy efficiency. It also produced a paper on investment in the electricity sector in Mexico and a paper on renewable energy in Mexico. These papers will contribute to a meeting planned for February 2003 that will bring together North American businesses with experience in renewable energy procurement or production and Mexican companies with an interest in purchasing or producing renewable electricity. The meeting will also explore the financial potential of such endeavors.

Under Article 10(6) of NAAEC, which mandates the Council of the CEC to cooperate with the NAFTA Free Trade Commission in order to achieve the environmental goals and objectives of NAFTA, three papers were presented at a January 2002 meeting, providing: (1) examples of precaution in legislation and case law; (2) an overview of terminology relevant to precaution; and (3) an economic analysis of risk assessment and risk management approaches in Canada, Mexico and the United States. The Article 10(6) Working Group started preparatory work for a first NAFTA trade and environment ministerial meeting, to be held in 2003. Two of the papers will be published in the CEC North American Law and Policy series.

## **Conservation of Biodiversity Program Area**

This program area’s mandate is to encourage the conservation and sustainable use of North America’s biodiversity by increasing public awareness and strengthening cooperation at national and regional levels. The program aims to: foster a continental, integrated perspective for the management, conservation, and sustainable use of biodiversity; contribute to the maintenance of the ecological integrity of North American ecoregions; and contribute to the mitigation, reduction, and eventual elimination of current and future threats to North American shared species and ecosystems. The program focuses on both continental and regional action, promoting the CEC as a forum for coordinated solutions to key conservation challenges as well as offering a targeted and interdisciplinary approach to conservation activities. Several initiatives are currently underway and are outlined below.

### ***North American Bird Conservation Initiative (NABCI)***

The planning platform of NABCI—a trilateral coalition of over 250 government agencies and nongovernment organizations—was successfully completed, including a framework for implementation, a suite of Important Bird Areas of high trilateral interest. NABCI conservation projects are currently being implemented in the three countries.

### ***Species of Common Conservation Concern to North America***

Recommendations to build a trilateral framework for grassland conservation were acted upon. These include integrated mapping of North America’s Central Grasslands, the development of a common perspective for grassland conservation in Mexico and a conservation framework for trilateral cooperation.

### ***North American Marine Protected Areas Network (NA MPA Network)***

By early 2003, the map and a common classification for marine and estuarine ecological regions will be finalized; priority conservation areas for the Baja to Bering region identified, and the report on cooperative conservation actions for North America's Marine Species of Common Conservation Concern will be launched. To begin the first stage of physically linking MPAs, the CEC is developing an approach for continental networking within North America. Preliminary discussions amongst the various agencies are taking place to launch this first stage of networked MPAs by next year.

### ***Closing the Pathways of Aquatic Invasive Species across North America***

Priorities for trinational cooperation have been identified and a Mexican clearinghouse for aquatic invasives has been developed. A list of aquatic invasive species of common concern and complementary action plans for trilateral collaboration are being developed for priority trade-related pathways.

### ***North American Biodiversity Information Network (NABIN)***

A web-based portal that links the species search tools of NABIN to other environmental and socio-economic databases in North America is under development, including working prototypes for the grasslands, marine protected areas, and NABCI projects. NABIN is supporting the interoperability of the two major species' data search engines and continues to provide information access through its partner institutions.

## **Pollutants and Health Program Area**

### ***North American Pollutant Release and Transfer Register Program***

The North American Pollutant Release and Transfer Register (PRTR) program seeks to ensure citizen access to information about the release and transfer of toxic chemicals from industrial facilities across North America. Since 1995, the CEC has been working with the national PRTR programs of Canada (National Pollutant Release Inventory), the United States (Toxics Release Inventory) and Mexico (*Registro de Emisiones y Transferencia de Contaminantes*) to develop a North American profile of pollutant releases and transfers, promote public access to environmental information, and to enhance comparability among the national systems. Its annual publication, *Taking Stock*, contains a compilation of information for the industries and chemicals that are common to the national PRTR lists. Currently, this "matched" data set only covers the United States and Canada. However, in December 2001, Mexico passed enabling legislation for a mandatory and publicly accessible PRTR system, and since has been working to put the necessary regulations into place. Mexican information will be included in the report as it becomes available. The sixth report in the series, *Taking Stock 1999*, was released on 29 May 2002. Flexible access to the data sets used in *Taking Stock* is available through the CEC's *Taking Stock Online* Web site, which currently includes data from the 1995 to the 1999 reporting years: <http://www.cec.org/takingstock>.

In June 2002, the CEC Council adopted an Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers in North America, which outlines actions to be taken by the three national programs to increase trilateral comparability and thereby sharpen the picture of pollutant releases and transfers across the continent.

## ***Air Quality Program***

In 2002, the CEC Air Quality Program focused on three areas: 1) facilitating trilateral coordination in air quality management; 2) developing technical and strategic tools for improved air quality in North America; and 3) North American trade and transportation corridors.

In the first area, the CEC Air Quality Program brought together for the first time ever the three heads of the federal air quality programs in the NAFTA countries for informal discussions of key air issues facing the three countries. The CEC also continued support for a network of air quality professionals in Mexico with the goal of improving air management capacity through greater interactions with peers across Mexico and the rest of North America.

In the second area, the Air Quality Program supported efforts to further develop a national air emissions inventory in Mexico that includes emissions of sulfur oxides, nitrogen oxides, reactive hydrocarbons, and particulate matter. The CEC also sponsored a trilateral meeting of federal, state and provincial officials to discuss the potential of creating a North American information clearinghouse on best available air pollution control technologies.

In the third area, the Air Quality Program continued support for a study of population exposure to air pollution along a congested border crossing between Ciudad Juárez, Mexico, and El Paso, USA. In addition, the CEC provided support for a study of occupational exposure to diesel exhaust at truck depots in Mexico being conducted by researchers at the Harvard School of Public Health and the Massachusetts Institute of Technology. The CEC also organized a meeting of experts to discuss common methodologies for assessing population exposure to air pollution along congested transportation corridors.

Also in 2002, the CEC Council adopted Council Resolution 02-04, during its annual meeting in Ottawa, Canada. Council Resolution 02-04 directs the CEC to create a North American Air Working Group as a new forum for the air quality managers from each country to continue discussing transborder air issues of common concern.

Additional information on the Air Quality Program can be obtained online at the CEC Web site: <http://www.cec.org/>.

## ***Sound Management of Chemicals Program***

Resolution 95-05, adopted by the Council on 13 October 1995, in Oaxaca, Mexico, created the Sound Management of Chemicals program. The resolution created a working group composed of senior government officials from the Parties and set out a framework, together with specific commitments, for working together and with the CEC in addressing the sound management of chemicals in North America. The working group was instructed to first address the list of persistent organic pollutants (POPs) included in United Nations Environment Programme (UNEP) Governing Council Decision 18/32 of May 1995, as well as “certain heavy metals.”

North American Regional Action Plans (NARAPs) have been developed and are at different stages of implementation for DDT, chlordane, PCBs, environmental monitoring and assessment and mercury. Mexico has made great strides in the implementation of the DDT NARAP. As of 2000, the country has successfully eliminated the use of DDT—surpassing the NARAP target of an 80-percent reduction by 2002. A grant proposal directed to the Global Environment Facility to assist with implementation of the NARAP on DDT in Mexico, as well as to extend the effort to Central America, was approved for US\$7.5 million in late May 2002. A final report on the implementation of the chlordane NARAP was prepared in 2002. In 2002, the PCB Implementation Task Force prepared a status review of this NARAP, paying particular attention to the many aspects of the NARAP that are not dependent on the transboundary

transport and destruction of unwanted PCB materials. Implementation of Phase II of the mercury NARAP continued in 2002 with projects such as the installation of two mercury wet-deposition monitoring sites in Mexico, and the linkage of these sites with the National Atmospheric Deposition Program—Mercury Deposition Network. In 2002, Phase I of a NARAP was drafted for dioxins and furans, and hexachlorobenzene. This NARAP would address a cluster of compounds that are typically formed as unwanted byproducts and released to the environment during activities that include the production of certain commercial chemicals or the thermal destruction of household or municipal hazardous wastes. This NARAP is currently undergoing intergovernmental review.

In Ottawa, in June 2002, Council approved a NARAP on environmental monitoring and assessment and resolved to begin its implementation. Also in 2002, Council approved the development of a NARAP for lindane—a substance that, while no longer manufactured in North America, remains in use via existing stocks and in public health products. The Lindane Task Force members have been nominated. Lead is currently undergoing review by the Substance Selection Task Force as a possible candidate for trinational action under a NARAP.

Further information on the SMOC initiative is available on the CEC web site.

### ***Children's Health and the Environment in North America***

In June 2002, the CEC Council adopted the Cooperative Agenda for Children's Health and the Environment in North America (available at <<http://www.cec.org/>>) that serves as the blueprint for trilateral action to advance the protection of North American children from environmental risks to their health. A draft of the Cooperative Agenda was reviewed and discussed at a joint public meeting of JPAC and the CEC's Expert Advisory Board on Children's Health and the Environment held on 7 March 2002 in Mexico City. The Cooperative Agenda includes ongoing and planned actions related to the development of a core set of children's environmental health indicators, asthma and respiratory disease and the effects of lead and other toxic substances, as well as activities aimed at strengthening the knowledge base and promoting public awareness and education.

## **Law and Policy Program Area**

### ***Regional Enforcement Network***

In 2002, the North American Working Group on Environmental Enforcement and Compliance—the Enforcement Working Group (EWG)—composed of enforcement officials from the three countries, met twice to discuss enforcement and compliance priorities, border environmental safety and control measures, transboundary movement of hazardous waste, training in mutual legal assistance, enforcement of ozone-depleting substance (ODS) laws, and citizen participation in EWG projects.

### ***Enforcement and Compliance Capacity Building***

In 2002, work centered on public participation issues. In a two-day conference in Washington, DC, participants from nongovernmental organizations, academia and the private sector from the three countries discussed various avenues for public participation, differences in wildlife enforcement in the three countries, and opportunities to build public support for enforcement, and they developed recommendations for building partnerships between agencies and the public. NAWEG is now analyzing these recommendations for follow-up, as appropriate.

### ***Enforcement and Compliance Reporting***

In response to public demand for more in-depth information on the Parties' enforcement and compliance promotion activities, the EWG prepares special enforcement reports. Wildlife enforcement has been selected as the central topic for its next number, to be released in 2003.

### ***Environmentally Sound Management of Hazardous Waste***

In 2002, with the active participation of government experts on hazardous waste issues from each of the three countries, the CEC began the development of a North American approach to the environmentally sound management of hazardous waste. A report was released summarizing regulatory requirements for managing hazardous wastes in Canada, Mexico and the United States. Work continued on an analysis report dealing with information requirements for importing and exporting hazardous wastes in the NAFTA countries. The objective of this initiative is to provide information to the Parties about opportunities to improve their tracking systems.

### ***Sustainable Use and Conservation of Freshwater in North America***

In 2002, the CEC held an expert workshop to scope areas of potential cooperation in this area. Experts highlighted information needs, data gaps, and reporting opportunities related to groundwater in North America. A meeting report summarizing what was said can be downloaded from [http://www.cec.org/pubs\\_docs/documents/index.cfm?varlan=english&ID=751](http://www.cec.org/pubs_docs/documents/index.cfm?varlan=english&ID=751). The CEC experts worked on developing a long-term vision for the CEC in this area, along with specific options for sustainable watershed management for the Council's consideration.

### ***Comparative Report on Environmental Standards***

A report, *Comparative Standards for Intensive Livestock Operations in North America*, will be released in early 2003. It will provide a baseline on how authorities address environmental and human health concerns raised by these operations.



## *Registry of Submissions on Enforcement Matters 2002*

| <b>ID. NUMBER</b> | <b>SUBMITTERS</b>   | <b>STATUS</b>   |
|-------------------|---|---|
| SEM-97-002        | Comité pro Limpieza del Río Magdalena                         | Preparing factual record  |
| SEM-97-006        | The Friends of the Oldman River                               | Preparing factual record  |
| SEM-98-004        | Sierra Club of British Columbia et al.                        | Preparing factual record  |
| SEM-98-006        | Grupo Ecológico “Manglar”, AC                                 | Preparing factual record  |
| SEM-98-007        | Environmental Health Coalition et al.                         | Final factual record released to the public. Process terminated |
| SEM-99-002        | Alliance for the Wild Rockies et al.                          | Awaiting comments from the Parties on the draft factual record  |
| SEM-00-004        | David Suzuki Foundation et al.                                | Preparing factual record  |
| SEM-00-005        | Academia Sonorense de Derechos Humanos et al.                 | Preparing factual record  |
| SEM-00-006        | Comisión de Solidaridad y Defensa de los Derechos Humanos, AC | Awaiting Council’s decision on development of factual record    |
| SEM-01-001        | Academia Sonorense de Derechos Humanos, AC et al.             | Process terminated under Article 15(2)                          |
| SEM-02-001        | Canadian Nature Federation et al.                             | Awaiting Council’s decision on development of factual record    |
| SEM-02-002        | Jorge Rafael Martínez Azuela et al.                           | Process terminated under Article 15(1)                          |
| SEM-02-003        | Sierra Legal Defence Fund et al.                              | Reviewing under Article 15(1)                                   |
| SEM-02-004        | Arcadio Pesqueira Senday et al.                               | Awaiting Party’s response under Article 14(2)                   |
| SEM-02-005        | Angel Lara García   | Awaiting a revised submission that conforms with Article 14(1)  |

**Submission ID: SEM-97-002/RÍO MAGDALENA**

Submitter(s): Comité Pro Limpieza del Río Magdalena

Party: United Mexican States

Date received: 15 March 1997

**Summary of the matter addressed in the Submission:**

The Submitters allege that wastewater originating in the municipalities of Imuris, Magdalena de Kino, and Santa Ana, located in the Mexican state of Sonora, is being discharged into the Magdalena River without prior treatment. According to the Submitters, the above contravenes Mexican environmental legislation governing the disposal of wastewater.

**2002 Events:**

1. On 5 February 2002, the Secretariat informed Council that the Secretariat considers that the submission warrants development of a factual record.
2. On 7 March 2002, the Council voted to instruct the Secretariat to develop a Factual Record.
3. On 22 March 2002, the Secretariat placed a work plan on its web site or otherwise made it available to the public and stakeholders.

**Submission ID: SEM-97-006/OLDMAN RIVER II**

Submitter(s): The Friends of the Oldman River

Party: Canada

Date received: 4 October 1997

**Summary of the matter addressed in the submission:**

The Submitter alleges that Canada is failing to apply, comply with and enforce the habitat protection sections of the Fisheries Act and the Canadian Environmental Assessment Act.

**2002 Events:**

- The Secretariat continued the process of preparing a factual record, which began in 2001.

**Submission ID: SEM-98-004/BC MINING**

Submitter(s): Sierra Club of British Columbia et al.

Party: Canada

Date received: 29 June 1998

**Summary of the matter addressed in the submission:**

The submission alleges a systemic failure by Canada to enforce the Fisheries Act to protect fish and fish habitat from the destructive environmental impacts of the mining industry in British Columbia.

## 2002 Events:

- The Secretariat continued the process of preparing a factual record, which began in 2001.

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| <b>Submission ID:</b> | <b>SEM-98-006/AQUANOVA</b> |
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| Submitter(s): | Grupo Ecológico Manglar, AC |
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| Party: | United Mexican States |
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|----------------|-----------------|
| Date received: | 20 October 1998 |
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### Summary of the matter addressed in the submission:

The submission alleges that Mexico is failing to effectively enforce its environmental laws with respect to the establishment and operation of Granjas Aquanova, SA de CV, a shrimp farm located in Isla del Conde, San Blas, Nayarit, Mexico.

## 2002 Events:

- The Secretariat continued the process of preparing a factual record, which began in 2001.

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| <b>Submission ID:</b> | <b>SEM-98-007/METALES Y DERIVADOS</b> |
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| Submitter(s): | Environmental Health Coalition et al. |
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| Party: | United Mexican States |
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|----------------|-----------------|
| Date received: | 23 October 1998 |
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### Summary of the matter addressed in the submission:

The Submitters allege that Mexico has failed to effectively enforce its environmental law in connection with an abandoned lead smelter in Tijuana, Baja California, Mexico, that poses serious threats to the health of the neighboring community, and to the environment.

## 2002 Events:

- On 7 February 2002, the Council voted to instruct the Secretariat to make the final factual record publicly available. On 11 February 2002, the final factual record was released to the public. The process was terminated.

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| <b>Submission ID:</b> | <b>SEM-99-002/CIEL-MIGRATORY BIRDS</b> |
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| Submitter(s): | Alliance for the Wild Rockies et al. |
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| Party: | United States |
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| Date received: | 19 November 1999 |
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### Summary of the matter addressed in the submission:

The Submitters allege that the United States Government is failing to effectively enforce the Migratory Bird Treaty Act (MBTA) against logging operations on federal and non-federal lands throughout the United States.

## 2002 Events:

- The Secretariat continued the process of preparing a factual record, which began in 2001. On 28 November 2002, the Secretariat submitted a draft factual record to Council, for a 45-day comment period on the accuracy of the draft.

### Submission ID: SEM-00-004/BC LOGGING

Submitter(s): David Suzuki Foundation et al.

Party: Canada

Date received: 15 March 2000

### Summary of the matter addressed in the submission:

The Submitters allege that the Government of Canada “is in breach of its commitments under NAAEC to effectively enforce its environmental laws and to provide high levels of environmental protection.” They allege that the Fisheries Act is violated by logging activities undertaken by British Columbia.

## 2002 Events:

- The Secretariat continued the process of preparing a factual record, which began in 2001.

### Submission ID: SEM-00-005/MOLYMEX II

Submitter(s): Academia Sonorense de Derechos Humanos, AC & Domingo Gutiérrez Mendivil

Party: United Mexican States

Date received: 6 April 2000

### Summary of the matter addressed in the submission:

The Submitters allege that Mexico has failed to effectively enforce the General Law of Ecological Equilibrium and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA) in relation to the operation of the company MolyMex, SA de CV, in the town of Cumpas, Sonora, Mexico.

## 2002 Events:

1. On 17 May 2002, the Council voted to instruct the Secretariat to develop a factual record.
2. On 28 May 2002, the Secretariat placed a work plan on its web site or otherwise made it available to the public and stakeholders.

### Submission ID: SEM-00-006/TARAHUMARA

Submitter(s): Comisión de Solidaridad y Defensa de los Derechos Humanos, AC

Party: United Mexican States

Date received: 9 June 2000

### Summary of the matter addressed in the submission:

The Submitters allege a failure by Mexico to effectively enforce its environmental law by denying access to environmental justice to indigenous communities in the Sierra Tarahumara in the State of Chihuahua. They particularly assert failures to effectively enforce environmental law relative to the citizen complaint process, to alleged environmental crimes and to other alleged violations with respect to forest resources and the environment in the Sierra Tarahumara.

**2002 Events:**

1. On 15 February 2002, the Secretariat received a response from the concerned government Party and began considering whether to recommend a factual record.
2. On 29 August 2002, the Secretariat informed Council that the Secretariat considers that the submission warrants development of a factual record.

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|-----------------------|---|
| <b>Submission ID:</b> | <b>SEM-01-001/CYTRAR II</b>                       |
| Submitter(s):         | Academia Sonorense de Derechos Humanos, AC et al. |
| Party:                | United Mexican States                             |
| Date received:        | 14 February 2001                                  |

**Summary of the matter addressed in the submission:**

The Submitters allege that Mexico has failed to effectively enforce environmental law by having authorized the operation of the hazardous waste landfill (Cytrar) located near the city of Hermosillo, Sonora.

**2002 Events:**

1. On 29 July 2002, the Secretariat informed Council that the Secretariat considers that the submission warrants development of a factual record.
2. On 10 December 2002, the Council unanimously decided not to direct the Secretariat to develop a factual record. In accordance with section 10.4 of the Guidelines, the submission process is terminated.

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|-----------------------|-----------------------------------|
| <b>Submission ID:</b> | <b>SEM-02-001/ONTARIO LOGGING</b> |
| Submitter(s):         | Canadian Nature Federation et al. |
| Party:                | Canada                            |
| Date received:        | 6 February 2002                   |

**Summary of the matter addressed in the submission:**

The Submitters assert that Canada is failing to effectively enforce section 6(a) of the Migratory Bird Regulations (MBR) adopted under the Migratory Birds Convention Act, 1994, against the logging industry in Ontario. Section 6(a) of the MBR makes it an offence to disturb, destroy or take a nest or egg of a migratory bird without a permit. The Submitters claim that in the year 2001, clear-cutting activity destroyed over 85,000 migratory bird nests in areas of Central and Northern Ontario.

### 2002 Events:

3. On 6 February 2002, the Secretariat acknowledged receipt of a submission and began a preliminary analysis of it under the guidelines.
1. On 25 February 2002, the Secretariat determined that the submission met the criteria of Article 14(1) and requested a response from the concerned government Party in accordance with Article 14(2).
2. On 25 April 2002, the Secretariat received a response from the concerned government Party and began considering whether to recommend a factual record.
3. On 12 November 2002, the Secretariat informed Council that the Secretariat considers that the submission warrants development of a factual record.

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| <b>Submission ID:</b> | <b>SEM-02-002/MEXICO CITY AIRPORT</b> |
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| Submitter(s): | Jorge Rafael Martínez Azuela et al. |
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| Party: | United Mexican States |
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| Date received: | 7 February 2002 |
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### Summary of the matter addressed in the submission:

The submitters assert that Mexico is failing to effectively enforce its environmental laws with respect to the noise emissions originating at the Mexico City International Airport (*Aeropuerto Internacional de la Ciudad de México*—AICM). According to the Submitters, there are studies showing that the noise emissions of the AICM exceed the limits established in environmental law, causing irreversible damage to the thousands of persons living near the airport. The submission asserts Mexico's failure to effectively enforce Articles 5 paragraphs V and XIX, 8 paragraph VI, 155, and 189 through 204 of the General Law of Ecological Balance and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*), Mexican Official Standard NOM-ECOL-081-1994, and Articles 80 through 84 of the Environmental Law of the Federal District.

### 2002 Events:

4. On 12 February 2002, the Secretariat acknowledged receipt of a submission and began a preliminary analysis of it under the guidelines.
1. On 22 February 2002, the Secretariat determined that the submission met the criteria of Article 14(1) and requested a response from the concerned government Party in accordance with Article 14(2).
2. On 23 May 2002, the Secretariat received a response from the concerned government Party and began considering whether to recommend a factual record.
3. On 25 September 2002, the Secretariat determined not to recommend the preparation of a factual record. Under guideline 9.6, the process was terminated.

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| <b>Submission ID:</b> | <b>SEM-02-003/PULP &amp; PAPER</b> |
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| Submitter(s): | Sierra Legal Defence Fund et al. |
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| Party: | Canada |
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| Date received: | 8 May 2002 |
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### **Summary of the matter addressed in the submission:**

The submitters allege that Canada is failing to effectively enforce the pollution prevention provisions of the Fisheries Act and provisions of the Pulp and Paper Effluent Regulations against pulp and paper mills in Quebec, Ontario and the Atlantic provinces. Section 36 of the Fisheries Act prohibits the deposit of a deleterious substance in water frequented by fish, except as authorized by regulations such as the PPER. Failure to comply with these regulations is punishable by fines and jail time.

### **2002 Events:**

4. On 8 May 2002, the Secretariat acknowledged receipt of a submission and began a preliminary analysis of it under the guidelines.
1. On 7 June 2002, the Secretariat determined that the submission met the criteria of Article 14(1) and requested a response from the concerned government Party in accordance with Article 14(2).
2. On 6 August 2002, the Secretariat received a response from the concerned government Party and began considering whether to recommend a factual record.

**Submission ID: SEM-02-004/EL BOLUDO PROJECT**

Submitter(s): Arcadio Pesqueira Senday et al.

Party: United Mexican States

Date received: 23 August 2002

### **Summary of the matter addressed in the submission:**

The Submitters assert that Mexico is failing to effectively enforce its environmental laws with respect to the El Boludo mining project on the site called El Tiro, owned by the Submitters and located in the Municipality of Trincheras, Sonora, Mexico. According to the Submitters, the company Minera Secotec, SA de CV has exploited the low-grade placer gold deposit of the El Boludo project without complying with several conditions of the environmental impact authorization. The Submitters claim the company is violating the General Law of Ecological Balance and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*), paragraphs III and IV of Article 15 of the LGEEPA Hazardous Waste Regulations and the Mining Law and its Regulations.

### **2002 Events:**

3. On 23 August 2002, the Secretariat acknowledged receipt of a submission and began a preliminary analysis of it under the guidelines.
4. On 19 September 2002, the Secretariat notified the submitters that the submission did not meet the criteria of Article 14(1) and the submitters had 30 days to provide the Secretariat with a revised submission that conforms with Article 14(1).
1. On 10 and 24 October 2002, the Secretariat received more information from the submitters.
2. On 26 November 2002, the Secretariat determined that the revised submission met the criteria of Article 14(1) and requested a response from the concerned government Party in accordance with Article 14(2).

**Submission ID:** SEM-02-005/ALCA-IZTAPALAPA

Submitter(s): Angel Lara García

Party: United Mexican States

Date received: 25 November 2002

**Summary of the matter addressed in the submission:**

The Submitter asserts that Mexico is failing to effectively enforce its environmental legislation regarding alleged emissions of highly toxic contaminants by the company ALCA, SA de CV. The company manufactures footwear-related articles and its facility borders on the Submitter's residence in the Santa Isabel Industrial neighbourhood, located in Mexico City's Iztapalapa district.

**2002 Events:**

1. On 25 November 2002, the Secretariat acknowledged receipt of a submission and began a preliminary analysis of it under the guidelines.
2. On 17 December 2002, the Secretariat notified the submitter that the submission did not meet the criteria of Article 14(1) and the submitter had 30 days to provide the Secretariat with a revised submission that conforms with Article 14(1).



## ***Linking North American Communities***

In 2002, the North American Fund for Environmental Cooperation (NAFEC) awarded grants to 18 community-based environmental projects across North America, for up to C\$40,000 each, totaling C\$664,000.

Including the grants awarded in 2002, NAFEC has issued a total of 178 grants, amounting to C\$8.601 million, since the first grants were awarded in 1996.

In 2002, the Call for Proposals focused on three categories: renewable energy, energy conservation and energy efficiency. Within each category, specific criteria were outlined in order to link the grants closely to current CEC projects. During the 2002 grant cycle, nearly 200 proposals were received.

In addition to receiving funding for their community-based projects, 2002 grantees were invited to participate in a collective effort to identify common problems and solutions, best practices, supportive policies, etc. At the outset of their projects, grantees were to meet with representatives from similar community-based projects and from the CEC in order to define issues that they would examine during the course of their projects.

Also in 2002, based on the Joint Public Advisory Committee's (JPAC) advice to Council No. 02-02, the Parties revised the NAFEC Administrative and Funding Guidelines in order to better reflect NAFEC's current activities. The revised guidelines were approved by the Council in December 2002.

### **Grants awarded in 2002**

(all figures in Canadian dollars)

#### **Building Capacity in Mexico to Assess Renewable Energy Policy Options through Multi-Stakeholder Dialogue (Mexico-USA)**

*Center for Clean Air Policy (C\$40,000)*

#### **Building an Integrated North American Market for Tradable Renewable Energy Certificates (TRCs) (USA)**

*Center for Resource Solutions (CRS) (C\$40,000)*

#### **Creating Markets for Renewable Energy Products from Agriculture (USA)**

*Institute for Agriculture and Trade Policy (IATP) (C\$23,000)*

#### **Building Capacities—Communities at Risk: Empowering Families to Decrease Costs through Improved Home Energy Efficiency (Canada)**

*Conservation Corps Newfoundland and Labrador (C\$40,000)*

#### **Community Energy Planning with BC First Nations (Canada)**

*BC Energy Aware Committee (EAC) (C\$40,000)*

#### **Firewood Management and Conservation, an Alternative for Energy Savings in Two Microregions in the Sierra Tarahumara (Mexico)**

*Consultoría Técnica Comunitaria, AC (Contec) (C\$40,000)*

#### **Energy for the Future in Mexican Rural Zones: Production of Wood-saving Stoves (Mexico)**

*Servicios Ambientales de Oaxaca, AC (C\$40,000)*

**Technological Development, Implementation and Promotion of Solar Coffee Dryers in Peasant Communities in Chiapas, México (Mexico)**

*Foro para el Desarrollo Sustentable, AC (Foro) (C\$32,000)*

**Solar Coffee Dryers (Mexico)**

*Unión de Comunidades Indígenas de la Región del Istmo (UCIRI) (C\$40,000)*

**Renewable Energy & Energy Efficiency Program (USA)**

*FrontRange Earth Force (C\$40,000)*

**Sustainable Energy for Teocelo, Veracruz (Mexico)**

*Centro de Derecho Ambiental e Integración Económica del Sur, AC (Dassur) (C\$40,000)*

**The Cool Shops Program (Canada)**

*Greenest City Environmental Organization (C\$40,000)*

**Seeding Green Power: Community Pilot Project to Develop an International Green Standard for Small-scale Hydropower (Canada-USA)**

*Low Impact Hydropower Institute (LIHI) (C\$40,000)*

**Binational Initiative for Installing New Sustainable Thermoelectric Plants in the US/Mexico Border Region (Mexico-USA)**

*Proyecto Fronterizo de Educacion Ambiental, AC (PFEA) (C\$40,000)*

**Promoting Sustainable Energy Development in the Texas/Mexico Border Region (USA)**

*Environmental Defense (C\$40,000)*

**LakeWind Community Wind Power Consortium (Canada)**

*Toronto Renewable Energy Co-operative (TREC) (C\$40,000)*

**Smart Bylaws: How to Green Your Bylaws so They Protect Your Environment and Save Money (Canada)**

*West Coast Environmental Law Research Foundation (C\$40,000)*

**A Business and Charity Collaboration on Energy Conservation (Canada)**

*Western Valley Development Authority (C\$40,000)*

## 2 Country Reports

### *Canada*

Country Report on Implementation of the Commitments Derived from NAAEC.

The following report was submitted to the CEC Secretariat by Environment Canada in accordance with NAAEC. It is intended to highlight certain activities undertaken to meet the obligations of NAAEC by the federal government and the three signatory provinces—Alberta, Quebec and Manitoba.

### **Article 2—General Commitments**

#### *Article 2(1)(a)—State of the Environment Reports*

##### **Environment Canada**

State of the environment (SOE) reports and environmental indicators serve two key purposes: to report to Canadians on environmental trends of national significance; and to foster the use of science in policy and decision-making.

##### **Environmental Signals 2003**

As of December 2002, Environment Canada had completed, for publication in early 2003, two companion indicator reports, *Environmental Signals: Canada's National Environmental Indicator Series 2003* and *Environmental Signals: Headline Indicators 2003*. The former depicts trends in the environment through the use of 55 environmental indicators, organized in four theme areas: ecological life support systems; human health and well-being; natural resource sustainability; and human activities; while the latter highlights a small set of 13 indicators aimed at a non-specialist audience.

##### **National Environmental Indicators and State of the Environment Reporting Strategy and Background Report**

In response to the challenge of managing and sharing knowledge creatively to better serve Canadians, Environment Canada is preparing a *National Environmental Indicators and State of the Environment Reporting Strategy* that will foster partnerships among those developing and applying environmental indicators to provide a better national picture of the state of Canada's environment. Wide consultation on the strategy will begin in early 2003. An accompanying background report documents the major indicator initiatives in Canada and provides an analysis of the forces shaping the development and use of environmental indicators and reporting in Canada.

##### **State of the Environment Reporting at the Regional Level**

Environmental indicators and state of the environment reports were released or completed for several large-scale watersheds in Canada during 2002, including the Georgia Basin and Puget Sound Ecosystem, spring 2002 <<http://wlapwww.gov.bc.ca/cppl/gbpsei/documents/gbpsei.pdf>>, and the Great Lakes Basin. In the latter case, the State of the Great Lakes (SOLEC) Conference was organized in October 2002 to consider the assessments 43 draft indicators for the upcoming State of the Lakes report. <<http://www.epa.gov/glnpo/solec/2002/plenaries.html>>. New and updated regional environmental indicators are posted on Environment Canada's Pacific and Yukon Region web site

<[http://www.ecoinfo.ec.gc.ca/env\\_ind/indicators\\_e.cfm](http://www.ecoinfo.ec.gc.ca/env_ind/indicators_e.cfm)>. Both the Georgia Basin and the Great Lakes Basin initiatives are binational programs.

### **The State of the Environment Infobase**

The State of the Environment Infobase web site <<http://www.ec.gc.ca/soer-ree/English/default.cfm>> has been operational on Environment Canada's Green Lane for the past seven years. It continues to evolve and provides access to an increasingly broad range of environmental reporting information including the *Environmental Signals* reports, the National Ecological Spatial Framework (ecozones and ecoregions) and links to provincial, territorial, and some international SOE reports;

### **New Environmental Reporting Tools under Development and Testing**

A Canadian Biodiversity Index (CBI) is being developed that would provide Canadians and decision-makers with a clear, easy-to-understand message on the state of biodiversity in Canada. The current vision for the CBI is to aggregate ecosystem assessments, done at the local scale, into a national index. The first phase involved the development of a draft framework. The next phase will involve 'proof of concept' testing.

Use of the Water Quality Index (WQI) of the Canadian Council of Ministers of the Environment (CCME) has been expanded beyond its use in British Columbia, Alberta and Manitoba to include Atlantic Canada. The pilot study in Atlantic Canada was conducted by Environment Canada and its provincial partners. The study resulted in a set of recommended improvements to the Index and a draft report on the status of water quality in selected watersheds across Atlantic Canada.

### **Environment and Sustainable Development Indicators Initiative**

The National Round Table on the Environment and the Economy (NRTEE), with the support of Environment Canada, Statistics Canada and others, has completed a draft final report, based on three years of study, which recommends a short list of six indicators for air quality, freshwater quality, wetlands, forests, climate change, and educational attainment. The report recommends that the system of national accounts be expanded to include natural capital accounts. The report also recommends that Canada improve the coordination and accessibility of environmental information required to report on the state of the environment and the natural capital accounts through the continued development of the Canadian Information System for the Environment (CISE).

## **Alberta**

### **State of the Environment Reports**

Two State of the Environment Reports were published in fiscal year 2001–02:

- *State of the Environment Report, Terrestrial Ecosystems* provides information about Alberta's diverse landscapes—grasslands, parkland, forests, Canadian Shield, mountains and foothills. The report describes Alberta's natural regions, the major land uses in each (such as forestry, mining and agriculture) and how we are managing these important ecosystems. An electronic version is available at: <<http://www3.gov.ab.ca/env/resedu/soe.cfm>>.
- *State of the Environment Report, Air Quality* explains how Alberta's air quality is affected by natural factors, like climate and weather, and human factors such as economic activity and industrial emissions. Long-term air quality data for several important contaminants and Alberta's approach to managing air quality are detailed in the report. An electronic version is available at: <<http://www3.gov.ab.ca/env/resedu/soe.cfm>>.

## **Air Quality Reporting**

Alberta Environment continuously monitors air quality in Edmonton, Calgary, Red Deer and Fort Saskatchewan for outdoor concentrations of carbon monoxide, dust and smoke, nitrogen dioxide, ozone and sulfur dioxide. The Index of the Quality of the Air (IQUA) has been developed to provide the public with a meaningful measure of outdoor air quality. From the IQUA, air quality can be effectively rated as *Good, Fair, Poor* or *Very Poor*. Air quality was reported as “Good” in the province 97 percent of the time from January to December 2002.

Air quality reports for previous years can be viewed at:  
<<http://www3.gov.ab.ca/env/air/airqual/quart.html>>.

Alberta Environment has developed an interactive map guide for Alberta’s IQUA data that is available online. This interactive site gives hourly air quality updates. The interactive map guide can be accessed at: *Online Air Monitoring Data—Alberta* <[http://www.telusgeomatics.com/tgpub/ag\\_air/default.asp](http://www.telusgeomatics.com/tgpub/ag_air/default.asp)>.

## **Disease Monitoring in Alberta Ungulates**

Chronic wasting disease (CWD) is a serious disease of growing concern in wild and captive deer and elk. Alberta began an ongoing surveillance for CWD in 1996. The program is based largely on testing heads of hunter-killed elk and deer. During 2001, 1004 heads of wild deer and elk were examined and all were negative for CWD. This total includes 241 wild deer collected by Fish and Wildlife Division staff along the Alberta/Saskatchewan border as a response to identification of CWD in a wild deer in Saskatchewan. For further information visit the web site at: <<http://www3.gov.ab.ca/srd/fw/diseases/CWD/index.html>>.

## **Quebec**

In 2002, Quebec published over 60 scientific documents, including 37 in electronic format (28 of which were technical reports) on the environment ministry’s Internet site (<http://www.menv.gouv.qc.ca/eau/sys-image/index.htm>), six articles in scientific publications, 27 science conferences, and one brochure on pesticides in corn- and soy-growing areas. Quebec also launched an Internet site for its state of the environment report (*Rapport gouvernemental sur l’état de l’environnement—RGÉE*, <<http://www.rgee.gouv.qc.ca/>>), which provides information on three different environmental themes. Among other publications were three fact sheets on the state of the St. Lawrence river ([http://www.slv2000.qc.ca/plan\\_action/phase3/biodiversite/suivi\\_ecosysteme/portrait\\_a.htm](http://www.slv2000.qc.ca/plan_action/phase3/biodiversite/suivi_ecosysteme/portrait_a.htm)), summer and winter “info-smog” programs, and the “water quality” sections of the 14 regional portraits drawn up for public hearings on the pig farming industry. The subjects dealt with cover issues such as the effect of acid precipitation on lakes, the impacts of agriculture on water quality, pesticide sales, water quality in the St. Lawrence (including potential swimming areas), and the overall water quality of Quebec’s rivers or of key watersheds. Quebec also published information on lakes in tourist areas, studies on toxic contamination of specific aquatic habitats, and documents concerning new and existing issues, as well as several documents on air quality such as an inventory of greenhouse gas emissions from 1990 to 2000 (*Inventaire québécois des émissions de gaz à effet de serre 1990–2000*). Various overview documents were published or updated (an environmental atlas, an environmental statistics report, a broad portrait of water quality in rivers). The environment ministry (*ministère de l’Environnement—MEQ*) also continued, in collaboration with partners, its summer and winter info-smog programs in 2002.

The Focus Group on the Use of Pesticides in Urban Areas published its recommendations in a report on environmental management in urban areas entitled *Pour la protection de la santé et de l’environnement, la gestion environnementale en milieu urbain*.

With respect to wildlife, in 2002, Quebec published reports on the status of two species likely to be designated threatened or vulnerable—the woodland caribou and the Canada lynx.

### **Manitoba**

Manitoba has graduated from producing State of the Environment reports every two years to producing a “Sustainability Report” that provides important information to Manitobans on key indicators for sustainable development. Under the Sustainable Development Act, proclaimed in 1998, the Manitoba government must prepare a sustainability report based on a chosen set of indicators by July 2005. This work is underway, a draft set of indicators has been proposed, and during 2002, all departments in government began a process of contributing material and data for a draft sustainability report through the mechanism of an intergovernmental working group, coordinated by Manitoba Conservation. Further consultation will occur before a final set of indicators is adopted.

### ***Article 2(1)(b)—Environmental Emergency Preparedness Measures***

#### **Environment Canada**

##### **Environmental Emergency Plans for Industrial Facilities:**

By summer 2003, the federal government intended to promulgate regulations under s.200 of CEPA 1999, requiring the development and implementation of Environmental Emergency (E2) Plans for 174 substances that, if released to the environment as a result of an environmental emergency, may harm human health or environmental quality. These substances include 16 that are on the List of Toxic Substances under CEPA 1999 or are proposed for addition to the List. The one-year delay is largely due to the extensive consultations and significant feedback that had to be addressed.

A flexible approach to E2 planning will be pursued, thereby providing regulated facilities latitude to reflect local conditions and situations in the development and implementation of E2 plans. Canadian facilities subject to the proposed regulation would be required to submit information on location and quantities of listed substances including information on the preparation and implementation of environmental emergency prevention, preparedness, response and recovery (PPRR) plans. Notices would be required as the mechanism for compliance reporting. We will be pursuing administrative agreements or other mechanisms to avoid any duplication with other federal and provincial/territorial legislated requirements in this area.

Other activities related to emergency preparedness also took place in the regions.

### **Quebec**

Quebec has a province-wide emergency response system known as Urgence-Environnement. In February 2002, the MEQ set up an emergency coordination bureau (*Bureau de coordination des urgencies*) to better manage regional action teams. In terms of planning, Quebec completely revised its emergency plan (*Plan d'urgence*); updated and disseminated three courses on the Plan, on hydrocarbon spills, and on hazardous waste leaks; held a maritime spill exercise (*Prévention 2002*); participated in the development of ecologically acceptable methods of eliminating large numbers of carcasses during zoonosis outbreaks; and participated in discussions on CBRN (chemical, biological, radiological, and nuclear) attacks.

### ***Article 2(1)(c)—Environmental Education***

#### **Environment Canada**

One year after Environment Canada released the *Framework for Environmental Learning and Sustainability in Canada* at the World Summit on Sustainable Development on 3 September 2002, work

is underway to implement some of the recommendations made by environmental educators. The Framework provides a strategic vision for partners to develop action plans in support of a set of principles. To date, over 240 groups across Canada have developed such action plans, including federal departments and agencies, provincial governments, municipalities, labor organizations, nongovernment organizations, educational institutions, seniors, youth groups, aboriginal groups and others representing all sectors of Canadian society. Environment Canada is working to engage the private sector and family foundations to collaborate in the creation of a Clearinghouse for Environmental Learning, a place where educators can find learning materials and information on events of interest to educators and learners in Canada.

## **Alberta**

Environmental education programs on the topics of water quality, wetlands, waste management, forest protection, and climate change continued to be delivered to teachers, students, communities and the general public.

In March 2002, Alberta Environment's Public Education and Outreach Section opened its new environmentally friendly office, qualifying for Environment Canada's official EcoLogo certification. The office uses energy-efficient lighting and office machines, low-emission paints on the walls, environmentally friendly flooring, re-used office furniture and many other features. The office has implemented a "green procurement" policy and waste reduction strategy. Visit the Public Education and Outreach Section's web site for a virtual tour of the office at:

<http://www3.gov.ab.ca/env/resedu/tour.cfm>.

## **Quebec**

In Quebec, a campaign to raise public awareness of pesticides was held in 2002 ("Avoid pesticides... a natural thing to do," "We have nothing against dandelions or bugs!" "Do you wish you could roll in the grass?").

In collaboration with partners such as the Quebec order of agronomists (*Ordre des agronomes du Québec*) and the Quebec farmer's union (*Union des producteurs agricoles*), MEQ specialists offered several information sessions, principally concerning the Regulation respecting agricultural operations and the topic of fertilization.

The Quebec commission on sustainable development in the pig farming industry, which reports to the bureau for public hearings on the environment (*Bureau d'audiences publiques sur l'environnement*), began its work in September 2002. The mandate of this commission is to establish, within the framework of sustainable development, one or several models for pig production that takes economic, social, and environmental factors into account.

The crown corporation RECYC-QUÉBEC carried out a number of information, awareness-raising, and educational activities to stimulate and develop habits in the reduction, re-use, and recycling of waste. These activities included a public information campaign entitled *Tu rapportes, on recycle!*, *Les partenaires PRO-RECYC*, educational activities in schools, Brundtland Green Schools (630), recycling "caravans" from the Quebec network of business and recycling training centres (*Centres de formation en entreprise et récupération*), development of a network of primary-school environmental micro-businesses (*Réseau québécois des écoles micro-entreprises environnementales*), the Alcan recycling contest, and the first edition of Quebec garbage reduction week, organized by Quebec's network of waste recovery and sorting centres (*Réseau des Ressourceries du Québec*). RECYC-QUÉBEC also participated in the development of other projects, guides, and studies for the advancement of waste management in Quebec.

In November, Quebec hosted the World Youth Parliament for Water, an initiative of the International Secretariat for Water as part of preparations for the International year of Fresh Water in 2003. The young participants proposed concrete actions related to international water management, defined the role of youth in this issue, and drew up a draft bill on ensuring access to fresh water for all people.

The MEQ continued its monthly Internet publication of the adventures of “Rafale,” a series of stories about the environment for children aged 10 to 14 years (in French).

## **Manitoba**

Environmental education is an important function for government. In 2002, information was disseminated to the public on many environmental programs, including climate change programs. In follow-up to the *Report of the Manitoba Climate Change Task Force*, which consulted across Manitoba and developed recommendations for taking action on climate change, *Kyoto and Beyond* was released to the public in 2002. This document spells out the actions taken across Manitoba to address climate change. Through these documents and through important government-sponsored initiatives, such as the Climate Change Connection office, we hope to partner with Manitobans in building a sustainable Manitoba.

## ***Article 2(1)(d)—Scientific Research and Technology Development***

### **Environment Canada**

Canada, through the Environmental Technology Centre (ETC), undertook a variety of initiatives:

- National monitoring was conducted and the related air quality database maintained for Criteria Air Contaminants (SO<sub>2</sub>, CO, NO<sub>2</sub>, O<sub>3</sub>, and suspended particulate matter) through the federal-provincial National Air Pollution Surveillance Network. Under the Canada-US Air Quality Agreement Ozone Annex, C\$5.3M of monitoring and sampling equipment was purchased to enhance the Network and routine measurements of PM<sub>2.5</sub> mass were instituted.
- New and improved methods for measurement of toxic substances in ambient air were developed, including certain volatile organic compounds, metals, organic acids and amines, and other ionic species.
- Emission testing was completed on an enclosed flare, a boiler, and three engines to evaluate the effectiveness of landfill gas combustors for the destruction of volatile organic compounds and the potential formation of substances such as polycyclic aromatic hydrocarbons and chlorinated dioxins and furans.
- A collaborative project was initiated with New York State and City to evaluate the emissions effects of various fuel blends and lubricating oils, using a typical urban bus heavy-duty engine.
- The ETC provided assistance and testing equipment to support the development of emissions factors for the City of Houston and the US Environmental Protection Agency using the unique ETC-developed DOES-2<sup>TM</sup> (Dynamic Dilution On-Off-road Exhaust Emissions Sampling System) technology. Ten vehicles, such as front-end loaders and tractors equipped with state-of-the-art after-market control technologies, were tested.
- Emissions from a variety of mobile sources and alternative fuels were measured to support technology evaluation, development, and demonstration projects targeted towards reduced emissions of greenhouse gases. This included work on: hybrid propulsion systems for urban buses and light-duty vehicles; ethanol fuels, both neat and blended, for use in light-duty vehicles and urban buses; and fuel emulsions for on-road vehicles and off-road equipment.
- The Level of Quantification (LoQ) is being used as the benchmark for achieving virtual



elimination for Track 1 substances under CEPA 1999 Regulations. The LoQ study reports on hexachlorobutadiene and five chlorobenzenes in chlorinated solvents were published.

- In collaboration with the Canadian Association for Environmental Analytical Laboratories and with support from the Canadian Council of Ministers of Environment, a multi-lab validation study was completed on the analytical Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons-in-soil. Studies were also undertaken comparing external and internal calibration standard methods for gas chromatographic determination of petroleum hydrocarbons in soil as well as comparing different silica gel sample-cleanup techniques.
- In support of the Great Lakes Binational Toxics Strategy, involving cooperation with the US Environmental Protection Agency, the ETC evaluated emissions from bio-medical incinerators in Toronto and Hamilton, a copper smelter acid plant in Timmins, a recovery boiler in Red Rock, and a crematorium in Roselawn.
- Emissions from a variety of mobile sources were measured to support technology evaluation, development and demonstration projects, Priority Substances List assessments, and emissions inventory development. This included work on: diesel fuel reformulations for both on- and off-road heavy-duty engines (e.g., heavy trucks, buses and construction equipment); biodiesel and ethanol-diesel for heavy-duty urban bus applications; ethanol fuels, both neat and blended for use in light-duty vehicles; heavy-duty diesel engines; utility engines; and hybrid vehicles powered by a variety of alternative energy sources.
- A project with the US Environmental Protection Agency was completed on the chemical analysis of the most common oils in North America, and the ETC Oil Properties Database on the Internet was updated with new information for oil spill contingency planning and response.
- Radioisotope-labeled substrates were used to follow the fate of selected aromatic compounds in weathered oil and determine whether they are completely or incompletely oxidized under various conditions of nutrient amendment, temperature, oil type, etc. The results of this work were used to finalize the Cold Marine Oil Spill Bioremediation Agent Efficacy Test.
- Research continued on soil cleanup technologies, including: adsorption/microfiltration technology for treating arsenic-contaminated water; the Two-Phase Partitioning Bioreactor for PCB degradation; lignin and lignin derivatives to reduce/stabilize hexavalent chromium; cyclodextrins to remediate toxic methylmercury in soil and water; enhanced soil flushing for the simultaneous removal of organic and heavy metal contamination; and, solar detoxification of groundwater contaminated with petroleum hydrocarbons.
- A sediment testing method and a sediment compliance testing reference method in support of the CEPA 1999, Ocean Disposal Regulations were published. Two Guidance Documents were developed on Toxicity Reduction Evaluation techniques related to metal mining effluents.
- An international review was completed on soil microcosm test systems for use in standardized testing to estimate the survival, persistence, gene-transfer potential, and ecological effects of genetically modified organisms. Testing at the ETC and Carleton University, Ottawa, was started to assess the potential hazards posed by four fungal-based and twenty-two bacterial-based substances from the Domestic Substances List of the CEPA 1999.
- Pilot-scale demonstration continued to apply the Microwave-Assisted Processes (MAP™) for the extraction of canola oil and to further assess replication opportunities with other agricultural feedstock selected for their value to Canada and for potential for significant reductions in GHG emissions.

Canada, through the Wastewater Technology Centre (WTC), undertook a variety of initiatives:

- A report was prepared to provide an overview of operational options municipal wastewater treatment facilities could use to optimize their anaerobic digester operations, with a focus on methane production for energy recovery and greenhouse gas reductions.
- An anaerobic digester pilot plant construction project was also initiated. The pilot will first be operated at the WTC but will subsequently be mobilized to various municipal wastewater treatment facilities for demonstration projects. The focus of the pilot plant will also be methane gas production.
- The WTC Laboratory has recently begun the analysis of 11 acidic pharmaceutical compounds in liquid samples. During 2002–03, work has concentrated on the implementation and validation of this method, as well as in the development of a new analytical method for detecting these compounds in biosolids. This new biosolids method is currently being validated for 8 of these 11 compounds (salicylic acid, clofibrac acid, ibuprofen, gemfibrozil, fenoprofen, naproxen, ketoprofen and dichlofenac-Na).
- A study to evaluate the relative effectiveness of microwaves for the destruction of pathogens in municipal biosolids and sludges was initiated and is ongoing. Microwave treatment is being compared to conventional heating and we will be looking for other co-benefits of the microwave process.
- Another project involves the development of a DNA microarray-based test for simultaneous and cost-effective testing of twenty of the most common pathogens found in municipal wastewater effluents and biosolids. Monitoring of public and private water sources by rapid and comprehensive testing will likely reduce the number of outbreaks, infections, and deaths attributable to these infectious agents.

## **Alberta**

The 2001–02 fiscal year budget for the Research Needs and Priorities Committee (RNP) was approximately C\$1.5 million for 35 projects in the areas of sustainable ecosystems, air, water/groundwater, land reclamation/remediation, and climate change.

In 2002, the Alberta government provided C\$10,450,000 for the completion of the Western Canada Study on Animal Health Effects Associated with Exposure to Emissions from Oil and Natural Gas Field Facilities. Data on cattle productivity, animal health, nutrition and herd management was collected. Approximately 200 herds, containing roughly 30,000 animals, participated in the study. The study also included a wildlife species, the European Starling, for which wildlife health and immunotoxicology data were collected in spring 2001 and 2002. The study encompassed passive monitoring of cumulative monthly exposures to H<sub>2</sub>S, SO<sub>2</sub> and VOCs. A program of particulate matter (PM<sub>1.0</sub>) sampling that included analyses of polycyclic aromatic hydrocarbons (PAHs) and selected metals was also implemented at selected sites.

A partnership was formed with Environment Canada to study and model ozone and particulate matter formation in Alberta. Alberta Environment provided the emissions inventory data and technical expertise for the research study. The results of this study have been used in developing an implementation plan for Canada Wide Standards (CWS) for particulate matter and ozone.

## **Quebec**

In 2002, under the “environment” portion of its science and technology fund for governmental priorities (*Fonds des priorités gouvernementales en science et en technologie*), the MEQ funded 17 research and technical development projects. Grants were for up to C\$760,000. These projects covered the sectors of water, air, and soil, as well as waste management and agricultural practices.

Twenty-three projects, totaling over C\$790,000, were approved in 2002 under Quebec's environmental research and development assistance program (*Programme d'aide à la recherche et au développement en environnement*). This program is aimed primarily at producing the scientific data on which to base intervention programs related to environmental quality and sustainable development, according to priorities established by the MEQ. The topics addressed are water and air management as well as conservation of biodiversity.

The MEQ also managed several other assistance programs to support the activities of various non-profit organizations. In 2002, as part of its program to help social economy businesses in the waste management sector (*Programme d'aide aux entreprises d'économie sociale œuvrant dans le secteur de la gestion des matières résiduelles*), the ministry distributed C\$3.14 million in grants for 27 projects in the area of recycling, development, re-use, and re-sale of waste materials. Under its Environmental Priority Assistance Fund (*Programme d'aide relatif aux priorités en environnement*), the MEQ provided financial assistance totaling over C\$273,000 for 15 tangible projects in the areas of education and environmental protection or restoration. These projects fell under the following five priorities: climate change, conservation of biodiversity, water management, agricultural pollution, and the promotion of sustainable development. The Action-Environnement program continued to support both the vitality of organizations working in the area of environmental protection and also the implementation of environmental projects in Brundtland Green Schools and in colleges.

With respect to climate change, the Quebec government provided funding to several research and technological development projects aimed at better understanding global warming and the technological means available to attenuate the phenomenon. Technological development projects included sustainable transportation pilot projects such as the "Biobus" (the use of biodiesel in Montreal busses), low-velocity vehicles (electric cars) in Saint-Jérôme, and the Université de Sherbrooke's hybrid vehicle project, Réflexe. Research projects started in 2002 included work by the Ouranos Consortium on regional climatology and adaptation to climate change. Also notable were research projects on the impact of permafrost melting on northern communities; on the broad impacts of global warming on productivity and changes in the geographical limits of the boreal forest; on problems associated with rising ocean levels, including coastal erosion; on regional climate modeling; and on assessing impacts on the North's large hydric systems.

The crown corporation RECYC-QUÉBEC continued its activities in conjunction with the research and development funding assistance program (*Programme d'aide financière en matière de soutien à la recherche et au développement*). It monitored 15 ongoing projects aimed at upgrading and improving collection and recycling equipment and at finalizing the standard on aggregates (*Norme sur les agrégats*); it also monitored the implementation of another 15 projects under the composting support funding program (*Programme d'aide financière en matière de soutien au compostage*). With the financial support of the Société des alcools du Québec, RECYC-QUÉBEC set up two funding programs to stimulate the recycled glass industry and to help maintain collection and development activities for this recyclable. Financial support was also given to technological development assistance projects for the management of used tires in Quebec.

The year 2002 saw the establishment of the first channels of an integrated materials-based approach, which will allow the principal players involved in products' life cycles to identify promising measures for the expansion of the collection and recycling of waste materials (R&D, economic research, technical research, financial assistance, standards, etc.).

In the spring, a water quality study began in 159 municipalities in regions with significant surpluses of manure. The goal of the study is to better document the environmental and health risks possibly associated with intensive livestock production.

2002–2003 will see the completion of research projects on the biology of six threatened or vulnerable plant species: the Gulf of St. Lawrence aster (a threatened species endemic to the Gulf of St. Lawrence), the southern twayblade (a small peat-bog orchid), and four ferns whose status has yet to be determined. A research project on the issue of invasive plant species along the St. Lawrence corridor was also carried out.

## **Manitoba**

Research is carried out in various branches of government related to environmental protection and conservation. In 2002, a sample of the research carried out included; Bovine Tuberculosis and Chronic Wasting Disease monitoring programs, woodland caribou monitoring programs, forest inventory analyses in various forest sections of the province, fish habitat research, and livestock manure management research, and the Assiniboine River Study to determine minimum flow requirements for sustainability and habitat protection. Manitoba also partners with many agencies external to government through the Sustainable Development Innovations Fund to promote and develop research into important matters related to environmental protection.

## ***Article 2(1)(e)—Environmental Impact Assessment***

### **Environment Canada**

In fiscal year 2002, the Parliament of Canada considered several amendments to the Canadian Environmental Assessment Act. These amendments were expected to come into force in the fall of 2003 to strengthen the federal environmental assessment process. These changes will make that process more predictable and timely, promote high-quality assessments, and increase opportunities for meaningful public participation in the federal process.

Also in fiscal year 2002, federal departments and agencies initiated a total of 5977 screenings and the Canadian Environmental Assessment Agency assisted in the coordination of 21 active comprehensive studies, completing and providing the federal environment minister's determination on seven, in accordance with respective obligations under the Canadian Environmental Assessment Act. In addition, the Canadian Environmental Assessment Agency managed three active panel reviews and worked on another six projects in the pre-panel referral stage.

## **Alberta**

Environmental reviews were carried out for every approval issued under the Alberta Environmental Protection and Enhancement Act or the Water Act. This included reviewing environmental impact assessment (EIA) reports for twenty-one major resource projects, including three large coal-fired power plants. EIA report reviews were completed for four projects, three of which were subject to public hearings. Screenings of two fuel conversion projects were completed and it was determined that EIA reports would not be required.

## **Quebec**

Quebec applied its environmental assessment procedure to projects targeted under the Regulation respecting environmental impact assessment and review. In 2002, 90 projects were subject to one step or another of the environmental impact assessment and review procedure in force for southern Quebec. Nineteen of these projects were granted authorization and 38 new projects registered for the process. The projects currently being processed break down as follows: 48 land-based projects (roads, landfill sites, high-voltage electrical transmission lines), 31 water-based projects (hydroelectric plants, dredging, filling), and 11 industrial projects.

Forty-nine projects were assessed under the James Bay and Northern Quebec Agreement, including 29 new files. Twelve decisions were rendered. The projects assessed primarily involved hydroelectric projects, mining projects, and the establishment of outfitting operations.

## **Manitoba**

To ensure that development maintains sustainable environmental quality, the Environmental Approvals Branch of Manitoba Conservation:

- administers development approval requirements of the Environment Act, the Dangerous Goods Handling and Transportation Act, the Public Health Act and the Pesticides Regulation,
- controls municipal, industrial, and hazardous waste sources of pollutants,
- minimizes environmental impact of development proposals, and
- minimizes adverse effects to the environment and public health from pesticide use.

Sixty-one project proposals were received under the Environment Act in 2002. These were processed and reviewed according to the Act. Major reviews conducted in 2002 included: a license issued to Manitoba Hydro for the Selkirk Generating Station to phase out the use of coal in favour of using natural gas to reduce air pollution, and a major environmental review of the Midwest Food Products potato processing facility has been undertaken in response to groundwater concerns.

## ***Article 2(1)(f)—Economic Instruments***

### **Environment Canada**

Economic instruments and incentives are a core element of Environment Canada's environmental innovation agenda. In 2002, Environment Canada worked in collaboration with other federal departments, as well as with external and nongovernmental organizations to explore the potential for economic instruments and incentives to help manage environmental concerns in areas such as climate change, reducing smog and acid rain, and curbing releases of substances of concern.

A federal government committee, co-led by Environment Canada and Natural Resources Canada, undertook a comprehensive analysis of the impact of the Kyoto Protocol. The analysis examined a package of possible government action to address climate change including: the domestic measures announced in Action Plan 2000 and in the 2001 Budget; agricultural and forest sinks from current practices; a domestic emissions trading (DET) system for the use of large industrial emitters; about 40 additional targeted measures (some of which are enhancements of Action Plan 2000 measures); and a system of offsets. The analytical work provided a foundation for the Government of Canada's Climate Change Plan for Canada, which was released in November 2002. Canada's Climate Change Plan includes two key market-based economic instruments: an output-based emissions trading system for the large final emitters in the economy and an offset credit trading system for other sectors.

In October 2002, Environment Canada launched the Pilot Emission Removals, Reductions and Learning (PERRL) program. This is a five-year, C\$15 million pilot project to encourage Canadian companies and organizations to take immediate action to reduce greenhouse gas emissions. The first purchase round was held in fall 2002, and focused on landfill gas capture and combustion, and CO<sub>2</sub> capture and geological storage projects.

In 2002, Environment Canada launched preliminary analysis of multi-pollutant emissions trading. The Canadian and US governments also established a work plan for analysis of the potential for cross-border emissions trading of air pollutants (NO<sub>x</sub> and SO<sub>2</sub>).

Environment Canada continues to be an active participant in the National Round Table on the Environment and the Economy (NRTEE)'s Ecological Fiscal Reform project. The project has two main objectives: to conduct an in-depth exploration of the concept of ecological fiscal reform, and to focus on a few specific environmental issues with a view to developing a suite of concrete measures. Case studies were completed on the potential for economic instruments and incentives in the areas of conservation of agricultural landscapes, cleaner transportation, and substances of concern. The case studies showed that there is a role for ecological fiscal reform in Canada, and that it can offer many benefits over traditional policy instruments. Another case study, launched in May 2002 to examine the potential for economic instruments to reduce sulfur levels in heavy fuel oil, was to be completed in 2003.

## **Alberta**

### **Emissions Trading**

Alberta Environment is exploring the potential for setting broad-based air emission objectives and establishing air emissions trading in Alberta. The objective of the project is to improve environmental outcomes cost-effectively and ensure clean areas are kept clean, despite pressures of industrial development and urban expansion. Air pollutants such as nitrous and sulfur oxides and greenhouse gases, are included in the scope of the project.

The University of Alberta's Centre for Applied Business Research on Energy and the Environment (CABREE) produced an overview report, titled *Initial Scoping of GHG Emission Trading Potential in Alberta*, which examined the potential for greenhouse gas emission trading in Alberta. An electronic version of the report is available at: <[http://www3.gov.ab.ca/env/air/emissions\\_trading/pdf/cabree.pdf](http://www3.gov.ab.ca/env/air/emissions_trading/pdf/cabree.pdf)>.

A further study, titled *Designing a 4P Trading System for Alberta: Lessons Learned from Existing Trading Regimes*, was completed in the summer of 2002. An electronic version of the review is available at: <[http://www3.gov.ab.ca/env/air/emissions\\_trading/pdf/tradingreview.pdf](http://www3.gov.ab.ca/env/air/emissions_trading/pdf/tradingreview.pdf)>.

### **Market-based Recycling Programs**

Alberta has market-based programs for the recycling of used oil, tires, and beverage containers and a voluntary stewardship program for milk containers.

For the recycling of used oil, filters and containers, there are varied environmental handling charges at the wholesale product level. In 2001–02 the return rates were 71 percent for used oil, 86 percent for filters and 43 percent for oil containers. For more information on used oil recycling in Alberta, visit the Alberta Used Oil Management Association's web site at: <<http://www.usedoilrecycling.com/index.cfm>>.

Through the scrap tire program, which currently places a \$4.00 Advanced Disposal Surcharge on tires at the retail level, there were 2.86 million tires or passenger tire equivalents (PTEs) recycled in Alberta during 2002. For more information visit the Tire Recycling Management Associations' web site at: <<http://www.trma.com/>>.

The deposit-refund program for recycled beverage containers achieved a return rate of 79 percent. For more information on beverage recycling, visit the Beverage Container Management Board's web site at: <<http://www.bcmb.ab.ca/>>.

The Alberta Dairy Council Milk Container Recycling Program achieved a 45.2 percent return rate of plastic milk jugs for the fiscal year ending 30 June 2002. In January 2002, the program was expanded to include polycoat milk cartons. For more information on the Milk Container Recycling Program, visit their web site at: <<http://www.milkcontainerrecycling.com/outlets.htm>>.

## **Quebec**

The Quebec government continued to charge a C\$3 environmental surcharge on the purchase of each new tire. The amounts thus collected will be used to fund two grant programs aimed at collecting and recycling used tires.

In December 2002, Quebec adopted Bill 102 (2002, c.59), which supplements the powers conferred under the Environment Quality Act. Under the bill, when municipalities provide services with respect to certain waste materials, companies must help offset the costs incurred by municipalities to collect and recycle such materials. This heightened responsibility for producers is one of the principles of the *Québec Residual Materials Management Policy, 1998-2008*.

Between 1 April 2002 and 17 April 2003, 44 projects were registered in Quebec's Urban Contaminated sites Rehabilitation Program, Revi-Sols. This program aims to encourage the re-use of contaminated sites and to revitalize the urban fabric. These projects will lead to approximately C\$34.4 million in restoration work (with grants of about C\$15.5 million), and about C\$0.8 million in real-estate investment.

An environmental tax on tetrachloroethylene continued to be levied in 2002. This tax is aimed at reducing the use of this substance, which is employed primarily by dry-cleaning businesses.

## **Manitoba**

Through various economic instruments, the Manitoba government continues to promote sustainable development through the public and private sector. Funding programs, such as the Sustainable Development Innovations Fund, the Climate Change Action Fund, the WRAP Fund, Special Conservation and Endangered Species Fund, and the Fisheries Enhancement Initiative all work to promote environmental goals and objectives. The Sustainable Development Innovations Fund provided C\$3.4 million in funding for worthy projects in 2002, and a significant portion of these dollars were accessed by volunteer and non-profit organizations.

### ***Article 2(3)—Pesticide/Toxic Substance Prohibition***

#### **Environment Canada**

Canada added the following substances to the Export Control List (Part 2 of Schedule 3) of CEPA1999 during 2002: binapacryl, toxaphene, 1,2-dichloroethane, and ethylene oxide. These substances have become subject to the prior informed consent (PIC) procedure as pesticides under the Rotterdam Convention.

### **Article 3—Levels of Protection**

#### **Environment Canada**

##### **Species at Risk Legislation**

The Government of Canada passed federal legislation, the Species at Risk Act, on 12 December 2002, which was to come into force in 2003. The purposes of the Act are to prevent wildlife species from becoming extirpated or made extinct, to provide for the recovery of extirpated, endangered or threatened species, and to manage species of special concern in order to prevent them from becoming at risk.

The Species at Risk Act ensures that species are assessed under a rigorous and independent scientific process. It also requires the development of recovery strategies and action plans for species that are found to be most at risk. To address the critical habitat requirements of listed species, the Act emphasizes

cooperation with Canadians as the first and preferred approach. A critical habitat safety net is available as a backstop if cooperative measures fail.

The Species at Risk Act is one element of the three-part Canadian Strategy for the Protection of Species at Risk. The other two are the Accord for the Protection of Species at Risk that unifies the efforts of the provinces, territories and federal government on this issue, and complementary stewardship and incentive programs to assist Canadians in protecting species at risk and their habitat.

### **The Metal Mining Effluent Regulations under the Fisheries Act**

The new Metal Mining Effluent Regulations, which came into force on 6 December 2002, are among the most comprehensive and stringent national standards in the world. The new regulations apply to all Canadian metal mines (approximately 100) operating in seven provinces and three territories. They introduce more comprehensive and stringent effluent quality standards, prohibit the discharge of effluent that is acutely lethal to rainbow trout and require all mines to conduct a comprehensive Environmental Effects Monitoring program.

### **Export of Substances Under the Rotterdam Convention Regulations**

The Export of Substances Under the Rotterdam Convention Regulations came into force on 1 December 2002, and implement the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade in Canada. The main purpose of the regulations is to ensure that chemicals and pesticides subject to the PIC procedure are not exported to parties to the Convention, unless the importing Party has provided its "prior informed consent" to the shipment. Canada has also undertaken to ensure that Canadian exporters respect any conditions imposed on the importation of these substances.

### **Regulations Amending the Ozone-depleting Substances Regulations, 1998**

The Regulations Amending the Ozone-depleting Substances Regulations, 1998, came into force on 28 February 2002. They revoke the exemption for the use of CFCs in human or animal health-care products and establish a phase-out schedule that will eliminate the use of CFCs in metered dose inhalers by 1 January 2005. This fulfills a commitment made under the Montreal Protocol on Substances that Deplete the Ozone Layer.

### **Additions to the List of Toxic Substances**

Canada proposed the addition of the following substances to the List of Toxic Substances (Schedule 1) of the Canadian Environmental Protection Act, 1999 (CEPA 1999) in 2002: ethylene oxide, formaldehyde, N-nitrosodimethylamine (NDMA), hexachlorobutadiene; ozone and its precursors and precursors to respirable particulate matter less than or equal to 10 microns (PM<sub>10</sub>), particulate matter containing metals that is released in emissions from copper smelters or refineries, or from both, and particulate matter containing metals that is released in emissions from zinc plants. Although these substances are only being added to the List of Toxic Substances at this time, risk management actions to address these substances will follow.

## **Alberta**

### **Climate Change**

Alberta Environment has developed its own principles-based climate change strategy. In 2002, Alberta Environment released *Albertans and Climate Change: Taking Action*, that provided a comprehensive framework for an aggressive set of actions that will reduce greenhouse gas emissions and position Alberta's economy to operate in a way that contributes to our environmental future. An electronic version



of the document is available at: <<http://www3.gov.ab.ca/env/climate/actionplan/docs/takingaction.pdf>>.

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

Alberta continued its strong support for comprehensive air management through CASA, a collaborative decision-making body that involves representation by industry, government and public interest organizations. Projects under CASA include: electricity, particulate matter (PM) and ozone, ambient monitoring—operations, vehicle emissions, flaring/venting, animal health, acidifying emissions, and pollution prevention/continuous improvement.

The CASA Project Team for Particulate Matter and Ozone continued its work on implementation planning for the Canada-wide Standards on Particulate Matter and Ozone. Progress was made in the design of a management framework for particulate matter and ozone in Alberta. To view the work of the team, visit the web site at: <[http://www.casahome.org/for\\_stakeholders/issue\\_teams/PMO3.asp](http://www.casahome.org/for_stakeholders/issue_teams/PMO3.asp)>.

The Alberta Energy and Utilities Board (AEUB) reports that solution gas flare volume reductions were ahead of scheduled targets. Preliminary data indicates a reduction of approximately 50 percent, substantially exceeding the target of 25 percent for 2001. Recommendations for management practices were made to the upstream petroleum industry. The report can be viewed at: <<http://www.casahome.org/uploads/FVPTRptANDRecsFinalVersionJUN-21-2002.pdf>>.

Alberta Environment is implementing a three-year work plan (2001–04) to develop ambient air quality objectives for a number of priority substances, identified at a stakeholder workshop facilitated by the CASA Secretariat with the advice of the CASA Ambient Air Quality Guidelines Review Team. The priority substances identified are carbon monoxide, oxides of nitrogen, ozone, sulfur dioxide, hydrogen sulphide, total reduced sulfur, particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), dust and smoke, hydrocarbons, ammonia and carbon dioxide. For more information on CASA initiatives, visit the CASA web site at: <<http://www.casahome.org/>>.

### **Water Strategy**

Alberta is facing a number of challenges on its water resources due to economic and population growth. In 2001, the Government of Alberta announced that it would proactively respond to these challenges through the development of a comprehensive water strategy. In 2002 Albertans were given the opportunity to provide advice to the government through an extensive consultation process. Based on this advice, the government began to develop the strategy. The strategy will take a forward thinking approach that is provincial in scope but sensitive to regional needs. It will address four objectives: healthy, sustainable ecosystems; a safe, secure drinking water supply; reliable, quality water supplies for a sustainable economy; and the knowledge necessary to make effective water management decisions. The strategy will address short-, medium- and long-term issues and help Alberta identify and better understand the challenges now and in the future (5 to 15 years). It will identify the options and choices that are available to address water issues in the province and set clear priorities for action. To view the consultation document, visit the web site: <[http://www.waterforlife.gov.ab.ca/docs/summary\\_report.pdf](http://www.waterforlife.gov.ab.ca/docs/summary_report.pdf)>.

### **Quebec**

Quebec adopted its water policy (in English: <<http://www.menv.gouv.qc.ca/eau/politique/index-en.htm>>; in French: <<http://www.menv.gouv.qc.ca/eau/politique/index.htm>>; overview in Spanish: <<http://www.menv.gouv.qc.ca/eau/politique/FaitsSaillantsPNEesp.pdf>>), which establishes a new vision of water governance by calling upon stakeholders to work together and be accountable. This policy recognizes both the fundamental right of Quebecers to full access to water to fulfill their basic needs and also the will to preserve water quality and aquatic ecosystems. The policy fosters a broad vision through the adoption of integrated, watershed-based management. The government of Quebec has put forward 57

commitments in terms of water monitoring and purification in the agricultural, municipal, and industrial sectors; of access to more complete information; of protecting and restoring aquatic ecosystems; of representing Quebec's interests before trans-border and international bodies, especially for the management of the Great Lakes and the St. Lawrence; and of improving municipal infrastructures and public services.

Quebec adopted the Groundwater Catchment Regulation, which protects groundwater exploited for human consumption and which regulates such exploitation. The Act to establish the Fonds national de l'eau was also adopted; this act provides for the creation of a national water fund to support measures taken by the MEQ to ensure the governance of water.

In December 2002, the government of Quebec adopted the Natural Heritage Conservation Act, which integrates and replaces the provisions of the Ecological Reserves Act and the Act respecting nature reserves on private land. The new Act contains measures to promote the establishment of a network of protected areas that are representative of Quebec's biodiversity and creates new categories of protected areas such as biodiversity reserves, aquatic reserves, and man-made landscapes, as well as a system of authorization and guidelines to better ensure the preservation of certain natural areas of rare or exceptional value.

In early 2002, the Quebec government authorized the creation of the Parc national de Plaisance and established the Pierre-Étienne-Fortin wildlife refuge, which will help to protect the habitat of the copper redhorse, a threatened aquatic species.

In December 2002, the government of Quebec approved a five-year program (2002–2007) for the creation of 12 new ecological reserves and the modification of three existing reserves, covering a total area of 747 square kilometers. In April 2002, the government created the Mine-aux-Pipistrelles ecological reserve, which protects the only known hibernation site in Quebec of the eastern pipistrelle, a species of bat that is threatened or vulnerable in the extreme northern portion of its range. Quebec also created the Chicobi ecological reserve, which aims to provide permanent and integral protection for a group of natural areas typical of northwestern Quebec. In September 2002, the government approved the modification of the limits of the Manche-d'Épée ecological reserve in the Gaspé region.

In September 2002, the government recognized three private natural reserves—a new protection status in Quebec—the Île-Beaugard reserve, the Marais-du-Nord reserve, and the Marais-Trépanier reserve. The latter of the three covers approximately 247 hectares and employs a sustainable development and integrated resource management approach to conservation.

With respect to threatened or vulnerable plant species, 2002–2003 marked the end of phase 3 of the five-year Saint-Laurent Vision 2000 Canada–Quebec agreement, which took protection measures affecting 22 key species, notably the legal designation of 17 species—half of the 34 species currently regulated in Quebec. In addition, as part of an agreement with the Quebec natural resources ministry (*ministère des Ressources naturelles du Québec*), silvicultural prescriptions were issued for 30 public forest sites. Also, as part of the strategic action plan for protected areas, over 50 plant species were affected in 2002–2003 by the setting aside of lands as biodiversity reserves and proposed parks.

In 2002, the Regulation respecting environmental impact assessment and review was amended to promote methods of management associated with reduction, re-use, recycling, and reclamation rather than those associated with elimination. The Rules of procedure relating to the conduct of public hearings were also amended to facilitate how information periods and public hearings are conducted.

Bill 72 has replaced Division IV.2.1 of the Environment Quality Act (EQA) and amended the Land Use

and Planning Development Act, establishing new regulations for the protection of lands and their rehabilitation in cases of contamination. The amendments to the EQA also provide for the abolition of boring and drilling permits for groundwater exploration and require certain notices to be registered with the ministry so they can be made public. Another amendment to the EQA, Bill 99, was adopted in June 2002 and provides for the exchange of information between the MEQ and Quebec's farm assistance agency, La Financière agricole du Québec. These legal provisions will help to implement the concept of "eco-conditionality," i.e., linking, wholly or partially, financial assistance given to agricultural enterprises to conformity with environmental standards.

The Land Protection and Rehabilitation Regulation sets out values relating to certain contaminants present in soils and determines categories for specific industrial and commercial activities; it also establishes, for certain such activities, the cases, conditions, and time limits under which the monitoring of groundwater downstream from the site of the activity must be carried out.

On 1 May 2002, the government of Quebec extended the application of its industrial waste reduction program (*Programme de réduction des rejets industriels*) to businesses in the mining, metallurgy, and cement sectors. This program was already in effect for businesses in the pulp and paper sector.

In September 2002, Quebec published a proposed regulation to govern halocarbons (*Règlement sur les halocarbures*), which aims to bring Quebec's halocarbon standards into line with the recent amendments made by signatories, including Canada, to the Montreal Protocol.

Four proposed regulations were published in the *Gazette officielle du Québec* on 4 September 2002 to amend the Regulation respecting hazardous materials, the Regulation respecting the quality of the atmosphere, the Regulation respecting environmental impact assessment and review, and the Regulation respecting pulp and paper mills.

The Pesticide Management Code and the Regulation respecting permits and certificates for the sale and use of pesticides, which were made public on 3 July 2002, aim to strictly govern the storage, sale, and use of pesticides in Quebec.

Quebec's legislation to restrict pig farming (*Loi portant des restrictions relatives à l'élevage de porcs*) was adopted in June 2002. This Act confirms the government's decision to impose a stoppage in the issuing of authorization certificates for pig production.

The Regulation respecting agricultural operations, adopted in June 2002, is aimed primarily at achieving balanced levels of phosphorus in soils by 2010. This new phosphorus management approach takes into account the agronomical needs of plants to grow and is based on a true "farm-by-farm" calculation of animal wastes rather than on average regional values. The new Regulation also provides for a two-year stoppage in the authorization of new pig farms in 281 municipalities with manure surpluses, called limited activity zones (*zones d'activités limitées*). In August 2002, the MEQ banned the spreading of particularly foul-smelling bio-solids.

The Dam Safety Act and its accompanying regulation establish a series of measures governing the construction, modification, and use of large capacity dams.

Since its signing of the Great Lakes Charter Annex in June 2001, Quebec, jointly with the eight Great Lakes States and Ontario, has entered into a process to develop a new water management framework for the Great Lakes/St. Lawrence watershed. This framework will serve to protect, conserve, restore, and improve the waters of this watershed and its dependant natural resources while maintaining and respecting the powers exercised within the watershed.

## **Manitoba**

### **Climate Change**

Manitoba provided follow-up to the *Report of the Manitoba Climate Change Task Force* by developing an action plan. The document, *Kyoto and Beyond*, was released to the public in 2002. This document spells out the actions taken across the Manitoba government to address climate change, as well as specific actions for the future. Manitoba will ensure the protection of its environment through endorsement of the Kyoto protocol and by exceeding the six percent emissions reductions targeted for and agreed to by the federal government on behalf of all Canadians.

### **Intensive Livestock Operations**

A review and public consultation of the Livestock Manure and Mortalities Management Regulation was completed in 2002. A number of significant amendments to the regulation are being proposed, including dropping the regulatory threshold from 400 to 300 animal units, mandatory monitoring of the source of drinking water for livestock in large operations and certification of commercial manure applicators.

### **Dangerous Goods**

The Dangerous Goods Handling and Transportation Regulation was enacted, replacing its predecessor, in effect since 1985. These changes reflect Manitoba's commitment to a harmonised regulatory approach to dangerous goods and hazardous waste management with the other provinces and the federal government.

### **Legislation**

The Polar Bear Protection Act and the Security Management Act received Royal Assent and were proclaimed into force. The Drinking Water Safety Act and the Resource Tourism Operators Act received Royal Assent.

## **Article 4—Publication**

### **Environment Canada**

The following notices were published in *Canada Gazette*, Part I, during 2002:

| <b>Regulation</b>   | <b>Date</b> |
|---|-------------|
| On road Vehicle and Engine Emission Regulations   | 30 Mar 2002 |
| Amendments to the Export and Import of Hazardous Wastes Regulations                       | 4 Apr 2002  |
| Interprovincial Movement of Hazardous Waste and Hazardous Recyclable Material Regulations | 4 Apr 2002  |
| Regulations Amending the Pulp and Paper Effluent Regulations for Quebec Agreement         | 1 Jun 2002  |
| Export of Substances Under the Rotterdam Convention Regulations                           | 2 Jun 2002  |
| Rules of Procedure for Boards of Review   | 27 Jul 2002 |
| Environmental Emergencies Regulations   | 10 Aug 2002 |
| Living Modified Organisms Regulations   | 28 Sep 2002 |
| Amendments to the New Substances Notification Regulations                                 | 2 Nov 2002  |

|   |             |
|---|-------------|
| Federal Halocarbon Regulations 2002           | 7 Dec 2002  |
| Solvent Degreasing Regulations                | 7 Dec 2002  |
| Regulations Amending the Gasoline Regulations | 14 Dec 2002 |

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| <b>Pollution Prevention Plan</b>   | <b>Date</b> |
|--|-------------|
| Proposed Notice Requiring the Preparation and Implementation of Pollution Prevention Plans for Acrylonitrile             | 4 May 2002  |
| Proposed Notice Requiring the Preparation and Implementation of Pollution Prevention Plans in Respect of Dichloromethane | 31 Aug 2002 |

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| <b>Agreements</b>  | <b>Date</b> |
|--|-------------|
| Canada-wide Standards for Dioxins and Furans for Iron Sintering Plants   | 2 Feb 2002  |
| Canada-wide Standards for Dioxins and Furans and Steel Manufacturing Electric Arc Furnaces                         | 2 Feb 2002  |
| Draft Administrative Agreement Between the Government of Canada and Quebec Pertaining to the Pulp and Paper Sector | 27 Jul 2002 |
| Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem  | 27 Jul 2002 |

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| <b>Guidelines</b>  | <b>Date</b> |
|--|-------------|
| Guidelines for Volatile Organic Compounds in Consumer Products | 23 Nov 2002 |

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## **Alberta**

The legislation that has been passed is available through the Queen's Printer, either for view on their web site <<http://www.gov.ab.ca/gp>>, or for purchase (telephone (780) 427-4952, fax (780) 452-0668, e-mail <[gp@gov.ab.ca](mailto:gp@gov.ab.ca)>). The statutes are also found in the annual *Statutes of Alberta*, carried by some libraries. The regulations are also found in the *Alberta Gazette*, Part II, also carried by some libraries.

The bills can be located on the Legislative Assembly web site <<http://www.assembly.ab.ca>> under the Bills and Amendments section.

Some legislation passed or coming in to force in 2002 includes:

**Agricultural Operation Practices Act, S.A. 2001, c.16:** This Act came into force on 1 January 2002. It regulates confined feeding operations. The regulations under the Act (Agricultural Operations, Part 2 Matters Regulation A.R. 257/01, Board Administrative Procedures Regulation A.R. 268/01, and Standards and Administration Regulation A.R.267/01) govern more specific aspects of the siting and permitting of confined feeding operations.

**Irrigation Districts Amendment Act, S.A. 2002, c.3:** This amendment affects irrigation district processes and, among other issues, transfer of water allocations by irrigation districts.

**Administrative Penalties and Related Matters Statutes Amendment Act, S.A. 2002, c.4:** This act amends several environmental statutes (Environmental Protection and Enhancement Act, Forests Act, Mines and Minerals Act, Public Lands Act, Water Act) to strengthen and provide consistency in

administrative penalty processes, and to provide for publication of information regarding enforcement actions.

**Environmental Protection and Enhancement (Clean-up Instructions) Amendment Act, S.A. 2002, c.13 - not yet proclaimed:** This amendment enables a director to issue instructions for a person to restore an area of release to a condition satisfactory to the director, and requiring the director to issue an environmental protection order if the instructions are not complied with.

**Fisheries (Alberta) Amendment Act, S.A. 2002, c.14:** This amendment adds a provisions regarding the protection of fish and fish habitat, and amends the Agricultural Pests Act and Wildlife Act.

## **Quebec**

Throughout 2002, the MEQ and Quebec's parks and wildlife service (*Société de la faune et des parcs du Québec—FAPAQ*) have ensured that the laws, regulations, procedures, and general administrative decisions concerning issues that fall under NAAEC be duly published and systematically made available on their respective Internet sites: <<http://www.menv.gouv.qc.ca>> and <<http://www.fapaq.gouv.qc.ca/>>.

The new Act respecting nature reserves on private land provides for the publication of recognition of nature reserves through notification in the *Gazette officielle du Québec*, for the registration of the agreement in the land register, and for the keeping of a nature reserve registry by the MEQ.

The Quebec environment ministry holds public consultations on its draft regulations and policies. In addition, FAPAQ holds priority discussions with partners who form "wildlife groups" and with the parks consultation committee. Specific topics of public hearings have included the reintroduction of the striped bass, the Anticosti Island white-tailed deer management plan, and the northern caribou management plan.

The MEQ produced a guide to the reclamation of inorganic, non-hazardous industrial wastes (*Guide de valorisation des matières résiduelles inorganiques non dangereuses de source industrielle comme matériau de construction*) in an attempt to harmonize the various procedures applicable to businesses in the waste reclamation sector.

Since 2 December 2002, a public register of livestock operations can be consulted (in French) on the MEQ's Internet site at <<http://www.menv.gouv.qc.ca/Certificats/index.htm>>. This register includes authorization certificate applications that are being processed as well as those that have been issued since the Regulation respecting agricultural operations has come into effect.

The Pesticide Management Code and the Regulation respecting permits and certificates for the sale and use of pesticides were published in the *Gazette officielle du Québec* in July 2002 and underwent consultation, which took place from 3 July to 3 September 2002.

## **Manitoba**

Significant government activities in Manitoba, including laws, regulations, and procedures are commonly found electronically through the Manitoba government official web site. Environmental protection measures and all matters related to environmental licensing applications and approvals are available at various physical locations across the province at the public registry. The public and other interested parties are always expected and indeed encouraged to comment on all matters related to Manitoba Conservation activities.

## **Article 5—Government Enforcement Action**

### **Environment Canada**

Enforcement of environmental and wildlife legislation is conducted within the context of the overall Canadian legal framework, which includes the Canadian Charter of Rights and Freedoms, the Canadian Criminal Code, the Privacy Act, Access to Information Act, Mutual Legal Assistance Act, and the Canada Evidence Act. Most federal and provincial environmental and wildlife legislation provides for the authority to search, seize and detain under the rules established by legislation. In Quebec, that province's own Charter of Rights and Freedoms, Civil Code and Penal Code are in effect as well.

#### **What's New?**

The introduction of new substances, including products resulting from biotechnology, into the environment is an emerging issue and continued to be a priority for Environment Canada. Pursuant to CEPA 1999, the New Substances Notification Regulations (NSNR), that regulate the introduction into Canada of new substances, came into effect in 1994. Environment Canada has developed an enforcement and compliance strategy for the regulations. Included in the strategy is the requirement for partnerships with other enforcement agencies. Environment Canada and the Canadian Customs and Revenue Agency (CCRA) have undertaken a pilot project in this regard. An important part of the strategy is to identify the regulated community. This will be facilitated by the development of intelligence information and the identification, through improved inspection planning of all facilities in Canada subject to CEPA 1999 and portions of the Fisheries Act. Inspection plans will be based on the risks of noncompliance associated with each of these facilities and the potential impact on the environment.

Environment Canada continued to make improvements to its Intelligence Program and undertook staffing actions in four of its five regions. The purpose of the program is to, identify emerging issues, permit a more proactive approach to enforcement, and to permit managers to deploy resources in a better fashion.

#### **Compliance and Enforcement**

As with most compliance and enforcement programs, the goal is compliance, and in 2002, Environment Canada continued to promote compliance with pertinent legislation through providing information on the Internet, meetings with the regulated community, bulletins and other publications for specific audiences and publication of the names of those found guilty by the courts.

The monitoring of compliance is aided by permits, licenses and other authorizations that are required for many activities, such as the transboundary movement of hazardous wastes, ocean dumping, international trade in endangered species, hunting and trapping, and those activities that pose a risk of releasing contaminants into the environment. For example, in FY 01/02, Environment Canada processed 7,085 notices for proposed international shipment of hazardous wastes and 43,754 manifests associated with actual shipments. Approximately 99 percent of these were between the USA and Canada.

### **Alberta**

Alberta Environment uses a balance of education, prevention and enforcement to achieve compliance with the legislation administered by the department. Those who do not comply with legislative requirements are held responsible and accountable for the effects of their actions on the environment and natural resources. Every suspected violation that comes to the attention of Alberta Environment is assessed and responded to in a timely and appropriate manner.

Each year, Alberta Environment establishes targets for compliance assessments to measure compliance with the Environmental Protection and Enhancement Act, and its regulations. Compliance assessments

take the form of unannounced site inspections, reviews of compulsory reports required by statute, authorization or Code of Practice, and audits to verify that designated methods of data gathering and collection meet quality control/quality assurance objectives. A similar program for assessing compliance with the Water Act is under development.

The annual compliance assessment plan targets activities and operations are based on the following criteria:

- A broad range of regulated activities and operations are assessed for compliance.
- Over the long term, a sample of each regulated community is assessed.
- Targets set for particular activities/operations are based on environmental/resource management priorities, including:
  - i. Risk to the resource or environment associated with a particular activity/operation.
  - ii. The history of compliance of the regulated parties associated with the activity/operation.
  - iii. Information on trends and emerging issues determined from strategic analysis.

Staff received specialized training including advanced interviewing techniques, advanced sampling and training in other innovative techniques.

#### **Environmental Protection and Enhancement Act – (for fiscal year ending 31 March 2002)**

- 422 compliance assessments (188 inspections, 234 audits) were completed on industrial facilities;
- 628 compliance assessments (316 inspections, 312 audits) were completed on municipal potable water and wastewater facilities;
- 72 inspections were completed on activities or facilities that are regulated by a Code of Practice under EPEA;
- 176 inspections were completed on pesticide related activities under EPEA;
- 98 compliance assessments (inspections only) were performed at solid waste management facilities.

#### **Water Act**

The Water Act inspection program has been incorporated within the overall Compliance Inspection Operational Guide. By year-end 2003, the Water Act program was to be fully integrated with the EPEA inspection program.

#### **Alberta Sustainable Resource Development**

A total of 136 conservation officers are assigned to the Enforcement–Field Services Branch of Alberta Fish and Wildlife Division, Sustainable Resource Development (SRD). A comprehensive operation/technical training program is provided to enforcement staff. Some courses are also offered to fisheries and wildlife biologists and technicians (firearms, boat operations, etc.). Some areas in which conservation officers (and some others) receive training include, but are not limited to, the following:

- Legislation;
- Basic investigative skills;
- Criminal intelligence analysis;



- The Canadian Charter of Rights and Freedoms;
- Securing and protecting evidence and the preparation and execution of search warrants;
- Communication and conflict management skills;
- Courtroom procedures;
- Firearms qualification and re-certification (conservation officers, wildlife/fisheries biologists and technicians only);
- Defensive tactics and dealing with hostility (conservation officers only); and
- Water safety and small vessel training (conservation officers, forest officers, fisheries/wildlife biologists and technicians).

The compliance assurance activities undertaken by Alberta Sustainable Resource Development, Fish and Wildlife Division for the fiscal year ending 31 March 2002:

### **Fisheries Legislation**

28,299 anglers were checked;

- 262 commercial fisheries operations were inspected, for a total of 1,396 individual inspections;
- 6 inspections were completed on fish processing facilities; and
- 86 inspections of subsistence fishers were conducted.

In addition to conducting compliance checks, Alberta's conservation officers investigated 407 reported incidents of noncompliance with fisheries legislation.

### **Wildlife Legislation**

25,011 hunters were checked;

- 323 subsistence hunters were checked;
- 605 inspections were completed on commercial operations, including guides and outfitters, meat processors, fur dealers, taxidermist and trappers; and
- 38 inspections were completed on various wildlife facilities (i.e., zoos and game farms).

In addition to conducting compliance checks, Alberta's Conservation Officers investigated 2,823 reported incidents of noncompliance with wildlife legislation.

Alberta Fish and Wildlife Division uses a computerized database to track reported incidents, compliance checks and enforcement actions taken as a result of confirmed noncompliance. The data is coded to allow for GIS mapping of occurrences and enforcement actions.

Alberta Fish and Wildlife Division administers many acts and regulations in fulfillment of the regulatory and enforcement role within the Department of Sustainable Resource Development. Compliance is assessed by conducting inspections of regulated user groups to ensure compliance with the legislation. Reports of illegal activity are investigated. All incidents of noncompliance are followed up with enforcement action (prosecution, warning or enforcement order).

## **2002 Enforcement Statistics for Alberta**

The enforcement activities undertaken by Alberta Environment and Alberta Sustainable Resource Development for the 2001–02 fiscal year (1 April 2001 to 31 March 2002) are presented in the attached tables.

## Enforcement Summary

(Alberta Environment)

1 April 2001–31 March 2002

| LEGISLATION                                     | Charges Laid | Charges Concluded | Convictions | Pending   | Penalty Amount   | Appeal of Sentence | Creative Sentencing Orders | Written Warnings | Admin. Penalties Assessed | Admin. Penalty Assessed Value | Appeal of Admin. Penalty | Orders     |
|---|--------------|-------------------|-------------|-----------|------------------|--------------------|----------------------------|------------------|---------------------------|-------------------------------|--------------------------|------------|
| <b>EPEA and Regulations</b>                     |              |                   |             |           |                  |                    |                            |                  |                           |                               |                          |            |
| <b><u>EPEA</u></b>                              | 24           | 30                | 4           | 18        | \$350,000        | 0                  | 2                          | 62               | 30                        | \$164,500                     | 3                        | 8          |
| Summary Conviction (EPEA)                       | 22           | 22                | 18          | 0         | \$2,070          | 0                  | n/a                        |                  |                           |                               |                          |            |
| Waste Control Regulation                        | 3            | 30                | 4           | 3         | \$143,000        |                    | 2                          | 11               |                           |                               |                          |            |
| Ozone-depleting Substances and Halocarbons Reg. |              |                   |             |           |                  |                    |                            | 2                |                           |                               |                          |            |
| Pesticides Sales, Handling, Use and Appl. Reg.  |              |                   |             |           |                  |                    |                            | 1                |                           |                               |                          |            |
| Pesticide Regulation (ministerial)              |              |                   |             |           |                  |                    |                            | 2                |                           |                               |                          |            |
| Wastewater and Storm Drainage Regulation        |              |                   |             |           |                  |                    |                            | 1                |                           |                               |                          |            |
| <b>Subtotal:</b>                                | <b>49</b>    | <b>82</b>         | <b>26</b>   | <b>21</b> | <b>\$495,070</b> | <b>0</b>           | <b>4</b>                   | <b>79</b>        | <b>30</b>                 | <b>\$164,500</b>              | <b>3</b>                 | <b>8</b>   |
| <b>Water Act and Regulations</b>                |              |                   |             |           |                  |                    |                            |                  |                           |                               |                          |            |
| Water Act                                       | 2            | 2                 | 1           | 0         | \$10,000         | 0                  | 1                          | 36               | 5                         | \$16,000                      | 0                        | 8          |
| <b>Subtotal:</b>                                | <b>2</b>     | <b>2</b>          | <b>1</b>    | <b>0</b>  | <b>\$10,000</b>  | <b>0</b>           | <b>1</b>                   | <b>36</b>        | <b>5</b>                  | <b>\$16,000</b>               | <b>0</b>                 | <b>8</b>   |
| <b>Other Legislation</b>                        |              |                   |             |           |                  |                    |                            |                  |                           |                               |                          |            |
| Dangerous Goods Transportation and Handling Act | 7            | 1                 | 1           | 7         | \$40,000         | 0                  | 1                          | n/a              | n/a                       | n/a                           | n/a                      | n/a        |
| Criminal Code of Canada                         | 6            | n/a               | n/a         | 6         | n/a              | n/a                | n/a                        | n/a              | n/a                       | n/a                           | n/a                      | n/a        |
| <b>Subtotal:</b>                                | <b>13</b>    | <b>1</b>          | <b>1</b>    | <b>13</b> | <b>\$40,000</b>  | <b>0</b>           | <b>1</b>                   | <b>n/a</b>       | <b>n/a</b>                | <b>n/a</b>                    | <b>n/a</b>               | <b>n/a</b> |
| <b>Enforcement Actions Total:</b>               | <b>64</b>    | <b>85</b>         | <b>28</b>   | <b>34</b> | <b>\$545,070</b> | <b>0</b>           | <b>6</b>                   | <b>115</b>       | <b>35</b>                 | <b>\$180,500</b>              | <b>3</b>                 | <b>16</b>  |
| Total Monetary Penalties: \$725,570             |              |                   |             |           |                  |                    |                            |                  |                           |                               |                          |            |

## Enforcement Summary

(Alberta Sustainable Resource Development)

1 April 2001–31 March 2002

| LEGISLATION  | Charges Laid | Charges Concluded | Convictions | Pending    | Penalty Amount      | Appeal of Sentence | Creative Sentencing Orders | Written Warnings | Admin. Penalties Assessed | Admin. Penalty Assessed Value | Appeal of Admin. Penalty | Orders   |
|--|--------------|-------------------|-------------|------------|---------------------|--------------------|----------------------------|------------------|---------------------------|-------------------------------|--------------------------|----------|
| <b>Fisheries Acts and Regs</b>   |              |                   |             |            |                     |                    |                            |                  |                           |                               |                          |          |
| Fisheries (Alberta Act)  | 183          | 135               | 120         | 48         | \$13,611.00         | 0                  |                            | 357              | N/a                       | N/a                           | 0                        | 0        |
| General Fisheries (Alberta) Reg.   | 249          | 64                | 45          | 195        | \$23,648.00         | 0                  |                            | 34               | N/a                       | N/a                           | 0                        | 0        |
| Fisheries Act (federal)  | 7            | 4                 | 0           | 3          | \$0.00              | 0                  |                            | 6                | N/a                       | N/a                           | 0                        | 0        |
| Alberta Fishery Regulation (1998)  | 947          | 804               | 725         | 143        | \$106,509.00        | 0                  |                            | 298              | N/a                       | N/a                           | 0                        | 0        |
| <b>Subtotal:</b>   | <b>1,386</b> | <b>1,007</b>      | <b>890</b>  | <b>389</b> | <b>\$143,768.00</b> | <b>0</b>           |                            | <b>695</b>       |                           |                               | <b>0</b>                 | <b>0</b> |
| <b>Wildlife Act and Regs</b>   |              |                   |             |            |                     |                    |                            |                  |                           |                               |                          |          |
| Wildlife Act   | 1,296        | 966               | 743         | 330        | \$315,697.00        | 0                  |                            | 448              | N/a                       | N/a                           | 0                        | 0        |
| Wildlife Act Regulations   | 145          | 115               | 93          | 30         | \$30,097.05         | 0                  |                            | 262              | N/a                       | N/a                           | 0                        | 0        |
| Migratory Birds Convention Act (federal)   | 1            | 0                 | 0           | 1          | \$0.00              | 0                  |                            | 3                | N/a                       | N/a                           | 0                        | 0        |
| Migratory Birds Regulation   | 5            | 5                 | 3           | 0          | \$2,900.00          | 0                  |                            | 9                | N/a                       | N/a                           | 0                        | 0        |
| Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (federal) | 11           | 5                 | 2           | 6          | \$1,600.00          | 0                  |                            | 0                | N/a                       | N/a                           | 0                        | 0        |
| <b>Subtotal:</b>   | <b>1,458</b> | <b>1,091</b>      | <b>841</b>  | <b>367</b> | <b>\$350,294.05</b> | <b>0</b>           |                            | <b>722</b>       |                           |                               | <b>0</b>                 | <b>0</b> |
| <b>Forestry Acts and Regs</b>  |              |                   |             |            |                     |                    |                            |                  |                           |                               |                          |          |
| Forests Act  | 0            | 0                 | 0           | 0          | 0                   | 0                  |                            | 0                |                           |                               | 0                        | 0        |
| Forest and Prairie Protection Act  | 1            | 1                 | 1           | 0          | \$400.00            | 0                  |                            | 0                | N/a                       | N/a                           | 0                        | 0        |
| Forest Land Use Zone Regulation  | 1            | 1                 | 1           | 0          | \$86.00             | 0                  |                            | 0                | N/a                       | N/a                           | 0                        | 0        |
| Forest Recreation Regulation   | 21           | 12                | 10          | 9          | \$1,146.00          | 0                  |                            | 11               | N/a                       | N/a                           | 0                        | 0        |
| <b>Subtotal:</b>   | <b>23</b>    | <b>14</b>         | <b>12</b>   | <b>9</b>   | <b>\$1,632.00</b>   | <b>0</b>           |                            | <b>11</b>        |                           |                               | <b>0</b>                 | <b>0</b> |

|   |              |              |              |            |                     |          |  |              |     |     |          |          |
|---|--------------|--------------|--------------|------------|---------------------|----------|--|--------------|-----|-----|----------|----------|
| <b>Provincial Parks Act and Regs</b>      |              |              |              |            |                     |          |  |              |     |     |          |          |
| Provincial Parks Act: General Regulations | 23           | 15           | 12           | 8          | \$597.00            | 0        |  | 11           | N/a | N/a | 0        | 0        |
| <b>Subtotal:</b>                          | <b>23</b>    | <b>15</b>    | <b>12</b>    | <b>9</b>   | <b>\$597.00</b>     | <b>0</b> |  | <b>11</b>    |     |     | <b>0</b> | <b>0</b> |
| <b>Other Acts and Regs</b>                |              |              |              |            |                     |          |  |              |     |     |          |          |
| Controlled Drugs and Substance Act        | 0            | 0            | 0            | 0          | \$0.00              | 0        |  | 13           | N/a | N/a | 0        | 0        |
| Criminal Code                             | 50           | 29           | 8            | 21         | \$2,240.00          | 0        |  | 7            | N/a | N/a | 0        | 0        |
| Boating Restrictions Regulations          | 1            | 0            | 0            | 1          | \$0.00              | 0        |  | 0            | N/a | N/a | 0        | 0        |
| Gaming and Liquor Act                     | 174          | 150          | 119          | 24         | \$17,812.00         | 0        |  | 65           | N/a | N/a | 0        | 0        |
| Gaming and Liquor Regulation              | 293          | 259          | 233          | 34         | \$24,611.25         | 0        |  | 11           | N/a | N/a | 0        | 0        |
| Highway Traffic Act                       | 94           | 89           | 79           | 5          | \$8,134.00          | 0        |  | 14           | N/a | N/a | 0        | 0        |
| Motor Vehicle Administration Act          | 184          | 162          | 113          | 22         | \$45,334.00         | 0        |  | 22           | N/a | N/a | 0        | 0        |
| Off-Highway Vehicle Act                   | 321          | 274          | 243          | 47         | \$17,506.00         | 0        |  | 173          | N/a | N/a | 0        | 0        |
| Off-Highway Vehicle Regulation            | 1            | 1            | 1            | 0          | \$115.00            | 0        |  | 2            | N/a | N/a | 0        | 0        |
| Petty Trespass Act                        | 2            | 1            | 1            | 1          | \$150.00            | 0        |  | 2            | N/a | N/a | 0        | 0        |
| Provincial Offences Procedures Act        | 97           | 38           | 12           | 59         | \$1,810.00          | 0        |  | 0            | N/a | N/a | 0        | 0        |
| Small Vessel Regs                         | 18           | 15           | 15           | 3          | \$2,030.00          | 0        |  | 54           | N/a | N/a | 0        | 0        |
| <b>Subtotal:</b>                          | <b>1,235</b> | <b>1,018</b> | <b>824</b>   | <b>217</b> | <b>\$119,742.25</b> | <b>0</b> |  | <b>363</b>   |     |     | <b>0</b> | <b>0</b> |
| <b>Total Enforcement Actions</b>          | <b>4,125</b> | <b>3,145</b> | <b>2,579</b> | <b>991</b> | <b>\$616,033.30</b> | <b>0</b> |  | <b>1,802</b> |     |     | <b>0</b> | <b>0</b> |
| <b>Total Monetary Penalties:</b>          |              |              |              |            |                     |          |  |              |     |     |          |          |
| \$616,033.30                              |              |              |              |            |                     |          |  |              |     |     |          |          |

## Quebec

In August 2002, Quebec and Vermont signed the *Agreement between the Gouvernement du Québec and the Government of the State of Vermont Concerning Phosphorus Reduction in Missisquoi Bay*, which defines how responsibilities between the two jurisdictions with respect to this issue will be shared—40 percent for Quebec and 60 percent for Vermont.

In December 2002, the MEQ concluded an agreement with the Quebec order of agrologists (*Ordre des agronomes du Québec*) under which professional agrologists have the latitude necessary to recommend the most appropriate practices to farmers that will allow them to reach the objectives set out in the Regulation respecting agricultural operations.

In 2002, the MEQ complaints bureau received 291 intervention requests: 108 were of an environmental nature, 76 concerned quality of service, and the rest were of varying natures. Through a toll-free number, the MEQ and FAPAQ ensure that confidential access to the environmental emergency hotline, Urgence-Environnement, and the poaching hotline, S.O.S. Braconnage, is available at all times. Over the course of 2002, the poaching hotline received 5,203 calls, 3,899 of which were to report infractions and 1,305 of which were requests for information.

**Table 1: Ministère de l'environnement du Québec**

### **Convictions in 2002**

| <b>Act / Regulation</b>   | <b>Number</b> | <b>fine (C\$)</b> |
|---|---------------|-------------------|
| Ecological Reserves Act   | 4             | 1,600             |
| Environment Quality Act   | 121           | 979,805           |
| Regulation respecting solid waste   | 15            | 5,600             |
| Regulation respecting snow elimination sites                                | 6             | 35,000            |
| Regulation respecting hazardous materials                                   | 8             | 17,900            |
| Regulation respecting the reduction of agricultural pollution               | 30            | 79,000            |
| Regulation respecting motor vehicle traffic in certain fragile environments | 1             | 300               |
| Regulation respecting the quality of the atmosphere                         | 30            | 12,550            |
| Regulation respecting pits and quarries                                     | 4             | 4,200             |
| Drinking Water Regulation   | 2             | 800               |
| <b>Total</b>  | <b>221</b>    | <b>1,136,755</b>  |

**Table 2: Société de la faune et des parcs du Québec**  
**Convictions in 2002**

| <b>Act or Regulation</b>  | <b>Number of Infractions</b> | <b>Number of Convictions</b> | <b>Amount of fines (C\$)</b> | <b>Number of certificate or permit cancellations (for 2 years)</b> | <b>Number of prohibitions on holding a migratory bird permit (1 year)</b> |
|---|------------------------------|------------------------------|------------------------------|--|---|
| Fisheries Act   | 262                          | 65                           | 10,010                       |  |   |
| Quebec Fishery Regulations  | 2 521                        | 917                          | 125,555                      |  |   |
| Migratory Birds Convention Act  | 17                           | 3                            | 400                          |  | 3   |
| Migratory Birds Regulations and Migratory Bird Sanctuary Regulations  | 138                          | 51                           | 11,600                       |  | 49  |
| Regulations enabled under the Act respecting the conservation and development of wildlife                           | 835                          | 304                          | 75,650                       |  |   |
| Regulations enabled under the Parks Act   | 246                          | 93                           | 4,650                        |  |   |
| Act respecting the conservation and development of wildlife   | 2,130                        | 520                          | 315,850                      | 111  |   |
| Regulations enabled under the Act respecting hunting and fishing rights in the James Bay and New Québec territories | 4                            | --                           | --                           |  |   |
| Parks Act   | 45                           | --                           | --                           |  |   |
| Environment Quality Act   | 53                           | 3                            | 900                          |  |   |
| Ecological Reserves Act   | 8                            | 4                            | 1,600                        |  |   |
| Act respecting threatened or vulnerable species   | 211                          | 115                          | 68,500                       |  |   |
| <b>Total</b>  | <b>6,470</b>                 | <b>2,075</b>                 | <b>614,715</b>               |  |   |

Note: case files involving the Environment Quality Act and the Ecological Reserves Act are handled by the ministère de l'Environnement du Québec.

## **Manitoba**

Enforcement policy/procedure provides a consistent approach, with emphasis on ensuring compliance with legislation. In addition to the summary below, a detailed report of enforcement activities is available in Public Registries throughout the Province and on the Department's homepage at <http://www.gov.mb.ca/conservation>.

Two examples of Manitoba Conservation activities are listed and described further: the Environmental Livestock Program, and the Drinking Water Program to illustrate typical enforcement procedures and efforts to ensure compliance and environmental protection.

### **Environmental Sector Enforcement**

| <b>Legislation</b>                                  | <b>Prosecutions</b> | <b>Warnings</b> | <b>Orders</b> | <b>Fines(\$)</b> |
|---|---------------------|-----------------|---------------|------------------|
| The Dangerous Goods Handling and Transportation Act | 117                 | 53              | 14            | 30,938           |
| The Environment Act                                 | 46                  | 122             | 20            | 29,080           |
| The Public Health Act                               | 1                   | 49              | 26            | 300              |
| Municipal bylaws                                    |                     | 6               |               |                  |
| <b>Total</b>  | <b>164</b>          | <b>230</b>      | <b>60</b>     | <b>60,518</b>    |

### **Enforcement, by Act/Regulation**

| <b>Legislation</b>  | <b>Prosecutions</b> | <b>Fines (\$)</b> |
|---|---------------------|-------------------|
| Dangerous Goods Handling and Transportation Act                           | 1                   | 300               |
| Waste Disposal Grounds Regulation   | 3                   | 4,250             |
| Litter Regulation   | 14                  | 1,638             |
| Storage and Handling of Petroleum Products and Allied Products Regulation | 2                   | 150               |
| Transportation of Dangerous Goods Regulation                              | 115                 | 30,478            |
| Burning of Crop Residue and Non-Crop Regulation                           | 1                   | 1,800             |
| Private Sewage Disposal Regulation  | 6                   | 1,536             |
| Livestock Manure and Mortalities Management Regulation                    | 15                  | 19,080            |
| Peat Smoke Control Regulation   | 6                   | 986               |
| Food and Food Handling Regulation   | 1                   | 300               |

### **Environmental Livestock Program**

The Environmental Livestock Team administers the Livestock Manure and Mortalities Management Regulation. Team members, including environment officers and environmental engineers, are regionally based to provide local coverage. Primary team responsibilities include investigation of complaints, annual inspection of permitted manure storage facilities, inspection of storage facilities under construction, and enforcement of Regulations on management of manure and mortalities. A total of 93 permits for construction or modification of manure storage facilities were issued during 2002–03. Staff conduct a minimum of three inspections during construction of facilities to ensure compliance with permit and regulation requirements and to address problems encountered during construction.

Staff conducted annual inspections of the 495 manure storage facilities for which permits were issued prior to 1994. Inspections focus on erosion protection for inner surfaces of earthen facilities, visible signs of erosion, leakage, construction defects or damage, potential environmental effects, and management of mortalities.



Audits were completed for 28 of the 291 manure management plans (9.6 percent) registered for the 2002 crop year. Charges were laid against some operators for excessive rates of manure application as well as against some operators who failed to register manure management plans.

### **Livestock Regulation Enforcement 1994–95 to 2002–03**

| <b>Fiscal Year</b> | <b>Prosecutions</b> | <b>Warnings</b> | <b>Orders</b> | <b>Fines (\$)</b>  |
|--------------------|---------------------|-----------------|---------------|--------------------|
| 1994–95            | 5                   | 15              | 1             | 1,188.00           |
| 1995–96            | 8                   | 13              | 1             | 1,716.00           |
| 1996–97            | 14                  | 21              | 4             | 11,010.00          |
| 1997–98            | 15                  | 12              | 6             | 6,726.00           |
| 1998–99            | 12                  | 32              | 7             | 11,862.00          |
| 1099–00            | 9                   | 35              | 10            | 8,496.00           |
| 2000–01            | 16                  | 49              | 22            | 8,067.00           |
| 2001–02            | 16                  | 53              | 34            | 11,903.00          |
| 2002–03            | 15                  | 59              | 21            | 19,080.00          |
| <b>Total</b>       | <b>110</b>          | <b>288</b>      | <b>106</b>    | <b>\$80,048.00</b> |

### **Drinking Water Program**

Twelve new staff Drinking Water Officer positions were announced in September of 2002. These 12 positions have now been filled, with ten assigned to Conservation’s six regional offices and two in the central office. Training of the Drinking Water Officers is proceeding concurrent with the transfer of monitoring responsibilities from the Public Health Inspectors to the Drinking Water Officers. Initial inspection activities are related to bacterial safety of drinking water supplies.

In 2002–2003:

- 40 proposals for water treatment and distribution works were submitted for approval under the Public Health Act.
- 21 proposals were processed for Certificates of Approval under the Public Health Act.
- 75 Inspections of waterworks systems were carried out in 2002–03.

The Drinking Water Safety Act received Royal Assent in August of 2002. Work is proceeding on the development of regulations under this new Act. The Act focuses on monitoring of water quality, preventing contamination, and identifying potential risks and appropriate water-quality improvements. The Act, when proclaimed, will provide the Office of Drinking Water and provincial health officers with a new mandate and responsibility for drinking water quality.

### ***Article 5(1)(a)—Appointing and Training Inspectors***

#### **Environment Canada**

Environment Canada has specialized training courses for its enforcement staffs. Courses are specifically designed to accommodate needs as they emerge as a result of variables such as changing priorities, or new or updated legislation and regulations.

In order for Environment Canada’s new enforcement officers to employ authority and enforcement tools under CEPA 1999 and the Fisheries Act in a way that ensures their safety as well as that of the public, a General Enforcement Training and an Environment Canada Pollution Enforcement Course were

delivered. The eight-week training covered such areas as:

- Applied Peace Officer Sciences
- Enforcement Officer Safety and Defensive Tactics
- Environment Canada enforcement policies and legislation
- Environment Canada enforcement procedures such as inspections, sampling and investigations

Between April 2001 and March 2002, Environment Canada enforcement officers received other enforcement-related training in the following courses:

- Re-certification on Officer Safety and Defensive Tactics;
- Environmental Protection Compliance Orders Training (CEPA 1999);
- Export and Import of Hazardous Wastes Regulations;
- Training for Analysts designated under CEPA 1999 and the Fisheries Act;
- Multimedia sampling;
- Identification and Safe Handling of Reptiles (CITES);
- New Substances Notification Regulations; and
- NEMISIS (computer-based information recording and management system for enforcement data)

In 2001–02, the Pacific and Yukon Region, in collaboration with national headquarters, developed an expert witness training video. It assists officers and scientific staff in understanding their role in an investigation and helps them to prepare for trial and to give expert testimony.

### **Quebec**

In 2002, MEQ inspectors attended numerous training courses, notably in the following areas: pesticide authorization certificates, environmental law, municipal wastewater, drinking water, developing exercises, training for municipal inspector trainers, training for municipal inspectors, investigative training, application of the Regulation respecting agricultural operations, risk management for major industrial accidents, inspection, intervention for hazardous waste spills, industrial waste reduction program for the mining and metallurgy sectors, infraction reports (Regulation respecting the burial of contaminated soil, Regulation respecting agricultural operations, Groundwater Catchment Regulation, Regulation respecting hazardous materials, Transport of Dangerous Substances Regulation), monitoring depollution attestations in the pulp and paper sector, monitoring water purification work, contaminated sites, transport of hazardous materials, emergency intervention in petroleum spills, Urgence-Environnement (basics).

Over the course of 2002, FAPAQ offered its 438 wildlife protection officers several types of training related to the application of laws and regulations.

### ***Article 5(1)(b)—Monitoring Compliance and Investigating Suspected Violations, Including Through On-Site Inspections***

#### **Environment Canada**

On-site inspections, which imply a visit to a specific site (i.e., a facility or a plant) as well as off-site inspections (such as the verification of obligatory information sent in by regulatees) are undertaken to

confirm compliance with regulations. Investigations may be required when noncompliant situations are discovered. Each year, the Enforcement Branch of Environment Canada and the five regional offices prepare an inspection plan that targets specific priority regulations. Such a plan is formulated using criteria that include: the number and types of targeted populations or activities; the profiles, compliance histories, operational complexity and capacities of the target companies; the environmental significance and geographic scale of their operations; and the nature of the applicable regulatory provisions.

An inspection is a process that involves verification of compliance with the environmental or wildlife legislation administered, in whole or in part, by Environment Canada. The Enforcement Officer must have reasonable grounds to believe that, on the premises or in the documents that he/she intends to inspect, there are activities, markings, materials, substances, records, books, electronic data or other documents that are subject to the environmental or wildlife legislation.

Among the inspections that took place over the course of fiscal year 2001–02, approximately 1,776 were conducted by Environment Canada’s wildlife inspection staff under the federal Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA), which implements Canada’s commitment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Environment Canada’s pollution inspection staff conducted 4,637 inspections under CEPA 1999. Under the Fisheries Act, for the same reporting period, Environment Canada conducted 3,519 inspections.

An investigation is the gathering and analyzing, from a variety of sources, of evidence and information relevant to a suspected violation where there are reasonable grounds to believe that an offense has, is or is about to occur with regards to the environmental or wildlife legislation administered, in whole or in part, by Environment Canada.

An investigation results from on-site or off-site inspections and where there are reasonable grounds to believe that an offense has occurred, is occurring or is about to occur. One investigation potentially encompasses multiple related acts, regulations, permits, sites, regulatees, alleged offenses and counts that are linked, or perceived to be linked.

During the course of fiscal year 2001–02, enforcement officers carried out 57 investigations under CEPA 1999, 59 under the Fisheries Act. Wildlife Enforcement Officers carried out 224 investigations under the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act, 160 under the 1994 Migratory Birds Convention Act, and five investigations under the Canada Wildlife Act.

## **Quebec**

Over the course of 2002, MEQ investigators closed 358 investigation files. During the same period, 314 additional files were opened. With respect to wildlife species, the investigation service of FAPAQ conducted eight investigations that resulted in the dismantling of as many poaching rings operating in several regions of Quebec.

## ***Article 5(1)(c)—Seeking Assurances of Voluntary Compliance and Compliance Agreements***

### **Quebec**

The program to characterize the lands of currently operating industries promotes better planning of site rehabilitation intervention by owners and aims to include 500 businesses over the next 10 years. Nine businesses have agreed to participate in a pilot phase ending in the spring of 2002.

The creation of the Pierre-Étienne-Fortin wildlife refuge resulted in a consent agreement with the owners of the private land situated within the refuge boundaries.

### ***Article 5(1)(d)—Publicly Releasing Noncompliance Information***

#### **Environment Canada**

Environment Canada maintains a computerized enforcement database called NEMISIS (National Enforcement Management Information System and Intelligence System) to record key enforcement activities, including inspections, investigations, warnings issued, and prosecutions.

There is a legislated requirement for Environment Canada to report to Parliament annually on the implementation of CEPA 1999 and the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRITTA). Environment Canada also contributes to the Department of Fisheries and Oceans Annual Report to Parliament on the Fisheries Act.

The CEPA Environmental Registry, established under CEPA 1999 houses materials noted in the list below. These are available to the public at <<http://www.ec.gc.ca/CEPARegistry/default.cfm>>.

- CEPA 1999 Enforcement and Compliance Policy
- CEPA 1999 Notices published in the *Canada Gazette*
- CEPA 1999 Annual Reports
- CEC Annual Reports on Enforcement (when they deal with *CEPA* 1999 issues)
- Historical court decisions on guilty parties
- Press releases and media advisories
- Complete wording of CEPA 1999 and its Regulations
- Brief “plain language” summaries of CEPA Regulations
- Enforcement activities reports and enforcement statistics
- CEPA 1999 Compliance Reports, as they are prepared from time to time.
- International Conventions/Accords that Canada has signed and are implemented in Canada through CEPA 1999 and its regulations (i.e., the Basel Convention on the Transboundary Movement of Hazardous Wastes)
- Proposed new CEPA 1999 regulations and the amendment of existing CEPA 1999 regulations
- Substances List

#### **Quebec**

The MEQ systematically disseminates information concerning any convictions that result in a fine of C\$2,000 or more.

### ***Article 5(1)(e)—Issuing Bulletins or Other Periodic Statements On Enforcement Measures***

#### **Environment Canada**

Enforcement information, reports and statistics can be found on Environment Canada’s web site at:

<http://www.ec.gc.ca/ele-ale/>.

### **Quebec**

The MEQ has put in place a process for disseminating its enforcement procedures, or *notes d'instruction*. This process standardizes regulation enforcement among the 17 regional branches covering Quebec's territory. The *notes* are sent systematically to the regional directors, who are then responsible for informing their staffs. Moreover, the *notes d'instruction* are available on the MEQ's Internet site so that all employees can access them at any time. In 2002, five *notes* were issued or amended.

### ***Article 5(1)(f)—Promoting Environmental Audits***

#### **Quebec**

In the summer of 2002, a progressive sawmill inspection program began.

### ***Article 5(1)(g)—Requiring Record Keeping and Reporting***

#### **Quebec**

The Pesticides Act requires wholesale permit holders to submit an annual sales summary to the MEQ.

Under the Land Protection and Rehabilitation Regulation, each February, anyone carrying out a regulated activity within one kilometer of a "catchment installation" for water intended for human consumption must submit analyses of groundwater samples taken over the previous year to the MEQ. However, if an analysis reveals that limit values have been exceeded, the ministry must be informed as soon as possible.

The Regulation respecting the burial of contaminated soils (Q-2, r. 6.01) requires that landfill site operators keep an operating register and file a report with the MEQ every January that specifies the volumes of soils buried, the state of landfill operations, and a summary of control and monitoring data.

Inspectors systematically write inspection reports after going out into the field. The Environment Quality Act provides for the keeping of a register.

### ***Article 5(1)(i)—Using Licenses, Permits or Authorizations***

#### **Environment Canada**

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), to which more than 160 countries are signatories, helps to control the international trade in endangered and protected species.

The following table summarizes the CITES permits that were issued in Canada during the calendar year 2002.

## **Export Permits**

Canadian Wildlife Service-HQ: 16,556

Alberta: N/A

British Columbia: 1,490

Manitoba 1,237

New Brunswick 283

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Newfoundland 179

Nova Scotia 38

Ontario 1,079

PEI 0

Quebec 1,657

Saskatchewan 717

NWT 135

Yukon 203

Nunavut 2

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**Total 23,576**

Import Permits (All By CWS-HQ): 159

Temporary Movement Certificates (All by CWS-HQ): 187

Scientific Certificates (All by CWS-HQ): 36

## **Quebec**

On 1 May 2002, the government of Quebec adopted a decree aimed at extending the application of its industrial waste reduction program to establishments in the mining, metallurgy, and cement sectors. Under this program, these establishments must obtain depollution attestations (equivalent to an environmental operation permit).

### ***Article 5(1)(j)—Quasi Judicial or Administrative Proceedings Initiated***

#### **Environment Canada**

On the pollution side, 27 prosecutions were carried out under the CEPA 1999 and a total of 9 prosecutions were carried out under the Fisheries Act, during the course of fiscal year 2001–2002.

There are a number of court actions available to deal with alleged violations of CEPA 1999 and its regulations, including injunctions, prosecutions, Environmental Protection Alternative Measures Agreement (EPAM), court orders that follow convictions, and civil suits by the Crown to recover costs.

An EPAM agreement is an alternative to court prosecutions for a violation under CEPA 1999 and is a relatively new tool. It diverts the accused—whether a company, individual or government agency—away from the court process after charges have been laid. Alternative measures are also found in the *Criminal Code* for adult offenders and in the *Young Offenders Act* for juveniles.

An EPAM agreement allows for a negotiated return to compliance without a court trial. The choice to use an EPAM in a particular case is made by the Attorney General of Canada or an agent of the Attorney General. The Crown prosecutor, after consulting with the enforcement officer responsible for the case, must be confident that the protection of the environment and of human life and health will be satisfied by the use of alternative measures; and the accused will abide by the negotiated alternative measures and return to compliance with the Act.

As the first step, a charge for the alleged offense must be laid. The accused is not required to plead guilty to the violation, but must, nevertheless, accept responsibility for the offense. Upon fulfillment of the conditions of the negotiated alternative measures, the court will dismiss the charges against the accused. However, if the accused fails to comply with the negotiated EPAM, this is an offense under CEPA 1999, and prosecution for the failure to comply will be undertaken.

In 2001–02, the first EPAM agreement was negotiated. The agreement was negotiated after charges were laid against a corporation for the illegal export of CFCs to Cuba. As a result of this agreement, the corporation agreed to contribute \$30,000 to the Environmental Damages Fund, develop a standard operating procedure for handling substances regulated under CEPA 1999, develop a training program for its employees, and publish an article in a trade magazine to alert others to environmental legislation governing ozone-depleting substances.

Wildlife Enforcement officials carried out a total of 145 prosecutions: 124 under the Migratory Birds Convention Act, 1994, and 21 under the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act. No prosecutions were carried out under the Canada Wildlife Act.

### ***Article 5(1)(k)—Providing for Search, Seizure or Detention***

#### **Quebec**

In 2002, MEQ investigators executed over 50 authorized entries and search warrants.

### ***Article 5(1)(l)—Issuance of Administrative Orders***

#### **Quebec**

Bill 72 (2002, c. 11) confers upon the government, in addition to the existing power of order against a polluter, the power to order any person or municipality who has or has had custody of a property to submit a rehabilitation plan to the MEQ for properties he has contaminated or knowingly allowed to be contaminated.

### ***Article 5(2)***

#### **Quebec**

For the MEQ, information concerning Quebec's enforcement procedures are available at <http://www.menv.gouv.qc.ca>. Statistics on convictions for 2002 appear in Tables 1 and 2.

## **Article 6—Private Access to Remedies**

Persons with a recognized legal interest have access to remedies before administrative tribunals and the courts. Interested persons, in addition to being able to institute private prosecutions, may also put forth to a competent authority, a request to investigate alleged violations of environmental laws and regulations.

For example, CEPA 1999 provides statutory authority for a person to apply to the Minister of the Environment for an investigation concerning any alleged offense under that Act. As well, persons with a recognized legal interest in a particular matter have access to administrative, quasi-judicial and judicial proceedings for the enforcement of Canada's environmental laws and regulations. In this regard, CEPA 1999 has introduced the concept of "environmental protection actions" which allow any person to seek a court order prohibiting a continued violation of the statute and/or to mitigate harm caused by a violation of the statute. As well, CEPA 1999 provides the statutory authority to request the review of administrative

decisions or proposed regulations.

## **Article 7—Procedural Guarantees**

Canada has administrative, quasi-judicial and judicial proceedings available for the enforcement of environmental laws and regulations. Both the Canadian Charter of Rights and Freedoms and the courts have ensured that persons are given an opportunity, consistent with the rules of procedural fairness and natural justice, to make representations to support or defend their respective positions and to present information or evidence. Decisions are provided in writing, are made available without undue delay, and are based on information or evidence on which the parties were offered the opportunity to be heard. In accordance with its laws, Canada provides parties to such proceedings, as appropriate, the right to seek review and where warranted, correction of final decisions by impartial and independent tribunals. An example of fair, open and equitable proceedings at the administrative level is the Board of Review process available under CEPA 1999.

Quebec has procedural guarantees under the Act Respecting Administrative Justice and the Charter of Human Rights and Freedoms. Moreover, the Environment Quality Act, the Pesticides Act, the Code of Penal Procedure and the Code of Civil Procedure, and the Charter of Human Rights and Freedoms provide for appeal processes.



# *Mexico*

Country Report on Implementation of the Commitments Derived from NAAEC.

The following report was submitted to the CEC Secretariat by the Secretariat of Environment and Natural Resources, in accordance with NAAEC.

## **1 Trade and the environment**

During the period of reference, timber production totaled 7.358 million cubic meters of roundwood. Of this amount, 69 percent was allocated to the sawmill industry, 13 percent was pulped for papermaking, 6 percent went to the veneer and plywood industry, and the remaining 12 percent went for other uses. A total of 107,8229 tonnes was produced in nontimber forestry production, for different products and species. The states with the greatest production were Durango, Chihuahua, Michoacán, Oaxaca, Mexico, Jalisco and Puebla.

The primary and renewable natural resource sector was promoted with the “Certification of Sustainable Enterprises for Small and Medium-size Industries in the Agricultural Sector” (*Certificación de Empresas Sustentables para las Pequeñas y Medianas Industrias del Sector Agropecuario*) and “Ecological Project Modalities in the Procampo Rural Program (*Modalidades de Proyectos Ecológicos en Procampo—PEP*)” projects, developed by the Secretariat of the Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales—Semarnat*) to further the sustainable use of farmlands.

To promote the sustainable development of the primary sector and the conservation of marine species, the National Fisheries Charter (*Carta Nacional Pesquera*) was updated, the Vaquita Management Strategy was developed and a research protocol was proposed for fish excluders in shrimp trawling.

A soil and water conservation component was added to the Operating Rules for the Marketing Development and Support of Regional Markets (*Reglas de Operación de Apoyos a la Comercialización y Desarrollos de Mercados Regionales*), within the Production Conservation Subprogram (*Subprograma de Conservación Productiva*).

The Mexican Senate rejected the Biosafety Protocol. In addition, it proposed a draft National Program for Sustainable Wetlands Management (*Programa Nacional para el Manejo Sustentable de los Humedales*).

In the tourism sector, a voluntary instrument was developed with standardized measures to mitigate the environmental impact of infrastructure projects. These measures led to a regulatory process to correct gaps in the rules and to further the innovation of concepts, technologies, processes and preferences compatible with environmental protection. The document consists of a developers’ manual, an assessors’ manual and a catalog of listed species.

“Clean city” guidelines were developed for human settlements. Also, Semarnat signed a coordination agreement with the National Housing Commission (*Comisión Nacional de Fomento a la Vivienda—Conafovi*) and the National Housing Promotion Agencies (*Organismos de Fomento a la Vivienda—Onavis*) for the incorporation of environmental criteria in the design, construction and occupation of housing promoted by the federal, state and municipal governments.

The environmental authority entered into evaluation and implementation agreements with the Secretariat of Economy (*Secretaría de Economía—SE*) and the Secretariat of Finance and Public Credit (*Secretaría*

*de Hacienda y Crédito Público—SHCP*) with respect to zero duty for antipollution equipment (trade instrument) and for the accelerated depreciation of pollution prevention and control equipment (tax instrument).

## **2 Biodiversity**

Production diversification is strengthened in the rural sector by the promotion, development, establishment and operation of the Wildlife Conservation Management Unit System (*Sistema de Unidades de Manejo para la Conservación de la Vida Silvestre—SUMA*), consisting of Wildlife Conservation Management Units (*Unidades de Manejo para la Conservación de la Vida Silvestre—UMAs*) and Sustainable Wildlife Management Area Projects (*Proyectos en Áreas de Manejo Sustentable de la Vida Silvestre—PAMS*). PAMS are alternative approaches to production compatible with environmental care, through the rational, orderly and planned use of renewable resources within managed habitats, and the cessation or reversal of environmentally deteriorating processes. SUMA added 398 UMAs and 14 PAMS, for a total of 4,903 UMAs, and an area of 18.2 million hectares, that is subject to intensive and extensive management. This, combined with the 36.8 million hectares already covered by PAMS, makes up a total area of about 55 million hectares, representing 28.08 percent of the national territory. The operation of SUMA has enabled the conservation and sustainable use of more than 1,157 species and 51 subspecies of Mexican wildlife. The increased SUMA area since 1997 was due to a broad national awareness among the relevant sectors and the optimization of procedures, leading to its deregulation. In addition, from March 2001 to July 2002, 1,603 Management Plans (*Planes de Manejo—PMs*), representing 32.7 percent of registered units, were updated. The area covered by these updated PMs totaled 7 million hectares, or 3.54 percent of national territory.

Twenty-three National Technical Advisory Subcommittees for Conservation, Management and Sustainable Use (*Subcomités Técnicos Consultivos Nacionales para la Conservación, Manejo y Aprovechamiento Sustentable*) were created for the conservation and recovery of priority species. The last six of such subcommittees dealt with the bighorn sheep, the boojum tree, cacti, the tapir and the white-lipped peccary, the axolotl (Mexican salamander) and the vaquita. The subcommittees were established on the basis of solid technical and scientific knowledge, from a territorial perspective favoring the maintenance of habitats or ecological niches, as applicable. The creation of these subcommittees has also enabled the expression, discussion, analysis and proposal of different alternatives for the conservation or recovery of the species in question.

With respect to the conservation of ecosystems and biodiversity, an institutional strengthening project was proposed for the training of public officials at the three levels of government and for representatives of the economic and social sectors. The goal is to contribute to the promotion of sustainable development and to stop the process of deterioration and degradation of natural resources, based on the inclusion of the environmental variable in political, economic and social decision-making.

The objectives of the National Biodiversity Information System (*Sistema Nacional de Información sobre Biodiversidad—SNIB*) are to generate decision-making intelligence on biodiversity, to support scientific and technological research, to obtain funding, to develop and establish national biodiversity databases, and to provide advisement and technical assistance. The SNIB met its proposed goals for 2002, enriching its database and improving its information systems and website access (queries and publications).

## **3 Health and pollution**

In February 2002, the Mexico Valley Metropolitan Area Air Quality Improvement Program (*Programa para Mejorar la Calidad del Aire de la Zona Metropolitana del Valle de México*) was published for 2002–2010, incorporating short- and medium-term goals and specifying the different participants'

responsibilities and the timing of the study, elaboration, determination and execution of the measures, according to the trends for the next ten years.

The goals and actions set forth in the air quality programs for the Guadalajara, Monterrey, Toluca Valley, Ciudad Juárez, Mexicali and Tijuana-Rosarito metropolitan areas also were updated and given follow-up.

As regards water, to attend to social nuclei with a high epidemiological risk identified by high mortality rates from infectious intestinal disease, there were 36 water chlorination, disinfection and sanitation campaigns as of June 2002. These actions resulted in the installation of 4,686 water disinfection equipments in 4,217 towns by the end of 2002. By August 2003, the program had increased water chlorination to 94.7 percent of water supplied.

With respect to the sectoral and regional analysis, during 2002 an estimation was made of the economic value of reductions to the risk of mortality from environmental causes, with the purpose of defining and developing a better approach to the economic valuation of health risks and the statistical valuation of life in Mexico.

In addition, 12 Safety, Health and Environmental Protection Weeks took place, at each of which there was a seminar on “hazardous materials and chemical emergency response.” These seminars were held in Campeche, Coahuila, Guanajuato, Mexico (2), Nuevo León, Oaxaca, Puebla, Querétaro, San Luis Potosí, Tabasco and Veracruz. These states have the highest incidence of this type of accident.

With regard to high-risk pollution sources, private and government-operated inspections were intensified to minimize the possibility of contingencies affecting health and the environment. Priority was given to the inspection of this type of establishment throughout the country, while also attending to other sources having a high risk of pollution. Industrial and service facilities under federal jurisdiction were ensured to have undertaken actions to comply with the applicable rules, minimizing negative environmental impacts and risks brought about by their operation.

An increase was authorized in 2002 in the treatment of biological-infectious hazardous waste, which represented the treatment of 123,708 tonnes per year, an increase of 46.6 tonnes over what had been previously authorized.

## **4 Environmental law and policy**

In 2002 work was done to prepare five policy documents and environmental instruments with regard to water, energy, forestry, waste and tourism. Three ecological zoning laws were passed for the Cancún–Tulum Corridor (updated), Cozumel Island and its Marine Area of Influence and the coastal region of the Sian Ka’an Biosphere Reserve, all in the state of Quintana Roo. In addition, ecological zoning coordination agreements were signed for Bahía de la Paz, Baja California Sur, the Los Tuxtlas Biosphere Reserve in Veracruz, and the Popocatepetl volcano and area of influence in the states of Puebla, Morelos and Mexico.

The legal framework of wildlife protection, conservation, management and use was updated, for a more appropriate regulation of such matters. This has led to the use of instruments more precisely governing legal practices with the decree published in the Federal Official Gazette (*Diario Oficial de la Federación*—DOF) on 10 January 2002, reforming various provisions of the Wildlife Law (*Ley de Vida Silvestre*); Official Emergency Standard (*Norma Oficial de Emergencia*) NOM-EM-136-ECOL-2002 published on 1 April 2002, on environmental protection—specifications for the conservation of mammals in captivity; and the ruling published in the DOF on 24 May 2002, establishing the marine areas within national territory and under national jurisdiction as sanctuaries for great whales in the suborders *Mysticeti* and *Odontoceti*.

As part of the regulatory improvement program to make current rules more efficient and to eliminate the authority's unnecessary discretion and the excessive procedures and requirements, the 2002–2006 certification program began to identify accredited persons interested in undertaking the management, conservation and sustainable use of wild flora and fauna, under the current applicable rules.

As regards the comprehensive and sustainable management of water in basins and aquifers, Mexican Official Standard NOM-011-CNA-2000 was published in the DOF on 17 April 2002, entitled “Conservation of water resources, establishing the specifications and method to determine the annual mean availability of national waters,” as a definitive (compulsory) standard. For purposes of compliance with ecological standard NOM-001-ECOL-1996 and the water provisions of the Federal Fees Law (*Ley Federal de Derechos*), providing for the oversight of treated and untreated water discharges into specific basins and zones, 1,473 technical reports were prepared on the control of wastewater discharges.

With respect to the inspection and oversight of natural resources, 1,850 campaigns, 15,572 inspections and 11,300 oversight actions were performed; 15,465 administrative enforcement proceedings were undertaken, and 9,305 proceedings were resolved; fines were imposed for more than 120 million pesos; 624 criminal complaints were filed; and 207 alleged offenders were presented before the Federal Public Prosecutor (*Ministerio Público Federal*). Thus, compliance rates increased. In an unprecedented development, the Office of the Federal Attorney General for Environmental Protection (*Procuraduría Federal de Protección al Ambiente—Profepa*) authorized 590 reconsiderations and commutations of fines for investments intended to protect the environment and repair damages.

## 5 Strategic directions

Consistent with the strategic objectives of the Environmental Sector Plan (*Plan Sectorial de Medio Ambiente*) and the commitments assumed in the Presidential Goal System (*Sistema de Metas Presidenciales*) during 2002, there was major progress in the constitutional tasks of restructuring the territorial expression of the country's new environmental approach. A key goal of this sector structuring process is to adopt a new ecosystem approach based on comprehensive basin management and the standpoint of the planning, management, operation and rules under the new environmental policy.

In this context, given the need to include the environmental variable in political, economic and social decision-making in all government agencies, the Program to Promote Sustainable Development in the Federal Government (*Programa para Promover el Desarrollo Sustentable en el Gobierno Federal*) came into being. Fourteen agencies and entities have joined the Program, with the commitment to meet specific environmental goals within their spheres of jurisdiction. In this regard, work was done to achieve 90 goals aimed at stopping and reversing water and air pollution and soil degradation, including such key actions as reforestation, landfill construction, microbasin management, energy savings, territorial zoning and regulatory aspects, as well as estimates of the amount of federal funding of environmental and natural resource protection.

In addition, the implementation and operational strategy for the decentralization process of Semarnat in the states was designed for 2002, and the aim of the Environmental Institutional Development (*Programa de Desarrollo Institucional Ambiental—PDIA*) was modified. An agreement also was reached with the SHCP on new operating rules for the PDIA, which were published in the DOF on 13 March of that year.

Semarnat was among the first agencies to participate actively in the adoption of the Strategic Planning Model set forth the Office of the President, and to use the Strategic Planning System (*Sistema de Planeación Estratégica—SPE*). The SPE is an information instrument enabling the timely follow-through and assessment of the model. In this context, the Secretariat assumed the commitment established by the federal executive branch to revitalize planning and turn it into an instrument to harmonize government actions, offering a point of reference to the public.

There was also coordinated work to establish the Strategic Performance Indicators (*Indicadores de Desempeño Estratégico*) to measure the Secretariat's budgetary performance in 2003, in order to correlate budgets and planning as provided in the Democratic Planning System (*Sistema de Planeación Democrática*). This work will enable the correlation of sector goals with the System, and ensure that the Presidential Goal System is the basis for Semarnat's allotted budget.

In addition to the timely and correct adoption of the Strategic Planning Model, Semarnat adopted as innovations to the system the establishment of a single set of indicators linked to the Presidential Goal System and the Sector Goal Systems (*Sistemas de Metas del Sector*) as well, including Federal Budget and Management Indicators. This led to more efficient follow-through and decreased information requests. Furthermore, the follow-through for timely actions based on the Intragovernmental Quality Model (*Modelo de Calidad Intragubernamental*), expressed as specific processes or processes and their corresponding indicators and budget, were incorporated into the Strategic Planning System.

## *United States*

Country Report on Implementation of the Commitments Derived from NAAEC.

The following report was submitted to the CEC Secretariat by the Government of the United States in accordance with NAAEC.

### **Introduction**

The information included in this section of the 2002 CEC Annual Report is intended to highlight certain activities and developments related to environmental protection for the calendar year 2002. It does not represent the full range of activities undertaken by the US government regarding the NAAEC, nor is it intended to reflect environmental efforts at the state, tribal, territory, or local level.

### **Environment, Economy and Trade**

- Two trade agreements, the negotiations of which were completed in 2002 (Singapore and Chile), contain environmental provisions calling for high levels of environmental protection, and efforts to ensure that trade and environment are mutually supportive. They also include provisions recognizing the right of each country to establish its own levels of domestic environmental performance, and the need to exercise discretion in allocating resources for enforcing environmental laws. The cooperative projects called for under these agreements are aimed at improving the environment worldwide through communicating environmental best practices and reducing the potential for global and transboundary pollution.
- The United States (US) Secretary of Energy, along with the Canadian Minister of Natural Resources, and the Mexican Secretary of Energy released *North America—The Energy Picture*. The document presents a range of energy information for the three countries, including an economic overview, energy data, supply and demand trends, energy projections, and descriptions of infrastructure, laws, and regulations. This is the first report of the North American Energy Working Group (NAEWG), a group of senior energy officials from Canada, Mexico, and the United States.
- The US, along with Canada and Mexico, released *North America—Regulation of International Electricity Trade*. The report, an overview of regulations governing the construction and operation of power lines and the authorization of electricity exports and imports in the three countries, is intended to serve as an important reference document and guide for participants in international electricity trade. It is the third report of the NAEWG.
- The US Department of Energy (DOE) announced the selection of six new research and development projects that will reduce energy consumption, enhance economic competitiveness and reduce environmental impacts in five of the nine most energy-intensive industries in the United States. The projects will receive a combined total of more than \$2 million in federal funds, while private sector partners will add more than \$9 million over the one- to three-year life of the cost-shared projects.
- DOE awarded all states, territories, and the District of Columbia a total of \$44.5 million for Energy Efficiency Programs to assist in carrying out their state energy efficiency and renewable energy programs. The awards will help these entities to implement their state energy plans, improve the energy efficiency of transportation and buildings, and provide public education to improve energy

efficiency statewide. The majority of awards were given in June 2002, though actual award dates varied.

## **Conservation of Biodiversity**

- The National Coastal Centers for Coastal Ocean Science (NCCOS) released an updated report in 2002 that provides a national overview of the distribution, abundance, temporal utilization, and life history characteristics of ecologically and economically important fish and invertebrates in US estuaries. This information can be used for effective resource management.
- In 2002, the National Oceanic and Atmospheric Administration (NOAA), part of the US Department of Commerce, announced awards totaling \$475,195 for eight local organizations in the southeastern US and Puerto Rico to restore coastal and marine habitat critical to fishery resources.
- Starting in 2000, and occurring annually, EPA has conducted national surveys of estuarine condition at approximately 1500 sites/year. These surveys evaluate water quality, sediment quality and biotic condition.
- NOAA and the National Park Service (NPS) joined forces in Florida to restore coral reefs and seagrass in the Dry Tortugas National Park. The coral reefs were damaged in two separate incidents by ship groundings and an oil spill resulting from one of the groundings. Three shrimp boats grounded in the Dry Tortugas National Park and two shrimp boats grounded close to the historic Fort Jefferson. The area of these groundings is both within and adjacent to the park's most popular swimming and snorkeling area. The groundings caused significant injuries to seagrass and numerous reef corals.
- NOAA undertook an ocean expedition to explore spawning sites and habitats and better understand dynamics of commercial and recreational fish populations, investigate the potential use of marine resources in human drugs, and research bioluminescence.
- The US Department of the Interior (DOI), in partnership with the State of California and four private foundations, agreed to purchase 16,500 acres of San Francisco Bay salt ponds from Cargill Inc., to be restored to tidal marshes and other wildlife habitat.
- A new Internet site, designed as a single point of access for information on coral reefs, was unveiled by NOAA.
- The 2002 Farm Bill was passed, representing the single most significant commitment of resources toward conservation on private lands in the Nation's history. The legislation responds to a broad range of emerging natural resource challenges faced by farmers and ranchers, including soil erosion, wetlands, wildlife habitat, and farmland protection. Some of the most relevant programs are: Conservation Reserve Program, Wildlife Habitat Incentives Program, and the Environmental Quality Incentives Program.
- EPA awarded research grants totaling more than \$3.8 million to seven universities, one nonprofit research institution, and one state agency to evaluate the impacts of environmentally related stressors on wildlife populations.

## **Pollutants and Health**

In 2002, the US Environmental Protection Agency (EPA), working with state, local, tribal, and other partners, continued to make steady progress toward achieving goals and objectives in the area of pollutants and health. Results were achieved in a cost-effective manner using a combination of regulatory actions, voluntary measures, market mechanisms, state partnerships, and stakeholder negotiations, often

through the use of innovative approaches.

- There was a continuing trend of improvement in air quality in 2002, as measured through the six principal pollutants covered by the National Ambient Air Quality Standards (NAAQS), as well as the precursors. One exception is nitrogen oxides (NO<sub>x</sub>) emissions.
- In order to address NO<sub>x</sub>, the EPA and the Ozone Transport Commission (OTC) released a report showing the continuing success of the NO<sub>x</sub> Budget Program, a market-based emissions trading program for reducing NO<sub>x</sub> emissions in the Northeast. There were 1,143 affected sources (i.e., combustion units) that underwent annual reconciliation for 2002 to determine whether sufficient allowances were held to cover emissions. These affected sources emitted at a level approximately 11 percent below 2002 allocations.
- The US released the 2000 Toxics Release Inventory (TRI) in May 2002. It included the first year of reporting using lowered reporting thresholds for persistent bioaccumulative toxic (PBT) chemicals, including dioxins, mercury, and polychlorinated biphenyls (PCB).
- EPA completed and distributed 25,000 copies of its desktop software, TRI Made Easy (TRI-ME), to assist facilities in determining and meeting their TRI Reporting obligations.
- In addition, the US conducted 40 workshops around the country to assist industry in determining and completing their TRI reports.
- Progress has also been made in reducing pesticide risks to workers, consumers, and ecosystems through a wide array of environmental programs. The US is ensuring that pesticides pose less risk to groundwater through careful management of pesticides with high leaching and persistence potential. The US EPA has identified 31 such pesticides and managed 21 in 2002. The development and implementation of environmentally friendly model partnership pilot projects under the Strategic Agricultural Partnership developed by voluntary partners have encouraged the transition to safer pesticides.
- The US EPA released the PBT Profiler, an online chemical screening tool that screens for potential PBT chemicals.
- The US EPA made available the updated analysis of health risk estimates for 33-toxic air pollutants nationwide.
- The US released the first environmental report card on the condition of the nation's coastal waters.
- In the area of children's health, the twelve US Centers of Excellence for Children's Environmental Health and Disease Prevention Research published over 100 articles on childhood asthma and neurobehavioral and physical development. For the Children's Total Exposure to Persistent Pesticides and Other Persistent Organic Pollutants Study, EPA completed field measurements of 50 pollutants to assess aggregate exposures to 260 preschool children. US agencies also completed a field study of daycare centers, assessing lead, pesticide, and allergen levels in approximately 170 randomly selected daycare centers across the US.
- Florida and Texas completed successful pilots for Indoor Air Quality Tools for Schools by establishing self-sustaining programs for schools adopting good management practices throughout each state.
- To combat lead poisoning, private organizations and four federal agencies participated in the Federal Citizen Information Center's Spanish Publication Distribution Project. The joint effort resulted in the distribution of a preliminary total of 918,028 publications to a broad audience.
- In August of 2002, the US EPA awarded more than \$600,000 to two universities for economic research to understand how to place a value on the benefits of reducing asthma in children. It also



awarded research grants totaling \$4.8 million to six universities for research on drinking water safety and techniques to reduce risks to public water systems.

- EPA awarded \$1.2 million to the Swinomish Indian Tribal Nation to study possible health risks from shellfish consumption in the State of Washington.
- The US EPA awarded research grants, totaling more than \$4.5 million, to six universities to study the potential impact on children's health from chemicals in the environment. The actual award dates vary from October 2002 until December 2006.
- The US EPA and the American Lung Association announced the Asthma Research Strategy, a new initiative to advance the scientific understanding and prevention of asthma, the most common chronic childhood illness.
- The US EPA and the American Chemistry Council (ACC) decided to coordinate on two multi-year Cooperative Research and Development Agreements (CRADAs) to better understand the potential effects of chemicals on fetal and childhood immune system development and the potential impacts of endocrine-active chemicals on wildlife populations.

## **Law and Policy**

The US maintains a commitment to vigorous enforcement and compliance assurance programs that produce environment and public health results with a focus on using the most appropriate enforcement and compliance tools to address the most significant problems to achieve the best results. The following are some examples of the types of enforcement and policy actions taken by the United States in 2002.

- In fiscal year (FY) 2002, the US estimated 261 million pounds of pollution were reduced and 513 million pounds of soil were treated; an estimated 2.5 billion gallons of contaminated ground water were treated, 40,000 acres of wetlands restored and 3.15 million people were served by drinking water systems that were brought into compliance. Some \$144 million in administrative criminal and civil penalties were collected, with nearly \$4 billion committed by violators to correct violations, restore the environment and prevent future damage.
- In FY 2002, the US assisted more than half a million businesses and individuals in receiving technical assistance to help them comply with environmental laws. The settlements were part of compliance requirements of the Clean Air and Clean Water Acts and significant settlements with municipalities to eliminate raw sewage discharges from combined systems. As a result of enforcement settlements, violators agreed to pay more than \$56 million in supplemental environmental projects (SEPs).
- The Defense Appropriations Bill provided \$367 million to the USDA to bolster biosecurity efforts in the wake of the September 11 tragedies.
- DOJ, FWS, EPA and the California Department of Fish and Game, reached a settlement under which ExxonMobil Oil Corporation would pay the US and California \$4.7 million in compensation for a spill of crude oil from a pipeline operated by the former Mobil Oil Company.
- The US and the state of New Jersey reached a major Clean Air Act settlement involving PSEG Fossil LLC under which the company will spend over \$337 million to install state-of-the-art pollution controls to eliminate the vast majority of sulfur dioxide and nitrogen oxide emissions from its Mercer and Hudson coal-fired power plants in Jersey City and Hamilton, NJ.
- A federal district court ordered Allegheny Ludlum Steel Corporation to pay the second-highest penalty awarded to the United States after trial under the Clean Water Act (CWA).

- The US and Ferro Corporation reached a \$3 million settlement of claims against Ferro Corporation for the company's violations of the federal and state "new source review" provisions of the Clean Air Act (CAA) and of related state and local ordinances.
- The US reached an historic agreement with Xcel Energy in which the electric utility company would evaluate and alter its power lines to prevent the deaths of eagles, hawks and other migratory birds on over 90,000 miles of electric transmission lines.
- The US reached a settlement requiring the Fort James Operating Company to preserve more than 1,000 acres of wildlife habitat and pay an additional \$8.5 million for other restoration projects, as well as compensation for injuries to natural resources.
- The US and the State of Maryland reached a \$3 million settlement with PEPCO and its pipeline operator, to recover natural resource damages and assessment costs arising from an oil spill from a ruptured pipeline near PEPCO's Chalk Point Generating Station near Aquasco, Maryland.
- Great Lakes Dredge and Dock Company of Oak Brook, Illinois, would pay nearly \$1 million for damages to seagrass and other resources in the Florida Keys National Marine Sanctuary.
- In EPA's Clean Water and Drinking Water Infrastructure Gap Analysis Report, experts pointed out that if investment in water and wastewater systems remains flat and does not increase, a "gap" is expected to occur. One scenario estimates that a clean water capital payment gap of \$122 billion over a 20-year period will occur. In response to this 2002 report, for fiscal 2003, the US proposed the largest combined request for state drinking water and clean water revolving in loans funds in history.

## **Public Participation**

- The following web site, <<http://www.recreation.gov>>, designed to improve citizens' relationship with the government, was revamped for greater functionality and given a new look and feel. This portal provides easy access to information about recreation on all federal lands. DOI is the managing partner of the website.
- An agreement between the General Services Administration (GSA) and DOI's Bureau of Indian Affairs electronic-Government initiative allowed federally recognized Indian tribes to participate in a program providing a domain name suffix identifying the tribe on the World Wide Web as a government entity.
- Meteorologists and emergency managers from NOAA took part in a campaign to increase public preparedness in hurricane-vulnerable Caribbean countries. The group of men and women, flying aboard a hurricane hunting aircraft, visited Caribbean countries to brief local officials, the public, and the media about the dangers of tropical cyclones in the region.
- The Secretary of Agriculture launched "Leaders of Tomorrow," an education initiative to help inspire the next generation of farm leaders.
- The US Department of Agriculture (USDA) sponsored learning trips to Costa Rica and South Africa for 17 school teachers. The program exposes minority teachers working in urban settings to agricultural disciplines through international study tours that focus on agricultural and natural resource management practices. Teachers return with experience and knowledge they can use to help their students improve math and science skills and learn about agricultural science and research.
- EPA announced the kickoff of a campaign challenging Americans to meet or beat two goals by 2005: boosting the national recycling rate from 30 percent to at least 35 percent and curbing by 50 percent the generation of 30 harmful chemicals normally found in hazardous waste.
- In 2002, over half a million commuters nationally were covered by the Commuter Choice Leaders Initiative, saving more than 30 million gallons of gasoline annually.
- The new Asthma Goldfish media campaign, a product of EPA collaboration with The Ad Council of New York, received over \$72 million in donated English and Spanish media time, making it the sixth

most broadcast Public Service Announcement campaign in the nation. The campaign focuses on alerting parents to indoor environmental triggers of asthma attacks, such as mold.

- The Federal Energy Regulatory Commission (FERC) established a system of electronic registration for individuals and companies submitting to, and receiving documents from, FERC. A new number for a hotline, where market participants and the general public can call to complain or report possible violations in FERC regulated activities was obtained.
- DOE released the first volume in a series of guidelines to help the nation's K-12 schools save millions of dollars on their annual energy costs.
- The public lands managed by DOI's Bureau of Land Management estimated over 50 million visitors and the National Wildlife Refuge System and National Fish Hatchery had about 30 million visitors. DOI's Bureau of Reclamation provides visitors with water-recreation opportunities at more than 30 reservoirs in the 17 western US states.

## **Conclusion**

Calendar year 2002 was a successful year for the United States in fulfillment of our obligations under the North American Agreement for Environmental Cooperation. We have achieved important results in the areas of public participation; protection of biodiversity; preventing the health effects of pollution; enhancing linkages between trade, environment, and economy; and enforcing our environmental laws. The achieved results are an important step toward achieving even more substantial improvements in the future.

### **3 2002 Financial Review**

#### ***2002 Audited Financial Statements***

*Financial statements of*

**COMMISSION FOR  
ENVIRONMENTAL  
COOPERATION**

*December 31, 2002*

# COMMISSION FOR ENVIRONMENTAL COOPERATION

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## **Auditors' report**

To the Council of the  
Commission for Environmental Cooperation

We have audited the balance sheet of the Commission for Environmental Cooperation as at December 31, 2002 and the statements of revenue and expenditures, capital and cash flows for the year then ended. These financial statements are the responsibility of the Commission's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we 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 Commission as at December 31, 2002 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Chartered Accountants

March 28, 2003

# COMMISSION FOR ENVIRONMENTAL COOPERATION

## Statement of revenue and expenditures

year ended December 31, 2002

(in Canadian dollars)

|  | 2002              | 2001              |
|--|-------------------|-------------------|
|  | \$                | \$                |
| <b>Revenue</b>   |                   |                   |
| Contribution - Canada (Note 5)   | 4,737,450         | 4,752,576         |
| Contribution - Mexico (Note 5)   | 4,737,450         | 4,752,576         |
| Contribution - United States (Note 5)                                    | 4,737,450         | 4,752,576         |
| Other revenue  | 119,166           | 160,594           |
| Gain on foreign exchange   | -                 | 351,901           |
|  | <b>14,331,516</b> | <b>14,770,223</b> |
| <b>Expenditures</b>  |                   |                   |
| Expenses related to work program - Schedule                              | 4,719,023         | 4,485,617         |
| Expenses related to specific obligations - Schedule                      | 1,013,328         | 1,300,944         |
| Expenses related to the Council meetings - Schedule                      | 260,103           | 404,279           |
| Expenses related to the JPAC - Schedule                                  | 427,585           | 291,808           |
| Expenses related to the Directorate operations                           | 433,272           | 360,059           |
| Expenses related to North American Fund<br>for Environmental Cooperation | 88,078            | 133,447           |
| Planning and evaluation  | 57,360            | 41,546            |
| Public outreach  | 382,144           | 618,832           |
| Salaries and fringe benefits   |                   |                   |
| Program related  | 3,505,904         | 3,622,296         |
| Departmental operations  | 692,228           | 643,145           |
| Relocation and orientation expenses                                      | 324,498           | 101,289           |
| Office expenses  | 171,527           | 160,113           |
| Telecommunications   | 101,567           | 130,403           |
| Rent, utilities and office maintenance                                   | 516,490           | 473,565           |
| External administrative support  | 283,211           | 264,399           |
| Operating equipment  | 55,994            | 140,953           |
| Expenditures related to contingency fund                                 | 383,807           | 128,175           |
| Grants disbursed   | 690,874           | 584,962           |
| Amortization of capital assets   | 96,676            | 94,794            |
| Loss on foreign exchange   | 47,559            | -                 |
|  | <b>14,251,228</b> | <b>13,980,626</b> |
| <b>Excess of revenue over expenditures</b>                               | <b>80,288</b>     | <b>789,597</b>    |



# COMMISSION FOR ENVIRONMENTAL COOPERATION

## Statement of capital year ended December 31, 2002 (in Canadian dollars)

|  | Invested<br>in capital<br>assets | Restricted for<br>North American<br>Fund for<br>Environmental<br>Cooperation | Restricted for<br>currency<br>fluctuation | Unrestricted   | Total            |           |
|--|----------------------------------|--|---|----------------|------------------|-----------|
|  |                                  |  |   |                | 2002             | 2001      |
|  | \$                               | \$   | \$  | \$             | \$               | \$        |
| <b>Balance, beginning of year</b>      | <b>218,856</b>                   | <b>438,876</b>   | <b>518,900</b>                            | <b>403,434</b> | <b>1,580,066</b> | 790,469   |
| Excess of revenue over<br>expenditures | (96,676)                         | (690,874)  | (47,559)                                  | 915,397        | 80,288           | 789,597   |
| Transfer                               | -                                | 663,654  | -   | (663,654)      | -                | -         |
| Investment in capital assets           | 186,391                          | -  | -   | (186,391)      | -                | -         |
| <b>Balance, end of year</b>            | <b>308,571</b>                   | <b>411,656</b>   | <b>471,341</b>                            | <b>468,786</b> | <b>1,660,354</b> | 1,580,066 |

# COMMISSION FOR ENVIRONMENTAL COOPERATION

## Balance sheet

as at December 31, 2002

(in Canadian dollars)

|   | 2002             | 2001             |
|---|------------------|------------------|
|   | \$               | \$               |
| <b>Assets</b>   |                  |                  |
| Current assets  |                  |                  |
| Cash and term deposits  | 1,726,026        | 4,010,727        |
| Goods and services tax (Note 3)                                     | 334,473          | 1,758,855        |
| Receivable contributions  | 2,862,815        | -                |
| Other assets  | 138,112          | 69,844           |
|   | <b>5,061,426</b> | <b>5,839,426</b> |
| Capital assets (Note 4)   | <b>308,571</b>   | <b>218,856</b>   |
|   | <b>5,369,997</b> | <b>6,058,282</b> |
| <b>Liabilities</b>  |                  |                  |
| Current liabilities   |                  |                  |
| Accounts payable and accrued liabilities                            | 738,870          | 1,088,472        |
| Deferred contributions (Note 5)                                     | 2,356,680        | 2,499,030        |
| Other deferred income   | 95,820           | 133,584          |
|   | <b>3,191,370</b> | <b>3,721,086</b> |
| Leasehold inducements   | <b>518,273</b>   | <b>757,130</b>   |
|   | <b>3,709,643</b> | <b>4,478,216</b> |
| <b>Capital</b>  |                  |                  |
| Invested in capital assets  | 308,571          | 218,856          |
| Restricted for North American Fund<br>for Environmental Cooperation | 411,656          | 438,876          |
| Restricted for currency fluctuation                                 | 471,341          | 518,900          |
| Unrestricted  | 468,786          | 403,434          |
|   | <b>1,660,354</b> | <b>1,580,066</b> |
|   | <b>5,369,997</b> | <b>6,058,282</b> |

Commitments (Note 7)

### Approved by the Council

..... Canada

..... Mexico

..... United States

# COMMISSION FOR ENVIRONMENTAL COOPERATION

## Statement of cash flows year ended December 31, 2002 (in Canadian dollars)

|   | 2002             | 2001             |
|---|------------------|------------------|
|   | \$               | \$               |
| <b>Operating activities</b>                                     |                  |                  |
| Excess of revenue over expenditures                             | 80,288           | 789,597          |
| Items not affecting cash and cash equivalents                   |                  |                  |
| Amortization of capital assets                                  | 96,676           | 94,794           |
| Amortization of leasehold inducements                           | (238,857)        | (216,294)        |
|   | (61,893)         | 668,097          |
| Changes in non-cash operating working<br>capital items (Note 6) | (2,036,417)      | 41,582           |
|   | (2,098,310)      | 709,679          |
| <b>Investing activities</b>                                     |                  |                  |
| Acquisition of capital assets                                   | (186,391)        | (82,264)         |
| Net (decrease) increase in cash and cash equivalents            | (2,284,701)      | 627,415          |
| Cash and cash equivalents, beginning of year                    | 4,010,727        | 3,383,312        |
| <b>Cash and cash equivalents, end of year</b>                   | <b>1,726,026</b> | <b>4,010,727</b> |

# COMMISSION FOR ENVIRONMENTAL COOPERATION

## Notes to the financial statements year ended December 31, 2002 (in Canadian dollars)

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### 1. Nature of activities

The Commission for Environmental Cooperation is an international organization that was created by the North American Agreement on Environmental Cooperation for the purpose of meeting NAFTA's environmental provisions. The Commission became operational in July 1994.

### 2. Significant accounting policies

The financial statements are presented in accordance with Canadian generally accepted accounting principles including the following significant accounting policies.

#### *a) Contributions*

The Commission follows the deferral method of accounting for government contributions. Under this method contributions are recognized as revenue in the year in which the related expenses are incurred.

The Government of Canada, the Government of the United Mexican States and the Government of the United States of America (the "Parties") contribute to the Commission's annual budget by mutual agreement.

Funds contributed remain available for three months following the end of the financial year to discharge related obligations incurred during the year.

#### *b) Capital assets*

Capital assets are recorded at cost and are being amortized on a straight-line basis at the following annual rates:

|  |     |
|--|-----|
| Computer equipment                         | 20% |
| Computer equipment and software - projects | 30% |
| Computer software                          | 30% |
| Furniture and fixtures                     | 20% |
| Telephone system                           | 30% |
| Equipment                                  | 30% |
| Leasehold improvements                     | 12% |

#### *c) Foreign currency translation*

Monetary assets and liabilities of the Commission denominated in foreign currencies are translated into Canadian dollars at the year-end exchange rate. Revenues and expenses of the Commission denominated in foreign currencies are translated at the exchange rate in effect at the transaction dates. Translation gains and losses are presented in the statement of earnings.

# COMMISSION FOR ENVIRONMENTAL COOPERATION

Notes to the financial statements  
year ended December 31, 2002  
(in Canadian dollars)

---

## 2. Significant accounting policies (continued)

### d) Leasehold inducements

Leasehold inducements relate to the rental of office space by the commission. These inducements, which are amortized over the term of the lease, are offset against rent expenses.

## 3. Goods and Services Tax

These receivables relate to QST, GST and HST receivable. Given the international status of the Commission, special agreements must be signed between the Federal and Québec governments and the Commission before the goods and services taxes paid on purchases are reimbursed. Agreements were reached in June 1997 and August 1999 with the Government of Canada, entitling the Commission to a full reimbursement of GST and HST. In December 2001, an agreement was signed with the Government of Québec entitling the Commission to receive a full reimbursement of provincial sales taxes.

## 4. Capital assets

|                        | 2002             |                             |                   | 2001              |
|------------------------|------------------|-----------------------------|-------------------|-------------------|
|                        | Cost             | Accumulated<br>Amortization | Net Book<br>Value | Net Book<br>Value |
|                        | \$               | \$                          | \$                | \$                |
| Computer equipment     | 572,217          | 383,820                     | 188,397           | 119,080           |
| Computer software      | 207,831          | 177,813                     | 30,018            | 2,905             |
| Furniture and fixtures | 381,581          | 371,811                     | 9,770             | 14,319            |
| Telephone system       | 120,088          | 120,088                     | -                 | 520               |
| Equipment              | 180,369          | 151,902                     | 28,467            | 15,538            |
| Leasehold improvements | 118,205          | 66,286                      | 51,919            | 66,494            |
|                        | <b>1,580,291</b> | <b>1,271,720</b>            | <b>308,571</b>    | <b>218,856</b>    |

# COMMISSION FOR ENVIRONMENTAL COOPERATION

Notes to the financial statements  
year ended December 31, 2002  
(in Canadian dollars)

## 5. Deferred contributions

|   | <u>Canada</u>  | <u>Mexico</u>  | <u>United States</u> | <u>Total</u>     |
|---|----------------|----------------|----------------------|------------------|
|   | \$             | \$             | \$                   | \$               |
| <b>Balance, beginning of year</b>       | <b>833,010</b> | <b>833,010</b> | <b>833,010</b>       | <b>2,499,030</b> |
| Contributions received                  | 4,690,000      | 4,690,000      | 4,690,000            | 14,070,000       |
| Contributions transferred to<br>revenue | (4,737,450)    | (4,737,450)    | (4,737,450)          | (14,212,350)     |
| <b>Balance, end of year</b>             | <b>785,560</b> | <b>785,560</b> | <b>785,560</b>       | <b>2,356,680</b> |

## 6. Changes in non-cash operating working capital items

|  | <u>2002</u>        | <u>2001</u>   |
|--|--------------------|---------------|
|  | \$                 | \$            |
| Goods and services tax                   | 1,424,382          | (234,995)     |
| Receivable contributions                 | (2,862,815)        | -             |
| Other assets                             | (68,268)           | 39,897        |
| Accounts payable and accrued liabilities | (349,602)          | 682,652       |
| Deferred contributions                   | (142,350)          | (579,556)     |
| Other deferred income                    | (37,764)           | 133,584       |
|  | <b>(2,036,417)</b> | <b>41,582</b> |

## 7. Commitments

- a) The Commission leases premises under an operating lease which expires in November 2004. Total minimum payments required in future years are as follows:

|      | \$               |
|------|------------------|
| 2003 | 557,606          |
| 2004 | 546,733          |
|      | <b>1,104,339</b> |

The Commission has the option to cancel the lease upon payment of a penalty of \$244,000 in 2003.

# COMMISSION FOR ENVIRONMENTAL COOPERATION

Notes to the financial statements  
year ended December 31, 2002  
(in Canadian dollars)

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## 7. Commitments (continued)

- b) The Commission has commitments of \$1,927,450 related to environmental projects and of \$429,230 related to administration and support, for a total of \$2,356,680.
- c) The Commission has commitments for equipment and furniture leases which expire on or before March 2003. The payment required during 2003 is \$4,718.

## 8. Comparative figures

Certain of the comparative figures have been reclassified in order to conform to the current year's presentation.

**COMMISSION FOR ENVIRONMENTAL  
COOPERATION****Schedule****Expenses related to the work program, specific obligations  
under North American Agreement, Council meetings,  
Joint Public Advisory Committee (JPAC) meetings  
year ended December 31, 2002  
(in Canadian dollars)**

|   | 2002             | 2001             |
|---|------------------|------------------|
|   | \$               | \$               |
| <b>Work program</b>   |                  |                  |
| Professional fees   | 2,746,484        | 2,755,429        |
| Travel, accommodation and meeting expenses  | 1,395,819        | 1,130,121        |
| Translation and interpretation  | 291,561          | 294,388          |
| Office expenses   | 83,339           | 151,925          |
| Publications  | 201,820          | 153,754          |
|   | <b>4,719,023</b> | <b>4,485,617</b> |
| <b>Specific obligations under North American Agreement<br/>on Environmental Cooperation</b> |                  |                  |
| Professional fees   | 484,833          | 555,087          |
| Travel, accommodation and meeting expenses  | 154,860          | 214,017          |
| Translation and interpretation  | 134,202          | 109,504          |
| Publication   | 179,705          | 321,008          |
| Office expenses   | 59,908           | 101,328          |
|   | <b>1,013,328</b> | <b>1,300,944</b> |
| <b>Council meetings</b>   |                  |                  |
| Translation and interpretation  | 131,814          | 149,175          |
| Travel, accommodation and meeting expenses  | 105,495          | 226,877          |
| Office expenses   | 20,230           | 25,709           |
| Professional fees   | 2,564            | 2,518            |
|   | <b>260,103</b>   | <b>404,279</b>   |
| <b>Joint Public Advisory Committee (JPAC) meetings</b>                                      |                  |                  |
| Travel, accommodation and meeting expenses  | 302,789          | 152,417          |
| Translation and interpretation  | 64,584           | 51,146           |
| Professional fees   | 10,413           | 70,176           |
| Office expenses   | 49,799           | 18,069           |
|   | <b>427,585</b>   | <b>291,808</b>   |



## **4 Looking Ahead**

### ***2003 Annual Program and Budget Overview***

The CEC budget consists of the following categories:

#### **Program implementation**

- Project costs, including costs of publications and related salaries.

#### **Secretariat operations**

- Costs related to the operation of the Commission.

#### **Other initiatives**

- Costs of activities of the CEC that are either mandated by NAAEC—as in the case of Specific Obligations Under the Agreement (SOUN), Council activities, and the Joint Public Advisory Committee—or that stem directly from decisions taken by the Ministers, such as the creation of the North American Fund for Environmental Cooperation (NAFEC).

## 2003 Project Budget Summary

### I – Environment, Economy and Trade

#### Understanding Linkages between Environment, Economy and Trade

|   |         |
|---|---------|
| 1.1.1 <i>Assessing the Environmental Effects of Trade</i> | 460,000 |
|---|---------|

#### Market-based Mechanisms for Environmentally-preferable Goods and Services

|  |         |
|--|---------|
| 1.2.1 <i>Trade in Environmentally-preferable Goods and Services</i>            | 400,000 |
| 1.2.2 <i>Financing in Support of Environmental Protection and Conservation</i> | 195,000 |

### II – Conservation of Biodiversity

#### North American Biodiversity Conservation Strategies

|   |        |
|---|--------|
| 2.1.1 <i>Strategic and Cooperative Action for the Conservation of Biodiversity in North America</i> | 55,000 |
|---|--------|

#### Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species

|  |         |
|--|---------|
| 2.2.1 <i>North American Bird Conservation Initiative</i>                           | 200,000 |
| 2.2.2 <i>Terrestrial Species of Common Conservation Concern</i>                    | 80,000  |
| 2.2.3 <i>Marine Species of Common Conservation Concern</i>                         | 140,000 |
| 2.2.4 <i>North American Marine Protected Areas Network</i>                         | 205,000 |
| 2.2.5 <i>Closing the Pathways of Aquatic Invasive Species across North America</i> | 90,000  |

#### Improving Information on North American Biodiversity

|  |         |
|--|---------|
| 2.3.1 <i>North American Biodiversity Information Network</i> | 117,000 |
|--|---------|

### III – Pollutants and Health

#### Cooperation on North American Air Quality Issues

|   |         |
|---|---------|
| 3.1.1 <i>Cooperation on North American Air Quality Issues</i> | 589,000 |
|---|---------|

#### Sound Management of Chemicals

|  |         |
|--|---------|
| 3.2.1 <i>Sound Management of Chemicals</i> | 837,000 |
|--|---------|

## **North American Pollutant Release and Transfer Register**

|   |         |
|---|---------|
| <i>3.3.1 North American Pollutant Release and Transfer Register</i> | 445,000 |
|---|---------|

## **Pollution Prevention**

|   |         |
|---|---------|
| <i>3.4.1 Capacity Building for Pollution Prevention</i> | 117,000 |
|---|---------|

## **Children's Health and the Environment in North America**

|   |         |
|---|---------|
| <i>3.5.1 Children's Health and the Environment in North America</i> | 240,000 |
|---|---------|

## **IV – Law and Policy**

### **Environmental Standards and Performance**

|  |        |
|--|--------|
| <i>4.1.1 Comparative Report on Environmental Standards</i> | 30,000 |
|--|--------|

|   |         |
|---|---------|
| <i>4.1.2 Environmentally Sound Management and Tracking of Hazardous Waste</i> | 278,000 |
|---|---------|

### **Enforcement Cooperation**

|   |         |
|---|---------|
| <i>4.2.1 Enforcement and Compliance Cooperation</i> | 213,000 |
|---|---------|

### **Environmental Policy**

|  |        |
|--|--------|
| <i>4.3.1 Sustainable Use and Conservation of Freshwater in North America</i> | 25,000 |
|--|--------|

|   |        |
|---|--------|
| <i>4.3.2 Environmental Management Systems to Promote Compliance and Environmental Performance</i> | 70,000 |
|---|--------|

## Budget Summary for 2003

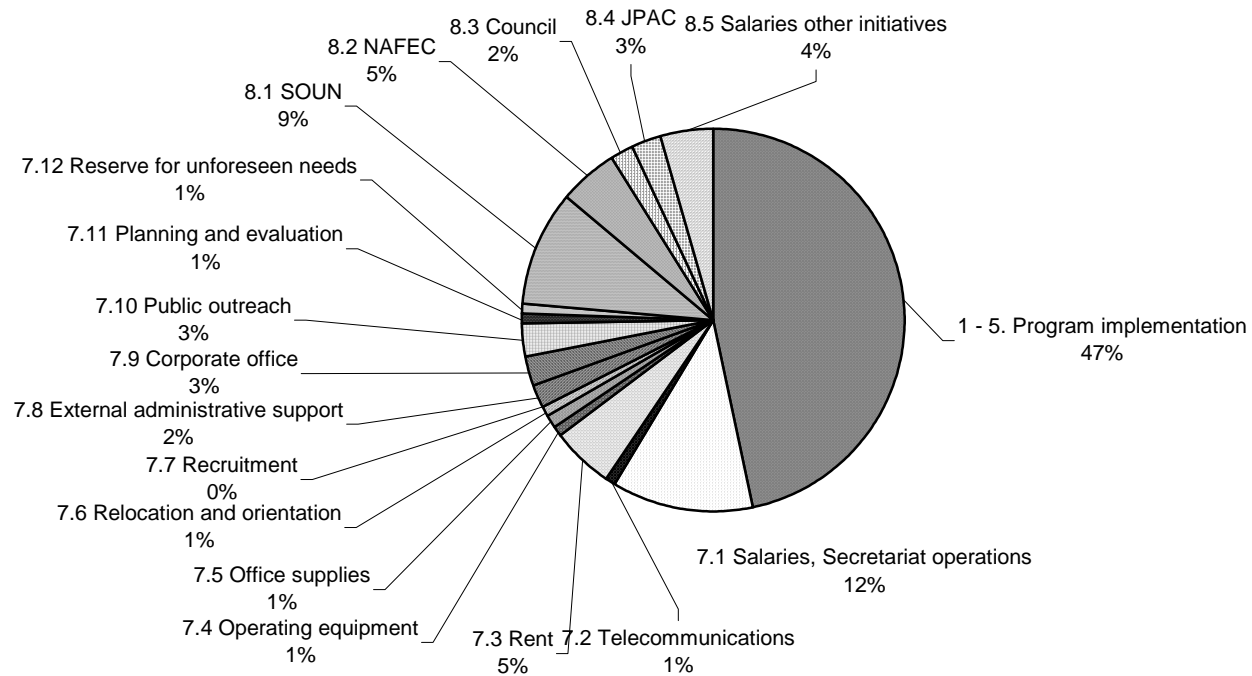
### General

| 2003  |                       |                   |
|---|-----------------------|-------------------|
| <b>1 - 5. Program implementation</b>          |                       |                   |
| 1. - Environment, Economy and Trade           | 1,055,000             |                   |
| 2. - Conservation of Biodiversity             | 887,000               |                   |
| 3. - Pollutants and Health                    | 2,228,000             |                   |
| 4. - Law and Policy                           | 616,000               |                   |
| 5. - Salaries program implementation          | <u>2,284,000</u>      |                   |
| <b>Total for Program implementation</b>       |                       | <b>7,070,000</b>  |
| <b>7. Secretariat operations</b>              |                       |                   |
| 7.1 Salaries, Secretariat operations          | 1,783,000             |                   |
| 7.2 Telecommunications                        | 130,000               |                   |
| 7.3 Rent                                      | 810,000               |                   |
| 7.4 Operating equipment                       | 124,000               |                   |
| 7.5 Office supplies                           | 155,000               |                   |
| 7.6 Relocation and orientation                | 115,000               |                   |
| 7.7 Recruitment                               | 22,000                |                   |
| 7.8 External administrative support           | 272,000               |                   |
| 7.9 Corporate Office                          |                       |                   |
| 7.9.1 <i>Office of the Executive Director</i> | <i>171,000</i>        |                   |
| 7.9.2 <i>Program Directorate</i>              | <i>27,000</i>         |                   |
| 7.9.3 <i>Communications Directorate</i>       | <i>27,000</i>         |                   |
| 7.9.4 <i>Mexico Liaison Office</i>            | <u><i>183,000</i></u> | 408,000           |
| 7.10 Public outreach                          | 391,000               |                   |
| 7.11 Planning and evaluation                  | 134,000               |                   |
| 7.12 Reserve for unforeseen needs             | <u>150,000</u>        |                   |
| <b>Total for Secretariat operations</b>       |                       | <b>4,494,000</b>  |
| <b>8. Other Initiatives</b>                   |                       |                   |
| 8.1 SOUN                                      | 1,435,000             |                   |
| 8.2 NAFEC                                     | 755,000               |                   |
| 8.3 Council                                   | 295,000               |                   |
| 8.4 JPAC                                      | 400,000               |                   |
| 8.5 Salaries other initiatives                | <u>667,000</u>        |                   |
| <b>Total for Other Initiatives</b>            |                       | <b>3,552,000</b>  |
| <b>Total Expenses</b>                         |                       | <b>15,116,000</b> |

**Revenues**

| <b>2003</b>                   |                   |
|-------------------------------|-------------------|
| <b>Income</b>                 |                   |
| <b>Parties' Contributions</b> | <b>13,936,000</b> |
| <b>Carryover</b>              | <b>1,113,000</b>  |
| <b>Interest</b>               | <b>67,000</b>     |
| <b>Total Income</b>           | <b>15,116,000</b> |

## Graphic budget overview



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