

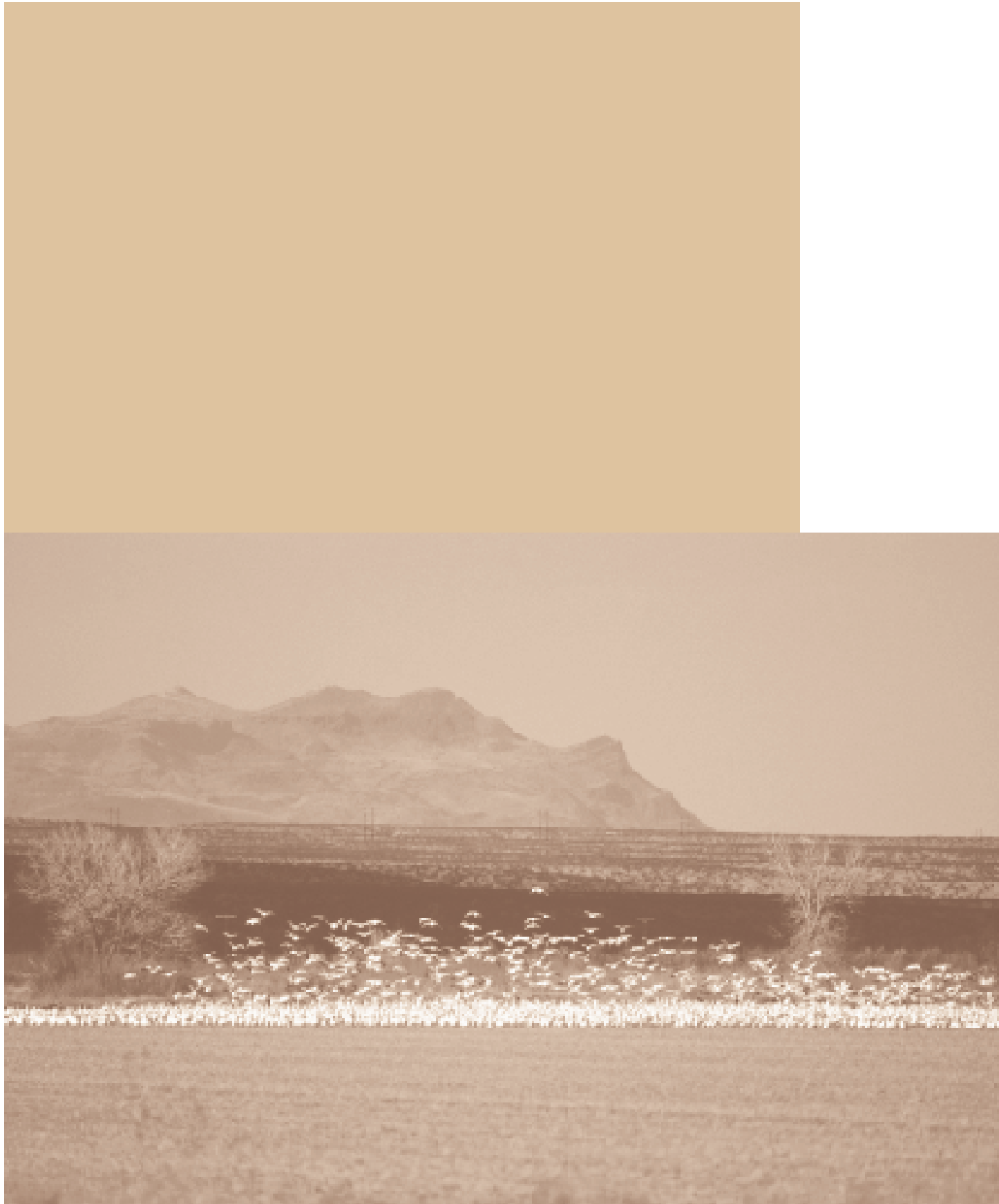
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# Annual Report



COMMISSION DE  
COOPÉRATION ENVIRONNEMENTALE  
COMISIÓN PARA LA  
COOPERACIÓN AMBIENTAL  
COMMISSION FOR  
ENVIRONMENTAL COOPERATION





**Cover: Evening Grosbeak** (*Coccothraustes vespertinus*). This songbird was originally a western native and gradually over the past century has extended its range eastward. It is an irregular migrant, wandering seasonally between summer habitats in the spruce and pine forests of Canada, western and northwestern United States and Mexico, and wintering in Canada, the southeastern United States and in Mexico.



## Mission

*The CEC 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.*



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# Message from the Council

Since its creation in 1995, the CEC has taken shape in response to public recognition of the need for Canada, Mexico and the United States to cooperate in pursuit of shared environmental objectives. The commitment to forge stronger, continent-wide cooperation represents a new and bold endeavor. An important step was taken in 1998 when the CEC's *A Shared Agenda for Action* was developed.

Under this strategy, four program areas are the vehicles for addressing environmental issues that arise specifically in the context of free trade, as well as those that are common to the three countries of North America by virtue of their geographic proximity. Together, the CEC's program activities help North Americans understand and work together in addressing environmental issues of concern to everyone on the continent.

A flagship product of the CEC's Pollutants and Health Program Area is the Sound Management of Chemicals Program (SMOC). In 1998, the SMOC Program made important progress through the development of North American Regional Action Plans (NARAPs) towards the reduction of substances of concern which are particularly toxic, persistent, bioaccumulate and which are transboundary in nature, such as DDT, chlordane, mercury and PCBs. Also, important progress was made in the development of a capacity building initiative in support of SMOC.

An illustration of the unique value of the CEC is in the creation of the North American Biodiversity Information Network (NABIN), under the Biodiversity and Ecosystems Program Area. This project began by linking dozens of databases that already exist across North America into one integrated and comprehensive source of information on birds, their populations, geographic distribution, habitat, and migratory behavior. The result is a powerful tool, available online free of charge, for amassing information relevant to understanding and addressing threats to any of North America's bird species. In 1998, the ongoing development of this remarkable database saw the beginning of its expansion to include mammals and fish and, in the near future, invasive species as well. A creative use of this instrument will turn it into an input for better ecosystem management.

In the program on Environment, Economy and Trade, we have completed the *Analytic Framework for Assessing the Environmental Effects of NAFTA*. It was the subject of an extensive review by the public, peers and by the CEC's Joint Public Advisory Committee through 1998. In late 2000 we will convene the first North American symposium on the environmental effects of NAFTA, for which we have issued a call for papers encouraging the use of the *Framework* in independent analyses of a range of issues and sectors.

One of the most important functions of the CEC is the Citizens Submissions process, provided for by NAAEC Articles 14 and 15. It provides a means by which anyone living in North America may bring forward their concerns about the enforcement of environmental legislation, a process which can culminate in the preparation by the Secretariat of a factual record on the matter. By 1998, the CEC had received twenty such submissions, requiring the creation within the Secretariat, that year, of a team dedicated exclusively to addressing these submissions.

Governments across North America, at various levels, are grappling with the relationship between voluntary standards and government programs to enforce, verify and promote compliance with environmental laws and regulations. In 1998, the CEC's Law and Enforcement Cooperation Program Area issued a report on Environmental Management Systems and Compliance. This first trinational initiative to explore this relationship sets the stage for future cooperative work in this area, and endeavors to help us find new ways to meet our commitment under NAAEC to enforce our environmental laws effectively.

These are but a few examples of the many efforts by the CEC to support Canada, Mexico, and the United States as they work together for the protection of the environment and the advancement of sustainable development. In the pages that follow you will learn about other work, such as the development of a North American Bird Conservation Initiative, the efforts to increase the information available to the public on sources of toxic substances through the Pollutant Release and Transfer Register (PRTR), and the strengthening of North American capacity to enforce CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), among other activities.

We are pleased with the achievements of 1998 but recognize that the CEC's work is not completed. What is of particular interest to us is that the work program has increasingly become more than the sum of its individual projects. We see a CEC able to muster a diversity of resources that converge on answers to urgent and complex questions about the health of the environment, and that move mutual policies forward. We see the realization of the potential of this organization to build the capacity of our three governments to work together in the service of the people who share the North American continent.



**Canada**

**David Anderson**  
*Minister of the Environment*



**Mexico**

**Julia Carabias**  
*Secretary of Environment,  
Natural Resources and Fisheries*



**United States**

**Carol M. Browner**  
*Environmental Protection  
Agency Administrator*

# Report from the Joint Public Advisory Committee



## Annual Report of JPAC for 1998

31 December 1998

The Joint Public Advisory Committee (JPAC) had an extremely productive year implementing and building on the work plan established in December 1997. Five regular sessions were held and a workshop with the public was organized during the 1998 Regular Session of Council. Based on this exchange with the public, a total of ten “Advice to Council” documents were prepared on many issues, including substantial reports to Council on the Three-year Program Plan.

The CEC itself undertook to develop a strategic plan that provided an opportunity for JPAC to reintroduce its long-standing contention that an institutional vision for the CEC should embrace long-term planning regularly informed by public opinion.

These efforts converged at the Regular Session of Council in Mérida, Mexico, resulting in the Council adopting *A Shared Agenda for Action*, which sets the stage for a three-year planning horizon clearly based on close cooperation and interaction among the partners that make up the CEC: the Council, the Secretariat and JPAC.

This has permitted JPAC to reinvigorate its efforts to find new and improved techniques for involving the public in the work of the Commission. Following the strong views voiced during the public workshop in Mérida and reconfirmation of the public’s interest in participating in a timely and substantive manner, JPAC set out to establish a work plan that would coordinate with the CEC’s planning cycle and encourage and facilitate such input.



Now, as a regular feature preceding all JPAC meetings, round-table sessions are held with the public to seek input on the CEC's Three-year Program Plan. We hope that this new approach will create a productive dialogue between the public, JPAC members and attending CEC staff.

As in past years, JPAC has the opportunity to meet and exchange views with the Council members, and a JPAC representative or I attend all meetings of the Alternate Representatives. Moreover, the entire JPAC meets on a regular basis with the Alternate Representatives and the Secretariat staff at critical points in the new planning and program cycle. JPAC has also begun a more formal and cooperative arrangement with the National and Government Advisory Committees. Representatives of those bodies are regularly present at JPAC sessions to share information and collaborate on issues of mutual concern.

It was my pleasure to act as Chair for 1998.



*M. Simon*

**Mary Simon**  
*JPAC Chair in 1998*

## JPAC Members } 1998

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## JPAC Vision Statement

The Joint Public Advisory Committee (JPAC), together with the Council and the Secretariat comprise the North American Commission for Environmental Cooperation (CEC), a unique institution charged with seizing an historic opportunity.

The North American Agreement on Environmental Cooperation sets a precedent as a formal environmental agreement adopted in parallel with a trade agreement, and the Commission it created also set a precedent by including a public, nongovernmental advisory group as one of its components.

JPAC was established as a cooperative mechanism to advise the Council in its deliberations and to advise the Secretariat in its planning and activities.

Our vision is to promote continental cooperation in ecosystem protection and sustainable economic development, and to ensure active public participation and transparency in the actions of the Commission.

While we come from three different nations, and have different institutional connections, we serve on JPAC as individual citizens of the North American continent, joined in a commitment to preserving and enhancing our common environment and to achieving a sustainable society.

JPAC will work to provide firm leadership and constructive contributions to build a trilateral model of collaboration, consensus building, and consensus-based results. JPAC is, in effect, a model for the future in a process which is without precedent, and which presents a great opportunity for cooperative progress.

*26 July 1994  
Washington, D.C.*

# Message from the Executive Director of the CEC Secretariat



In the short life of the CEC, 1998 is proving to have been a pivotal year. It saw many of the Commission's early efforts to promote environmental cooperation and protection in the region begin to bear fruit. It was also a year of renewal. Fundamental to the renewal process was the set of recommendations made by the Independent Review Committee established by the three Parties. In turn, this gave rise to *A Shared Agenda for Action*, a clear and compelling vision articulated by the Council that has guided the redesign of the CEC's program. More refined and strategically focused, the CEC has emerged with an even greater capacity to facilitate the trinational partnership so crucial to the protection of the North American environment.

Our work is now organized under the twin goals of pursuing environmental sustainability in open markets and stewardship of the North American environment, and is centered around four core program areas: Environment, Economy and Trade; Conservation of Biodiversity; Pollutants and Health; and Law and Policy. The CEC also moved from the previous annual program structure to a new three-year work program, enhancing our capacity to plan and execute our activities.

In the program area of Environment, Economy and Trade, the CEC is helping to improve the analytical tools available to the public and governments by developing a methodology to evaluate the environmental impacts of NAFTA and evaluating environmental trends to design preventative and anticipatory responses. The CEC is also examining the means of enhancing the North American trade in green goods and services by launching a pilot project evaluating the market for shade-grown coffee in addition to considering common criteria for the product and promoting sustainable tourism in natural areas.

To advance the conservation of biological diversity, the CEC is identifying key strategic directions for North American cooperation, promoting stewardship for shared terrestrial and marine ecosystems and transboundary species, and improving information on regional biodiversity through the North American Biodiversity Information Network. The CEC-sponsored North American Bird Conservation Initiative is an unprecedented effort by over two hundred public and private organizations, agencies and groups to coordinate actions across borders to ensure the long-term survival of birds and other species in the region.

With respect to pollution and health, the CEC works to prevent and correct adverse effects from pollution to human and ecosystem health by cooperating on a broad range of air issues, defining actions for reducing or eliminating such persistent pollutants as mercury, DDT, PCBs, and chlordane, and enabling public access to the information on emissions through its annual North American Pollutant Release and Transfer Register report.

Finally, the Law and Policy Program strengthens regional cooperation in developing and improving environmental laws and regulations, as well in making private standards more compatible across the region. CEC activities in this regard include promoting enforcement cooperation by, for example, supporting the North American Wildlife Enforcement Group, a network of enforcement officials from the three countries working together to enhance regional enforcement of national and international laws for wildlife protection, among other means, and by assisting the Parties in implementing transboundary environmental impact assessments.



A handwritten signature in dark ink, which appears to read "Janine Ferretti". The signature is fluid and cursive.

**Janine Ferretti**  
*CEC Executive Director*





# **Cooperative Achievements**

# 1998

## Program Summary



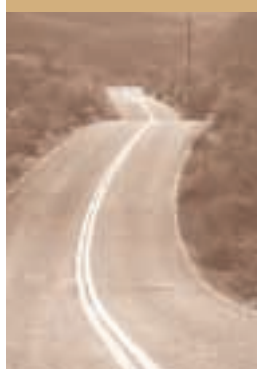
### Environment,

### Economy and Trade

The goal of the Environment, Economy and Trade program is to encourage mutual compatibility of trade environmental and economic policies and instruments within North America and between North America and other trade alliances or regions.

### Biodiversity and Ecosystems

The goals of projects in this program are to promote and conserve ecosystem health and integrity, and foster and encourage the conservation, protection and sustainable use of biodiversity and its components.



- } **NAFTA Environmental Effects**
- } **Exploring the Linkages between Environment and Trade**
- } **Emerging Trends in North America**
- } **Promoting Trade in Green Goods: Inventory**
- } **Technology Clearinghouse**
- } **Sustainable Tourism in Natural Areas**
- } **Shared Approaches to Byproduct Synergy**
- } **Exploring Linkages between Trade and Species' Conservation in North America**



- } **Cooperation in the Conservation of Birds of North America**
- } **North American Biodiversity Information Network**



## Pollutants and Health

The goal of the program on Pollutants and Health is to facilitate cooperative initiatives to reduce pollution risks and minimize pollution impacts.

## Capacity Building

The goal of the program on Capacity Building is to maximize opportunities for public participation and to develop capacity building mechanisms such as training, scientific and technical exchange and education.

## Law and Enforcement Cooperation

The goal of the Law and Enforcement Cooperation program is to facilitate the development of law, policy and economic instruments; to aid the development of alternative approaches to achieving compliance, including effective enforcement; and to promote greater public participation and transparency in decision-making.



- } **Sound Management of Chemicals**
- } **Cooperation on North American Air Quality**
- } **North American Pollutant Release and Transfer Register**



- } **Cooperation on the Protection of Marine and Coastal Area Ecosystems**
- } **Capacity Building in Pollution Prevention**



- } **North American Regional Enforcement Forum**
- } **Strengthening Regional Capacity to Enforce CITES**
- } **Hazardous Waste Enforcement**
- } **Environmental Management Systems and Compliance**
- } **Compliance Indicators**

# Cooperative Achievements



## Environment, Economy and Trade

### NAFTA Environmental Effects

This project seeks to develop and test a methodology for assessing the environmental impacts of NAFTA. A framework for analysis was developed to improve understanding of the connections between trade and the environment, to assist in anticipating important environmental impacts in the context of trade liberalization, and to develop policy tools to better mitigate negative impacts and maximize positive ones. In Phase II of this project, completed in 1998, the second draft of the Framework was developed. Four peer reviewers from each country prepared reports on the Framework for the CEC, which were subsequently made public. The CEC-developed model is currently under consideration by a number of international organizations, and policy and research centers.



### Exploring the Linkages between Environment and Trade

In order to address the project goal of improving the understanding of the links between environment and trade, the Secretariat proposed an inventory of ongoing projects or studies underway in this area and convened a meeting of international institutions working on trade and environment. From this background information, the Council will determine priorities for future work in the Environment, Economy and Trade program.

### **Emerging Trends in North America**

Government experts from Canada, Mexico and the United States jointly explored and agreed on the feasibility of using a forecasting tool that would allow the Parties to link developments in the expansion and growth of the North American economy with emerging environmental trends and indicators in order to anticipate environmental issues.

An Intergovernmental Group of Experts met for the first time in December 1998. They considered available modeling tools, or those that could be developed/adapted, to allow linkages to be made between trade and economic factors and environmental trends; the type of data inputs required; the feasibility of using this type of analytical tool; and implications for the 1999 work program. The group agreed that engaging the public and relevant stakeholders is an important part of its work. It further decided to forge close links with JPAC, as well as relevant centers of excellence.

### **Promoting Trade in Green Goods: Inventory**

Recognizing the complexities of any effort to distinguish products on the basis of their environmental attributes (such as the need for good science, and a transparent and credible process), this project focuses on the development and distribution of informational materials designed to facilitate the connection between producers and consumers of “green products.” The purpose of the project is to provide information on key environmental labeling, environmental certification and procurement policies in three NAAEC countries. The study considers key governmental and non-governmental systems, and umbrella systems that are both national and, to the extent feasible, subnational or local. A report detailing labeling, certification and government procurement projects in Canada, Mexico and the United States was prepared for release in 1999. Additional information will be provided regarding the comparability of different schemes, opportunities for mutual recognition, and trends in related, market-based instruments.

### **Technology Clearinghouse**

In August 1996, the CEC signed a memorandum of understanding that established the intent of the partners and the CEC to collaborate in the development of electronic environmental technology information services to assist North American companies.

The new entity, Services and Information on Ecotechnologies (SIE), will build on and support efforts of the North American governments; gather information on available environmental technologies and make that information available to potential users in a form that will assist them to make the environmentally and economically preferred choice for their particular situation; encourage the verification and independent testing of technologies; assist suppliers to increase sales in Canada, the United States and Mexico; build environmental-technology linkages between North America and Latin America; and assist in the introduction of North American environmental technologies to Central and South America. The CEC has allocated limited seed money to SIE and has assisted with fund-raising to meet start-up costs.

Periodic meetings were held in 1998 for the SIE partners and the CEC to review progress made and future steps needed. A marketing and development consultant was retained to help obtain funding for SIE, and determine appropriate next steps to ensure its economic viability.

### **Sustainable Tourism in Natural Areas**

This project is intended to provide an initial assessment of demand for goods and services related to eco-tourism. An expert report was prepared on North American approaches to and experience with eco-tourism. It documents ongoing initiatives, considers definitions of sustainable eco-tourism, discusses best practices, considers lessons learned from past initiatives, identifies human use management in protected areas, and identifies needs for future research.

### **Shared Approaches to Byproduct Synergy**

The objective of byproduct synergy (BPS) is to promote joint commercial development of an economic sector with a related environmental sector so that the waste product of one industry becomes the raw material used by a second industry.

More than 20 companies and/or organizations have agreed to participate in the process of systematically seeking out byproduct synergies that are profitable as well as environmentally beneficial. Education is required to introduce the concept of byproduct synergy to the companies and organizations participating in the project.

A “materials balance” project was launched in Alberta to find means of characterizing raw materials, products and wastes in ways that protect companies’ confidentiality concerns yet offer a means to analyze the streams in search of synergies. Analysis of the materials balance will involve strategic and technical approaches aimed at identifying existing synergies and potential partners that could be recruited to the region. Various technological advancements in the treatment and handling of products, byproducts and wastes will also be applied.

Implementation will focus on preparing plans for the best synergies identified, based on their economic, environmental and social values. A minimum of three successful synergies per project will be identified per location, starting with Tampico, Mexico.

### **Exploring Linkages between Trade and Species’ Conservation in North America**

In 1998, the CEC undertook a scoping exercise to identify opportunities for future work in the area of the trade in and conservation of species in North America. The general purpose of this work was to explore whether opportunities exist for the sustainable use of resources to enhance ecosystem management and conservation. The Secretariat, in consultation with the Parties and other bodies, identified and assembled existing information related to the current legal and illegal markets for and trade in North American wildlife and wildlife products. This included the identification of sources of information on such trade, demand and supply valuations, and market access information. Further development of this project could include a survey of ongoing work to develop mutually acceptable sustainability criteria.



## Biodiversity and Ecosystems

### Cooperation in the Conservation of Birds of North America

This project brings together agencies and organizations that are working on the conservation of birds, particularly non-waterfowl species, and helps them coordinate and enhance ongoing efforts to conserve bird populations and their important habitats across North America. The project has concentrated on identifying important bird areas (IBAs). In addition, in November 1998, more than 125 experts from the three countries met in Puebla, Mexico, to review a concept paper that had been drafted of a strategy and an action plan for the conservation of North American birds. Based on the feedback provided by these experts, lines of action (or “themes”) were defined in the areas of mapping, conservation objectives, monitoring, implementation, and financial support. This allowed the writing of a strategy for NABCI and an action plan for the CEC initiative. These documents were to be submitted for Council approval in June 1999.

### North American Biodiversity Information Network

The North American Biodiversity Information Network (NABIN) was initiated in 1996 to enhance collaboration among biodiversity data sources and users in North America. NABIN seeks to provide a neutral venue for all stakeholders to promote availability of and accessibility to data on biodiversity in North America.

In 1998, a pilot effort focusing on data and information related to birds of North America was completed and a second one was launched with a focus on mammals and fish. Special emphasis was placed on expanding the circle of data users, increasing the depth of data and information about birds, and broadening the taxonomic and geographical information.

As it develops, the information will be made available for adaptation in other countries in the hemisphere, leading to greater integration of NABIN with the Inter-American Biodiversity Information Network (IABIN). Links are also being developed with other regional and global initiatives such as the proposed clearinghouse mechanism of the Biodiversity Convention, Integrated Taxonomic Information System (ITIS), Natural Heritage Programs, and the Conservation Data Centers.

As a virtual network of data owners and users, NABIN has no physical office space or permanent staff.

## Pollutants and Health

### Sound Management of Chemicals

This program is an ongoing intergovernmental initiative to reduce the risks of persistent toxic substances to human health and the environment. An overall objective of the program is to provide a continuing and increasingly effective forum to facilitate cooperation, trilateral agreements and action on managing and reducing chemical pollution in North America. A key focus of the Sound Management of Chemicals initiative (SMOC) has been the development of North American Regional Action Plans (NARAPs) for those substances which the Parties agree warrant collective

regional action. To date, NARAPs have been established for DDT, chlordane, mercury and PCBs, and implementation is underway. During the last year, four additional nomination dossiers for five candidate substances have been undergoing review under the Process for Identifying Candidate Substances for Regional Action. The Decision Documents for hexachlorobenzene, and dioxins and furans were approved by the Working Group. In addition, a Capacity Building task force was established to develop plans and advice that would guide capacity building in support of SMOC. An Environmental Monitoring and Assessment concept paper was prepared and an experts workshop was held to seek advice on the feasibility of developing a NARAP in this area. The resulting draft resolution for a proposed NARAP on Environmental Monitoring and Assessment was enthusiastically supported by the Working Group. It is also anticipated that a NARAP will be developed for this cross-cutting initiative.

### **Cooperation on North American Air Quality**

Activities planned for 1998 were revised to facilitate cooperation between the air pollution management systems of the three Parties, and to provide strategic tools necessary to reduce pollution emissions on a trinational basis. Work was begun on the preparation of a reference document concerning the air pollution management systems within the countries of North America. Improved familiarity within the air pollution control community of the air pollution management systems employed by each of the three North American countries is expected to facilitate cooperation and coordination between the environmental regulatory agencies of the three countries. This reference document is expected to be published in the spring of 2000.

A US-Mexican pilot study, which was initiated in 1997 and continued through 1998, is helping to establish a binational stakeholder-based alliance to address issues related to the San Diego-Tijuana/Rosarito airshed and serve in an advisory capacity to Semarnap, the US EPA, and the California Air Resources Board (CARB).

In order to develop policy recommendations for the reduction of mercury from coal-fired electric utility boilers, three activities were conducted in 1998. First, the CEC cosponsored a study by the Ontario Clean Air Alliance (OCAA) to estimate the costs associated with switching the source of electricity generation in Ontario from coal-fired boilers to natural gas combined-cycle facilities and evaluate the pollutant benefits and resultant cost effectiveness of such a switch. Second, a public workshop was convened to identify existing and emerging mercury control technologies applicable to coal-fired electric utility boilers and gain further insight into the reduction potential of these control technologies, their costs, and the timeframe within which they could be expected to become commercially available. Finally, a workshop of North American policy-oriented air quality professionals was convened to consider available information, including that developed in the first two described activities, in order to develop policy recommendations for the control of mercury from coal-fired electric utility boilers. This information was then made available to the three governments of North America as well as to the Conference of New England Governors and Eastern Canadian Premiers and the CEC Sound Management of Chemicals workgroup for consideration in the development and implementation of their mercury action plans.

### North American Pollutant Release and Transfer Register

The North American Pollutant Release and Transfer Register (NAPRTR) project was initiated in 1995 to assist citizens in integrating and understanding the ramifications of data existing in these North American registries. Helpful information can be found in PRTR reports from Canada and the United States, but these systems have important differences between them, so superficial comparisons can be misleading. The CEC, using methodology specifically developed to allow comparison of the data, presents an analysis of the types and amounts of releases and transfers of substances of concern across North America. In 1998, this project published the *Taking Stock 1995* data report, initiated the annual *Taking Stock* reports for 1996 and 1997, worked on the development of a trilingual Internet site that would gather available information on other sources of North American pollutant releases, continued support for Mexico's developing PRTR system, and initiated a trinational pilot project to demonstrate how PRTR information could be accessed and used at the community level.



## Capacity Building

### Cooperation on the Protection of Marine and Coastal Area Ecosystems

Since 1996, the CEC has been facilitating regional implementation of the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities in North America through pilot projects in binational coastal areas. Working with agencies and citizen groups, the CEC has helped establish two such projects, one in the Bight of the Californias and the other in the Gulf of Maine. Work continued in the two areas in 1998 and, by a Council decision taken in 1998, the CEC will continue supporting the projects through the years 1999–2000, acknowledging that while substantial progress has been made, these bilateral efforts take time to evolve and consolidate. CEC support in 1999–2000 is necessary to assist regional stakeholders in the transition from the GPA strategic planning process to implementation.

Work on the Bight of the Californias Pilot Project has included the establishment of the Bight of the Californias Ad Hoc Committee as a binational, multi-stakeholder coalition of representatives from federal, state and local agencies, nonprofit organizations, the academic and private sectors and indigenous groups. The CEC sponsored three Ad Hoc Committee meetings during 1998, at which regional implementation plans were finalized, action plan priorities established, and implementation steps launched. An *in situ* liaison was hired to facilitate communication between the Ad Hoc Committee members and to assist in the coordination of the 1998 program of activities. The project received funding from the Agency for International Development (US AID) to develop a GIS-based point and nonpoint source pollution inventory for the Bight of the Californias. The CEC supported the participation of Mexican scientists in the first Bight-wide marine monitoring survey, producing an invaluable cross-border assessment of the state of the Bight, while the US National Oceanic and Atmospheric Administration (NOAA) and the US Environmental Protection Agency (EPA) offered financial support for the laboratory analysis of Mexican samples.

Gulf of Maine Pilot Project activities also included the identification of a host institution in the region to serve as secretariat to the GPA Coalition and the hiring of an *in situ* liaison. A specific action plan has been developed, consistent with the GPA, to protect marine and coastal ecosystems in the Gulf of Maine.

### **Capacity Building in Pollution Prevention**

The project is composed of two initiatives:

**Capacity Building for the Sound Management of Chemicals.** This initiative is continuing activities related to the implementation of the DDT regional action plan developed under the CEC Sound Management of Chemicals project by identifying opportunities for funding the necessary capacity-building initiatives. It also promotes technical cooperation.

**Capacity Building for Pollution Prevention in Small and Medium-size Enterprises (SMEs).** This initiative is intended to meet the technical support needs of small and medium-size enterprises in Mexico, to initiate pollution prevention activities in industrial parks, and to promote the Pollution Prevention Fund established by the CEC/Funtec/Concamin. Five pilot projects have been initiated aimed at demonstrating the economic and environmental benefits of pollution prevention techniques and technology. These projects are in the tannery (two), glassmaking, dyeing, and metal finishing (one each) industries. Initial steps have been taken with the Environmental Defense Fund to link this project to activities in border-area industrial parks.

## **Law and Enforcement Cooperation**

### **North American Regional Enforcement Forum**

Ongoing support was provided to the North American Working Group on Environmental Enforcement and Compliance Cooperation (Enforcement Working Group). This network of environmental enforcement and compliance officials serves as a regional forum for North America on common issues. In addition to assisting the Parties in their annual report on enforcement-related obligations, the Forum reviews issues of common concern and has enabled joint initiatives and cost-shared projects including enforcement training.

Support was also given to enable enforcement officials to contribute their enforcement and compliance expertise to further work under the Sound Management of Chemicals project.

### **Strengthening Regional Capacity to Enforce CITES**

Under the leadership of the North American Wildlife Enforcement Group (NAWEG), the wildlife enforcement project in 1998 continued to focus on building regional capacity and expertise for enforcing North American laws implementing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), particularly in joint training initiatives, establishing a network of wildlife inspectors and building wildlife forensic capacity. Ongoing support by the CEC has enabled wildlife enforcement agencies to strengthen contacts for cooperative action to enforce CITES and to ensure a recognized regional voice in related international organizations such as Interpol and the World Customs Organization. These contacts were aided by training exchanges, funded by the CEC, in 1998. Under these joint initiatives, wildlife enforcement officials participated in each others' training programs to facilitate the exchange of training information and techniques among the agencies.



Among its activities over the past year has been the organization and staging of a regional conference on the trade in marine invertebrates. The conference focused on exchange of information on trade patterns, the nature of illegal activities, and strategies to detect and deter illegal activity.

#### **Hazardous Waste Enforcement**

Under the leadership of the CEC, a Hazardous Waste Task Group produced a needs assessment report that surveys current North American government policies and programs for tracking and enforcing laws regulating the transboundary movement of hazardous wastes.

#### **Environmental Management Systems and Compliance**

In 1998, the Council adopted the report submitted by the Environmental Management Systems (EMS) Task Group on preliminary findings and recommendations from a study on the relationship between voluntary EMS standards and government programs to enforce, verify and promote compliance with environmental laws and regulations. Considerable time and effort was dedicated to exchange of information and expertise on use of EMS and voluntary initiatives for enhancing compliance with environmental legislation. Consultations were held with public and industry interest groups on these issues.

#### **Compliance Indicators**

This project has involved a cooperative, multi-stakeholder effort to analyze indicators for measuring and evaluating the effectiveness of the enforcement and compliance strategies of each Party. In 1998, the CEC sponsored a multi-stakeholder dialogue to examine current policies and practices for reporting on, responding to, and evaluating enforcement and compliance with environmental laws, alternative indicators of effective enforcement, and compliance strategies and responses. The proceedings of this leading-edge initiative, *Indicators of Effective Environmental Enforcement: Proceedings of a North American Dialogue*, which are available from the CEC, will serve as the baseline for future work in selective testing and application of indicators.







# Registry of Submissions on Enforcement Matters 1998

<b>ID. Number</b>	<b>Submitters</b>	<b>Status</b>
SEM-97-001	BC Aboriginal Fisheries Commission, et al.	Preparing a factual record
SEM-97-002	Comité pro Limpieza del Río Magdalena	Reviewing response from the Party
SEM-97-003	Centre québécois du droit de l'environnement (CQDE), et al.	Reviewing response from the Party
SEM-97-006	The Friends of the Oldman River	Reviewing response from the Party
SEM-97-007	Instituto de Derecho Ambiental, A.C. (Chapala)	Reviewing response from the Party
SEM-98-001	Instituto de Derecho Ambiental, A.C. (Guadalajara)	Reviewing under Article 14(1)
SEM-98-002	Hector Gregorio Ortiz Martínez	Reviewing revised submission
SEM-98-003	Department of the Planet Earth, et al.	Reviewing revised submission
SEM-98-004	Sierra Club of British Columbia, et al.	Reviewing under Article 14(2)
SEM-98-005	Academia Sonorense de Derechos Humanos, A.C., et al.	Reviewing under Article 14(1)
SEM-98-006	Grupo Ecológico "Manglar", A.C.	Reviewing under Article 14(1)
SEM-98-007	Environmental Health Coalition, et al.	Reviewing under Article 14(1)

## Registry of Submissions on Enforcement Matters 1998

Under Article 14 of NAAEC, the Secretariat may consider a submission from any non-governmental organization or person asserting that a Party to NAAEC is failing to effectively enforce its environmental law. Where the Secretariat determines that the Article 14(1) criteria are met, it shall then determine whether the submission merits requesting a response from the Party named in the submission under Article 14(2). In light of any response provided by that Party, the Secretariat may recommend to the Council that a factual record be prepared, in accordance with Article 15. The Council, composed of the environmental ministers (or their equivalent) of Canada, Mexico and the United States, may then instruct the Secretariat to prepare a factual record on the submission. The final factual record is made publicly available upon a two-thirds vote of the Council.

As per section 15 of the Guidelines for submissions on enforcement matters, the Secretariat has established a Registry to provide summarized information so that any interested organization or person, as well as the Joint Public Advisory Committee, may follow the status of any given submission during the submission process envisaged under Articles 14 and 15 of NAAEC. As per section 16 of the Guidelines, the Secretariat maintains a public file on each submission, subject to confidentiality provisions of the Agreement and of the Guidelines. The Registry and the public file may be accessed through the CEC web site (<<http://www.cec.org>>) or directly at the Secretariat offices (393, rue St. Jacques Ouest, bureau 200, Montreal, Quebec, Canada, H2Y 1N9, telephone (514) 350-4300).

The following summary briefly describes events during 1998, concerning submissions on enforcement matters. For information on the current status of submissions, please consult the Registry mentioned above.

Submission ID	SEM-97-001/BC HYDRO
Submitter(s)	BC Aboriginal Fisheries Commission, et al.
Party	Canada
Date received	2 April 1997

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

The Submitters allege that the Canadian government is failing to enforce the Fisheries Act, and to utilize its powers pursuant to the National Energy Board Act, to ensure the protection of fish and fish habitat in British Columbia's rivers from ongoing and repeated environmental damage caused by hydro-electric dams.

### 1998 Events:

1. On 27 April 1998, the Secretariat notified Council that it considered the submission warranted preparation of a factual record.
2. The Council instructed the Secretariat to develop a factual record, in accordance with Council Resolution 98-07 dated 24 June 1998.
3. On 18 December 1998, the Secretariat provided the Submitters (and the Party, among others) with a letter expressing the Secretariat's interest in receiving (until 23 February 1999) information for consideration in the development of a factual record.

Submission ID	SEM-97-002/RIO 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.

**1998 Events:**

1. On 8 May 1998, the Secretariat requested a response from the Party under Article 14(2).
2. The Response from the Party was received on 29 July 1998.

Submission ID	SEM-97-003/QUEBEC HOG FARMS
Submitter(s)	Centre québécois du droit de l'environnement (CQDE), et al.
Party	Canada
Date received	9 April 1997

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

The Submitters allege a failure to enforce several environmental standards related to agricultural pollution originating from animal production on the territory of the Province of Quebec.

**1998 Events:**

1. On 16 February 1998, the Secretariat made a request for information under Article 21(1)(b) to the Party.
2. The response to the information request was provided on 13 May 1998.

Submission ID	SEM-97-006/OLDMAN RIVER
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.

**1998 Events:**

1. On 23 January 1998, the Secretariat issued a Determination that the submission met the criteria under Article 14(1).
2. On 8 May 1998, the Secretariat requested a response from the Party under Article 14(2).
3. Canada's response was received on 13 July 1998.

<b>Submission ID</b>	SEM-97-007/LAGO DE CHAPALA
<b>Submitter(s)</b>	Instituto de Derecho Ambiental , A.C.
<b>Party</b>	United Mexican States
<b>Date received</b>	10 October 1997

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

The Submitters allege that Mexico is failing to enforce environmental law, in connection with the citizen complaint filed on 23 September 1996, concerning the degradation of the Lerma Santiago River- Lake Chapala Basin.

**1998 Events:**

1. On 2 October 1998, the Secretariat requested a response from the Party under Article 14(2).
2. Mexico's response was received on 15 December 1998.

<b>Submission ID</b>	SEM-98-001/GUADALAJARA
<b>Submitter(s)</b>	Instituto de Derecho Ambiental, A.C., in conjunction with the citizens affected by the explosions of 22 April 1992
<b>Party</b>	United Mexican States
<b>Date received</b>	9 January 1998

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

The Submitters allege that Mexican Federal Attorney General and the Federal Judiciary did not duly enforce the General Law on Ecological Balance and Environmental Protection (LGEEPA) in relation to the explosions in the Reforma area of the city of Guadalajara, state of Jalisco.

**1998 Events:**

1. On 26 January 1998, the Secretariat acknowledged receipt of the Submission filed on 9 January 1998.

<b>Submission ID</b>	SEM-98-002/ORTÍZ MARTÍNEZ
<b>Submitter(s)</b>	Hector Gregorio Ortíz Martínez
<b>Party</b>	United Mexican States
<b>Date received</b>	14 October 1997 (supplemental information received 10 February 1998)

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

The submission alleged “improper administrative processing, omission and persistent failure to effectively enforce” environmental law in connection to a citizen complaint filed by the Submitter.

**1998 Events:**

1. On 25 February 1998, the Secretariat acknowledged receipt of the Submission filed on 10 February 1998.
2. On 23 June 1998, the Secretariat issued a Determination under Article 14(1) of NAAEC, dismissing the submission.
3. On 4 August 1998 the Submitter filed a revised submission.

<b>Submission ID</b>	SEM-98-003/GREAT LAKES
<b>Submitter(s)</b>	Department of the Planet Earth, et al.
<b>Party</b>	United States of America
<b>Date received</b>	27 May 1998

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

The Submitters assert that the US Environmental Protection Agency’s regulations drafted and programs adopted to control airborne emissions of dioxin/furan, mercury and other persistent toxic substances from solid waste and medical waste incinerators violate and fail to enforce both: 1) US domestic laws, and; 2) the ratified US-Canadian treaties designed to protect the Great Lakes that are partly referenced in the US Clean Air Act.

**1998 Events:**

1. On 2 June 1998, the Secretariat acknowledged receipt of the submission filed on 27 May 1998.
2. On 14 December 1998, the Secretariat issued a Determination dismissing the submission under Article 14(1). The Submitters had a 30-day period to file a revised submission.

<b>Submission ID</b>	SEM-98-004/BC MINING
<b>Submitter(s)</b>	Sierra Club of British Columbia, et al.
<b>Party</b>	Canada
<b>Date received</b>	29 June 1998

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

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

**1998 Events:**

1. On 8 July 1998, the Secretariat acknowledged receipt of the submission received on 29 June 1998.
2. On 30 November 1998, the Secretariat issued a Determination that the submission met the criteria under Article 14(1).

<b>Submission ID</b>	SEM-98-005/CYTRAR
<b>Submitter(s)</b>	Academia Sonorense de Derechos Humanos, A.C., et al.
<b>Party</b>	United Mexican States
<b>Date received</b>	23 July 1998

**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 a hazardous waste landfill (CYTRAR) less than six kilometers away from Hermosillo, Sonora.

**1998 Events:**

1. On 23 July 1998, the Secretariat received initial correspondence concerning this submission.
2. The Secretariat requested additional information from the Submitters on 29 July 1998.
3. The additional information, ratifying the submission, was received on 11 August 1998.
4. On 24 August 1998, the Secretariat acknowledged receipt of the submission.



<b>Submission ID</b>	SEM-98-006/AQUANOVA
<b>Submitter(s)</b>	Grupo Ecológico Manglar, A.C.
<b>Party</b>	United Mexican States
<b>Date receive:</b>	20 October 1998

**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 S.A. de C.V., a shrimp farm in Isla del Conde, San Blas, Nayarit, Mexico.

**1998 Events:**

1. On 20 October 1998, the Secretariat received initial correspondence concerning this submission.
2. The Secretariat requested additional information from the Submitters on 22 October 1998.
3. The additional information, ratifying the submission, was received on 4 December 1998.
4. The Secretariat acknowledged receipt of the submission on 8 December 1998.

<b>Submission ID</b>	SEM-98-007/METALES Y DERIVADOS
<b>Submitter(s)</b>	Environmental Health Coalition, et al.
<b>Party</b>	United Mexican States
<b>Date received</b>	23 October 1998

**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.

**1998 Events:**

1. On 30 October 1998, the Secretariat acknowledged receipt of the submission filed on 23 October 1998.

# Linking North American Communities



## North American Fund for Environmental Cooperation

The North American Fund for Environmental Cooperation (NAFEC), which has made grants totaling US\$3.8 million, was created in October 1995 by the three North American environment ministers to support community-based environmental projects across North America.

In 1998, NAFEC made 28 grants totaling US\$850,000 to nongovernmental organizations. The grantees were chosen by the NAFEC Selection Committee, which has two representatives from each country.

Grants made in 1998 fall primarily into four categories: (1) strengthening community capacity to produce and market green goods and services; (2) transboundary efforts to protect habitat and migratory species; (3) community-based management of water resources; and (4) citizen monitoring for pollution prevention and remediation. Many of the projects involve collaboration among nongovernmental organizations in two or three countries.

In 1998, NAFEC increased its efforts to facilitate networking among NGOs in North America and share the lessons learned through NAFEC-supported projects.

Part of this effort involved arranging three cluster meetings to bring together 1996 and 1997 grantees working on similar issues:

- Representatives of projects as geographically distant as Alaska and Quintana Roo met in Amherst, Wisconsin in June. They found that they faced many common challenges in their efforts to develop renewable energy and use it as a basis for sustainable development in indigenous and isolated communities.

- NAFEC grantees from across North America joined Samuel and Saidye Bronfman Foundation grantees from across Canada for the conference *Urban Issues 1998: Creating Sustainable Urban Communities*, held in October in Winnipeg, Manitoba. The participants shared information and strategies related to sustainable urban design, wastewater treatment, sustainability indicators, green business and cross-cultural approaches to environmental issues.
- Preparations began for a Sustainable Production meeting to be held in Oaxtepec, Morelos in March 1999. During the latter half of 1998, NAFEC grantees and other interested organizations engaged in a process to identify the primary issues of concern for communities involved in producing and marketing green goods and services. This meeting also represents a first attempt to build stronger links between NAFEC-supported projects and related CEC programs.

Many of the participants in the 1998 meetings have maintained contact and have begun to collaborate in a variety of ways. They note that resources can be used much more efficiently when organizations can share information and build on the work of others.

Communicating with groups involved in similar efforts also serves as a source of motivation. *Sustainable Futures*, a video documenting the work of six NAFEC grantees, sends a strong message that “other communities can do what we are doing”. A short version of the video was featured at the 1998 CEC Council Meeting and the full-length (40-minute) version will be released in spring 1999.

By the end of 1998, thirty-five NAFEC-supported projects were completed and 63 grants remained active. Many projects that received initial funding from NAFEC were able to find other sources to continue their work; they keep in touch with NAFEC staff regarding their progress and provide information to other communities interested in undertaking similar efforts. This growing network of community-based initiatives that spans the continent is one of the most exciting products of the NAFEC process.

#### **Grants awarded in 1998 (all figures in US dollars):**

**Promoting certified organic products in Mexico** (Mexico) *Asociación Mexicana de Inspectores Orgánicos* (\$46,000) • **Promoting biological diversity through sustainable certification and fair trade** (US/Mexico) *Institute for Agriculture and Trade Policy* (\$6,625) • **Coffee with a cause: lessons from the European experience** (Canada) *Action for Solidarity, Equality, Environment and Development* (\$6,300) • **Certification & marketing: organic agriculture, forest garden, non-timber forest products and timber forest products** (Canada/Mexico/US) *Falls Brook Centre* (\$50,650) • **National assessment of non-wood forest products in the US** (US) *The Pacific Forest Trust* (\$6,950) • **Community capacity-strengthening for the sustainable use of natural resources** (Mexico) *Comisión de Solidaridad y Defensa de los Derechos Humanos* (\$53,000) • **Raising iguanas: a strategy for their protection and conservation** (Mexico) *Ecología, Desarrollo y Medio Ambiente* (\$6,500) • **A road to sustainability: social and ecological micro-enterprises in the hands of poor women** (Mexico) *Coordinadora Interregional Feminista Rural Comaletzin* (\$27,500) • **Green herbal markets** (Mexico) *Ecología y Desarrollo de Tlaxcala y Puebla* (\$65,000) • **Ecological fisheries management in the Bay of Fundy — writing the rules** (Canada/US) *Conservation Council of New Brunswick* (\$58,500) • **Training nature guides in protected areas of the Yucatan penin-**

**sula** (Mexico) *Pronatura Peninsula de Yucatan* (\$5,850) • **Sonoran ecotourism project** (US/Mexico) *Southeastern Arizona Bird Observatory* (\$57,000) • **Community-based economic and ecological conservation and restoration** (Canada) *Alberta Wilderness Association* (\$6,500) • **Training for sustainability at the Sierra Gorda Biosphere Reserve** (Mexico) *Grupo Ecológico Sierra Gorda* (\$50,000) • **Assessment of ranching methods on bird populations in Chihuahua and Durango** (US/Mexico) *Colorado Bird Observatory* (\$20,000) • **Important bird areas — Phase II** (US) *National Audubon Society* (\$39,000) • **Maritime important bird areas program** (Canada) *Canadian Nature Federation* (\$37,650) • **The Transamerica migratory bird fund: Conservation through community-based programming** (Canada/Mexico) *Saskatchewan Wetland Conservation Corporation* (\$6,500) • **The Caribou Commons project** (Canada) *Friends of Yukon Rivers* (\$5,850) • **Yellowstone to Yukon: conservation plans 2000** (Canada/US) *Canadian Parks and Wilderness Society* (\$48,700) • **A crash course in conservation biology** (Canada) *Friends of Kananaskis Country* (\$11,000) • **Community-based conservation in the Northwestern Lake Superior landscape** (US/Canada) *Nature Conservancy — Chicago/Great Lakes* (\$45,500) • **Lower Colorado River basin conservation plan—binational outreach project** (US/Mexico) *Defenders of Wildlife* (\$27,000) • **Border water roundtable** (US/Mexico) *Texas Center for Policy Studies* (\$33,000) • **Clean water, healthy communities: community-managed waste treatment in central and southern Mexico** (Mexico) *Espacio de Salud* (\$30,000) • **US/Mexico Comparable Industries Study: identifying potential risks and pollution prevention strategies** (US/Mexico) *Environmental Health Coalition* (\$47,000) • **Community solutions to toxic contamination** (Canada/US) *Sierra Club of Canada* (\$6,500) • **Migrant Farmworkers' pesticide project** (US/Mexico) *The Farmworker Health and Safety Institute* (\$47,000)



**Country  
Reports**

# Canada

## Country Report on Implementation of the Commitments Derived from the NAAEC

The following report was submitted to the CEC Secretariat by Environment Canada in accordance with NAAEC.



## Article 2

### General Commitments

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

Five updated bulletins in Canada's *National Environmental Indicator Series* were published in 1998: *Toxic Contaminants in the Environment: Persistent Organochlorines*; *Climate Change*; *Urban Water: Municipal Water Use and Wastewater Treatment*; *Sustaining Marine Resources: Pacific Herring Fish Stocks*; and *Canadian Passenger Transportation*.

The *State of Canada's Environment Infobase* is accessible on the Internet at <[http://www1.nrc.gc.ca/~soer/index\\_f.html](http://www1.nrc.gc.ca/~soer/index_f.html)>. This site includes the above-mentioned *National Environmental Indicator Series*; *The State of Canada's Environment*, which contains The State of Canada's Environment-1996, State of the Environment Fact Sheets, and Teacher's Place, with online student activities related to Canada's environment; and *A National Ecological Framework for Canada*, featuring maps and descriptions of Canada's terrestrial ecozones and ecoregions.

In 1998, the Pacific and Yukon Region of Environment Canada launched its *Pacific and Yukon Region Environmental Indicators* Internet site, found at <[http://www.ecoinfo.org/env\\_ind/default.htm](http://www.ecoinfo.org/env_ind/default.htm)>. The site currently has indicators for marine ecosystems, biodiversity, toxic contaminants, and stratospheric ozone depletion.

*The State of Canada's Forests: The People's Forests, 1997-1998* was published by the Canadian Forest Service of Natural Resources Canada. The report is accessible on the Internet at <<http://www.nrcan.gc.ca/cfs/proj/ppiab/sof/common/latest.shtml>>.

*The Health of Our Air: Toward sustainable agriculture in Canada* was published by Agriculture and Agri-Food Canada. The report is accessible on the Internet at <<http://www.agr.ca/envire.html>>.

*Chemical Contaminants in Canadian Aquatic Ecosystems* was published by the Department of Fisheries and Oceans. The report provides an assessment of the effects of chemical contaminants on fish, fish habitats, and fisheries resources in both freshwater and marine ecosystems of Canada.

*Arctic Ozone: The Sensitivity of the Ozone Layer to Chemical Depletion and Climate Change* was published by Environment Canada. The report is accessible on the Internet at <<http://exp-studies.tor.ec.gc.ca/>>.

In 1998, Quebec produced an overview of the province's greenhouse gas emissions, a report on the evolution of air quality over the last 20 years, and a status report on industrial wastewater treatment. Several quality overviews for rivers, including sections of the Saint Lawrence River, were also produced within the context of the Canada-Quebec Memorandum of Understanding on the Saint Lawrence River.

Manitoba's last State of the Environment Report was issued in 1997. A decision was made in 1998 to incorporate the report into the government's new Sustainable Development Act and produce a Sustainable Development Report.

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

A national database for storing historical and current spill data from various contributing spill reporting agencies was significantly upgraded. The system serves as a useful tool for data analysis and determination of spill trends. Access to outside organizations provides the potential to have a nationally harmonized spill reporting system.

*The Summary of Spill Events in Canada, 1984–1995* was published. It provides information on spill trends for various government as well as private industry sectors for the period studied. It is a follow-up to the previous report, *Summary of Spills Events in Canada, 1974–1983*. The charts and tables presented in the report identify key findings with respect to spills that impact on the environment.

Quebec dealt with 3,244 environmental emergencies, of which 1,171 necessitated intervention in the field. The ice storm of January 1998 was the year's most serious event, requiring the mobilization of several environmental emergency-response teams.

Manitoba experienced the "Flood of the Century" in 1997. In 1998, there was a review of the provincial Emergency Management program and revisions were made to emergency procedures of Manitoba Environment, as well as other departments, to reflect lessons learned from the 1997 experience. In particular, Manitoba Environment developed procedures for dealing with contamination from abandoned wells, and moisture problems in basements causing mold and mildew.

**Canada/United States Transboundary Spill Response Mutual Aid Agreement.** The CANUSWEST agreement, developed in partnership with the US, deals with response to major spills in the vicinity of the international border between the province of British Columbia and the neighboring states of Idaho, Washington and Montana. This mutual aid agreement is the southern component of one of the five regional annexes to the Canada/US Joint Inland Pollution Contingency Plan.

The *Field Guide for Oil Spill Response in Arctic Waters* was published on behalf of the Emergency Prevention, Preparedness and Response (EPPR) Working Group of the Arctic Council. The field guide was developed to provide circumpolar countries with oil spill response guidance, including practical oil spill response strategies and tools specific to the unique climatic and geographic features of the Arctic environment. The guide is being adopted by Canada, Denmark/Greenland, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States.

**Government/Industry Partnership: MIACC.** Environment Canada is the federal government lead and a key partner in the Major Industrial Accidents Council of Canada (MIACC). This is a voluntary organization which provides a multi-stakeholder cooperative forum for all levels of governmental, industrial and nongovernmental sectors, with the objective of developing tools to improve emergency prevention, preparedness and response practices among partner agencies. MIACC launched the “Partnership Toward Safer Communities” initiative, which aims to bring to the community level, where it can have the most impact, the concepts and principles of accidental prevention, preparedness and response. The initiative provides communities with information on what hazardous substances are transported, stored and used within their respective boundaries. Citizens, local governments and industry use the information to work together to enhance the level of preparedness to protect public health and safety from accidents at hazardous installations within their communities.

**National Storage Tanks Inspection Program.** In the province of British Columbia, a program for inspecting aboveground and underground storage tanks containing hazardous substances was implemented. Over 200 facilities were inspected in 1998 to assess the risk of hazardous substance releases. Recommendations based on Canadian Council of Ministers of the Environment (CCME) guidelines were made to prevent spills. As a result, several facilities have been upgraded.

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

Education for sustainable development was one of the major themes discussed at the Commission for Sustainable Development (CSD) in 1998. Canada made a significant contribution at the CSD as a result of its involvement in the Planèt’ERE Conference in Montreal, where nations of La Francophonie met to discuss environmental education, and in the International Conference on Education in Thessaloniki, Greece. Canada has now taken a lead in the development of a “Best Practices” Registry with UNESCO.

The Rescue Mission Planet Earth program continued for a third year. To date, over 100,000 Canadian students have been involved in conducting assessments of the sustainability of their communities.



The Climate Change Action Fund (CCAF) has placed considerable emphasis on education by allocating funds to formal educational programs and activities. Building on the success of the Pembina Institute and the Toronto Environmental Alliance, which developed curricula on climate change, many Canadian groups are collaborating to offer Canadian schools the tools they require for making a real impact on consumption patterns. The Climate Change Action Fund, in 1998, approved 6 projects in support of climate change education.

### Climate Change Action Fund Projects

Project name	Total budget	CCAF contribution
Active and Safe Routes to School (Go for Green)	\$900,000 for three years	\$330,000
Alberta Pilot: National Initiative on Climate Change (FEESA/Destination Conservation)	\$149,000 for one year	\$64,000
Climate Change Teacher Support Programme (Pembina Institute)	\$239,000 for three years	\$120,000
Canadian CO <sub>2</sub> Calculator (University of British Columbia)	\$371,875 for three years	\$222,875
Global Change Game (Global Change Game Inc.)	\$498,025 for three years	\$73,625
The Climate Change Action Pack (Scientists and Innovators in the Schools)	\$21,000 for one year	\$13,000

The first-ever online Colloquium on Environmental Education was hosted by Environment Canada, Yukon College, Université du Québec à Montréal and the *Canadian Journal of Environmental Education* in the fall of 1998. Over 100 scholars and researchers participated in this two-week event. The results of the colloquium were to be published in the spring 1999 issue of the *Canadian Journal of Environmental Education*.

Provincial Ministers of Education in Canada banded together to make sustainable development education a classroom reality. With the assistance of *Learning for a Sustainable Future*, seven provinces have been in the process of creating an inventory of existing curricula to determine what more needs to be done in this area. For example, plans include the development of pre-service training for teachers.

In Alberta, a new environmental education program was initiated to engage students in learning about aquatic ecosystems and, in particular, conservation of fish habitat. The program, called Fish in Schools: Raise to Release, involves students in raising fish from the egg stage to the fry stage and then releasing them into an approved water body. This hands-on educational program promotes understanding of habitat issues, natural resource management and stewardship. The fisheries biologists of Alberta Environmental Protection [now known as Alberta Environment] are actively involved in working with individual schools on this initiative.

Quebec developed and implemented an action plan for environmental education. In addition to current publications on various environmental topics, a great deal of information is available on the Quebec Environment Ministry's Internet site: <[www.mef.gouv.qc.ca](http://www.mef.gouv.qc.ca)>.

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

The Environmental Technology Centre (ETC) undertook a variety of initiatives:

- It sustained the federal-provincial National Air Pollution Surveillance (NAPS) Network, for monitoring criteria pollutants SO<sub>2</sub>, CO, NO<sub>x</sub>, and O<sub>3</sub>, and suspended particulate matter (PM).
- Air toxics monitoring was continued for: fine PM, O<sub>3</sub>, metals, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAH), polychlorinated di-benzo dioxins/furans (PCDD/F), and acid aerosols.
- Releases from Canadian landfills were determined for PCDD/F, PAH, VOCs, Hg, NO<sub>x</sub>, sulphur compounds, and non-methane organic compounds.
- A measurement Reference Method was developed to support the CCME National Emissions Guidelines for NO<sub>x</sub>, SO<sub>2</sub> and CO from combustion turbines and reciprocating engines.
- For use in setting regulatory control limits, studies were done on the Level of Quantification (LOQ) for hexachlorobenzene in soil and ash, and PCDD/F in soil, ash and stack emissions.
- Environment Canada and the US EPA approved a 'green' (MAPtm) method for analytical sample preparation that can be used for measurement of over 100 pollutants in solid samples.
- The ETC, the Northeast States for Coordinated Air Use Management, and the US EPA investigated for the first time the real-world emissions from off-road construction equipment.
- The ETC led the development and acceptance of a North American (ASTM) performance testing protocol that covers most types and brands of commercial oil sorbents.

The Wastewater Technology Center (WTC) provided technical advice and undertook chemical analyses to support Priority Substances List II work on chloramine and the textile sector. A study of selected sewer-sheds and treatment technologies supported endocrine-disrupter work on municipal wastewaters. Reference materials and analytical tools were prepared for the Canadian Council of Ministers of the Environment. Technology protocols for the Environmental Technology Verification Program were developed and tested.

Quebec undertook three research projects dealing with technological development in 1998: municipal waste, cleanup of contaminated sites, and urban planning activities. It also created an agro-environmental research and development institute.

#### **Article 2(1)(e) Environmental Impacts**

The Canadian Environmental Assessment Agency (CEAA) is responsible for administering the federal environmental assessment process. In 1998, CEAA managed one public review and, during the same time period, federal departments and agencies reported 3,080 screenings and one comprehensive review, in accordance with their environmental assessment obligations under the Canadian Environmental Assessment Act.

In the province of Alberta in 1998, 26 major resource projects were subject to the environmental assessment process. Environmental impact assessments were completed in 1998 for nine projects. Three of those nine projects were subsequently subject to public hearings in 1998.

In southern Quebec, 97 projects underwent environmental impact assessments: 46 of them land-based, one industrial and 40 water-based. Among the types of projects assessed were several highway redevelopment projects, a paper mill, a magnesium plant, an aluminum smelter, an organic waste incineration project, a project to eliminate PCB-contaminated waste, a co-generation plant, two hydroelectric projects and three port maintenance dredging programs. Northern Quebec is covered by the James Bay and Northern Quebec Agreement signed with the province's aboriginal communities. There, over 40 projects—including highway or industrial, and municipal—underwent environmental assessments.

**Article 2(1)(f) Promotion of the use of Economic Instruments for the Efficient Achievement of Environmental Goals**

Work continued on the Pilot Emissions Reduction Trading (PERT) project. Approximately 20 companies and environmental nongovernmental organizations (ENGOS) participated in 1998. This initiative is industry-led and involves emissions reduction credits for VOCs, NO<sub>x</sub>, SO<sub>x</sub> and CO<sub>2</sub>. Credits are created as a result of reductions from stationary, mobile and areas sources. A company earns credits from early and excess reductions by adopting emissions-reducing processes and technologies.

The 1998 Federal Budget proposed a measure to help ensure fairer treatment of charities that operate deposit-refund systems promoting recycling of returnable beverage containers.

In 1998, work was undertaken on such economic instrument mechanisms as the Credit for Early Action Table and emissions trading, both related to climate change.

Quebec initiated a refundable tax credit program in the dry-cleaning sector, with a view to reducing atmospheric emissions of perchloroethylene (PERC). To qualify for the tax credit, dry-cleaners must first obtain a certificate from the provincial environment ministry attesting that replacements or improvements made to equipment reduce the amount of PERC used, thereby reducing emissions.

In 1998, Manitoba Environment initiated an inter-departmental review of Administrative Monetary penalties as a tool to complement the provincial enforcement legislation. In March 1998, the Minister of the Environment approved the Business Plan of the Manitoba Association for Resource Recycling Corporation, which was established to achieve improved recycling of used oil, filters and containers. This initiative is funded through a levy collected on the sale of these products. Under the Used Oil, Oil Filter and Containers Regulation, all stewards must operate or subscribe to a stewardship program. By the end of 1998, the program had succeeded in increasing the recovery of materials.

**Article 2(3) Prohibiting the Export of Pesticides and Toxic Substances**

The substance (4-chlorophenyl)cyclopropylmethanone, O-[(4-nitrophenyl)methyl]oxime has been added to the List of Toxic Substances (Schedule I) of the Canadian Environmental Protection Act (CEPA) and to the Schedule of the Prohibition of Certain Toxic Substances Regulations.

## Article 3

### Levels of Protection

In 1998, Canada proposed and finalized the Prohibition of Certain Toxic Substances Regulations, which prohibit the manufacturing, use, processing, offer for sale, and importation into Canada of substances banned for reasons of environmental and health protection. An amendment was made to the Gasoline Regulations which provided an exemption, in effect until 31 December 2002, for all competition vehicles from the restriction on using leaded gasoline.

The following regulations were also proposed in 1998:

- the Sulfur in Gasoline Regulations, which reduce the concentration of sulfur in gasoline, resulting in reduced emissions and decreased environmental and human health effects;
- the Federal Halocarbon Regulations, which place controls on the use of ozone-depleting substances and their alternatives for federal government departments; and
- the Ozone Depleting Substances Regulations, which consolidate all previous regulations and require further reduction in hydrochlorofluorocarbons.

**Endangered Species Legislation.** Before introducing federal endangered species legislation in the House of Commons, the federal government conducted extensive consultations. Throughout 1998, federal, provincial and territorial governments held public workshops, information sessions, and consultations with interested Canadians concerning the federal species-at-risk initiative. An electronic forum was also developed to facilitate consultations. Canadians were invited to access the forum at the *Endangered Species in Canada* web site ([http://www.cws-scf.ec.gc.ca/es/endan\\_e.html](http://www.cws-scf.ec.gc.ca/es/endan_e.html)). The federal government received input from landowners, environmental groups, individuals, conservation organizations and aboriginal peoples. All proposals were given serious consideration during the drafting of the legislation.

**Canadian Environmental Protection Act (CEPA).** Legislation to renew CEPA, Bill C-32, was introduced in the House of Commons on 12 March 1998. Bill C-32 passed second reading and was referred to the House of Commons Standing Committee on Environment and Sustainable Development on 28 April 1998. This committee heard from industry representatives and NGOs from the environmental and health sectors before it began its clause-by-clause review of the Bill in autumn 1998.

Pollution prevention forms the cornerstone of this proposed legislation, which provides the government with the authority to require pollution prevention plans from industry for substances determined under the Act to be toxic. The new legislation would require the government to assess substances more quickly and to take control actions within newly specified time periods on those substances which pose a risk to the environment or human health. In addition, those substances which are found to be toxic, persistent, bioaccumulative, and from sources of releases which are predominantly anthropogenic will be targeted with a control action whose objective is the virtual elimination of releases.

In order for Canada to meet its international obligations, Bill C-32 will provide the government with the authority to implement the expanded obligations of the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, as well as the authority to implement the Convention on Prior Informed Consent for hazardous chemicals and pesticides in international trade.

**Harmonization.** On 29 January 1998, the Canadian Council of Ministers of the Environment, with the exception of Quebec, signed the Canada-wide Accord on Environmental Harmonization and related sub-agreements on environmental assessment, inspections activities, and the development of Canada-wide standards in areas such as air, water and soil quality. The Accord envisions governments working in partnership to achieve the highest level of environmental quality for all Canadians. Under the Accord, each government retains its existing authorities. Governments will cooperate to achieve efficiencies in environmental management and increased environmental protection. The practical application of the Accord and sub-agreements will be worked out through a series of bilateral and multilateral implementation agreements.

**Alberta.** Alberta completed significant revisions to its water management policy and legislation in 1998. The Water Act focuses on managing and protecting Alberta's water and on streamlining administrative processes. The previous legislation was primarily a tool for allocating water. The new Act has two regulations: the Water (Offences and Penalties) Regulation and the Water (Ministerial) Regulation. The Act and Regulations will come into force 1 January 1999.

The vision of the Special Places program is to complete a network of protected areas to preserve the environmental diversity of Alberta's six natural regions and 20 subregions by the end of 1999. In 1998 alone, 19 new sites were designated and/or received significantly enhanced protection under the Special Places program, contributing over 307,500 new hectares to the protected areas network.

**Manitoba.** A new Threatened, Endangered and Extirpated Species Regulation was promulgated in Manitoba. Seven additional species will be protected.

**Quebec.** Quebec introduced a new soil protection and contaminated site restoration policy. In addition to sections dealing with protection and restoration, this policy requires that contamination levels be registered with the land registry office. This measure will ensure that the condition of a particular site and the consequent obligations toward it are available to the public.

A waste management action plan was also introduced, the end of which will see nearly 5 million metric tons of waste collected, recycled and re-used.

## Article 4

### Publication

The Government of Canada publishes all of its environmental laws, regulations, procedures and administrative rulings.

The following regulatory initiatives were published in 1998:

- Amendments to the Gasoline Regulations (April) and the Prohibition of Certain Toxic Substances Regulations (August) were published in the *Canada Gazette, Part II*.
- The Sulfur in Gasoline Regulations (October), the Ozone Depleting Substances Regulations (August) and the Federal Halocarbon Regulations (August) were proposed in the *Canada Gazette, Part II*.

The *Canada Gazette* remains the official parliamentary journal of the federal government. However, section 12 of the new CEPA proposes to establish a registry, to be called the Environmental Registry, for the purpose of facilitating access to documents relating to matters under CEPA. The purpose of the Environmental Registry would not be to replace the *Canada Gazette* but, rather, to complement it. The Registry would permit easier tracking of CEPA-related activities (e.g., consultations regarding new regulations) by the public.

## Article 5

### Government Enforcement Action

#### What's New

- The new Canadian Environmental Protection Act (CEPA), re-introduced to Parliament, contains proposed provisions that would give to enforcement staff additional powers and to the Department additional tools to respond to violations.
- The National Enforcement Management Information System and Intelligence System (NEMISIS) was further developed and improved.
- Environment Canada, along with the Royal Canadian Mounted Police (RCMP) and enforcement agencies from the United States, Germany, Holland and the Basel Secretariat, developed a "Train the Trainer" course for environmental crimes, under the auspices of Interpol. Part of the course includes an international training video, shot partly on location in Canada, to instruct police agencies around the world in how to deal with environmental crimes such as the smuggling of hazardous waste and ozone depleting substances.
- Environment Canada's Enforcement Branch unveiled its new homepage at the Environment Canada web site: <[www.ec.gc.ca/enforce/homepage/default.htm](http://www.ec.gc.ca/enforce/homepage/default.htm)>.
- A major national workshop for EC enforcement staff was held, at which agreement was reached to strengthen EC's National Enforcement Program in several key areas. This resulted in an initiative comprising fifteen major projects. The key projects relate to the decision-making process, human resources management, intelligence-gathering capacity, and the assessment of present and future resource requirements.

- In April 1998, Manitoba Environment passed a new Livestock Manure and Mortalities Management Regulation under the Environment Act, the intent of which is to strengthen protection of the environment, to enhance enforcement capabilities and to ensure that livestock production will be sustainable.
- The Compliance Division of Alberta Environmental Protection, created in 1998, is responsible for the development of a compliance assurance framework to ensure consistent, harmonized and effective delivery of compliance assurance activities by the Environmental Service, the Natural Resources Service, and the Land and Forest Service of the department. This framework will ensure that compliance assurance and enforcement activities are predictable, fair and timely. Rules, sanctions, and processes will be securely founded in law.

### **Compliance and Enforcement**

In 1998, Environment Canada, Quebec Environment and Wildlife, Manitoba Environment, and Alberta Environmental Protection continued to have similar approaches to compliance promotion and enforcement of environmental and wildlife legislation. They promote voluntary compliance under both areas of enacted legislation by using a variety of means, including meetings with the regulated community, bulletins, brochures for targeted audiences, information on the Internet, and publication of the names of violators convicted by the courts.

The monitoring of compliance is aided by the permits, licenses and other authorizations that are required for many activities, such as the transboundary movement of hazardous wastes, 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 97/98, EC processed approximately 9,000 notices for proposed transboundary shipment of hazardous wastes. The resulting shipments numbered approximately 40,000, each of which could be tracked via its quadruple manifests.

Environment Canada, Quebec Environment and Wildlife, Manitoba Environment, Manitoba Natural Resources, and Alberta Environmental Protection conduct training programs for new inspectors, investigators, and wildlife officers. Courses include: general inspection techniques, expert witness courses, regulations-specific courses, and advanced investigation techniques. Refresher courses are also offered to enforcement staff. Specialized training courses dealing with new pieces of legislation are developed by the parties for their respective enforcement staff. For example, during FY 97/98, EC provided various enforcement training sessions for approximately 250 individuals. During the last two fiscal years, Manitoba Environment sent 37 enforcement staff members to the RCMP Law Enforcement Investigator's Course.

On-site inspections as well as "administrative verifications" (off-site inspections such as the verification of obligatory information sent in by regulatees) are undertaken to confirm compliance with regulations. Investigations are conducted when noncompliant situations are discovered. Each year, in cooperation with its five regional offices, Environment Canada prepares an inspection plan that targets specific elements of the regulated community. Such a plan is formulated on 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. Likewise, Alberta Environmental Protection and Manitoba Environment prepare comparable plans

for their respective jurisdictions. Quebec Environment and Wildlife follows a systematic inspection program for the industrial, municipal, agricultural, and natural resources sectors. As well, careful response is given to tips, complaints and referrals offered by the public. In addition to many other inspections which took place over the course of FY 97/98, approximately 6,000 were conducted by EC's Wildlife Inspection staff under the federal Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act, which implements Canada's commitment to the Convention on International Trade in Endangered Species (CITES).

Some regulations, both provincial and federal, require that regulatees keep records for inspection purposes and submit them for verification to the appropriate authority on a timely basis.

All parties maintain records of key enforcement activities, including inspections, investigations, warnings issued, and prosecutions. In the case of EC, a new computerized enforcement database called NEMISIS (National Enforcement Management Information System and Intelligence System) is now being used for these purposes. There is a legislated requirement for Environment Canada to report to Parliament annually on the execution of the Canadian Environmental Protection Act (CEPA) and the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act. Alberta Environmental Protection also has a computerized database that tracks enforcement activities, including incident reviews, inspections and investigations. Likewise, both Quebec Environment and Wildlife and Manitoba Environment maintain records of similar enforcement activities through manual record-keeping systems. For example, the Environmental Service of Alberta Environmental Protection recorded approximately 5,700 inspections, 210 investigations, and 5,598 incident reports. During FY 97/98, Manitoba Environment recorded 17,596 inspections and 3,166 complaints.

Enforcement of environmental and wildlife legislation for all parties 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, 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. Companies operating in Quebec are also subject to the jurisdiction of that province's own Civil Code.

All parties make noncompliance information available to the public, but do so in a variety of ways. Quebec Environment and Wildlife periodically communicates information on prosecutions on a pro-active basis. Manitoba Environment provides enforcement information on the Internet at <[www.gov.mb.ca/environ/prgareas/enforce.html](http://www.gov.mb.ca/environ/prgareas/enforce.html)>. Environment Canada does the same at <[www.ec.gc.ca/enforce/homepage/english/info.htm](http://www.ec.gc.ca/enforce/homepage/english/info.htm)>. Both also supply noncompliance information on request, as well as issue news releases for selected prosecutions and court decisions. Alberta Environmental Protection issues news releases for Enforcement Orders, Environmental Protection Orders, Court Orders and prosecutions. As well, annual summaries and statistics on enforcement actions are compiled and made available to the public. Alberta Environmental Protection's Land and Forest Service disseminates information on noncompliant actions via the Internet at <[www.gov.ab.ca/env/forests/fmd/contra/contra99.html](http://www.gov.ab.ca/env/forests/fmd/contra/contra99.html)>.



Compliance and enforcement policies are widely published or otherwise made available to the public and the regulated communities. These policies outline the basis for fair and consistent enforcement, the enforcement process, administrative roles, investigative authorities, assessment of compliance, and the criteria for enforcement options.

Mediation as a means to persuade transgressors to conform is available in a number of ways. Federally, the existing CEPA, Fisheries Act, and the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act do not provide for mediated or negotiated settlements. The new CEPA, however, which is currently before Parliament, proposes environmental protection alternate measures (EPAMs) that will be negotiated as enforceable agreements between alleged offenders and the Crown. As well, similar processes are proposed in new wildlife legislation currently being prepared—the Species at Risk Act.

Quebec environmental and wildlife legislation does not provide for the possibility of mediation. However, following the discovery of an infraction and the issuing of a warning, the transgressor is granted reasonable time to come back into compliance.

In Manitoba, the Contaminated Sites Remediation Act contains provisions that promote mediation as a dispute resolution procedure. Similarly, the practices and procedures of Alberta's Environmental Appeal Board provide for dispute resolution through the use of mediation and arbitration. Information on the Appeal Board can be found at its web site at <[www.gov.ab.ca/foip/pubs/abdir/eab.html](http://www.gov.ab.ca/foip/pubs/abdir/eab.html)>.

Under the new CEPA, if passed as proposed, enforcement would be aided by environmental protection compliance orders (EPCOs) that are similar to “cease and desist” orders found elsewhere in Canadian law.

Although the circumstances may vary, all parties currently have authority to issue warnings and orders of a preventative and curative nature.

**Environment Canada Enforcement Information.** Enforcement information, reports, and statistics for CEPA and the federal wildlife legislation can be found on Environment Canada's web site at <<http://www.ec.gc.ca/enforce/homepage/english/index.htm>>. The tables in the following section summarize enforcement information from the provinces: Quebec (Table 1), Alberta (Tables 2 and 3), and Manitoba (Tables 4 and 5).

## Provincial Enforcement Information

**Table 1: Quebec Environment Ministry  
Regulatory Enforcement Statistics—1998**

Legislation	Inspections	Complaints Treated	Infraction Notices	Requests for Inquiries	Convictions	Fines
<b>Sector: Municipal</b>						
Water collection and distribution directive (D.001)	52	1	7	0	0	0
Sewer system (D.004)	28	6	7	2	0	0
Policy on the protection of riverbanks, shorelines and floodplains (r.17.1)	758	139	121	27	0	0
Regulation respecting solid wastes (r.3.2)	1,226	119	287	32	43	\$26,000
Regulation respecting drinking water (r.4.1)	112	11	113	8	4	\$900
Regulation respecting the storage of used tires (r.6.1)	60	5	6	4	0	0
Regulation respecting water and sewer companies (r.7)	51	10	16	5	0	0
<b>Subtotal: Municipal</b>	<b>2,287</b>	<b>291</b>	<b>557</b>	<b>78</b>	<b>47</b>	<b>\$26,900</b>
<b>Sector: Industrial</b>						
Mining industry (D.019)	106	0	14	1	0	0
Rehabilitation of contaminated sites policy (P002)	531	35	49	10	0	0
Regulation respecting pulp and paper operations (R.12)	77	1	6	0	0	0
Regulation respecting pulp and paper operations (R.12.1)	263	10	56	2	8	\$21,900
Regulation respecting quarries and sand pits (R.2)	886	104	155	26	9	\$14,400
Regulation respecting atmospheric quality (R.20)	399	80	84	11	43	\$38,500
Regulation respecting ozone-layer depleting substances (R.23.1)	494	1	57	2	1	\$5,000
Regulation respecting bituminous concrete plants (R.25)	118	4	9	2	0	0
Regulation respecting biomedical waste (R.3.001)	166	0	25	0	0	0
Regulation respecting hazardous waste (R.3.01)	1,438	53	225	22	0	0
<b>Subtotal: Industrial</b>	<b>4,478</b>	<b>288</b>	<b>680</b>	<b>76</b>	<b>61</b>	<b>\$79,800</b>

Legislation	Inspections	Complaints Treated	Infraction Notices	Requests for Inquiries	Convictions	Fines
<b>Sector: Agriculture</b>						
Prevention of air pollution from livestock operations (D.038)	52	2	9	0	0	0
Regulation respecting the prevention of water pollution in livestock operations (r.18)	1,953	145	390	45	25	\$46,100
<b>Subtotal: Agriculture</b>	<b>2,005</b>	<b>147</b>	<b>399</b>	<b>45</b>	<b>25</b>	<b>\$46,100</b>
<b>Sector: Pesticides</b>						
Regulation respecting pesticides (r.1)	195	3	64	0	0	0
Pesticides (D.017)	14	0	1	0	0	0
<b>Subtotal: Pesticides</b>	<b>209</b>	<b>3</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Sector: Other</b>						
Other interventions not designated by regulations, policies or directives	673	71	78	5	0	0
<b>Environmental Quality Act, activities not falling under regulations, policies or directives</b>	<b>1,981</b>	<b>218</b>	<b>342</b>	<b>107</b>	<b>171</b>	<b>\$413,250</b>
<b>TOTAL</b>	<b>11,633</b>	<b>1,018</b>	<b>2,121</b>	<b>311</b>	<b>304</b>	<b>\$566,050</b>

**Table 2: Alberta Environment Enforcement Activities, Prosecutions\***

Legislation	Charges Laid <sup>1</sup>	Charges Concluded <sup>2</sup>	Convictions	Pending <sup>3</sup>	Penalties <sup>4</sup>	Jail Days <sup>5</sup>	Suspensions <sup>6</sup>	Appeals <sup>7</sup>	Court Orders
<b>EPEA<sup>8</sup> and Regs Subtotal</b>	<b>58</b>	<b>138</b>	<b>52</b>	<b>15</b>	<b>\$1,133,885</b>	<b>45</b>	<b>0</b>	<b>16</b>	<b>0</b>
EPEA	43	117	38	14	\$1,132,305	45	0	16	0
Pesticides sales, handling	2	2	0	0	0	0	0	0	0
Waste control	12	19	14	0	\$1,580	0	0	0	0
Substance release	1	0	0	1	0	0	0	0	0
<b>Fisheries Act and Regs Subtotal</b>	<b>1,341</b>	<b>1,177</b>	<b>1,017</b>	<b>427</b>	<b>\$166,132</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>9</b>
Fisheries Act	35	46	31	33	\$18,650	0	0	2	0
Alberta Fishery regulations	1,306	1,131	986	394	\$147,482	0	0	4	9
<b>Wildlife Act and Regs Subtotal</b>	<b>1,498</b>	<b>1,406</b>	<b>1,007</b>	<b>788</b>	<b>\$339,260</b>	<b>1,508</b>	<b>365</b>	<b>30</b>	<b>66</b>
Migratory birds reg	25	26	9	0	\$4,350	0	11	0	0
Wildlife Act	1,383	1,298	924	767	\$320,217	1,508	354	30	66
Wildlife reg	90	82	74	21	\$14,693	0	0	0	0
<b>Forests Act and Regs Subtotal</b>	<b>69</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>\$516</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Forests Act	69	7	6	9	\$516	0	0	0	0
<b>Prov. Parks Act and Regs. Subtotal</b>	<b>351</b>	<b>51</b>	<b>41</b>	<b>38</b>	<b>\$4,522</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Provincial Parks Act	351	51	41	38	\$4,522	0	0	0	0
<b>Other Acts and Regs. Subtotal</b>	<b>1,573</b>	<b>657</b>	<b>520</b>	<b>184</b>	<b>\$79,667</b>	<b>276</b>	<b>0</b>	<b>0</b>	<b>0</b>
Criminal Code	45	59	18	39	\$3,684	120	0	0	0
Gaming and Liquor Act	761	257	223	64	\$29,088	6	0	0	0
Highway Traffic Act	356	89	76	20	\$5,506	0	0	0	0
Motor Vehicle Administration Act	136	88	74	24	\$32,949	150	0	0	0
Off-Highway Vehicle Act	211	92	85	4	\$5,297	0	0	0	0
Provincial Offences Procedures Act	33	44	16	31	\$1,348	0	0	0	0
Small Vessel Regs.	31	28	28	2	\$1,795	0	0	0	0
<b>TOTAL</b>	<b>4,890</b>	<b>3,436</b>	<b>2,643</b>	<b>1,461</b>	<b>\$1,723,982</b>	<b>1,829</b>	<b>365</b>	<b>52</b>	<b>75</b>

■ These data cannot be compared to each other or to lighter shaded portions of this table.

\* 1 April 1998 – 31 March 1999

<sup>1</sup> Includes all charges laid during the report period.

<sup>2</sup> Includes only those charges that have been concluded. Some of these charges may have been initiated prior to the report period.

<sup>3</sup> Includes charges laid before or during the report period that have not been concluded.

<sup>4</sup> Includes penalty and creative sentencing amounts.

<sup>5</sup> Does not include days in lieu or default days.

<sup>6</sup> Includes licenses (under Wildlife Act), approvals.

<sup>7</sup> Includes appeals of charges to higher-level court.

<sup>8</sup> Environmental Protection and Enhancement Act.

**Table 3: Alberta Environment Enforcement Activities,  
Administrative Penalties and Orders\***

Legislation	Penalty #s <sup>1</sup>	Penalty \$ Assessed	Orders <sup>2</sup>	Appeals <sup>3</sup>
<b>EPEA<sup>4</sup> and Regs Subtotal</b>	<b>34</b>	<b>\$165,250</b>	<b>4</b>	<b>3</b>
EPEA	28	\$144,000	3	–
Pesticides sales, handling	5	\$18,750	–	3
Waste control	1	\$2,500	1	–
<b>Forests Act and Regs Subtotal</b>	<b>50</b>	<b>\$151,463</b>	<b>0</b>	<b>0</b>
Forests Act	8	\$28,290	0	–
Timber Management reg	42	\$123,173	0	–
<b>Prov. Parks Act and Regs Subtotal</b>	<b>–</b>	<b>–</b>	<b>262</b>	<b>–</b>
Provincial Parks Act	n/a	n/a	262	n/a
<b>Public Lands Act Subtotal</b>	<b>54</b>	<b>\$101,795</b>	<b>0</b>	<b>0</b>
Public Lands Act	54	\$101,795	–	–
<b>TOTAL</b>	<b>138</b>	<b>\$418,508</b>	<b>266</b>	<b>3</b>

\* 1 April 1998 – 31 March 1999

<sup>1</sup> Indicates number of parties who received an administrative penalty.

<sup>2</sup> Environmental Protection Orders (EPO), Emergency Environmental Protection Orders (EEPO), Enforcement Orders (EO), Enforcement Orders (Waste), Eviction Orders, Ministerial Orders.

<sup>3</sup> Includes administrative penalties and orders appealed through EAB for EPEA legislation and administrative penalties appealed to a Director for Forestry and Public Lands legislation.

<sup>4</sup> Environmental Protection and Enhancement Act.

**Table 4: Manitoba Environment Enforcement Statistics —  
1997/98 Fiscal Year**

Legislation	Charges Laid	Convictions	Formal Warnings Issued	Director/EO/MOH Orders Issued	Fines Imposed
The Dangerous Goods Handling and Transportation Act	62	62	22	2	\$14,685
The Environment Act	66	49	198	27	\$24,226
The Non-Smokers Health Protection Act (NSHPA)	—	—	12	—	—
The Ozone Depleting Substances Act	—	—	2	—	—
The Public Health Act	12	7	75	12	\$1,258
Municipal bylaws	1	1	31	—	Nil
<b>TOTAL</b>	<b>141</b>	<b>119</b>	<b>340</b>	<b>41</b>	<b>\$40,169</b>

**Table 5: Manitoba Environment Program  
Operating Statistics: 1997/98**

Program Activity (Mandated)	Number of Inspections	Complaints Responded To
<b>Public Health Act</b>		
Food service establishments	3,560	423
Temporary/seasonal food service	386	8
Retail food stores	545	134
Mobile food units	124	4
Food processors	1,047	136
Uninspected meat processors	69	5
Public water supply	406	65
Swimming facilities	567	4
Industrial & construction camps	31	8
Recreational camps	189	24
Public accommodation	137	24
Care facilities	492	20
<b>Subtotal</b>	<b>7,553</b>	<b>855</b>

Program Activity (Mandated)	Number of Inspections	Complaints Responded To
<b>Environment Act</b>		
Waste disposal grounds	601	89
Livestock production operations	547	160
Municipal wastewater facilities	433	41
Scrap processors and auto wrecking	97	19
Agricultural operations	146	34
Mining operations	33	1
Forestry operations	3	15
Manufacturing and industrial plants	170	56
Recreational developments	8	–
Incinerators	22	2
Water development/other EA licenses	345	10
<b>Subtotal</b>	<b>2,437</b>	<b>427</b>
<b>Dangerous Goods Handling and Transportation Act</b>		
Petroleum storage facilities	1,159	76
Pesticide storage and container facilities	135	39
PCB storage facilities	6	1
Anhydrous ammonia	70	12
Hazardous wastes sites	283	81
Dangerous goods handling and transportation	219	6
Contaminated sites	331	19
<b>Subtotal</b>	<b>2,203</b>	<b>234</b>
<b>Request/Response-oriented Programs</b>		
Subdivision, landsplits, planning schemes and development plans	792	149
Litter	894	730
Campgrounds	16	4
Dwellings and buildings	1,340	137
Private water supplies	788	150
Unsanitary conditions	159	159
Communicable disease investigations	115	68
Private sewage disposal	872	182
Other (crop residue, ozone, Waste Reduction and Prevention Act, NSHPA)	427	71
<b>Subtotal</b>	<b>5,403</b>	<b>1,650</b>
<b>TOTAL</b>	<b>17,596</b>	<b>3,166</b>

**Manitoba Natural Resources Enforcement Statistics—FY 97/98.** Approximately 139 Manitoba Natural Resources enforcement officers are responsible for enforcement of wildlife protection and other legislation. They are assisted in their job by the province’s “Turn-in-Poachers” toll-free hotline, which, since it began in 1985, has received 9,191 calls, resulting in 1,534 charges and 285 warnings. During FY 97/98, 421 prosecutions were pursued, resulting in 348 convictions, with an additional 119 warnings issued, to total 540 offenses. Of these, 19 offenses were related to possession of illegally taken wildlife, with one charge laid under the trafficking provisions of the Wildlife Act. Manitoba regulations require the procurement of import permits for all live animals brought into the province and export permits for all animals shipped out. Non-Manitoba residents may use a valid hunting license as an export permit for species not regulated by CITES. In all other cases, an export permit is required. In FY 97/98, 2,159 CITES export permits were issued.

**Other Related Activities.** Environment Canada actively participated in the International Organization for Standardization (ISO) process for the development of the ISO 14000 series of standards, including the three related to environmental auditing. Although these standards are voluntary, not mandatory, the federal government encourages their adoption and implementation by the private sector.

To facilitate the practice of environmental auditing, Environment Canada, as a matter of policy, does not request copies of environmental audits during its inspection activities. The Office of the Auditor General of Canada encourages federal departments and agencies to adopt and implement environmental auditing practices as part of their sustainable development plans. Quebec Environment and Wildlife does not promote environmental audits, but encourages the adoption of environmental management systems by all companies operating in its territory. Manitoba Environment may include monitoring or auditing as a condition of obtaining environmental licenses. Alberta Environmental Protection has encouraged the development of environmental management systems by industry, including environmental audits. These are taken into consideration in assessing enforcement actions in situations of noncompliance.

## Article 6

### Private Access to Remedies

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

For example, CEPA provides specific statutory authority for a person to apply to the Minister of the Environment for an investigation concerning any alleged environmental 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 provides the statutory authority to sue for damages, seek injunctions and request the review of administrative decisions or proposed regulations. In the legislation to renew CEPA, Canada has built on its commitment to provide private access to remedies.



## 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. One example of fair, open and equitable proceedings at the administrative level is the Board of Review process available under the old CEPA and expected to be included under the new CEPA as well.

# Mexico

## Country Report on Implementation of the Commitments Derived from the NAAEC

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



## Article 2

### General Commitments

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

As established by the collaborative agreement signed 5 July 1995, the National Institute of Statistics, Geography and Informatics (*Instituto Nacional de Estadística, Geografía e Informática*—INEGI) and the Secretariat of Environment, Natural Resources and Fisheries (*Secretaría de Medio Ambiente, Recursos Naturales y Pesca*—Semarnap) published *Environmental Statistics, Mexico 1997* (*Estadísticas del Medio Ambiente, Mexico 1997*), the biennial report in which both institutions collaborated.

The publication fulfilled Semarnap's legal mandate to prepare the Report on the General Situation of Mexico in Matters of Ecological Equilibrium and Environmental Protection (*Informe sobre la Situación General de México en Materia de Equilibrio Ecológico y Protección al Ambiente*). This summary report broadens the availability of public information related to the nation's environment and natural resources in matters such as population, economy, general environmental conditions and statistics, human settlements and activities as well as environmental management in Mexico.

#### Article 2(1)(b) Environmental Emergency Preparedness

As a result of the forest fires in various regions of the country in 1998, work was done with personnel from the Secretariat of Health to monitor particulate matter  $PM_{10}$  and  $PM_{2.5}$  in the states of Chiapas, Guerrero, Oaxaca, México, Tabasco and Yucatán in order to evaluate air quality and possible impacts on health.

As part of the commitments acquired within the Metropolitan Environmental Commission, testing was done for volatile organic compounds such as benzene, toluene and xylene in the metropolitan gasoline service stations of the Valley of Mexico before and after the installation of vapor recovery systems, in order to determine their impact on the reduction of emissions and exposure to these pollutants.

One of the projects undertaken by the Federal District of Mexico City's government in coordination with the Secretariat of Health was the study of a cross-section of primary school children from the Valley of Mexico to determine their exposure to pollutants such as ozone and PM<sub>10</sub> in the various microenvironments where they carry out their daily activities.

In a similar case, the Mexican Petroleum Institute (*Instituto Mexicano del Petróleo*), the National Center for Public Health (*Centro Nacional de Salud Pública*) and the Council for Environmental Conservation and Assessment (*Consejo para la Conservación y Valoración Ambiental*), collaborated in a study of volatile organic compounds and PM<sub>10</sub> found in different points in the Valley of Mexico and made the results available to the public.

The Official Mexican Standard (*Norma Oficial Mexicana*) NOM-111-ECOL-1998, establishing requirements and minimum specifications for safety and operations in high-risk activities, was written.

With regard to the Pollutant Release and Transfer Register (*Registro de Emisiones y Transferencia de Contaminantes*), training courses were held for the industrial sector, discussing the methodology for measuring and estimating pollutants included in the Annual Certificate of Operation (*Cédula de Operación Anual—COA*), as well as possible uses and applications of this information in pollution prevention measures. This was accomplished through the support of the United Nations Institute for Training and Research and the College of Environmental Engineers of Mexico (*Colegio de Ingenieros Ambientales de México, A.C.*). There were also thirteen training courses provided for national industry and Semarnap personnel linked to the COA.

In June 1998, the Pollution Prevention Work Group held round tables with the participation of local, state and federal authorities, as well as technicians and maquiladora industry directors, who, in coordination with the Mining Chamber of Mexico (*Cámara Minera de México*), prepared a course on business aspects of pollution prevention projects. In this context, a workshop was held in February to evaluate the risks of mercury in Zacatecas, as well as another workshop related to volunteer initiatives to reduce the use of the substance in products and processes.

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

The Secretariat of Public Education (*Secretaría de Educación Pública—SEP*) worked to include themes of environment and sustainable development in fourth and fifth grade natural sciences text books, as well as in the development of the Environmental Education Curriculum for Secondary School Teachers (*Paquete didáctico de educación ambiental para profesores de secundaria*), which will form part of the training offered at the 300 centers for SEP teachers. Likewise, there is a continuing effort to produce materials to guide educational training, such as rulers imprinted with environmental

statistics. The Latin American Institute of Educational Communications has produced spot announcements on *Water and Environmental Contingencies*, transmitted by satellite through 31,000 SEP antennas. The Globe Program has trained 80 high school teachers from the National Autonomous University of Mexico (*Universidad Nacional Autónoma de México*—UNAM), the National College for Professional Technical Education (*Consejo Nacional para la Educación Profesional Técnica*—Conalep) and the *Colegio de Bachilleres* of Mexico City and the State of México, and installed a special classroom to assist instructors from participating schools.

In coordination with various public and private universities, 19 formal academic events were held: training courses, specialty workshops, symposia, international forums and workshops, conferences and colloquia on the environment, sustainable development, environmental education, conservation, natural resource management and ecodevelopment, as well as other subjects.

Thirteen regional courses and 61 state-level courses were organized for the training of 2,500 public servants in high priority environmental issues, such as environmental legislation, strategies for the conservation of protected natural areas, fishery policies, planning and social participation, identification of wildlife with potential for commercialization, tools for geoprocessing, and soil restoration and conservation.

In the area of informal environmental education, the participation of groups and social sectors in environmental management continued to be strengthened. Among the notable activities were:

- granting of the 1998 Award for Ecological Merit in the academic, corporate and social sectors;
- development of the Award for Merit in National Forestry, as well as support for SEP's National Award for Indigenous Youth;
- organization of the National Competition for Alternative Technology (*Certamen Nacional de Tecnologías Alternativas*) and the National Youth Contest for Rural Development Projects (*Concurso Nacional Juvenil de Proyectos de Desarrollo Rural*) in order to encourage mid-level high school students to carry out applied technology projects for the improvement of the environment;
- support for the work of environmental educators, including the First Workshop on Institutional Consolidation of the Central Mexican Region Network; statewide forums in Oaxaca, Aguascalientes, Michoacán and Nuevo León; and the Second National Conference of Networks;
- preparation of the Manual for Environmental Educators and Promoters and the organization of pilot environmental workshops; the manual will be co-published through the United Nations Environment Program (UNEP);
- publication of books on environmental themes for young people, as well as three special editions of *Chispa* magazine, all in collaboration with the Mexican Society for the Advancement of Science and Skills (*Sociedad Mexicana para la Divulgación de la Ciencia y la Técnica*);
- production of UNAM radio and television programs on consumption and the environment, Agenda XXI and commercial forestry plantations;
- support for governments and local groups in Tabasco and Aguascalientes to develop their State Agendas for Environmental Education;

- numerous promotional activities carried out by the federal delegations of Semarnap during Holy Week, World Environment Day, Arbor Day and other relevant dates;
- training programs on sustainable development, legal issues, responding to charges and complaints, natural resources, industrial verification, and environmental audits;
- organization of the conference Development of Regional Training Teams, with the participation of grassroots organizations and local communities; and
- 236 courses for over 7,000 rural producers on priority issues and regions.

The Secretariat of Agrarian Reform (*Secretaría de la Reforma Agraria*), the Program for the Promotion and Organization of Sustainable Development in *Ejidos* and Rural Communities (*Programa de Fomento y Organización para el Desarrollo Sustentable en Ejidos y Comunidades Rurales*), and the Secretariat of Agriculture, Animal Husbandry and Rural Development (*Secretaría de Agricultura, Ganadería y Desarrollo Rural*) collaborated in economic conversion programs as well as with SEP in the training of producers in sustainable management of fishery and forest resources. Training operations were also provided for various public organizations and agencies such as the Central Light and Power Company (*Compañía de Luz y Fuerza del Centro*), Integral Family Development (*Desarrollo Integral de la Familia*), the National Institute for the Aged (*Instituto Nacional de la Senectud*), the Mexican Air Force (*Fuerza Aérea Mexicana*), the Secretariat of National Defense (*Secretaría de la Defensa Nacional*) and the Institute for Security and Social Services for State Workers (*Instituto para la Seguridad y Servicios Sociales para los Trabajadores del Estado*).

In order to reinforce the development of environmental education, work was jointly carried out with UNAM on the study Progress in the Field of Environmental Education Research, and with the National Polytechnic Institute (*Instituto Politécnico Nacional*) on the study Analysis of Curricular Profiles and Implementation of Environmental Education Programs.

In order to update the national diagnosis of training priorities for environmental management, natural resources and fisheries, a methodology was designed to identify educational and training needs in matters of sustainable development, as well as mechanisms for ranking them. Using these instruments, three regional workshops were held on Management of Instruments for the Identification of Training Needs and Criteria for Setting Action Priorities, aimed at those in charge of the areas of education and training in Semarnap's federal offices in the states of Sinaloa, Michoacán and Oaxaca. Furthermore, in order to formulate training strategies for incorporating the principles of sustainable development in forestry development, aquaculture and watershed management, three studies were also carried out aimed at representatives of producer and community leadership organizations.

The state government and municipal authorities of Hidalgo coordinated to carry out a study along with an operational experiment to design an educational strategy for the development of environmental management promoters. This is intended to encourage and strengthen processes of social organization for sustainable management of natural resources in areas of economic and ecological potential.

Through the Secretary of Tourism (Sectur) and the National Institute of Ecology (INE), an educational strategy was developed for the establishment of agents from the institutional and social sectors to plan and operate low-density ecotourism projects as an alternative measure toward community development. A national meeting and three local meetings were held at El Vizcaíno and Mariposa Monarca biosphere reserves as well as in the Lagunas de Zempoala National Park.

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

In order to encourage research in the field of environmental legislation compliance, the Research Program on Environmental Legislation: Enforcement and Compliance was established, as part of the General Collaborative Agreement signed with the National Council for Science and Technology (*Consejo Nacional de Ciencia Tecnología—Conacyt*). As part of this program, 11 projects were provided with the resources to begin their research in 1998. From June through September 1998, project directors presented preliminary technical reports with results from their research; these will be evaluated by specialists in each area.

In the area of technology, the Program for the Modernization of the Fishing Fleet is looking into the replacement or renovation of the fleet. This would be done without increasing the current size of the fishery effort, in strict accordance with the scientific and technical criteria that specify the biological capacity of the resource, in order to guarantee the sustainability of the activity. The goal of the program is to achieve the modernization of 1,300 shrimp boats from throughout the country (600 replaced and 700 renovated) by the end of the 1996–2000 period.

During 1998, the primary activities of the National Center for Environmental Research and Training (*Centro Nacional de Investigación y Capacitación Ambiental—Cenica*) were focused on putting the laboratory equipment donated by the government of Japan into operation; supporting the process of standardization of the INE; participating in the analysis of air quality in various cities of the nation; reinforcing studies of personal exposure to atmospheric pollutants; and furthering an exchange of knowledge through international conferences on hazardous waste and atmospheric pollution as well as the dissemination of this information through the publication of papers and reports.

In the course of 1998, three studies were conducted that will strengthen the nation's analytic capacity for rational management of priority toxic substances: comparative exchange between environmental laboratories; establishment of methods for analyzing polychlorinated biphenyls, mercury, and organochlorine pesticides; and establishment of methods for sampling priority toxic substances in different environmental matrixes. These projects will allow methods of sampling and analysis of these substances to be standardized at the national level; they will also serve as a cornerstone for improving the analytic quality of Mexican laboratories and consolidating their process of standardization.

The data collected since 1997 from the automated atmospheric monitoring station has been used to evaluate air quality and to carry out comparative studies with nearby stations of the Automated Atmospheric Monitoring Network (*Red Automática de Monitoreo Atmosférico—RAMA*).

An environmental report on the tortilla industry in the Valley of Mexico was prepared in coordination with the Maseca company and the Autonomous Institute of Ecological Investigations (*Instituto Autónomo de Investigaciones Ecológicas*).

As part of the formation of technical teams in the areas of hazardous wastes and atmospheric pollution, an international workshop, five courses, two colloquia, and four public lectures on atmospheric pollution were organized. Highlights included an international workshop on automobiles and atmospheric pollution, an international colloquium on personal exposure to atmospheric pollutants, an international forum on refuse incineration, a course on the Single Environmental License (*Licencia Ambiental Única*) and courses in applied environmental statistics and on methods for the evaluation of toxicity using *Daphnia magna* and *Panagrellus redivivus*.

#### **Article 2(1)(e) Environmental Impacts**

In 1998, five collaborative agreements were set up with various institutions in order to expedite the procedures for the submission of environmental impact evaluation projects. Requests for evaluation were received for 10 risk assessment studies related to new technologies for management of hazardous wastes, 122 high risk activity studies and 137 risk assessment studies for operating plants, as well as 20 accident prevention programs. During this same period we took in 966 environmental impact studies for evaluation; out of these, 400 were approved.

To finalize and publish the new regulations concerning environmental impact evaluations from the General Law of Ecological Equilibrium and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente—LGEEPA*), meetings have been held since September 1998 with the Corporate Coordinating Council (*Consejo Coordinador Empresarial*), environmental organizations, the Secretariat of Commerce and Industrial Development (*Secretaría de Comercio y Fomento Industrial—Secofi*) and the Secretariat of Tourism.

For purposes of consolidating, broadening and diversifying our technical assistance to the productive sectors with the greatest demand for environmental impact evaluation, meetings to follow up on projects were held with the Mexican National Oil Company (*Petróleos Mexicanos—Pemex*), the Federal Electricity Commission (*Comisión Federal de Electricidad—CFE*), the National Water Commission (*Comisión Nacional del Agua—CNA*), Secofi, the Secretariat of Communications and Transportation (*Secretaría de Comunicaciones y Transportes—SCT*), Sectur, the National Trust Fund for the Advancement of Tourism (*Fideicomiso del Fondo Nacional de Fomento al Turismo—Fonatur*), the Secretariat of Social Development (*Secretaría de Desarrollo Social—Sedesol*), the Chamber of Propane Gas Distributors (*la Cámara de Distribuidores de Gas LP*), the National Association of the Chemical Industry (*Asociación Nacional de la Industria Química*), the Energy Regulatory Commission (*Comisión Reguladora de Energía*) and the National Chamber of the Fishing Industry (*Cámara Nacional de la Industria Pesquera*), among others.

In keeping with the federal government's decentralization policies, a study has been prepared of the infrastructure and technical capacity of Semarnap's federal delegations at the state level, in order to determine the possibility of decentralizing the function of environmental impact evaluation.

Regarding dissemination and public information programs, including project summaries submitted to the Procedure for Environmental Impact Evaluation, INE has completed publication on its web site of all projects submitted since 1997.

**Article 2(1)(f) Promotion of the use of Economic Instruments for the Efficient Achievement of Environmental Goals**

In this area, an effort has been undertaken to make environmental regulation more efficient and cost effective, seeking the implementation of economic incentives and administrative improvements that will generate environmental markets and help launch programs in management and the use of economic instruments.

During 1998, these lines of action were advanced:

- The Intersecretarial Commission for the Control of Processing and Use of Pesticides, Fertilizers and Toxic Substances (*Comisión Intersecretarial para el Control del Proceso y Uso de Plaguicidas, Fertilizantes y Sustancias Tóxicas—Cicoplafest*), the SCT and the National Insurance and Finance Commission (*Comisión Nacional de Seguros y Fianzas*) worked jointly to create a proposal to provide insurance and financing for environmental impact studies and for the transporting of hazardous waste and materials, a measure currently in process until regulations for environmental impact and hazardous materials, waste and activities are modified and approved.
- In the fiscal arena an accelerated depreciation proposal was presented that should stimulate the introduction of technologies and processes to reduce pollutant emissions. Regarding the zero tariff, the government worked to update the list of pollution control and prevention equipment, meeting the criteria for this fiscal incentive, and created, together with Secofi and the industrial sector, the mechanism to facilitate the requests for importation of this type of equipment. Studies were also carried out on administrative improvements; these identified the most viable alternatives for promotion of fiscal reforms in the ecological field, as well as sensitizing activities that will lead to further proposals for these kinds of instruments.
- Several modifications to the Federal Law of Rights (*Ley Federal de Derechos—LFD*) were put into effect. These basically consist of adjustments, as well as the pursuit of new laws more congruous with the regulation in force, especially in the areas of wildlife and hazardous waste, in order to articulate a System of Environmental Law.
- Proposals were also made to set in motion a deposit-return system for used tires, used oil lubricants, and batteries for domestic use and cellular phones.



**Article 2(2) Implementation of Council Recommendations in Accordance with Article 10(5)(b)**

During the period covered by this report, preparation of Official Mexican Standards was ongoing: this involved NOM-042-ECOL-1996, establishing maximum permissible emission limits for new vehicles, and NOM-041-ECOL-1996, which establishes the maximum permissible emission limits for vehicles already in circulation.

A review of Standard 083 on hospital waste was undertaken. Progress was made with the Standard 098 working group on waste incineration as well as with the contaminated soil restoration working group.

In collaboration with the Secretariat of Health, the Air Quality Standards for Ozone (NOM-020-SSA1-1993) were reviewed and updated. A review was also conducted of NOM-EM-125-ECOL-1998, which establishes the specifications for environmental protection and prohibits the use of chlorofluorocarbons in the manufacture and importation of electric refrigerators and freezers for domestic use, water coolers, water cooler/heaters, drinking water cooler/heaters with or without refrigerating compartments, commercial refrigerators and room type air conditioners.

**Article 2(3) Prohibiting the Export of Pesticides and Toxic Substances**

Mexico is complying ahead of schedule with international environmental goals regarding substances that deplete the ozone layer. The control mechanisms applied include both the normal customs requirements for importation and the stipulations of the agreement that establish the classification and codification of merchandise subject to regulation by the agencies that comprise Cicoplafest.

A company that imports chlordane into Mexico submitted to Cicoplafest its declaration of voluntary withdrawal from registration once it had used up its stock of the pesticide. A workshop was held in McAllen, Texas, for the purpose of analyzing possible biological and chemical substitutes for the product.

Close intergovernmental cooperation between Mexico and the United States was pursued in order to exchange information regarding the cross-border movement of chlorofluorocarbons and to train inspectors in the detection of illegal shipments of these substances.

### Article 3

#### Levels of Protection

In Mexico the preservation, reestablishment, propagation, distribution, acclimatization or refuge of populations of threatened or endangered species is guaranteed through the establishment or modification of seasonal exploitation parameters based on the criteria for the preservation of the species, as established by Article 79 of LGEEPA. Likewise, Article 87 prohibits the exploitation of threatened or endangered species, except in those cases where controlled reproduction and the development of their populations can be guaranteed.

During 1998, 12 season closure notifications were issued for shrimp, lobster, abalone, tuna and other species of fish and amphibians, as well as for the incidental capture of dolphins, in order to protect them from commercial depredation.

During the same period, 14 official standards were published: maximum permissible limits of solid and compound sulfur particles; waste water discharges to sewage systems; volatile organic compounds originating from auto body coatings; emergency standards for the use of chlorofluorocarbons in refrigerators; unburned hydrocarbons released from automobiles; environmental protection specifications for planning, design or construction of electric substations; electrical transmission lines; mining exploration; seismological prospecting in agricultural zones; installation and maintenance of transportation systems; drilling of petroleum wells in agricultural zones; and establishment of maximum emission limits for automobile exhaust, as well as emergency standards to characterize the equipment and measurement procedures for verification of automobiles using natural gas or other alternative fuels.

Also published were four official decrees establishing protected natural areas with the status of National Parks, in Puerto Morelos, Quintana Roo; Isla Contoy, Yucatán; Arrecifes de Sian Ka'an, Quintana Roo; and Huatulco, Oaxaca. Two decrees were issued declaring biosphere reserves in Tehuacán-Cuicatlán, Puebla, and Los Tuxtlas, Veracruz. A decree was published creating an area of protected flora and fauna in Metzabok, Chiapas; another for a natural area in Naha, Chiapas; and one more declaring several areas affected by wildfires ecological restoration zones.

### Article 4

#### Publication

Important progress has been made in enforcing compliance with environmental standards, thanks to the continued effort to improve the legislative and constitutional framework through the creation of new laws and regulations. The amendments to Articles 4 and 25 of the Political Constitution of the United States of Mexico are among the most outstanding in that they recognize every person's right to an environment adequate for their development and wellbeing and establish the state as the authority responsible for guaranteeing that the development of the nation should accordingly be comprehensive and sustainable.

New Forestry Law regulations were approved, and were published in the Official Gazette of the Federation (*Diario Oficial de la Federación*) on 25 November 1998. These new regulations, which supersede those of 21 February 1994, seek to strengthen the instruments set in place by the Forestry Law. They clarify and complement administrative regulation by improving security measures and sanctions to discourage potential offenders from committing unlawful forestry acts, while at the same time encouraging sustainable forestry utilization, regulating forested areas to minimize environmental impact and facilitating the participation of the social sector by granting legal protection to those who carry out these activities.

It should be pointed out that in both modifications a consensus was sought through national and regional public workshops, which included the participation of the executive and legislative branches.

During this year, work also continued on the analysis and refinement of the LGEEPA regulations pertaining to high-risk materials, wastes and activities; atmosphere; environmental impact; environmental audits; and protected natural areas.

Society's interest in the environment is on the increase, leading the Congress of the Union and local congresses to establish important forums for discussion on a variety of themes, including:

- Forest fires and ecological restoration of affected areas
- Toxic waste site at Sierra Blanca
- Climate change
- Biodiversity and ecotourism
- Monarch butterfly
- Hydrological policies and the Lerma-Chapala watershed
- Protecting the reefs of Quintana Roo
- Salt works project at Laguna de San Ignacio
- Hazardous waste landfill in Sonora (Cytar)

#### Article 5

### Governmental Measures for the Enforcement of Environmental Laws and Regulations

During 1998, four agreements were published: reforms and additions to various resolutions on the procedures for obtaining the Single Environmental License, and updating of emissions information through the COA to reinforce the functioning of the Pollutant Release and Transfer Register; modifications to the appendixes of the Convention on International Trade in Endangered Species of Wild Fauna and Flora; setting of the guidelines of the Program for Ecological Restoration to avoid changes in land use in areas affected by forest fires; and establishment of the 1998–1999 calendar for hunting seasons and exploitation of ornamental and song birds.

The instruction manual for the submission, monitoring and follow-up of action programs for the improvement of wastewater quality was published. This will be distributed throughout the country.

During the period from August 1992 through December 1998, 80,341 inspection visits were made to industries throughout the nation; of these, 2,320 resulted in partial closures and 557 in total closures. There were 60,884 cases found to have minor violations and 16,580 to have no violations. In 1998, exhaustive inspections were carried out to verify compliance of the measures imposed, leading to higher rates of industry compliance. This can be attributed to two factors:

- greater corporate commitment to compliance with environmental standards in force; and
- greater presence of environmental authorities and more effective actions in the field.

**Table 1: Inspection Visits to National Industry**

Visits and Results	August 1992– December 1998	January– December 1998	December 1998
<b>Performed</b>	<b>80,341</b>	<b>9,590</b>	<b>536</b>
Mexico City metropolitan area (MCMA)	25,949	1,575	88
Rest of the country	54,392	8,015	448
<b>Partial closures</b>	<b>2,320</b>	<b>107</b>	<b>0</b>
MCMA	763	5	0
Rest of the country	1,557	102	0
<b>Total closures</b>	<b>557</b>	<b>45</b>	<b>1</b>
MCMA	65	1	0
Rest of the country	492	44	1
<b>Minor violations</b>	<b>60,884</b>	<b>7,357</b>	<b>409</b>
MCMA	19,936	1,202	58
Rest of the country	40,948	6,155	351
<b>Without violations</b>	<b>16,580</b>	<b>2,081</b>	<b>126</b>
MCMA	5,185	367	30
Rest of the country	11,395	1,714	96

Sources: Federal Attorney for Environmental Protection (*Procuraduría Federal de Protección al Ambiente—Profepa*), Assistant Federal Attorney for Industrial Verification (*Subprocuraduría de Verificación Industrial*), Directorate for Industrial Technical Assistance (*Dirección General de Asistencia Técnica Industrial*).

Concerning inspection and monitoring of fishing resources, in 1996 it became obligatory for shrimp vessels to use turtle exclusion devices in their nets. During 1997 and 1998, their installation was verified in 1,900 vessels, representing 100 percent of the national fleet. Thus the country is complying entirely with its own standards as well as with international legislation in this area.

Also, inspections were strengthened for off-season fishing. Regarding compliance with the official shrimp season, during 1998 187.22 (metric) tons of product were seized because of the violation of closed season. Profepa reported 131 alleged violators to the National Public Ministry (*Ministerio Público Nacional*).

In reference to the responsibility for monitoring and preservation of forestry resources, in 1998 117 Social Vigilance Committees were formed. With this additional monitoring support, greater attention can be paid to verifying the type and extent of forestry use in critical priority areas of the states of Chiapas, Chihuahua, Coahuila, Durango, México/Distrito Federal, Oaxaca and Veracruz. In this way, the substantial labor commitments involved in inspections goes farther. Thus in 1997–98 over 5,500 inspections were performed.

During the 1995–1998 period, inspections and monitoring to verify compliance with the standards for utilization of wild flora and fauna increased more than threefold, growing from 808 inspections in 1995 to more than 3,250 in 1998. This translates into more than a 350 percent increase in the seizures of specimens between 1995 and 1998, and a 92.8 percent increase in 1998 over those in the first year. Likewise, the number of seizures of products and byproducts in 1998 was 101.9 percent of that in 1995.

Following the guidelines of the natural resource inspection program in ports, airports and borders, from 1996 through December 1998, 220,790 verifications of compliance with regulations for cross-border trade of forest products and wild flora and fauna specimens, products and byproducts were carried out. Between January and December 1998, in the area of international cross-border trade in forest products and wild flora and fauna specimens, products and byproducts, 34,905 inspections in ports, airports and borders were performed, resulting in the seizure of 469 products and byproducts and 162 rejections of live specimens, including some endangered, threatened, rare or protected species.

One of the most important tasks of this program was the establishment between February and July of a sanitary enclosure for plywood imported from Indonesia, allowing for the verification of 2,282 shipments containing 89,977 cubic meters of wood, equivalent to 2,000 containers.

With respect to environmental impact verification, more than 2,000 inspections over a wide range of projects have been performed; 687 (33 percent) of these were carried out in 1998, especially in those regions of the country where economic activities—particularly tourism—represent significant challenges to the environment and the equilibrium of ecosystems.

Finally, in reference to the maritime-terrestrial federal zone, 781 inspections were carried out. Among other results, these actions translated into 1,086 administrative procedures, of which 474 (43.6 percent) were renewed in 1998. This implies an increase in inspection and verification actions as well as in their effectiveness, as a growing number of legal and administrative procedures are seen that are due to the inappropriate utilization of the federal maritime-terrestrial zone or to use violations as established by the appropriate authorities.

## Article 6

### Accessibility of Proceedings to Private Citizens

The December 1996 reforms to LGEEPA recognize the right of all people to bring complaints pertaining to environmental crimes, as stipulated in the Federal District Penal Code, in matters of common law and nationally in matters of federal law. In accordance with this, the collaboration of the Federal Attorney General is sought regarding charges of activities involving toxic wastes that endanger public health, natural resources, flora, fauna or ecosystems that have been carried out without authorization or in violation of the terms under which an authorization has been granted.

Environmental audits have become a commonly used environmental management instrument allowing industry to voluntarily comply with its environmental obligations, including aspects that may not be regulated by Mexico but fall within international parameters or are drawn from standard engineering practices. In 1998, 165 audits were initiated, with 170 concluded and 296 action plans drawn up with industrial enterprises, demonstrating growing effectiveness in the work of upgrading and achieving compliance with environmental legislation.

By December 1998, 1,051 companies had entered the National Environmental Auditing Program, as illustrated in the table below.

**Table 2: National Environment Auditing Program**

Completed Audits	Audits in Process	Action Plan in Creation	Compliance Phase	Compliance or Action Plan Completed	Clean Industry Certificate Received
987	64	234	511	271	237

Companies that joined the program between 1992 and 1998 have invested an approximate total of US\$1.5 billion dollars in comprehensive environmental management improvements and in compliance with preventive and remedial programs as a result of environmental auditing processes.

Also, the non-supervised auditing process was begun, using auditors approved by the Committee for the Evaluation and Approval of Environmental Auditors. This allowed total responsibility for this work to be legally delegated to the auditors themselves, leading to a 30 percent decrease in the cost of audits.

After considering the human effort involved, the many investments made by the industrial sector, and the various requests by industrial and corporate organizations, it was resolved to extend the validity of the Clean Industry Certificate from one to two years, thereby eliminating the cost of the annual re-examination. As a result, renewing the certificate is now possible without a new audit by means of a review to confirm that the company has maintained or improved its level of compliance. This has reduced costs from 30 to 60 percent.

By December 1998, a total of 237 companies had been certified. These represent a diverse group of industries from both the private and public sectors, including 25 Pemex refineries and Pemex Petrochemical facilities. In fact, all of the facilities of the larger public companies, such as Pemex, CFE, and the National Railroads of Mexico, are participating in this program.

## Article 7

### Procedural Guarantees

National legislation complies with the procedural guarantees established in Article 7 of the North American Agreement on Environmental Cooperation. Although there were no legislative modifications affecting these guarantees in 1998, as a result of the 1996 reforms to LGEEPA, affected individuals who have filed for administrative review through a *recurso de revision* may seek further review by other competent jurisdictions of any decisions rendered by the agency concerning such an administrative review.

Currently, such remedies are granted to physical persons and legal entities who may not be directly affected by the action of the authorities concerned, but who have a general interest in the action.

The administrative and jurisdictional remedies to which individuals have access in environmental matters are: citizen complaint (*denuncia popular*), administrative appeals, judicial review overturning a previous judgment (*juicio de nulidad*), as well as a direct or indirect judicial review under constitutional law (*juicio de amparo*).

# United States

## *Country Report on Implementation of the Commitments Derived from the NAAEC*

*The following report was submitted to the CEC Secretariat by the US Environmental Protection Agency (EPA) in accordance with NAAEC.*



## Article 2

### General Commitments

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

**Air Emission Standards.** On 24 April 1998, EPA released a draft report reviewing whether more stringent emissions standards (“Tier 2 standards”) for light-duty motor vehicles (passenger cars and light trucks) are appropriate. Although the study made no final determinations, it indicated that further reductions in air pollution (particularly from ozone and particulate matter) due to use of such vehicles were needed. It further indicated that reductions in light-duty-vehicle emissions were both feasible and cost-effective, relative to other ways of reducing air pollution. The draft study also focused on the need to reduce sulfur levels in gasoline and the need to significantly tighten restrictions on emissions from light trucks, such as minivans and sport utility vehicles. These light trucks have not been regulated as stringently as passenger cars, while becoming a much larger portion than formerly of the overall pool of motor vehicles in the United States.

**Status of Marine Fisheries: Report to Congress.** In 1998, the National Marine Fisheries Service (NMFS) submitted its second annual report to Congress on the status of marine fish stocks. NMFS determined that 90 species are overfished, 10 are approaching an overfished condition, while another 200 species are not overfished. Data from the report will be used by national and regional fishery managers as they finalize plans to end overfishing and rebuild the depleted fisheries.

The annual report to Congress is an ongoing examination of the status of the nation’s marine fisheries, and takes into account both improvements and declines in fish stocks. The report and marine fish stock rebuilding efforts are required under the amendments to the Magnuson-Stevens Act passed in 1996. The report is available on the Internet at <<http://www.nmfs.gov>>.



**1997 Marine Mammal Protection Act (MMPA) Annual Report to Congress.** In 1998, NMFS published the 1997 *MMPA Annual Report to Congress*. This report provides NMFS' constituents with information about its programs and activities relative to marine mammal conservation, management and recovery under the MMPA and the Endangered Species Act. This and past MMPA Annual Reports to Congress can be found on the NMFS Office of Protected Resources web site at <[http://www.nmfs.gov/prot\\_res](http://www.nmfs.gov/prot_res)>.

**Managing the Nation's Bycatch.** Bycatch, the unintended capture or mortality of living marine resources as a result of direct encounter with fishing gear, has become a central concern of the commercial and recreational fishing industries, resource managers, scientists and the public. In June 1998, NMFS published its plan to address bycatch in US fisheries. The plan assesses the extent of the problem and details national goals, objectives and recommendations for the reduction and minimization of bycatch.

**Fisheries of the United States.** In 1998, NMFS also published its annual *Fisheries of the United States*. This publication provides data on US commercial and recreational fisheries catches in US waters and foreign Exclusive Economic Zone waters. It also provides US fisheries import and export data. The report is available on the Internet at <<http://www.st.nmfs.gov/st1/index.html>>.

**State of the Coast Report.** On 15 February 1998, the National Oceanic and Atmospheric Administration (NOAA) released to the public the *State of the Coast Report*, a major effort to identify the key national coastal and marine ecosystem problems and solutions. The *State of the Coast Report* is actually an interactive system, based primarily on a World Wide Web site, that permits a dialogue between segments of the various "communities"—government, industry, scientists, researchers, and the public—involved in coastal issues. The heart of the Report is a series of essays on the conditions of various coastal areas, pressures that impact the coastal and marine environment, and how damage in some areas has been prevented or repaired. In addition, NOAA is also using the *State of the Coast Report* system to deliver technical reports and other information needed by people directly involved in the business of managing and studying coastal and marine resources. The report is available on the Internet at <<http://state-of-coast.noaa.gov>>.

**Year of the Ocean Discussion Papers.** As part of their Year of the Ocean activities, the federal agencies with ocean-related programs prepared a set of discussion papers on a variety of themes and cross-cutting issues. These papers discuss what is working well and what is not in ocean resource management, and identify needs and opportunities for the future. They were intended to provide some of the background information needed to enable both the public and private sectors to work together to promote the conservation, exploration, and sustainable use of the ocean.

**National Dialogues.** The National Ocean Service began a series of National Dialogues with its coastal partners to define the nature of coastal stewardship, formulate NOS's stewardship role, and address long-term coastal management issues. The National Dialogues encourage systematic approaches, interactive problem-solving, and partnership-building, and foster a sense of community among stakeholders. As part of this effort, the Stratton Commission Roundtable was convened

in May 1998 to compare and contrast the ocean policy issues facing the nation today with those of 30 years ago. The work of the original 1969 Stratton Commission led to the enactment of the 1972 Coastal Zone Management Act and the creation of NOAA, among other achievements. Leaders from government, academia, industry, and environmental organizations offered their interpretations of lessons learned since the original commission and made recommendations to rejuvenate and potentially realign the nation's ocean and coastal policies and programs.

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

In June 1999, EPA will be receiving chemical risk information from over 66,000 facilities, including those in the US-Mexico border area. The Risk Management Plans (RMPs) of the facilities will include information on inventories of hazardous chemicals, chemical processes, and past chemical accidents. EPA will be analyzing this chemical risk information to determine high-risk areas and establish a strategy for reducing chemical risks in those areas. Along the US-Mexican border, the sister cities of Brownsville/Matamoros, Eagle Pass/Piedras Negras, and Laredo/Nuevo Laredo have developed and implemented joint sister-city contingency plans which identify procedures for mitigating the effects of chemical accidents in those local areas. These contingency plans have been developed using chemical information from the US Emergency Planning and Community Right-to-Know law and will be supplemented with chemical risk information from the RMP program.

#### ***Toxics Release Inventory***

**1996 TRI Data.** The US EPA published the *1996 TRI Public Data Release* in May 1998. The aggregate on-site and off-site releases for the over 600 chemicals and chemical categories equaled 1.09 billion kilograms. Of this total, 59.7 percent of the releases went to air, while 12.1 percent was transferred off-site for disposal. Reporting facilities managed 8.04 billion kilograms in production-related waste on-site, while transferring 1.45 billion kilograms off-site for further waste management. The result is that the total production related waste totaled 10.6 billion kilograms.

The 1996 TRI data showed continued reductions in the releases of chemicals reported to TRI. Between 1995 and 1996, on- and off-site releases declined by 3.8 percent, or 44.17 million kilograms. The decrease in air releases actually exceeded this amount (52.35 million kilograms), but this drop was offset by increases in water, land and off-site releases. From 1988 to 1996, total on-site and off-site releases decreased 45.6 percent, or 680 million kilograms.

**Changes in the TRI Program.** Starting with the 1998 reporting year, seven new industry sectors begin reporting to TRI. The addition of these new industry sectors increases the comparability between the TRI and the Canadian NPRI, which already collects PRTR data from these sectors. Increasing comparability is one of the primary objectives of the CEC's PRTR work. The new sectors are metal mining, coal mining, electricity generating facilities that combust coal and/or oil, Resource Conservation and Recovery Act (RCRA) Subtitle C hazardous waste disposal and treatment facilities, solvent recovery services, chemical and allied products wholesale distributors, and petroleum bulk plants and terminals.

In addition to facility expansion, EPA began the process of expanding the public's access to information on certain toxic chemicals. Recognizing the growing concern with persistent and bioaccumulative toxic chemicals (PBTs), EPA proposed lowering the reporting threshold for PBT

chemicals, as well as adding certain PBT chemicals to the TRI list. Vice-president Albert Gore has called on EPA to complete this work in time to enable public access to the PBT chemical data to start with the 2000 reporting year.

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

NOAA has sought to increase public awareness and understanding of its programs over the past year. For example, significant improvements were made to the Office of Protected Resources web site. Updated information on the ecology and status of protected marine species, and NMFS documents and publications for public use are now available on the web site at <[http://www.nmfs.gov/prot\\_res](http://www.nmfs.gov/prot_res)>. In addition, NMFS, in conjunction with the National Ocean Service (NOS) and the National Aquarium, developed an educational CD-ROM, *Marine Mammals Ashore*, to increase communication and the effectiveness of marine mammal stranding response within the United States and internationally. This information provides scientists, conservationists and managers with a wealth of knowledge about life history, ecology, and threats to marine mammal species. Finally, in response to the public's increased interest in viewing marine wildlife, NMFS and NOS have joined the National Watchable Wildlife Program to increase public awareness of safe, respectful methods of watching marine wildlife. To this end, NMFS and NOS are collaborating in the development of educational and outreach materials about viewing marine mammals and sea turtles without disturbing them.

**Year of the Ocean.** In recognition of the importance of the marine environment, the United Nations declared 1998 the International Year of the Ocean (YOTO). This designation provided individual organizations and governments with an important opportunity to raise public awareness and understanding of the ocean and related issues. NOAA, as one of an informal group of federal agencies with ocean interests, developed a number of activities in recognition of YOTO. Among these activities was the development of a variety of materials to help teachers incorporate ocean-related information and issues into their classroom activities. These materials include a poster portraying an artistic interpretation of more than 70 ocean-dwelling organisms, with a companion Educator's Guide which discusses these species, as well as a series of 14 fact sheets on major ocean issues, and a web site (<<http://www.yoto98.noaa.gov>>), with information and activities to make learning about the ocean fun.

**National Ocean Conference.** As part of the Year of the Ocean activities, the Department of Commerce and the Department of the Navy co-hosted the National Ocean Conference on 11–12 June 1998, in Monterey, California. The purpose of the conference was to highlight the important role the oceans play in our daily lives and to raise awareness of ocean issues among the public and all the key stakeholders. The conference focused on the sustainable use of coastal and ocean resources, including the marine transportation system, coastal habitat, fishing stocks, and the interaction of ocean processes on weather and climate.

**CD-ROMs.** As part of its *State of the Coast Report*, NOAA has produced two multimedia educational CD-ROMs, which complement the State of the Coast web site, and were designed for schools and museums. *Our Crowded Shores, Balancing Growth and Resource Protection* includes 90 minutes of interactive audio, video, animation, and photo mosaics, on the topics of coastal population and development and their impact on coastal environments. An expanded treatment of these

topics is included in the enhanced version of another State of the Coast CD-ROM, *Turning the Tide, America's Coasts at a Crossroads*, which also includes sections on marine commerce and navigation, estuaries and pollution, and marine sanctuaries and reserves.

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

On 30 November 1998, EPA announced final health effects testing requirements for conventional and oxygenated gasoline under Clean Air Act fuel and fuel additive health effects testing regulations. The testing requirements are designed to generate data concerning the potential health effects of conventional gasoline and of oxygenate compounds such as methyl tertiary butyl ether (MTBE). Manufacturers of baseline gasoline and MTBE are required to conduct the full battery of health effects tests specified in Chapter 40, section 79.53 of the Code of Federal Regulations, as well as: (1) additional neurotoxicity assessments; (2) a two-generation reproductive study; (3) a two-species developmental study; (4) a two-year carcinogenicity study; (5) a screening panel for immunological effects; and (6) studies to screen population exposure. Additional health effects testing requirements beyond those specified in Chapter 40, section 79.53 of the Code of Federal Regulations are also required for the oxygenate compounds ethyl tertiary butyl ether (ETBE), ethanol, tertiary amyl methyl ether (TAME), diisopropyl ether (DIPE), and tertiary butyl alcohol (TBA). Although EPA was not required to promulgate these additional testing requirements through a rule-making, the Agency provided a 120-day public comment and review period, and responded to the public comments in developing the final testing requirements.

The Food Quality Protection Act of 1996 (FQPA) specified a number of risk and safety factors that must be considered before a pesticide tolerance level can be approved or maintained. The FQPA also linked the legal standard for granting and maintaining pesticide tolerances (“reasonable certainty of no harm”) to the legal standard for registration of pesticide products for use on foods. EPA and the US Department of Agriculture (USDA) formed the Tolerance Reassessment Advisory Committee (TRAC) to provide advice on how to conduct risk assessments under the FQPA standard. The principal focus of TRAC’s deliberations has been on the risk assessments performed by EPA using the FQPA standard for the organophosphate pesticides. Other important activities in 1998 under the FQPA include the publication of preliminary risk assessments for 16 organophosphate pesticides and the development of a screening program to identify pesticides that might be endocrine disrupters.

**US National Biological Information Infrastructure.** The US continues to meet its obligations under Article 2 of the Agreement through the development and expansion of the US National Biological Information Infrastructure (NBII) as an Internet-accessible source of information on biological resources and biological resources issues.

NBII, at <[www.nbio.gov](http://www.nbio.gov)>, is a distributed federation of biological data, information products, and analytical tools and applications from a wide range of sources, including public and private agencies and organizations, academic institutions, natural history collections and herbaria, etc. In addition to increasing access to this wide range of data and information on the environment, the NBII program also promotes the collaborative development of necessary standards and protocols that assist in the discovery, retrieval, integration, and application of environmental data and

information. This includes the development of a biological metadata content standard (through the US Federal Geographic Data Committee) and the continued development of the Integrated Taxonomic Information System (ITIS).

ITIS is an Internet-accessible (<www.itis.usda.gov>), scientifically credible database of the scientific names, synonyms, general distribution and origins of North American plant and animal species. Development of ITIS is a key component of the US NBII effort because ITIS allows for discovery, integration, and exchange of biological data from two or more different sources, even when different scientific names have been used for the same species. Several US Federal agencies collaborate with biological scientists at other institutions around the world to develop and maintain the ITIS system. The Government of Canada (Agriculture and Agri-Food Canada) is also an active partner in the development and enhancement of ITIS. Development of NBII and of ITIS helps further environmental science research and technology development and promotes education and public understanding of environmental issues.

#### **Article 2(1)(e) Environmental Impacts**

On 29 October 1998, EPA issued a new policy and procedures for voluntary preparation of National Environmental Policy Act (NEPA) documents, which replaced its 1974 Voluntary Environmental Impact Statement (EIS) Policy. The new policy expands the scope of EPA's voluntary NEPA compliance by identifying specific factors, which may arise under any EPA program, where preparation of a voluntary NEPA document can aid informed decision-making. These factors include EPA actions that involve other US federal agencies, cross-media issues, broad ecosystems, cumulative impacts, and other concerns such as environmental justice.

### **Article 3**

#### **Levels of Protection**

**Clean Air.** EPA promulgated three final rules on 11 September 1998 establishing volatile organic compound (VOC) content limits for automobile refinish coatings, consumer products and architectural coatings. EPA's earlier determination that VOCs from these sources have the potential to contribute to ozone levels that violate the National Ambient Air Quality Standards was the basis for formulating these final rules. EPA estimates that these rules will reduce VOC emissions by 213,500 metric tons per year from the 1990 baseline.

A final rule issued by EPA on 16 September 1998 reduces nitrogen oxides (NO<sub>x</sub>) emissions limits for electric utility steam-generating units, both new and modified or reconstructed, and industrial-commercial-institutional steam-generating units that combust fossil fuels. In contrast to prior rules applicable to such sources, the final prescribes the same emissions limits for all units regardless of the type of fuel being used. With respect to the new electric utility units, the rule also changes the NO<sub>x</sub> emissions limit to an output-based format to promote energy efficiency and pollution prevention.

All automobile manufacturers selling vehicles in the United States agreed to be bound by voluntary tailpipe standards for cars and light-duty trucks that are more stringent than those that could otherwise be required. The manufacturers agreed to the voluntary standards under a new clean car program called the National Low Emission Vehicle (LEV) Program. The finalized national LEV regulations were published on 7 January 1998.

**Cross-Media Protection.** The EPA Administrator signed a notice on 13 March 1998 announcing EPA's determinations that the provisions of section 112 of the Clean Air Act provide adequate legal authority to prevent serious adverse effects to public health and serious or widespread environmental effects associated with atmospheric deposition of hazardous air pollutants (HAPs) to the Great Lakes, Lake Champlain, Chesapeake Bay, and coastal waters. The determinations do not reach the conclusion that no further development of the toxic air pollutants program is needed, and in fact state that continued development of the broader section 112 program is necessary. The report also does not assess the success of EPA's existing regulatory programs in achieving protection of the environment from atmospheric HAP deposition. It does assess the legal authorities that can be utilized under section 112 to prevent adverse effects from the deposition of toxic air pollutants.

EPA promulgated a pharmaceuticals regulation under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) on 21 September that, in conjunction with Clean Water Act regulations issued that same day, is intended to address emissions of methylene chloride, methanol, toluene, and hydrogen chloride. The air rule is projected to reduce HAP emissions from existing facilities by 21,800 metric tons per year. It will also reduce VOC emissions.

**Clean Water.** In 1998, the US Department of Agriculture and EPA proposed a Unified National Strategy for Animal Feeding Operations. EPA also announced that revision of existing effluent guidelines for beef, dairy, poultry and swine operations is a long-term item on its unified agenda. Both of these actions are consistent with the Clean Water Initiative announced by Vice-president Gore in October 1997 that undertakes to strengthen water pollution control under the Clean Water Act.

In July 1998, EPA made available its long-range plan on the development of water quality criteria and standards. Under the plan, seven areas will receive priority attention: nutrient criteria; criteria for microbial pathogens; development of biocriteria; strengthening existing ambient criteria for water and sediments; evaluating possible criteria for excessive sedimentation, flow alterations and wildlife; improving water quality monitoring tools; and improving partnerships with states and tribes to ensure implementation of water quality criteria and standards. Similarly, in September 1998, EPA issued notice of its plan for developing new or revised effluent guidelines. Among other aspects of the plan, the Agency intends to continue to develop effluent guidelines for direct and indirect discharges to water from the following industries: pulp, paper and paperboard; centralized waste treatment; metal products and machinery; landfills; industrial waste combustors; industrial laundries; transportation equipment cleaning; iron and steel manufacturing; oil and gas extraction; coal mining; and feedlots.

**Hazardous Waste.** EPA completed the mammoth task of prohibiting the land disposal of all hazardous wastes that do not thereby meet the treatment standards established by EPA. These standards are based on the performance achieved using the Best Demonstrated Available Technology and assure that threats posed to human health and to the environment from the land disposal of the wastes are minimized. In rules promulgated on 26 May 1998, EPA prohibited the land disposal of hazardous wastes from mineral processing and of all wastes whose metal content renders them toxic, and established treatment standards for these substances. In the same notice, EPA also established alternative treatment standards for contaminated soils, which allow soils to be treated by technologies other than combustion. The purpose of these standards is to encourage soil remediation by providing achievable treatment alternatives that are technically and environmentally appropriate for contaminated soils. In addition, new standards were announced by EPA on 22 October 1998 that enable it and US states operating under the authorization of the Resource Conservation and Recovery Act to use a variety of authorities to impose requirements on land disposal units that are in need of post-closure care but are not subject to a permit.

**Stratospheric Ozone Protection.** A 5 March 1998 final rule issued by EPA bans the manufacture in the US of halon-blend chemicals; prohibits the intentional release of halons during testing, repair and disposal of halon-containing equipment; requires appropriate training of technicians with regard to halon emissions reduction; bans disposal of equipment containing halons except by sending the equipment for halon recovery; and bans the disposal of halons except by recycling or other approved methods.

**National Wildlife Refuge System Improvement Act in 1998.** The Department of the Interior (DOI) and Congress worked together in a bipartisan effort to implement the Act during 1998. This landmark legislation provided a clear “wildlife first” mission to ensure that the 516 refuges over 37 million hectares are managed as a national system of related lands, waters, and parties with interest in the protection and conservation of the nation’s wildlife resources.

**Endangered Species Act.** The Department of the Interior continued to aggressively implement a more effective Act during 1998 by strengthening partnership activities with other public agencies and private interests; by expanding the involvement of private landowners in habitat restoration and species recovery; by using candidate conservation agreements to keep species off the threatened and endangered list; by developing Habitat Conservation Plans to allow economic development to proceed while protecting species on private lands; and by implementing multispecies recovery plans. Proof that the Act is working came on 6 May 1998, when the Secretary of Interior proposed that 29 species (or segments of species) be removed from the list or reclassified from endangered status over the next two years. Twenty-one of these delistings/reclassifications, including the American peregrine falcon, the bald eagle, the Columbia white-tailed deer, and the gray wolf, are due to successful recovery efforts implemented under the Act.

**Restoring Ecosystems.** Over the last five years, the US Administration has implemented three large-scale restoration efforts using new methods, partnerships and renewed public participation. There has been continued progress this past year in restoring three priority watersheds: California’s

Bay-Delta, the largest estuary on the west coast of North America; the Florida Everglades, whose natural water flows are being restored; and the forests of the Pacific Northwest, where trout and coho, chinook and sockeye salmon are being replenished. All these areas will require continued rehabilitation in order to protect their vitality for future generations.

**Creation of Grand Staircase–Escalante National Monument.** The DOI Bureau of Land Management released the Draft Management Plan and Environmental Impact Statement for the Grand Staircase–Escalante National Monument in November 1998. The Monument was established on 18 September 1996, when President Clinton issued a Proclamation under the Antiquities Act of 1906. The Monument was created to protect an array of scientific, historic, biological, geological, paleontological, and archaeological objects in south-central Utah. The proclamation received a great deal of national attention. Public meetings on the draft plan were held throughout the West and in Washington DC, and nearly 7,000 comments on the plan have been received to date.

**Protection and Sustainable Use of Living Marine Resources.** NOAA's National Marine Fisheries Service (NMFS) is dedicated to the management and conservation of commercial and recreational ocean fisheries. It also works to protect and recover protected marine species, including marine mammals and endangered species. Under the recently reauthorized Magnuson-Stevens Fishery Conservation and Management Act, fishery management plans developed by Regional Fishery Management Councils are being implemented to prevent overfishing. Almost all of the 39 fishery management plans have been amended to include more conservative overfishing definitions, measures to prevent overfishing and rebuild overfished stocks, and measures to minimize bycatch and adverse effects on fish habitat. In 1998, the status of 119 fish stocks were assessed and 180 fishery management actions were completed. NMFS also completed stock assessments for 114 marine mammal stocks and developed recovery plans for threatened and endangered species of sea turtles, whales and sturgeon.

Also in 1998, the United States demonstrated international leadership, through the forum of the United Nations Food and Agriculture Organization, by successfully negotiating agreements with the world's fishing nations to address excess fishing fleet capacity and improve the conservation of sharks and seabirds. The United States also succeeded in establishing the first-ever mandatory plan to rebuild overfished Western Atlantic bluefin tuna stocks, via the International Commission for the Conservation of Atlantic Tunas.

**Oil Spill Response and Damage Assessment.** In conjunction with the US Coast Guard and other federal and state agencies, NOAA responded to over 92 spills of hazardous materials and to numerous groundings of vessels. Part of NOAA's role in hazardous materials response involves assessing the damage incurred from these accidents and identifying liable parties. To this end, NOAA released a draft Damage Assessment and Restoration Plan for the North Cape oil spill, which released 3.13 million liters of heating oil off Rhode Island in January 1996. NOAA also helped California obtain a US\$8 million settlement from the party responsible for the SS Cape Mohican oil spill in 1996 and a settlement from Unocal Corporation for a prolonged oil pipeline leak. That leak lasted from the 1950s until 1994, and released between 32 and 45 million liters along the central CA coast. Unocal has agreed to pay US\$43.8 million in addition to cleanup costs.



## Article 4

### Publication

**Pesticides Registration.** As a consequence of its perception that the “treated article” exemption to pesticides registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) has been abused, EPA put forth its current interpretation of that exemption in a Federal Register notice published on 17 April 1998. The notice also included, for public review and comment, a draft pesticide registration notice that would, if adopted, further limit the exemption.

## Article 5

### Government Enforcement Action

In 1998, EPA expanded its efforts to give industry additional incentives to voluntarily disclose and correct its violations, and to give small businesses the information and assistance they need to maintain compliance with the law. This three-prong approach—enforcement, compliance incentives, and compliance assistance—is reaping great dividends in terms of protecting the public and the environment.

Maintaining the momentum from last year’s record level of enforcement, EPA referred 677 criminal and civil cases to the US Department of Justice, with over US\$180 million assessed in penalties and fines—the second highest combined totals in EPA’s history. Perhaps more importantly, the data collected by EPA indicates that the enforcement actions settled in FY 1998 have contributed to the reduction of 2.27 million kilograms of ozone-depleting chlorofluorocarbons (CFCs), 3.18 million kilograms of asbestos, 85.27 million kilograms of carbon monoxide, and 10.7 million kilograms of nitrogen oxide from the environment.

Helping businesses and communities all across the United States comply with environmental requirements, EPA offered an extensive set of compliance assistance tools that include “plain English” guides to environmental requirements, translations of requirements into several languages, sector notebooks, and national Compliance Assistance Centers.

Most federal environmental statutes authorize EPA to delegate to states the primary responsibility for implementing and enforcing national environmental programs. Tribal governments can also receive primary authority for managing environmental programs. Working through the National Environmental Performance Partnership System and organizations of state officials such as the National Association of Attorneys General and the Environment Council of the States, EPA is increasing the effectiveness of the federal-state partnership in meeting national and state environmental goals and objectives.

At the national level of government, the trend towards results-based management and greater accountability to the taxpayers is being realized through implementation of the Government Performance and Results Act (GPRA). EPA’s National Performance Measures Strategy (NPMS) is a pioneering effort to identify, design, implement, and use meaningful performance measures to assess the effectiveness of our national enforcement and compliance assurance program. The NPMS will help EPA, states and the public determine which tools and strategies are working best and examine whether or not the regulated community is meeting its responsibilities under the law.

#### **Article 5(1)(b) Monitoring for Compliance, Including Inspections**

In 1998, EPA's regional staff conducted 23,237 inspections under the various environmental statutes, a 19 percent increase over 1997 levels.

EPA has enhanced its targeting approaches by using a broad array of environmental quality information, demographics, and information from the results of its compliance monitoring activities. In targeting compliance and enforcement efforts, EPA takes into account sector-based environmental problems or compliance patterns, statute-specific compliance problems, and an analysis of compliance/enforcement history and pollutant releases.

Current national sector priorities include the dry-cleaning industry, refining of primary non-ferrous metals, and petroleum refining. EPA is also focusing on several other significant sectors, such as municipalities (particularly their combined sewer overflows, sanitary sewer overflows, and storm water overflows and municipal solid waste combustors), industrial organic-chemical manufacturing and chemical preparations sectors (because they have high TRI releases), the iron and steel industry, coal-fired power plants, and automotive repair shops.

The US Fish and Wildlife Service is responsible for enforcing US and international laws, regulations, and treaties that protect wildlife resources. To accomplish its task, the Service works closely with state, tribal, and international wildlife enforcement agencies. Its special agents in the field typically pursue more than 11,000 investigative cases each year. Activities include infiltrating sophisticated smuggling rings, conducting surveillance operations during waterfowl hunting seasons, and breaking up commercial poaching operations that target native wildlife. Agents also investigate crimes that threaten species reintroduction programs and critical wildlife habitat, safeguard wildlife on refuges, national parks, and other public lands, and protect migratory birds and other animals from such manmade environmental hazards as oil pits, electric power lines, and pesticides.

The Service's wildlife inspectors are a uniformed force of professional import/export control officers who monitor US wildlife trade at the nation's major ports of entry. Inspectors not only regulate a billion-dollar-a-year industry, they are also the country's front-line defense against illegal wildlife trafficking. They ensure that wildlife imports and exports comply with US and international and treaties, stop illegal shipments, intercept smuggled wildlife and wildlife products, and work with the US Customs Service to regulate international passenger traffic.

Also, the Endangered Species Act and the Lacey Act provide for the staffing of ports of entry with wildlife inspectors to monitor wildlife shipments and the licensing of commercial wildlife importers and exporters.

#### **Articles 5(1)(e) Compliance Assistance and 5(1)(e) Enforcement Procedures**

In 1998, approximately 250,000 regulated entities were contacted by EPA's regional offices in an outreach of compliance assistance based on sector and media priorities. The highest amount of compliance assistance activities occurred through the distribution of compliance assistance tools, which reached over 175,000 facilities.

Within the seven sectors for which compliance assistance information is tracked, auto service and repair facilities received the highest amount of assistance. Municipal officials attended the most workshops, and both auto service/repair and dry cleaners received the most on-site visits.

Working in partnership with business and labor, EPA also created five new national Compliance Assistance Centers, for a total of nine Centers that are “on line” and fully functioning. The new EPA Centers are for the paints and coatings industries, small- and medium-sized chemical manufacturing, transportation, and printed wiring board industries, as well as a Center addressing the concerns of local governments. Many users visiting the Centers’ web sites are taking action as a result of their Center visits. Over 80 percent of users responding to a survey indicated that they have taken steps to improve compliance, such as by requesting technical assistance, contacting a regulatory agency, changing a process, or changing the handling of a waste or emission.

The US Fish and Wildlife Service promotes compliance domestically and internationally through public outreach, education, and participation in exchanges of information in international workshops such as the Marine Invertebrate Workshop in November 1998.

#### **Article 5(1)(d) Public Access to Noncompliance Information**

Public access to data allows communities to monitor environmental conditions and compliance records of nearby facilities and provides an additional incentive for businesses to be in compliance with environmental laws. EPA believes that technology is now making computer records the most important way to track facility information, and is gradually replacing the hard-copy file approach to managing records. EPA’s web site currently contains about 4,200 enforcement and compliance-related documents—and EPA expects to triple that number by the end of FY 1999.

Last year, EPA opened the Enforcement and Compliance Docket and Information Center (ECDIC), a library system containing EPA’s enforcement and compliance assurance regulations, policy and guidance, and related documents. The Integrated Data for Enforcement Analysis (IDEA) system provides interested members of the public with access to more than ten EPA databases. Many businesses are starting to use this system to monitor their own environmental performance. In addition, EPA’s Enhanced Public Access Task Project will make all of the Agency’s significant guidance and policies electronically accessible to regions, states, industry and the public by the end of FY 2000.

In 1998, EPA launched the Sector Facility Indexing Project (SFIP), a pilot project that makes it easier for the public to access a wide range of environmental information about regulated facilities. Under SFIP, EPA integrated publicly available information so that it can be viewed in one place, and can be used to better understand overall facility environmental records. SFIP profiles approximately 650 individual facilities in five industrial sectors: automobile assembly; pulp manufacturing; petroleum refining; iron and steel production; and the primary smelting and refining of aluminum, copper, lead, and zinc (nonferrous metals). For each facility, SFIP includes information on compliance and inspection history, chemical releases and spills, demographics of the surrounding population, and production.

#### **Article 5(1)(f) Promotion of Environmental Audits**

EPA's audit policy encourages all companies to self-police by giving them real economic incentives to self-monitor, disclose, and correct environmental violations. Under the policy, EPA eliminates or reduces civil penalties for companies that detect violations through an environmental audit or compliance management program, voluntarily disclose the violations to EPA, and take prompt action to correct them. Similarly, under the audit policy, EPA will not recommend criminal prosecution of companies that voluntarily disclose criminal violations and that satisfy the criteria outlined in the policy. EPA will, however, pursue prosecution of culpable individuals. Importantly, the policy encourages self-policing in a fair manner without tolerating secrecy, providing blanket immunities, or excusing criminal conduct.

Since the inception of the audit policy, a total of 450 companies have disclosed violations at 1,870 facilities, and the Agency has granted relief to 164 companies at 540 facilities. The rates of disclosing companies and corrected violations have increased every year since the policy became effective. In 1998, at least 200 companies disclosed violations at 950 facilities under the auspices of the Agency's self-disclosure (audit) policy.

In November 1998, EPA and the National Pork Producers Council entered into a voluntary compliance program to reduce runoff of animal wastes from pork-producing operations. Polluted runoff from industrial feeding operations is a leading source of water pollution, associated with such threats to public health and the environment as *Pfiesteria* outbreaks and other problems. Under this initiative, participating pork producers will have their operations (as many as 10,000 facilities) voluntarily assessed for Clean Water Act violations by certified independent inspectors. Producers who promptly disclose and correct any discovered violations from these audits will receive a much smaller civil penalty than they might otherwise incur under the law. In implementing this program, EPA will consult closely with the states, which may administer the program directly.

EPA initiated a program under the Toxic Substances Control Act to encourage chemical companies to voluntarily audit their records and submit all relevant data. Under this program, a company's liability would be capped at US\$1 million if the company conducted audits, identified violations, and submitted required substantial risk data within a certain deadline. As a result, 123 companies undertook environmental audits, and EPA received over 11,000 previously unreported studies or reports on chemicals that may cause health or environmental harm. EPA collected over US\$22.7 million in penalties.

#### **Articles 5(1)(j), 5(2) and 5(3) Judicial, Quasi-Judicial or Administrative Proceedings to Seek Appropriate Sanctions or Remedies**

Since 1974, EPA has assessed fines and penalties amounting to over US\$1.5 billion dollars. In 1998, the Clean Air Act was responsible for 53 percent of criminal penalties (US\$49 million) and 44 percent of civil judicial penalties (US\$28 million). The Resource Conservation and Recovery Act (RCRA) garnered the most administrative penalties (20 percent), at US\$5.5 million. Clean Water Act settlements were responsible for the highest amounts of injunctive relief (US\$860 million, or 43 percent of the total) and Supplemental Environmental Projects (SEPs) value (US\$42 million, or 46 percent of the total).

Data collected by EPA indicates that the enforcement actions settled in 1998 had an extremely positive impact on the protection of human health and the environment. Many violators, as part of their settlement of enforcement actions, are agreeing to carry out environmentally beneficial SEPs they would not otherwise be required to perform. As a result of EPA enforcement, polluters spent a total of just over US\$2 billion to correct violations, take additional steps to protect the environment, and clean up Superfund sites—more than US\$200 million dollars over what was spent the previous year.

The 1998 settlement with seven heavy-duty diesel engine manufacturers who were part of the largest Clean Air Act (CAA) enforcement action in history is expected to prevent 68 million metric tons of NO<sub>x</sub> air pollution over the next 27 years and reduce the total NO<sub>x</sub> emissions from diesel engines by one-third as of the year 2003. EPA estimates that these companies, comprising 95 percent of the US heavy-duty diesel engine market, will spend collectively more than US\$850 million to introduce cleaner new engines, rebuild older engines to cleaner levels, recall pickup trucks that have defeat devices installed, and conduct new emissions testing. The companies will also undertake a number of projects to lower NO<sub>x</sub> emissions, including research and development projects to design low-emitting engines that use new technologies and cleaner fuels.

Also in 1998, the Fish and Wildlife Service filed charges in over 6,000 criminal cases and assessed fines totaling over US\$2,000,000 and penalties totaling over 30 years in jail.

#### **Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).**

The US Fish and Wildlife Service and the National Marine Fisheries Service rely on the Endangered Species Act (ESA) and the Lacey Act as the primary domestic legislation to control wildlife imports and exports. CITES is the major international trade agreement for the control of trade in wildlife and plants. CITES regulates, and in many cases prohibits, trade in imperiled species by categorizing species based on degrees of endangerment through the establishment of import/export rules and permit procedures for each species category.

#### **References**

##### **EPA Office of Enforcement and Compliance Assurance**

OECA Home Page <http://www.epa.gov/oeca>

##### **Accomplishments and Priorities**

OECA Accomplishments Reports, 1995–97 <http://www.epa.gov/oeca/usepaoeca.html>

FY 98/99 MOA Guidance (includes priorities) <http://www.epa.gov/oeca/moa9899.pdf>

FY 99 MOA Update (includes priorities) <http://www.epa.gov/oeca/polguid/9899moaguide.pdf>

##### **Compliance Assistance**

Inventory of Compliance Assistance Tools <http://www.epa.gov/oeca/ccsmd/cac/contents>

Compliance Assistance Centers Information <http://www.epa.gov/oeca/mfcac.html>

Sector Notebooks <http://www.epa.gov/oeca/sector/>

### Compliance Incentives

Small Communities Policy	<a href="http://www.epa.gov/oeca/scpolicy.html">http://www.epa.gov/oeca/scpolicy.html</a>
Small Business Policy	<a href="http://www.epa.gov/oeca/smbusi.html">http://www.epa.gov/oeca/smbusi.html</a>
Audit Policy: Incentives for Self Policing	<a href="http://www.epa.gov/oeca/auditpol.html">http://www.epa.gov/oeca/auditpol.html</a>
Supplemental Environmental Projects	<a href="http://www.epa.gov/oeca/sep/">http://www.epa.gov/oeca/sep/</a>

### Measures and Information

National Performance Measures Strategy	<a href="http://www.epa.gov/oeca/perfmeas/npmsfinal">http://www.epa.gov/oeca/perfmeas/npmsfinal</a>
Integrated Data for Enforcement Analysis (IDEA)	<a href="http://www.epa.gov/oeca/idea/about.html">http://www.epa.gov/oeca/idea/about.html</a>
Sector Facility Indexing Project	<a href="http://www.epa.gov/oeca/sfi">http://www.epa.gov/oeca/sfi</a>
EPA Environmental and Spatial Data	<a href="http://www.epa.gov/enviro/">http://www.epa.gov/enviro/</a>

### National Oceanic and

Atmospheric Administration	<a href="http://www.noaa.gov">http://www.noaa.gov</a>
US Fish and Wildlife Service	<a href="http://www.fws.gov">http://www.fws.gov</a>

## Article 6

### Private Access to Remedies

**Standing.** In 1998, the Fourth Circuit held that the defendant in a Clean Water Act (CWA) citizen suit had the power, as a matter of Constitutional law, to moot a plaintiff's claims for civil penalties by post-complaint compliance with the Act, even though the plaintiff had standing to seek penalties and injunctive relief at the time it filed the citizen suit. In *Friends of the Earth v. Laidlaw Environmental Services (TOC), Inc.*, 149 F. 3d 303 (4th Cir. 1998), the plaintiffs filed a petition for a writ of certiorari, and on 1 March 1999, the US Supreme Court granted the petition. Affirmance of the Fourth Circuit's ruling would seriously harm citizen enforcement of a wide range of federal environmental laws. Indeed, in a number of recent suits, various defendants have already cited the *Laidlaw* decision to support a motion to dismiss.<sup>1</sup>

In *Steel Company v. Citizens for a Better Environment*, 118 Sup. Ct. 1003 (1998), the Supreme Court addressed citizen enforcement standing issues. There, the plaintiff sought penalties for violations of reporting requirements under the Emergency Planning and Community Right-to-Know Act but did not seek any injunctive relief, or allege any likelihood of continuing violations. The Supreme Court determined that citizens lack standing to sue when the only relief requested at the time the case was filed—civil penalties payable to the US Treasury—could not redress the injury the plaintiff had allegedly suffered. (*Id.* at 1019.) The Court ruled that a suit for civil penalties alone would not establish standing because it would not redress the plaintiff's own injury, but merely would vindicate generally the rule of law and the undifferentiated public interest. (*Id.* at 1018.)

<sup>1</sup> See, e.g., *Dubois v. US Department of Agriculture*, 20 F. Supp. 2d 263 (D.N.H. 1998)(dismissing remaining CWA citizen civil penalty claim as moot after a prohibitory injunction has been issued, citing *Laidlaw*); *NRDC v. Southwest Marine*, 28 F. Supp. 2d 584 (S.D.Cal. 1998)(denying a motion to dismiss a remaining CWA citizen civil penalty claim as moot and distinguishing *Laidlaw*); and, *Woodlands Limited v. NationsBank*, 1998 US LEXIS 23716 (4th Cir. 1998)(garnishment case citing *Laidlaw*).

The plaintiffs in *Laidlaw* met the *Gwaltney*<sup>2</sup> standing test by alleging ongoing violations at the time of the complaint. Although the district court ultimately found that violations had occurred and assessed penalties, it declined to issue an injunction against future violations because it concluded that Laidlaw’s violations had not harmed the environment and that Laidlaw was by then complying with its permit. The plaintiffs appealed only the penalty assessment to the Fourth Circuit. Citing *Steel*, the Fourth Circuit found that the CWA citizen suit became entirely moot once the defendant came into compliance, despite any unaddressed demand for civil penalties. The Fourth Circuit ruled that because the only remedy left available to the plaintiffs—civil penalties payable to the United States—would not redress their injuries, plaintiffs’ appeal was moot.

<sup>2</sup> *Gwaltney of Smithfield v. Chesapeake Bay Foundation*, 484 US 49 (1987).







**1998**  
**Financial**  
**Review**

# 1998 Audited Financial Statements



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*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, 1998 and the statements of revenue and expenditures, change in capital and changes in financial position 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 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, 1998 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles in Canada.

*Samson Bélair  
Deloitte + Touche*

Chartered Accountants

March 26, 1999

Montreal, Québec

## Balance Sheet

As at 31 December 1998 (in Canadian dollars)	<b>1998</b>	<b>1997</b>
	<b>\$</b>	<b>\$</b>
<b>Assets</b>		
Current assets		
Cash and term deposits	<b>2,568,774</b>	<b>3,117,027</b>
Goods and services tax (Note 4)	<b>1,960,018</b>	<b>1,430,112</b>
Contributions receivable (Note 5)	–	<b>443,051</b>
Other assets	<b>180,808</b>	<b>200,935</b>
	<b>4,709,600</b>	<b>5,191,125</b>
Capital assets (Note 6)	<b>389,190</b>	<b>569,661</b>
	<b>5,098,790</b>	<b>5,760,786</b>
<b>Liabilities</b>		
Current liabilities		
Accounts payable and accrued liabilities	<b>740,305</b>	<b>1,030,878</b>
Contributions refundable	–	<b>374,511</b>
	<b>740,305</b>	<b>1,405,389</b>
Deferred revenue	<b>1,344,351</b>	<b>1,443,946</b>
Deferred contributions (Note 7)	<b>2,889,000</b>	<b>1,780,337</b>
	<b>4,973,656</b>	<b>4,629,672</b>
<b>Capital</b>		
Invested in capital assets	<b>389,190</b>	<b>569,661</b>
Restricted for North American Fund for Environmental Cooperation	<b>1,272,517</b>	<b>1,362,614</b>
Unrestricted	<b>(1,536,573)</b>	<b>(801,161)</b>
	<b>125,134</b>	<b>1,131,114</b>
	<b>5,098,790</b>	<b>5,760,786</b>
Commitments (Note 8)		

## Statement of Revenue and Expenditures

Year ended 31 December 1998 (in Canadian dollars)	1998	1997
	\$	\$
<b>Revenue</b>		
Contribution — Canada	4,500,000	4,125,000
Contribution — Mexico	4,136,000	4,125,000
Contribution — United States	4,500,000	4,125,000
Internally generated funds	1,147,543	929,709
Other revenue	194,038	193,208
	<b>14,477,581</b>	<b>13,497,917</b>
<b>Expenditures</b>		
Expenses related to work program — Schedule	2,330,207	2,219,116
Expenses related to specific obligations — Schedule	624,654	643,163
Expenses related to Council meetings — Schedule	321,810	146,169
Expenses related to Public consultation — Schedule	110,463	205,971
Expenses related to JPAC — Schedule	173,010	142,501
Expenses related to Directorate operations	159,756	186,941
Expenses related to North American Fund for Environmental Cooperation	206,770	164,150
Expenditures related to contingency fund	180,953	63,921
CEC Resource Center	178,195	97,417
Publishing and web site	548,685	366,541
Public outreach	379,758	227,912
Salaries and fringe benefits		
Program-related	3,799,630	3,410,748
Departmental operations	659,760	755,979
Relocation and orientation expenses	188,451	50,967
Training expenses	29,967	20,978
Office expenses	246,213	235,145
Telecommunications	132,350	166,228
Systems support	83,668	81,817
Rent, utilities and office maintenance	431,485	475,915
Administrative fees	204,567	93,725
Gain on foreign exchange	(22,179)	(112,371)
	<b>10,968,173</b>	<b>9,642,933</b>
<b>Excess of revenue over expenditures</b>	<b>3,509,408</b>	<b>3,854,984</b>
Contributions adjustment	(483,522)	—
Contributions transferred to the following		
year budget (Notes 3(a) and 7)	(2,889,000)	(1,780,337)
Contributions from prior year	1,780,337	2,800,920
Expenditures related to prior year commitments — Schedule	(1,607,000)	(3,404,349)
Contributions refundable	374,511	(374,511)
Excess of revenue over expenditures before the following items	684,734	1,096,707
Amortization of capital assets	239,742	280,546
Loss on disposal of capital assets	60,875	—
Grants disbursed	1,390,097	2,235,626
<b>Excess of expenditures over revenue</b>	<b>(1,005,980)</b>	<b>(1,419,465)</b>

## Statement of Change in Capital

Year ended 31 December 1998 (in Canadian dollars)

	Invested in capital assets	Restricted for North American Fund for Environmental Cooperation	Unrestricted	Total 1998	Total 1997
	\$	\$	\$	\$	\$
Balance, beginning of year	569,661	1,362,614	(801,161)	1,131,114	2,550,579
Excess (deficiency) of revenue over expenditures	(300,617)	(1,390,097)	684,734	(1,005,980)	(1,419,465)
Transfer	-	1,300,000	(1,300,000)	-	-
Investment in capital assets	120,146	-	(120,146)	-	-
<b>Balance, end of year</b>	<b>389,190</b>	<b>1,272,517</b>	<b>(1,536,573)</b>	<b>125,134</b>	<b>1,131,114</b>

## Statement of Changes in Financial Position

Year ended 31 December 1998 (in Canadian dollars)

	1998	1997
	\$	\$
<b>Operating activities</b>		
Excess of expenditures over revenue	(1,005,980)	(1,419,465)
Items not affecting cash		
Amortization of capital assets	239,742	280,546
Loss on disposal of capital assets	60,875	-
Contributions transferred to the following year budget	2,889,000	1,780,337
Contributions from prior year	(1,780,337)	(2,800,920)
	403,300	(2,159,502)
Changes in non-cash operating working capital items	(731,812)	(38,410)
	(328,512)	(2,197,912)
<b>Financing activities</b>		
Change in deferred revenue	(99,595)	364,773
<b>Investing activities</b>		
Acquisition of capital assets	(128,796)	(127,787)
Disposal of capital assets	8,650	-
	(120,146)	(127,787)
Net cash outflow	(548,253)	(1,960,926)
Cash position, beginning of year	3,117,027	5,077,953
<b>Cash position, end of year</b>	<b>2,568,774</b>	<b>3,117,027</b>

## Notes to the Financial Statements

Year ended 31 December 1998 (in Canadian dollars)

### 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. Change of accounting policy

During the year, the Commission for Environmental Cooperation adopted the new recommendations of the Canadian Institute of Chartered Accountants for not-for-profit organizations. This change was accounted for retroactively and the comparative figures for the prior year were modified accordingly. The balance sheet now presents capital separately invested in capital assets, restricted for the North American Fund for Environmental Cooperation and unrestricted.

### 3. Significant accounting policies

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

#### (a) Contributions

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 six months following the end of the financial year to discharge related obligations incurred during the year.

Any surplus funds in excess of 5% of the budget are credited to the Parties by an adjustment of the assessments for the subsequent financial 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 currencies

Transactions conducted in foreign currencies are translated using the temporal method. Exchange gains and losses are included in the results for the period.

#### (d) Deferred revenue

Deferred revenue represents leasehold inducements relating to office space. These inducements, which are amortized over the term of the lease, are offset against rental expenses.

## Notes to the Financial Statements

Year ended 31 December 1998 (in Canadian dollars)

### 4. 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 Quebec governments and the Commission before the goods and services taxes paid on purchases are reimbursed. An agreement with the Federal government was signed in June 1997 and published in the Canada Gazette on 23 September 1997, establishing the right to reimbursement of GST and HST taxes from September 1997 forward. A Remission Order will be required for reimbursement of GST and HST taxes paid prior to this date. As at the auditors' report date, the Remission Order has not been processed. Also, no agreement has yet been signed between the Commission and the Quebec government regarding QST. Management is of the opinion that this amount will be received.

### 5. Contributions receivable

	1998	1997
	\$	\$
Mexico	-	443,051

### 6. Capital assets

	1998		1997	
	Cost	Accumulated Amortization	Net Book Value	Net Book Value
	\$	\$	\$	\$
Computer equipment	252,222	91,000	161,222	243,010
Computer equipment and software — projects	127,602	85,477	42,125	69,654
Computer software	90,993	62,242	28,751	43,350
Furniture and fixtures	367,030	296,748	70,282	138,274
Telephone system	118,005	96,021	21,984	16,066
Equipment	140,425	125,718	14,707	6,841
Leasehold improvements	68,769	18,650	50,119	52,466
	<b>1,165,046</b>	<b>775,856</b>	<b>389,190</b>	<b>569,661</b>

### 7. Deferred contributions

For the 1998 financial year, contributions available to discharge related obligations during 1999 amount to \$2,889,000 (1997 — \$1,780,337). These contributions are presented as deferred contributions in the balance sheet.



## Notes to the Financial Statements

Year ended 31 December 1998 (in Canadian dollars)

### 8. 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:

	\$
<b>1999</b>	<b>371,220</b>
<b>2000</b>	<b>417,817</b>
<b>2001</b>	<b>464,413</b>
<b>2002</b>	<b>511,009</b>
<b>2003</b>	<b>557,606</b>
<b>2004</b>	<b>497,030</b>
	<b>2,819,095</b>

The Commission has the option to cancel the lease upon payment of a penalty that ranges from \$848,000 to \$244,000 over the years 1999 to 2003.

- b) The Commission has commitments of \$2,889,000 relating to environmental projects as at 31 December 1998.
- c) The Commission has commitments for equipment and furniture leases which expire on or before January 2002. Total payments required in future years are as follows:

	\$
<b>1999</b>	<b>118,839</b>
<b>2000</b>	<b>103,355</b>
<b>2001</b>	<b>92,055</b>
<b>2002</b>	<b>13,614</b>
	<b>327,863</b>

### 9. Prior year figures

Certain of the prior year's figures have been reclassified to conform to the current year's presentation.

### 10. Uncertainty due to the Year 2000 Issue

The Year 2000 Issue arises because many computerized systems use two digits rather than four to identify a year. Date-sensitive systems may recognize the year 2000 as 1900 or some other date, resulting in errors when information using year 2000 dates is processed. In addition, similar problems may arise in some systems which use certain dates in 1999 to represent something other than a date. The effects of the Year 2000 Issue may be experienced before, on, or after 1 January 2000, and, if not addressed, the impact on operations and financial reporting may range from minor errors to significant systems failure which could affect an entity's ability to conduct normal business operations. It is not possible to be certain that all aspects of the Year 2000 Issue affecting the Commission, including those related to the efforts of third parties, will be fully resolved.

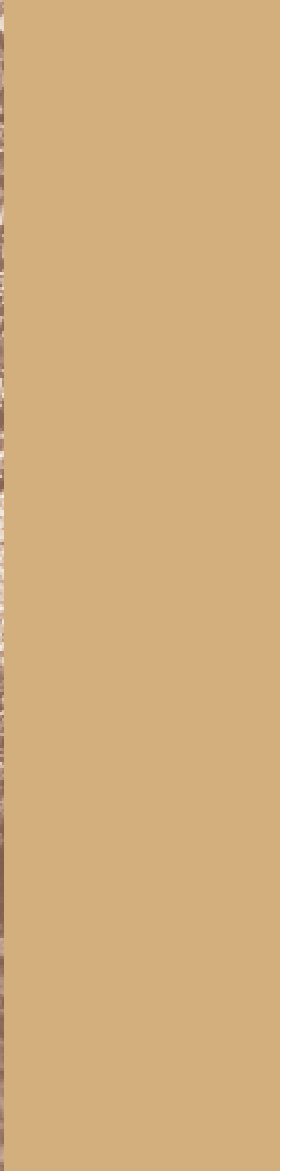
## Schedule

*Expenses Related to the Work Program, Specific Obligations under North American Agreement, Council Meetings, Public Consultation, Joint Public Advisory Committee (JPAC) Meetings, and Prior Year Commitments*

Year ended 31 December 1998 (in Canadian dollars)	1998	1997
	\$	\$
<b>Work program</b>		
Travel, accommodation and meeting expenses	<b>854,878</b>	<b>717,730</b>
Professional fees	<b>1,088,525</b>	<b>1,153,213</b>
Translation and interpretation	<b>255,164</b>	<b>183,493</b>
Office expenses	<b>131,640</b>	<b>164,680</b>
	<b>2,330,207</b>	<b>2,219,116</b>
<b>Specific obligations under North American Agreement on Environmental Cooperation</b>		
Travel, accommodation and meeting expenses	<b>154,024</b>	<b>203,639</b>
Professional fees	<b>344,070</b>	<b>344,805</b>
Translation and interpretation	<b>85,940</b>	<b>63,677</b>
Office expenses	<b>40,620</b>	<b>31,042</b>
	<b>624,654</b>	<b>643,163</b>
<b>Council meetings</b>		
Travel, accommodation and meeting expenses	<b>139,777</b>	<b>50,336</b>
Translation and interpretation	<b>128,767</b>	<b>78,715</b>
Office expenses	<b>27,138</b>	<b>17,118</b>
Professional fees	<b>26,128</b>	<b>–</b>
	<b>321,810</b>	<b>146,169</b>
<b>Public consultation</b>		
Travel, accommodation and meeting expenses	<b>96,414</b>	<b>76,763</b>
Professional fees	<b>9,420</b>	<b>35,068</b>
Translation and interpretation	<b>4,629</b>	<b>52,214</b>
Office expenses	<b>–</b>	<b>41,926</b>
	<b>110,463</b>	<b>205,971</b>
<b>Joint Public Advisory Committee (JPAC) meetings</b>		
Travel, accommodation and meeting expenses	<b>105,627</b>	<b>107,287</b>
Translation and interpretation	<b>30,053</b>	<b>28,618</b>
Professional fees	<b>31,137</b>	<b>–</b>
Office expenses	<b>6,193</b>	<b>6,596</b>
	<b>173,010</b>	<b>142,501</b>
<b>Expenditures related to prior year commitments</b>		
<b>Expenditures related to project commitments</b>		
Travel, accommodation and meeting expenses	<b>99,830</b>	<b>288,290</b>
Professional fees	<b>988,850</b>	<b>2,349,645</b>
Publications and communications	<b>6,597</b>	<b>157,280</b>
Translation and interpretation	<b>66,560</b>	<b>163,724</b>
Program funding	<b>–</b>	<b>140,000</b>
Office expenses	<b>6,525</b>	<b>11,895</b>
	<b>1,168,362</b>	<b>3,110,834</b>
<b>Expenditures not related to project commitments</b>		
	<b>438,638</b>	<b>293,515</b>
	<b>1,607,000</b>	<b>3,404,349</b>



**Looking Ahead**



# 1999 Annual Program and Budget Overview



## Program

This item includes:

- project costs, salaries, and specific obligations\* under NAAEC;
- costs of Council Sessions, JPAC meetings and public meetings;
- salaries of staff whose activity relates directly to Council and JPAC and Executive Management;
- publications and editorial support;
- NAFEC—funds for grants of up to C\$100,000 and funds for projects not exceeding C\$10,000; and
- a portion of rent and telecommunications (85 percent of the total amount of each of these two).

\* Includes the CEC Information Center, which, in addition to its initial responsibilities, is in charge of the maintenance and updating of our home page, as well as that of the databases developed in our first years of operation.

## Administration and Support

These items support the Commission as a whole and include Administration and Accounting, Public Outreach, the remaining part of rent and telecommunications costs (15 percent), external and temporary support, relocation expenses for staff, professional development costs, office equipment and supplies, and assets that include the payments for ongoing equipment leases.

## Contingency Fund

Set aside for unforeseen costs.

## 1999 Project Budget Summary

### I - Environment, Economy and Trade

Projects	Budget (US \$)
99.01.01 Emerging Trends in North America	\$66,000
99.01.02 NAFTA Environmental Effects	\$140,000
99.01.03 Sustainable Use of Primary Natural Resources: Agriculture	\$85,000
99.01.04 Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species	\$80,000
99.01.05 Sustainable Tourism in Natural Areas	\$110,000

### II - Conservation of Biodiversity

99.02.01 Strategic Directions for the Conservation of Biodiversity	\$100,000
99.02.02 Cooperation on the Protection of Marine and Coastal Ecosystems	\$190,000
99.02.03 Mapping Marine and Estuarine Ecosystems of North America	\$10,000
99.02.04 North American Marine Protected Areas Network	\$60,000
99.02.05 North American Biodiversity Conservation Mechanisms	\$240,000
99.02.06 North American Biodiversity Information Network	\$75,000

### III - Pollutants and Health

99.03.01 Facilitating Trilateral Coordination in Air Quality Management	\$136,000
99.03.02 Developing Technical and Strategic Tools for Improved Air Quality in North America	\$255,000
99.03.03 Environmental Cooperation in the NAFTA Transportation Corridors	\$20,000
99.03.04 Regional Cooperation Toward Improved Understanding and Eventual Implementation of the Clean Development Mechanism and Joint Implementation	\$55,000
99.03.05 Sound Management of Chemicals Project	\$615,000
99.03.06 North American Pollutant Release and Transfer Register	\$270,000
99.03.07 Shared Approaches to By-product Synergy	\$70,000
99.03.08 Capacity Building for Pollution Prevention	\$85,000

### IV - Law and Policy

99.04.01 North American Regional Enforcement Forum	\$72,000
99.04.02 Enforcement and Compliance Capacity Building	\$160,000
99.04.03 Indicators of Effective Environmental Enforcement	\$38,000

<b>Total</b>	<b>US \$2,932,000</b>
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## 1999 Budget

### General

Description	Amount (US \$)
<b>1 – Program</b>	<b>8,493,000</b>
1.1) Projects	2,932,000
1.2) Salaries	2,750,000
1.3) NAFEC	990,000
1.4) Specific obligations	575,000
1.5) Publications and reports	410,000
1.6) Rent (program)	360,000
1.7) Council session (incl. public session)	220,000
1.8) JPAC operations	150,000
1.9) Telecommunications (program)	76,000
1.10) Common program-related expenditures	30,000
<b>2 – Administration and support</b>	<b>1,402,000</b>
2.1) Salaries	465,000
2.2) Public outreach	270,000
2.3) Assets	120,000
2.4) External administrative support	195,000
2.5) Executive management	80,000
2.6) Office equipment and supplies	95,000
2.7) Rent (non-program)	60,000
2.8) Relocation & orientation	80,000
2.9) Professional development	20,000
2.10) Telecommunications (non-program)	17,000
<b>3 – Contingency fund</b>	<b>175,000</b>
<b>Total</b>	<b>10,070,000</b>

### Summary

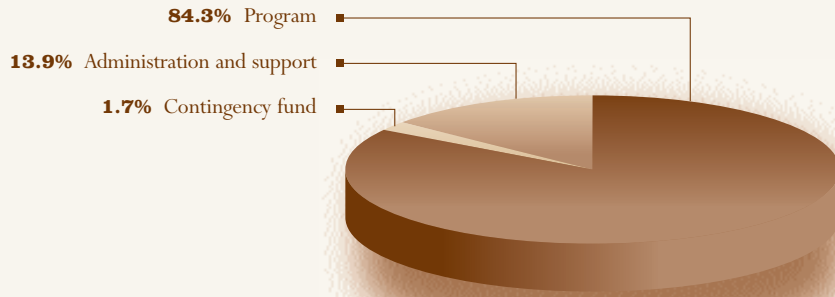
Description	Amount (US \$)
<b>1 – Program</b>	<b>8,493,000</b>
<b>2 – Administration and support</b>	<b>1,402,000</b>
<b>3 – Contingency</b>	<b>175,000</b>
<b>Total</b>	<b>10,070,000</b>

### Revenues

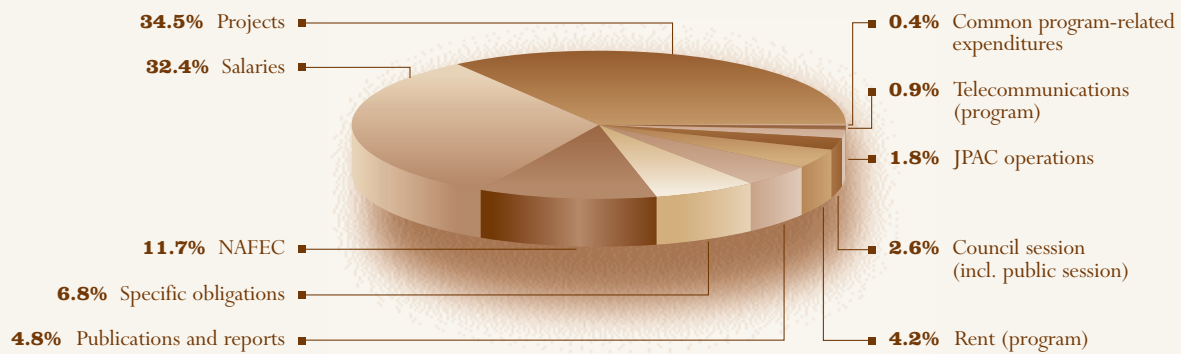
Description	Amount (US \$)
Parties' contributions	9,000,000
Carry-over	105,000
Tax levy	865,000
Interest	100,000
<b>Total</b>	<b>10,070,000</b>

## 1999 Budget – Graphic Overview

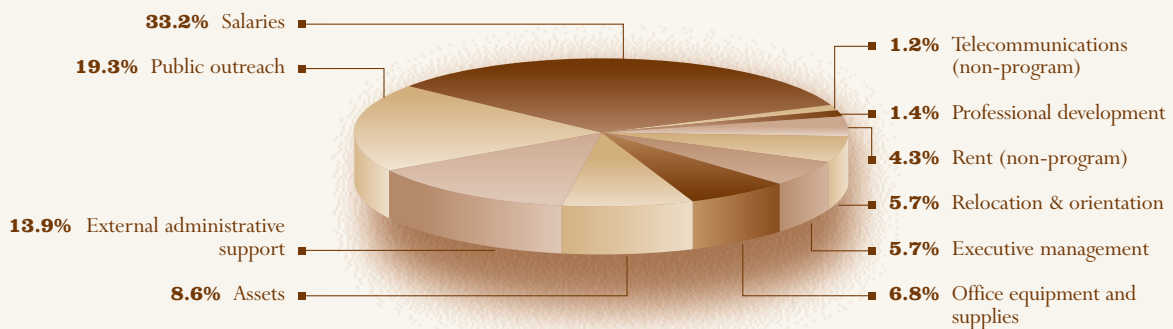
### Overall CEC Budget for 1999



### Program



### Administration and Support





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\*As of October 1999



## Credits

### Design

Mosaic Design Communication Inc.

### Prepress and Printing

Imprimerie Quebecor Graphique-  
Couleur

## Printing Information

### Paper

Cover - Rolland Opaque New Life/160 m  
Text - Rolland Opaque New Life/140 m,  
Satin

30% post-consumer fiber  
100% elemental chlorine free



### Inks

Vegetable oil based inks containing  
no chlorine or heavy metals

### Fountain Solution

No isopropyl alcohol/  
less than 4% VOCs

### Press Washes

Low VOC press washes used

*Disponible en français  
Disponible en español*

Printed in Canada

In North America, we share vital natural resources, including air, oceans and rivers, mountains and forests. Together, these natural resources are the basis of a rich network of ecosystems that sustain our livelihoods and well-being. If they are to continue being a source of future life and prosperity, these resources must be protected. Protecting the North American environment is a responsibility shared by Canada, Mexico and the United States.

The Commission for Environmental Cooperation (CEC) is an international organization whose members include Canada, Mexico and the United States. The CEC was created under the **North American Agreement on Environmental Cooperation (NAAEC)** to address regional environmental concerns, help prevent potential trade and environmental conflicts and to promote the effective enforcement of environmental law. The Agreement complements the environmental provisions established in the North American Free Trade Agreement (NAFTA).

To find out more about the CEC's activities, or to get up-to-date information on the projects described in this Annual Report, including related announcements and publications, please visit the CEC's Internet homepage or contact us using the addresses below.

**<http://www.cec.org>**  
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