Annual Report

6

6



COMMERCIA DE CODIFICIÓN ENVIRONNEMENTALE COMERÓN PARA LA COMPRACIÓN AMEENTAL COMMENON ROR ENVIRONMENTAL CODIFICATION Disponible en français Disponible en español

Credits Design Mosaïc 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 fiber100% 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

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.

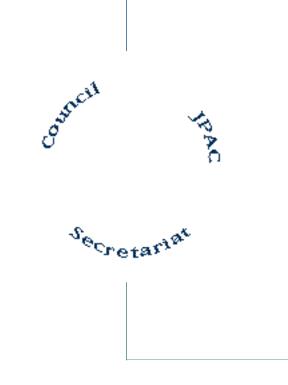


Table of Contents

Message from the Council Report from the Joint Public Advisory Committee Message from the Interim Executive Director of the CEC Secretariat

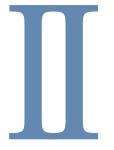
4 6

12



Cooperative Achievements

1997 Program Summary	16
Cooperative Achievements	18
> Environmental Conservation	18
> Protecting Human Health and the Environment	20
> Environment, Economy and Trade	23
> Enforcement Cooperation and Law	24
> Information and Public Outreach	26
Registry of Submissions on Enforcement Matters 1997	27
Linking North American Communities	40



Country Reports

Canada	44
Mexico	60
United States	72

1997 Financial Review

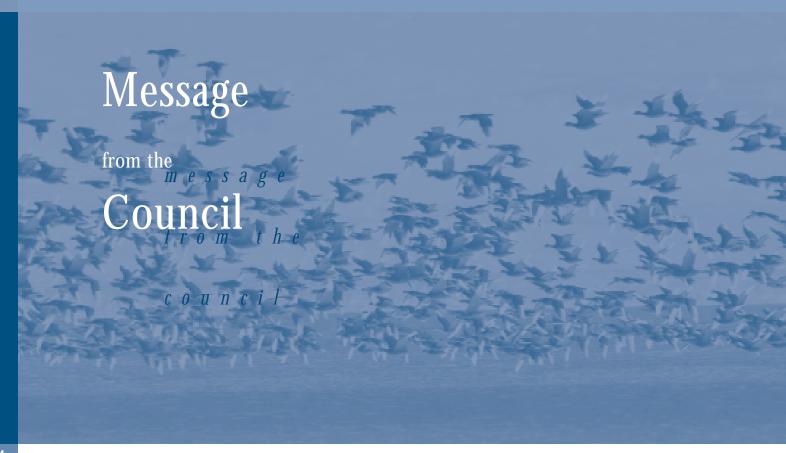
1997 Audited Financial Statements

88

Looking Ahead

Four-year Review of NAAEC and a *Shared Agenda for Action* 1998 Annual Program and Budget

98 106



In 1997, we marked three years of cooperation among the NAFTA parties to protect, conserve and enhance the North American environment.

We held two Council meetings this year, our 4th regular session in June 1997 in Pittsburgh and a special session in October in Montreal. At these meetings, we charted new directions for our cooperative efforts while establishing a process to evaluate the operation and effectiveness of the North American Agreement on Environmental Cooperation (NAAEC) and the Commission for Environmental Cooperation (CEC) to date. This effort to anticipate future challenges in the context of evaluating current work promises to help us focus our resources on priorities that build on the unique strengths of the Agreement and the Commission.

Over the past year, the CEC continued to show leadership in protecting and conserving the North American environment by promoting cooperation. One important focus for this work was the preparation of North American regional action plans to address persistent bioaccumulative toxic substances of regional concern. Through the North American Pollutant Release and Transfer Registry and the air monitoring and modeling initiative, we strengthened our collective capacity to monitor the release and dispersion of pollutants across North America. The CEC also agreed to complete a binding North American agreement for the environmental assessment of projects with transboundary impacts.

The CEC's conservation agenda included initiating negotiations for a North American conservation strategy for migratory birds, as well as improved cooperation on the conservation of the Monarch butterfly. The CEC has also created the North American Biodiversity Information Network, the first successful effort in the Western Hemisphere to bring together data sources and data users to provide a neutral venue to promote the availability of and accessibility to data on the biodiversity of North America. Advancing cooperation on enforcement and compliance is another area of work at the CEC. Initiatives in this area have included joint action to combat CFC smuggling and illegal trade in endangered species. At the Pittsburgh Council session, we committed to strengthening our efforts to improve environmental compliance and affirmed the primary role of governments in establishing environmental standards and in verifying and enforcing compliance with laws and regulations. We also agreed to develop model rules for dispute settlement and to review the guidelines for the public submissions process.

At our special session in Montreal in October, we looked to the future and decided to augment the CEC's current environmental protection and regional conservation cooperative work program with a greater focus on trade and environment issues. As a parallel agreement to the NAFTA, the NAAEC provides the perfect instrument to delve into the complex linkages between environment and trade in North America. As a first step, we directed the Secretariat to develop a conceptual framework for an expanded trade and environment program for 1998. This program will consider issues such as the possible positive and negative environmental impacts of trade. It will also look at public participation and access to information, engagement of the private sector in environmental and trade initiatives, and possible funding of community-based trade and environmental projects.

After three full years of operation, we must now review our activities. The NAAEC provides that within four years after the date of entry into force of the Agreement, the Council shall review its operation and effectiveness in light of experience. To deliver on this commitment, the Council decided, at its June 1997 session in Pittsburgh, to appoint an Independent Review Committee to prepare a report for the Council on the operation and effectiveness of the Agreement and the CEC to date. The process includes comments from individual citizens, experts and the advisory committees.

Working with the public, the CEC has become a point of reference for advancing cooperation on environmental matters in the three countries—each characterized by unique social, economic and political conditions. We are working together to adapt to globalization and regional economic integration in ways that maintain and enhance the quality of the shared North American environment.

In accordance with our obligations under the NAAEC, it is our privilege to submit the 1997 Annual Report of the CEC. We are pleased to report our progress in 1997 and look forward to your continued engagement in 1998 and the years ahead.





Canada

Christine Stewart 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 Joint public Committee advisory

committee

Annual Report of the JPAC for 1997

30 December 1997

In 1997, JPAC organized three public consultations in Mexico, D.F., Vancouver, B.C., and Pittsburgh, Penn., utilizing a new format that included a presentation on the topics of the consultations, i.e., long-range transport of air pollutants in North America, voluntary compliance with environmental laws in North America and environmental networking among North American communities. In addition, an analysis workshop and a plenary public consultation meeting were held. The results were challenging and are outlined in the Executive Report submitted to the Council. The number of participants increased substantially over previous years, and so did the quality of public input. During the course of the plenary meetings, viewpoints pertaining to the evaluation process of the NAAEC were received and participants engaged in a dialogue with the members of JPAC in regard to other topics too, on environmental issues in North America.

JPAC addressed four recommendations to the Council concerning long-term issues dealing with the institutional vision of the CEC, the operation of the national advisory committees, public consultations and the evaluation of the NAAEC, including a proposal for the updating of the Committee's operating rules.

JPAC met five times during regular sessions, three of which were held after public consultations in the locations mentioned, one in the city of Montreal and the last one in Tucson, Arizona, taking advantage of the transboundary environmental impact seminar organized by the Secretariat.

The public consultation held during the Council's regular session last June in Pittsburgh, Pennsylvania, was presided over by Minister Julia Carabias, who listened and responded to questions voiced by participants.

JPAC intensified its dialogue with the Alternate Representatives of the Ministers of the Environment and attended their meetings, which allowed them to gain a better understanding of JPAC's views on the CEC.

In October, JPAC was invited to participate and provide comments in the Council's extraordinary session, attending the presentation of the results of the evaluation process undertaken by the Independent Review Committee and, above all, sharing opinions in a direct and personal manner with the three ministers of the environment, to whom we submitted formal, detailed recommendations from JPAC.

JPAC members had the opportunity of gaining further insight into the opinions held by the members of the national advisory committees of the United States and Canada, as well as of attending analysis workshops regarding the NAAEC, including interacting with National and Governmental Advisory Committees.

We reiterate our support for the North American Fund for Environmental Cooperation (NAFEC) and its selection process, for we endorse its purposes and recognize the benefits of what has been accomplished. We have submitted an evaluation report emphasizing the excellent work accomplished both by its Coordinator and the selection committee. It is important that NAFEC be strengthened by increasing the resources destined to it and, at the same time, diversifying its sources of funding.

Transparency in the use of allocated resources was a constant concern for the members of JPAC. A working group made up of Canadian, US and Mexican members ensured that the US\$300,000 budget ceiling set by the Council was abided by and, based on the reports provided by the Secretariat, succeeded in keeping the 1997 final figures within budget.

During the last regular meeting held in December, the JPAC set its priorities for 1998, established the schedule for public meetings and made decisions regarding the composition of the working groups charged with attending to specific issues.

It is important to emphasize that certain issues such as the search for new and improved public consultation mechanisms, the linking between consultation issues and the programs undertaken by the Secretariat, the follow-up of advice submitted to the Council by JPAC and, finally, a more tangible embodiment of the results of public consultation into the environmental priorities of the Parties to the NAAEC, are to be further explored over the next period.

The members of JPAC are pleased with having deepened their understanding of domestic issues and, at the same time, furthered a new concept of dealing with environmental issues on a regional basis where decisions were made by consensus.



María Cristina Castro Sariñana JPAC Chair in 1997

JPAC Budget (US\$)

Year	General Budget	JPAC Assigned Budget	Percentage from General Budget
1995	10,615,000	120,000	1.13%
1996	10,255,000	120,000	1.17%
1997	9,942,000	300,000	3%

Public Consultations

Public Participation in Plenary Sessions				
	Mexico City	Vancouver	Pittsburgh	Total
Canadians	9	63	23	95
Americans	11	11	52	74
Mexicans	163	17	7	187
Total	183	91	82	356

Public Participation in the Workshops

	Mexico City	Vancouver	Pittsburgh	Total
Long-range Transport of Air Pollutants in North America	32	14	21	67
Voluntary Compliance with Environmental Laws in North America	64	33	26	123
Environmental Networking among North American Communities	37	25	17	79
Other Environmental Topics	12	0	15	27
Total	145	72	79	296

JPAC-CEC Link	Activities Carried Out
1. JPAC	 Five regular meetings (Mexico City, Vancouver, Pittsburgh, Montreal and Tucson). One meeting with the Council of Ministers (extraordinary session with the Council in Montreal). Meetings between the Members of the Committee and their respective Ministers responsible for the environment. Hiring of an assistant to provide technical support for the activities of JPAC.
2. JPAC- Secretariat	 Analysis and approval of the final report on the NAAEC evaluation plan. Request for periodic reports regarding JPAC budget execution. Participation by a JPAC member in the revision of the CEC Annual Report.
3. JPAC - Council	 Submission of the Executive Report pertaining to the 1997 public consultations. Advice considered: 97-1 concerning issues that are essential for CEC goals to be reached; 97-2 concerning the public consultation process; 97-3 concerning the NAAEC evaluation process; and 97-4 concerning the Rules of Procedure of JPAC.
4. JPAC - Public	 Public consultation meetings, preceded by a seminar and workshops. Three public consultation meetings (Mexico City, Vancouver and Pittsburgh). Strong attendance (356 persons) and high-quality presentations.
5. JPAC - Alternate	 Representatives JPAC participation in the Ottawa planning meeting and the Montreal evaluation meeting. Six regular meetings of the Alternate Representatives, involving the participation of the IPAC Chair.

1997 Activities of the Joint Public Advisory Committee (JPAC)

• Six regular meetings of the Alternate Representatives, involving the participation of the JPAC Chair.

JPAC Members - 1997

CANADA

T.M. (Mike) Apsey

Council of Forest Industries President & Chief Executive Officer 555 Burrard Street, Suite 1200 Vancouver, BC V7X 1S7 Canada Tel: (604) 684-0211 Fax: (604) 687-4930 e-mail: apsey@cofiho.cofi.org

Michael Cloghesy

Centre patronal de l'environnement du Québec *Président* 640, rue St-Paul Ouest, bureau 206 Montréal (QC) H3C 1L9 Canada Tel: (514) 393-1122 Fax: (514) 393-1146 e-mail: cpeq@generation.net

Louise Comeau

Sierra Club of Canada *Climate Change Coordinator* 1 Nicholas Street, Suite 412 Ottawa, ON K1N 7B7 Canada Tel: (613) 241-4611 Fax: (613) 744-8664 e-mail: louisec@web.apc.org

Jacques Gérin

Hatch & Associés Inc. *Président* 5, Place Ville-Marie, bureau 200 Montréal (QC) H3B 2G2 Canada Tel: (514) 861-0583 Fax: (514) 397-1651 e-mail: jgerin@hatch.ca

Mary Simon

Department of Foreign Affairs and International Trade Ambassador for Circumpolar Affairs Lester B. Pearson Building 125 Sussex Drive Tower B-4-226 Ottawa, ON K1A 0G2 Canada Tel: (613) 992-6588 Fax: (613) 944-1852 e-mail: mary.simon@extott07.x400.gc.ca

MEXICO

Guillermo Barroso

Sector Empresarial Mexicano *Representante* Sierra Nevada 755 Col. Lomas de Chapultepec México, D.F. 11000 México Tel: (52 5) 202-8309, 202-9155 Fax: (52 5) 520-5412, 520-1695 e-mail: 03144.3071@compuserve.com

Jorge Bustamante

El Colegio de la Frontera Norte, A.C. *Presidente* Abelardo L. Rodriguez 2925 Tijuana, Baja California 22320 México Tel: (52 66) 31-3300, 31-3540 Fax: (52 66) 31-3555 e-mail: jorgeb@colef.mx

María Cristina Castro

Planeción Integral y Gráfica Directora Ostra # 15, SM 27 Cancún, Quintana Roo 77509 México Tel: (52 9) 884-2564 Fax: (52 9) 884-8064 e-mail: consultor@cancun.rce.com.mx

Ezequiel Ezcurra

Centro de Ecología Universidad Nacional Autónoma de México Antigua Carretera Pátzcuaro No. 8701 Col. Ex-Hacienda de San José de la Huerta Apartado Postal 3-27 (Xangari CP 5809) Morelia, Michoacán 58190 Tel: (52 4) 320-0830 Fax: (52 4) 320-0830 e-mail: eezcurra@servidor.unam.mx

Iván Restrepo

Centro de Ecología y Desarrollo, A.C. Director Calle Chiapas 208, Departamento 7 Col. Roma Sur México, D.F. 06700 México Tel: (52 5) 264-8758 Fax: (52 5) 264-2138 e-mail: cecodes@laneta.apc.org

UNITED STATES

Peter Berle

PO. Box 881 Stockbridge, MA 01262 USA Tel: (413) 298-0061 Fax: (413) 298-0069 e-mail: pberle@audubon.org

Dan Morales

Attorney General Natural Resources Division 209 West 14th Street, 10th Floor Austin, TX 78701 USA Tel: (512) 463-2107 Fax: (512) 463-2063

Jonathan Plaut

3 Ashland Rd. Summit, NJ 07901 USA Tel: (212) 963-8210 Fax: (908) 273-6836 e-mail: jplaut@aol.com

Jean Richardson

University of Vermont Environmental Program *Director, EPIC Project* 153 South Prospect Street Burlington, VT 05405 USA Tel: (802) 656-4055 Fax: (802) 656-8015, 425-3733 e-mail: jean_richardson@together.org

John Wirth

North American Institute *President* 708 Paseo de Peralta Santa Fe, NM 87501 USA Tel: (505) 982-3657 Fax: (505) 983-5840 e-mail: naminet@santafe.edu Message from the Interim Message from the Message from the Executive Interim Director of the executive CEC Secretariat director of the

cec secretariat

The three countries of North America are bound not only by trade but also by environmental linkages. The role of the North American Commission for Environmental Cooperation has been to work with Canada, Mexico and the United States to make progress on important environmental issues of common concern.

In 1997, the CEC accomplished a number of important tasks. We published the first report on pollutant releases at a continental level, and we convened experts to help our countries understand the movement of pollutants on a continental scale, particularly via air currents. We also worked at helping to reduce pollution through our Sound Management of Chemicals program, establishing important actions for the reduction and phase-out of DDT, chlordane, PCBs and mercury.

Throughout 1997, the CEC promoted technical collaboration among North American partners to prepare an environmental remediation program for the "Presa de Silva" reservoir in Guanajuato presently under development by the Mexican government in order to reestablish a healthy habitat for North American migratory waterfowl.

The CEC was also involved in conservation and sustainable development. We worked on projects to help protect the habitat of Monarch butterflies, a symbol of the links among our three nations. And we provided funding through the North American Fund for Environmental Cooperation for a number of important local projects, including the production of shade coffee, which does not require large-scale clearing of natural forests, and the sustainable harvesting of forest products.

In addition, the CEC held public consultations on several issues. Among others, under the initiative of Joint Public Advisory Committee (JPAC), the public of the three countries was consulted on long-range transport of air pollutants, voluntary compliance with environmental laws in North America, and environmental networking among North American communities. Following these meetings and the JPAC advice to Council, the CEC improved access to information and encouraged the participation of citizens in working toward the improvement of the environment in North America.

It was also an important year because our work up to 1997 was thoroughly reviewed by an Independent Review Committee. That led directly to the preparation by the three countries of *A Shared Agenda for Action*, our compass for the future. Although that agenda was produced earlier this year, it is included in the 1997 report so you can better understand the evolution of the CEC.

These and other projects are important signals that our three nations are able to benefit from collaborating to find solutions to shared environmental problems. It is this collaboration that will help our economies evolve into more sustainable forms of development that reduce the creation of problems in the first place.



Janine Ferretti CEC Interim Executive Director

Cooperative Achievements

1997 Program Summary

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

Environmental Conservation

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

Protecting Human Health and the Environment



- > Cooperation for the Conservation of North American Birds
- > North American Biodiversity Information Network
- > Cooperation on the Protection of Marine and Coastal Area Ecosystems
- > Cooperation for the Conservation of Monarch Butterflies



- > Sound Management of Chemicals
- > North American Pollutant Release Inventory
- > North American Air Monitoring and Modeling
- > Transboundary Environmental Impact Assessment
- > North American Cooperation on GHG Emissions Trading
- > Capacity Building in Environmental Management

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.

Environment, Economy and Trade



- > NAFTA Environmental Effects
- > Technology Clearinghouse

The goal of the Enforcement Cooperation and Law 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.

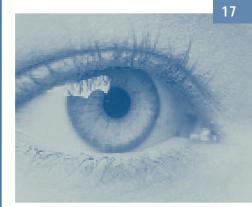
Enforcement Cooperation and Law



- > Enforcement Cooperation Program
- > New Approaches for Improving Environmental Performance

The goal of the Information and Public Outreach program is to raise the level of public awareness and understanding about the environmental challenges facing the NAFTA partners.

Information and Public Outreach



> North American Integrated System for Environmental Management

Cooperative Achievements

achievements

Environmental Conservation

Habitat and Species

Cooperation for the Conservation of North American Birds

Hundreds of species of birds migrate between the three countries, depending on areas where they can stop for food, shelter or nesting. Protection of a wide range of habitat is vital to the survival of birds.

In 1996, the CEC began development of a North American strategy and action plan for the conservation of birds of North America and the promotion of a North American Network of Important Bird Areas (IBAs). In 1997 it continued to focus on the identification and nomination of IBA sites. A draft strategy was developed by a working group established by the Council.

In addition, sites of regional, global and national significance were identified by partner organizations of the CEC: Canadian Nature Federation, Long Point Bird Observatory, Audubon, American Bird Conservancy, and the *Consejo Internacional para la Preservación de las Aves – Sección México* (Cipamex). The conservation strategy for *El Carricito del Huichol* was implemented as a pilot project, carried out in partnership with Cimpamex, *Universidad Nacional Autónoma de México* (UNAM) and *Conservación Humana, A.C.* Also, a draft of the directory of North American IBAs was prepared, listing and describing each IBA identified in North America. Finally, a meeting was held in March 1997 presenting the IBA program to conservation organizations, wildlife agencies and donor agencies to increase their awareness of the North American IBA effort and secure a stable basis for implementation.

Cooperative Achievements

North American Biodiversity Information Network

This project helps institutions and agencies that collect, manage or use biodiversity data in collaborating to provide broader access to information at a North American level. The project facilitated the development of a North American-level biodiversity information agenda. It addressed issues such as improving access to data, developing protocols for sharing of information, identifying data gaps and assessing data quality.

In 1997, attention was focused on the establishment of a pilot program to develop an information base to help people find information about avian species in North America. The objective is to demonstrate how information about ecosystems and species in North America can be made significantly more available.

Cooperation on the Protection of Marine and Coastal Area Ecosystems



The CEC worked with expert teams on developing strategies for the protection of two important marine areas shared by our nations from land-based pollution sources. Two pilot projects were begun to demonstrate the implementation of the recently approved Global Programme of Action (GPA) for the Protection of the Marine Environment in a North American context.

The pilot projects are in two areas: the Bight of the Californias and the Gulf of Maine. The main work has been to establish regional ad hoc committees to develop binational cooperation in implementing the GPA. A broad membership has been secured in each region, including staff from federal, state, regional, and local governments, from nongovernmental organizations, indigenous groups as well as the academic and business sectors.

Cooperation for the Conservation of Monarch Butterflies

Each year, millions of the orange and black Monarchs migrate across the continent, constantly demonstrating the ecological links among the three countries. Their survival depends on the protection of habitat in all three nations for feeding, breeding and winter hibernation.

In 1996, the three environment ministers announced a Monarch Butterfly Conservation Program. The program is aimed at supporting activities such as the monitoring of Monarchs along their migratory routes, the assessment of the dynamics of the population, and the identification of key Monarch butterfly sites. In November 1997, a workshop of scientists,

citizen conservation groups and organizations was held in Morelia to share information and to discuss alternatives for the conservation of the Monarchs and of their unique migratory phenomena. This will form the basis for the development of a conservation program.





The following 1996 projects were completed in 1997:

Maps of North American Ecological Regions

A series of maps was produced that, for the first time, provided a view of the continent as a series of linked ecological regions, crossing local, regional and national borders. This work, started in 1995, was done in collaboration with a trinational team of cartographers, biologists and geographers.

Nongovernmental Participation in Conservation of Protected Areas and Adjacent Land Holdings

The CEC completed an inventory of ways that nongovernmental participation can help in the conservation of protected areas and adjacent land holdings in North America, with an emphasis on innovative approaches. The results of the project were presented in a technical workshop in Mexico, where participating experts contributed to the identification of existing or promising conservation mechanisms in Mexico.

Protecting Human Health and the Environment

This is a broad and important area of work for the CEC. It includes both the reduction of releases of harmful chemicals into the environment and the protection of ecosystems from degradation.

Reducing Risk

Sound Management of Chemicals

The CEC is working with governments in the three countries to find ways of reducing the release of persistent and toxic pollutants of common concern. Council Resolution 95-05 on the Sound Management of Chemicals established a working group to work with the CEC and implement the decisions and commitments made in that resolution. The initial focus has been on developing regional action plans for specific substances.

This is being done through North American regional action plans (NARAPs). The first substances on the list are PCBs, DDT, chlordane and mercury. In 1997, NARAPs were completed on PCBs, DDT, chlordane and mercury. The purpose of the NARAPs on DDT and chlordane is to reduce the exposure of humans and the environment to these chemicals through the phased reduction and eventual elimination of the use of these chemicals for insect control in Mexico. The DDT program builds on Mexico's very successful malaria control program with a goal of an 80 percent reduction in the amount of DDT used for mosquito control over five years. The mercury NARAP seeks to reduce releases of this heavy metal, so that North American ecosystems,

fish and wildlife and humans are not exposed to mercury levels in excess of those occurring naturally. The Council of the CEC also approved a "Process for identifying candidate substances for regional action under the Sound Management of Chemicals initiative." This process will be used to select candidates for future regional action.



Cooperative Achievements

21

North American Pollutant Release Inventory

The release of the first *Taking Stock* report on pollutant releases and transfers by industries in Canada and the United States was a major event for the CEC. The report was based on publicly available information from 1994 national pollutant release and transfer registries (PRTR) of the United States, the Toxics Release Inventory (TRI), and in Canada, the National Pollutants Release Inventory (NPRI). The CEC developed a methodology to compare the different reporting systems, so people can better understand the release or handling of a number of pollutants on a continental scale. Since many of the pollutants are released to air, this work is part of understanding contaminants in our common airshed.

As part of the process of developing its reporting system, the CEC co-sponsored a PRTR Workshop for the Americas in the summer, along with INE, UNITAR, OECD and the government of the state of Querétaro. In the winter, a workshop was held with North American PRTR national representatives to discuss comparability and compatibility of data, and current trends.

An important part of the project is helping Mexico in its development of a domestic PRTR, the *Registro de Emisiones y Transferencia de Contaminantes* (RETC).



North American Air Monitoring and Modeling

A background document on data compatibility examined air data sets in North America. A background study on compatibility of emissions inventories in North America is planned. Work was started on evaluating the applicability of the US emission inventory database system to Canada and Mexico.

The CEC also worked on a regional transboundary air issue. Efforts were begun to develop a GIS-based system to allow decision-makers in three Mexican states and 135 Texas counties to better understand emissions and potential air quality problems along the highway system that is part of the free-trade transportation corridor.

A report was produced on ground-level pollution, particularly smog, in the northeastern United States and eastern Canada. This will help the countries to identify priorities for improved coordination on monitoring, modeling and data management.

Transboundary Environmental Impact Assessment

Building upon the work of the North American Intergovernmental Group on Transboundary Environmental Impact Assessment, the Council agreed, at its 4th Annual Session, to complete a legally binding agreement consistent with its obligations under Article 10(7) of the NAAEC by 15 April 1998. This agreement will include, among other things, provisions on assessment of transboundary environmental impacts, notice to the country potentially affected by those impacts, consideration of mitigation measures, and public participation in decision-making. The Council also agreed to publicly release a working document on a transboundary environmental impact assessment agreement in the fall. A workshop co-organized by the CEC and the Western Governors' Association (WGA) was held in December in Tucson, Arizona, to discuss North American transboundary environmental impact assessment (TEIA) issues. The workshop was a unique experience because it was the first continent-wide meeting bringing together officials from national and subnational jurisdictions in Canada, Mexico and the United States to discuss this subject. The workshop was both very important and very timely because the successful development and implementation of a North American TEIA agreement would necessarily involve the participation of all the jurisdictions represented at the workshop.

Climate Change and Energy Efficiency

North American Cooperation on GHG Emissions Trading

This project moved to exploring economic instruments to reduce the emission of greenhouse gases (GHG), looking particularly at a North American emissions trading system. Much of the work was delayed pending decisions from the Conference of Parties on greenhouse gas emissions, held in December in Kyoto, Japan.

The CEC work will fit in the framework of other international discussions on how best to control greenhouse gases that are seen as having the ability to cause climate change.

The following 1996 project was completed in 1997:

Climate Change and Its Potential Impact on Transboundary Water Resources in North America

This project studied the potential impact of climate variations such as El Niño and global warming on transboundary water resources in North America. The project provided indicators on the potential impact of climate change on transboundary water, including the socioeconomic and environmental implications. These indicators will help policy- and decision-makers in making choices to improve water management in the border areas and in reducing the vulnerability of economic activities, social groups, and environmentally sensitive areas to climate change. The report was developed during 1997 for review in 1998.

Capacity Building

Capacity Building in Environmental Management

The project included capacity building in three sectors: environmental management at the state level; pollution prevention in small- and medium-sized enterprises; and the sound management of chemicals.

Activities included:

- Working with the State Government of Guanajuato on developing remediation for the Presa de Silva. Remediation was begun in December by the government.
- Working with the *Fundación Mexicana para la Inovación y Transferencia de Tecnología* (Funtec), the *Confederación de Cámaras Industriales* (Concamin) the United States Council for International Business (USCIB) and the Canadian Council for International Business (CCIB) on building expertise in pollution prevention.

23

• Working to support Mexico in the implementation of the DDT Regional Action Plan and in developing databases of new substance candidates for Regional Action Plans.

Environment, Economy and Trade

Trade and the Environment

NAFTA Environmental Effects

This project was designed to aid the Council in fulfilling its obligation to consider on an ongoing basis the environmental effects of NAFTA (NAAEC Article 10(6)(d)) and pursuant to NAAEC Article 10(2)(l).

Among the activities in this program:

- An interim report was prepared for the Council on the state of development of the elements for the analytical approach.
- A report on the intergovernmental institutions and committees created or inspired by NAFTA was completed in the fall under the title, *NAFTA's Institutions: The Environmental Potential and Performance of the NAFTA Free Trade Commission and Related Bodies.*
- Three case studies were completed to test and inform an analytical approach and identify, if possible, the effects of NAFTA-related economic and institutional developments on the North American environment. One was in the energy sector, and two were in agriculture:
 - "Maize in Mexico: Some Environmental Implications of NAFTA"
 - "Feedlot Production of Cattle in the United States and Canada: Some Environmental Implications of NAFTA"
 - "Electricity in North America: Some Environmental Implications of NAFTA"
- A draft of the analytic approach was completed:
 - "An Analytic Framework for Assessing Environmental Effects of the North American Free Trade Agreement (NAFTA): Phase II"

Technology Cooperation

Technology Clearinghouse

The CEC actively promotes technologies that will help North Americans meet economic and environmental goals. The CEC worked with North American partners to create an information service on environmental technologies and services available in North America. The partners in the joint venture include the Ontario Centre for Environmental Technology Advancement (OCETA), the International Environmental Business and Technology Institute, Inc. (database EnviroTech Online), and the *Centro de Calidad Ambiental del Instituto Tecnológico y de Estudios Superiores de Monterrey* (ITESM). The new entity, Services and Information on Ecotechnologies (SIE), is intended to become a self-financing, non profit organization and is available for viewing at < http://www.sie.org>.



To facilitate the development of law, policy and economic instruments for alternative approaches to compliance and effective enforcement and to promote greater public participation and transparency in decision-making.

Enforcement Cooperation and Law

Enforcement Cooperation Program

The North American Forum on Enforcement Cooperation

Continued support was given to the North American Working Group on Environmental Enforcement and Compliance Cooperation and the North American Wildlife Enforcement Group (NAWEG) to work together to explore opportunities for the exchange of information and expertise, joint capacity building and cooperation on enforcement action. The two groups additionally assisted the Parties in their annual report on enforcement-related obligations.

Wildlife Enforcement Cooperation

In 1997, the CEC, under the guidance of the NAWEG, sponsored two capacity-building meetings. The first session, held in El Paso, Texas, brought together wildlife enforcement and customs officials from the three countries to exchange information and expertise on the tracking and enforcement of laws regulating trade in endangered reptile species. The second joint effort focused on wildlife forensics, with priority given to enhancing Mexican forensic capacity and building a North American network. In December, with the support of the CEC and US Wildlife Forensics Laboratory, NAWEG delivered a seminar on wildlife forensics, including forensic techniques, DNA identification techniques, crime scene investigative techniques, necropsy issues, species identification and medicinal issues. The Attorney General's Office for Environmental Protection (*Procuraduría Federal para la Protección Ambiental*-Profepa) also hosted the first meeting to initiate discussions for development of a regional forensic network.

The annual bulletin on NAWEG activities is available from the CEC.

Pollution Control Enforcement Cooperation

In 1997, the CEC sponsored a meeting of North American hazardous waste enforcement officials to develop a regional strategy for improved tracking and enforcing laws regulating hazardous wastes and CFCs. Regional task groups were encouraged to address priority issues, including consistency in definitions and tracking procedures, processes for interagency sharing of compliance data, improved tracking databases and joint training. A CEC-commissioned report on the North American experience with tracking and enforcing laws regulating transboundary movement of hazardous wastes will be available from the CEC in fall 1998.

During 1997, the CEC supported a regional dialogue on environmental management systems and compliance which resulted in CEC Council Resolution 97-05 providing a regional policy position. The Council further directed the Enforcement Working Group to explore (1) the relationship between the ISO 14000 series and other voluntary environmental management systems (EMSs) and government programs to enforce, verify and promote compliance with environmental laws and regulations and (2) opportunities to exchange information and develop cooperative positions

25

regarding the role and effect of EMSs on compliance and other environmental performance. The report of this work, *Environmental Management Systems and Compliance: Report to the Council of the Commission for Environmental Cooperation on Results and Recommendations Pursuant to Council Resolution* 97-05, is available from the CEC.

The Secretariat consulted with the Enforcement Working Group to finalize the report on North American experience with voluntary approaches to compliance so that it could be publicly released. The report, entitled *Voluntary Measures to Ensure Environmental Compliance: A Review and Analysis of North American Initiatives*, is available from the CEC.

Support was additionally given to enable enforcement officials to contribute their enforcement and compliance expertise to development of the action plans under the Sound Management of Chemicals project.

Indicators of Effective Enforcement

In 1997, a project was initiated to explore improved indicators for measuring and evaluating the effectiveness of the enforcement and compliance policies and practices of the Parties. During the first phase of the project the CEC initiated a series of background reports, including documentation of current North American policies and practices for the development and application of indicators, a comparative review of experiences in the European Community and a brief paper reviewing the potential for using public response indicators related to environmental enforcement. In addition, the Secretariat worked together with the Enforcement Working Group and a team of expert advisors to design a multistakeholder dialogue. The proceedings of the May 1998 dialogue and background papers will be available from the CEC in fall 1998.

New Approaches for Improving Environmental Performance

Law Program

During 1997, the CEC completed a project in support of efforts to explore the use of economic instruments as alternatives to regulation for the protection of song bird habitat. In consultation with the Important Bird Area Advisory Group, the CEC selected two ongoing programs that had expressed interest in exploring the use of alternative approaches for their protection strategies. One was the Beaverhill Lake area in Alberta, Canada, and the other El Carricito del Huichol in the Sierra Madre, Mexico. The reports prepared for these initiatives are available from the CEC.

In addition, work was undertaken to complete the North American report on law, policy and practice regarding public access to government-held environmental information.

Information and Public Outreach

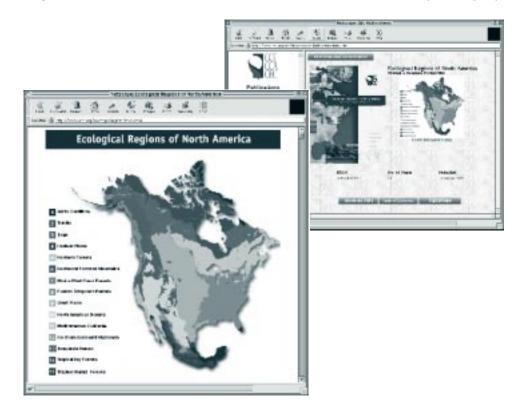
North American Greenlane

North American Integrated System for Environmental Management

The North American Integrated System for Environmental Management (NAISEM) was launched to provide the public with an electronic window on the continent. It is the first integrated information system on environmental issues in North America.

NAISEM uses a strong geographical component to deal with such issues as ecosystem management, land-use change, environmental education, capacity building, use of natural resources and pollution control. The information system, which will be available through the CEC Internet connection, assists the understanding, study, assessment, planning, and design of policies and programs to improve environmental protection in North America.

It includes a wide range of geographical, ecological and economic information. Among the information databases included in the system are: Canada's National Pollutant Release Inventory, the US Toxics Release Inventory, World Bank/Semarnap pollution estimations for Mexico, protected and endangered species, land cover change in the border areas (as derived from NALC Landsat satellite images), as well as the inclusion of additional socioeconomic data at the county/municipality level.



Registry of Submissions on Enforcement Submissions Matters 1997

ID. Number	Submitters	Status	
SEM-96-001	Comité para la Protección de los Recursos Naturales, et al.	Process is terminated. The Factual Record was released to the public.	
SEM-97-001	B.C. Aboriginal Fisheries Commission et al.	Preparation of a Factual Record.	
SEM-97-002	Comité pro Limpieza del Río Magdalena	Review under Article 15(1).	
SEM-97-003	Centre québécois du droit de l'environnement (CQDE) et al.	Review under Article 15(1).	
SEM-97-004	Canadian Environmental Defence Fund	Process is terminated.	
SEM-97-005	Animal Alliance of Canada et al.	Process is terminated.	
SEM-97-006	The Friends of the Oldman River	Review under Article 15(1).	
SEM-97-007	Instituto de Derecho Ambiental	Review under Article 14(1).	



ANNUAL REPORT 1997

Submission ID SEM-96-001

D

Submitter(s)	Comité para la Protección de los Recursos Naturales, A.C. Grupo de los Cien Internacional, A.C.
	Centro Mexicano de Derecho Ambiental, A.C.
Party	United Mexican States
Date received	18 January 1996

Summary of the matter addressed in the submission:

The Submitters allege that the appropriate authorities failed to effectively enforce environmental laws during the evaluation process of the project "Construction and Operation of a Public Harbor Terminal for Tourist Cruises on the Island of Cozumel, State of Quintana Roo" (*Construcción y operación de una terminal portuaria, de uso público para cruceros turísticos en la Isla Cozumel, Estado de Quintana Roo*).

The Submitters allege that during the evaluation process of the above-mentioned project, the competent authorities failed to effectively enforce the following environmental laws: General Law on Ecological Balance and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*); Regulation on Environmental Impact (*Reglamento en Materia de Impacto Ambiental*); Instructions to Prepare and Present a General Declaration of Environmental Impact (*Instructivo para desarrollar y presentar la Manifestación de Impacto Ambiental en la Modalidad General*). The Submitters also describe other legal requirements that in their opinion were not effectively enforced. These are: the Decree published in the *Official Gazette of the Federation* establishing the Declaration of a "Protection Zone for the Marine Flora and Fauna of the Western Coast of the Island of Cozumel in the State of Quintana Roo" (Decreto publicado en el Diario Oficial de la Federación que estableció la Declaratoria de "Zona de refugio para la protección de la flora y la fauna marinas de la costa occidental de la Isla Cozumel, Estado de Quintana Roo") of 11 June 1980, the Declaratoria de Usos, Destinos y Reservas del Municipio de Cozumel) of 9 March 1987 and the Law on Harbors (Ley de Puertos).

More specifically, the Submitters allege that the above-mentioned project was initiated without a declaration of environmental impacts covering all the works comprised in the project, contrary to the Concession Title awarded by the Secretariat for Communications and Transportation (*Título de Concesión otorgado por la Secretaría de Comunicaciones y Transportes*) for the construction and operation of the project. In addition, the Submitters argue that the project is located within the limits of a protected natural area known as the "*Zona de refugio para la protección de la flora y la fauna marinas de la costa occidental de la Isla Cozumel*", protected under a special legal regime. The Submitters further allege that the situation is serious and represents an immediate danger for the survival and development of both the Paradise Reef (*Arrecife Paraíso*) and the Caribbean Barrier Reef (*Cadena Arrecifal del Gran Caribe*).

29

Name and citation of the environmental law in question:

- 1. Ley General del Equilibrio Ecológico y la Protección al Ambiente (LGEEPA)
- 2. Reglamento de la Ley General del Equilibrio Ecológico y la Protección al Ambiente en Materia de Impacto Ambiental
- 3. Instructivo para Desarrollar y Presentar la Manifestación de Impacto Ambiental en la Modalidad General.
- 4. Decree published on 11 June 1980 in the *Diario Oficial de la Federación*, which declares the "Zona de refugio para la protección de la flora y la fauna marinas de la costa occidental de la Isla Cozumel, Estado de Quintana Roo"
- 5. Decreto de Declaratoria de Usos, Destinos y Reservas del Municipio de Cozumel, Q. Roo, published in the Periódico Oficial del Estado de Quintana Roo on 19 March 1987
- 6. Ley de Puertos.

Summary of the response provided by the Party:

In its response, the Mexican government asserts that the application of the North American Agreement on Environmental Cooperation (NAAEC) cannot be retroactive and argues that the submission exceeds CEC's jurisdiction. The response also states that the submission is inadmissible under Article 14 of the NAAEC as, in its view, the Submitters did not certify their legal capacity, did not specify the damages they suffered and did not exhaust all remedies available under Mexican law.

The Government of Mexico also states in its response that there is an inconsistency between the issues raised in the submission and NAAEC's goals, as, in its opinion, the Submitters failed to "establish a necessary relation between the alleged environmental damage to the flora and fauna of Paraíso's reef and the alleged violations of environmental law" [translation].

The Government of Mexico's response also disputes many factual assertions in the submission regarding the alleged failure to effectively enforce its environmental law.

Summary of the notifications to the Submitter(s):

- 1. Secretariat's acknowledgement of receipt of the submission (18 January 1996)
- 2. Secretariat's Determination under Article 14(1) (6 February 1996)
- 3. Secretariat's Determination under Article 14(2) (8 February 1996)
- 4. Secretariat's Notification to Council (7 June 1996)
- 5. Secretariat's Notification to the Submitters that the Final Factual Record has been provided to the Council on 25 July 1997 (29 July 1997)
- 6. Final Factual Record (24 October 1997)

Council's decision on the preparation of a Factual Record:

Council instructed Secretariat to develop a Factual Record on 2 August 1996.

Council's decision on the public release of the Factual Record:

On 24 October 1997, the Council instructed the CEC Secretariat to release to the public the Final Factual Record.

Status of the process:

On 24 October 1997, the Secretariat released to the public the Final Factual Record. The process is therefore terminated.

Submission ID SEM-97-001

Submitter(s)	B.C. Aboriginal Fisheries Commission
	British Columbia Wildlife Federation
	Trail Wildlife Association
	Steelhead Society
	Trout Unlimited (Spokane Chapter)
	Sierra Club (US)
	Pacific Coast Federation of Fishermen's Association
	Institute for Fisheries Resources
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 s. 35(1) of the Fisheries Act, and to utilize its powers pursuant to s. 119.06 of 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." According to the Submitters, "the Department of Fisheries and Oceans ('DFO') has only laid two isolated charges pursuant to sections 35(1) and 40(1) against Hydro since 1990, despite clear and well documented evidence that Hydro's operations have damaged fish habitat on numerous occasions." According to the Submitters, Hydro's operations "are being exempted from the application of Canadian environmental laws by the Federal Government's failure to enforce the Fisheries Act" and such "exemption gives Hydro an unfair competitive advantage over US hydropower producers." The Submitters further allege that the National Energy Board "recently refused to examine the environmental impacts of the production of electricity for exportation, despite receiving evidence of those impacts from the B.C. Wildlife Federation" and thereby "invalidly refused to exercise its mandatory statutory jurisdiction to examine the environmental impacts of the production of power for export."

Name and citation of the environmental law in question:

- 1. Fisheries Act, R.S.C. 1985, c. F-14, s. 35(1)2
- 2. National Energy Board Act, R.S.C. 1985, c. N-7 s. 119.06

Summary of the response provided by the Party:

Canada supports the NAAEC process for submissions on enforcement matters and considers Articles 14 and 15 to be among the most important provisions of the treaty.

Canada submits that it is enforcing its environmental laws and is in full compliance with its obligations under the NAAEC. Therefore, Canada submits that, in this instance, the development of a Factual Record is unwarranted as:

- the assertions concerning the enforcement of the Fisheries Act are the subject of pending judicial or administrative proceedings within the meaning of Article 14(3)(a);
- Canada is fully enforcing the environmental provisions of the Fisheries Act, and the National Energy Board (NEB) has properly exercised its power under the National Energy Board Act;

- the provisions of the NAAEC cannot be applied retroactively to assertions of a failure to enforce effectively environmental laws prior to the coming into force of the NAAEC on 1 January 1994 nor can those of the Fisheries Act; and
- the development of a Factual Record would not further the objectives of the NAAEC given the detailed information provided in this response.

Summary of the notifications to the Submitter(s):

- 1. Secretariat's acknowledgement of receipt of the submission (3 April 1997)
- 2. Secretariat's Determination under Article 14(1) (1 May 1997)
- 3. Secretariat's Determination under Article 14(2) (15 May 1997)
- 4. Response from Canada (21 July 1997)
- 5. Secretariat's Notification to Council (27 April 1998)

Council's decision on the preparation of a Factual Record:

The Council instructed the Secretariat to develop a Factual Record, in accordance with Council Resolution 98-07, dated 24 June 1998.

Status of the process:

As instructed by the Council, the Secretariat is preparing a Factual Record.

Submission ID SEM-97-002

Submitter(s) Comité Pro Limpieza del Río Magdalena

Party United Mexican States

Date received 15 March 1997 (7 April 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.

Name and citation of the environmental law in question:

- 1. Ley 217 del Equilibrio Ecológico y la Protección al Ambiente para el Estado de Sonora
- 2. Ley número 38 de las aguas del Estado de Sonora
- 3. Ley número 109 de salud para el Estado de Sonora
- 4. Ley General del Equilibrio Ecológico y la Protección al Ambiente

Summary of the response provided by the Party:

"In view of the facts which form the subject of the submission, two relevant aspects arise: First, that most of the facts argued by the Submitters took place prior to 1 January 1994, the date NAFTA came into force, thus we argue...the legal impossibility for the Hon. Commission to take

cognizance of facts which occurred before it came into being. The second...is based on the inadmissibility of the Submission since the Submitters, before having recourse to NAFTA, did not exhaust the legal remedies available under Mexican law."

The Party states, however, that "the fact that some deficiencies in legal technicalities can be detected in the drafting of the submission should not lead Mexico to disregard the environmental problems which indeed exist in the Magdalena River; nevertheless, it is important to establish that the Mexican Government has not remained indifferent to these environmental disturbances, but on the contrary, in coordination with the State of Sonora and the Municipalities of Imuris, Magdalena de Kino and Santa Ana, has worked to clean up the waters of said River, even though they have had to face problems due to a lack of budgetary resources which has prevented meeting all of the set goals. Currently there... is an Executive Project for the Upgrading and/or Extension of the Sanitary Sewer System and Wastewater Treatment Plants of the Cities of Imuris, Magdalena de Kino and Santa Ana, State of Sonora, which includes planned actions with a total approved budget for the amount of \$7,942,700 pesos.... [I] n spite of the existence of a generic obligation to treat waste waters emanating from urban centers under both Federal and State law, the economic limitations faced by Mexico still make full enforcement of this provision impossible, although there emerges from the respective governments' plans a clear strategy of gradual solutions to the wastewater treatment problems at the national level." The Party's response includes a "Brief Presentation of the Environmental Problems of the Magdalena River (overview, actions taken by the Mexican Government, citizens' complaints responded to by the Mexican Government and measures programmed to solve the problem)."

With regard to the environmental laws invoked by the Submitters, the Party points out that "they do not quote exclusively the Articles which are strictly related to this Submission, but rather make a generic listing of all the provisions that are in any way relevant to water issues...". Notwithstanding, the Party's response refers to each one of the many provisions that the Submitter alleges were violated. With regard to the provisions on water pollution control, the Party indicates, for each one of the violations alleged by the Submitters, how the Mexican Government complied with or applied the corresponding provision. With regard to the allegation of the Submitters that there has been a lack of effective enforcement of the right to environmental information, the Party points out that "the Submitter has not requested any information according to the requirements detailed in Article 153 Bis, for which reason it cannot argue that there is an infringement to its detriment of the quoted Articles of the Chapter on the right to environmental information." Finally, in relation to citizen complaints, the Party indicates that "the Submitter does not specify the facts on which it bases its allegations that there was an infringement to its detriment of the Chapter on Citizen Complaints, for which reason we categorically deny that the Mexican Government has violated the Articles quoted, all the more so because...three citizen complaints filed by the Submitter have been processed...".

ANNUAL REPORT 1997

- 1. Secretariat's acknowledgement of receipt of the submission (23 April 1997)
- 2. Request for additional information (2 July 1997)
- 3. Additional information from Submitters (18 July 1997)
- 4. Acknowledgment of receipt (18 September 1997)
- 5. Secretariat's Determination under Article 14(1) (6 October 1997)
- 6. Secretariat's Determination under Article 14(2) (8 May 1998)
- 7. Response from Mexico (29 July 1998)

Status of the process:

In accordance with Article 15(1) of the NAAEC, the Secretariat is reviewing the submission to determine whether it warrants developing a Factual Record in light of the response provided by the Party on 29 July 1998.

Submission ID	SEM-97-003
Submitter(s)	Centre québécois du droit de l'environnement (CQDE)
	Centre de recherche et d'intervention environnementale du Grand-Portage (CRIE)
	Comité de citoyens "À bon port" (L'Assomption)
	Comité de citoyens de Grandes-Piles (Mauricie)
	Comité de citoyens de Saint-André de Kamouraska (Bas-Saint-Laurent)
	Comité de citoyens de Sainte-Luce (Bas-Saint-Laurent)
	Comité de citoyens de St-Roch-de-Mékinac (Mauricie)
	Comité de citoyens pour un Shipton propre (Estrie)
	Comité de protection de la santé et de l'environnement de Gaspé (CPSEG)
	Comité de protection Panmassawipi (Estrie)
	Comité de santé publique et de l'environnement (Cosapue)
	Comité de qualité de vie de Saint-Jean-de-Dieu (Bas-Saint-Laurent)
	Les Ami(e)s de la terre de Québec
	Mouvement vert Mauricie (MVM)
	Regroupement écologique de Val d'Or et de ses environs (REVE)
	Réseau québécois des groupes écologistes (RQGE)
	Union québécoise pour la conservation de la nature (UQCN)
	Union Saint-Laurent Grands Lacs (Canada-États Unis)
Party	Canada
Date received	9 April 1997

Summary of the matter addressed in the submission:

The Submitters allege "the occurrence of failure to enforce several environmental standards related to agriculture on the territory of the Province of Quebec. Specifically, that the Quebec Government has failed, for many years, to enforce certain environmental protection standards regarding agricultural pollution originating from animal production facilities, mainly from hog farms."

Name and citation of the environmental law in question:

Laws of the Province of Quebec:

- 1. Sections 19(1), 20, 22, and 122.1 of the Environmental Quality Act, L.R.Q. 1985, c. Q-2
- 2. Sections 3-4, and parts IV, V, VI, VII of the Regulation respecting the prevention of water pollution in livestock operations, R.R.Q. 1981, c. Q-2, r.18.

Summary of the response provided by the Party:

Canada supports the process of submissions on enforcement matters under Articles 14 and 15 of the NAAEC. It considers that these are essential provisions of the Agreement. Canada refutes allegations to the effect that there has been a failure to effectively enforce its environmental laws in the agricultural sector contrary to the provisions of the NAAEC. It furthermore considers that preparing a Factual Record is not justified for the following reasons:

- Canada, particularly Quebec, effectively enforces the Environmental Quality Act and the Regulation respecting the prevention of water pollution in livestock operations;
- all the environmental measures put forward in the agricultural sector meet the objectives and obligations contained in the NAAEC, particularly Articles 2, 4 and 5;
- the government of Quebec has just adopted new regulations with respect to agricultural pollution and new measures to improve the enforcement of the Environmental Quality Act. In this context, it is not appropriate to prepare a Factual Record since the initiative is part of the process to improve the Act and the regulations in accordance with Article 3 of the Agreement;
- preparing a Factual Record would not produce any new information nor would it shed any new light in view of the elements and details provided in this response.

Summary of the notifications to the Submitter(s):

- 1. Secretariat's acknowledgement of receipt of the submission (15 April 1997)
- 2. Secretariat's Determination under Article 14(1) (8 May 1997)
- 3. Secretariat's Determination under Article 14(2) (9 July 1997)
- 4. Response from Canada (9 September 1997)
- 5. Request for information under Article 21(1)(b) of NAAEC (16 February 1998)
- 6. Information provided under Article 21(1)(b) (13 May 1998)

Status of the process:

In accordance with Article 15(1) of the NAAEC, the Secretariat is reviewing the submission to determine whether it warrants developing a Factual Record in light of the response provided by the Party on 9 September 1997 and 13 May 1998.

Submission ID SEM-97-004

Submitter(s) Canadian Environmental Defence Fund

Party Canada

Date received 26 May 1997

Summary of the matter addressed in the submission:

The Submitter alleges that the Canadian government has failed to enforce its law requiring environmental assessment of federal initiatives, policies and programs. In particular, the Canadian government failed to conduct an environmental assessment of The Atlantic Groundfish Strategy (TAGS) as required under Canadian law. By its failure to do so, it is alleged that the Canadian government has jeopardized the future of Canada's East Coast fisheries.

Name and citation of the environmental law in question:

Environmental Assessment and Review Process Guidelines Order (EARPGO)

Summary of the notifications to the Submitter(s):

1. Secretariat's acknowledgement of receipt of the submission (29 May 1997)

2. Secretariat's Determination under Article 14(1) (25 August 1997)

Status of the process:

On 25 August 1997, the Secretariat notified the Submitter that the submission does not meet the criteria of Article 14(1) of the Agreement. The submission process is terminated.

Submission ID SEM-97-005

Submitter(s) Animal Alliance of Canada Council of Canadians Greenpeace Canada Party Canada

Date received 21 July 1997

Summary of the matter addressed in the submission:

The Submitters allege that "Canada is failing to enforce its regulation ratifying the Convention on Biological Diversity signed at the Rio Earth Summit on June 11, 1992 and subsequently ratified pursuant to an Order-in-Council on December 4, 1992." According to the Submitters, "under Canadian Law, that Ratification Instrument is a legally binding 'regulation'." In particular, the Submitters allege that "Canada has failed to fulfill the requirements of Article 8(k) of the Biodiversity Convention, which stipulates that each country must 'develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations'." The Submitters further allege that "in ratifying the Biodiversity Convention by regulation, Canada made a legal

ANNUAL REPORT 1997 commitment to be bound by and to perform the requirements of the Convention." The Submitters add that "by failing to fulfill the requirements of Article 8(k) of the Convention, which requires legislation to protect endangered species, Canada is failing to enforce the regulation ratifying the Convention; i.e., it is 'failing to enforce an environmental law'."

Name and citation of the environmental law in question:

P.C. (Privy Council) 1992-1204, 4 June 1992, authorizing specified officials to sign and bring into force the 1992 United Nations Convention on Biological Diversity.

Summary of the notifications to the Submitter(s):

- 1. Secretariat's acknowledgement of receipt of the submission (24 July 1997)
- 2. Request from *Centro Mexicano de Derecho Ambiental* to be added as Co-submitter (13 November 1997)
- 3. Request from Northwest Ecosystem Alliance to be added as Co-submitter (16 December 1997)
- 4. Secretariat's acknowledgement of receipt of the request from *Centro Mexicano de Derecho Ambiental* (19 December 1997)
- Secretariat's acknowledgement of receipt of the request from Northwest Ecosystem Alliance (19 December 1997)
- 6. Secretariat's Determination under Article 14(1) of the NAAEC (26 May 1998)

Status of the process:

The Secretariat is precluded from further considering the submission because it does not assert a failure by Canada to effectively enforce its environmental law. The submission process is terminated.

Submission ID	SEM-97-006
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 "[t]he Government of Canada is failing to apply, comply with and enforce the habitat protection sections of the Fisheries Act and with CEAA (Canadian Environmental Assessment Act). In particular the Government of Canada is failing to apply, comply with and enforce Sections 35, 37 and 40 of the Fisheries Act, Section 5(1)(d) of CEAA and Schedule 1 Part 1 Item 6 of the Law List Regulations made pursuant to paragraphs 59(f) and (g) of CEAA." According to the Submitter the Department of Fisheries released a directive (Directive on the Issuance of Subsection 35(2) Authorizations) which creates "a decision making process which frustrates the intention of Parliament and usurps the role of CEAA as a

ANNUAL REPORT 1997

planning and decision making tool." The Submitter further alleges that "[t]here are very few prosecutions under the habitat provisions of the Fisheries Act and the prosecutions that do occur are very unevenly distributed across the country. In fact there has been a de facto abdication of legal responsibilities by the Government of Canada to the inland provinces. And the provinces have not done a good job of ensuring compliance with or enforcing the Fisheries Act." According to the Submitter, "228 projects were reviewed by the Department of Fisheries and Oceans in the Central and Arctic Region (the Prairie Provinces, Ontario and the Northwest Territories), as of June 21, 1996. For these projects, 78 Letters of advice were issued. The other 150 projects listed were handled by providing advice to provincial or territorial agencies or to the permitting agency."

Name and citation of the environmental law in question:

- 1. Fisheries Act, R.S.C. 1985, c. F-14, s. 35, 37 and 40
- 2. Canadian Environmental Assessment Act, S.C. 1992, c. 37, s. 5(1)(d); 59(f)(g), Schedule 1, Part 1
- 3. Law List Regulations, Item 6, SOR/94-636

Summary of the response provided by the Party:

"Canada submits it is effectively enforcing its environmental laws and is therefore in full compliance with its obligations under the NAAEC. Therefore, the development of a factual record is not warranted. [...]

"Canada rejects [the Submitter's] allegations based on [among others] the following arguments: the method by which Canada enforces Section 35 of the Fisheries Act and the implementing Directives thereof, is a legitimate exercise of its regulatory and compliance discretion as recognized in Article 45 of the Agreement; Subsection 35 (1) is not invoked if no [Harmful Alteration, Disruption or Destruction] HADD occurs; Subsection 35(2) is not required if there is no HADD; Section 37 of the Act is not required and therefore is not invoked where proponents voluntarily provide project information and agree to necessary alterations; Section 37(1) is not invoked if no HADD occurs or is imminent; Section 37(1) of the Act, due to its requirement for Order-in-Council approval in order to effect changes, was never intended to be utilized on a day-to-day basis, but was intended to provide powers to deal with extraordinary situations as is indicated by the requirement for Governor-in-Council approval of Ss. 37(2) orders; Section 40 of the Act is not invoked if Section 35 is not contravened; and, CEAA is not triggered if DFO does not exercise the decision-making authorities of Sections 35(2) or 37(1), (2) of the Fisheries Act as described in the CEAA Law List Regulation. [...]

"Canada contends that the pattern of program implementation and enforcement across the country is appropriate and that current arrangements for the delivery of habitat management are neither a real nor a de facto abdication of legal responsibilities for the protection of Canada's fish habitat in the context of the Canadian federation. Rather cooperation with provinces increases the enforcement resources and allows more effective enforcement." Canada's response provides factual information pertaining to the Sunpine log hauling road cited as an example in the submission. However, Canada submitted that "this matter being the subject of active litigation, it is respectfully suggested that the Sunpine example should not be considered further by CEC."

Summary of the notifications to the Submitter(s):

- 1. Secretariat's acknowledgement of receipt of the submission (28 October 1997)
- 2. Secretariat's Determination under Article 14(1) (23 January 1998)
- 3. Secretariat's Determination under Article 14(2) (8 May 1998)
- 4. Response from the Party (13 July 1998)

Status of the process:

In accordance with Article 15(1) of the NAAEC, the Secretariat is reviewing the submission to determine whether it warrants developing a Factual Record in light of the response provided by the Party on 13 July 1998.

Submission ID SEM-97-007

Submitter(s) Instituto de Derecho Ambiental

Party United Mexican States

Date received 10 October 1997

Summary of the matter addressed in the submission:

The Submitters allege that the Competent Authorities have made omissions in the enforcement of environmental legislation concerning the citizens' complaint *(Denuncia Popular)* filed on 23 September 1996 "in regard to the Hydrological Basin of the Lerma Santiago River-Lake Chapala." The complaint was submitted before Profepa "with a view to declaring a state of environmental emergency in the Lake Chapala ecosystem, following administrative proceedings."

According to the Submitters, Profepa "merely processed the receipt and dispatch of a written document, without carrying out the formalities the case required nor the administrative procedures provided by the LGEEPA (General Law on Ecological Balance and Environmental Protection), which should result in an administrative resolution to finalize the procedure and determine whether the submission made before the Mexican Environmental Justice Administration Authority is well founded."

Name and citation of the environmental law in question:

1. Articles 189-194 of the 1988 General Law on Ecological Balance and Environmental Protection, prior to the amendments *(Ley General del Equilibrio Ecológico y la Protección al Ambiente)* 2. Articles 2, 62 and 53 of the Internal Regulations of Semarnap dated 8 July 1996

Summary of the notifications to the Submitter(s):

1. Secretariat's acknowledgement of receipt of the submission (10 December 1997)

Status of the process:

The Secretariat is reviewing the submission in accordance with Article 14(1).

ANNUAL REPORT 1997

Linking North American Communities

communities

North American Fund for Environmental Cooperation

The North American Fund for Environmental Cooperation (NAFEC), which has made grants totaling C\$4 million, was created in October 1995 by the three North American environment ministers to support community-based environmental projects across North America. In 1997, NAFEC made 35 grants to nongovernmental organizations, ranging from C\$3,600 to \$100,000. The grantees were chosen by the NAFEC Selection Committee, which has two representatives from each country.

NAFEC grants support a diverse set of projects, paralleling the wide range of environmental issues with which North American communities are engaged. In 1997, however, certain themes began to emerge as proposals clustered around specific topics. These tended to reflect both issues of contemporary concern and areas that were perceived as being within NAFEC's niche. The latter included projects that link community and continent or touch on trade and environment questions. Themes included: water (particularly citizen monitoring of water quality and restoration of waterways); migratory species and their habitats; forest management and sustainable agriculture (with an emphasis on certification and marketing of forest and agricultural products); sustainable urban design; and energy (efficiency and renewable sources). NAFEC has begun to explore the possibility of bringing grantees working on similar issues together in order to exchange information, peer review each other's projects, and share the collective results of their work with others.

In 1997, NAFEC grants went to communities across North America, from Alaska to Quintana Roo, but with a concentration in the border areas. Again, in keeping with NAFEC's perceived niche, many bilateral or trilateral projects were proposed and supported. Other communities stayed close to home but made the links by tapping into continental trade channels for sustainably produced products or looking for solutions to problems faced by the continent as a whole.

Most NAFEC projects are carried out over a period of two years. Thirteen of the seventy projects funded so far were completed by the end of 1997. The project holders maintain frequent contact with NAFEC staff, submitting progress reports, press clippings, and materials produced for use in their projects. Results so far include: training of community members in monitoring and restoration; development of ecotourism potential; resource management plans; evaluation of the impact of different agricultural practices and policies; experimentation with new fishing technology; and consensus on standards for forest management certification. In most cases, the work has been documented in a way that will assist other communities facing similar challenges. Information about specific projects and the materials that they have produced is available from NAFEC.

In order to ensure that NAFEC achieves results and that ongoing analysis leads to increased effectiveness, evaluation became a focus in 1997. At the level of individual projects, evaluation strategies were designed to meet the needs of the grantee, NAFEC and the larger community. NAFEC as a whole was also evaluated at the end of the year and a report is available. Efforts in this area will continue in 1998 as NAFEC works together with grantees to more clearly define indicators of successful community-based environmental projects and to explore the ways in which evaluation can help to answer broader questions.

Grants awarded in 1997 include:

 Operation SWIM (Sub-Watershed Investigative Monitoring) (Canada), Clean Annapolis River Project • Increasing Public Participation in Environmental Decisions in Mexico (Mexico/US/Canada), Environmental Law Alliance Worldwide/Instituto de Derecho y Educación Ambiental/West Coast Environmental Law Association • Resources — Quebec Waterways (Canada), Union québécoise pour la conservation de la nature • Stream Restoration Projects in Bertrand and Fishtrap Creeks (US/Canada), Nooksack Salmon Enhancement Association/Bertrand Creek Enhancement Committee • Linking Communities, Wetlands and Migratory birds (Canada/Mexico/US), Wetlands International — the Americas • Sustainable and Participatory Forest Management for **Communities in the Area of the Monarch Butterfly Reserve** (Mexico), Alianza de Ejidos y Comunidades Reserva Mariposa Monarca, A.C. • Production and Marketing of Environmentally Certified Forest Products (US/Mexico/Canada), Rainforest Alliance • Direct Marketing and Trade for Sustainable Management of Resources (Canada/Mexico), National Farmers Union/Union de Organizaciones Campesinas Autónomas • Promoting Organic Coffee Cultivation Using Community Radio (Mexico), Consejo Consultivo de la Radiodifusora XECTZ • Naco Constructed Wetlands Microenterprise Project (Mexico/US), Drylands Institute • St. Regis Mohawk Tribe/Pace Energy Project (US), Pace Energy Project • The Eco-efficient Communities Initiative: Facilitating Greenhouse Gas Emissions Reductions in Small and Mid-sized Communities (Canada), Pembina Institute

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)

The print version of *The State of Canada's Environment - 1996* was completed and released in 1997 (Internet and CD-ROM versions were released in 1996).

In addition to the national report, six new or updated bulletins in Canada's National Environmental Indicator Series were produced in the 1997/98 fiscal year: Sustaining Canada's Forests: Forest Biodiversity; Stratospheric Ozone Depletion update; Climate Change update; Toxic Contaminants in the Environment: Persistent Organochlorines update; Sustaining Marine Resources: Pacific Herring update; Canadian Passenger Transportation update.

The National Environmental Indicator Series, The State of Canada's Environment - 1996, the Ecological Monitoring and Assessment Network (EMAN) as well as the National Ecological Framework for Canada are part of the State of the Environment Infobase which can be accessed from Environment Canada's Green Lane home page at http://www.ec.gc.ca.

In 1997, the province of Manitoba issued its "State of the Environment Report for Manitoba: 1997." These reports are issued on a biannual basis, and all reports from 1991 up to and including 1997 are also available on the Internet.

Article 2(1)(b)

Regional annexes were developed for the Canada-US Joint Inland Pollution Contingency Plan. In addition, the Major Industrial Accidents Council of Canada (MIACC) published the *Cross-Border Emergency Response Guide* pertaining to the movement of all products by all transportation modes from the United States into Canada, and from Canada into the United States and to trans-shipments. The emphasis is on products regulated as dangerous goods or hazardous materials, especially if they require emergency response plans as a condition of shipment. The guide is intended for use by both public and private emergency response planners as an aid to pre-incident planning for cross-border transportation incidents. It also allows the reader to gain a more thorough understanding of response regulations and helps in the identification and formulation of plans to correct possible problem areas.

Article 2(1)(c)

In 1997, Canada continued its work on developing a national framework for environmental education. Environment Canada developed a plan to consult with provinces, nongovernmental organizations and the environmental education community on a set of principles that will provide a framework from which each province, each organization and the federal government can develop sustainability education strategies consistent with their respective mandates. It is expected that this consultation will begin within the coming year.

One major focus for youth participation in environmental projects and decision-making is at the community level. *Rescue Mission Planet Earth* gives high school students the opportunity to assess sustainability in their community and develop and implement personally and locally Agenda 21. It permits them to see the integration between social, economic and environmental issues and that sustainability touches all aspects of human activity.

Canada began pilot testing the Rescue Mission Indicators kit created by Peace Child International in 20 schools. Through this project, students will conduct assessments of their school grounds and immediate surroundings based on 16 sustainability indicators.

In Alberta, two components of the province's Threatened Wildlife Education Program—the Bull Trout and the Northern Leopard Frog—were completed in 1997. The Threatened Wildlife Education Program is one of an array of Alberta Environmental Protection environmental education initiatives enhancing compliance and encouraging public understanding. The Threatened Wildlife program has achieved recognition as one of the top 100 environmental education resources on biodiversity in North America.

Article 2(1)(d)

The Environmental Technology Centre, the Wastewater Technology Centre, and the Canadian Clean Technology Centre undertook activities and programs to further scientific research and technology development with respect to environmental matters in 1997.

In 1997, the Environmental Technology Centre of the Department of Environment continued to coordinate the operations of the National Air Pollution Surveillance Network, dealing with ambient air quality by preparing and distributing quality control/assurance guidelines, measuring acid aerosols, and maintaining an extensive ambient air toxics sampling network.

The Centre undertook a number of other initiatives during 1997 related to witnessing of emission and compliance tests, the development of a method for detection of sulfur dioxide (SO_2), carbon monoxide (CO) and oxides of nitrogen (NO_x) emissions in support of the "Guidelines for Stationary Gas Turbines and Reciprocating Engines," the development of a sampling method for measuring methane leaks from natural gas distribution and transmission stations, and the distribution of an "Auditing and Witnessing Guide for Inspectors."

The Centre measured emissions from diesel engines and various alternative fuels and improved methods to measure complex and hazardous chemicals such as polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and ozone-depleting substances. Research on technologies that prevent and control spills of hydrocarbons and other hazardous chemicals was also performed. The Centre helped to develop regulatory reference methods to measure toxic substances and implemented associated quality assurance programs.

The Wastewater Technology Centre (WTC) applied a significant proportion of its resources in 1997 to the support of departmental priorities. Technical advice and analysis were provided for Priority Substances List II work on chloramine and the textile sector. A substantial effort was applied in support of the endocrine program for municipal wastewaters through the study of selected sewersheds and treatment technologies. The preparation of reference materials and analytical methods for parameters of interest to the Canadian Council of Ministers of the Environment harmonization process will lead to a more consistent application of regulations. The technology protocols for the Environmental Technology Verification Program were developed and tested by WTC and will be used by the verification entities employed by the program. A large investment in conventional and biotechnical solutions to the remediation needs for contaminated sediments, soils and groundwater is ongoing.

The Canadian Clean Technology Centre focuses on the development and implementation of cost-effective technologies and alternative processes for reducing waste, optimizing resources and improving production efficiency. In 1997, the Centre engaged in the following activities: the recovery and reuse of process wastewater without chemical treatment; alternative solvent extraction processes; ion exchange and absorption in process streams that recover specific chemicals; and the recovery and regeneration of industrial cleaning solutions that will extend their useful life.

A study of the business opportunities within the Geographic Information Systems (GIS) sector in Mexico was funded under the Canada-Mexico Agreement on Environmental Cooperation. This study provided background to workshops on GIS which were held in the states of Chihuahua and Guanajuato in July 1997 in collaboration with Semarnap, INE, IMTA, CEC, Geomatics Industry Association of Canada (GIAC) and the state agencies for urban development and environmental management. These workshops provided Mexican officials with a common understanding of geomatics applications and GIS for urban development and environmental management.

Article 2(1)(e)

The Canadian Environmental Assessment Agency (CEAA) is responsible for administering the federal environmental assessment process. In 1997, the Canadian Environmental Assessment Agency managed a total of eight public reviews. In addition, during the same period federal departments and agencies reported, in accordance with their environmental assessment obligations under the Act, a total of 2,910 screenings and 26 comprehensive studies.

47

Environmental assessment is a key tool used by provinces in considering proposed projects. In the province of Alberta in 1997, 23 major resource projects were subject to the environmental assessment process. Environmental impact assessments were completed in 1997 for four projects. Two of those four projects were subsequently subject to a public hearing in 1997.

Article 2(1)(f)

In 1997, the Alberta Used Oil Management Association (AUOMA) was established as a not-for-profit organization to encourage the recycling of used lubricating oil, used oil filters and used oil containers. Alberta government regulation now provides for an industry levy that will be collected by AUOMA from all first sellers of oil materials in Alberta. This money will fund a return incentive program for members of the recycling business, known as collectors/transporters and processors, registered with AUOMA.

Article 2(3)

Benzene and (4-chlorophenyl)cyclopropylmethanone, O-[(4-nitrophenyl)methyl] oxime have been added to the List of Toxic Substances (Schedule I) of CEPA. A regulation has been promulgated for benzene (Benzene in Gasoline Regulations), and the other substance has been proposed for addition to the Schedule of the Prohibition of Certain Toxic Substances Regulations.

Article 3 Levels of Protection

In 1997 Canada amended the following environmental protection regulations:

- 1. The PCB Waste Export Regulations, which consider the conditions for the type of facilities capable of treating and destroying PCB wastes in an environmentally sound manner;
- 2. The New Substances Notification Regulations (dealing with biotechnology products), which address how Environment Canada is to be notified of new substances and the information requirements for products of microorganisms and organisms;
- 3. The Prohibition of Certain Toxic Substances Regulations, which prohibit manufacturing, use, processing, offer for sale, sale and importation into Canada of substances banned for reasons of environmental and health protection; and
- 4. The Gasoline Regulations, which allow for the exemption for all competition vehicles from the restriction on use of leaded gasoline until 31 December 2002.

In 1997, Canada introduced the following new regulations:

- 1. The Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands Regulations, which enable federal departments to measure progress in managing storage tank systems according to the Canadian Environmental Protection Act (CEPA) Section 53 guidelines;
- 2. The Diesel Fuel Regulations, which limit concentration of sulfur in diesel fuel to 0.05 percent by weight; and
- 3. The Benzene in Gasoline Regulations, which reduce the concentration of benzene in gasoline, and which will result in reduced emissions, environmental and human health effects.

The legislation to renew the Canadian Environmental Protection Act, introduced in the House of Commons in 1996, died on the Order papers in April 1997 when the federal election was called. However, work continued in 1997 on preparing the legislation for reintroduction. As part of this process a series of consultations with the provinces and territories, environmental nongovernmental organizations and citizens was held and input was received. Changes were made to the legislation to respond to the many concerns raised and to prepare the legislation for reintroduction.

At the provincial level, a number of regulations and acts came into force in 1997 in provinces that are signatories to the Canadian Intergovernmental Agreement Regarding the NAAEC.

Manitoba's new Contaminated Sites Remediation Act was proclaimed into force on15 May 1997, along with its accompanying regulation. This act is a comprehensive statute which deals with all aspects of the management of contaminated sites, including site investigation, site designation (based on risk assessment), apportionment of liability among parties, and site remediation. The act is based on the "principles for contaminated sites legislation" adopted by the Canadian Council of Ministers of the Environment (CCME) in 1993.

Manitoba's new Used Oil, Oil Filters and Containers Stewardship Regulation came into force on 11 April 1997. Under this regulation, it is illegal to sell oil products in Manitoba unless the person selling the products, or that person's supplier, operates or subscribes to a registered stewardship program (i.e., recycling program). Manitoba has attempted to develop a used oil program that is harmonized with similar programs recently launched in Alberta and Saskatchewan.

Manitoba's Conservation Agreements Act was also enacted in 1997. This act allows a private landowner to enter into an agreement with an eligible conservation agency to preserve a parcel a land, either for a fixed term or for perpetuity, for conservation purposes. Such agreements are then registered on the Land Title and are thus binding on subsequent owners of the land. This type of statute is sometimes referred to as "conservation easement" legislation.

In 1997, the Government of Alberta significantly strengthened its environmental legislation with the proclamation of the Wildlife Amendment Act and the Fisheries (Alberta) Act. These two pieces of legislation will increase protection for endangered species, strengthen enforcement provisions and introduce a progressive aquaculture licensing system into Alberta. Work also proceeded in 1997 on regulations to the Water Act (a major amendment of the Water Resources Act passed in 1996). This will allow proclamation of the Water Act in 1998.

Alberta's Environmental Protection Ministry also began developing a simpler, more efficient and cost-effective regulatory system to support its mandate to protect the environment and manage natural resources in a sustainable manner. The Ministry's Regulatory Reform Action Plan was in its second year of implementation in 1997 in consultation with stakeholders.

In 1997, five new areas were designated under Alberta's Special Places program, which was established in 1995. The goal is to complete, by March 1999, a network of protected areas that represent the environmental diversity of the province's six natural regions and twenty subregions. These areas added 13,248 hectares to Alberta's protected areas system.

49

Environment Canada publishes all of its laws, regulations, procedures, and administrative rulings.

The following regulatory initiatives were published in 1997:

- Amendments to the PCB Waste Export Regulations (February) and the New Substances Notification Regulations (dealing with biotechnology products) (March) were published in *Canada Gazette, Part II.*
- The Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands Regulations (January), the Diesel Fuel Regulations (February) and the Benzene in Gasoline Regulations (November) were new regulations published in *Canada Gazette, Part II.*
- Amendments to the Prohibition of Certain Toxic Substances Regulations (October) and the Gasoline Regulations (October) were proposed in *Canada Gazette, Part I.*

Article 5 Government Enforcement Action

Part A: What's New

- The provinces of Manitoba and Quebec joined the Canadian federal government and the province of Alberta in participating in the North American Agreement on Environmental Cooperation (NAAEC).
- In 1997, Environment Canada (EC) successfully implemented the first phase of the National Enforcement Management Information System and Intelligence Systems (NEMISIS), a new tool for tracking and managing the department's enforcement activities under all federal environmental and wildlife legislation enforced by EC.
- In February 1997, Canada introduced new PCB Waste Export Regulations in response to a PCB import rule introduced by the United States in 1996. Subsequently, in July 1997, the United States closed its borders to PCB imports.
- In October 1997, the Auditor General reported on the federal program to control transboundary movements of hazardous waste, recommending the enhanced enforcement of the Export and Import of Hazardous Wastes Regulations (EIHW) and increased compliance with manifest and certificate of disposal/recycling requirements.
- EC encouraged Canadian businesses to pursue and adhere to internationally recognized environmental management standards (EMS). EMS practices and other voluntary pollution prevention programs such as Environment Canada's Accelerated Reduction/Elimination Toxics Program (ARET) are being adopted by Canadian industries, and as of 31 December 1997, 18 companies had been certified to ISO 14001 standards. Provincial and territorial governments are also using or reviewing international EMS standards as a means of promoting compliance and environmental cooperation nationally.

• While the *1996 CEC Annual Report* stated that a bill was before Parliament that would update and make significant changes to the Canadian Environmental Protection Act (for example, by strengthening enforcement powers), the new act was not passed in 1997 because of a federal election call and is planned to be reintroduced in 1998.

Part B: Hazardous Wastes

Overview

The federal government regulates the international movement of hazardous wastes. A comprehensive notification and manifest tracking program is in place for international movements, consistent with Canada's agreements.

Intraprovincial/territorial transport and the control of hazardous waste generation, recycling and disposal activities are regulated and enforced at the provincial/territorial level. Interprovincial movements, although regulated under the federal Transportation of Dangerous Goods Regulations, are enforced by the provinces. Table 1 lists selected relevant legislation administered by the Canadian signatories of the NAAEC.

Authority	Legislation
Canada: administered by EC and Revenue Canada (Customs)	 Canadian Environmental Protection Act (CEPA), 1988 Export and Import of Hazardous Wastes Regulations (EIHW), 1992 PCB Waste Export Regulations, 1997 Transportation of Dangerous Goods Act (TDGA), 1992
Alberta	 Environmental Protection and Enhancement Act (EPEA), 1993 Waste Control Regulations, 1993 Transportation of Dangerous Goods Control Act, 1982 Transportation of Dangerous Goods Regulations (TDGR), 1985
Manitoba	 Environment Act, 1988 Dangerous Goods Handling and Transportation Act (DGH&TA), 1984 Waste Reduction and Prevention Act (WRAP), 1990
Quebec	 Environment Quality Act, 1991 Regulations Respecting Hazardous Materials, 1997

Table 1: Selected Federal and ProvincialHazardous Waste Legislation

Federal Government

In administering the EIHW Regulations, the EC reviews notification information submitted by companies proposing to import or export hazardous wastes; acts as an intermediary between exporters/importers and the import authorities; tracks transboundary movements; undertakes compliance promotion activities; and enforces the legislation.

In 1997, EC reviewed and processed:

- 1,052 notices for exports of hazardous wastes;
- 199 notices for exports of PCB wastes;
- 6,365 notices for imports of hazardous wastes; and
- manifests and certificates of disposal/recycling for 37,688 transboundary movements.

The level of compliance for the submission of both the consignor and receiver copies of manifests increased to 76 percent from 53 percent since the 1992–1994 reporting period. Similarly compliance for export manifest copies increased from 28 percent to 87 percent during the same period.

For the EIHW regulations, during FY 1996–1997 EC conducted 141 inspections and 18 investigations, issued 5 warning letters, initiated 2 prosecutions, and concluded 7 convictions.

As an example, in March 1997 an Ontario company was fined \$10,000 and ordered to pay another \$20,000 to support environmental education after pleading guilty to illegally exporting spent fluid from steel finishing operations.

EC publishes a biannual newsletter called "Resilog", distributes it to approximately 3,000 subscribers and posts it on the Internet. It highlights hazardous waste activities and legislative changes.

Alberta

In 1997, approximately 134,000 tonnes of hazardous waste were produced in Alberta, of which 71 percent was recycled or reused and 29 percent was treated or disposed of in Alberta. The privately owned and operated Swan Hills Treatment Centre treats the vast majority of hazardous waste in the province and is the only integrated hazardous waste treatment and disposal facility in Canada capable of disposing of all hazardous wastes, except explosive and radioactive materials.

Alberta prohibits the importation, from outside Canada, of hazardous waste for *disposal*, but permits hazardous wastes which are en route to destinations outside of its borders to transit the province. Alberta also permits importation of hazardous waste from within Canada for treatment and disposal at the Swan Hills Treatment Centre. No other facility in Alberta can import hazardous waste for treatment. Only hazardous wastes transported between facilities controlled by the same generator are exempted from manifest requirements.

The Alberta Environmental Protection and Enhancement Act allows for enforcement responses ranging from warnings and tickets, to administrative penalties, Enforcement Orders, Environmental Protection Orders (EPOs), and prosecutions depending on, among other things, the impact on the environment. EPOs are intended to prevent or correct environmental problems and can require offenders to take measures to protect the environment, prepare environmental audits, or submit plans for remedial measures.

Compliance monitoring is undertaken by inspectors from the Industrial Waste and Wastewater Branch of Alberta Environmental Protection (AEP). Investigative activities for hazardous wastes and other legislation are undertaken by 20 investigators working out of six regional offices. Maximum penalties for offenses knowingly committed by an individual are \$100,000 or imprisonment for a period of not more than two years, or both. For corporations, the maximum fine is \$1,000,000. Maximum penalties for strict liability offenses are \$50,000 for individuals and \$500,000 for corporations.

Manitoba

In 1982, Manitoba launched a program to develop a comprehensive hazardous waste management system. Results from studies and public input led to the development of progressive "cradle to grave" hazardous waste legislation and the formation of the provincially owned Manitoba Hazardous Waste Management Corporation. Sold in 1996 to Miller Environmental Corporation (althought the province retains 49 percent ownership), the facility is now one of several hazardous waste disposal firms operating in Manitoba.

Provincial legislation provides for the registration of waste generators, licensing of carriers, manifesting of waste, licensing of treatment and disposal facilities, approval of on-site treatment and disposal facilities, approval of waste collection and transfer facilities, approval of recycling facilities, reporting of accidental releases, and training. Sixty-five provincial environment officers located throughout the province enforce hazardous waste and other legislation, working in cooperation with designated staff from Manitoba Highways and the RCMP.

Individuals found guilty of an offense under the Dangerous Goods Handling and Transportation Act (DGH&TA) can be held liable for a maximum fine of \$100,000, a one-year sentence, or both. By comparison, corporations can face a maximum fine of \$1,000,000 with both individuals and corporations being subject to potential revoking of all or part of their DGH&TA licenses or permits. The vast majority of breaches are dealt with using common offense notices (fixed fine tickets) of a relatively low dollar value.

During FY 1996–1997, 33 formal warnings, 8 Orders, and 2 charges led to 2 convictions under the DGH&TA.

Quebec

Quebec's new Regulations Respecting Hazardous Materials, which came into force 1 December 1997, replace the 1985 Hazardous Waste Regulations.

Quebec's Transportation of Dangerous Substances Regulations adopt, by reference, the standards of the federal Transportation of Dangerous Goods Regulations and enhance particular requirements. Under the new regulations, manifests will be required only for the interprovincial and transboundary transportation of dangerous substances. However, carriers and consignees are now required to prepare annual overviews and to maintain a register on site.

In 1996–1997, 1,962 inspections were conducted under the Hazardous Waste Regulations, leading to 243 notices of violation and 40 requests for investigations. Twenty-seven offenders were ordered by the courts to pay fines ranging from \$300 to \$10,000. Two Montreal residents were fined \$2,000 each for transporting wastes to a nonauthorized site; Industries Super Métal Inc. was fined \$10,000 for storing inflammable residues outside a building without placing them in a container.

Part C: Ozone-Depleting Substances (ODSs)

Overview

In 1989, the Canadian Council of Ministers of the Environment (CCME) agreed to a Canada-wide strategy for the development and implementation of ozone layer protection controls. It was agreed that the federal government would develop legislation and regulations to fulfill Canada's international obligations under the Montreal Protocol and that the provinces would implement emission controls as well as ODS recovery and recycling programs.

All provinces have implemented regulatory requirements to minimize ODS emissions through recovery and recycling, training for equipment service providers, and methods to be used to install, remove, repair or service products containing ODSs. Table 2 lists relevant legislation administered by the Canadian signatories of the NAAEC.

Table 2: Selected Federal and ProvincialOzone-Depleting Substances Legislation

Authority	Legislation
Canada: administered by EC and Revenue Canada (Customs)	 Canadian Environmental Protection Act (CEPA), 1988 Ozone-Depleting Substances (ODS) Regulations, 1995 ODS (Products) Regulations, 1995
Alberta	 Environmental Protection and Enhancement Act (EPEA), 1993 Ozone-Depleting Substances Regulations, 1993 Release Reporting Regulations, 1993
Manitoba	 The Ozone-Depleting Substances Act, 1990 The Ozone-Depleting Substances Regulations, 1994
Quebec	 Environment Quality Act, 1991 Regulations Respecting Ozone-Depleting Substances, 1993

Federal Government

The enforcement of ozone-depleting substances regulations has been a federal priority for the past three years. To this end, EC continued to strengthen partnerships with other law enforcement agencies such as the US Environmental Protection Agency, US Customs Service, and, closer to home, the Royal Canadian Mounted Police (RCMP) and Revenue Canada (Customs).

Recent partnership has yielded positive results. Following a recent joint investigation by the EC, US EPA and US Customs Service, 13 charges were laid in New Brunswick, Canada, against a corporation for the alleged exporting of approximately 70 tonnes of CFCs to the United States. Similar charges were laid against two Canadians in Maine for allegedly illegally importing CFCs. Meanwhile, in Canada City Sales Ltd. was fined \$20,000 for making a false statement to departmental inspectors about the exportation of CFCs to the United States. A former employee of that firm was fined \$2,500 in the United States while the owner was sentenced to 15 months in prison and fined \$28,000 and his wife was fined \$1,500. Canada and the United States also cooperated on the

ANNUAL REPORT 1997 investigation of another Canadian who allegedly illegally exported CFCs to the United States. Their efforts resulted in the successful prosecution of the individual who was fined \$10,000 and is currently serving a two-year jail sentence in the United States.

In 1997, 121 inspections were conducted by EC under the ODS Regulations. Three warning letters were issued for minor regulatory violations, and seven investigations were initiated.

Alberta

The Ozone-Depleting Substances Regulations under the Alberta Environmental Protection and Enhancement Act (EPEA) govern their release, restrict the use of products containing or manufactured with ODSs, and set out training requirements for persons engaged in servicing equipment containing ODSs. Specifically, these persons are required to have training in accordance with the Apprenticeship and Industry Training Act and its regulations which include reporting requirements and a schedule of substances regulated as ODSs.

Releases in excess of 10 kilograms are required to be reported to AEP in accordance with the Release Reporting Regulations.

Breaches of the ODS regulations are subject to a maximum fine for individuals of \$50,000 and \$500,000 for corporations. Over 400 ODS incidents were reported in 1997 and 13 investigations were initiated. Twenty investigators working out of six provincial offices are responsible for responding to contraventions of Alberta's ODS legislation.

Manitoba

Manitoba was one of the first provinces in Canada to adopt a comprehensive program for recapturing, recycling and recovering CFCs and other ODSs. The objective of Manitoba's ODSs Act is to reduce and eventually eliminate the release of ODSs into the atmosphere.

Regulations set specific requirements for the reduction and eventual elimination of ODS emissions and enable only certified technicians to install, repair, service or recover ODSs from equipment containing these substances. Over 5,000 people have become certified technicians since the training requirement came into effect in 1992. Training, certification and permitting of secondary distributors is currently managed by the not-for-profit Manitoba Ozone Protection Industry Association (MOPIA), which also delivers an ODS awareness program to its members and other interested stakeholders.

All releases of ODSs in excess of 10 kilograms are required to be reported to Manitoba Environment. During the implementation period following adoption of the ODSs regulations, the province dedicated significant staff resources to educating industry and enforcing the new law. In recent years, a self-regulatory approach has been implemented for the numerous users of ODSs in the province.

Sixty-five provincial environment officers enforce ODS and other legislation and are responsible for spot-checks and acting upon reports of ODS releases throughout the province. Their work is undertaken in cooperation with MOPIA, which receives annual reports submitted by industries, technicians and secondary distributors.

Quebec

In June 1993, Quebec passed Regulations Respecting Ozone-Depleting Substances to control their use, sale, recovery and recycling. The regulations prohibit, among other things, the use of CFCs in the manufacture of aerosols and the sale of portable extinguishers containing halon. Under the regulations, distributors and repair technicians of equipment containing ODSs, such as refrigerators and heat pumps of two tonnes or greater, are required to recover and recycle CFCs, HCFCs and halons. Effective June 1998, the use of HCFCs will be prohibited for gas sterilization equipment, and, effective January 2000, the use of methylchloroform will be prohibited, except in laboratories and in a few situations set out in the regulations. Violations of the regulations are subject to fines ranging from \$2,000 to \$25,000 for individuals and from \$5,000 to \$500,000 for companies. These fines may be doubled for repeat offenders.

In 1996–1997, 506 inspections were carried out under the Regulations Respecting Ozone-Depleting Substances, leading to 29 notices of violation and one request for an investigation. In December 1997, a contractor was fined \$5,000 for failing to recover an ozone-depleting substance while doing maintenance work on a refrigeration unit of at least two tonnes.

At present, a regulatory review is scheduled for 1998 to implement the amendments to the Montreal Protocol and to harmonize Quebec's regulations with those of the federal government and the other provinces. The review would constitute one of the components of a new protection strategy to control all ozone-depleting substances.

Part D: Wildlife Trafficking

Overview

In Canada, the primary instrument for implementing the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) is the federal Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA). EC issues all CITES import permits; export permits for all CITES specimens leaving the province of Alberta; temporary movement and scientific import/export certificates; and export permits for CITES-designated cultivated plants shipped from the remaining provinces and territories. Except Alberta, all provinces and territories issue export permits for all other CITES species leaving their jurisdiction under bilateral agreements with the federal government. The federal Department of Fisheries and Oceans issues CITES export permits for fish and marine mammals.

Most CITES infractions are investigated by federal agencies, particularly as they relate to wildlife trafficking. In general, Parks Canada monitors wildlife trafficking in national parks; provincial natural resources ministries monitor wildlife in their provincial parks and issue hunting and export permits; and both federal and provincial agencies conduct spot-checks or routine inspections of wildlife businesses, conduct investigations, and undertake intelligence gathering. Table 3 lists a selection of relevant legislation.

Table 3: Selected Federal and Provincial Wildlife Legislation

Authority	Legislation
Canada: administered by EC in cooperation with the RCMP, Revenue Canada (Customs) Agriculture & Agri-food Canada (AAFC), the Department of Fisheries & Oceans (DFO), and Parks Canada	 Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act, (WAPPRIITA), 1996 Migratory Birds Convention Act (MBCA), 1994 Fisheries Act (FA), 1985 Health of Animals Act and Plant Protection Act, 1990 Customs Act, 1986
Alberta	 Wildlife Act, 1984 Willmore Wilderness Park Act, 1980 Wilderness Areas, Ecological Reserves and Natural Areas Act, 1980
Manitoba	 The Wildlife Act (WLA), 1990 The Endangered Species Act, 1990 Ecological Reserves Act, 1990 Provincial Park Act (PPA), 1996
Quebec	 Wildlife Conservation and Development Act, 1983 Parks Act, 1997 Ecological Reserves Act, 1993 Environment Quality Act, 1991 An Act Respecting Threatened or Vulnerable Species, 1989

Federal Government

Over the past several years, EC has increased its efforts to promote compliance with CITES through developing new regulations and educating stakeholders. In 1997, an effort was initiated to increase the effectiveness of *WAPPRIITA* through enhancing the enforcement partnerships of EC with Canada Customs, the Canadian Food Inspection Agency, the RCMP, and provincial wildlife enforcement agencies. In 1997, EC also entered into partnerships with private enterprises and nonprofit organizations for the purpose of increasing public and stakeholder education.

In 1997, a pilot project with Canada Customs effected a marked increase in the number of seizures in targeted ports while significantly improving the quality of service to Canadian importers. Imports subject to CITES were processed in an average of three hours compared with several days previously. The physical examination of shipments increased to 63 percent with 72 percent of the inspected shipments released without necessitating further inspection by EC. Some ports that previously did not report CITES-controlled goods are now issuing reports every month, and more than 28 percent of the decisions taken by customs officers are leading to detentions and seizures. Given the demonstrated effectiveness of the pilot project, the concept will be expanded to other ports.

During FY 1996–1997, EC completed 4,141 inspections and 209 investigations which resulted in 12 prosecutions, 4 convictions and the confiscation of a significant amount of animals, plants and products made from protected wild species. In addition to its activities at home, Canada is becoming increasingly involved in joint initiatives at the international level with agencies and organizations such as the US Fish and Wildlife Service (US FWS), the Mexican Federal Attorney General's Office for Environmental Protection (Profepa), the CITES Secretariat, the World Customs

Organization, and Interpol. Canada is making significant contributions to the preparation and distribution of CITES plant and animal identification guides and participates in international training of wildlife and customs enforcement officers. In partnership with Traffic Asia, Canada is ensuring the availability of the guides in the Mandarin language.

Alberta

The Alberta Wildlife Act provides for the designation of plants and animals at risk according to a four-tier color coding system. The following species are considered endangered in Alberta: Whooping Crane, Western Blue Flag, Peregrine Falcon, Swift Fox, North Leopard Frog, Ferruginous Hawk, Burrowing Owl, White Pelican, Piping Plover, Loggerhead Shrike, Trumpeter Swan, Woodland Caribou, and Bull Trout, four of which fall under the CITES control list.

The act deals with poaching and trafficking in fish and wildlife, with penalties ranging up to \$100,000 and six-months imprisonment. Monitoring and enforcement of the Wildlife Act are undertaken by 115 fish and wildlife officers and 200 ex-officio officers, (e.g., park rangers and forest officers.)

The enforcement activities include public education programs, monitoring a 1-800 hotline, uniform and covert compliance checks and investigations, and fish and wildlife studies. Recently, after two 15-month-long undercover investigations into the alleged illegal trafficking of walleye and moose, elk and deer meat, 185 charges were laid against 37 individuals and 4 businesses. Those charged are now awaiting trial.

Manitoba

The Manitoba Endangered Species Act (ESA) designates plants, animals and other organisms as endangered, threatened or extirpated and provides for agreements to restore populations. Two threatened, six extirpated, and eight endangered species are on the ESA list, including: Baird's Sparrow, Burrowing Owl, Loggerhead Shrike, Peregrine Falcon, Piping Plover, Small White Lady's Slipper, Western Prairie Fringed Orchid, and the Whooping Crane, five of which fall under the CITES control list. Continued decline in some of these species appears to be more the result of habitat loss as opposed to illegal capture and trade. Under the ESA, individuals causing harm to endangered species are liable to fines up to \$5,000, a one-year jail term, or both. Corporations are liable to maximum fines of \$50,000 per offense.

Species that are not endangered but are victims of animal part trafficking are protected under the Wildlife Act. Trafficking offenses are subject to maximum fines of \$50,000, a one-year jail term, or both. In the spring of 1997, the province used DNA evidence for the first time to successfully prosecute two people for harvesting bear parts (gall bladders) by matching blood samples from the bears to materials, including a knife, seized from the accused. Both accused were sentenced to three months in jail.

Approximately 130 natural resource officers located throughout the province 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 between August 1985 and March 1997 received over 3,577 calls, resulting in 676 charges and 144 warnings. During FY 1996–1997, 441 prosecutions were pursued resulting in 340 convictions, with an additional 117 warnings issued for a total of 558 offenses. Of these, only 30 offenses were related to possession of illegally taken animals, and four charges were laid under the trafficking provisions of the Wildlife Act.

Manitoba regulations require import permits for all live animals brought into the province, and the procurement of export permits for all animals shipped out of province. Non-Manitoba residents may use a valid hunting license as an export permit for species not regulated under CITES. In all other cases an export permit is required. In 1997, 1,707 CITES export permits were issued.

Quebec

Residents and nonresidents of Quebec who wish to export animal species protected under CITES must have a CITES export permit. Such permits are required for wolves, black bears, Canada lynx, and polar bears—four species, among others, whose management falls under Quebec jurisdiction and which are listed under the Convention. The most recent statistics available are for 1996, during which 1,168 export permits were issued for black bears, 25 for wolves, 111 for Canada lynx, and four for polar bears.

Quebec participates in a committee composed of representatives from Ontario, the Atlantic provinces, and states in the northeastern United States regularly exchanges information on measures to protect black bears in eastern North America.

Proposed wildlife regulations currently before the Quebec legislature would limit the annual quota to one black bear per hunter and two bears for trappers who hold a lease; place restrictions on hunting and trapping areas and seasons; and prohibit possession of and trade in black bear gall bladders and their derivatives.

Special regulations have also been introduced respecting wild leeks, which have been designated vulnerable in Quebec under the Act Respecting Threatened or Vulnerable Species. The regulations prohibit trade in wild leeks, the harvesting of over 200 grams for personal consumption (approximately 50 bulbs or plants), and all harvesting in protected natural areas. In the spring of 1997, wildlife conservation officers collected 98,872 bulbs through 173 seizures, and made 184 arrests under this act. Provincial natural resource management officers in the federally managed Gatineau Park reported five cases of illegal harvesting and seized 11,475 bulbs that same year.

Quebec has 328 permanent peace officers who enforce wildlife and other provincial legislation across the province. An additional 150 seasonal wildlife peace officers are used during peak periods. Generally, the duties of enforcement staff are divided 50/50 between field work and administrative and legal duties undertaken in the office. The vast majority of their time is spent on patrol, responding to complaints, undertaking inspections and investigations, and conducting search and seizures. It is estimated that on average 10 percent of their time is spent on compliance promotion or joint initiatives with outside agencies.

Sources of additional information:

EC's Green Lane	http://www.ec.gc.ca/
This Report	http://www.ec.gc.ca/enforce/cec97/index
Alberta Internet Site	http://www.gov.ab.ca/~ env/
Manitoba Internet Sites	http://www.gov.mb.ca/environ/index.html
	http://www.gov.mb.ca/natres/index.html
Quebec Internet Site	http://www.gouv.qc.ca/minorg/indexf.htm
Canadian Council of Ministers of the Environment	http://www.ccme.ca/ccme/index.html

Bill C-72, Canadian Environmental Protection Act (CEPA)

Environment Canada. *Canadian Environmental Protection Act: Enforcement & Compliance Policy;* 1994, Ottawa.

Environment Canada. Compliance and Enforcement Report—Volume 1: Six Regulations under CEPA and the Fisheries Act; 1995, Ottawa.

Environment Canada. "Resilog" (a biannual newsletter).

Commission for Environmental Cooperation. 1996 CEC Annual Report; 1997, Montreal.

Alberta. Enforcement of the Environmental Protection and Enhancement Act—January 1–December 31, 1997.

Contact:

National Reporting Officer, Enforcement Branch, Environment Canada Mr. George Pilpe Tel: (819) 997-4712 Fax: (819) 994-0724 e-mail: george.pilpe@ec.gc.ca

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, the Canadian Environmental Protection Act, provides specific statutory authority for a person to apply to the Minister of the Environment for an investigation of 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, the Canadian Environmental Protection Act provides the statutory authority to sue for damages, seek injunctions and request the review of administrative decisions or proposed regulations. Canada will continue to build on its commitment to private access to remedies in the legislation to renew the Canadian Environmental Protection Act.

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 Canadian Environmental Protection Act.

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 I

Objectives

Long-term vision and continuous action are necessary to confront most of Mexico's problems related to the environment and natural resources. During the first three years of the current administration, the Secretariat of Environment, Natural Resources and Fisheries (Semarnap), the government ministry in charge of this area, has increasingly made efforts to impede deforestation, soil erosion, excessive use of fishing resources, water pollution in the country's primary hydrological basins, and air pollution in metropolitan areas. As a result of participative efforts, we are beginning to see concrete outcomes that lay the groundwork for promoting the transition to sustainable development. This serves to corroborate the compatible relationship among economic growth, social well-being, environmental protection and use of natural resources in which each reinforces the other.

During 1997, Semarnap maintained the necessary continuity in programs already initiated, making adjustments when needed. Its structure reflects the three major lines of action expressed by activities carried out during 1997: to limit the deterioration of the environment and natural resources, foster sustainable production, and contribute to public well-being and the fight against poverty.

Limiting deterioration of the environment and natural resources

Limiting the deterioration of the environment and natural resources is the main objective of actions taken by Semarnap. This endeavor does not contradict the objective of economic exploitation of our resources because when the latter is guided by rationality, it can contribute toward defending the very resources being exploited. During 1997, the Secretariat continued the same lines of action specified in previous programs, while strictly adhering to the directives spelled out in the National Plan for Development 1995–2000. These actions, carried out by the institution's various departments, contribute toward defending biodiversity and ecosystems, reviving declining ecosystems, as well as controlling polluting emissions and managing the assimilation and transformation of these emissions by ecosystems.

The general policy principles on which the Secretariat's actions are based include:

- In the protection of ecosystems, as in other spheres of human action, prevention tends to be more efficient and economical than remediation, which attempts to restore what has already been damaged.
- The use of natural resources should be governed by their capacity for regeneration in their natural environment.
- The emission of pollutants and their incorporation into the natural environment should be governed by the environment's capacity to absorb and neutralize them.
- The determination of an ecosystem's level of resistance or the reproductive capacity of a renewable resource is a technical operation that should be carried out independently and rigorously in order to design a strategy for managing the respective ecosystem or resource.

Fostering sustainable production

We are beginning to see some initial evidence in many productive sectors that adopting principles of sustainable development is not opposed to the growth and economic health of both public and private businesses, and, in fact, it can enhance the prospects for both of these goals as greater efficiency and competitiveness are incorporated into productive processes. The transition toward sustainable development clearly implies long-term, profound changes and requires the ongoing efforts of all the involved sectors of society, both producers and consumers. Achieving this change is well worth the effort and is inevitable in the long term. Working toward this goal in a timely fashion will reduce costs to a minimum and yield maximum benefits.

Therefore, Semarnap has consistently maintained the policy of supporting productive activities that facilitate moving toward an increasing level of sustainability and that consequently use their resource base in a more efficient way. Semarnap has primarily concentrated on productive areas corresponding to its immediate sphere of jurisdiction, including forest exploitation and fisheries in their different modalities. These renewable natural resources depend for their replenishment on ecological mechanisms and they must be used wisely so future generations can continue to benefit from them.

The complicated nature of the tasks required to obtain sustainability in the sectors just mentioned is partly a consequence of the need to find the meeting point between the needs implicit in economic rationality for specialization, selectiveness and simplification, and the use of Mexico's extraordinarily diverse, complex resources. What is required is to coordinate economic mechanisms with ecological ones and, in this way, obtain the social benefits this country urgently needs.

The actions taken by Semarnap during 1997, which focused on standards, have been extended to other economic sectors, including a number of different industrial sectors. It is especially in the area of efficient water management that we find one of the primary mechanisms that Semarnap entities have within their reach for working toward a new rationality in both industry and agroproduction.

We know that nearly one-third of the land used for agriculture in Mexico depends on the availability of irrigation water for sustaining production. Approximately half of the value of the country's agricultural production is generated on irrigated land. This, together with other considerations, reinforces the conclusion that careful water use is a strategic national imperative that is extremely important.

Contributing to public well-being and the fight against poverty

Some of the functions that correspond to Semarnap have the primary objective of improving public well-being, and consequently fighting against poverty, but they also contribute toward achieving a better environment and more efficient productive processes. Two groups of high-priority activities are especially worth mentioning in this regard. The first responds to a long-standing tradition of public policies developed not only in Mexico but also in other Latin American countries and consists of providing both urban and rural communities with potable water and basic sanitation services. The second is a more innovative approach and includes a group of integrated regional projects aimed at placing principles of sustainable development into practice on the basis of alternative management of natural resources which are available locally.

Management strategies

The effectiveness of Semarnap's three major strategies mentioned here depend on modern, efficient management characterized by growing levels of public participation and co-responsibility.

During 1997, Semarnap continued to work in this direction, as demonstrated by efforts aimed at: bringing environmental management increasingly closer to the society and modernizing it; developing environmental legislation and promoting compliance with standards; implementing more and better instruments for planning and control; and participating in international issues as they relate to national priorities, without diminishing Mexico's contribution to a new environmental world order.

Society's participation in environmental management—which is part of a more general strategy for reforming the Mexican State—has been expressed in many ways. During 1997, entities created for increasing participation were strengthened. Examples include the Advisory Councils on Sustainable Development and the Technical Councils in the areas of forestry, soil and protected natural areas. Also in this context, there are continued efforts to promote the Watershed Councils. Environmental education and training have been bolstered. State-level agendas have received the necessary attention. A program has been created for addressing the sustainable development agenda (Agenda 21).

There is some progress in the modernization of environmental management that is worth highlighting here. In addition, the decentralization and deconcentration of environmental management have advanced, with management being increasingly placed in the locations where it is needed. Intersector links have been strengthened and there are signs that the difficulties arising when environmental management is highly centralized and sector-based are beginning to be overcome.

There is also significant progress in the development of legislation and compliance with standards. Work has continued in improving the legislative framework through proposals for new laws and regulations. The standardization program has continued to move forward. Inspection and supervision of natural resources and industries have been increased, with initial positive results in terms of closer observance of implemented standards.

Instruments for planning and control play a fundamental role in environmental management when the goal is to become more modern and efficient. During 1997, there have been significant advances in the area of information systems, in accordance with the requirements for planning and for exercising the right to information. The ecological land-use planning of territory has been given a new impetus since modifications were made to the General Law on Ecological Balance and Environmental Protection *(Ley General del Equilibrio Ecológico y Protección al Ambiente*—LGEEPA) at the end of 1996. Something similar has taken place with the Environmental Impact Assessment. The integrated, orderly management of the Maritime-Land Federal Zone (*Zona Federal Marítimo-Terrestre*—ZOFEMAT) has continued to receive priority attention.

International environmental matters, which have become more important since the 1992 Earth Summit, have been addressed according to the criteria that Mexico should continue to actively participate in major forums and international agreements—especially those emerging from the Summit—since these will facilitate the transition toward a world society that is environmentally sustainable. Also, efforts have been made to continue to strengthen international technical and scientific cooperation, both bilateral and multilateral, which is indispensable for consolidating our institutional capacity in environmental planning, regulations and management.

In summary, management strategies used during 1997 have contributed toward assuring the effectiveness of Semarnap's three major strategies. This has been accomplished by resolutely carrying out federal activities with the goal of modern, efficient, participative environmental management.

Article 2

General Commitments

With the modifications implemented in 1997, the LGEEPA recognizes the right to environmental information. It foresees the creation of a National Network of Environmental and Natural Resource Information (*Sistema Nacional de Información Ambiental y de Recursos Naturales*—SNIARN) and the right to obtain information derived from this system. The Pollutant Release and Transfer Register (*Registro de Emisiones y Transferencia de Contaminantes*—RETC), developed as one of SNIARN's components, contains information about the emissions that pollute air, water and land. The register is a basic tool for environmental management that can enable entities belonging to one of the three government branches, as well as industry, to contribute to the prevention and control

of pollution through important actions in the following areas: compliance with environmental standards; assessment and communication of environmental risks; on-site pollution prevention and waste reduction; control of air pollution; management of hydrographic basins; programs for reducing the growth rate of gas emissions from the greenhouse effect (which will contribute to the objectives of the Convention on Climatic Change); prevention of chemical risks; programs for public dissemination of industries' levels of compliance with standards and their environmental performance; industrial self-regulation and certification (ISO 14000, for example); and public access to environmental information.

The Hazardous Wastes Tracking System *(Sistema de Rastreo de Residuos Peligrosos)* was also created within SNIARN's framework, and two information systems were implemented: one on complaints and denouncements, and one on natural resources.

The Report on the General Situation in the Area of Ecological Balance and Environmental Protection (1995–1996)—the biennial report prescribed by the amended General Law on Ecological Balance and Environmental Protection—was prepared. Progress was also made on the Geographic Information System for the Federal Maritime-Land Zone in some of the country's regions. In 1997, the First Report on Air Quality in Mexican Cities (Primer Informe de la Calidad del Aire en Ciudades Mexicanas) was published, and there was a commitment expressed for preparing such a report on an annual basis.

There is public access via Internet to the System of Indicators for Environmental Performance Assessment *(Sistema de Indicadores para la Evaluación del Desempeño Ambiental)* in areas including air quality, hazardous wastes, wildlife, protected natural areas, climatic change, and those based on the "pressure-status-response" focus proposed by the Organization for Economic Cooperation and Development (OECD).

Within the framework of the Program for Addressing Contingencies in Mexico City's Metropolitan Area, 12 contingencies over a period of 37 days were addressed during 1995–1997. A total of 3,792 inspection visits were made to companies incorporated in the contingencies program, and it was found that, on the average, 96 percent of the sites visited complied with the plan for reducing production. The others were subject to a legal review process for determining applicable sanctions.

With the objective of limiting atmospheric pollution in critical areas, the efforts to coordinate actions that had begun in the Valley of Mexico through the Program for Improving Air Quality in the Valley of Mexico (*Programa para Mejorar la Calidad del Aire en el Valle de México*—Proaire) were expanded in 1997 to include the metropolitan areas of Monterrey, Guadalajara and Toluca.

Actions programmed for these areas will facilitate addressing the problem in a timely way in order to avoid serious situations like those in Mexico City in the early 1990s. In the city of Guadalajara, a vehicle verification program was initiated, the environmental contingencies program was revised, and cleaner fuels were made available. In Monterrey, an agreement was signed with the productive sector to reduce particle emissions, and a study was conducted to classify emissions associated with propane gas. Finally, Toluca is the metropolitan area most recently incorporated into a Proaire program. Courses were given for preparing an inventory of emissions and an office was installed for providing program follow-up. Forty-nine synoptic meteorological observatories underwent maintenance and rehabilitation work in order to enhance the meteorological surface network and generate reliable information, especially in maritime zones with high incidences of tropical storms. Information will be disseminated by the National Meteorological Service's Internet site, and immediate communication will be established via Internet with the National Civil Protection System. In addition, ambitious, systematic work in maintaining and improving the hydraulic infrastructure was carried out and will protect urban and productive areas of Mexico City's metropolitan area from flooding.

With regard to emergencies and contingencies linked to natural resources, these situations were addressed more consistently. In 1995, only 7 of 38 contingencies were addressed; however, in 1997, 31 of 46 were addressed.

Environmental education has been consolidated as a powerful instrument for prompting transformations in the collective consciousness and for more effectively involving the population in environmental preservation and sustainable management of natural resources. Among the most notable activities was the Second Latin American Congress on Environmental Education (*II Congreso Iberoamericano de Educación Ambiental*), which made it possible to disseminate and exchange educational strategies for moving toward sustainable development. An initial course on the Globe Program was given for the purpose of enhancing academic processes and motivating the public to participate in environmental management. In addition, courses were given in coordination with universities and high school-level technological institutes. Also, national conferences were organized for Networks of Environmental Educators and for Recreational and Environmental Culture Centers, and support was given to regional and state meetings for environmental educators. Competitions for the Ecological Merit Award and the National Forestry Merit Award have continued to be held. Training for teachers at different levels has been carried out, and pedagogical and didactic recommendations have been prepared, including a focus on the environment in textbooks. Finally, workshops have been held to explain and publicize the LGEEPA modifications.

The National Center for Environmental Research and Training (*Centro Nacional de Investigación y Capicitación Ambiental*—CENICA) was inaugurated. Addressing the country's air quality problems is a special focus of the center's program.

A network of researchers studying aquaculture has been created and maintained. Biotechnological research has been conducted to achieve sustained production of pink shrimp in the post-larval stage, and the technology has been developed for the similar mass production of white shrimp in the Gulf of Mexico. In addition, research was begun to determine the incidence of viruses in cultivated and noncultivated shrimp in the Gulf of Mexico and Pacific Ocean. As a way of supporting producers, the National Center for Sanitary Aquaculture *(Centro Nacional de Sanidad Acuícola)* developed and initiated the production of the polyvalent vaccination for aquatic organisms.

In the interest of helping coastal regions to resolve their specific problems, biological-fisheries research was conducted in regional research centers that are part of the National Fisheries Institute *(Instituto Nacional de la Pesca)*. Technological and scientific work has focused on analyzing the dynamics of species subjected to fishing exploitation and on studying technologies used in fishing crafts.

To encourage better use of land and improved production, projects demonstrating alternative techniques are carried out in pilot centers or in specific micro-watersheds. Some examples are: conservation farming, intensified livestock farming, agroforestry, and the construction of terraces in which the roots of trees and plants reinforce the containing walls.

Based on the LGEEPA reforms, the Environmental Impact Assessment was updated, and there were continued efforts to promote its development and connection to other procedures and methodologies related to regulations and environmental planning, such as the Mexican Official Standards (*Normas Oficiales Mexicanas*—NOMs) and the Ecological Ordinance of Territories and Protected Natural Areas (*Ordenamiento Ecológico del Territorio y las Áreas Naturales Protegidas*). The main objective is for the Environmental Impact Assessment to evolve from a general regulatory instrument that implies high costs for the society to a tool for application in certain relevant cases—without diminishing its effectiveness in protecting the environment and natural resources. The Project for Regulating Environmental Impact Assessments (*Proyecto de Reglamento de Evaluación de Impacto Ambiental*) was prepared to help in this process.

Based on the Forestry Law as reformed in May 1997, links between environmental and forestry legislation are being strengthened, and reforestation is being placed under regulations to reduce any negative environmental impact to the lowest level possible.

Within the framework of the Integrated System for Direct Regulation and Environmental Management *(Sistema Integrado de Regulación Directa y Gestión Ambiental)* implemented in April 1997, there are plans for designing and agreeing upon specific tax incentives that will encourage industries to base their performance on environmental criteria that are more stringent than those required by existing standards.

The Program for Developing Commercial Forest Plantations (*Programa de Desarrollo de Plantaciones Forestales Comerciales*) was implemented and, as a result, the federal government will provide direct economic assistance for developing forest plantation projects. In addition to bringing other benefits, this assistance will help to alleviate climatic changes in the medium term by increasing the absorption of atmospheric carbon dioxide through photosynthesis.

Article 3 Levels of Protection

The goal of Mexican standards has changed from a focus on controlling specific processes to one that promotes preventative actions and is more efficient. This change has occurred as a result of broadening standands' scope and reducing the costs involved with compliance to a minimum level. One of the most significant advances in the Standardization Program (*Programa de Normalización*) during 1997 was in the area of sewage. Forty-three standards regulating the control of individual discharges according to the type of process used were replaced by only two standards aimed at maintaining and improving the quality of the receiving areas. NOM-001-ECOL-1997 was issued for the purpose of regulating sewage discharges into national waters and properties, and two complementary standards were developed for regulating discharges into urban and municipal drainage and sewer systems as well as the conditions required for treated sewage to be used in a number of public services. Currently, most of the standards from the 1997 program are under discussion or have been published as proposals.

Country Reports: Mexico

67

The process to update the current standards in the area of wildlife was begun during 1997. Worth mentioning here are: the Mexican Official Standard (*Norma Oficial Mexicana*) that establishes regulations for scientific collecting of wild plant and animal species, as well as other biological resources in national territory; and the modification of the NOM-059-ECOL-1994 official standard which determines the land areas, bodies of water and the wildlife species and sub-species of flora and fauna to be classified as in danger of extinction, threatened, rare, or entitled to special protection, and includes specifications for such protection.

Also worth mentioning here is the publication of standards for regulating volatile organic compounds used in automobile paint factories; modification of the Mexican Official Standard that regulates polluting emissions from motor vehicles; the development of inventories of emissions of propane gas; and the publication of the standard regulating the installation of systems for capturing the vapors in gasoline stations located in the Valley of Mexico.

The NOM-083-ECOL-1997 standard was published. It establishes the conditions required for landfill sites designated for disposal of municipal wastes. The purpose is to protect the aquifers, the population's health, and neighboring ecosystems.

In order to promote treatment of hazardous wastes for their recycling, proposals are being developed for establishing standards for the handling of polychlorinated biphenyl compounds (PCBs) and used lubricating oils, plus the thermal treatment of solid wastes and hazardous wastes.

In May 1997, the reformed Forestry Law was published. It includes a section for regulating the development of commercial forest plantations.

Proposals have already been made for Mexican Official Standards that will enhance the regulation of activities related to mining, electrical substations, electrical transmission lines, oil exploration and drilling, and underground oil pipelines.

Article 4

Publication

In May 1997, Semarnap's Internet site was introduced. It offers information regarding the environment and natural resources, as well as related policies, programs and other actions. Two compact discs have been produced: Mexican Environmental Summary (*Breviario Ambiental Mexicano*) and the Monarch Butterfly Annual Program for 1996 (*Programa Anual Mariposa Monarca 1996*).

Made available were publications on a variety of topics addressed by this ministry, including annual statistics on fishery and forestry sectors, as well as the *Ecological Gazette (Gaceta Ecológica)*. Satellite transmissions were used to disseminate manuals on reducing wastes created by metal, galvanizing, textile, basic chemical and prescription drug factories, as well as smelters, printers and tanneries.

Article 5 Government Enforcement Action

The Program for Direct Regulation and Environmental Management of Industry (*Programa de Regulación Directa y Gestión Ambiental de la Industria*) was developed for the purpose of reducing effects from industry that are harmful to the environment while making the industrial sector both competitive and environmentally sustainable. This program brings together regulatory aspects, voluntary actions for complying with standards, development of regional centers for assisting industries in environmental management, as well as negotiations for possible tax incentives. Also, an audit program is being implemented as a voluntary instrument for complying with environmental legislation. As a result, it has been possible to motivate excellent environmental performance on the part of industries. Through this program, 458 audits were conducted during 1995–1997; 817 have been conducted since 1992. As well, 115 Clean Industry certificates have been granted to the same number of facilities, both public and private. Of the companies receiving certificates, 71 are exporting industries in the private sector, and in the semi-official sector, the certification of 16 *Petróleos Mexicanos* (Mexico's national oil company) facilities is noteworthy. It is also worth mentioning that all facilities of the major public companies are participating in this program.

In the framework of the Industrial Verification Program, more than 38,200 inspection visits were carried out between 1995 and 1997, representing an 18 percent increase over the previous three-year period. Levels of compliance with environmental standards have improved, as demonstrated by the fact that during the 1995–1997 period closures fell from 4.2 percent of the total number of visits to only 2 percent, and the percentage of companies with slight irregularities increased from 76.1 percent to 78 percent. As part of the Program for Factory Verification of New Motors (*Programa de Verificación de Motores Nuevos en Planta*), during 1997 nearly all of the 170 types of motors produced or imported by the country's 30 auto assembly and production plants passed the verification process.

In the area of inspection and supervision of marine fishing resources, an average of more than 3,300 inspections and more than 4,000 annual operations were carried out. In the 1996–1997 period the installation of devices in the nets of 3,675 shrimp boats for avoiding the capture of sea turtles was certified.

During the three-year period from 1995 to 1997, more than 7,000 inspections were carried out in the area of forestry, with 1,305 special operations and nearly 7,000 systematic rounds of supervision. The results of these efforts include 1,538 resolutions and 1,687 denouncements. In addition, agreements were reached with a number of state governments and, as a result, there have been important gains in the area of inspection and supervision.

In 1997, the Inspection and Supervision Program in Eleven High-Priority Protected Natural Areas (*Programa de Inspección y Vigilancia en Once Áreas Naturales Protegidas Prioritarias*) was initiated, and 55 percent of all the areas included in this program was covered.

During the 1995–1997 period, inspection and supervision activities for verifying appropriate use of wild flora and fauna were increased by nearly 146 percent. In addition, the recuperation of specimens increased by more than 73 percent, and the recuperation of products and by-products was increased by more than 10 times.

ANNUAL REPORT 1997

In the context of the Inspection and Supervision Program for Ports, Airports and Borders (*Programa de Inspección y Vigilancia de Puertos, Aeropuertos y Fronteras*), 138,231 verifications were carried out in 1997 in the area of cross-border trafficking of forest products and wild plant and animal specimens, products and by-products. This has made it possible to detect pests, 31 percent of which were assessed to present high levels of risk for the country's forested areas.

Since 1997, there has been an integrated series of procedures that culminates in the issuing of the Single Environmental License. This is beneficial for the individuals who seek such a license since the number and duration of procedures are reduced.

In the area of fisheries the stability and legal security of fishers and investors have been reinforced through an exhaustive review of records, simplification of procedures, and greater transparency in the administration and granting of titles for accessing fishing resources for longer periods, with permits replaced by concessions. For example, among the actions for regulating the growth of commercial aquaculture is the granting of permission for cultivating different species.

Another important reform was made in relation to Regulations for the National Water Law *(Reglamento de la Ley de Aguas Nacionales).* The objective of these regulations is to strengthen and give autonomy to the watershed councils. They also specify the rules for the transmissibility and time limit of the rights derived from water concessions and allocations, eliminating obstacles to the transmission of rights and promoting investment in this sector.

Article 6 Private Access to Remedies

LGEEPA reforms grant individuals the right to take actions that challenge acts of authority and reduce authorities' power of discretion.

During 1997, the Advisory Councils for Sustainable Development; Technical Councils for Forestry, Soil, and Protected Natural Areas; and Watershed Councils have been strengthened. As advisory bodies, they have formative, analytical, constructive and evaluative functions.

The creation of the Single Environmental License provides greater legal certainty in relation to compliance with environmental obligations. It therefore allows authorities to achieve better coordination among the various areas, to issue resolutions reflecting greater congruence, and to provide greater assurance with regard to the integrated compliance of environmental standards.

To facilitate and maximize company access to the auditing programs, authorities began in 1997 to create regional centers for assisting the business sector with environmental management. These centers provide technical assistance that encourages companies to carry out environmental audits, and they also supervise the audits. In 1997, the System for Identifying Professionals and Companies Trained in Carrying out Environmental Auditing *(Sistema de Identificación de Profesionales y Empresas Capacitadas para la Realización de Auditorías Ambientales)* was formed, and by the end of that year, 572 national and foreign firms were registered.

To facilitate the society's participation in the administration of fishing resources, a National Committee on Fisheries and Marine Resources *(Comité Nacional de Pesca y Recursos Marinos)* was formed, as well as six state committees in coastal states, all of which act as advisory bodies.

Actions harmful to the environment have been classified in the Penal Code as crimes—which was not always the case—in order to protect important resources such as soil, forests and many species of wild flora and fauna, and also to bring together all environmental offenses into a single system of standards in order to increase the potential for ensuring compliance.

The reformed Forestry Law promotes public participation and reinforces mechanisms for authorizing use of wood and non-wood forest resources. Systems of control for the transport of forest products are being improved in the efforts to fight illegal logging. The chapter on sanctions for those who fail to comply with forestry standards is being strengthened, and the sanitation of imported forest products is under regulation and control.

Article 7 Procedural Guarantees

National legislation complies with the procedural guarantees mentioned in Article 7 of the NAAEC. There were no legislative modifications during 1997 that affected those guarantees. However, the reforms to the LGEEPA were published on 13 December 1996 and went into effect the following day. In Chapter 5 of that law, which is entitled "Appeal for Review," Articles 176–181 were modified. Reforms to Article 180 are especially worth addressing here.

In the new Article 180, standing to file an appeal for review is broadened to include all those individuals and organizations in communities affected by administrative acts that violate environmental legal provisions, as long as they demonstrate in the proceedings that such works or activities cause or may cause damage to natural resources, flora and fauna, public health or quality of life.

The text of the Article follows:

Article 180. - With regard to works or activities in violation of the provisions of this law, of ecological land-use planning programs, of decrees establishing protected natural areas, or of the regulations or Mexican Official Standards derived from this law, individuals and organizations from the communities affected have the right to challenge the corresponding administrative acts, as well as demand that the necessary actions be taken in observance of the applicable legal provisions, if it is demonstrated in the proceedings that such works or activities cause or may cause damage to natural resources, wild plants or animals, public health or the quality of life. This right shall be exercised by filing an administrative appeal for review, as outlined in this chapter. [translation]

Based on the reform mentioned here, the affected individuals or organizations can have access to the competent jurisdictional bodies by filing an appeal for review in order to review the resolutions dictated by the administrative authority. This substantially modifies the system of procedural guarantees that had been in force in our country, which was based solely on the protection of concrete

legal interests. Currently, as a result of the reforms, recourse is granted to all individuals and organizations who have a broad interest in an administrative act, regardless of whether they were parties to that act. This new, broader concept of standing is evidenced by judicial decisions recognizing the right of nongovernmental organizations, through their stated objectives, and the right of individuals, through broad standing, to defend the environment through legal remedies.

It is worth emphasizing that the administrative appeal for review is governed by the Federal Law on Administrative Procedure (*Ley Federal de Procedimiento Administrativo*), which grants a broad range of procedural guarantees for the parties involved. Furthermore, this law provides clearer rules of procedure that constrain the competent authorities to decide, in an objective and nondiscretionary manner, on the legal merits of the act that is being challenged.

Reforms related to the right to information in the area of the environment are also relevant here. This right is perceived as adding to the rights of the public. It is in the area of environmental law that the right to information has been most broadly developed, based on the principle that adequate information is necessary for citizens to defend their personal or broad interests in protecting the environment.

The administrative and jurisdictional remedies that individuals have access to concerning environmental matters are: citizen complaints *(denuncia popular)*, administrative appeals, judicial review *(juicio de nulidad)*, as well as a judicial review under constitutional law *(juicio de amparo)*. Country Report on Implementation of the Commitments Derived from the NAAEC

Inited States

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

Mercury Study. On 19 December 1997, the US Environmental Protection Agency (EPA) completed the Clean Air Act (CAA) Section 112(n)(1)(B) mercury study, which directs the Agency to transmit to Congress a study of mercury emissions that considers (1) the rate and mass of mercury emissions, (2) the health and environmental effects of such emissions, (3) control technologies, and (4) the cost of those technologies.

As part of that analysis, the mercury study describes the fate and transport of mercury through the environment and the manner in which mercury bioaccumulates, particularly in the aquatic food web. Due to that bioaccumulation, the most common exposure pathway for humans is through fish consumption. The study notes that most US consumers need not be concerned about their exposure to mercury. Subsistence fishers and women of child-bearing age, however, are cautioned to be aware of advisories that suggest limiting the consumption of contaminated fish.

Completion of the study was hindered by criticism from various groups, who believed that the study relies on inadequate data and on a reference dose that was too stringent. They urged EPA to have the study peer reviewed and to await the results of two ongoing studies on the health effects

of mercury. The Agency sent a draft of the study to the Science Advisory Board (SAB) which suggested some changes, but generally concluded that the study reflects sound science. SAB also concluded that delaying the mercury study to address the two ongoing studies was unnecessary.

State of the Coast Report. During 1997, the National Oceanic and Atmospheric Administration (NOAA) began a major effort to identify the key national coastal and marine ecosystem problems, and solutions for those problems, through a project called the State of the Coast Report. This project will also feed into a broader national ecosystem "report card" initiative spearheaded by the White House Office of Science and Technology Policy (OSTP). The OSTP project targets three major ecosystem areas: forest, agricultural, and coastal and marine.

The report consists of a series of essays on the condition of various coastal areas, pressures that impact the coastal and marine environment, and how damage in some areas has been prevented or repaired. The initial version of the report includes 14 such essays. The final OSTP report card on the health of our national ecosystems is slated for completion in early 1999. The State of the Coast Report system, however, is designed as a long-term tool for coastal resource managers and decision-makers.

Article 2(1)(b) Environmental Emergency Preparedness

On 20 June 1996, EPA published the final rule for Risk Management Programs, which was required under the Clean Air Act Section 112(r). These regulations focus on the prevention of chemical accidents and build on the chemical safety work begun under the Emergency Planning and Community Right-to-Know Act (EPCRA). An estimated 66,000 facilities are subject to this regulation based on the quantity of regulated substances they have on-site. These facilities are required to implement a Risk Management Program and submit a summary of the program (the risk management plan or RMP) to a central location specified by EPA. EPA is currently developing *RMP*Submit*, a computer system to assist the public in accessing the risk management planning information submitted by industrial facilities. Additionally, EPA is developing guidance for state and local officials to assist them in expanding their community right-to-know program to include all chemical risk information submitted under the RMP program requirements.

Toxics Release Inventory (TRI)

1995 TRI Data. The US EPA published the 1995 TRI Public Data Release in April, 1997. The 1995 Reporting Year is the first year for which EPA received data on over 280 chemicals and chemical categories that were added in 1994 to the list of chemicals reportable under EPCRA Section 313. The aggregate on-site releases for the 640 chemicals and chemical categories showed total on-site releases of 1 billion kilograms. Of this total, 71% of the releases went to air, while 12.5% was released to land. Transfers off-site for recycling, energy recovery, treatment and disposal totaled 1.6 billion kilograms of toxic chemicals.

The 1995 TRI data showed continued reductions in the releases of chemicals reported to TRI. Between 1994 and 1995, releases declined by 4.9% or 38.4 million kilograms. The decrease in air releases actually exceeded this amount (40.0 million kilograms), but this drop was off-set by a 11.0 million kilogram increase in underground injections. From 1988 to 1995, total on-site releases decreased 46%, or 608 million kilograms.

Changes in the TRI Program. In an effort to provide greater information to the public, and to meet the concerns of industry, EPA subdivided certain data elements on the TRI reporting form: for underground injection, industry now can report for Class I wells separately from the Class II - V wells; for land disposal, EPA now collects data on RCRA Subtitle C landfills separately from other types of on-site land releases. Recognizing the national and international concern about persistent bioaccumulative toxics (PBTs), EPA began a review to consider the addition of certain PBTs to the TRI list and a lowering of the reporting threshold for those chemicals.

Article 2(1)(c) Environmental Education

The State of the Coast Report system is utilized by NOAA to deliver technical reports and other information to individuals directly involved in managing and studying coastal and marine resources. Recognizing the need to increase general public awareness and education about coastal issues, educational information has been included in the Report system and is being made available both through the Web site and CD-ROMs specifically designed for museums and schools. The *State of the Coast Report* is available at: < http://state_of_coast.noaa.gov>.

Pursuant to the National Environmental Education Act (NEEA) of 1990, EPA has established an environmental education program that provides national leadership for increasing environmental literacy in the United States by encouraging partnerships and building upon long-standing efforts conducted by various federal and state agencies, educational institutions, nonprofit organizations and the private sector. In 1997, the annual grants program awarded seed money to support quality environmental education projects, such as those that improve teaching skills; educate the public about human health problems from environmental pollution; enhance state, local and tribal government agency programs; promote environmental careers; and provide education for communities and the general public.

A cooperative agreement with the North American Association for Environmental Education (NAAEE) for 1995–1998 supports the development of a nationwide program for preparing education professionals to develop and deliver quality environmental education programs. This organization supports K–12 in-service teacher training by developing resource materials, establishing an electronic database of information and education materials, holding workshops, evaluating and disseminating information on "model" education materials and programs, and strengthening partnerships and networks of environmental education professionals.

Under the National Network for Environmental Management Studies fellowship program, students from more than 150 participating universities are encouraged to pursue professional environmental careers through stipends for completing research projects. More than 60 Native American students are receiving Tribal Lands Environmental Science Scholarships to pursue undergraduate and graduate degrees in the environmental sciences. The President's Environmental Youth Awards Program recognizes youth projects across the United States for creating projects that demonstrate their outstanding commitment to the environment, while outstanding career contributions to environmental education are recognized biennially under the National Environmental Education Awards Program.

Article 2(1)(e) Environmental Impact Review

In 1997, the US government prepared 252 draft and 246 final Environmental Impact Statements (EISs) which are comprehensive environmental impact assessments for federal actions, as mandated

by the National Environmental Policy Act (NEPA). The United States continued to increase its use of EISs to address large-scale issues. For example, two draft EISs were prepared in 1997 dealing with the interior basin of the Columbia River, an area the size of France. A wide range of subjects were addressed by these EISs, including air and water quality, wildfire management, fisheries, endangered species, as well as economic activities such as grazing and logging. These EISs also involved unprecedented levels of public participation as well as the extensive involvement of federal, state and local governmental agencies.

Article 2(1)(f) Promoting the Use of Economic Instruments

Emissions Trading. In the 1990s, EPA accelerated the movement toward emissions trading and other economic incentive approaches. These approaches—used in appropriate circumstances and properly designed—can promote better environmental performance and technological innovation while providing industry with the flexibility to reduce pollution in the most economical way. EPA strives to couple this flexibility with accountability, through effective monitoring and enforcement, to ensure that environmental goals are met. EPA is utilizing emissions trading approaches to help solve a variety of environmental problems, including the following air pollution problems:

- Acid rain The acid rain program's system of marketable pollution allowances is designed to
 reduce sulfur dioxide emissions from power plants. In 1997, EPA issued the latest in a series
 of rules to implement this system. Already the trading system is helping to achieve cost-effective reductions ahead of schedule—the annual cost of meeting the full reductions is now
 expected to be between \$2 billion and \$2.5 billion, about half the cost estimated originally.
- Smog and other common pollutants In 1997, EPA announced three new national rules to cut pollution from diesel engines—specifically, final standards for locomotives and for diesel trucks and buses and proposed standards for non-road diesel engines such as bulldozers. The rules will help the nation meet the new air quality standards, issued in 1997, for smog and particulate matter. Rather than requiring every engine family to comply with the standards, the rules provide for averaging, banking and trading, giving manufacturers and remanufacturers the flexibility to meet overall emissions goals at the lowest cost. This approach provides environmental benefit by enabling EPA to set emissions standards at levels more stringent than they would be otherwise.

Under the Clean Air Act, states have the lead responsibility for reducing emissions from industrial facilities that contribute to smog and other common and widespread air pollutants. EPA is cataloging a growing number of state economic incentive programs in the Market Incentives Resource Center Online Directory of Air Quality Economic Incentive Programs < http://www.epa.gov/omswww/market.htm>.

EPA has published guidance for state air programs on ways to use emissions trading in achieving air quality goals and has provided assistance to states developing emissions trading and other economic incentive approaches, both large and small. One example is the RECLAIM program being implemented in the Los Angeles area, which places declining caps on total emissions of sulfur dioxide and nitrogen oxides (NO_x). Another is the budget system being established by the Ozone Transport Commission, which sets a regional limit on NO_x emissions in the northeastern United States and allows companies to comply with their individual reduction requirements through emissions trading. EPA is also working with states to develop a model rule that would expand this type of program throughout much of the eastern United States to reduce the serious problem of ozone pollution and precursor pollutants blowing into downwind areas.

Emissions Averaging of Toxic Air Pollution. Emissions averaging is one of the tools being used to provide compliance flexibility as EPA produces national rules to ensure effective control of all major sources for 188 specific toxic air pollutants. During the past four years, EPA has provided opportunities for averaging in final toxic emissions standards for synthetic organic chemical manufacture, petroleum refining, two categories of polymer and resin manufacturing, printing and publishing, wood furniture manufacturing, primary aluminum production, and aerospace facilities. To avoid shifting risks from one area to another, toxics averaging is allowed only within individual facilities, with appropriate safeguards. Other tools being used to provide compliance flexibility include menus of compliance options and source definitions that allow compliance to be determined across a broader segment of facility operations.

Article 3

Levels of Protection

New National Ambient Air Quality Standards (NAAQS). EPA published two final rules on 18 July 1997 dealing with revisions to the NAAQS. One final rule replaced the one-hour primary standard for ozone with a new eight-hour standard of 0.08 parts per million (ppm), with a form based on the three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentrations. The new secondary standard for ozone is identical to the new primary standard. The revision to the NAAQS for ozone is based on EPA's review of available scientific evidence linking exposures to ambient ozone (at levels allowed by the current NAAQS) to adverse health and welfare effects. To facilitate transition to the new eight-hour standard, the one-hour standard will remain applicable to an area until EPA determines that the one-hour standard has been attained, at which point the eight-hour standard will apply to that area. The other final rule revises the NAAQS for fine particles and by revising the form of the existing twenty-four-hour primary standards for fine particles and by revising the form of the existing twenty-four-hour standard for PM-10. The new suite of secondary PM standards is identical to the primary standard counterparts. Primary NAAQS are designed to protect human health; secondary NAAQS are designed to protect other aspects of environmental quality.

Credible Evidence Rulemaking. On 13 February 1997, the EPA Administrator signed a final rule amending several sections of the Clean Air Act regulations to clarify that these regulations did not prescribe an exclusive method for determining compliance with emission standards. Prior to amendment, these regulations specified that compliance with emission standards "shall be determined" by "performance [reference] tests" contained in the emission standards. The amendment states that any credible evidence may be used for the purpose of establishing whether an emission standard has been violated or for certifying compliance with such a standard. The amendment limits the use of credible evidence through the requirement that the evidence must be relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

Polychlorinated biphenyl (PCB) Import Rule Overturned. On 7 July 1997, the US Court of Appeals for the Ninth Circuit overturned EPA's rule opening the border for import of PCBs for disposal in the United States. The court held that the Toxic Substances Control Act (TSCA) § 6(e)(3)(A) categorically bans manufacture (including import) of PCBs; that, while TSCA § 6(e)(1) authorizes EPA to regulate disposal, such regulation must be done in a manner consistent with the ban; and, therefore, EPA may not promulgate a rule on import for disposal that

violates the ban. The court noted that under TSCA § 6(e)(3)(B) EPA may authorize, by rule, exemptions from the ban for up to one year based on a finding of no unreasonable risk and good faith efforts to develop a substitute. EPA had argued that while § 6(e)(3) gives EPA the authority to allow import for disposal based on an exemption, EPA had promulgated the rule based on its concurrent authority under §6(e)(1), which grants EPA broad discretion to regulate import for disposal consistent with the overall purposes of TSCA. The court was unpersuaded, however, and overturned the rule in *Sierra Club v. USEPA*, No. 96-70223 (9th Cir., 7 July 1977).

Pulp and Paper Cluster Rule. On 14 November 1997, the Administrator signed a combined air and water "cluster rule" for certain categories of mills in the pulp and paper industry. This new, integrated, multi-media regulation is the first issued by EPA to control the release of pollutants to two media (air and water) from a single industry. The final Clean Water Act (CWA) rule establishes effluent limitations guidelines and standards for 96 direct and indirect dischargers in the bleached papergrade kraft and soda and papergrade sulfite subcategories. It sets effluent limits for pollutants in the wastewater discharged from the bleaching process and in the final discharge from the mills based on substituting chlorine dioxide for chlorine in the bleaching process. The new limits are designed to virtually eliminate dioxin discharges and cut toxic air pollutant emissions by almost 160,000 tons annually. The rule allows pulp and paper mills to select the best combination of pollution prevention and control technologies to address both the air and water regulatory requirements at the same time.

Also, EPA is establishing Best Management Practices to prevent spills of black liquor and analytical methods to implement the rule. The CAA actions include final and proposed Maximum Achievable Control Technology (MACT) standards that affect 155 kraft, soda, sulfite, and semi-chemical mills. Finally, the new rule provides incentives for mills to adopt advanced pollution control technologies that will provide toxic pollutant discharge reductions beyond those required by the rule. Mills that volunteer for this program will be subject to more stringent reductions, but will also receive benefits, such as additional compliance time, in exchange for their participation. The rule and additional information on it are available on the Internet at: < http://www.epa.gov/OST/pulppaper>.

Children's Health Protection. The National Agenda to Protect Children's Health from Environmental Threats was announced by EPA Administrator Carol Browner in September 1996. Its objective is to ensure that children receive the protection they need and deserve and to help fulfill the obligation to protect future generations. The Administrator pledged that EPA would select five existing human health and environmental protection standards for review and evaluation to determine if they sufficiently protect children's health.

On 3 October 1997, EPA published in the *Federal Register* a request for recommendations and comment concerning standards that the Agency should select for this review. EPA does not intend to review recently promulgated standards as part of this effort. The standards EPA ultimately will select for review and evaluation will be those that could potentially have a major impact on children's health as a result of reevaluation and revision. These standards would generally be those where children's health was not considered in the original development of the standard; or those where children's health was considered, but new data suggest that the standard does not adequately protect children; or those where, if changes were made in the standard, children's health protection would be strengthened. Under this effort, EPA has convened a balanced, broad-based external advisory committee on various issues related to children's environmental health protection. EPA has asked the Children's Health Protection Advisory Committee, which met for the first time in early December 1997, to recommend five standards for EPA reevaluation with respect to children's health protection. EPA will consider the committee's recommendations and the input received in response to the 3 October notice (which also will be considered by the advisory committee) and plans to announce the final selections in the summer of 1998.

Protection and Sustainable Use of Coastal Resources. NOAA administers the Coastal Zone Management Act (CZMA) of 1972 which, for almost 25 years, has provided an umbrella for voluntary federal-state partnerships to help keep the US coasts healthy and productive. Each coastal state designs and implements its own program, tailored to its unique resources and needs and using its own state authorities while still incorporating national goals. The CZMA also created a system of "living laboratories"—the National Estuarine Research Reserve System (NERRS)—to give coastal managers the scientific information needed to make educated decisions about coastal resources. In 1997, NOAA increased protection and sustainable use of coastal resources by adding two new state programs (Texas and Ohio) to the federal-state coastal zone management partnership, accepting nomination of two new NERRSs in Alaska and Mississippi, and dedicating the newest NERRS (Jacques Cousteau/Mullica River Great Bay) in New Jersey.

Implementation of the Sustainable Fisheries Act. The Sustainable Fisheries Act, which reauthorizes and amends the Magnuson-Stevens Fishery Conservation and Management Act, was signed into law by President Clinton on 11 October 1996. The reauthorized Magnuson-Stevens Act requires the Secretary of Commerce to report to Congress annually on the status of fisheries within the geographical area of authority of each Regional Fishery Management Council and identify those fisheries that are overfished or are approaching a condition of being overfished. The National Marine Fisheries Service (NMFS) issued its "Report on the Status of Fisheries of the United States" in September 1997. The report identified 86 species as "overfished," 183 species are listed as "not overfished," and 10 species are considered to be approaching an overfished condition. For 448 species, the status relative to overfishing is unknown.

The act also requires the designation of essential fish habitat (EFH). The regional councils must assess the impacts of fishing practices on EFH and minimize, to the extent practicable, adverse effects on EFH caused by fishing through management measures contained in their fishery management plans. In December 1997, NMFS issued guidelines to assist the councils in identifying, conserving and enhancing essential fish habitats in federal fishery management plans.

The act prohibits the approval or implementation of a new individual fishing quota program (IFQ) before 1 October 2000 and also directs the National Academy of Sciences (NAS), in consultation with the Secretary of Commerce and the councils, to submit a report on individual fishing quotas no later than 1 October 1998. The report will include recommendations to implement a national policy with respect to individual fishing quotas. The NAS held five public meetings on IFQs in council regions in 1997.

79

What's New

During 1997, the United States has continued to vigorously enforce and promote compliance with its environmental and wildlife protection laws. To implement and enforce national environmental laws, the United States relies on shared authority and cooperative arrangements between the national government and state, local and tribal governments. States and tribes may also enforce their own environmental and wildlife protection laws, which may be more stringent than the national standard, but not less so.

In 1997, the agency referred the largest number of civil and criminal enforcement cases in its history to the US Department of Justice and assessed the largest total amount of civil and criminal penalties in any one-year period in its history—further demonstrating EPA's commitment to achieving a credible deterrent to pollution and greater compliance with the law. The combined 704 referrals for both criminal and civil cases and \$264.4 million in fines and penalties were both the highest one-year totals in the agency's history. At the same time, EPA has also made an unprecedented effort to provide assistance to industry and to encourage self-disclosure of violations to further ensure compliance with health and environmental standards. (For more information please see references at the end of this section.)

For the second year, the Agency also reported data through the "Case Conclusion Data Sheet" on the impact of its enforcement actions in protecting public health and the environment. As a result of EPA enforcement, polluters spent a total of \$1.98 billion to correct violations, take additional steps to protect the environment and clean up Superfund sites. Polychlorinated biphenyl (PCB) pollution was reduced by 260 million kilograms; volatile organic compounds pollution by 28.1 million kilograms; particulate matter pollution by 11 million kilograms; lead pollution by 4.6 million kilograms; benzene pollution by 3.4 million kilograms; asbestos pollution by 450,000 kilograms; and chlorofluoro-carbons (CFCs) by more than 192,000 kilograms.

EPA also greatly increased its use of incentives to achieve industry compliance with environmental laws while promoting the public's right to know. At least 185 companies disclosed violations at more than 457 facilities under the auspices of the agency's self-disclosure (audit) policy in fiscal year 1997. EPA reached settlements with 45 companies at 71 facilities, waiving penalties in many cases where violations were self-disclosed. To date, 234 companies have disclosed environmental violations under the policy at more than 750 facilities nationwide, and EPA has settled with 78 companies at 423 facilities. The agency also continued to implement its reforms to accelerate the pace of Superfund cleanups by making the process fairer and more efficient. It negotiated 103 *de minimis* settlements with 1,800 small waste generators to limit their potential exposure to third-party suits, and offered over \$53 million in orphan share compensation to potential settlers at 20 sites to cover the costs of cleanup for insolvent or defunct responsible parties.

In 1997, the Fish and Wildlife Service of the Department of the Interior conducted an in-depth examination of its permit issuance procedures, refining and updating its data resource capabilities. This review led to a plan for the development and implementation of a national permit issuance and tracking system. The goal of this project is to develop a single system that will allow the Service to implement laws and conserve wildlife resources into the next century. The system will issue and

track permits and species data. Dubbed SPITS (Servicewide Permit Issuance and Tracking System), the program will save staff time, reduce paperwork and thus reduce the cost of issuing and tracking permits. The program will provide needed data relating to the issuance of Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) permits, especially those dealing with the re-exportation of CITES species. Once fully integrated and functional, SPITS will 1) provide more efficient issuance of Endangered Species Act recovery and/or incidental take permits; 2) contribute valuable information for cumulative impact assessments; and 3) allow for more efficient and accurate legal file searches.

Much international attention is being focused on environmental management system (EMS) approaches to meet environmental regulatory obligations and public expectations for environmental performance. EPA recognizes the potential benefits of EMSs for compliance and performance, and encourages the use of EMSs that focus on improved environmental performance and compliance as well as source reduction (pollution prevention) and system performance. EPA continues to stress, however, that adoption or implementation of an EMS by a particular facility or industry is voluntary and "does not constitute or guarantee compliance with legal requirements and will not in any way prevent the governments from taking enforcement action where appropriate" (Council Resolution 97-05). Many of these efforts developed by EPA to encourage adoption of EMSs seek to supplement EMS models, such as that described by the International Organization on Standardization's Specification Standard 14001 (ISO 14001), with specific aspects which focus more directly on compliance as an operational objective, compliance auditing, correction of noncompliance, and public accountability. In its 1997 evaluation of the Environmental Leadership Program (ELP) Pilot Project, for example, EPA's Office of Compliance concluded that "|t|he most effective EMSs include proactive elements focused on operational and compliance assurance processes." In 1997, EPA also promoted implementation by national agencies of the Code of Environmental Management Principles (CEMP) to help national agencies improve environmental performance at their installations. The CEMP principles supplement elements common to many EMS standards with a strong emphasis on regulatory compliance. EPA's National Enforcement and Investigations Center (NEIC) developed guidance on elements for a compliance-focused EMS for inclusion in enforcement settlement agreements. In a landmark settlement, ASARCO, Inc. agreed to establish compliance-focused EMSs at all of its 38 installations in seven states.

EPA has also worked closely with other environmental officials to establish the International Network for Environmental Compliance and Enforcement (INECE), a partnership of environmental professionals from government, international organizations, and nongovernmental organizations (NGOs). The INECE is committed to promote compliance and strengthen enforcement of domestic environmental requirements and international environmental agreements through networking, capacity building and enforcement cooperation.

Hazardous Waste

The Resource Conservation and Recovery Act (RCRA) gives EPA "cradle to grave" authority to regulate and control hazardous wastes by imposing various waste management requirements on generators, transporters and facilities that treat, recycle, store or dispose of hazardous wastes.

Article 5(1)(b) Inspections

• In 1997, there were 2,165 EPA inspections and 12,360 state inspections for hazardous waste.

ANNUAL REPORT 1997

Article 5(1)(c), (e), and (f) Compliance Assistance

- As part of the Agency's continuing effort to provide compliance assistance to the regulated community, EPA funded four new national compliance assistance centers for the transportation, chemical, printed wiring board manufacturing industries, and local governments. Also, nine new notebooks were added to the Sector Notebooks series, which provides comprehensive regulatory and technical information to help industry sectors comply with the law in the most efficient way.
- In partnership with the Chemical Manufacturers Association (CMA), EPA developed a "userfriendly" compliance assistance tool for complying with RCRA requirements relating to organic air emissions standards for hazardous waste tanks, surface impoundments and containers at hazardous waste treatment storage and disposal facilities and hazardous waste generators.
- EPA, in partnership with Mexico's Federal Attorney General for Environmental Protection (Profepa) and the Texas Natural Resource Conservation Commission (TNRCC), held numerous compliance assistance workshops on the Hazardous Waste Tracking System (HAZTRAKS) for the maquiladora industry and US importers of maquiladora waste. Following the workshops, many of the participating companies voluntarily reported violations.

Article 5(1)(d), (f) and (i) Innovations in Data Collection and Analysis of Data

• The Sector Facility Indexing Project (SFIP) is a pilot data integration effort synthesizing environmental records, including hazardous waste information, from several data sources into a system that allows facility-level and sector analysis. The indexing project identifies permits and records associated with over 600 facilities in five industrial sectors, provides data regarding pollutant releases and compliance history for each of these facilities and information on facility size, demographics and toxicity of released chemicals. This project was initiated to provide the general public, as well as state agencies and regulated industries, with greater access to EPA-managed data about the environmental releases and compliance history of individual facilities. This project also provides a mechanism for industrial associations and individual facilities to assess compliance and pollutant release records to improve the design of self-policing programs.

Article 5(1)(b) and (e) Innovations in Data Collection

• EPA and Mexico's National Institute for Ecology (INE) initiated a project to correlate and harmonize Mexico's hazardous waste descriptions with US hazardous waste descriptions and waste codes. When completed, the *HAZTRAKS Waste Code Dictionary* should improve data correlations between EPA and INE on actual waste volumes crossing the border.

Article 5(1)(j) Sanctions and Remedies for Violations of Environmental Laws and Regulations

In 1997, the dollar value of EPA enforcement actions under RCRA was: \$11,683,721 for criminal penalties assessed; \$9,698,368 for civil judicial penalties assessed; \$8,246,982 for administrative penalties assessed; and \$50,611,488 for injunctive relief. The \$13,001,323 for Supplemental Environmental Projects (SEPs) reflects the increasing importance of this remedy in RCRA programs. Also, 25 percent of RCRA penalty actions include a SEP.

United States and the State of Louisiana v. Marine Shale Processors, Inc.

In settlement of one of the largest and most difficult multi-media cases ever brought by the national government (involving RCRA, Clean Water Act and Clean Air Act), the United States and the state of Louisiana shut down Marine Shale Processors, Inc. (MSP), formerly the largest burner of hazardous waste in the country. The settlement also involves a potential purchase of the MSP facility, cleanup of various sites and payment of approximately \$9 million in civil penalties to the state of Louisiana and the national government.

United States v. Hess Oil Virgin Islands Corp.

Hess Oil Virgin Islands Corp. (HOVIC), the refining arm of Amerada Hess Corp. of New Jersey and New York, agreed to pay a total of \$5.3 million in fines and restitution in settlement of a case brought by the national government for violating RCRA by illegally transporting hazardous waste. Some of the 1,402 55-gallon drums involved contained the chemical benzene at levels of 43.4 parts per million (ppm), more than 85 times the EPA regulatory limit of 0.5 ppm.

California v. Coastcast Corp.

Coastcast Corp., a golf club manufacturing company, agreed to pay fines totaling \$375,000 after pleading guilty to one count of improperly transporting hazardous waste (stainless steel shavings) from its Mexicali maquiladora plant through the border at Calexico, California. Under California's environmental code, the metal shavings, containing finely ground chromium, nickel and copper, are required to be handled as a hazardous waste because it can be inhaled and collects in the human body over a period of time.

Chlorofluorocarbons (CFCs)

The Montreal Protocol has been implemented through the Clean Air Act (CAA) in the United States. Provisions that implement, or are related to the implementation of, the Montreal Protocol include the ban on chlorofluorocarbons (CFCs) and the imposition of restrictions on their import and export. In the United States, CFCs are defined under the Toxic Substances Control Act (TSCA) and are not normally considered "hazardous waste," except when CFCs are mixed with nuclear waste at a nuclear facility.

Article 5(1)(c), (e) and (f) Compliance Assistance

- EPA's 1997 compliance and enforcement program selected the automotive service and repair industry as one of its significant industrial sector priorities because of the number of potential threats to the environment from CFC and volatile organic compounds (VOC) emissions, petroleum releases, hazardous waste, Class V (UIC) wells and PCB-contaminated oil. Several new compliance assistance tools were developed for the automotive service and repair industry: a "hip-pocket" guide and checklist to help inspectors and automobile repair shop owners better understand the key national environmental requirements, auto body environmental workshops, voluntary audits conducted by inspectors at auto repair shops, and presentations at automotive trade shows.
- Further efforts to promote compliance include EPA's recently-released video, "Responsible Practices: Servicing and Disposing of Refrigeration Equipment," produced in response to questions from the regulated community. The video provides an overview of the CFC provisions and explains the requirements for safe disposal of air-conditioning and refrigeration equipment.

Article 5(1)(b) Innovations in Data Collection

• EPA is in the process of developing the Chlorofluorocarbon Data Tracking and Targeting Systems (CFTS) to facilitate EPA regional offices' data tracking, targeting and reporting to the Aerometric Information Retrieval System (AIRS), a computerized database management system for airborne pollution in the United States. Use of the CFTS should also facilitate greater consistency and efficiency among the regional offices in reporting compliance assistance, inspections and enforcement data.

Article 5(1)(a) and (b) Building Partnerships for More Effective Compliance Monitoring and Enforcement

• Much of the success in this year's compliance and enforcement program resulted from the effective cooperation between EPA, the US Customs Service (Customs), the Internal Revenue

Service, and the Department of Justice. This successful cooperation, stemming from the 1996 Memorandum of Understanding (MOU) between Customs and EPA, has prompted other nations to propose using the MOU as a model for facilitating environmental law enforcement efforts within their customs services.

Article 5(1)(j) Enforcement Actions

 In 1997, approximately 100 Administrative Orders were issued for CFC violations. Some enforcement actions were taken under the Non-Essential Products Ban for illegal use of ozone-depleting substances in production of foam products; other actions were taken under the Significant New Alternatives Policy for illegal use of a refrigerant substitute.

United States v. Refrigeration USA

In settlement of an enforcement action brought by the United States for violations of national law arising from smuggling over 4,000 tons of CFC refrigerants, the president of Refrigeration USA of Miami and Hannandale, Florida, was jailed, sentenced to pay a fine of \$375,000 and forfeited approximately \$8 million in assets. The company was assessed a fine of over \$37 million.

NHP Management Company (Florida)

The second largest multifamily apartment property management company in the United States, NHP Management Company, Inc. (NHP), was cited for violations of the Clean Air Act (CAA) in a civil case brought by the national government. Violations concerned the use and disposal of CFCs and hydrochlorofluorocarbons (HCFCs), maintenance and repair of air conditioners, failure to use a certified technician for service or repair, failure to use recovery equipment when performing major repairs, and failure to inform a refrigerant supplier of change or employment status of a certified technician. (Case pending)

United States v. Camden Iron and Metal/S.P.C. Corp.

Camden Iron and Metal's subsidiary, S.P.C. Corp., operates a large metal-shredding plant which was cited for failure to verify removal of CFCs from appliances before shredding them. Under a proposed settlement of the enforcement action brought by the national government, Camden Iron and Metal/S.P.C. Corp. will be required to pay a civil penalty of \$125,000 and to recycle CFCs from old appliances.

The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)

The US Fish and Wildlife Service (FWS) relies on the Endangered Species Act and the Lacey Act as the primary domestic legislation to control wildlife imports and exports. The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) is the major international agreement for the control of trade in wildlife and plants.

Article 5(1)(b) Inspections

- 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.
- In 1996, FWS initiated a study into the feasibility of using trained dogs to detect smuggled wildlife. For purposes of the study, the dogs were tested on live parrots, live reptiles and bear gall bladder. After advanced training, the dogs successfully located concealed wildlife, including bear gall bladder, smuggled into the Port of San Francisco, and parrots smuggled across the US–Mexico border. The dogs continue to be used at international mail facilities on the West Coast.

 On two separate occasions, packages containing crystallized bear bile were intercepted at the Los Angeles International Mail Facility. Both packages originated in China and were destined for two herbal/medical businesses in Los Angeles. FWS special agents secured anticipatory search warrants based on controlled deliveries of the packages to the recipients. Subsequent searches of the businesses produced the seizure of over 32 whole bear gall bladders, nearly 1,700 grams of crystallized bear bile, 600 millilitres of liquid bear bile, and hundreds of pills containing protected wildlife products.

Article 5(1)(c) and (e) Compliance Assistance

As part of an outreach program, FWS law enforcement officials visited herb/medicinal shops in San Francisco's Chinatown. Each shop owner was notified of the team's presence and information on FWS regulations was distributed.

Article 5(1)(a) and (b) Building Partnerships for More Effective Compliance Monitoring and Enforcement

- FWS continues to assist the states, Canada, Mexico and other CITES member nations in investigating the illegal commercialization of bear and bear parts. Interdiction of illegal importation and exportation of bear parts is a FWS priority, particularly at the major Pacific Rim ports of Los Angeles and San Francisco, California.
- A Wildlife Task Force, established last year, continues to play a vital role in the detection of wildlife violations, including the illegal trade in Asian medicinals containing protected wildlife. Through the task force, and a similar Herbal Medicine Task Force in San Francisco, training of personnel from the US Customs Service, the Department of Agriculture, the Food and Drug Administration, and others has produced increased passenger, cargo and mail interceptions.
- The interdiction of illegal North American bear parts will require more trilateral interaction. As illegal wildlife products continue to cross the northern and southern borders, the demands on the respective wildlife enforcement agencies will grow. Only by increased border enforcement efforts can the illegal trade be contained and eventually halted.

Article 5(1)(j) Sanctions and Remedies of Violations of Environmental Laws and Regulations

• FWS's ability to curtail the illegal trade in bear viscera received a "shot in the arm" last year when the Ninth Circuit Court of Appeals confirmed the felony conviction of a Washington state man for violating the Lacey Act by illegally trapping bear on US Forest Service land and removing the gall bladders.

Illegal Sale of Human Skulls and Endangered Species

The owner of a New York "boutique" specializing in human and animal bones pled guilty to the illegal sale of the skulls of Native Americans. This individual operated what was considered one of the largest rings in the Northeast involved in the smuggling of human skulls and endangered species. The defendant faces up to 11 years in prison and \$600,000 in fines. Native American and conservation groups expressed outrage over the practice.

Violations of Migratory Bird Treaty Act

A joint initiative with the EPA to reduce migratory bird mortalities associated with oil production facilities was a tremendous success in 1997. The Service conducted aerial surveillance of 42,068 oil and gas wells in four states involving 640 sites. The joint initiative was able to get the vast majority of these sites cleaned up through established partnerships with state, federal and tribal regulatory agencies. The Service has documented 105 sites in violation of the Migratory Bird Treaty Act. The EPA is pursuing numerous Clean Water Act violations, as well as 50 RCRA cases and several Oil Pollution Act cases.

Illegal Fishing at Lake Michigan Fishery

A five-year cooperative effort between FWS special agents, the Wisconsin Department of Natural Resources and the US Attorney for the Eastern District of New York, aimed at protecting the Lake Michigan Fishery was concluded. This undercover operation culminated in the conviction of both commercial fishermen and middlemen who were engaged in marketing illegal fish. Eleven individuals and four corporations were charged and sentenced. Six subjects were convicted of felonies and four of misdemeanors. One subject paid fines totaling \$46,350. One corporation received a felony conviction and over \$325,000 in fines were collected. Five defendants were sentenced to 33 months in prison and nine defendants were sentenced to a total of 42 months home confinement. Ten defendants were ordered to serve a total of 23 years of probation. Six wholesale fish dealers permanently lost their licenses.

References

- Automotive checklist < http://www.ccar-greenlink.org/checklist.html>.
- "Chemical Industry National Environmental Baseline Report 1990–1994," US Environmental Protection Agency, Office of Enforcement and Compliance Assurance, Office of Compliance, Mailcode 2221A, Washington, DC 20460.
- Compliance Assistance Centers and EPA Sector Notebooks -< http://es.inel.gov/comply/sector/index.html or www.epa.gov/oeca/sector/index.html>.
- FY 1997 Enforcement and Compliance Assurance Accomplishments Report < http://es.inel.gov/oeca/accomplish/>
- FY 1997 State-By-State Enforcement Data Summaries; contact Karen Ashe at (202) 564-4121 at USEPA, 401 M Street, SW, Mailcode 2222A, Washington, DC 20460.
- FY 1997 RECAP Measures of Success Management Report < http://www.epa.gov>.
- Haztraks Tracking System Joseph Schultes, USEPA Region 6, Fountain Place, Suite 1200, 1445 Ross Avenue, Dallas, TX 75202-2733.
- Sector Facility Indexing Project < http://es.epa.gov/ocea/sfi> .
- US Fish and Wildlife Service < http://www.fws.gov>.

Article 6

Private Access to Remedies

Article 6(2) Access to Administrative, Quasi-judicial or Judicial Proceedings

Citizen Suits under the Endangered Species Act (ESA). In an important decision on standing, a unanimous US Supreme Court ruled on 19 March 1997 that plaintiffs alleging economic harm have standing to challenge federal agency compliance with the ESA and the agency's biological opinions under the ESA citizen suit provision (*Bennett v. Spear*, No. 95-813). Section 7 of the ESA, among other things, requires all federal agencies to ensure, in consultation with the FWS or NMFS, that actions they authorize, fund or carry out are not likely to jeopardize endangered or threatened species. Under Section 4, the FWS can designate "critical habitat" to protect endangered species.

In this case, the Court found that two irrigation districts and two ranchers had standing to challenge the adequacy of FWS's Section 7 actions in connection with the Klamath Irrigation Project operated by the Bureau of Reclamation, as well as more general FWS administration of the ESA. The Court

also determined that biological opinions issued by FWS (at least those accompanied by authorization of an incidental "take" of protected species) constitute "final agency actions" for purposes of Administrative Procedures Act review because the opinion is the "consummation" of the FWS decision-making process and "rights and obligations are determined" by the action. This opinion clarifies that plaintiffs may challenge both the adequacy of a FWS biological opinion and the ultimate decision by an action agency on how it will proceed in light of the biological opinion.

EPA Grants Citizen Petition Challenging an Operating Permit under CAA Title V. On 10 September 1997, the EPA Administrator responded for the first time to citizen petitions regarding the CAA operating permits issued by the Louisiana Department of Environmental Quality (LDEQ) for a new polyvinyl chloride production facility in Convent, Louisiana. The petitions were submitted by the Tulane Environmental Law Clinic and Greenpeace under Title V of the CAA and challenged numerous provisions of the permits for alleged failures to comply with applicable requirements of the act.

To justify an objection to a Title V permit, a petitioner must demonstrate that the permit is not in compliance with the requirements of CAA. In the Order responding to the citizens' petitions, the EPA Administrator determined that petitioners had identified one technical deficiency justifying the Agency's objection to the permits. However, the Administrator further found that petitioners had failed to demonstrate that the other alleged technical deficiencies described in the petitions warranted objection by EPA. The Administrator accordingly granted the petitions with respect to the one technical deficiency identified by petitioners while denying the petitions with respect to the remaining technical claims. This represents the first citizen petition for objection to a Title V permit that an EPA Administrator has granted.

1997 Financial Review

1997 Audited Financial Statements

Table of Contents

Auditors' Report	89
Balance Sheet	90
Statement of Revenue and Expenditures and Operating Deficiency	91
Statement of Capital Surplus	92
Statement of North American Fund for Environmental Cooperation	92
Statement of Changes in Financial Position	93
Notes to the Financial Statements	94-95
Schedule	96

Auditors' Report

To the Council of the Commission for Environmental Cooperation

We have audited the balance sheet of the Commission for Environmental Cooperation as at December 31, 1997 and the statements of revenue and expenditures, operating deficiency, capital surplus, North American Fund for Environmental Cooperation 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.

Samson Bélair Deloitte &

Touche

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, 1997 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.

Someon Selei Delitte + Touche

Chartered Accountants Montreal, Quebec, Canada March 20, 1998

s at December 31, 1997 (in Canadian dollars)	1997	1996
	\$	\$
Assets		
Current assets		
Cash and term deposits	3,117,027	5,077,953
Receivables (Note 3)	1,592,309	1,094,503
Contributions receivable (Note 4)	443,051	2,109,926
Prepaid expenses	38,738	23,031
	5,191,125	8,305,413
Capital assets (Note 5)	569,661	722,420
	5,760,786	9,027,833
Accounts payable and accrued liabilities Contributions received in advance (Note 6) Contributions refundable	1,030,878 - 374,511	932,231 1,324,104 340,826
	1,405,389	2,597,161
Deferred revenue	1,443,946	1,079,173
Deferred contributions (Note 7)	1,780,337	2,800,920
North American Fund for		
Environmental Cooperation	1,362,614	1,598,240
Operating (deficiency) surplus	(801,161)	229,919
Capital surplus	569,661	722,420
	5,760,786	9,027,833

Commitments (Note 8)

Statement of Revenue and Expen	ditures	
and Operating Deficiency		
Year ended December 31, 1997 (in Canadian dollars)	1997	1996
	\$	\$
Revenue		
Contribution - Canada	4,125,000	4,125,000
Contribution - Mexico	4,125,000	4,125,000
Contribution - United States	4,125,000	4,125,000
Internally generated funds	929,709	786,097
Other revenue	193,208	240,328
	13,497,917	13,401,425
Expenditures		
Expenses related to work program - Schedule	2,219,116	3,275,026
Expenses related to specific obligations - Schedule	643,163	499,658
Expenses related to the Council meetings - Schedule	146,169	244,926
Expenses related to the public meetings - Schedule	205,971	159,577
Expenses related to the JPAC - Schedule	142,501	110,407
Expenses related to the Directorate operations - Sched	lule 186,941	249,691
Expenses related to North American Fund		
for Environmental Cooperation	164,150	167,907
Expenditures related to contingency fund	62,641	73,979
CEC Resource Center	97,417	-
Publishing and Web site	332,019	265,253
Public outreach	251,114	132,286
Technical editing	359,689	136,125
Salaries and fringe benefits		
Program related	2,072,071	1,995,079
Departmental operations	1,746,287	1,797,537
Relocation and orientation expenses	50,967	73,533
Traveling expenses	-	12,968
Training expenses	20,978	37,973
Office expenses	235,145	202,201
Telecommunications	166,228	183,274
Systems support	81,817	85,976
Rent, utilities and office maintenance	475,915	484,632
Administrative fees	95,005	145,271
(Gain) loss on foreign exchange	(112,371)	52,219
Contributions transferred to capital surplus	74,647	215,007
	9,717,580	10,600,505
	0 700 007	0.000.000
Excess of revenue over expenditures	3,780,337	2,800,920
Transferred to the North American Fund for	(9,000,000)	
Environmental Cooperation	(2,000,000)	-
Contributions transferred to the following	(1 700 007)	
year budget (Notes 2(b) and 7)	(1,780,337)	(2,800,920)
Contributions from prior year	2,800,920	3,281,863
Expenditures related to prior year commitments - Schedule	(3,457,489)	(2,711,118)
Contributions refundable	(374,511)	(340,826)
Operating (deficiency) surplus for the year	(1,031,080)	229,919
Operating surplus, beginning of year	229,919	-
Operating (deficiency) surplus, end of year	(801,161)	229,919

ANNUAL REPORT 1997

Statement of Capital Surplus

led December 31, 1997 (in Canadian dollars)	1997	1996
	\$	\$
Balance, beginning of year	722,420	686,212
Add:		
Contributions for the acquisition of capital assets		
- transferred from operations	74,647	249,904
- transferred from 1996 contributions	53,140	-
Deduct:		
Amortization of capital assets	(280,546)	(213,696)
Balance, end of year	569,661	722,420

Statement of North American Fund for Environmental Cooperation

ar ended December 31, 1997 (in Canadian dollars)	1997	1996
	\$	\$
Balance, beginning of year	1,598,240	2,000,000
Transfer from operations	2,000,000	-
Grants disbursed	(2,235,626)	(401,760)
Balance, end of year	1,362,614	1,598,240

Statement of Changes in Financial Position

Year ended December 31, 1997 (in Canadian dollars)	1997	1996
	\$	\$
Operating activities		
Operating (deficiency) surplus for the year	(1,031,080)	229,919
Items not affecting cash		
Contributions transferred to the		
following year budget	1,780,337	2,800,920
Contributions from prior year	(2,800,920)	(3,281,863)
	(2,051,663)	(251,024)
Changes in non-cash operating working capital items	(38,410)	(80,873)
	(2,090,073)	(331,897)
Financing activities Change in North American Fund for Environmental Cooperation, net Contributions for the acquisition of capital assets Change in deferred revenue	(235,626) 127,787 364,773 256,934	(401,760) 249,904 454,000 302,144
Investing activities		
Acquisition of capital assets	(127,787)	(249,904)
Net cash outflow	(1,960,926)	(279,657)
Cash position, beginning of year	5,077,953	5,357,610
Cash position, end of year	3,117,027	5,077,953

Year ended December 31, 1997 (in Canadian dollars)

I. Nature of activities

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

2. Significant accounting policies

(a) Financial statement presentation

All transactions related to capital assets, including amortization, are presented in capital surplus. The operating results are included in operating surplus. Contributions for the purchase of capital assets which form part of the contributions from the Parties are charged to operations and transferred to capital surplus.

(b) Contributions

The Government of Canada, the Government of the United Mexican States and the Government of the United States of America (the Parties) contribute an equal share to the Commission's annual budget.

Funds contributed remain available for twelve 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.

(c) 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%

(d) 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.

(e) 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.

3. Receivables

A portion of these receivables (\$1,430,112; \$967,235 in 1996) relates 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 sales taxes paid on purchases are reimbursed. An agreement with the federal government was signed in June 1997 establishing the right to reimbursement of GST and HST taxes from June 1997 forward. A Remission Order will be required for reimbursement of GST and HST taxes paid prior to this date. As of 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.

4. Contributions receivable

	1997	1996
	\$	\$
Mexico	443,051	-
Canada	-	2,109,926
	443,051	2,109,926

5. Capital assets

		1997		1996
		Accumulated	Net Book	Net Book
	Cost	Amortization	Value	Value
	\$	\$	\$	\$
Computer equipment	438,664	195,654	243,010	243,530
Computer equipment and				
software - projects	117,583	47,929	69,654	85,826
Computer software	81,476	38,126	43,350	41,213
Furniture and fixtures	361,199	222,925	138,274	205,315
Telephone system	97,986	81,920	16,066	45,462
Equipment	123,823	116,982	6,841	43,988
Leasehold equipments	63,327	10,861	52,466	57,086
L	1,284,058	714,397	569,661	722,420

6. Contributions received in advance

	1997	1996	
	\$	\$	
United States	-	1,215,300	
Mexico	-	108,804	
	-	1,324,104	

7. Deferred contributions

For the financial year 1997, contributions available to discharge related obligations during 1998 amount to \$1,780,337 (1996 - \$2,800,920). These contributions are presented as deferred contributions in the balance sheet.

8. Commitments

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

	\$
1998	303,550
1999	346,902
2000	390,254
2001	433,606
2002	476,958
2003 and thereafter	984,008
	2,935,278

The Commission has the option to cancel the lease upon payment of a penalty that ranges from \$735,000 to \$195,000 over the years 1999 to 2003.

(b) The Commission has commitments of \$1,808,000 relating to environmental projects as of December 31,1997. The commitments by financial reporting category are as follows:

	Ş
Direct projet costs	1,208,000
Specific obligations under NAAEC	40,000
Publishing and Web site	173,000
Directorate operations	12,000
Administrative fees	31,000
Public outreach	170,000
Council	7,000
JPAC - public meetings	21,000
JPAC - operations	5,000
NAFEC management	3,000
Contingency fund	138,000
Total commitments	1,808,000

9. Prior year figures

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

ANNUAL REPORT 1997 Expenses Related to the Work Program, Specific Obligations under North American Agreement, Council Meetings, Public Consultation, Joint Public Advisory Committee (JPAC) Meetings, Directorate Operations and Prior Year Commitments

l December 31, 1997 (in Canadian dollars)	1997	1996
	\$	S
Work program		
Professional fees	1,153,213	1,648,687
Traveling, accommodation and meeting expenses	717,730	976,944
Translation and interpretation	183,493	337,527
Office expenses	164,680	311,868
	2,219,116	3,275,026
Specific obligations under North American Agreement		
on Environmental Cooperation		
Professional fees	344,805	299,899
Traveling, accommodation and meeting expenses	203,639	106,203
Translation and interpretation	63,677	82,468
Office expenses	31,042	11,088
	643,163	499,658
Council meetings Traveling, accommodation and meeting expenses	50,336	65,562
Translation and interpretation	78,715	104,620
Office expenses	17,118	74,74
	146,169	244,920
	,	,
Public consultation		07.07
Professional fees	35,068	27,87
Traveling, accommodation and meeting expenses	76,763	80,57
Translation and interpretation	52,214	20,14
Office expenses	41,926	30,98
	205,971	159,57
Joint Public Advisory Committee (JPAC) meetings		
Traveling, accommodation and meeting expenses	107,287	46,83
Translation and interpretation	28,618	30,28
Office expenses	6,596	33,283
	142,501	110,40
Directorate operations		
Professional fees	18,187	70,723
Traveling, accommodation and meeting expenses	132,663	147,34
Translation and interpretation	16,259	8,95
Office expenses	19,832	22,66
	186,941	249,69
Expenditures related to prior year commitments		
Professional fees	2,565,610	2,439,36
Traveling, accommodation and meeting expenses	288 ,771	86,47
Publications and communications	208,925	74,084
Translation and interpretation	188,665	49,56
Program funding	140,000	-
Office expenses	12,378	26,73
Contributions transferred to capital surplus	53,140	34,897
	3,457,489	2,711,118

III Looking Ahead

Four-year Review of NAAEC and review of A Shared Agenda for Action

for action

In 1997, four years after the signing of the North American Agreement on Environmental Cooperation (NAAEC), the Council of the CEC initiated a review of the operation and effectiveness of the Agreement in accordance with Article 10(1)(b). The Council appointed a trinational Independent Review Committee of the NAAEC, composed of León Bendesky, Barbara Bramble and Stephen Owen, to assist the Council in its evaluation. The Committee produced a report for the Council that was made public during the 1998 Council session in Mérida, Mexico.



The Council, at that session, reviewed the operation of the Agreement in light of the Committee report as well as input received from the Joint Public Advisory Committee and the public. The Council, based on its review of the first four years of operation of the Agreement, agreed on a plan of action, entitled A Shared Agenda for Action, which maps out the future direction of the CEC.

A Shared Agenda for Action: A Statement on the Future Work of the Commission for Environmental Cooperation

Mérida, Mexico, 26 June 1998

The three North American environment ministers have reviewed the implementation of the North American Agreement on Environmental Cooperation during its first four years, as well as the operations and effectiveness of the Commission for Environmental Cooperation (CEC).

We have listened to comments and advice from a wide range of people, and particularly want to thank the Independent Review Committee and the Joint Public Advisory Committee. The CEC is a unique and valuable institution. It represents the state of the art in considering environmental issues in trade agreements, and it has a mandate to promote sustainable development. The CEC brings together two members of the G-7 group of industrialized nations and Mexico, still in many ways a developing country. This grouping of nations provides a microcosm of many of the problems of sustainable development facing the world today. The discussion of sustainability through the CEC provides for direct public input from the citizens of all three countries.

The Commission launched a wide range of projects in its first four years and has many successes to its credit. It is now time for the CEC to further sharpen its focus. This document begins the process of developing a longer-term and more strategic approach to the work of the CEC.

This framework builds on the CEC's strengths. It is trinational and should continue to focus its work on issues of common importance to the three countries. It has the concept of sustainable development at its core and is therefore in an ideal position to identify policies that can promote environmental sustainability.

The CEC is a new institution within a forest of international organizations and so must continue to select its niche with care, avoiding duplication with other institutions supported by the three countries and building upon their work where appropriate. It has shown an ability to leverage its limited financial resources and use them to stimulate financial commitments from larger organizations. It can deliver projects "on the ground" and build capacity for environmental management. Because of its emphasis on public participation, the CEC can develop partnerships with the private sector and other actors in civil society.

Given the CEC's resources, it needs to focus on a limited number of projects. The Commission should aim to produce tangible results from some of its projects each year. It will also make capacity building an important part of the work program.

The following two priority areas will be the focus of the CEC's workplans over the next several years: Pursuing Environmental Sustainability in Open Markets and Stewardship of the North American Environment. Trade liberalization that is supportive of environmental priorities can be helpful in achieving sustainable development. It can provide additional financial resources for environmental protection, and it can provide meaningful employment opportunities for the disadvantaged. It can facilitate the importation and use of the cleaner and more efficient technologies necessary for the transition to sustainable development and open new market niches for environmentally friendly products.

But, freer trade without robust national environmental policies can also accelerate environmental degradation. There have been fears that it could lead to a "race to the bottom" if countries lower their standards in order to remain competitive and attract foreign investment, and it could lead to unsustainable consumption of natural resources.

However, enlightened management of the trade and environment relationship can result in improved conditions in both sectors. The CEC can help governments to formulate actions and policies that promote the kind of trade that supports sustainable development. It can help governments to monitor trends in domestic legislation and compliance to ensure that domestic laws are being effectively enforced. The Commission can assist the three countries by facilitating cooperative efforts in ensuring compliance.

Pursuing environmental sustainability in open markets includes the following areas of concentration: promoting trade in environmentally friendly goods and services; exploring the linkages between environment, economy and trade; environmental standards, enforcement, compliance and performance; and regional action on global issues.

Promoting Trade in Environmentally Friendly Goods and Services.

The market for cleaner, environmentally sound technologies is estimated at over US\$250 billion annually in the OECD countries alone. North America has only scratched the surface of the potential for "greener trade."

It is important to find ways to make biodiversity conservation more economically viable. Increased legal trade in wildlife, if managed sustainably, can provide resources to preserve and enhance biodiversity in the three countries. As part of seeing that such trade does not harm biodiversity, the CEC should facilitate cooperative efforts by the countries to meet their obligations under the Convention on International Trade in Endangered Species of Wild Flora and Fauna, to prevent illegal trade in endangered species.

Properly managed, ecotourism can also bring badly needed financial resources to North America's poorest regions. It can provide employment and preserve biodiversity and natural beauty.

More sustainable forms of agriculture provide products for emerging markets. For example, coffee that is planted together with trees, rather than in open fields, can help preserve biodiversity, particularly bird life.

The new project on byproduct synergy promises a pioneering experiment among private entrepreneurs by encouraging industries to exchange, recycle or minimize the creation of materials that are now discharged as wastes. A material that is a waste to one company may be used as a product by another company.

Exploring the Linkages between Environment, Economy and Trade

The CEC will study the positive and negative outcomes for the environment of NAFTA on an ongoing basis. In addition, the CEC will work toward identifying emerging trends related to the environment resulting from expanding economic activity. Identification of these trends will enable the CEC to examine ways in which the Parties can foster policies that benefit the environment and support the development of regional and domestic responses to adverse trends.

The CEC will work with other NAFTA bodies and appropriate international institutions to ensure that trade and environmental policies are mutually reinforcing.

Environmental Standards, Enforcement, Compliance and Performance

Experience has shown that it is extremely difficult to compare environmental performance among countries, or even among regions of the same country. Standards are different, pollutants are monitored differently, and legal systems differ. The CEC should therefore build on its existing work on enforcement cooperation. The CEC should concentrate on:

- The analysis of trends in each country's performance to establish a baseline.
- Compliance assistance and information sharing.
- Development of compliance indicators that show real changes in environmental performance.
- The promotion of improved performance through helping to develop expertise in government environmental management systems, voluntary agreements and ways to improve environmental standards.

Regional Action on Global Issues

Π

There is a realization that the traditional "command and control" approach to environmental protection needs to be supplemented by the use of economic instruments and other market-based approaches. North America has a wealth of experience in this area.

The solutions to global environmental problems will require new partnerships between North and South. Because of its unique structure, the CEC can provide leadership in the development of some of these partnerships.

For example, the Kyoto Protocol on climate change calls for the creation of a Clean Development Mechanism. Within the framework of the protocol, the CEC will work with the three nations and the private sector to develop North American opportunities for the Clean Development Mechanism. The three countries would involve the private sector in efforts to disseminate more environmentally friendly energy technologies. The CEC will also look at how to maximize the potential for carbon "sinks," such as forests.

Stewardship of the North American Environment

North Americans are trustees of an amazing range of terrain, climate and marine, and terrestrial ecosystems. For example, Mexico's biodiversity places it among the 10 "megadiversity" countries in the world. Many of the problems that affect the continental environment are national, and many are shared by two of the three countries. However, a number are spread across the continent as a whole. It is these problems that should concern the CEC.

Stewardship of the North American environment includes: identifying trends in the North American environment; protecting human and ecosystem health; and sustaining North American biodiversity.

The North American Environment — Identifying Emerging Trends

The CEC will continue to provide an important service by identifying emerging threats to the shared environment, thus allowing governments to anticipate these problems and prevent them before they happen. This effort will help governments to move away from the traditional, and more expensive, "react and cure" approach. Identifying emerging threats could be done initially through a regular "issue scan," prepared by leading authorities from the three countries. Because of the

interdependence of the region's environment and its economy, such a scan would need to take account of economic, as well as environmental, trends. The environmental effects of deregulation of the electricity sector could be a case in point. The CEC's State of the Environment Report could provide one of the bases for the scan.

Protecting Human and Ecosystem Health

Here, the CEC has an excellent record of achievement and a number of continuing programs and projects such as:

- Cooperation on North American Air Quality Issues;
- The Sound Management of Chemicals; and
- The North American Pollutant Release and Transfer Register and the *Taking Stock* reports.

This work will continue to provide a critical part of the continuing program of the CEC.

Sustaining North American Biodiversity

The CEC has also made a promising start in this area through its work with the North American Biodiversity Information Network, the mapping of ecologically significant areas, and the drafting of a North American cooperative strategy for birds. This could be used as a platform to move toward:

- developing and applying a set of basic "conservation status" indicators; and
- building capacity to help the countries meet their biodiversity objectives.

Bearing in mind the complexity of the issue and the number of existing North American activities in this area, a scoping study is required to lay out other future program options in this area.

Implementing the Agenda for Action

Developing a Strategic Plan and Three-Year Project Cycle for the CEC

To implement a longer-term strategic approach, the CEC will move to a "rolling" three-year plan. The organization will always be planning ahead and will review and renew its long-term plan every year. This provides an appropriate balance between timeliness of results and the security needed for multiyear projects.

At the organizational level, this approach will be based on close cooperation among the partners that comprise the CEC: Council, the Joint Public Advisory Committee (JPAC) and the Secretariat. The public will be engaged openly and effectively. The Secretariat and JPAC will be working from the start with representatives of the countries to develop the first rolling plan this year and the work program for 1999. In the first year, the influence of the Strategic Plan on the workplan will be limited, as many projects are already in the pipeline. But, by the end of second year, most of the CEC's projects should be developed in accord with the strategic plan.

This will require detailed planning for projects. The Secretariat will need to survey available information resources and, when appropriate, the science base for the issue. In light of the CEC's limited resources and its function as a catalyst for most of the issues it tackles, projects will need to be able to produce concrete results, and usually be of limited duration. When possible, projects should reflect national priorities to which the governments are willing to commit their own resources for implementation of project results. Most projects will require "exit strategies" detailing how they will be carried on after CEC support has come to an end.

Projects will be designed to include milestones and an internal mechanism to ensure their achievement. This will also entail regular project evaluation.

The North American Fund for Environmental Cooperation

The North American Fund for Environmental Cooperation (NAFEC) will continue to be a source for community funding and its effectiveness will be enhanced by focusing grants awards on projects that support CEC's new three-year plan. NAFEC will also focus on encouraging public participation within CEC and other processes of regional relevance. This new focus for NAFEC will result in an enhanced capacity of citizens to become active partners in improving the North American environment.

1998 Annual Program and Budget program and

b u d g e t

106

In 1997, we presented our budget in a format that reflected a straightforward and transparent allocation of our resources. The objective was to account clearly for the real project implementation costs. It was specified at that time, however, that a substantial proportion of the amounts listed under the category of Common Operations could be considered indirect program costs. In 1998, the same approach has been followed, but in the cases of rent and telecommunications, we have taken the further step of allocating the respective proportion of these two items to Program and Administration and Support. The ratio of Program-related salaries to Administration and Support salaries (85/15) was used to calculate the exact amounts.

Program

This item includes:

- project costs, salaries, specific obligations under the 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, funds for projects not exceeding C\$10,000 and fund-management costs; and
- a portion of rent and telecommunications (85 percent of the total amount of each of these two).

A final component of this item is a strengthened CEC Resource Centre which, in addition to its initial responsibilities, will now be in charge of the maintenance and updating of our homepage, 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.

1998 Project Budget Summary

I - Environment, Economy and Trade

	Projects	Budget (US \$)
98.01.01	NAFTA Environmental Effects	\$100,000
98.01.02	Exploring the Linkages between Environment and Trade	\$30,000
98.01.03	Emerging Trends in North America	\$25,000
98.01.04	Promoting Trade in Green Goods: Inventory	\$57,000
98.01.05	Technology Clearinghouse	\$60,000
98.01.06	Sustainable Tourism in Natural Areas	\$48,000
98.01.07	Shared Approaches to By-Product Synergy	\$175,000
98.01.08	Exploring Linkages between Trade and Species' Conservation in North America	\$20,000
	Specific Obligations: Cooperative Work between the FTC and the CEC	C \$40,000

II - Biodiversity and Ecosystems

98.02.01 Cooperation in the Conservation of Birds of North America		\$280,000
98.02.02	North American Biodiversity Information Network	\$125,000

III - Pollutants and Health

98.03.01	Sound Management of Chemicals	\$535,000
98.03.02	Cooperation on North American Air Quality	\$205,000
98.03.03	North American Pollutant Release and Transfer Register (NA-PRTR)	\$335,000

IV - Capacity Building

98.04.01 Cooperation on the Protection of Marine and Coastal Area Ecosystems		\$260,000	
98.04.02		Capacity Building in Pollution Prevention	\$290,000

V - Law and Enforcement Cooperation

98.05.01	North American Regional Enforcement Forum	\$49,000
98.05.02	Strengthening Regional Capacity to Enforce CITES	\$105,000
98.05.03	Hazardous Waste Enforcement	\$44,000
98.05.04	Environmental Management Systems and Compliance	\$27,000
98.05.05	Compliance Indicators	\$75,000
Total		US \$2,885,000

1998 Budget

General

Description	Amount (US \$ \$8,694,00	
1 - Program		
1.1) Projects	2,885,000	
1.2) Salaries	2,645,000	
1.3) NAFEC	1,000,000	
1.4) Specific obligations	511,000	
1.5) Publications and reports	535,000	
1.6) Rent (Program)	390,000	
1.7) CEC Resource Center	195,000	
1.8) Council sessions	180,000	
1.9) Public meetings	90,000	
1.10) JPAC operations	140,000	
1.11) Telecommunications (Program)	83,000	
1.12) Common program-related expenditures	40,000	
2 - Administration and support	\$1,553,000	
2.1) Salaries	527,000	
2.2) Public outreach	239,000	
2.3) Assets	190,000	
2.4) External and temporary support	200,000	
2.5) Executive management	90,000	
2.6) Office equipment and supplies	100,000	
2.7) Rent (Non-program)	70,000	
2.8) Relocation and orientation	100,000	
2.9) Professional development	20,000	
2.10) Telecommunications (Non-program)	17,000	
3 - Contingency fund	\$225,000	
Total	\$10,472,000	

Summary

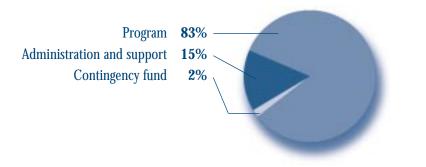
Description	Amount (US \$)
1 - Program	\$8,694,000
2 - Administration and support	\$1,553,000
3 - Contingency fund	\$225,000
Total	\$10,472,000

Revenues

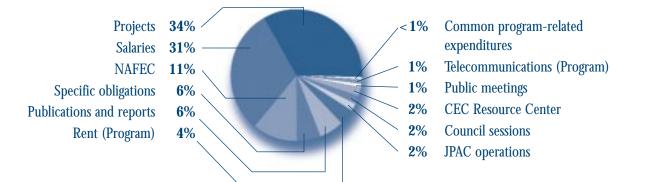
Description	Amount (US \$)
Party contributions	\$9,000,000
Carryover	\$436,000
Tax levy	\$936,000
Interest	\$100,000
Total	\$10,472,000

1998 Budget – Graphic Overview

Overall CEC Budget for 1998

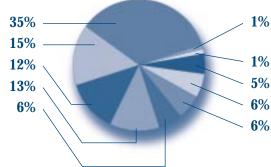


Program



Administration and Support

Salaries 3 Public outreach 1 Assets 1 External and temporary support 1 Executive management



- Telecommunications
- (Non-program)
- 6 Professional development
- Rent (Non-program)
- Relocation and orientation
- Office equipment and supplies

111

CEC Secretariat Directory*

Janine Ferretti

Interim Executive Director Tel: (514) 350-4303

Nathalie Daoust Executive Assistant Tel: (514) 350-4318; e-mail: ndaoust@ccemtl.org

Greg Block Director Tel: (514) 350-4320; e-mail: gblock@ccemtl.org

Janice Astbury NAFEC Coordinator Tel: (514) 350-4353; e-mail: jastbury@ccemtl.org

Eduardo Delgadillo Administrator Tel: (514) 350-4354; e-mail: edelgadi@ccemtl.org

Linda Duncan Head, Law and Enforcement Cooperation

Tel: (514) 350-4334; e-mail: lduncan@ccemtl.org

Hernando Guerrero Head, Capacity Building and Mexico Office Liaison Tel: (525) 659-5021; e-mail: cca@df1.telmex.net.mx

Andrew L. Hamilton Head, Science Division and Program Manager, Sound Management of Chemicals Tel: (514) 350-4332; e-mail: ahamilto@ccemtl.org

Hans Herrmann Program Manager, Biodiversity Conservation Tel: (514) 350-4340; e-mail: hherrman@ccemtl.org

Douglas Kirk Managing Editor, English Language Publications Tel: (514) 350-4352; e-mail: dkirk@ccemtl.org

Raymonde Lanthier

Managing Editor, French Language Publications Tel: (514) 350-4322; e-mail: rlanthie@ccemtl.org

Miguel López Managing Editor, Spanish Language Publications Tel: (514) 350-4358; e-mail: mlopez@ccemtl.org

David Markell Head, Submissions on Enforcement Matters Unit Tel: (514) 350-4355; e-mail: dmark@ccemtl.org

* As of October 1998

Lisa Nichols

Program Manager, Technical Cooperation Tel: (514) 350-4323; e-mail: hichols@ccemtl.org

Nick Nikkila Program Manager, Air Quality Tel: (514) 350-4337; e-mail: nnikkila@ccemtl.org

Marc Paquin Council Secretary and Program Manager, Special Legal Projects Tel: (514) 350-4324; e-mail: mpaquin@ccemtl.org

Manon Pepin JPAC Coordinator and Special Projects Manager Tel: (514) 350-4305; e-mail: mpepin@ccemtl.org

Jack Person Controller Tel: (514) 350-4356; e-mail: jperson@ccemtl.org

Sarah Richardson Program Manager, NAFTA/Environment Tel: (514) 350-4336; e-mail: srichard@ccemtl.org

Martha Rosas Program Manager, Conservation Tel: (514) 350-4326; e-mail: mrosas@ccemtl.org

Carla Sbert

Legal Officer, Submissions on Enforcement Matters Unit Tel: (514) 350-4321; e-mail: csbert@ccemtl.org

Marcos Silva

Manager, Network and Information Services Tel: (514) 350-4348; e-mail: msilva@ccemtl.org

Jeffrey Stoub

Publications Coordinator Tel: (514) 350-4327; e-mail: jstoub@ccemtl.org

Scott Vaughan Program Manager, Environment and Economy Tel: (514) 350-4302; e-mail: svaughan@ccemtl.org

Cristóbal Vignal

Coordinator, Global Strategies and Program Liaison Tel: (514) 350-4333; e-mail: cvignal@ccemtl.org