Environment Canada

2007–2008

Report on Plans and Priorities

John Baird
Minister of the Environment

Table of Contents

SECTION I – OVERVIEW

Minister's Message

As Minister of the Environment, I am pleased to present the *2007–2008 Report on Plans and Priorities* for Environment Canada.

Canada's New Government believes that all Canadians deserve to grow up in a world where they have clean air to breathe and clean water to drink, where well-tended land sustains healthy crops and livestock and where large tracts of unspoiled wilderness are sanctuaries that not only preserve our precious flora and fauna, but also provide opportunities for Canadians to connect with the natural world.

We are building a solid and sustainable foundation for the economy by investing in a cleaner, healthier environment that will improve the quality of life of Canadians and help Canada become a leader in the development of environmental technologies. More importantly, we believe that Canadians want their government to take real action on cleaning up the environment.

As part of our New Government's EcoAction Plan, we have proposed legislation and put forward initiatives that take real action on the environmental issues that matter to Canadians:

- ***Canada's Clean Air Act*** proposes a comprehensive and integrated approach to tackling air pollution and greenhouse gases by regulating and enforcing emissions targets;
- Canada's new **Chemicals Management Plan** provides realistic and enforceable measures that will substantially increase the protection of Canadians from dangerous chemicals;
- **EcoEnergy Initiatives** provide a $2-billion investment to reduce the smog and greenhouse gas emissions that effect the environment and the health of Canadians;
- The new **Canada ecoTrust** that provides $1.5 billion in support to provincial projects that will result in real reductions in greenhouse gas emissions and air pollutants;
- The new **ecoTransport Strategy** invests in initiatives designed to reduce the environmental impacts of transportation and secure Canada's future prosperity and competitiveness by making the transportation system more sustainable, both economically and environmentally;
- The Government plans to regulate the use of **renewable fuels** in Canada by requiring an annual average renewable content of five percent in gasoline by 2010 and a two percent renewable content in diesel fuel and heating oil by 2012.

Canada's New Government will also regulate short-, medium- and long-term reduction targets for greenhouse gas emissions and air pollutants from major industrial sectors as well as the fuel efficiency of motor vehicles, beginning with the 2011 model year.

These measures reflect the Government's commitment to achieve tangible results for Canadians and for the environment. The objectives outlined in this report are building blocks for the future economic and environmental sustainability of Canada. I encourage all parliamentarians and Canadians to read this report.

The Honourable John Baird, P.C., M.P.
Minister of the Environment

Management Representation Statement

I submit for tabling in Parliament, the *2007–2008 Report on Plans and Priorities* (RPP) for Environment Canada.

This document has been prepared based on the reporting principles contained in the *Guide to the Preparation of Part III of the 2007–2008 Estimates: Reports on Plans and Priorities and Departmental Performance Reports*:

- It adheres to the specific reporting requirements outlined in the Treasury Board of Canada Secretariat guidance.
- It is based on the Department's strategic outcomes and Program Activity Architecture that were approved by the Treasury Board.
- It presents consistent, comprehensive, balanced and reliable information.
- It provides a basis of accountability for the results achieved with the resources and authorities entrusted to it.
- It reports finances based on approved planned spending numbers from the Treasury Board of Canada Secretariat.

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Michael Horgan
Deputy Minister of the Environment

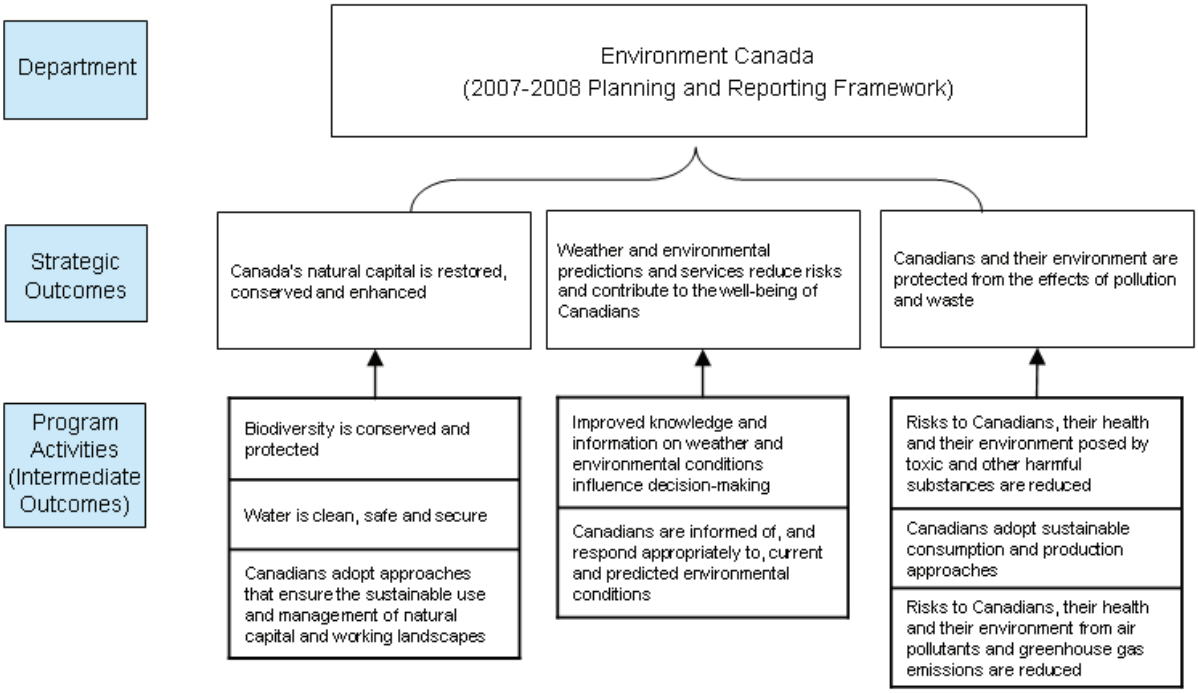
2006–2007 to 2007–2008 Program Activity Architecture (PAA) Crosswalk

Environment Canada received Treasury Board approval to modify its PAA for 2007–2008. The table below provides a crosswalk between Environment Canada's 2006–2007 and 2007–2008 Main Estimates.

		Environment Canada's 2006–2007 Program Activities ($ millions)									
Environment Canada's 2007–2008 Program Activities ($ millions)		Biodiversity is conserved and protected	Water is safe, clean and secure	Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	Improved knowledge and information on weather and environmental conditions influences decision-making	Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	Risks posed by pollutants or other harmful or dangerous substances in the environment are reduced	Canadians adopt sustainable consumption and production approaches	Net emissions of greenhouse gases are reduced	Canadians understand the impacts of climate change and adapt to its effects	Totals
	Biodiversity is conserved and protected	110.8	--	--	--	--	--	--	--	--	**110.8**
	Water is clean, safe and secure	--	79.9	--	--	--	--	--	--	--	**79.9**
	Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	--	--	30.8	--	--	--	--	--	--	**30.8**
	Improved knowledge and information on weather and environmental conditions influences decision-making	--	--	--	126.1	--	--	--	--	--	**126.1**
	Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	--	--	--	--	154.8	--	--	--	1.9	**156.7**
	Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced						180.9				**180.9**
	Canadians adopt sustainable consumption and production approaches	--	--	--	--	--	--	26.5			**26.5**
	Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced						121.7		8.7		**130.4**
	Total Main Estimates	**110.8**	**79.9**	**30.8**	**126.1**	**154.8**	**302.6**	**26.5**	**8.7**	**1.9**	**842.1**

Totals may differ within and between tables due to the rounding of figures.

Summary Information



Environment Canada's 2007–2008 Main Estimates

Program Activities ($ millions)	Operating	Capital	Grants	Contributions and other transfers	Less: Revenues credited to the vote	Adjustments (planned spending not in Main Estimates)	Totals
Biodiversity is conserved and protected	87.1	0.5	--	24.3	(1.2)	15.2	**126.0**
Water is clean, safe and secure	79.7	2.9	--	1.6	(4.4)	0.1	**80.0**
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	28.5	0.3	--	2.2	(0.1)	0.0	**30.8**
Improved knowledge and information on weather and environmental conditions influences decision-making	127.0	13.5	0.0	0.2	(14.6)	0.1	**126.2**
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	184.0	6.7	--	9.3	(43.3)	0.2	**156.8**
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	169.7	5.8	--	9.7	(4.4)	0.1	**181.0**
Canadians adopt sustainable consumption and production approaches	23.5	0.4	--	2.7	(0.0)	0.0	**26.5**
Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	110.9	9.9	2.0	7.7	(0.0)	0.1	**130.5**
Total Planned Spending	**810.5**	**40.0**	**2.0**	**57.7**	**(68.2)**	**15.8**	**857.8**

Totals may differ within and between tables due to the rounding of figures.

Reason for Existence: A number of acts and regulations provide the Department with its mandate and allow it to carry out its programs.

Under the *Department of the Environment Act*, the powers, duties and functions of the Minister of the Environment extend to and include matters relating to:

- the preservation and enhancement of the quality of the natural environment, including water, air and soil quality;
- renewable resources, including migratory birds and other non-domestic flora and fauna;
- water;
- meteorology;
- the enforcement of any rules or regulations made by the International Joint Commission relating to boundary waters; and
- the coordination of the policies and programs of the Government of Canada respecting the preservation and enhancement of the quality of the natural environment.

Additional authorities are provided in the other acts and regulations administered by the Department, including the *Species at Risk Act* and the *Canadian Environmental Protection Act, 1999*. For details on departmental legislation and regulations see: http://www.ec.gc.ca/EnviroRegs.

Planned Financial and Human Resources

Planned Resources	2007–2008	2008–2009	2009–2010
Financial Resources ($ millions)	**857.8**	811.3	816.4
Human Resources (FTEs)	**6,454**	6,459	6,407

Resources by Strategic Outcome and Program Activity

Strategic Outcomes and Program Activities ($ millions)		2007–2008	2008–2009	2009–2010
Canada's natural capital is restored, conserved and enhanced				
	Biodiversity is conserved and protected	**126.0**	118.6	116.3
	Water is clean, safe and secure	**80.0**	80.8	76.7
	Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	**30.8**	30.1	28.6
	Strategic Outcome Total	**236.8**	**229.5**	**221.6**
Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians				
	Improved knowledge and information on weather and environmental conditions influences decision-making	**126.2**	125.5	127.8
	Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	**156.8**	147.3	152.1
	Strategic Outcome Total	**283.0**	**272.8**	**279.9**
Canadians and their environment are protected from the effects of pollution and waste				
	Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	**181.0**	160.1	162.0
	Canadians adopt sustainable consumption and production approaches	**26.5**	23.5	24.1
	Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	**130.5**	125.3	128.9
	Strategic Outcome Total	**338.0**	**308.9**	**315.0**
Total Planned Spending		**857.8**	**811.3**	**816.4**

Totals may differ within and between tables due to the rounding of figures.

Summary of Departmental Priorities

Strategic Outcome	Priority	Program Activity/ Intermediate Outcome	Planned Spending		
			2007–2008	2008–2009	2009–2010
Canada's natural capital is restored, conserved and enhanced	Develop and implement innovative strategies, programs, and partnerships to ensure that Canada's natural capital is sustained for present and future generations. (ongoing)	Biodiversity is conserved and protected	**126.0**	118.6	116.3
		Water is clean, safe and secure	**80.0**	80.8	76.7
		Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	**30.8**	30.1	28.6
Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians	Provide Canadians with world-class meteorological and environmental information, predictions and services to ensure safety and to support economic activity. (ongoing)	Improved knowledge and information on weather and environmental conditions influences decision-making	**126.2**	125.5	127.8
		Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	**156.8**	147.3	152.1
Canadians and their environment are protected from the effects of pollution and waste	Develop and implement innovative strategies, programs, and partnerships to protect Canadians and their environment from the effects of harmful substances. (ongoing)	Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	**181.0**	160.1	162.0
		Canadians adopt sustainable consumption and production approaches	**26.5**	23.5	24.1
		Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	**130.5**	125.3	128.9
Totals			**857.8**	**811.3**	**816.4**

Totals may differ within and between tables due to the rounding of figures.

Departmental Plans and Priorities

Introduction

The government is committed to making Canada cleaner, greener and healthier for all Canadians and future generations. *Advantage Canada*, released with the Government's *Economic and Fiscal Update 2006*, stated that protecting Canada's environment is central to the *Advantage Canada* plan and an important part of Canada's ability to achieve long-term sustainable growth. In particular it stated that:

- A healthier and cleaner environment enriches the quality of life in Canada, and attracts and retains the highly skilled and mobile people we need to succeed in the global economy.
- Responsible development of our natural resources ensures future jobs and wealth creation across the country.
- Energy efficiency and environmentally sustainable business practices are increasingly important competitive advantages for our businesses.
- Canada has the potential to be a leader in the rapidly emerging business of environmental technology.

The government is focused on outcomes and achievable results to create a healthier environment now and for future generations. Through strong, clear environmental laws and regulations coupled with market forces, governments can create incentives and conditions in which businesses and people protect our natural environment and respond to environmental challenges with entrepreneurial innovation.

Environment Canada is open for business 24 hours a day, 365 days of the year from coast to coast and around the world. Every year the Department:

- issues more than 1.5 million public weather forecasts, 200,000 marine and sea state forecasts, 400,000 aviation forecasts, 15,000 warnings and 1,300 ice condition forecasts;
- acquires and archives the data necessary to respond to 33 million telephone calls and handle 900 million Internet page views seeking meteorological and environmental information;
- conducts approximately 10,000 inspections under Canada's environmental laws;
- provides spill containment and clean-up advice to lead response agencies at an average of 1,000 significant incidents;
- assesses nearly 800 new substances, processes 8,000 notices for proposed international shipments of hazardous waste permits (representing over 13,000 waste streams), and issues over 2,000 import/export and transit permits and over 48,000 manifests associated with actual shipments;
- manages 13 million hectares of wildlife habitat;
- supports hundreds of community-led projects in all regions of the country to protect and restore the environment; and
- publishes over 500 scientific articles.

Operating Environment

Canada is particularly rich in natural assets, containing within its borders 20 percent of the world's natural areas, 10 percent of the world's forests, and 7 percent of the world's renewable fresh water. The Canadian economy benefits greatly from this wealth. Roughly 22 percent of Canada's gross domestic product (GDP) is derived from resources such as energy products, forests and agriculture. While Canada is blessed with a richness of natural assets, improved management of these resources is a central need.

Canada is not alone in its efforts to seek out effective ways to manage the environment. The Organisation for Economic Co-operation and Development (OECD) estimates that environmental impacts on human health cost OECD countries 0.5 percent of GDP, and that 20 percent of the total burden of disease in industrialized countries can be linked to environmental factors.

The Intergovernmental Panel on Climate Change (IPCC) was established to assess scientific, technical and socio-economic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC will release its Fourth Assessment Report (AR4) in four volumes over the course of this year. The first volume of the AR4 to be completed was that of Working Group I of the IPCC. *Climate Change 2007: The Physical Science Basis* assesses the current scientific knowledge of the natural and human drivers of climate change, observed changes in climate, the ability of science to attribute changes to different causes, and projections for future climate change.

The Government has indicated that the IPCC has presented compelling scientific proof that the world's climate has changed because of human action and industrial growth, and it accepts the findings of this first volume of the Fourth Assessment Report.

Health Considerations

There is growing evidence that the state of the environment is significantly affecting human health. Smog, for example, can worsen existing heart and breathing problems and it results in thousands of premature deaths each year. Smog causes hundreds of thousands of severe episodes of asthma and bronchitis annually, particularly among children and the elderly. The Ontario Medical Association estimates that air-related illnesses result in 60,000 emergency visits and 17,000 hospital admissions annually in Ontario alone. Data show that 12 percent of children are estimated to have asthma and it is now a leading cause of school absenteeism. An analysis in eight major Canadian cities concluded that air pollution is a factor in 1 in 12 deaths—a total of 5,900 preventable deaths per year.[1]

Air quality is of increasing concern to Canadians: 60 percent consider air pollution to be the most important environmental issue. Over half believe it will eventually have a negative impact on their health, and a third believe that air pollution is already having adverse impacts.

Some of the same pollutants that cause smog also impair ecosystems and wildlife. Poor air quality, resulting in acid deposition and long-range transport of contaminants, remains one of the most serious threats to biodiversity, forests and freshwater ecosystems. Hazardous air pollutants such as mercury can be deposited into water and pose risks to wildlife and humans through their accumulation up the food chain.

Economic Considerations

The stress on and degradation of our environment carry real economic costs. These are associated with, among other things, a decline in resource and labour productivity and an increased burden on the health care system. In the province of Ontario alone, poor air quality has

[1] Ontario Medical Association, Illness Costs of Air Pollution: 2005-2026 Health and Economic Damage Estimates (June 2005). Available at http://www.oma.org/Health/smog/report/ICAP2005_Report.pdf.

resulted in an estimated $200 million per year in crop damage, $77 million per year in forest damage, $374 million in lost productivity in 2005, and direct health care costs of $507 million per year.

These types of costs affect all regions and sectors, and together they represent a serious challenge to Canada's long-term prosperity. In the Okanagan Valley and in Alberta's oil sands region, for example, economic opportunities are increasingly constrained by water availability. In the Prairies, Atlantic Canada and elsewhere, invasive pests that harm crops and forests are estimated to cost Canada's economy $7.5 billion each year.[2]

Natural disasters, particularly weather-related ones such as severe thunderstorms, winter storms, freezing rain, floods or drought, also take their toll on the economy. Based on a U.S. study, about 30 percent of Canada's gross domestic product is sensitive to weather and climate. For example, the insurance industry says it expected to pay out more than $400 million in the wake of a storm that hit southern Ontario on August 19, 2005. This storm was the worst in Ontario's history. Vancouver Island and the Lower Mainland of British Columbia were hit by one of the most powerful storms in history on December 15, 2006. It resulted in over $100 million in property losses, hurricane-force winds uprooted thousands of trees in Stanley Park and a record quarter of a million customers lost power during the peak of the storm.

Competitiveness in the Global Economy

Within the global economy, citizens, investors and companies are responding to the reality that environmental sustainability is an increasingly important driver of competitiveness.

In addition to the *Department of the Environment Act*, the Minister has substantial legal authorities and obligations related to the Department, including the following:

- *Canadian Environmental Protection Act, 1999*
- *Fisheries Act* (subsection 36(3))
- *Canadian Environmental Assessment Act*
- *Species at Risk Act*
- *Canada Wildlife Act*
- *Canada Water Act*

This fundamental shift in how the environment is valued can be seen in the changing nature of international trade, where countries and industries are increasingly putting in place environmental standards for imported or traded goods and services.

More than ever before, industries are pressured to behave responsibly and to adopt sustainable and ethical practices. For example, the world's top wood buyers responded to campaigns calling on them to stop buying wood from endangered forests, affecting their suppliers across North America and Europe.

Investors, including banks and insurers, monitor corporate earnings related to environmental performance and liability. For example, the Carbon Disclosure Project (which includes 225 institutional investors representing 40 percent of the world's managed assets, or a total of $31.5 trillion), sends a yearly letter to the world's largest 500 companies demanding disclosure of carbon-related financial risks and strategies.

Financial indices such as the Dow Jones Sustainability Index have emerged, adding credence to arguments that environmental sustainability is a key component of economic competitiveness in

[2] *An Invasive Alien Species Strategy for Canada*, September 2004. http://www.cbin.ec.gc.ca/issues/ias_invasives.cfm.

the 21st century. The companies listed on the Dow Jones Sustainability World Index have outperformed the companies on the Dow Jones World Index over the last 10 years.

Canada is a signatory to some 59 international environmental agreements, including the following:

- Bilateral agreements on key environmental issues, such as the Canada-United States Air Quality Agreement, the Great Lakes Water Quality Agreement, and the Canada-U.S.A. Agreement on the Transboundary Movement of Hazardous Waste.
- Multilateral environmental agreements such as the United Nations Framework Convention on Climate Change, the Vienna Convention, the Montreal Protocol on Substances that Deplete the Ozone Layer, and the Convention on Biological Diversity.
- Regional agreements on environmental cooperation, such as the North American Agreement on Environmental Cooperation and the North American Waterfowl Management Plan.

Departmental Response and Priorities

The Government will adopt an approach to the environment that secures real benefits for Canadians. By developing a better understanding of the interdependencies of the economy, the environment and human health, Environment Canada will be better able to identify priority areas for action. The most pressing environmental challenges are those that have the greatest impact on lives of Canadians.

While Environment Canada will continue to provide a wide range of valuable products and services for Canadians, including environmental research and weather information, focusing the Department's efforts on a number of key priorities will ensure that it achieves real environmental outcomes that benefit Canadians. The Government has identified several key areas for action:

Reducing Air Pollutants and Greenhouse Gas Emissions

The Government of Canada is deeply committed to delivering tangible results that will improve the health of Canadians and their environment. There is a pressing need for federal regulation of air pollution and greenhouse gas (GHG) emissions—national requirements that will set mandatory targets for emissions that harm the environment and the health of Canadians.

The proposed Bill C-30, *Canada's Clean Air Act* (introduced in Parliament on October 19, 2006) was the first step in this new regulatory approach. The proposed Act would strengthen the legislative basis for taking action on reducing air pollution and GHGs based upon three key elements:

- amendments to the *Canadian Environmental Protection Act, 1999* to authorize regulation of indoor and outdoor air pollutants
- amendments to the *Motor Vehicle Fuel Consumption Standards Act* to set mandatory fuel consumption standards
- amendments to the *Energy Efficiency Act* to set energy efficiency standards and labelling requirements for a wider range of consumer and commercial products

Following the introduction of Bill C-30, the Government released a Notice of Intent to regulate, among other things, industrial emissions of air pollutants and GHG emissions.

As Environment Canada plays a key role in delivering on the commitments of the Government's proposed *Canada's Clean Air Act*, the Department will continue to lead consultations with

provinces and territories, Aboriginal peoples and other stakeholders on the overall regulatory framework that will guide the development of these industrial sector regulations.

On December 20, 2006, the Government announced that it will enact regulations to increase the renewable content in gasoline as part of efforts to reduce emissions from vehicle use. Regulations will require an annual average renewable content of 5 percent in gasoline by 2010, fulfilling the 2006 Speech from the Throne commitment. The Government also intends to regulate a 2 percent requirement for renewable content in diesel fuel and heating oil by 2012. In addition, $345 million will be provided to assist farmers and rural communities in seizing new market opportunities in the agricultural bioproducts sector. The funding will create two new programs, the Agricultural Bioproducts Innovation Program and the Capital Formation Assistance Program for Renewable Fuels Production, both designed to create new market opportunities for Canada's agricultural producers.

Protecting Canadians from Toxic Substances
The Government of Canada plays a key role in protecting the environment from the risks of chemical substances under a number of laws. Under CEPA 1999, scientists at Health Canada and Environment Canada have completed a review of 23,000 legacy chemical substances (those in commercial use prior to 1994). By completing this categorization exercise before September 14, 2006, the Government of Canada met its legislated deadline under CEPA 1999, and Canada became the first country in the world to have completed such a comprehensive examination of the properties of substances in commercial use prior to 1994.

Categorization has provided the information baseline required to create a shift in how government and industry work together. It also provides a comprehensive way to set science-based environmental and health priorities.

This shift is reflected in the Government's new Chemicals Management Plan, announced on December 8, 2006, which will protect the environment and human health through new regulations under CEPA 1999 and other acts, using initiatives such as a challenge to industry to identify controls and restricted uses, accelerated re-evaluations of some older pesticides, and changes to the way we dispose of pharmaceuticals and personal care products. The Plan, administered jointly by Environment Canada and Health Canada includes:

- regulations and enforcement;
- a challenge to industry to rapidly address concerns relating to 200 high priority substances;
- accelerated re-evaluation of older pesticides;
- mandatory ingredient labelling of cosmetics;
- regulations to address environmental risks posed by pharmaceuticals and personal care products;
- enhanced management of environmental contaminants in food; and
- health monitoring, surveillance and research.

Ensuring Water Quality and Quantity
The effort to ensure a safe and secure water supply in Canada will focus on priority ecosystems such as the Great Lakes, and will also entail work with provinces, territories and municipalities on municipal wastewater.

Supporting Clean Land and Biodiversity
Work towards clean land will begin with steps to encourage the clean-up of contaminated sites and brownfields. Adopting a comprehensive, outcomes-based approach to biodiversity will mean focusing on: healthy and diverse ecosystems, viable populations of species, access to genetic resources and sustainable use of biological resources.

The strong links between these areas mean that progress in one area will contribute to progress in another. For example, measures to reduce smog-causing pollutants can also help address GHG emissions that contribute to climate change, as well as acid rain that damages lakes and rivers and their broader ecosystems.

Promoting Environmental Sustainability
The approach to delivering on these priority initiatives will be guided by the notion that preserving and enhancing environmental quality is a means to achieving sustainable growth, where the health and well-being of Canadians is protected, Canada's natural environment is preserved, Canada's long-term competitiveness is strengthened and Canadians' quality of life is improved. It will focus on achieving results, rewarding leaders and empowering citizens.

Science provides a foundation for sound policy decisions and actions:
- About 70 percent of Environment Canada's budget and 60 percent of its workforce are involved in science- and technology-related activities.
- Science- and technology-related activities include monitoring, providing indicators of ecosystem health, weather forecasting, environmental prediction, scientific research, and communicating scientific findings in useful format to decision-makers.
- Environment Canada operates 15 research institutes and labs across the country and is a key collaborator in the Canadian environmental science system.

The recognition that Canada's natural assets provide goods and services that fuel the economy and help keep Canadians healthy provides a new basis for understanding and appreciating natural assets as "natural capital." The management of natural capital would benefit from the same rigor that is applied to the management of human and produced capital, including developing an understanding of its real value and tracking its status and rate of depletion.

Other aspects of this approach include an emphasis on taking a long-term perspective. Setting long-term environmental objectives will help coordinate efforts to achieve shared goals, provide predictability and planning certainty for industry, provide transparency and accountability for citizens, and will drive investments in technology. Within the federal government, improved sustainability planning and reporting across sustainable development strategies will provide greater coherence, consistency and accountability to Canadians.

Working Effectively with Partners
A successful approach will see Environment Canada working collaboratively with its partners to organize efforts around common priorities and a long-term outlook. Working with the provinces and territories to achieve shared goals will improve transparency and accountability, and ensure

that resources are used most efficiently. Developing single-window approaches to streamline compliance promotion and enforcement, as well as looking to the long term, will help reduce compliance costs for another important partner, industry. Working with industry and others such as Aboriginal peoples, governments and environmental non-governmental organizations will help to set shared priorities and generate recommendations about how to achieve objectives in a way that strengthens long-term competitiveness.

To encourage the highest level of engagement from key stakeholders, targeted approaches will reach out to Canadians to encourage them to play a role in protecting the environment. These approaches will also support communities, and implement regulatory processes that are fair, sustainable and transparent.

Environment Canada's education and engagement activities focus on working with partners to contribute to ecological literacy and engaging Canadians on key issues where their actions can make a difference. For example, the Biosphère located in Montreal is the Department's centre of expertise in education, engagement and experiential learning and it is a gathering place for environmental education and training.

Principles of good governance provide a foundation for advancing the Government's priorities:

- Informed, inclusive and flexible *decision-making* to align efforts across jurisdictions;
- Usable, accurate *information* to enable sound decision-making and accountability;
- Nationally coherent *science and technology* focusing on priorities and key opportunities;
- Clear incentives to drive *performance and enforcement* integrated across jurisdictions, focused on outcomes; and
- Meaningful *education and engagement* to empower Canadians and decision-makers.

Strategic Outcomes and Departmental Plans
Environment Canada has changed its governance to enable the Department to better deliver on its mandate of ensuring the highest quality of environment for Canadians. This change includes implementing an integrated approach that is supported by new results management and governance structures.

Environment Canada's results management and governance structures support the "one-department" approach by better aligning accountabilities and the way the Department's work is organized to support the results that we expect to achieve.

In preparing for the 2007–2008 planning cycle, the Department had reorganized its activities and resources into an updated Program Activity Architecture (PAA). This architecture enables the Department to better manage how its activities interact and contribute to its overarching strategic objectives. As well, it will provide an important new tool to help senior managers redirect the Department's efforts to higher priorities when necessary.

The Program Activity Architecture identifies three strategic outcomes:

1. Canada's natural capital is restored, conserved and enhanced.
2. Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians.
3. Canadians and their environment are protected from the effects of pollution and waste.

In the context of the existing PAA, the Department will organize work to achieve progress towards these strategic outcomes and priorities in three main areas:

Ecosystem Sustainability
Goal: To develop and implement innovative strategies, programs and partnerships to ensure that Canada's natural capital is sustained for present and future generations.

Weather and Environmental Services
Goal: To provide Canadians with world-class meteorological and environmental information, predictions and services to ensure safety and to support economic activity.

Environmental Protection
Goal: To develop and implement innovative strategies, programs and partnerships to protect Canadians and their environment from the effects of harmful substances.

The details of the activities to be delivered in support of the outcomes and themes are provided in Section II of the Report on Plans and Priorities.

In addition, recent changes to the organization of government transferred responsibility for the **Toronto Waterfront Revitalization Initiative** from the President of the Treasury Board to the Minister of the Environment. The mission and expected results of the Initiative have not changed. Under this Initiative, Environment Canada manages a grants and contributions program focused on investments in infrastructure and urban renewal. The purpose of the Initiative is to revitalize the Toronto waterfront through investments in both traditional city-building infrastructure, such as local transportation and sewers, and more contemporary urban development, including parks, green spaces, tourism-related facilities and the rebirth of underutilized post-industrial areas. It is expected that investments in these areas will result in social and economic benefits for the Toronto region. Environment Canada's planned spending excludes funding for the Toronto Waterfront Revitalization Initiative. This authority will be transferred from the Treasury Board of Canada Secretariat through the Supplementary Estimates.

Indicators of Environmental Sustainability
The second annual report, *Canadian Environmental Sustainability Indicators 2006*, prepared by Environment Canada, Statistics Canada and Health Canada, was released on November 23, 2006. The report provides updates on three indicators: air quality, greenhouse gas emissions and freshwater quality. The indicators are intended as annual measuring sticks by which governments and the public can track trends in the three areas.

The following (extracted from the report) are the three main components of the Canadian Environmental Sustainability Indicators (CESI):

- "**Air quality**: The national air quality indicators in this report focus on human exposure to ground-level ozone and fine particulate matter ($PM_{2.5}$), both key components of smog. Human exposure to ground-level ozone and $PM_{2.5}$ is of concern because there are no established thresholds below which these pollutants are safe and do not pose a risk to human health.

  At the national level, from 1990 to 2004, the ozone indicator showed year-to-year variability, with an average increase of 0.9 percent per year. Stations in southern Ontario reported the highest levels in the country in 2004 and the most rapid increase since 1990. From 2000 to 2004, the highest levels of $PM_{2.5}$ were also reported in southern Ontario, with areas in southern Quebec/eastern Ontario also showing high levels. There was no discernible upward or downward trend in $PM_{2.5}$ levels at the national level for the 2000 to 2004 period.

  Human activities contributing to air pollution include the use of motor vehicles, fossil fuel combustion for residential and industrial purposes, thermal-electric power generation and wood burning for residential home heating. Air quality is also influenced by the atmospheric transport of pollutants from other regions and by weather conditions.

  Health Canada is researching the feasibility of developing and reporting an integrated environment and health indicator (Air Health Indicator) that would be based on the combined health risks of exposure to several air pollutants, including particulate matter and ozone.

- **Greenhouse gas emissions**: The greenhouse gas (GHG) emissions indicator focuses on total national emissions of GHGs. Emissions rose 27 percent from 1990 to 2004. In 2004, emissions were 35 percent above the target to which Canada committed in December 2002 when it ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change. That target was set at 6 percent below the 1990 baseline by the period 2008 to 2012. Thermal-electric power generation, road vehicle use and oil and gas production were the principal sources of the increase in emissions. While total emissions rose, emissions per unit of Gross Domestic Product fell 14 percent from 1990 to 2004. The expansion of the Canadian economy, however, more than offset gains in fuel and emissions efficiency, resulting in a net increase in total emissions. Over the same period, GHG emissions also grew faster than the Canadian population, resulting in a 10 percent rise in emissions per person.

- **Freshwater quality**: Good-quality fresh water is fundamental to ecosystems, human health and economic performance. Freshwater quality in Canada is under pressure from a range of sources, including agriculture, industrial activity and human settlements.

  The freshwater quality indicator presented in this report covers the period from 2002 to 2004 and focuses only on the ability of Canada's surface waters to support aquatic life.

For the 340 sites selected across southern Canada, water quality was rated as "good" or "excellent" at 44 percent of sites, "fair" at 34 percent and "marginal" or "poor" at 22 percent.

Because of issues of consistency in water quality monitoring programs across Canada, a national trend is not yet available for this indicator. The indicator results do not reflect the quality of all fresh water in Canada. They apply to selected monitoring sites in southern Canada, northern Canada and the Great Lakes that met the CESI data quality criteria. Improvements planned to the monitoring networks, the water quality guidelines and the analysis will enable a better assessment of surface water quality in the future."[3]

Linkages to Government-wide Reporting

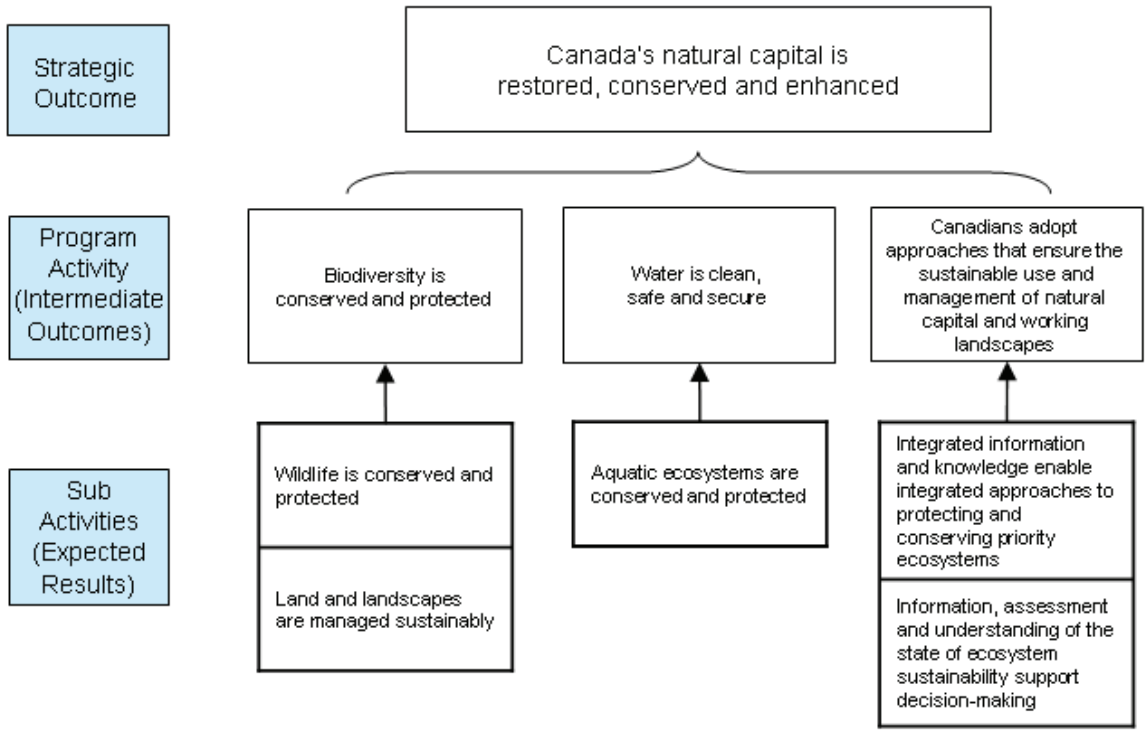
Canada's Performance 2006: The Government of Canada's Contribution, the annual report to Parliament by the President of the Treasury Board, includes a selection of available indicators that provide a view of change across a certain set of issues. These include indicators related to air quality, biodiversity, climate change, toxic substances in the environment and water use.

To a large extent, Environment Canada's activities are primarily aligned with the Clean and Healthy Environment theme of *Canada's Performance*. However, in keeping with the broader policy vision of natural environment, health and competitiveness, Environment Canada's activities also contribute significantly to the government-wide themes of economic, social and international affairs.

[3] *Canadian Environmental and Sustainability Indicators 2006* http://www.ec.gc.ca/environmentandresources/CESIFull2006_e.cfm.

SECTION II – ANALYSIS OF PROGRAM ACTIVITIES BY STRATEGIC OUTCOME

Strategic Outcome 1: Canada's natural capital is restored, conserved and enhanced



Description

Natural capital includes the raw materials used in the production of manufactured goods, the land and water resources that anchor our quality of life and support economic activity, as well as living ecosystems that cleanse polluted air and water, reinvigorate soil, and contribute to a predictable and stable climate. Environment Canada works to conserve, restore and enhance Canada's natural capital by developing and implementing innovative strategies, programs and partnerships. The purpose of our work in this area is to ensure that Canada's natural capital is sustained for present and future generations. This work has been organized into three program areas:

1. Biodiversity is conserved and protected.
    a. Wildlife is conserved and protected.
    b. Land and landscapes are managed sustainably.
2. Water is clean, safe and secure.
    a. Aquatic ecosystems are conserved and protected.
3. Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes.
    a. Integrated information and knowledge enable integrated approaches to protecting and conserving priority ecosystems.
    b. Information, assessment and understanding of the state of ecosystem sustainability support decision-making.

Planned Financial and Human Resources by Program Activity

Program Activities	2007–2008		2008–2009		2009–2010	
	$ millions	**FTEs**	**$ millions**	**FTEs**	**$ millions**	**FTEs**
Biodiversity is conserved and protected	**126.0**	**878**	118.6	873	116.3	844
Water is clean, safe and secure	**80.0**	**940**	80.8	943	76.7	908
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	**30.8**	**237**	30.1	236	28.6	224
Totals	**236.8**	**2,055**	**229.5**	**2,052**	**221.6**	**1,976**

Totals may differ within and between tables due to the rounding of figures.

Expected Results and Key Measures

Program Activity	Expected Results	Key Indicators
Biodiversity is conserved and protected	Wildlife is conserved and protected	Improvement in the status of threatened and endangered species Maintenance of healthy levels of migratory bird populations No Canadian species are threatened from international trade.
	Land and landscapes are managed sustainably	Percentage of conserved wildlife habitat area (km^2) that is under direct Environment Canada protection or protected through departmental partnerships and influence
Water is clean, safe and secure	Aquatic ecosystems are conserved and protected	Accrued economic, social and environmental benefits to Canadians through sustainable and productive use of water resources Access for Canadians to safe drinking water and protection of human health from water quality and quantity-related threats
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	Integrated information and knowledge enable integrated approaches to protecting and conserving priority ecosystems	Improvement in environmental indicators for priority ecosystems Establishment and/or maintenance of shared governance mechanisms.
	Information, assessment and understanding of the state of ecosystem sustainability support decision-making	Implementation of new management approaches in project environmental assessments and strategic environmental assessments Availability of relevant and reliable information to assess ecosystem status and change

Plans and Priorities

Over the next three years, Environment Canada will pursue the following plans and priorities for its Natural Capital Strategic Outcome and related Program Activities.

1. Implement an ecosystem approach to environmental management.

2. Take action, from an ecosystem perspective, to identify and begin to address the critical knowledge gaps limiting integrated decision-making that affects natural capital.

3. Continue to implement the *Species at Risk Act* through a transparent, consistent and harmonized policy and program framework that involves stakeholders and includes both ecological and socio-economic considerations.

4. Establish and strengthen strategic, federal, provincial, territorial and international partnerships to ensure obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora are effectively addressed.

5. Implement the North American Bird Conservation Initiative and, under the *Migratory Birds Convention Act, 1994*, establish a regulation for incidental take to ensure effective conservation of migratory bird populations while promoting sustainable economic development.

6. Strengthen federal, provincial, territorial and international collaboration to address shared water priorities.

7. Improve the management of protected areas and seek opportunities to enhance protected areas networks.

8. Promote the use of ecosystem approaches in environmental assessment processes.

Program Activity 1A – Biodiversity is conserved and protected

Results Context

Our land, fresh water and oceans, and the diversity of life they support, provide the basis for our health and our economy. They provide a vast array of services to human society—including life-supporting natural processes that clean the air, purify the water, pollinate plants, absorb carbon dioxide, recycle nutrients, process wastes, prevent floods, control pests and replenish soils. The services provided by natural capital are often very expensive to replace or are irreplaceable.

However, a rising human population combined with increasing demand for goods and services is resulting in the overexploitation of land and water, compromising the long-term viability of ecosystems and threatening to eliminate the services they provide. To secure our essential life support systems and our economic prosperity in Canada, we need to ensure that the continued use of our lands, waterways and oceans is done in such a way that human activities do not undermine the overall ability of the ecosystem to provide ecological goods and services. We need to ensure that viable populations of species—key elements in the maintenance of ecosystem

function—are maintained and used sustainably. For landscape management and sustainability to be a success in Canada, we need to broaden our focus from simply protecting areas of land and water to managing the full continuum of ecosystems—from wilderness, parks and working landscapes, to urban centres.

Planning Context

Environment Canada's work in this program area consists of activities to protect and recover species at risk; conserve migratory birds; conserve, restore and rehabilitate the habitats needed by these species to survive; and protect species from the risks posed by international trade. A primary vehicle for the achievement of results under this program is the formation of strategic partnerships for the integrated management of Canada's natural capital, including the sustainable management of landscapes. A key principle in support of results under this program is the use of best available science. The ultimate goal is to ensure the protection of biodiversity within healthy ecosystems, for the benefit of present and future generations of Canadians.

Initiatives and activities in this program area flow from the legal obligations under the *Canada Wildlife Act* (CWA), the *Migratory Birds Convention Act, 1994* (MBCA 1994), the *Species at Risk Act* (SARA), the *Canadian Environmental Protection Act, 1999* (CEPA 1999); and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA).

Current Status and Future Positioning

Environment Canada's main strategy is one of prevention—"keeping common species common." Once a species or ecosystem is in peril, it is more complicated and usually more costly to take measures to reverse the problem. Therefore, efficiency is maximized by directing most of our energies to the prevention of problems—whether they be population declines, degradation or fragmentation of habitat or releases of toxic substances into the environment. This strategy focuses our work on restoring, conserving and enhancing natural capital through a holistic ecosystem approach that identifies, interprets and responds to environmental conservation concerns. Such an approach entails the integrated management of land, water, air and living resources that promotes conservation and sustainable use in an equitable way.

To assess how the new *Species at Risk Act* (SARA) was working, as well as the federal government's progress in delivering the agreed outputs and achieving the anticipated results of this legislation, an evaluation of the federal species at risk programs was completed in 2006. This formative evaluation was carried out by Environment Canada's Audit and Evaluation Branch in collaboration with Fisheries and Oceans Canada and Parks Canada, its delivery partners. While the species at risk program evaluation demonstrates important progress by all three core implementing departments, it did identify significant outstanding challenges. A comprehensive plan of management actions to respond to this evaluation's recommendations was drafted and its implementation is being closely tracked to ensure that appropriate adjustments are made.

Specifically, the Department is working to:

- continue to implement an agreed-upon national framework that sets out agreed upon objectives and outcomes for achieving sustainable land management, conservation of biological diversity and the maintenance of essential ecosystem goods and services;
- develop the knowledge, information, monitoring and assessment capacity in Canada to support integrated landscape management;
- create enabling conditions through new and innovative policy instruments and tools to engage Canadians, support participatory decision-making and foster stewardship; and
- identify and recover populations that have become at-risk and conserve migratory bird populations through the protection of key habitats, landscapes and ecosystems.

Risks and Challenges

Human impacts on ecosystems are affecting the capacity of nature to continue to provide all of the essential assets and services that are needed now and for future generations. One risk is that since environmental change can take place over a long period of time, the impact and consequences of some landscape-based decisions may not become apparent until some future point. Therefore, once some impacts occur, it may be difficult to remediate them easily or to restore the natural capital loss.

Failure to ensure the conservation of migratory bird species, species at risk and species subject to international trade, or to address issues associated with wildlife disease and invasive species could lead to population declines and impacts on biodiversity and ecosystem health. From a program perspective, impacts on biodiversity could result in additional listings under the *Species at Risk Act*, resulting in additional processes, legal requirements and the need to develop recovery strategies. Robust monitoring and research programs are required to detect declines in populations of wildlife, understand the factors causing those declines, and take steps to mitigate potential problems.

Further details on activities related to biodiversity:

Program Area: Wildlife is conserved and protected
Activities: Using a holistic ecosystem approach to identify, interpret and respond to wildlife conservation concerns; implementing integrated approaches to the management of land, water, air and living resources that promote conservation and sustainable use in an equitable way. Initiatives and activities in this program area flow from the legal obligations under the *Canada Wildlife Act* (CWA), the *Migratory Birds Convention Act, 1994* (MBCA 1994), the *Species at Risk Act* (SARA), the *Canadian Environmental Protection Act, 1999* (CEPA 1999); and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA).
Expected Results: – Wildlife is conserved and protected – Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes
Indicators: – Population levels of targeted migratory bird species and other wildlife under federal jurisdiction – Percentage of species at risk with populations that are stable, improved or recovered – Improvement in the status of threatened and endangered species

- Prevention of wildlife and migratory bird species moving from species of no-concern to species of concern and other listing categories
- Critical habitat for birds and species at risk is effectively protected
- Compliance with the requirements of the *Canada Wildlife Act*, the *Migratory Birds Convention Act, 1994*, the *Species at Risk Act*, the *Canadian Environmental Protection Act, 1999* and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act*
- Decisions to mitigate pressures on wildlife are based on sound research and monitoring with consideration of the precautionary principle

Partners: Agriculture and Agri-Food Canada, Canada Border Services Agency, Canadian Food Inspection Agency, Canadian Space Agency, Fisheries and Oceans Canada, National Defence, Health Canada (Pest Management Regulatory Agency), Indian and Northern Affairs Canada, Natural Resources Canada (Canadian Forest Service), Science and Engineering Research Canada, Parks Canada, Transport Canada, U.S. Food and Drug Administration, other governments

For further information:

Environmental Acts and Regulations (http://www.ec.gc.ca/EnviroRegs/ENG/Default.cfm)

Canadian Biodiversity Information Network (CBIN) (http://www.cbin.ec.gc.ca/index.cfm)

Canadian Wildlife Service (CWS) (http://www.cws-scf.ec.gc.ca/index_e.cfm)

CEPA Environmental Registry (http://www.ec.gc.ca/CEPARegistry/default.cfm)

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (http://www.cites.ec.gc.ca/eng/sct0/index_e.cfm)

CWS Ecological Gifts Program (http://www.cws-scf.ec.gc.ca/egp-pde/default.asp)

CWS Enforcement Branch (http://www.cws-scf.ec.gc.ca/enforce/index_e.cfm)

Environmental Damages Fund (http://atlantic-web1.ns.ec.gc.ca/edf/)

CWS Habitat Stewardship Program for Species at Risk (http://www.cws-scf.ec.gc.ca/hsp-pih/)

Program Area: Land and landscapes are managed sustainably

Activities: Protecting and conserving specific critical habitats; facilitating a national evolution toward systems of integrated landscape management.

Expected Results:

- Land and landscapes sustain the full range of ecological goods and services and are managed sustainably
- Agreement is reached on a strategic framework that sets out national objectives and outcomes for biodiversity conservation
- Canada plays leadership role in promoting and advancing biodiversity conservation nationally, federally and globally, particularly in developing countries, while representing Canadian interests

Indicators:

- Percentage of area (km^2) of conserved wildlife habitat that is under direct Environment Canada protection or protected through departmental partnerships and influence
- Percentage of species at risk recovered through protection of habitat measures
- Percentage of degraded ecosystems restored, rehabilitated or recovered
- Percentage area of forests (certified), agricultural, and marine ecosystems (certified) under sustainable management
- Number and cost of invasions of alien species (e.g. plant pests)

Partners: Aboriginal peoples, other government departments, provinces and territories, industry and industry associations, environmental and non-environmental non-government organizations.

Program Activity 1B – Water is clean, safe and secure

Results Context

Water is emerging as a critical issue of the 21st century. While Canada is recognized around the world for its natural wealth in water resources, these resources are at risk.

The maintenance of sufficient quantities of high-quality water is necessary for human and ecosystem health. Despite significant reductions in point source discharges of contaminants, other key sources of pollution remain, including emerging chemicals, about which little is known. About 1 trillion litres of primary or untreated sewage pour into our water every year. Threats to water quality include the release, redistribution and biomagnification of contaminants. Losses of wetlands continue: 68 percent of original wetlands in southern Ontario, and 75 percent of those in southwestern Manitoba have been converted from their natural state. A changing climate will have profound impacts on the quantity, availability and quality of water resources and will alter ecosystem productivity as well as the habitats and overall biodiversity of aquatic, terrestrial, estuarine and marine ecosystems. Adopting an ecosystem or watershed management approach is important to maintaining healthy ecosystems and protecting human health.

Water is also an essential resource for important areas of Canada's economy such as agriculture, pulp and paper, oil and gas, electric power generation and transportation, as well as tourism and other recreational uses. Urban population growth has resulted in pressures on infrastructure for water and economic development is creating competing sectoral demand for scarce water resources.

Planning Context

This program area is designed to help restore, conserve and enhance Canada's aquatic natural capital by ensuring that Canada's water is clean, safe and secure and that aquatic ecosystems are conserved and protected. Environment Canada works in collaboration with other federal departments, provinces and territories (individually as well as through the Canadian Council of Ministers of the Environment), science networks related to work on the environment, as well as the public (including non-governmental organizations, academia and municipalities). This collaborative work allows Environment Canada to share information; determine priorities for monitoring and research; provide timely and integrated scientific information and advice to decision-makers; build best management practices; and promote sustainable water management in Canada for the efficient use of Canada's water.

Current Status and Future Positioning

Securing clean, safe and secure water for people and ecosystems requires that governments hold a domestically and internationally shared vision. Provinces are generally the primary managers of water in Canada and are responsible for much of the environmental regulation and policy making that affects water issues. However, water bodies and watersheds frequently extend across provincial and national boundaries.

Environment Canada is working to set overall direction for the management of water resources by enhancing inter-jurisdictional relations and governance structures; improving federal water management across departments; improving water quality and aquatic ecosystem health

monitoring and information; enhancing the understanding of the impacts of human activities on water resources and aquatic ecosystem health; establishing actions to restore and preserve Canada's water resources; and promoting wise and efficient water management and use.

Risks and Challenges

There is a risk that decision-makers and resource managers will not have adequate or sufficient science-based advice on the impacts and risks to water quality, quantity and sustainable use, including long-term infrastructure costs and those related to urban growth and economic development in Canada. To mitigate this risk, Environment Canada is working in collaboration with its partners to share information, promote sustainable water use and build best management practices in Canada.

Securing interdepartmental, intergovernmental and sectoral cooperation, support and strategic partnerships is a significant challenge. Environment Canada and interdepartmental committees are looking at ways to improve the integration of federal work related to water.

Further details on activities related to water:

Program Area: Aquatic ecosystems are conserved and protected
Activities: National Water Strategy implementation, water science and technology integration, water management performance promotion, water quality and aquatic ecosystem monitoring and reporting, research on hydrology and the impacts of human activities and the effects of contaminants and other substances of concern on aquatic ecosystems and water resources, research and development on the conservation and remediation of water resources, science and technology support to water activities and water education and engagement
Expected Results: – Inter-jurisdictional relations and governance structures are enhanced – Federal water management across departments is improved – Water quality and aquatic ecosystem health monitoring and reporting are improved – Understanding of the impacts of human activities on water resources and aquatic ecosystem health is enhanced – Actions are taken to restore and preserve Canada's water resources and promote wise and efficient water management and use – Education and engagement on water are improved
Indicators: – Economic, social and environmental benefits accrue to Canadians through sustainable and productive use of water resources – Canadians have access to safe drinking water and human health is protected from water quality and quantity-related threats – Aquatic ecosystems and biodiversity are conserved and protected
Partners: Federal, provincial, territorial and municipal governments; other federal departments (approximately 20 federal departments and agencies have interests in water); Aboriginal peoples; non-governmental organizations; the International Joint Commission; industry; academia; domestic and international water-related networks
For further information: http://www.environmentandresources.ca/default.asp?lang=En&n=2B589A09-1

Program Activity 1C – Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes

Results Context

Ecosystems provide essential goods and services for Canadians (e.g. clean water, biodiversity, flood control). Decisions made by governments, industry, and individuals determine how natural capital is used and managed, which can affect the health of the ecosystem and its ability to provide these goods and services. Effectively communicating integrated science and policy expertise and working in partnership with decision-makers will influence the potential impacts of their choices on the ecosystem.

Priority Ecosystem Initiatives have been developed in an effort to respond to the unique environmental and sustainability issues of targeted ecosystems. They are results-based multi-stakeholder initiatives that promote and implement ecosystem management to maintain Canada's natural capital.

The environmental assessment process is a planning tool for government decision-making to promote the sustainable use and management of our natural capital. The number of proposals for large natural resource development projects is forecast to increase significantly. These large projects, considered collectively, could substantially impact ecosystem functions and natural capital reserves.

Planning Context

This program area will oversee the development and implementation of an ecosystem approach for environmental management. It will facilitate comprehensive departmental action on ecosystems by aligning science, monitoring, on-the-ground action and policy expertise as well as enhancing collaborative governance and decision-making mechanisms.

The goal of this work is to effectively generate and communicate integrated knowledge of ecosystems and influence decision-making and actions to ensure that our ecosystems maintain their capacity to produce ecological goods and services.

Current Status and Future Positioning

A strategic vision will be developed to define the scope and mandate of Priority Ecosystem Initiatives, including the principles for determining relative priorities for each of these ecosystems. Plans and priorities include:

- implementing an ecosystem approach for the Department;
- developing a Priority Ecosystem Management Framework;
- planning the renewal of several ecosystem initiatives or associated agreements; and
- improving the state of priority ecosystems across the country through the effective delivery of Priority Ecosystem Initiatives.

Preparation to renew Priority Ecosystem Initiatives will be undertaken during the next year and efforts will be made to ensure a more homogeneous and coherent renewal process. Communities play a key role in the Ecosystem Initiatives and efforts will continue to foster capacity building and strengthen community involvement.

While environmental assessments can be conducted on a project-by-project basis, Environment Canada will enhance its ability to consider the effects of multiple projects within the ecosystem through cumulative effects assessments and regional environmental assessments.

Risks and Challenges

If an ecosystem approach is not applied to departmental initiatives, we may lose the opportunity to increase the efficiency of our programs in responding to the environmental and sustainability issues of targeted ecosystems. It may also be more difficult to further integrate work with other departments, other governments and partners.

Further details on activities related to natural capital and landscapes:

Program Area: Integrated information and knowledge enable integrated approaches to protecting and conserving priority ecosystems
Activities: Management (e.g. development and management of agreements and memoranda of understanding (MOUs), policy development, partnership management, performance measurement and assessment, strategic communications supporting effective delivery of priority ecosystems). Community engagement and capacity development (e.g. activities related to the development, support and coordination of community engagement and capacity development in order to support effective delivery of priority ecosystems). Integration (e.g. implementation of an ecosystem approach for the Department, development of a Priority Ecosystem Management Framework, coordination of priority ecosystems to achieve better integration and effectiveness amongst various initiatives). Action (e.g. integrated implementation of activities and program that lead to the improvement of the state (environmental quality) of priority ecosystems across the country).
Expected Results: – Level of environmental quality within priority ecosystems is improved through efficient implementation of the existing six ecosystem initiatives – Department uses an ecosystem approach to identify gaps with respect to integrated information, science, monitoring, assessment and indicators for priority ecosystems and other related Environment Canada programs – A Priority Ecosystem Management Framework is used as a lens to identify, develop and implement Priority Ecosystem Initiatives – Linkages and partnerships across Canada are enhanced and strengthen coordination between individual initiatives – The Great Lakes Water Quality Agreement (2007–2008) is reviewed, the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (2007–2010) is renewed, and Priority Ecosystem Initiatives are reviewed and renewed (2008–2010)
Indicators: An improved health of priority ecosystems across Canada: - ACAP communities enhance ecosystem integrity, promote competitiveness and protect human health - Monitoring of the state of the St. Lawrence indicates measurable improvements in the state of conservation and protection of this ecosystem - Declassification of special areas in the Great Lakes Basin (e.g. areas of concern) - Launch of a national boreal bird-habitat-climate monitoring program - Northerners incorporate adaptation strategies into their planning policy and decision-making

- State and effectiveness of actions taken by industry, landowners and local government to prevent and reduce pollution in air and water in the Georgia Basin
- Establishment and/or maintenance of shared governance mechanisms
- Engagement of appropriate citizens' groups and communities in support of Ecosystem Initiatives (e.g. through Priority Intervention Zones [ZIPs], Atlantic Coastal Action Program, Remedial Action Plans, Georgia Basin Action Plan Partnership Fund, Northern Ecosystem Initiative projects)
- Timeliness and usefulness of information and advice received by governance structures

Indicators: An improved implementation of the Ecosystem Approach to insure the conservation and protection of the natural capital provided by Canada's ecosystems:

- Shifts in Environment Canada's initiatives and programs to reflect the Ecosystem Approach (e.g. integrated ecosystem monitoring, cumulative effects assessments, better aligned science and policy expertise, enhanced collaborative governance)
- Sharing and use of departmental science in policy and program development by governance structures
- Innovative tools for decision-makers to provide a better understanding of ecosystem changes as well as ecological functions and services
- Strategic vision to define the scope, mandate and relative priorities for each of the Priority Ecosystem Initiatives
- Enhanced, new and more focused Ecosystem Initiatives aligned to program objectives

Partners: Other federal departments; provinces and territories, municipalities, International Joint Commission (IJC), U.S. federal and state governments, community groups, First Nations and Inuit organizations, conservation authorities, environmental non-governmental organizations, industry, academia, science institutions and programs, as well as research and science networks.

For further information:
Ecosystem Initiatives (http://www.ec.gc.ca/ecosyst/backgrounder.html)
Atlantic Coastal Action Program (http://atlantic-web1.ns.ec.gc.ca/community/acap/)
St. Lawrence Plan (http://www.planstlaurent.qc.ca)
Great Lakes Basin Ecosystem Initiative (http://www.on.ec.gc.ca/greatlakes/)
Western Boreal Conservation Initiative (http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/wbci-icbo/)
Georgia Basin Action Plan (http://www.pyr.ec.gc.ca/georgiabasin/index_e.htm)
Northern Ecosystem Initiative (http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/nei-ien/index.en.html)

Program Area: Information, assessment and understanding of the state of ecosystem sustainability support decision-making

Activities: Consolidated environmental assessments; monitoring and assessment of biodiversity and natural capital trends

Expected Results:

- The environmental sustainability of projects, plans, programs and policies of federal interest is improved
- Ecological assessment and monitoring information influence decision-making

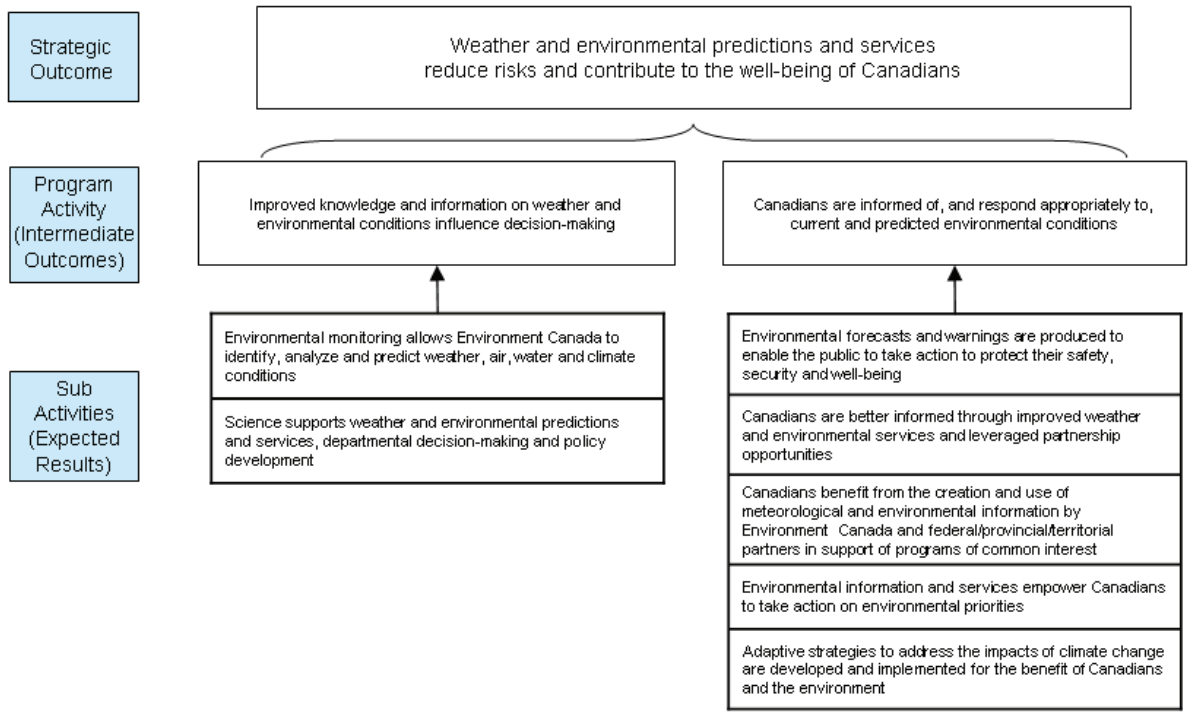
Indicators:

- Implementation of new management approaches in project environmental assessments and strategic environmental assessments
- Availability of relevant and reliable information to assess ecosystem status and change

Partners: Other federal departments; provinces and territories; EMAN Network (the public, environmental non-governmental organizations, academia)

For further information:
Ecological Monitoring and Assessment Network http://www.eman-rese.ca/eman/
Environmental Assessment http://www.ec.gc.ca/ea-ee/home/home_e.asp

Strategic Outcome 2: Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians



Description

Canadians are affected by environmental and weather conditions such as extremes in temperature and precipitation, variable lake levels, winter storms, hurricanes, tornadoes, droughts, floods, smog, sea ice conditions, road icing and aircraft turbulence. These conditions can affect our health and safety, our property, our businesses, the economy and the environment.

Almost one-third of Canada's gross domestic product is affected by climate and weather. Important regional economies and entire economic sectors, such as forestry, agriculture and fisheries, are already being affected and could be severely affected by further climate change. Canada's northern communities and ecosystems are particularly vulnerable and impacts, including melting permafrost and shrinking sea ice cover, are already being observed. In order to reduce the social, economic and environmental impacts of climate change on Canada, action needs to be taken to strengthen our understanding of the impacts of climate change and steps need to be taken to adapt to its effects.

Environment Canada works to provide Canadians with world-class meteorological and environmental information, prediction and services to ensure safety, ecosystem sustainability and enhanced economic activity. Environment Canada's work in this area is organized under two program activities:

1. Improved knowledge and information on weather and environmental conditions influences decision-making.
    a. Environmental monitoring allows Environment Canada to identify, analyse and predict weather, air, water and climate conditions.
    b. Science supports weather and environmental predictions and services, departmental decision-making and policy development.
2. Canadians are informed of, and respond appropriately to, current and predicted environmental conditions.
    a. Environmental forecasts and warnings are produced to enable the public to take action to protect their safety, security and well-being.
    b. Canadians are better informed through improved weather and environmental services and leveraged partnership opportunities.
    c. Canadians benefit from the creation and use of meteorological and environmental information by Environment Canada and federal/provincial/territorial partners in support of programs of common interest.
    d. Environmental information and services empower Canadians to take action on environmental priorities.
    e. Adaptive strategies to address the impacts of climate change are developed and implemented for the benefit of Canadians and the environment.

Planned Financial and Human Resources by Program Activity

Program Activities	2007–2008		2008–2009		2009–2010	
	$ millions	FTEs	$ millions	FTEs	$ millions	FTEs
Improved knowledge and information on weather and environmental conditions influences decision-making	**126.2**	**1,066**	125.5	1,050	127.8	1,048
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	**156.8**	**1,462**	147.3	1,472	152.1	1,480
Totals	**283.0**	**2,528**	**272.8**	**2,522**	**279.9**	**2,528**

Totals may differ within and between tables due to the rounding of figures.

Expected Results and Key Measures

Program Activity	Expected Results	Key Indicators
Improved knowledge and information on weather and environmental conditions influences decision-	Environment Canada has the environmental monitoring capability that allows it to identify, analyse and predict weather, air, water and climate conditions	Integrity of monitoring networks and of their operations (sustainable and affordable networks)

making	Science is produced to support weather and environmental services, decision-making and policy development	Science-driven improvements to quality and utility of weather and other environmental services, as expressed by accuracy and timeliness of forecasts and the degree to which environmental science influences policy development and decision-making
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	Environmental forecasts and warnings are produced to enable the public to take action to protect their safety, security and well-being	Quality and lead times of warnings Accuracy of forecasts Public satisfaction with quality as measured in surveys
	Canadians are better informed through improved weather and environmental services and leveraged partnership opportunities	Level of satisfaction of public and weather-sensitive industries Improvements to key services for weather-sensitive economic sectors Level of access to and demand for Environment Canada's products and services Level of access to international monitoring data through initiatives such as the Global Earth Observation System of Systems (GEOSS) initiative
	Canadians benefit from the creation and use of meteorological and environmental information by Environment Canada and federal/provincial/territorial partners in support of programs of common interest	Level of satisfaction of partner and client organizations Accuracy and timeliness of services measured against performance benchmarks
	Environmental information and services empower Canadians to take action on environmental priorities	Extent to which Canadians are able to use a variety of environmental data and information in their decision-making and have the motivation and tools to take action and to influence others to do so
	Adaptive strategies to address the impacts of climate change are developed and implemented for the benefit of Canadians and the environment	Enhanced level of awareness and understanding by economic sectors, other government departments and other levels of government of their vulnerability to atmospheric change Reduction of Canada's adaptation deficit as measured by: - Reductions in the vulnerability to the built environment, human health and ecosystems - Reductions in the vulnerability and increased opportunities for economic competitiveness

Plans and Priorities

Over the next three years, Environment Canada will pursue the following plans and priorities for the Weather and Environmental Predictions and Services Strategic Outcome and related Program Activities:

1. Provide Canadians with the information and services needed for effective decision-making that will reduce the impacts on society of hazardous weather and environmental conditions, through uninterrupted delivery and continuous improvement of essential Environment Canada services—with critical 24/7, real-time infrastructure support:

    - Improvements to essential services are based on solid science and high quality environmental data within a quality management framework;
    - Weather forecasts, warnings and environmental information reach decision-makers, including information on past and future hazards/extremes to inform emergency preparedness legislation and infrastructure design criteria;
    - Environment Canada's obligations to provide weather and environmental services in support of the missions of other government departments, other levels of government and essential service providers continue to be met;
    - Canadians understand, have access to and effectively use weather and environmental products and services.

2. Develop and implement an integrated environmental monitoring and prediction capability that meets the needs of the evolving Environmental Agenda:

    - In collaboration with clients, understand the impacts of a changing environment—including the increasing frequency of high impact events—on economic sectors, ecosystems and society;
    - Clients have the scientific information and tools to implement adaptation solutions that minimize their risks and maximize their opportunities in ways which balance social, economic and environmental needs;
    - Lead, nurture and enhance key national and international partnerships for improved leveraging of resources and access to new science, technology, expertise and new information sources.

3. Meet the future needs of Environment Canada with human resource, succession and infrastructure plans that are fully integrated into business plans to build capacity and address infrastructure integrity:

    - Environment Canada has access to skilled personnel to meet its evolving needs;
    - Employees contributing to weather and environmental services have ongoing training and development opportunities;
    - Infrastructure is life-cycle managed.

Program Activity 2A – Improved knowledge and information on weather and environmental conditions influences decision-making

Results Context

The availability of timely observational data and information is critical to generating knowledge and information for environmental prediction, air quality forecasts, water quality and supply analyses, climate change and ecosystem sustainability. In particular, monitoring (the systematic measurement of various parameters of the environment, such as winds, temperatures or water levels) makes it possible to detect and predict, in real time, hazardous environmental conditions; these activities are critical for reducing risks and contributing to the health and well-being of Canadians. The resulting data and information are used in the development of policy and regulations (e.g. climate change policy and building codes) and contribute to advances in environmental literacy. Observational information is also needed to quantify the impact of policy decisions.

Monitoring activities are directed at ensuring the acquisition, transmission, archiving, and accessibility of observations pertaining to weather, climate (past weather), water levels and flows, and other environmental matters. These observations are essential to making consistent, reliable data and timely information available to users 24 hours a day, 7 days a week. Activities fundamental to achieving these results include: monitoring relevant parameters; establishing, maintaining and inspecting the monitoring infrastructure; providing horizontal leadership in environmental monitoring; data stewardship; and reporting on those basic parameters.

Prediction research activities range from numerical weather and chemical prediction to water cycle prediction. Analysis activities are extremely important in the areas of cloud physics, ice research and climate modeling. Climate trends and atmospheric-science-based assessments assist research scientists to develop a better understanding of the global climate picture, thereby providing a strong basis for advice to Canadians. The research-based advice will guide Canadians in changing their energy usage patterns to help improve climate conditions over the long run.

Environmental prediction science delivers credible, relevant, integrated and usable environmental predictions, environmental knowledge and advice as well as decision-making tools and information on existing and emerging issues. Environment Canada's environmental prediction science helps industry, citizens, communities and governments understand their vulnerabilities to conditions or threats related to health, safety, security, the economy or the environment. This science also provides them with knowledge, predictions, advice, decision-making tools and information that enable them to prevent the preventable, optimize opportunities and risk-manage the rest. Environment Canada recognizes the need for an emerging environmental prediction strategy stemming from our Science Plan, which clearly identifies the need for a system to integrate environmental monitoring and environmental prediction. Environment Canada will take the lead in the development and implementation of this system that will meet the needs of the evolving environmental agenda.

Planning Context

This program area consists of environmental science and monitoring to detect hazardous conditions, to understand what is changing in the atmosphere (weather, climate, air quality and ultraviolet radiation), hydrosphere (water) and cryosphere (ice and snow), and why. To achieve this, it is necessary throughout Canada to conduct consistent, ongoing measurements of basic parameters. A key benefit of the results under this program will be to provide improved knowledge, predictions, information and tools on weather and environmental conditions (e.g. a better understanding of the causes of severe weather, the mechanisms that transport chemicals through the atmosphere, the impacts of human activity on the atmosphere, and models based on atmospheric science). These benefits will support the development of policy as well as the delivery of environmental services.

Current Status and Future Positioning

The continuous operation of observational networks, including an increasing role for remote and space-based monitoring systems (e.g. Earth Observation satellites), is critical to enable Environment Canada to provide essential environmental predictions. Environment Canada's observational information and data are relied upon to support policies and programs in the following areas: forecasting weather, floods and droughts; conducting informed environmental assessments; assessing the impacts of climate change and the effectiveness of adaptation responses; designing buildings and infrastructures; managing and protecting natural resources, including water; and forecasting and managing air quality.

To increase data coverage in a cost-effective way, it will be necessary to make strategic investments in new monitoring technologies and strategies to move towards an appropriate mix of in-situ, remote, airborne and satellite-based monitoring systems. In addition, the current mix of data acquisition, transmission, archiving and dissemination processes is being optimized to ensure efficiency and data integrity. Finally, effective systems for managing the Department's environmental information and making it readily available to researchers and decision-makers—like the data management framework currently under development—are also critical to delivering high-quality data products and services in a manner that is convenient and timely for the clients. Together, the actions undertaken will allow the Department to better respond to growing demands for more accurate, comprehensive and timely environmental information and predictions.

From a scientific perspective, current priorities focus on improving scientific models (e.g. achieving higher resolution and accuracy), better exploiting data and improving observation systems, shifting to probabilistic outputs (by combining several predictions), and transferring technology and scientific information to operational applications.

Risks and Challenges

Implementing the proposed monitoring approach requires people with very specialized scientific and technological backgrounds. This is particularly important to deliver the scientific information required to address key environmental issues over both the short term and long term (on climate change and the North, or in key sectors such as the social, security, and financial sectors).

Environment Canada will develop and implement an up-to-date formal succession plan and aggressive career development plan to address the very high retirement rate anticipated over the next five years for technical and professional staff and to ensure that appropriately trained employees are available (three to five years of training is required).

Failures of automated data collection systems could result in a lack of reliable observational data to forecast meteorological and environmental hazards. Effective maintenance and inspection programs with contingency plans for all networks minimize such risks. In particular, Quality Management System certification (ISO 9001) for data collection networks is being pursued to enhance the integrity of operations and contribute to improvements.

Further details on weather and environmental knowledge and information activities:

Program Area: Environment Canada has the environmental monitoring capability that allows it to identify, analyze and predict weather, air, water and climate conditions
Activities: Ensuring the acquisition, transmission, archiving and accessibility of weather, climate, hydrometric and other environmental observations essential to providing users with consistent, reliable data and information in a timely fashion
Expected Results: Environment Canada has the environmental monitoring capability that will allow it to identify, analyse and predict weather, air, water and climate conditions and to consolidate its systematic meteorological, climatological and hydrometric monitoring activities, creating the foundation for national leadership in promoting key departmental objectives: – Assisting other federal departments, other levels of government and external organizations to meet their environmental data needs – Developing an integrated environmental monitoring and reporting strategy for Environment Canada – Leading the integration of atmospheric and hydrometric monitoring efforts in Canada – Leading Environment Canada efforts on future key monitoring initiatives (e.g. Global Earth Observation and space-based monitoring)
Indicators: – Integrity of monitoring networks and of their operations – Partnership relationships and support to domestic and global monitoring initiatives (e.g., Global Earth Observation System of Systems (GEOSS) and data access and sharing) – Increased lead-time and increased quality of basic data dissemination to Canadians – Canadian weather, climate, and hydrometric data and information required to address national and global needs are collected, controlled for quality, disseminated and archived for access by Canadians
Partners: World Meteorological Organization; GEOSS; other government departments (National Defence, Parks Canada, Canadian Coast Guard, Agriculture and Agri-Food Canada, Canadian Space Agency); other levels of government (provinces/territories and municipalities); NAV CANADA; U.S. National Oceanic and Atmospheric Administration; U.S. Geological Service; European Space Agency; Canadian Cooperative Programs

Program Area: Science supports weather and environmental predictions and services, departmental decision-making and policy development
Activities: Delivering credible, relevant, integrated and usable environmental predictions, environmental knowledge, advice, decision-making tools and information

Expected Results: – Science is produced to support weather and environmental services, decision-making and policy development – The body of knowledge about climate analyses, climate trend processes and climate modelling, as well as atmospheric studies, is increased – Environmental policies and services are developed based on sound atmospheric science
Indicators: – Quality and utility of essential government services improved to meet client needs – Improved technology and knowledge transfer, improvements introduced into meteorology/ice/hydrometric forecasts and services – Scientific understanding of the complex chemical dynamic processes associated with ozone depletion is understood to the level that dynamical-chemical models can replicate changes in atmospheric ozone – Canadians' level of awareness and understanding of the issue of environmental policy, as well as its scientific basis
Partners: Other government departments (National Defence, Fisheries and Oceans Canada, Transport Canada, National Resources Canada, Health Canada, Agriculture and Agri-Food Canada, Canadian Forest Service, Canadian Coast Guard, Canadian Space Agency, Natural Sciences and Engineering Research Council, Parks Canada); other levels of government; international research agencies (U.S. National Centers for Environmental Prediction, U.S. Federal Aviation Administration, U.S. National Aeronautics and Space Administration, European Centre for Medium-Range Weather Forecasts, International Ice Patrol, International Ice Charting Working Group, Intergovernmental Panel on Climate Change, Global Climate Modelling Centres)

Program Activity 2B – Canadians are informed of, and respond appropriately to, current and predicted environmental conditions

Results Context

Timely warnings of changing weather and environmental conditions that threaten the lives and health of Canadians form the raison d'être of this program area. Globally, about 85 percent of life-threatening hazards are hydrological or meteorological in nature. Furthermore, public opinion research[4] indicates that the vast majority of Canadians consult weather forecasts every day, for their security and decisions they make in everyday life (e.g. travel planning and recreation). Weather and environmental information is used in making policy and business decisions, particularly in weather-sensitive sectors such as transportation and agriculture. Increasingly, Canadians, governments at all levels, and private industries are seeking other types of environmental information, for example, on air quality or ultraviolet radiation.

Accessible and understandable information about the changing physical and chemical environment is a key element to help ensure the health and safety of Canadians. Information on the past, present and future states of the environment is now an important factor in business decisions, particularly in the context of a just-in-time, globally competitive economy. More and more, being able to anticipate how the environment will affect business locally or globally is a key element of competitiveness.

[4] *National Survey on Meteorological Products and Services*, Decima Research May 2002 (surveyed residents of the ten provinces); *Attitudes Toward Weather Information in the North*, Environics Research Group, August 2005 (surveyed residents of the Yukon, the Northwest Territories, Nunavut and Nunavik).

Environment Canada produces weather and environmental forecasts, warnings and information for the health and safety of Canadians, 24 hours a day, every day. It also produces air quality forecasts, and information products for emergency response, such as forecasts of concentrations of hazardous substances like volcanic ash, pollutants or radioactive material. Information is very useful, but, by itself, it is generally not sufficient to empower Canadians to take action to preserve and protect ecosystems or species at risk; active engagement and outreach approaches are also essential. Through community-based funding, capacity support programs and education initiatives, Environment Canada encourages citizens to take action in their own communities to reduce waste, enhance the natural environment, and reduce air and water pollution.

Scientific studies have stated that the impacts of climate change are already evident, and the 2007 report of the Intergovernmental Panel on Climate Change attributes these impacts, with over 90 percent certainty, to human activities. Such scientific studies document long-term changes—from prehistoric times to present-day observations such as first-hand experiences in Canada's northern Aboriginal communities. The economic cost of these impacts, both domestically and internationally, has become evident through, for example, insured and uninsured losses. These early climate and atmospheric impacts are dramatically increasing demands on all levels of government to act within their areas of responsibility. Impacts and adaptation programs will focus on science capacity to support the rapidly growing need for science-based advice on adaptation. This will allow decision-makers to understand and risk-manage the impacts of climate change.

Planning Context

This program area consists of producing and making available relevant knowledge and information on past, present and future physical and chemical conditions of the atmosphere (air), hydrosphere (water) and cryosphere (ice and snow). Building on Environment Canada's work to reduce the impact of weather and related hazards, this program area also focuses on understanding and minimizing the negative effects of climate change, optimizing opportunities of climate change for Canadians, developing adaptive strategies and helping partners to implement solutions. This responds to the assessed needs of Canadians—be they policy- or decision-makers, business people or individuals, or others who require this information to deliver on departmental or federal responsibilities and obligations (e.g. National Defence, NAV CANADA, and the Canadian Coast Guard). Under this program area, information on the state of the environment is produced by integrating environmental data (weather, ice cover, water levels, pollutant releases and transport, etc.) and scientific knowledge into a wide variety of products and services. These products and services aim to empower Canadians to safeguard themselves and their property against environmental hazards like dangerous weather or poor air quality and to help them make better-informed decisions, be they of a social, economic or environmental nature. By properly taking the past, present and future states of the environment into account, Canadians can make informed decisions for the mutual benefit of the economy and the environment. Partnerships, domestic and international, are critical to the success of these endeavours.

Current Status and Future Positioning

The production of Environment Canada's meteorological forecast services has been extensively restructured over the past few years to respond effectively to the ever-increasing demands for improved meteorological information and services, and to deliver the latter in a manner that is sustainable in the long term. Now entering the final year of a five-year plan, this transition aims to increase the efficiency of production and develop a coherent quality management system while ensuring that environmental information is properly understood and used to its fullest potential, through activities such as outreach to major clients and stakeholders, public opinion research and analysis of feedback.

In the future, Environment Canada intends to broaden its services to include other forms of environmental predictions. Traditional weather prediction services will expand to include new areas such as the evolution of key ecosystems affected by climate change, or the impacts of environmental changes on economic sectors like transportation or tourism. Other expected changes include improved services to Canadians, for example, education and engagement activities, modern dissemination systems (e.g. Environment Canada's weather information website "weatheroffice.ec.gc.ca," the Canadian government's most popular website with almost 900 million page views annually) and performance management. Also, activities worthy of future investments include the international Global Earth Observation System of Systems (GEOSS) initiative, which will permit continued leveraging of international monitoring and science activities, thus leading to better environmental prediction services.

Environment Canada cannot achieve its results without the many win-win partnerships that help to optimize the use of its infrastructure and successfully deliver its services. An excellent example of such a partnership is the introduction of the new 511 telephone services to be offered in partnership with Transport Canada, provincial and territorial governments, the Canadian Urban Transit Association and the Intelligent Transportation Systems Society of Canada. The objective is to offer to all Canadians free bilingual access to current weather information including warnings of high impact weather events as well as travel information, such as road conditions.

The Department participates in other partnerships to deliver its programs in a cost-effective manner. For example, Environment Canada's ice service will work with the Canadian Space Agency and other government users to develop and implement policies for sharing the federal government's $445 million pre-purchase of data from RADARSAT-2. (RADARSAT is a satellite that carries radar equipment, providing the data that are used extensively by Environment Canada for ice monitoring. RADARSAT-2 is the second such satellite.) The partners will negotiate, as a coherent federal team, a fair contract that will meet all federal needs. RADARSAT-2's enhanced technology will permit improvements in ice monitoring capabilities, resulting in safer navigation, while fostering scientific innovation in Canada.

Environment Canada will continue to strengthen its links with the media, who not only want and need access to its information and services for their programming, but also represent the single most effective conduit for getting forecasts and warnings to the public—a key aspect of the Department's mandate. A special National Service Office is dedicated to maintaining and improving services for the media and operating a website dedicated to media use. Outreach and

warning preparedness officers liaise with media outlets to improve the quality of the services provided and to increase the priority they give to weather warnings, thus extending the reach of this essential service while obtaining feedback from the media sector. Likewise, work with partners like public safety agencies and emergency measures organizations is crucial to assist them in planning how to mitigate and respond to emergencies, and to fulfill the Department's mandate of informing and protecting Canadians.

Another good example of partnerships to help others fulfill their mandate is the Marine Aerial Reconnaissance Program (MARP) for ice, pollution and marine security. A partnership formed in 2005 with Transport Canada to use aircraft for ice reconnaissance and pollution patrol, the MARP will be expanded to serve the Interdepartmental Marine Security Working Group (Transport Canada Marine Security and National Defence). The expanded MARP will mean that almost all marine surveillance missions are multi-tasked and will carry out the following: marine security reconnaissance (to provide data about ships navigating Canadian waters); pollution surveillance and enforcement of regulations regarding the marine environment, which will also help "ground-truth" satellite-based surveillance; and ice reconnaissance to support commercial navigation and the ice-breaking operations of the Canadian Coast Guard (Fisheries and Oceans Canada). In addition to providing important data for government operations, this expanded program will allow Canada to have, by the end of 2007–2008, a national coordination strategy for aerial reconnaissance. It will also result in significant economies of scale through increased productivity (of both staff and equipment).

Information and data about the state of Canada's environment and how it is affected as a result of human activities (for example, by releases of pollutants into the air or water) may, in some cases, be difficult for citizens to understand. Environment Canada intends to put additional emphasis in the coming years into improved public reporting and contextualization of this type of information to enable individuals, businesses and other decision-makers to take specific action to improve and protect the environment and make better-informed decisions.

Risks and Challenges

Rapid scientific and technological advancements pose a challenge to environmental prediction activities with respect to the acquisition of data and the production and dissemination of forecasts. For example, new generations of satellites are being launched and will provide increasingly voluminous and useful data sets that Environment Canada needs to use for environmental predictions. These volumes of data will require the modernization of ground receiving stations, as well as additional telecommunications bandwidth, supercomputing power and mass storage. A strategic plan currently under development will address these issues and set a long-term strategy for refits and modernization. Risks related to a sudden loss of data—due to a system failure or a termination of service by a supplier—are mitigated by using multiple sources of data. Effective business continuity planning mitigates the risk of loss of weather and environmental forecasts and planning.

Forecasting is increasingly done using numerical environmental-prediction models that can only be run on the very fastest computers available, making a major failure of the Department's supercomputer a significant risk. This is mitigated by ensuring a robust and reliable

supercomputing facility with systems such as uninterruptible power supplies, and by securing access to models from abroad (e.g. United States, European countries).

Adaptation solutions currently do not exist for many issues and can only be developed using a solid foundation of impacts and adaptation science coupled with strong partnerships that include decision-makers and multi-disciplinary networks. Canada must accept the challenge of developing a strong adaptation science capacity and providing the science-based solutions needed by all levels of government, economic sectors and society. Such a capacity would initially reduce the adaptation deficit in four key areas: technology (e.g. Canada's critical public infrastructure), human health (e.g. heat alert and air quality warning system), economic competitiveness (e.g. agri-environmental standards for Canadian farmers) and resilience in natural ecosystems and biodiversity.

Reliance on automated information technology (IT) systems increases the potential impact of systems failures. In order to mitigate these risks, Environment Canada:

- designs, tests and implements highly resilient and robust systems, through the use of redundant components where practical;
- develops and maintains service level agreements to ensure appropriate levels of service, in particular to services and systems required on a 24/7 basis, and
- develops, tests and maintains continuity plans to mitigate the impact in the event of failures.

Security threats can also present a real risk to the 24/7 operations of the Department. This risk is mitigated through the implementation of Government of Canada policies, industry standards and best practices as well as vigilant monitoring of the Department's IT infrastructure.

Further details on activities related to informing Canadians:

Program Area: Environmental forecasts and warnings are produced to enable the public to take action to protect their safety, security and well-being
Activities: Identifying, predicting and informing all Canadians of changes in the atmospheric environment and of potential high-impact meteorological situations or events that have consequences for their safety and well-being
Expected Results: – The accessibility, use and reliability of warnings delivered through Environment Canada service channels and partnered channels are increased – Warnings are improved through scientific knowledge transfer to operations, more training and professional development for forecasters, and automation of routine production – Canadian citizens and weather-sensitive sectors (public and private) receive meteorological information in a timely manner, properly understand it, and know how to use it or to react to it
Indicators: – Improvement in Canadians' access to and understanding of high-impact weather warnings – Benchmarks for satisfaction of weather-sensitive industries with Environment Canada's weather services – Satisfaction of citizens and weather-sensitive sectors with the timeliness of meteorological

information, and their level of understanding and use of the information they receive

- Integrity of monitoring networks, new data sources and improved spatial coverage
- Predictability of large-scale weather patterns is extended by 12 hours every 5 years

Partners: Other government departments (Public Safety and Emergency Preparedness Canada, Health Canada, National Defence, Fisheries and Oceans Canada, Canadian Food Inspection Agency, Privy Council Office); provinces and municipalities; media; the general public; private sector; international organizations (World Meteorological Organization (WMO), International Civil Aviation Organization, Comprehensive Nuclear-Test-Ban Treaty Organization, Global Earth Observation); the U.S. and other G8 countries.

Program Area: Canadians are better informed through improved weather and environmental services and leveraged partnership opportunities

Activities: Providing better access to and delivery of information; measuring performance; leveraging partnerships; and expanding the application of environmental prediction and information

Expected Results:

- Canadians, key clients and partners receive better advice on and access to pertinent weather and environmental information in support of decision-making
- A reliable, robust multi-hazard public warning system is in place that allows Canadians to take measures to reduce risk to life and property
- Environment Canada's national and international credibility, reputation and visibility as an authoritative public service provider are enhanced

Indicators:

- Improvements to key services for weather-sensitive economic sectors
- High level of satisfaction of citizens and weather-sensitive sectors with the timeliness of meteorological information, and their level of understanding and use of the information they receive
- High degree of access to international monitoring data
- Increased capacity and role of the private sector in serving meteorological and hydrological needs in Canada.

Partners: Other government departments (National Defence, Fisheries and Oceans Canada, Transport Canada, Natural Resources Canada, Health Canada, Agriculture and Agri-Food Canada, Industry Canada, Canadian International Development Agency, Canadian Space Agency, Parks Canada); other levels of government; private sector; weather-sensitive industry; media; academia; international meteorological community

Program Area: Canadians benefit from the creation and use of meteorological and environmental information by Environment Canada and federal/provincial/territorial partners in support of programs of common interest

Activities: Providing partners with quality environmental information that allows them to improve the safety of their operations and maximize their efficiency

Expected Results:

Environment Canada supports the weather-sensitive operations of its major government and government-mandated partners by providing them with quality environmental information that allows them to improve the safety of their operations and maximize their efficiency, for the overall betterment of the Canadian economy, the environment and Environment Canada's meteorological programs

Indicators:

- Weather-sensitive partners and clients (National Defence, Fisheries and Oceans Canada / Canadian Coast Guard, NAV CANADA, Vancouver Olympic Committee) are satisfied with the timeliness of meteorological information, and understand and use the information they receive
- Performance measurement benchmarks for accuracy of forecasts (aviation weather, ice) and quality of forecasts in general (e.g. timeliness, conformance with standards) are met
- There are warning and forecast improvements to services related to ice, aviation weather and Olympic preparation through scientific knowledge transfer to operations; better training and professional development for forecasters are in place, and tools are improved.
- Federal departments are satisfied with support received during emergency response (Coast Guard and National Defence can be first responders; air operations for emergency response, e.g., search and rescue, can call on the air navigation system)

Partners: Other government departments (Transport Canada, National Defence, Fisheries and Oceans Canada, Canadian Coast Guard (Fisheries and Oceans Canada), Canadian Space Agency, Canada Centre for Remote Sensing (Natural Resources Canada), Public Safety and Emergency Preparedness Canada); funding programs (e.g. SAR-New Initiatives Fund; Program of Energy Research and Development, Technology and Innovation); the WMO; international meteorological community; aviation industry, including airlines and airport authorities; U.S. Department of Defense; International Olympic Committee; sporting federations; municipal governments

Program Area: Environmental information and services empower Canadians to take action on environmental priorities

Activities: Reaching out to Canadians with Environment Canada's science, knowledge and information in order to build their awareness; to inform and educate them about environmental issues, including actions they may need to take and influence others to take

Expected Results:

- Canadians (including specific client segments, e.g., youth, educators and consumers) have access to high-quality customized information and tools so they understand priority issues and take action to behave more sustainably and influence others to do so
- Community groups have achieved measurable environmental, capacity and awareness results on priority issues, and restoration of environmental damage
- Collaborative efforts increase, among non-governmental organizations (NGOs) and communities, to disseminate information and promote environmental tools and actions to Canadians (including specific client segments, e.g., youth, educators and consumers)
- Canadians in selected business and government sectors (e.g. energy, transportation, agriculture, and federal/provincial/municipal governments) incorporate weather and environmental prediction into their decision-making, helping them to protect themselves and their clients, and enhancing economic competitiveness

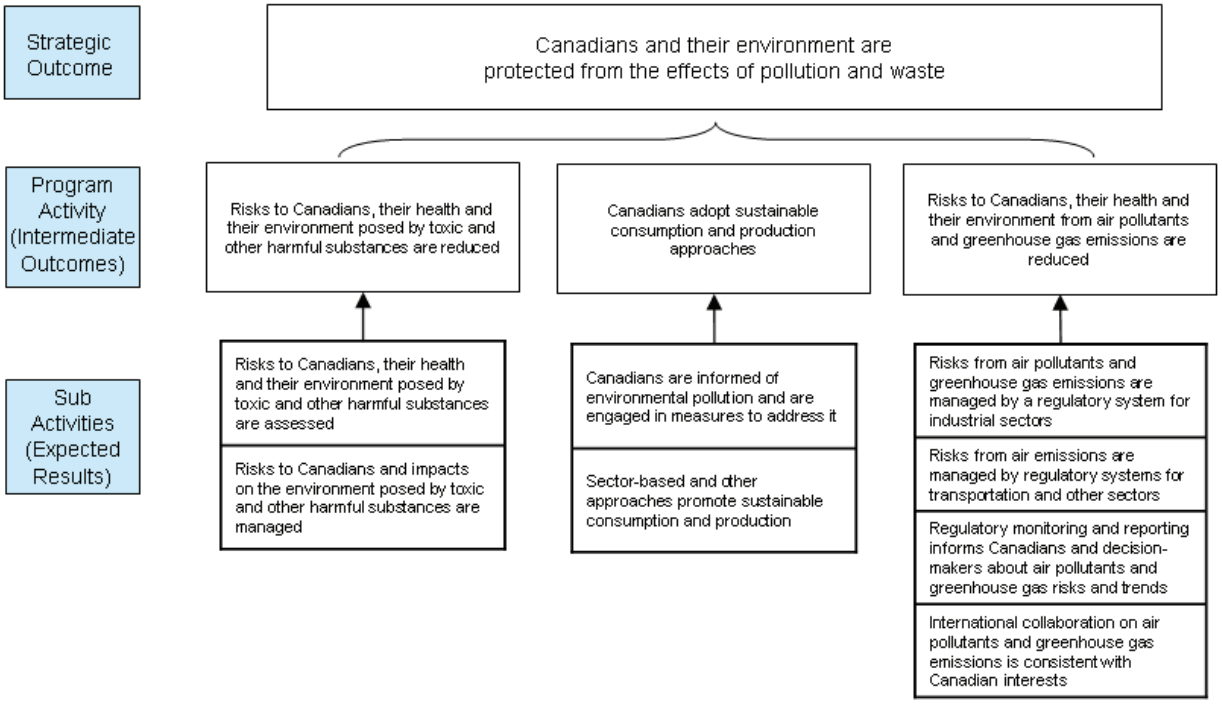
Indicators:

- Number of new community projects and international partnerships
- Satisfaction of citizens and weather-sensitive sectors with the timeliness of meteorological information, and their level of understanding and use of the information they receive

Partners: EcoAction, Biosphere, other government departments, schools, media, NGOs, National Pollutant Release Inventory, industry associations, academia

Program Area: Adaptive strategies to address the impacts of climate change are developed and implemented for the benefit of Canadians and the environment
Activities: Research and development functions, undertaken in collaboration with academia and international agencies, on the effects of atmospheric change on various segments of Canadian society, and on how to mitigate, or adapt to, these effects. These functions support sound policy development and service improvements
Expected Results: – There is an awareness of the impacts of climate change on economic development and planning processes – Scenarios and options are developed to guide decision-making on adaptation in areas vulnerable to a changing climate – Strategies for adapting to the changing climate, particularly in the North and in municipalities, as well as strategies for water management, are in place
Indicators: – Satisfaction of policy makers and decision-makers (more than 200 partners and stakeholders engaged in development of adaptation solutions) – Awareness and understanding by economic sectors, other government departments and other levels of government of the issues and adaptation strategies
Partners: Other government departments, provinces, territories, municipalities, universities and the private sector

Strategic Outcome 3: Canadians and their environment are protected from the effects of pollution and waste



Description

Environment Canada protects the health of Canadians and the environment from the effects of pollution and waste by developing and implementing innovative strategies, programs, and partnerships. Our work in this area has been organized into three program areas:

1. Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced.
    a. Risks to Canadians, their health and their environment posed by toxic and other harmful substances are assessed.
    b. Risks to Canadians and impacts on the environment posed by toxic and other harmful substances are managed.
2. Canadians adopt sustainable consumption and production approaches.
    a. Canadians are informed of environmental pollution and are engaged in measures to address it.
    b. Sector-based and other approaches promote sustainable consumption and production.
3. Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced.
    a. Risks from pollutants and greenhouse gas emissions are managed by a regulatory system for industrial sectors.
    b. Risks from air emissions are managed by regulatory systems for transportation and other sectors.

c. Regulatory monitoring and reporting informs Canadians and decision-makers about air pollutants and greenhouse gas risks and trends.
d. International collaboration on air pollutants and greenhouse gas emissions is consistent with Canadian interests.

Planned Financial and Human Resources by Program Activity

Program Activities	2007–2008		2008–2009		2009–2010	
	$ millions	FTEs	$ millions	FTEs	$ millions	FTEs
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	**181.0**	**970**	160.1	969	162.0	960
Canadians adopt sustainable consumption and production approaches	**26.5**	**194**	23.5	194	24.1	194
Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	**130.5**	**707**	125.3	723	128.9	750
Totals	**338.0**	**1,871**	**308.9**	**1,886**	**315.0**	**1,904**

Totals may differ within and between tables due to the rounding of figures.

Expected Results and Key Measures

Program Activity	Expected Results	Key Indicators
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	Risks to Canadians, their health and their environment posed by toxic and other harmful substances are assessed	Number of new and existing commercial chemicals assessed Information generated that leads to risk mitigation
	Risks to Canadians and impacts on the environment posed by toxic and other harmful substances are managed	Development of risk management strategies and instruments (e.g. regulations and performance agreements) for assessed commercial chemicals Development of risk mitigation measures (e.g. compliance promotion, environmental emergency plans)
Canadians adopt sustainable consumption and production approaches	Canadians are informed of environmental pollution and are engaged in measures to address it	CEPA Environmental Registry is maintained and up-to-date CEPA Annual Report is published
	Sector-based and other approaches promote sustainable consumption and production	Development and implementation of a Quality Management System (QMS) to ensure that decision-making under key environmental protection statutes such as CEPA 1999 is as consistent, transparent and

		predictable as possible
Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	Risks from air pollutants and greenhouse gas emissions are managed by a regulatory system for industrial sectors	Creation of a framework to guide development of industrial sector regulations
	Risks from air emissions are managed by regulatory systems for transportation and other sectors	Development of regulations to reduce air pollution from vehicles and engines in alignment with U.S. standards
	Regulatory monitoring and reporting informs Canadians and decision-makers about air pollutants and greenhouse gas risks and trends	Information-sharing agreements with provinces and territories are developed Quality of information reported to and contained in the National Pollutant Release Inventory (NPRI) and the emission inventories for air pollutants and greenhouse gases
	International collaboration on air pollutants and greenhouse gas emissions is consistent with Canadian interests	International cooperation, particularly with the U.S., is strengthened

Plans and Priorities

Over the next three years, Environment Canada, in collaboration with Health Canada where required, plans to pursue the following plans and priorities for the Protecting Canadians Strategic Outcome and related Program Activities:

1. Continuing to implement the Government's Chemicals Management Plan to improve the degree of protection against hazardous chemicals, including:

    - Assessing the approximately 200 substances identified as high priorities under the categorization exercise, as well as developing and implementing risk management approaches and initiating the development of risk management instruments for the majority of these substances.
    - Assessing the approximately 1,250 substances that met categorization criteria but have potentially low exposures.
    - Starting to assess the approximately 2,500 "second tier" substances of medium concern.
    - Developing a Quality Management System to ensure that decision-making under Environment Canada's statutory authorities is as consistent, transparent and predictable as possible.

2. Continuing to implement the Government's Clean Air Agenda to reduce air pollution and GHG emissions, including:

    - Developing a framework and individual regulations for emissions of air pollutants and GHGs from each of Canada's main industrial sectors.

- Establishing emissions targets and compliance mechanisms for industrial sectors.
- Developing regulations for emissions of air pollutants and GHGs from the transportation sector.

3. Undertaking research to inform risk assessment and risk management priorities.

4. Working with the private sector to promote environmental sustainability, including:

    - Engaging key players in the finance sector and other relevant stakeholders in identifying the business and financial benefits associated with strong environmental and sustainability performance and in understanding how they can integrate sustainability into their decision-making and operations.
    - Providing sustainability tools and best practices to businesses in Canada and the corporate sector to help promote the competitive and innovation benefits of enhanced environmental performance.

5. Continuing efforts to coordinate and improve the quality of emissions reporting, including:

    - Working with the provinces and territories towards a single, harmonized system for mandatory reporting of all air pollutant and GHG emissions.
    - Assessing and improving the quality of information reported to and contained in the NPRI and the emissions inventories for air pollutants and GHGs.

Program Activity 3A – Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced

Results Context

Toxics and other harmful substances pose considerable threats to the health and well-being of Canadians and have significant negative impacts on air, water and land. Under this program area, environmental and human health threats posed by toxic substances and other substances of concern are understood and communicated in terms of their release rate and effects, and are prevented, reduced or eliminated through appropriate risk management measures. These substances may exert a direct or indirect harmful effect on animals, plants or humans or, due to the volume, nature and manner of release, may pose an immediate or longer-term risk to the environment and human health.

Planning Context

In order to protect the health of Canadians and the environment from the risks posed by toxic and other harmful substances of concern, those risks must be assessed, understood, and managed, throughout the full life cycle of the substance, including the disposal or recycling of products containing them. The identification of priorities of priorities and planning of this work involves:

- assessing the risks posed by the approximately 4,300 substances that were identified under the CEPA 1999-mandated review of the 23,000 substances that were in commercial use prior to 1994;
- avoiding the creation of other such legacies by assessing and managing new chemicals and products of biotechnology before they enter our economy and environment;
- effectively managing the risks associated with chemicals that are already in our economy and environment;
- developing scientific tools and technologies important for identifying, measuring, assessing and managing risk;
- reporting on how well we are doing in delivering on current risk management strategies and tools (e.g. CEPA 1999 instruments, such as regulations);
- ensuring that waste, when it is generated, is managed in an environmentally sound manner; and
- looking forward in order to identify emerging risks with the aim of understanding and managing those risks before they put our health, our environment or our prosperity at risk.

Current Status and Future Positioning

Since the early 1990s, Canada and other industrialized nations have had in place processes to assess health and environmental risks associated with new substances (chemicals, polymers and biotechnology materials) before they are allowed to enter the marketplace. These processes have been backed up by regulatory regimes and other measures to manage those risks in order to prevent unhealthy exposures and ensure effective protection.

However, in Canada, as in other industrialized countries, large numbers of substances that were already in use before new substance review processes were established have been allowed to remain in commercial use, pending their ultimate assessment for potential health and/or environmental effects. In Canada, this amounts to some 23,000 substances that were in commerce in the mid-1980s, prior to the promulgation of CEPA 1999.

Pursuant to CEPA 1999, the Government was required to undertake a comprehensive review, called “categorization,” of these unassessed substances in commerce to identify:

- those that were inherently toxic to humans or to the environment and that might be persistent (take a very long time to break down) and/or bioaccumulative (collect in living organisms and end up in the food chain); and
- those to which people might have the greatest potential for exposure.

CEPA 1999 requires that substances identified through this process require further evaluation to determine their precise health and environmental risks, and how those risks should best be managed.

As a result of having completed the categorization mandate in the fall of 2006, Canada is the first country in the world to have concluded a comprehensive review of all its substances in commerce. This initial categorization resulted in the identification of approximately 4,300

substances that will require assessments by Environment Canada and Health Canada scientists to determine their precise health and environmental risks and how those risks should be managed.

In December 2006, the Government announced that it would invest $300 million in a new Chemicals Management Plan that sets out a process to address the majority of these substances by 2020.

The Chemicals Management Plan consists of four interrelated components:

1. Risk assessment to evaluate whether the substances pose a threat to the environment and human health.
2. Risk management to develop appropriate control strategies and instruments to mitigate or eliminate the risks.
3. Research to generate the science-based information to inform risk assessment and management.
4. Monitoring and surveillance to collect and generate human health and environmental data to better inform decision-making and measure the effectiveness of control actions.

For the first three years, one focus will be on assessing the 200 priority substances that present the greatest potential for risk to human health and the environment given that they are still in commercial use. For those that are not in commerce, actions will be taken through the Significant New Activity provisions of the New Substances Program to review substances prior to their re-entry into commerce.

Of the 200 priority substances to be assessed over the next three years, the majority are expected to require some form of risk management. To address this challenge, significant resources will be focused on developing and implementing a broad range of risk management strategies and instruments at an unprecedented rate. These include:

- launch of a Ministerial Challenge Program to industry;
- development and implementation of pollution prevention plans, environmental emergency plans, sector strategies and performance agreements, and regulations;
- establishment of codes of practice;
- public engagement, consultation, and risk communication; and
- compliance promotion, and enforcement.

For more information, visit the Chemical Substances site at:
http://www.chemicalsubstances.gc.ca.

Looking forward, the Department will consider emerging potential risks such as those posed by nanomaterials or animal biotechnology by identifying, assessing and managing risks before they put human health and the Canadian environment in jeopardy.

For more information on the New Substances Program, visit: http://ec.gc.ca/substances/nsb/.

Environment Canada will continue to coordinate the Federal Contaminated Sites Action Plan, a government-wide federal program to assist federal departments, agencies and consolidated Crown corporations to remediate their federal contaminated sites. Environment Canada will continue to manage its own contaminated sites in accordance with its Contaminated Sites Management Plan. For more information, visit the Federal Contaminated Sites Inventory at: http://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil.aspx?Language=EN&sid=wu21171214277.

Risks and Challenges

In order to meet our obligations, as mandated by CEPA 1999, Environment Canada's mitigation strategy is to evaluate priorities on a yearly basis and focus on "must do" activities. Rigorous priority setting and leveraging of new opportunities must be accompanied by re-investment in infrastructure, capital and highly qualified personnel to ensure the continued effective and efficient program delivery from Environment Canada's research and science capacity.

Further details on activities related to reducing risks to Canadians from toxic and other harmful substances:

Program Area: Risks to Canadians, their health and their environment posed by toxic and other harmful or dangerous substances are assessed
Activities/Expected Results: – Information and knowledge to enable risk assessment and informed decision-making are provided – Environment Canada collaborates with Health Canada to generate the information required to address the legacy of unassessed chemicals on the Canadian market – Substances are assessed for potential harmfulness prior to being first imported or manufactured – Measurement tools for the assessment of risks are developed
Indicators: – Number of categorized commercial chemicals – Percentage of new substance notifications assessed within regulatory timeframes – Regulatory instruments in place to more effectively address products of biotechnology – Independent recognition of the quality of Environment Canada's science and technology and science and technology management – Use of research and scientific information by decision-makers
Program Area: Risks to Canadians and impacts on the environment posed by toxic and other harmful substances are managed
Activities/Expected Results: – Environmental risks and damage are prevented or reduced through the use of CEPA 1999 and *Fisheries Act* instruments and voluntary actions – Impacts on the environment are reduced through the appropriate use of risk management approaches and measures – Environmental risks are mitigated through effective pollution prevention actions – Compliance promotion activities are undertaken with regulated communities – Environmental emergency plans are developed for assessed commercial chemicals
Indicators: – Number of assessed substances for which control measures (e.g. regulations or performance

agreements) are in place – Number of permits issued – Progress in remediation of contaminated sites by custodial departments – New technologies advanced and deployed for reducing pollutants – Level of the regulated communities' compliance with CEPA 1999 regulations and other risk management tools
Partners: Other government departments (e.g. Fisheries and Oceans Canada, Agriculture and Agri-Food Canada, Health Canada, Natural Resources Canada, National Defence, Transport Canada, Industry Canada); other levels of government; Aboriginal governments and organizations; industry; environmental, health and other non-governmental organizations; international organizations; academia

Program Activity 3B – Canadians adopt sustainable consumption and production approaches

Results Context

The generation, collection and reporting of environmental and pollution information is crucial for educating Canadians about the connection between their actions and environmental, health and economic outcomes. It is also essential for encouraging them to adopt sustainable consumption and production approaches; for supporting risk assessment and risk management activities; for assessing progress; and for enabling key decision-makers, including investors, consumers and companies to make quality decisions in support of Canada's long-term competitiveness and the health of our citizens and our environment.

Providing publicly accessible information on chemical substances and their associated risks is a means through which the Department can promote the use of environmental information in market decisions. Advancing more sustainable consumption and production is fundamental in developing a sustainable economy. The central challenge in this endeavour is to incorporate environmental and social aspects into decision-making previously dominated by economic considerations.

Planning Context

This program area provides a focus for the Department's longer-term efforts to reduce the cost of unsustainable consumption patterns and to shift industry towards more sustainable forms of production. Underlying this will be the creation of a clear and predictable environmental protection regime, designed to encourage and enable sustainable consumption and production.

Current Status and Future Positioning

The *Canadian Environmental Protection Act, 1999* (CEPA 1999) and its administration must be reviewed by Parliament every five years. This Parliamentary review provides the Government of Canada with an opportunity to assess the contribution of CEPA 1999 to the goals of pollution prevention, sustainable development and federal/provincial/territorial/Aboriginal cooperation. The Parliamentary review also provides an opportunity for Canadians to provide feedback on how well they feel the Act is protecting their environment and health. The CEPA 1999 review was launched in May 2006 by two Parliamentary Committees, one in the House of Commons and the other in the Senate. The House of Commons review by the Standing Committee on

Environment and Sustainable Development has heard from over 30 organizations including environmental groups, industry and academics.

The Senate review by the Standing Committee on Energy, the Environment and Natural Resources has heard from approximately 20 stakeholders and is examining the successes and shortcomings of CEPA 1999 by way of case studies:

- A first case study focusing on mercury has been completed.
- A second case study focusing on perfluorinated chemicals is expected to begin in February 2007.

Their work will result in two separate reports with advice on how to improve the Act. Upon receipt of the reports, expected in 2007, the Government will have 120 days to table its response to the House of Commons Committee and 150 days to table its response to the Senate Committee. If the Government Response calls for changes to the legislation, Environment Canada and Health Canada will carry out a bill phase. This final phase will result in amendments to CEPA 1999.

Environment Canada also continues to advance sustainable consumption and production through initiatives that focus on helping Canadians, companies, investors and other market actors integrate environmental considerations into their decision-making.

In the area of generating and collecting data on greenhouse gases, air pollutants and criteria air contaminants, the focus will be on the continued improvement of emission estimation techniques and data quality as well as the harmonization and integration of reporting. Improvements to estimation techniques and the quality of data collected and generated will increase confidence in their use in guiding decision-making, setting priorities, ascertaining compliance and meeting various domestic and international reporting requirements (e.g. the Greenhouse Gases National Inventory Report, Canada-wide Standards for Particulate Matter and Ozone, Canada-United States Air Quality Agreement).

The harmonization and integration of reporting will reduce the efforts required for industry to report and governments to collect the data, as well as ensuring consistency in the data being used and published by different jurisdictions. Together, these efforts will allow the Department to become an authoritative source of information on pollution.

Risks and Challenges

Challenges regarding pollutant information are to provide more comprehensive estimates of releases for more pollutants, and to undertake greater analysis of pollutant release data alongside other related data sources. Through the National Pollutant Release Inventory (NPRI), information on releases from large industrial sources is currently available for over 300 pollutants. Comprehensive inventories of air releases in Canada (including industrial and commercial sources, transportation, residential and natural sources) are available for certain pollutants: criteria air contaminants (pollutants that contribute to smog and acid rain), heavy metals (mercury, cadmium and lead) and persistent organic pollutants (dioxins and furans, polycyclic aromatic hydrocarbons and hexachlorobenzene). In order to understand and

appropriately manage pollution, it is important to have a more comprehensive view of non-industrial sources and releases to media other than air. Greater analysis of pollutant release data alongside other information sources (e.g. ambient air quality and economic information) will provide a more comprehensive picture of pollution in Canada, thus helping to target actions and support decision-making.

Further details on activities related to sustainable consumption and production:

Program Area: Canadians are informed of environmental pollution and are engaged in measures to address it
Activities/Expected Results: Information about pollution is collected and made available to Canadians to inform them about the connection between their actions and environmental, health and economic outcomes
Indicators: – CEPA Environmental Registry is maintained and improved – CEPA Annual Report is made available
Program Area: Sector-based and other approaches promote sustainable consumption and production
Activities/Expected Results: The benefits of enhanced environmental performance is promoted to the corporate sector Key market players are engaged in integrating sustainability into their decision-making and operations
Indicators: Corporate sector understands business and financial benefits associated with strong environmental and sustainability performance and reporting
Partners: Other government departments (e.g. Health Canada), other levels of government, North American Free Trade Agreement partners, small- and medium-sized enterprises, financial community, multilateral organizations, industrial sectors, etc.

Program Activity 3C – Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced

Results Context

Air pollutants and greenhouse gas emissions, or air emissions, come from a variety of sources, some of the most important being the combustion of fossil fuels from industries, transportation and heating. Emissions from these types of sources are not only a problem where they originate. Air pollutants released in one place can travel long distances, and consequently, can have an impact on communities hundreds and even thousands of kilometres away. Greenhouse gases, emitted into the atmosphere, contribute to the global phenomenon of climate change.

Canadians consistently rank air pollution among their main environmental concerns. They say that the quality of the air they breathe is an important factor in their quality of life—especially in our major cities. In fact, a good proportion of Canadians live in places with air pollutant levels above standards.

- At least 30 percent of Canadians live in communities with levels of $PM_{2.5}$ (airborne particles that are 2.5 microns or less in diameter) above the Canada-Wide Standards.
- At least 40 percent of Canadians live in communities with ozone levels above the Canada-Wide Standards.

Until recently, smog has been mostly a summer problem. But now it is also becoming a more serious concern in the winter when stagnant conditions can allow a build-up of pollutants in the air. Recent health studies indicate that smog and poor air quality continue to be directly responsible for thousands of premature deaths each year in Canada and for hundreds of thousands of hospital admissions and emergency visits. Particularly at risk are children, the elderly and those with existing respiratory conditions that are exacerbated by air pollutants.

Canadians are also concerned about their changing environment. Greenhouse gas emissions are altering the climate. Global temperature averages have risen 0.6°C over the last 100 years and a panel of international scientists has projected that average global temperatures could rise by as much as 1.4°C to 5.8°C by the end of the 21st century. In Canada, average temperatures could rise by as much as 5°C to 10°C in some regions.

Reducing the emissions that cause climate change is a matter of national concern. Harmful air emissions affect our health, our environment and our economy as well as our quality of life.

Previously, air pollutants and GHGs were treated separately despite the fact that they often come from the same sources. Innovative strategies, programs, and partnerships are required to protect the health of Canadians and the environment from the harmful effects of air pollution. Despite progress in addressing clean air issues and reducing transboundary and international emissions and emissions from major industrial, transportation and other sectors, continued action is needed. The three climate change program evaluations that were conducted in 2006–2007 identified broad themes of lessons learned. These included the need for clearer alignment between the tools and approaches used and the desired outcomes, as well as the need for overall certainty and coordination when implementing initiatives.

An integrated approach to regulating air pollution and GHG emissions is important in order to reduce emissions and pollution in a way that achieves the best possible outcomes. An integrated approach can also increase opportunities for formulating goals that take into account potential problems and conflicts, and increase the possibility of finding an optimal solution for the mitigation of both issues.

Planning Context

This program area consists of reducing risks to the environment and to human health from air pollutants and greenhouse gas (GHG) emissions. Under this program area, environmental and human health threats posed by air pollutants and GHG emissions are managed through the regulation of industry, transportation and consumer products.

Current Status and Future Positioning

In the fall of 2006, the Government began launching a series of initiatives to ensure clean air for Canadians. In October 2006, the Government tabled *Canada's Clean Air Act* (Bill C-30) as the

foundation of an agenda to reduce air pollution and GHG emissions in Canada. *Canada's Clean Air Act* would strengthen the legislative basis for taking action on air pollution and GHG emissions. It contains three key elements:

1. The Act would create a new clean air section in the *Canadian Environmental Protection Act, 1999* (CEPA 1999) to strengthen the government's ability to take action to reduce air emissions. It would authorize the government to regulate indoor and outdoor air pollutants and GHGs, and require the ministers of the Environment and Health to establish national air quality objectives, as well as to monitor and report publicly on their attainment. It would also amend CEPA 1999 to enable the government to regulate the blending of fuels and their components.

2. It would amend the *Motor Vehicle Fuel Consumption Standards Act* to enhance the Government of Canada's authority to regulate vehicle fuel efficiency. Setting mandatory fuel consumption standards would help ensure reduced GHG emissions from vehicles purchased in Canada.

3. It would expand authorities under the *Energy Efficiency Act* to allow the government to set energy efficiency standards and labelling requirements for a wider range of consumer and commercial products. Achieving the same comfort and convenience for less energy is one of the most sensible and effective ways of reducing emissions and saving money.

The Government subsequently issued a Notice of Intent to Regulate which committed to the establishment of short-, medium- and long-term industrial air pollution targets and marked the launch of the Clean Air Regulatory Agenda. The first step in this process is the development of the overall regulatory framework for key industrial sectors, including fossil-fuel-fired electricity generation, upstream oil and gas, downstream petroleum, base metal smelters, iron and steel, cement, forest products, and chemicals production.

In December 2006, the Government announced it would regulate an annual average renewable content of 5 percent in gasoline by 2010 and a 2 percent requirement for renewable content in diesel fuel and heating oil by 2012. To complement this measure, the Government will invest $345 million to assist farmers and rural communities seize new market opportunities in the agricultural bioproducts sector.

In early 2007, the Government also announced a series of significant initiatives that will complement the clean air legislative and regulatory agenda, including the following:

- the $1.5-billion Eco-Trust and Clean Air Fund will help provinces and territories finance major projects to cut GHG emissions and pollutants by encouraging technology development and energy efficiency (contingent on approval of Budget 2007)

- an investment of $2 billion in a series of ecoEnergy initiatives to promote the development and use of renewable energy sources and smarter energy use across all sectors of society

- a series of ecoTransport initiatives to promote more environmentally friendly transportation choices

For more information, visit the Clean Air Online site at: http://www.ec.gc.ca/cleanair-airpur.

Risks and Challenges

The Clean Air Regulatory Agenda is a major regulatory initiative, larger than any previous regulatory action taken by the federal government. Timelines set to achieve outcomes under this agenda are demanding and will require sustained and intensive efforts in consultations, regulatory policy development and related activities. Other key challenges include:

- ensuring Canada's long-term competitiveness and building on our environment and economic policy framework;

- implementing a regulatory system that will achieve short-, medium- and long-term emission reductions;

- developing an approach that will provide clarity to industry while avoiding regulatory overlap with provincial and territorial regulations;

- addressing key technical/engineering and financial challenges; and

- ensuring that Environment Canada's internal capacity is best organized to provide government-wide leadership on the issue.

Further details on activities related to reducing risks from air pollutants and greenhouse gas emissions:

Program Area: Risks from air pollutants and greenhouse gas emissions are managed by a regulatory system for industrial sectors
Activities/Expected Results: - Development of a regulatory framework and underlying regulations for emissions of air pollutants and GHGs from each of Canada's main industrial sectors - Continuing to provide the science needed to inform pollution management in industrial sectors. - Ensure support for enforceability and accountability of regulatory system
Indicators: - Regulatory framework is developed - Regulations for industrial sectors are under development
Program Area: Risks from air emissions are managed by regulatory systems for transportation and other sectors
Activities/Expected Results: - Regulations to reduce air pollution from vehicles and engines in alignment with U.S. standards are developed - The science needed to inform the development of standards and regulations in the transportation sector is provided

Indicators:

- Integrated Canada-US standards
- Transportation-related regulations are developed and implemented

Program Area: Regulatory monitoring and reporting informs Canadians and decision-makers about air pollutants and greenhouse gas risks and trends

Activities/Expected Results:

- Working with provinces and territories towards a single, harmonized system for mandatory reporting of air pollutant and GHG emissions
- Emissions estimation methodologies are improved

Indicators:

- Information-sharing agreements with provinces and territories
- Quality of information reported and contained in the National Pollutant Release Inventory (NPRI), as well as in the air pollutants and GHG emissions inventories

Program Area: International collaboration on air pollutants and GHG emissions is consistent with Canadian interests

Activities/Expected Results:

Strengthening international cooperation, particularly with the U.S.

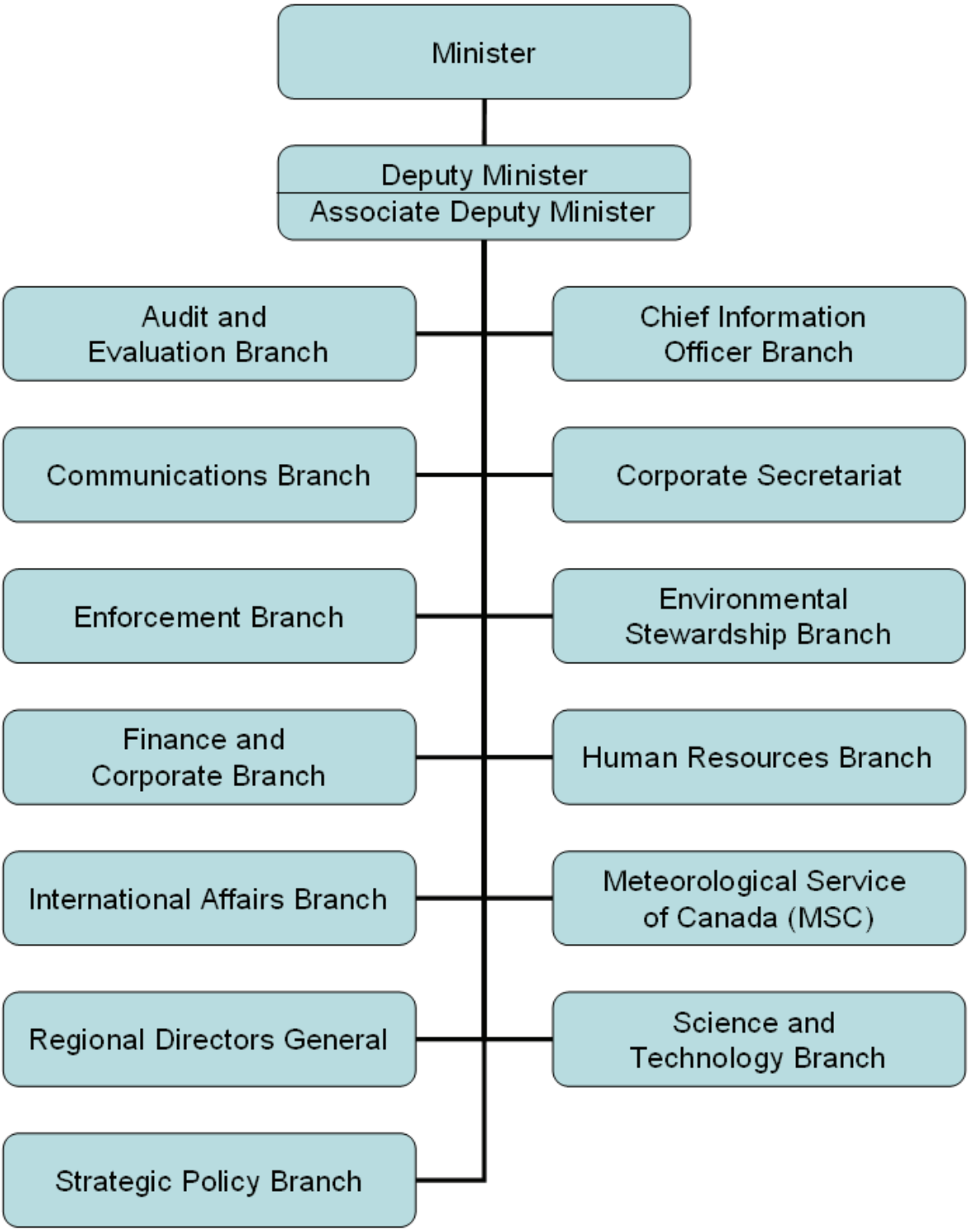
Indicators:

Bilateral or multilateral **a**greements with other countries

Partners: Health Canada, Natural Resources Canada, Industry Canada, Agriculture and Agri-Food Canada, Transport Canada, Foreign Affairs and International Trade Canada, other levels of government, international bodies (Organisation for Economic Co-operation and Development, International Organization for Standardization, United Nations Environment Programme), academic institutions, environmental non-governmental organizations and industry associations

SECTION III – SUPPLEMENTARY INFORMATION

Organizational Information



Departmental Links to Government of Canada Outcomes

2007–2008 ($ millions)									
Program Activities	**Budgetary**								
	Operating	**Capital**	**Grants**	**Contributions and Other Transfer Payments**	**Gross Budgetary Expenditures**	**Less: Respendable Revenue**	**Net Budgetary Expenditures**	**Adjustments (planned spending not in Main Estimates)**	**Total Planned Spending**
Biodiversity is conserved and protected	87.1	0.5	--	24.3	112.0	(1.2)	110.8	15.2	**126.0**
Water is clean, safe and secure	79.7	2.9	--	1.6	84.3	(4.4)	79.9	0.1	**80.0**
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	28.5	0.3	--	2.2	30.9	(0.1)	30.8	0.0	**30.8**
Improved knowledge and information on weather and environmental conditions influences decision-making	127.0	13.5	0.0	0.2	140.8	(14.6)	126.1	0.1	**126.2**
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	184.0	6.7	--	9.3	200.0	(43.3)	156.7	0.2	**156.8**
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	169.7	5.8	--	9.7	185.2	(4.4)	180.9	0.1	**181.0**
Canadians adopt sustainable consumption and production approaches	23.5	0.4	--	2.7	26.5	(0.0)	26.5	0.0	**26.5**
Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	110.9	9.9	2.0	7.7	130.4	(0.0)	130.4	0.1	**130.5**
Total	**810.5**	**40.0**	**2.0**	**57.7**	**910.2**	**(68.2)**	**842.0**	**15.8**	**857.8**

Totals may differ within and between tables due to the rounding of figures.

Environment Canada's program activities support the government-wide themes of a clean and healthy environment.

Table 1: Departmental Planned Spending and Full-time Equivalents

Program Activities ($ millions)	Forecast Spending 2006–2007*	**Planned Spending 2007–2008****	Planned Spending 2008–2009	Planned Spending 2009–2010
Biodiversity is conserved and protected	126.5	**112.0**	104.3	102.3
Water is clean, safe and secure	58.0	**84.3**	85.0	80.9
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	73.5	**30.9**	30.3	28.7
Improved knowledge and information on weather and environmental conditions influences decision-making	126.1	**140.8**	140.5	142.7
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	205.8	**200.0**	190.9	196.0
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	163.7	**185.2**	164.5	166.4
Canadians adopt sustainable consumption and production approaches	26.7	**26.5**	23.6	24.1
Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	98.2	**130.4**	79.8	71.7
Budgetary Main Estimates (gross)	878.5	**910.2**	818.9	812.8
Less: Respendable Revenue	(74.7)	**(68.2)**	(68.6)	(68.9)
Total Main Estimates	803.9	**842.0**	750.4	743.8
Adjustments :				
Supplementary Estimates				
Operating budget carry forward	31.4			
2005 Expenditure Review Committee Savings—Procurement	(4.7)			
Funding to continue the environmental restoration of key aquatic areas of concern identified under the Canada-United States Great Lakes Water Quality Agreement	8.5			
Other technical adjustments	4.6	**(1.0)**	(1.0)	(1.0)
Funding for existing climate change programs pending the finalization of a new environmental agenda	12.4			
Funding for developing and reporting on environmental indicators related to clean air, clean water and greenhouse gas emissions	3.6			
Funding to deliver results under the *Species at Risk Act*		**16.4**	16.4	16.4
Funding related to government advertising programs for the purpose of conducting an advertising campaign on the tax credit for public transit passes	2.4			
Budget Announcement				
Funding for the Clean Air Regulatory Agenda			45.5	57.2
Other				
Salary increases due to the signing of new collective agreements and other salary costs	17.1			
Employee Benefits Plan	5.8			
Implementation of the Policy for Internal Audit	0.2	**0.4**		
Total Adjustments	81.2	**15.8**	60.9	72.6
Total Planned Spending	885.1	**857.8**	811.3	816.4
Less: Non-respendable Revenue	(11.3)	**(11.1)**	(11.3)	(11.4)
Plus: Cost of services received without charge	70.3	**63.4**	60.4	57.7
Net Cost of Program	944.2	**910.0**	860.3	862.7
Full-time Equivalents	6,492	**6,454**	6,459	6,407

* Reflects the best forecast of total net planned spending to the end of the fiscal year.

** Planned spending excludes funding for the Toronto Waterfront Revitalization Initiative. This authority will be transferred from the Treasury Board of Canada Secretariat through the Supplementary Estimates.

Totals may differ within and between tables due to the rounding of figures.

The above resources reflect approvals for 2007–2008 tied to Environment Canada's environmental agenda components as well as future years for the Clean Air Regulatory Agenda. The reference levels in 2008–2009 and 2009–2010 may be further increased pending the approvals of the detailed program elements for program measures and the Chemicals Management Plan.

Table 2: Voted and Statutory Items Listed in Main Estimates

2007–2008 ($ millions)			
Vote or Statutory Item	Truncated Vote or Statutory Wording	**2007–2008 Main Estimates**	2006–2007 Main Estimates
1	Operating expenditures	**662.6**	648.2
5	Capital expenditures	**40.0**	33.0
10	Grants and contributions	**59.7**	47.1
(S)	Minister of the Environment salary and motor car allowance	**0.1**	0.1
(S)	Contributions to employee benefit plans	**79.5**	75.5
	Total Department	**842.0**	**803.9**

$14.3 million—Operating

The increase in Operating is mainly due to:
$61.0M for Environmental Agenda Clean Air Initiatives
$9.4M in new funding for collective agreements for several occupational groups
$8.0M in renewed funding for the Great Lakes Action Plan
$7.2M for Action Plan 2000 (Pilot Emission Removals, Reductions and Learnings Initiative)
$3.2M to increase federal and regional capacity and science to respond to the Mackenzie Gas Project and related resource development

These increases are offset by the following decreases:
$17.2M due to vote transfers aimed at providing sufficient capital spending levels and enhancing program delivery by providing the required transfer payments resources for payments to organizations with goals and objectives aligned with those of Environment Canada
$14.9M due to the termination of the Border Air Quality Strategy
$11.4M for the *Species at Risk Act* (SARA) represents the temporary portion of the funding received
$6.9M for Expenditure Review Committee program efficiency reductions
$5.8M due to a decrease in revenues credited to the vote
$5.0M for Climate Change Large Final Emitters
$4.7M for procurement savings reflects the decisions made by the Expenditure Review Committee
$4.5M related to the Northern Pipeline
$3.0M for climate change international reporting obligations

$7.0 million—Capital

The increase in Capital is mainly due to:
$4.3M for the new Environmental Management Agenda—Clean Air Initiatives
$3.5M due to vote transfers aimed at providing sufficient capital spending levels for Environment Canada

These increases are offset by the following decrease:
$0.8M for 2010 Environment Canada's Olympic and Paralympic Winter Games essential services commitment

$12.6 million—Grants and Contributions

The increase in Grants and Contributions is mainly due to:
$13.7M due to vote transfers aimed at enhancing program delivery
$9.2M increase for the new Environmental Management Agenda – Clean Air Initiatives

These increases are offset by the following decreases:
$5.9M to reflect decisions made by the Expenditure Review Committee
$4.9M decrease for the *Species at Risk Act* (SARA) reflects the temporary portion of the funding received

Table 3: Services Received Without Charge

($ millions)	2007–2008
Accommodation provided by Public Works and Government Services Canada	29.3
Contributions covering employers' share of employees' insurance premiums and expenditures paid by the Treasury Board of Canada Secretariat (excluding revolving funds)	30.1
Worker's compensation coverage provided by Human Resources and Social Development Canada	1.5
Salary and associated expenditures of legal services provided by the Department of Justice Canada	2.4
Total 2007–2008 services received without charge	63.4

Totals may differ within and between tables due to the rounding of figures.

Table 4: Summary of Capital Spending by Program Activity

($ millions)	Forecast Spending 2006–2007	**Planned Spending 2007–2008**	Planned Spending 2008–2009	Planned Spending 2009–2010
Canada's natural capital is restored, conserved and enhanced				
Biodiversity is conserved and protected	0.6	**0.5**	0.6	0.7
Water is clean, safe and secure	2.7	**2.9**	3.5	3.2
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	0.8	**0.3**	0.3	0.3
Subtotal	**4.1**	**3.7**	**4.4**	**4.2**
Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians				
Improved knowledge and information on weather and environmental conditions influences decision-making	15.3	**13.5**	16.0	16.8
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	8.6	**6.7**	7.0	6.9
Subtotal	**23.9**	**20.2**	**23.0**	**23.8**
Canadians and their environment are protected from the effects of pollution and waste				
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	3.2	**5.8**	2.9	3.0
Canadians adopt sustainable consumption and production approaches	4.0	**0.4**	0.4	0.4
Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	4.7	**9.9**	13.4	13.4
Subtotal	**11.9**	**16.0**	**16.7**	**16.9**
Total	**40.0**	**40.0**	**44.1**	**44.8**

Totals may differ within and between tables due to the rounding of figures.

Being a science-based department, most of Environment Canada's capital assets are focused on research and other science activities that produce a "public good"—providing knowledge in support of policy development, developing new methods to improve service delivery and providing technological solutions to meet the Department's mission. The Department operates several research institutes and laboratories, has a multitude of National Wildlife Areas, and runs thousands of air, climate and water monitoring stations in all regions of the country (many of which are operated in partnership with provinces, Canada's universities and international scientific agencies). Environment Canada has four broad categories of capital assets, including:

- specialized facilities and land holdings to conduct environmental science research, develop technologies and protect critical wildlife areas;
- scientific equipment to conduct laboratory analyses and monitor the status and trends in the environment;
- information technology infrastructure and equipment to run scientific equipment and facilitate communications; and
- a fleet, including off-road vehicles, to transport personnel to study sites and allow needs for a speedy response to programs.

Table 5a: Sources of Respendable Revenue

($ millions)	Forecast Revenue 2006–2007	**Planned Revenue 2007–2008**	Planned Revenue 2008–2009	Planned Revenue 2009–2010
Biodiversity is conserved and protected				
Realty (Accommodation)	0.1	**0.1**	0.1	0.1
Regulatory Services	0.2	**0.3**	0.3	0.3
Scientific and Professional Services	0.8	**0.8**	0.8	0.8
Subtotal	**1.1**	**1.2**	**1.2**	**1.2**
Water is clean, safe and secure				
Realty (Accommodation)	0.1	**0.1**	0.1	0.1
Scientific and Professional Services	4.2	**4.3**	4.1	4.1
Subtotal	4.3	**4.4**	4.2	4.2
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes				
Information Products	0.1	**0.1**	0.1	0.1
Realty (Accommodation)	0.0	**0.0**	0.0	0.0
Scientific and Professional Services	0.0	**0.0**	0.0	0.0
Subtotal	**0.1**	**0.1**	**0.1**	**0.1**
Improved knowledge and information on weather and environmental conditions influences decision-making				
Information Products	1.5	**1.5**	1.5	1.5
Realty (Accommodation)	0.7	**0.7**	0.7	0.7
Scientific and Professional Services	12.7	**12.4**	13.1	13.1
Subtotal	**14.9**	**14.6**	**15.3**	**15.3**
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions				
Information Products	38.8	**39.0**	38.9	39.3
Realty (Accommodation)	0.6	**0.7**	0.7	0.7
Scientific and Professional Services	3.8	**3.7**	3.7	3.7
Subtotal	**43.2**	**43.4**	**43.3**	**43.7**
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced				
Realty (Accommodation)	0.1	**0.1**	0.1	0.1
Regulatory Services	2.2	**2.1**	2.1	2.1
Scientific and Professional Services	2.1	**2.2**	2.2	2.2
Subtotal	**4.5**	**4.4**	**4.4**	**4.4**
Total Respendable Revenue	**68.1**	**68.2**	**68.6**	**68.9**

Totals may differ within and between tables due to the rounding of figures.

Forecasted revenues for 2006–2007 do not match those presented in Table 1, as the Program of Energy Research and Development as well as the Technology and Innovation funds from Natural Resources Canada are now received through the other government department suspense mechanism. As well, National Defence's search and rescue funding is now received through Main/Supplementary Estimates.

Table 5b: Sources of Non-Respendable Revenue

($ millions)	Forecast Revenue 2006–2007*	**Planned Revenue 2007–2008**	Planned Revenue 2008–2009	Planned Revenue 2009–2010
Biodiversity is conserved and protected				
Licences and Permits	4.2	**4.2**	4.2	4.2
Regulatory Services	0.2	**0.2**	0.2	0.2
Subtotal	**4.4**	**4.4**	**4.4**	**4.4**
Water is clean, safe and secure				
Third-party Agreements	0.3	**0.2**	0.3	0.3
Subtotal	0.3	**0.2**	0.3	0.3
Improved knowledge and information on weather and environmental conditions influences decision-making				
Information Products	0.7	**0.7**	0.7	0.7
Royalties	0.4	**0.4**	0.4	0.4
Scientific and Professional Services	0.9	**0.9**	0.9	0.9
Miscellaneous	0.4	**0.4**	0.4	0.4
Subtotal	**2.4**	**2.4**	**2.4**	**2.4**
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions				
Information Products	1.3	**1.3**	1.3	1.3
Miscellaneous	2.9	**2.9**	2.9	2.9
Subtotal	**4.2**	**4.2**	**4.2**	**4.3**
Total Non-Respendable Revenue	**11.3**	**11.1**	**11.3**	**11.4**
Total Respendable and Non-Respendable Revenue	**79.4**	**79.3**	**79.9**	**80.3**

Totals may differ within and between tables due to the rounding of figures.

* Reflects best forecast of total planned spending to the end of the fiscal year.

Table 5 lists various sources of respendable and non-respendable revenue. To clarify the types of revenues that fall under these sources, short definitions are given below:

Scientific and Professional Services: research and analysis, telecommunications, hydrometrics, consulting services, training and wildlife studies and surveys.

Information Products: data extracts and access, publications, and hydrometric and weather products.

Miscellaneous: Employee Benefit Plan (EBP) recoveries and student parking fees.

Regulatory Services: ocean disposal permit applications and monitoring fees, new chemical notification and other permits and fees.

Realty (Accommodation): living accommodations, rentals, entry fees, concessions and National Water Research Institute building recoveries.

Royalties: revenues collected from the licensing of intellectual property.

Table 6: User Fees

Name of User Fee	Fee Type	Fee Setting Authority	Reason for Fee Introduction or Amendment	Effective Date of Planned Change to Take Effect	Planned Consultation and Review Process
Ocean Dumping Permit Fee Regulations (Site Monitoring)	Regulatory (R) This is a regulatory fee – charging for a right or privilege	*Financial Administration Act*	Proposal to cap the fee at $300K to limit cost to large permit holders	2007–2008 Possibly 2008–2009	Analysis of impacts and consultation results suggest one client favored. Further review of options and public policy needed. May need further consultation with client groups.
Wildlife Area Regulations: a) Schedule II - Entrance fee for Cap Tourmente (QC)	Service - Cost Recovery	- *Canada Wildlife Act* - *User Fees Act*	Increase entrance fees to cover costs	2008–2009	Information meetings for users will be held to gather their comments and suggestions with regard to a possible increase in entrance fees. At the start of every summer season, consultations with similar tourist attractions in the Quebec region are held to ensure that entrance fees are comparable with the market.
Wildlife Area Regulations: b) Schedule III - Permits to hunt Snow Geese	Service - Cost Recovery	- *Canada Wildlife Act* - *User Fees Act*	Increase permit fees to cover costs	2008–2009	A survey form will be distributed to users to gather their comments and suggestions with regard to a possible increase in the price of hunting permits. Consultations will be held with regional hunting and fishing associations as well as with local outfitters to ensure that hunting permits match current prices in this industry.

Table 7: Department's Regulatory Plan

2007–2008 Regulatory Initiatives[5]	Planned Results
Amendments to the *Off-Road Compression-Ignition Engine Emission Regulations*	Amendment will establish more stringent "Tier 4" emission standards for 2008 and later model year diesel engines used in construction, agriculture, mining and forestry equipment. These planned amendments will maintain alignment with the emission standards of the U.S. and will reduce allowable emission levels by up to 95 percent for particulate matter and up to 37 percent for nitrogen oxides and hydrocarbons. Publish in the *Canada Gazette*, Parts I and II.
Marine Spark-Ignition Engine and Off-Road Recreational Vehicle Emission Regulations	New regulations to establish in Canada emission standards for 2008 and later model year outboard engines, personal watercraft, snowmobiles, off-road motorcycles and all-terrain vehicles. These regulations will align standards for smog-forming emissions with those of the U.S. and set stringent emissions limits for nitrogen oxides, hydrocarbons and carbon monoxide. Publish in the *Canada Gazette*, Part II.
Amendments to the *On-Road Vehicle and Engine Emission Regulations* (On-Board Diagnostics for Heavy-Duty Engines)	The amendments will introduce new requirements for on-board diagnostics (OBD) systems for on-road heavy-duty engines to align with emerging U.S. standards and to consider new related global requirements. OBD systems are designed to monitor emission-related components for malfunctions and identify such malfunctions to facilitate proper repair and maintain designed emission performance. The amendments will help to ensure that smog-forming emission reduction targets secured under the parent regulations are achieved. Publish in the *Canada Gazette*, Part I.
Amendments to the *Off-Road Small Spark-Ignition Engine Emission Regulations*	The initiative will introduce new smog-forming emission standards for large spark-ignition engines such as those found in forklifts and ice resurfacers, by amending these Regulations to include spark-ignition engines rated over 19 kW. These planned amendments will align emission standards with those of the U.S. and set stringent emissions limits for nitrogen oxides, hydrocarbons and carbon monoxide. Publish in the *Canada Gazette*, Part I.
Perfluorooctane Sulfonate and its Salts and Certain Other Compounds Regulations	Prohibition on the manufacture, use, sale, offer for sale and import of perfluorooctane sulfonate (PFOS), its salts and its precursors, and products or formulations containing PFOS, its salts and its precursors. Publish in the *Canada Gazette*, Part II, winter 2007.
Polybrominated Diphenyl Ethers Regulations	Regulations to prevent the introduction of the manufacture of toxic polybrominated diphenyl ethers (PBDEs) in Canada and to minimize their release into the environment from all sources in Canada. For certain PBDEs, to prevent their import into Canada.
Amendment to the *Prohibition of Certain Toxic Substances Regulations, 2005 (Fluorotelomers)*	Prohibit toxic substances (four new fluorotelomers-based polymers) that pose serious risks to Canadians' health or their environment, to ensure the substances are not introduced into the Canadian market. Publish in the *Canada Gazette*, Part II, fall 2007.
Regulations Limiting Volatile Organic Compound (VOC) Content in Paints and Coatings	These new regulations will implement national VOC product content standards for certain categories of products. They will align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter. Publish in the *Canada Gazette*, Part I, fall 2007.
Regulations Limiting Volatile Organic Compound (VOC) Content in Consumer Products	These new regulations will implement national VOC product content standards for certain categories of products. They will align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter. Publish in the *Canada Gazette*, Part I, fall 2007.
Regulations Limiting Volatile Organic Compound (VOC) Content in Automobile Refinish Coatings	These new regulations will implement national VOC product content standards for certain categories of products. They will align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter.

[5] Regulations are under the *Canadian Environmental Protection Act, 1999* (CEPA 1999) unless otherwise noted.

	Publish in the *Canada Gazette*, Part I, summer 2007.
Challenge under the Chemicals Management Plan	The plan announces rapid regulatory action over the 2007–2010 period on 200 substances believed to be harmful to human health or the environment. The Government is predisposed to prohibit activities for these substances unless stakeholders come forward with information indicating the substances are already used in a way that safeguards Canadians and the environment. For each of the 200 substances: - publish results of risk assessments in the *Canada Gazette*, Part I (2007–2009); - publish notices under Section 71 of CEPA 1999 in the *Canada Gazette*, Part 1 (2007–2009); - publish orders amending Schedule 1 of CEPA 1999 in the *Canada Gazette*, Parts I and II (2008–2010); and - publish preventive or control instruments in the *Canada Gazette*, Parts I and II (2008–2010).
Chromium Electroplating, Chromium Anodizing and Reverse Etching Regulations	Control air releases of hexavalent chromium from the electroplating sector either by limiting release at a point source or by specifying the conditions of use. The result will be a uniform approach to the control of hexavalent chromium releases from this sector in Canada. Publish in the *Canada Gazette*, Part II, fall 2007.
Wastewater Effluent Regulations under the *Fisheries Act* and CEPA 1999	New regulations under the *Fisheries Act* to ensure that releases of wastewater effluent from municipal and other publicly owned wastewater systems do not pose unacceptable risks to human and ecosystem health or fisheries resources. Publish in the *Canada Gazette*, Part I.
Polychlorinated Biphenyl (PCB) Regulations	Provide a more effective and comprehensive framework for ending the use and storage of PCBs within specified timelines. Establish reporting and monitoring requirements to measure progress. Ensure Canada is in line with its international commitments and obligations. Publish in the *Canada Gazette*, Part II, end of 2007.
Amendments to the *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations*	These amendments will incorporate provisions for the export, import and transit of non-hazardous waste destined for final disposal. This regulatory framework is being developed to protect the environment from risks posed by the uncontrolled export, import and transit of non-hazardous wastes destined for final disposal. Consistent with Canada's international obligations, the regulatory framework would control the export from and import into Canada of these wastes. The proposed regulatory framework will include mechanisms for notification and prior informed consent, and tracking. Publish in the *Canada Gazette*, Part I, 2008.
Interprovincial Movements of Hazardous Waste and Hazardous Recyclable Material Regulations	Regulations to replace the *existing Interprovincial Movement of Hazardous Waste Regulations* to ensure consistency with the *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations* regarding the definitions of hazardous waste and hazardous recyclable material and the movement document (manifest) used to track movements. Publish in the *Canada Gazette*, Part II, in 2007–2008.
Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands Regulations	Provide a more comprehensive framework in order to effectively prevent soil and groundwater contamination from storage tank systems of the Federal House and on Aboriginal lands. Publish in the *Canada Gazette*, Part II.
Amendments to the *Environmental Emergency Regulations*	Amend the Regulations to add 34 substances and associated threshold quantities to the current list of 174 substances that require facilities to develop and implement Environmental Emergency Plans that address prevention, preparedness, response and recovery. The amendment will also clarify requirements for exceptions, annual testing requirements, eliminate potential duplication with the *Transportation of Dangerous Goods Act* and ensure capability for accepting electronic filing of notices. Publish in the *Canada Gazette*, Part II.
Regulations Amending the Metal Mining Effluent Regulations under the *Fisheries Act*	Amending the Regulations to add three natural fish-bearing water bodies to Schedule 2 of the Regulations, designating these water bodies as tailing impoundment areas. Publish in the *Canada Gazette*, Parts I and II.

Amendments to the *Pulp and Paper Effluent Regulations* under the *Fisheries Act*	Develop amendments to the Environmental Effects Monitoring (EEM) Program to further target monitoring efforts and resources where they are needed most. Amendments would incorporate opportunities for program improvements identified through departmental implementation experience and a recent multi-stakeholder smart regulation project on EEM. Publish in the *Canada Gazette*, Parts I and II.
Order amending Schedule 1 of the *Species at Risk Act*	Amend Schedule 1 to modify the legal list of species that immediately provides the protection provisions prescribed under the Act, and other provisions as needed. Publish in the *Canada Gazette*, Parts I and II.
Amendments to the *Migratory Birds Regulations* under the *Migratory Birds Convention Act, 1994*	Draft provisions for incidental take. These provisions ensure effective conservation of migratory bird populations while promoting sustainable economic development. Publish in the *Canada Gazette*, Part I.
Amendments to the *Migratory Birds Regulations* under the *Migratory Birds Convention Act, 1994*	Amendment to include provisions for disabled hunters. Publish in the *Canada Gazette*, Parts I and II.
Annual hunting regulations, under the *Migratory Birds Convention Act, 1994*	To establish hunting season dates and bag and possession limits for migratory game birds at sustainable levels using the best available science. Publish in the *Canada Gazette*, Parts I and II.
Regulations Amending the Migratory Birds Regulations (overabundant Snow Geese), under the *Migratory Birds Convention Act, 1994*	Amendment to establish a special conservation spring hunting season for Snow Geese as a population control measure, where needed. Publish in the *Canada Gazette*, Parts I and II.
Amendments to the *Migratory Birds Regulations*, under the *Migratory Birds Convention Act, 1994* and *Wildlife Area Regulations*, under the *Canada Wildlife Act*	Update the definition of non-toxic shot to include tungsten-iron-nickel-copper as an approved non-toxic shot alternative for hunting migratory game birds. Publish in the *Canada Gazette*, Part II.
2008–2009 Regulatory Initiatives	**Planned Results**
Clean Air Sectoral Regulations (Major Industrial Sectors)	These new regulations will set targets for emissions of air pollutants and greenhouse gases from the main industrial sectors in Canada (iron pelletizing, base metal smelting, iron and steel, aluminum smelting, alumina production, cement manufacturing, lime manufacturing, pulp and paper and wood products). The approximately nine regulations will define sectoral obligations and timelines. Start publication in the *Canada Gazette*, Part I by end of 2008.
Amendments to the *On-Road Vehicle and Engine Emission Regulations* (On-Board Diagnostics for Heavy-Duty Engines)	The amendments will introduce new requirements for on-board diagnostics (OBD) systems for on-road heavy-duty engines to align with emerging U.S. standards and to consider new related global requirements. OBD systems are designed to monitor emission-related components for malfunctions and identify such malfunctions to facilitate proper repair and maintain designed emission performance. The amendments will help to ensure that smog-forming emission reduction targets secured under the parent regulations are achieved. Publish in the *Canada Gazette*, Part II.
Amendments to the *Off-Road Small Spark-Ignition Engine Emission Regulations*	The initiative will introduce new smog-forming emission standards for large spark-ignition engines such as those found in forklifts and ice resurfacers, by amending these Regulations to include spark-ignition engines rated over 19 kW. These planned amendments will align emission standards with those of the U.S. and set stringent emissions limits for nitrogen oxides, hydrocarbons and carbon monoxide. Publish in the *Canada Gazette*, Part II.
Renewable Fuels Regulations	The Government intends to develop and implement a federal regulation requiring renewable fuels. The regulation would require fuel producers and importers to have an average annual renewable fuel content of at least 5 percent of the volume of gasoline that they produce or import, commencing in 2010. Publish in the *Canada Gazette*, Part I, fall 2008.
Amendments to the *New Substances Notification Regulations (Organisms)*	Provide a more efficient, enforceable, fair and clear notification scheme for new organisms other than micro-organisms (i.e. transgenic animals) intended for import or

	manufacture (including for research purposes) in Canada, while maintaining or improving the safeguard of the environment and human health (pollution prevention). Publish in the *Canada Gazette*, Part I.
Challenge under the Chemicals Management Plan	The plan announces rapid regulatory action over the 2007–2010 period on 200 substances believed to be harmful to human health or the environment. The Government is predisposed to prohibit activities for these substances unless stakeholders come forward with information indicating the substances are already used in a way that safeguards Canadians and the environment. For each of the 200 substances: - publish results of risk assessments in the *Canada Gazette*, Part I (2007–2009); - publish notices under Section 71 of CEPA 1999 in the *Canada Gazette*, Part 1 (2007–2009); - publish orders amending Schedule 1 of CEPA 1999 in the *Canada Gazette*, Parts I and II (2008–2010); and - publish preventive or control instruments in the *Canada Gazette*, Parts I and II (2008–2010).
Regulations Limiting Volatile Organic Compounds (VOC) Content in Paints and Coatings	These new regulations will implement national VOC product content standards for certain categories of products. They will align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter. Publish in *Canada Gazette*, Part II, fall 2008.
Regulations Limiting Volatile Organic Compounds (VOC) Content in Consumer Products	These new regulations will implement national VOC product content standards for certain categories of products. They will align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter. Publish in the *Canada Gazette*, Part II, fall 2008.
Regulations Limiting Volatile Organic Compounds (VOC) Content in Automobile Refinish Coatings	These new regulations will implement national VOC product content standards for certain categories of products. They will align with existing requirements in the U.S. to reduce air emissions of VOCs, which are precursor pollutants contributing to the formation of ground-level ozone and particulate matter. Publish in the *Canada Gazette*, Part II, summer 2008.
Amendments to the *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations*	These amendments will incorporate provisions for the export, import and transit of non-hazardous waste destined for final disposal. This regulatory framework is being developed to protect the environment from risks posed by the uncontrolled export, import and transit of non-hazardous wastes destined for final disposal. Consistent with Canada's international obligations, the regulatory framework would control the export from and import into Canada of these wastes. The proposed regulatory framework will include mechanisms for notification and prior informed consent, and tracking. Publish in the *Canada Gazette*, Part II, 2009.
Wastewater Effluent Regulations under the *Fisheries Act* and CEPA 1999	New regulations under the *Fisheries Act* to ensure that releases of wastewater effluent from municipal and other publicly owned wastewater systems do not pose unacceptable risks to human and ecosystem health or fisheries resources. Publish in the *Canada Gazette*, Part II, winter 2009.
Order amending Schedule 1 of the *Species at Risk Act*	Amend Schedule 1 to modify the legal list of species that immediately provides the protection provisions prescribed under the Act, and other provisions as needed. Publish in the *Canada Gazette*, Parts I and II.
Annual hunting regulations, under the *Migratory Birds Convention Act, 1994*	To establish hunting season dates and bag and possession limits for migratory game birds at sustainable levels using the best available science. Publish in the *Canada Gazette*, Part II.
Regulations Amending the Migratory Birds Regulations (overabundant Snow Geese), under the *Migratory Birds Convention Act, 1994*	Amendment to establish a special conservation spring hunting season for Snow Geese as a population control measure, where needed. Publish in the *Canada Gazette*, Parts I and II.
Amendments to Schedule I of the *Wild Animal and Plant Trade Regulations*, under the *Wild Animal*	Amend Schedule I of WAPPRIITA to maintain compliance with amendments to Appendices I, II and III of the Convention on International Trade in Endangered Species (CITES).

and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA)	Publish in the *Canada Gazette*, Parts I and II.
2009–2010 Regulatory Initiatives	**Planned Results**
Clean Air Sectoral Regulations (Major Industrial Sectors)	These new regulations will set targets for emissions of air pollutants and greenhouse gases from the main industrial sectors in Canada (iron pelletizing, base metal smelting, iron and steel, aluminum smelting, alumina production, cement manufacturing, lime manufacturing, pulp and paper and wood products). The approximately nine regulations will define sectoral obligations and timelines. Start publication in the *Canada Gazette*, Part II by end of 2009.
Renewable Fuels Regulations	The Government intends to develop and implement a federal regulation requiring renewable fuels. The regulation would require fuel producers and importers to have an average annual renewable fuel content of at least 5 percent of the volume of gasoline that they produce or import, commencing in 2010. Publish in the *Canada Gazette*, Part II.
Amendments to the *New Substances Notification Regulations (Organisms)*	Provide a more efficient, enforceable, fair and clear notification scheme for new organisms other than micro-organisms (i.e. transgenic animals) intended for import or manufacture (including for research purposes) in Canada, while maintaining or improving the safeguard of the environment and human health (pollution prevention). Publish in the *Canada Gazette*, Part II.
Challenge under the Chemicals Management Plan	The plan announces rapid regulatory action over the 2007–2010 period on 200 substances believed to be harmful to human health or the environment. The Government is predisposed to prohibit activities for these substances unless stakeholders come forward with information indicating the substances are already used in a way that safeguards Canadians and the environment. For each of the 200 substances: - publish results of risk assessments in the *Canada Gazette*, Part I (2007–2009); - publish notices under Section 71 of CEPA 1999 in the *Canada Gazette*, Part 1 (2007–2009); - publish orders amending Schedule 1 of CEPA 1999 in the *Canada Gazette*, Parts I and II (2008–2010); and - publish preventive or control instruments in the *Canada Gazette*, Parts I and II (2008–2010).
Order amending Schedule 1 of the *Species at Risk Act*	Amend Schedule 1 to modify the legal list of species that immediately provides the protection provisions prescribed under the Act, and other provisions as needed. Publish in the *Canada Gazette*, Parts I and II.
Annual hunting regulations, under the *Migratory Birds Convention Act, 1994*	To establish hunting season dates and bag and possession limits for migratory game birds at sustainable levels using the best available science. Publish in the *Canada Gazette*, Part II.
Regulations Amending the Migratory Birds Regulations (overabundant Snow Geese), under the *Migratory Birds Convention Act , 1994*	Amendment to establish a special conservation spring hunting season for Snow Geese as a population control measure, where needed. Publish in the *Canada Gazette*, Parts I and II.

Table 8: Details on Project Spending

($ millions)	Current Estimated Total Cost	Forecast Spending to March 31, 2007	**Planned Spending 2007–2008**	Planned Spending 2008–2009	Planned Spending 2009–2010	Future Years' Spending Requirements
Improved knowledge and information on weather and environmental conditions influences decision-making						
Weather station construction, Eureka, Northwest Territories (EPA*) (project implementation)	14.8	13.0	**1.8**	--	--	
Hydrometric Program (project close-out)	10.0	10.0	**--**	--	--	
Canadian Meteorological Centre – Facility Extension (EPA) (project implementation)	8.3	8.3	**--**	--	--	--
Supercomputer Facility Upgrade to Electrical and Cooling Capacity (EPA) (project implementation)	5.7	0.7	**5.0**			
Modernization of the Climate Observing Program (EPA) (project implementation)	8.6	8.0	**0.6**	--	--	--
Uninterruptible power system – Replacement Dorval Facility (project implementation)	9.9	0.2	**1.4**	6.9	1.4	

*Effective Project Approval (EPA) implies Treasury Board's approval of, and expenditure authorization for, the objectives of the project implementation phase. Sponsoring departments and agencies are to submit for EPA only when the scope of the overall project has been defined and when the estimates have been refined to the substantive level.

Environment Canada's delegated authority is $2.5 million for general projects, $2 million for new technology (with a $5-million replacement limit) and $2.5 million for real property projects.

Table 9: Details on Transfer Payment Programs

Name of Transfer Payment Program: Contributions to support environmental and sustainable development initiatives				
Start Date: August 1999		**End Date**: March 31, 2009		
Description: The objective of this class contribution is to enable Canadian groups, associations and organizations to become actively involved in environmental and sustainable development initiatives while accommodating regional ecosystem and socio-economic considerations. Contributions enable recipients to plan, manage and complete environmental and sustainable development initiatives at the regional or ecosystem level. This funding also serves to increase awareness and understanding of environmental and sustainable development issues and to encourage environmentally responsible action.				
	Forecast Spending 2006–2007	**Planned Spending 2007–2008**	**Planned Spending 2008–2009**	**Planned Spending 2009–2010**
Total Contributions	**19.2**	**24.9**	**21.7**	**21.7**

Name of Transfer Payment Program: Habitat Stewardship Contribution Program				
Start Date: August 20, 2000		**End Date**: March 31, 2008		
Description: Contribute to the recovery of endangered, threatened, and other species of concern, and to prevent other species from becoming a conservation concern, by engaging Canadians in conservation actions to benefit wildlife. Enable non-government organizations, landowners, the private sector, Aboriginal organizations, educational institutions, community groups and other levels of government to plan, manage and complete projects that will achieve the program goal.				
	Forecast Spending 2006–2007	**Planned Spending 2007–2008**	**Planned Spending 2008–2009**	**Planned Spending 2009–2010**
Total Contributions	**9.5**	**9.0**	**9.0**	**9.0**

Name of Transfer Payment Program: Contributions to EcoAction Community Funding Initiative				
Start Date: 1998		**End Date**: March 31, 2009		
Description: Provide financial support to non-profit organizations to undertake environmental projects that yield positive, measurable results and increase public capacity and awareness at the community level.				
	Forecast Spending 2006–2007	**Planned Spending 2007–2008**	**Planned Spending 2008–2009**	**Planned Spending 2009–2010**
Total Contributions	**5.0**	**5.0**	**5.0**	**5.0**

Name of Transfer Payment Program: Contributions to support Canada's international interests				
Start Date: June 1999		**End Date**: March 31, 2009		
Description: This class contribution has the following objectives: to ensure that Canadian interests are represented in international forums relating to environmental issues; to sustain and enhance Canada's participation in international multilateral and bilateral environmental organizations, agreements and protocols; to facilitate the participation of developing countries in global environmental and sustainable development issues; and to build, strengthen and maintain Canada's linkages with the international community on global environmental and sustainable development issues.				
	Forecast Spending 2006–2007	**Planned Spending 2007–2008**	**Planned Spending 2008–2009**	**Planned Spending 2009–2010**
Total Contributions	**3.3**	**8.5**	**3.0**	**3.0**

Planned spending excludes funding for the Toronto Waterfront Revitalization Initiative. This authority will be transferred from the Treasury Board of Canada Secretariat through the Supplementary Estimates.

For further information on the above-mentioned transfer payment programs, see: http://www.tbs-sct.gc.ca/est-pre/estime.asp.

Table 10: Foundations (Conditional Grants)

1) Name of Recipient: Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)		
2) Start Date: February 2000	**3) End Date**: 2010	**4) Total Funding**: $110 million
5) Description: Strategic investment in excellent university-based research in order to provide relevant science to policy makers; generate better knowledge of climate change and its impacts on the natural environment; provide results to help Canada respond to its international environmental commitments; and ensure a supply of skilled human resources to meet future environmental challenges.		
10) URL to Recipient Site: http://www.cfcas.org/index_e.html.		
1) Name of Recipient: Sustainable Development Technology Canada (SDTC)		
2) Start Date: February 2001	**3) End Date**: 2015	**4) Total Funding**: $550 million*
5) Description: To stimulate the development and demonstration of Canadian technologies aimed at climate change, clean air, clean water and clean soil.		
10) URL to Recipient Site: http://www.sdtc.ca/en.		
* Environment Canada's share is $275 million.		
1) Name of Recipient: Federation of Canadian Municipalities' (FCM) Green Municipal Fund (GMF), formerly known as the Green Municipal Enabling Fund (GMEF) and the Green Municipal Investment Fund (GMIF)		
2) Start Date: February 2000	**3) End Date**: In perpetuity	**4) Total Funding**: $550 million*
5) Description: The intent of the GMF is to encourage investment in environmental municipal infrastructure. The GMF funds initiatives that will have a positive impact on the health and the quality of life of Canadians, and focuses on the following specific priorities: reducing GHG emissions; improving local air, water and soil quality; and promoting renewable energy by supporting environmental studies and projects within the municipal sector. The GMF is co-funded equally by Natural Resources Canada and Environment Canada, who manage the fund at arms' length, creating a strong partnership between the FCM and the Government of Canada. The FCM Board of Directors, formally designated as the decision-making body for the fund, is advised by a 15-member council with five federal appointees. The Council plays a key role, supported by the FCM Secretariat and the GMF Peer Review Committee. Created in Budget 2000 with an endowment of $125 million, the Green Municipal Funds were doubled in Budget 2002 with an additional $125 million. The $50-million GMEF has provided grants to support feasibility studies to increase municipal expertise and knowledge of leading-edge environmental technologies and practices. The $200-million GMIF has provided loans and loan guarantees to leverage municipal investment in innovative environmental infrastructure projects. Budget 2005 announced $300 million of additional funding to the GMF in fiscal year 2004–2005. With Budget 2005, the GMEF and GMIF were merged into one fund known as the Green Municipal Fund (GMF), combining the $250 million from the old GMF with the new $300 million into a revolving fund. This fund supports grants, loans and loan guarantees and is consistent with the purpose and intent of the original agreements. Of the total amount in this fund, $150 million is to be used exclusively to provide loans for the clean-up and redevelopment of brownfields. The amount of GMF financing available to municipalities is directly related to the environmental benefits and/or innovation of the projects undertaken, with grant and loan combinations of up to 80 percent of eligible costs available for projects with exceptional environmental benefits.		
10) URL to Recipient Site: http://www.fcm.ca/english/gmf/gmf.html		
* Environment Canada's share is $275 million.		
1) Name of Recipient: Clayoquot Biosphere Trust		
2) Start Date: February 2000	**3) End Date**: In perpetuity	**4) Total Funding**: $12 million
5) Description: To create an endowment fund for the Clayoquot Biosphere Trust (CBT)—the cornerstone of the Clayoquot Sound UNESCO Biosphere Reserve. The CBT will use the income from the endowment fund to support local research, education and training in the Biosphere Reserve region.		
10) URL to Recipient Site: http://www.clayoquotbiosphere.org/		

For further information on the above-mentioned Foundations, see: http://www.tbs-sct.gc.ca/est-pre/estime.asp.

Table 11: Horizontal Initiatives

Over the next three years, Environment Canada will be involved in the following horizontal initiatives either as the lead or as a partner.

2007–2008

1. Canadian Biotechnology Strategy
2. Canadian Group on Earth Observation
3. Canadian Rural Partnership
4. Clean Air and Climate Change
5. Ecosystem Initiatives
6. Federal Contaminated Sites Action Plan
7. Implementation of the *Species at Risk Act*
8. Toronto Waterfront Revitalization Initiative
9. Toxic Substances
10. Youth Employment Strategy

For further information on the above-mentioned horizontal initiatives, see: http://www.tbs-sct.gc.ca/rma/eppi-ibdrp/hrdb-rhbd/profil_e.asp.

Table 12: 2007–2009 Sustainable Development Strategy

Environment Canada's Sustainable Development Strategy (SDS) 2007–2009 highlights for Canadians key commitments that the Department will undertake over the next three years to strengthen the integration of sustainable development in the planning and delivery of our strategic outcomes. Commitments in the SDS focus on two key aspects of Environment Canada's approach to sustainable development: strengthening the Department's capacity to integrate social and economic considerations into our decision-making processes; and continuing to provide the environmental information, programs and services that enable Canadians to better integrate the true value of the environment into their decision-making. The SDS is aligned along four goals:

1. Canadians and their environment are protected from the effects of pollution and waste in support of a sustainable economy.
2. Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians.
3. Canada's natural capital is managed to protect and enhance its capacity to provide ecological goods and services that provide enduring social and economic benefits.
4. Strengthened integrated decision-making in the delivery of departmental strategic outcomes.

Each goal is supported by intermediate and shorter-term outcomes as outlined in the logic model that follows. In support of the SDS, Environment Canada is also developing a set of performance measures that will better enable the Department to assess how well the objectives of the SDS are being met.

The SDS 2007–2009 also highlights Environment Canada's commitment to the coordinated federal approach for the fourth round of departmental sustainable development strategies. This was a government-wide initiative, led by Environment Canada, to strengthen coherence and accountability across departmental sustainable development strategies.

This collaborative effort resulted in a document, *Coordinating the Fourth Round of Departmental Sustainable Development Strategies*, that included a set of six common federal sustainable development goals: clean and secure water for people, marine and freshwater ecosystems; clean air for people to breathe and ecosystems to function well; reduce greenhouse gas emissions; communities enjoy a prosperous economy, a vibrant and equitable society, and a healthy environment for current and future generations; sustainable development and use of natural resources; and strengthen federal governance and decision-making to support sustainable development.

Each commitment in Environment Canada's SDS is tagged to one or more federal sustainable development goals. Action to deliver on Environment Canada's SDS commitments over the three-year time period of the Strategy will concurrently advance departmental and federal goals. In addition, under the Department's responsibility to provide leadership, guidance and coordination of the federal SDS process, Environment Canada will explore options to promote greater government-wide coherence and effectiveness in achieving sustainable development.

Environment Canada's SDS 2007–2009 is available at http://www.ec.gc.ca/sd-dd_consult/SDS2007/index_e.cfm.

LOGIC MODEL
Environment Canada's Sustainable Development Strategy 2007–2009

Attain the highest level of environmental quality as a means to enhance the health and well-being of Canadians, preserve our natural environment, and advance our long-term competitiveness for current and future generations

Goals
(Long Term Outcomes)

1. Canadians and their environment are protected from the effects of pollution and waste in support of a sustainable economy	2. Weather and environmental predictions and services reduce risks and contribute to the well being of Canadians	3. Canada's natural capital is managed to protect and enhance its capacity to provide ecological goods and services that provide enduring social and economic benefits	4. Strengthened integrated decision making in the delivery of departmental strategic outcomes

Objectives
(Intermediate Term Outcomes)

1.1 Risks to Canadians and the economy posed by air pollutants, greenhouse gases or other harmful or dangerous substances in the environment are reduced	2.1 Improved knowledge and information of weather and environmental conditions influences decision making	3.1 Biodiversity is conserved and biological resources are used in a sustainable manner	4.1 Integrated policy advice and information strategies enable effective decision making
1.2 Canadians adopt sustainable consumption and production approaches	2.2 Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	3.2 Water is safe, clean and secure for people and ecosystems and is used sustainably	4.2 Relations with other governments and partners are effectively managed in support of sustainable development
		3.3 Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	4.3 Departmental operations are managed sustainably and their negative impacts are reduced and/or mitigated

Outcomes and Commitments
(Short Term Outcomes)

Tangible progress towards the Outcomes will be achieved within the three year timeframe of the SDS. Each one has a corresponding Commitment that outlines actions to be taken to contribute to the Outcome and to the related Objective and Goal.

Internal Action Plan

The Logic Model as a whole is supported by an internal action plan that outlines specific activities, targets and performance measures.

Table 13: Internal Audits and Evaluations

The Audit and Evaluation Plan for 2007–2008 to 2009–2010 is being developed for consideration by the Departmental Audit and Evaluation Committee (DAEC) in April 2007. Once approved by DAEC, the plan will be posted on Environment Canada's website at the following address: http://www.ec.gc.ca/ae-ve/.

The following table provides a list of all evaluation projects and internal audit engagements completed in 2006–2007, those currently in progress and expected to be completed in 2007–2008 and those already planned for 2007–2008 in last year's Audit and Evaluation Plan. Note that the list of projects planned for 2007–2008 may change in the context of the audit and evaluation planning process for 2007–2008.

Name of Internal Audit/Evaluation	Status	Expected Completion Date
Evaluations		
Co-location of Science Research Centres on University Campuses	Completed – May 2006	
Federal Species at Risk Programs	Completed – July 2006	
One-Tonne Challenge Program	Completed – July 2006	
Pilot Emission Removals, Reductions and Learnings (PERRL) Initiative	Completed – July 2006	
Opportunities Envelope	Completed – July 2006	
Intellectual Property Management	Completed – July 2006	
Bilateral Cooperation Program under the Multilateral Fund of the Montreal Protocol	Completed – February 2007	
Building Public Confidence in Pesticide Regulation and Improving Access to Pest Management Products *	Completed – February 2007	
Commission for Environmental Cooperation (CEC)	In progress	April 2007
Canadian Regulatory System for Biotechnology [*]	In progress	April 2007
Ecosystem Initiatives – Georgia Basin Action Plan	In progress	April 2007
Environmental Emergencies Program (including Public Security and Anti-Terrorism – PSAT)	In progress	Fall 2007
Smog-Causing Emission Regulations in the Transportation Sector	In progress	Fall 2007
Canadian Shellfish Sanitation Program *	In progress	Fall 2007
Species at Risk Act	Planned	2007–2008
Ocean Action Plan *	Planned	2007–2008
National Agri-environmental Standards Initiative (NAESI) *	Planned	2007–2008
Canadian Biodiversity Strategy	Planned	2007–2008
Public SCRIBE	Planned	2007–2008
Environmental Enforcement Intelligence Program (EEIP) (including PSAT)	Planned	2007–2008
Federal Contaminated Sites Action Plan	Planned	2007–2008
Tracking of Cross-boarder Movement of Hazardous Wastes and Hazardous Recyclable Materials (including PSAT)	Planned	2007–2008
Climate Change: Science	Planned	2007–2008
Climate Change: National Inventory	Planned	2007–2008
Ecosystem Initiatives	Planned	2007–2008
Protected Areas (National Wildlife Areas, Migratory Bird Sanctuary)	Planned	2007–2008

[*] Interdepartmental Evaluation

Name of Internal Audit/Evaluation	Status	Expected Completion Date
Evaluations		
Ecological Monitoring and Assessment Network (EMAN)	Planned	2007–2008
International activities	Planned	2007–2008
Sector Sustainability Tables (SSTs)	Planned	2007–2008
Outreach	Planned	2007–2008
MSC Transition	Planned	2007–2008
Ice Program	Planned	2007–2008
Weather Predictions	Planned	2007–2008
Internal Audits		
Eleventh Session of the Conference of the Parties (CoP11)	Completed – July 2006	
Continual Auditing: Acquisition Cards	Completed – July 2006	
Continual Auditing: Compensation	Completed – October 2006	
Montreal Protocol	Completed – February 2007	
Audit of Mandatory Disclosures	In progress	April 2007
Contingency Plan for Meterological Service of Canada Weather Prediction Program	In progress	April 2007
Information Management / Information Technology (IM/IT) Audit Plan	In progress	April 2007
Travel	In progress	April 2007
Financial Audit Plan	In progress	April 2007
Hospitality	In progress	April 2007
Canadian Wildlife Service Control Self-Assessment	Planned	2007–2008
Continual Audit: Revenues	Planned	2007–2008
Decision Support Systems	Planned	2007–2008
Delegation Authority	Planned	2007–2008
Information Technology Security	Planned	2007–2008
High Value and/or Number of Services Contracts and Grants and Contributions	Planned	2007–2008
Employment Equity	Planned	2007–2008
Environment Canada's Transformation Agenda	Planned	2007–2008
Occupational Health and Safety	Planned	2007–2008
Specified Purpose Accounts	Planned	2007–2008
Vote Netted Revenue	Planned	2007–2008
Management Controls – Maintenance of Monitoring Stations	Planned	2007–2008
Hydrometric Monitoring Stations – Federal/Provincial Agreements	Planned	2007–2008
Cash Advances	Planned	2007–2008
Financial Statements	Planned	2007–2008
Classification	Planned	2007–2008
Staffing	Planned	2007–2008
Corporate Administrative Shared Services (CASS)	Planned	2007–2008
Continual Auditing: Acquisition Cards	Planned	2007–2008
Continual Auditing: Compensation	Planned	2007–2008
Motor Vehicle Policy	Planned	2007–2008
Electronic Link to Internal Audit and/or Evaluation Plan: http://www.ec.gc.ca/ae-ve/		

SECTION IV – OTHER ITEMS OF INTEREST

Strategic Integration Activities

Description

Clear, consistent and integrated departmental policy advice, coordinated interactions with partners and stakeholders and effective communication are important tools to help Environment Canada deliver on its mandate and commitments.

Environment Canada is leading the development of federal strategies to integrate environmental sustainability into government-wide policy priorities in a concrete manner. As part of this work, the Department is advancing a policy framework that recognizes the inextricable linkages between the environment, our economic competitiveness and the health of Canadians.

Environmental Canada's work to develop a unified departmental policy approach is organized into two program areas:

- Integrated policy advice, communications and information strategies enable effective decision-making.
- Relations with other governments and partners are effectively managed in support of environmental priorities.

Plans and Priorities

Over the next three years, Environment Canada plans to focus on:

- Achieving departmental coherence in delivering and communicating environmental policy and program outcomes. Work will include developing an international environment framework; developing a natural capital framework and a health framework; communicating environmental policy and program goals and outcomes to target audiences; conducting policy research and leading the development of a federal sustainable development strategy; working interdepartmentally toward better-integrated federal science and technology; and building on the fundamental direction of the competitiveness and environmental sustainability framework to articulate the environmental policy component of the Government of Canada's *Advantage Canada* sustainable growth framework.

- Improving how Environment Canada engages provincial and territorial governments, stakeholders and citizens in policy development and sustainable actions. The Department plans to advance the development of a national approach through collaboration with provinces and territories to achieve results; develop a strategy and tools to systematically and consistently engage key stakeholders in policy development and environmental education; develop a sector table strategy; and effectively communicate the strategic environmental framework to Canadians.

- Advancing a Canadian environmental sustainability indicators initiative as a first component of a broader state-of-the-environment indicator and information strategy. The Department also plans to move forward on national environmental objectives as core

policy tools to guide long-term departmental priority-setting and specific policy deliverables.

- Delivering analytical and evidentiary support to demonstrate explicit linkages between the environment and the economy, to allow for informed decision-making on environmental issues and the building of a policy-research-communications strategy to proactively communicate important environmental information to Canadians.

Planning Context

Integrated policy advice, communications and information strategies enable effective decision-making

A key priority is to improve the coordination of the existing but dispersed policy capacity of the Department in order to work more effectively and bring department-wide perspectives and scientific evidence to bear on all major policy work. Increased focus will be placed on policy research and economic analysis, and on strengthening the linkages between science and policy.

Improving the coordination and strategic direction of Environment Canada's education and engagement activities is also an important priority. Emphasis will be placed on particular target groups (such as consumers, small- and medium-sized enterprises, youth, educators and communities) where greater return can be expected by understanding their needs and challenges, and working to address them. Key partners will be identified and approached, in particular those that are better positioned than Environment Canada to deliver education and engagement activities because they have a deeper and broader reach.

Environment Canada's indicator-related work is being repositioned to provide better management of environmental and environment-related data within the Department; enhanced comparability of the available data and the mechanisms by which these data are made available; and data and information that are more relevant to departmental priorities as well as indicators that can be used to communicate environmental implications to citizens, policy makers and decision-makers. The Department will continue to develop the partnerships, principles and technologies required to integrate disparate environmental data and information in a consistent, credible and timely manner.

Over the next three years, Environment Canada will work towards the implementation of its Sustainable Development Strategy 2007–2009, as well as the refining of associated action plans and performance measures. More broadly, Environment Canada will continue to fulfill its role to provide leadership, guidance and coordination of the departmental sustainable development strategy process. Environment Canada will build on the collaboration established during the development of the fourth round of strategies resulting from an Environment Canada-led initiative to identify the six federal sustainable development goals that guided departments in selecting their strategy commitments. Environment Canada will be exploring options and learning from other jurisdictions, to promote greater government-wide coherence and effectiveness in achieving sustainable development.

Integrated Science
As one of the largest science-based departments in the federal government, Environment Canada has a critical interest in federal science and technology (S&T) policy. A new federal science and technology strategy is being developed, and there are several other interdepartmental S&T policy initiatives under way. Environment Canada is working to ensure that the new federal strategy and other S&T policy initiatives address the need for a strong and integrated environmental S&T capacity in Canada that is focused on national priorities. Environment Canada is also working to promote alignment between the federal S&T strategy and its own science and technology.

Ensuring that science and technology inform the development of policy is key to maintaining public confidence in Environment Canada's work. The Department will examine ways of better understanding the policy needs for S&T and of ensuring effective dialogue between S&T experts, policy developers, regulators and decision-makers. Public interest in environmental issues is extremely high. Increasing access to Environment Canada's S&T knowledge and expertise is key to strengthening its impact on policy development, regulations and decision-making.

Environment Canada recently completed departmental S&T plans that provide new opportunities for the strategic management of the Department's S&T. Environment Canada will be working to integrate the science and technology plans, facilitate their implementation and develop a performance measurement framework for the integrated plan.

Relations with other governments and partners are effectively managed in support of environmental priorities

Environment Canada does not achieve environmental outcomes on its own. Advancing departmental priorities such as clean air, climate change and chemicals management will require close cooperation with external players in the economy and society. This program area focuses on managing partnerships and working relationships with provincial and territorial governments, protecting and promoting Canada's environmental interests internationally, and engaging stakeholders in Canada's environmental agenda.

Many planned activities are new for Environment Canada, and stem directly from the Department's vision of helping Canada to build a globally competitive and sustainable economy. Realizing this vision means integrating environmental decision-making into all aspects of our economy, which will require all players to be more engaged in sustainable development policy creation and implementation. This includes improving the Department's decision-making structures and giving stakeholders a more coherent strategy around which to engage, thus reducing conflicting policy signals and burdensome demands on stakeholders' time and resources.

Environment Canada's partnerships and consultations work advances constructive consultations and participation in departmental priorities, and strengthens our relationships with key partners and stakeholders, including industry, NGOs, Aboriginal governments and organizations, market influencers and thought leaders. A strong policy framework for consultations and Aboriginal involvement was developed over the past year to guide the Department, and this year's activities

will focus on implementing these policies by providing the tools and services needed to inform Environment Canada's consultations and ensure effective engagement with Aboriginal peoples.

Environment Canada's work under federal-provincial/territorial relations is being repositioned to focus on the most important departmental priorities, and to provide a more consistent departmental approach to intergovernmental affairs. Because provinces and territories share responsibility for environmental management with the federal government, their active engagement is essential to ensure the successful implementation of policy across Canada. The oversight and coordination of federal-provincial/territorial relations is, therefore, key to supporting the implementation of Environment Canada's agenda both on a national basis and on a regional or bilateral basis within a national context.

Environment Canada's education and engagement activities focus on working with partners to contribute to ecological literacy and engaging Canadians on key issues where their actions can make a difference.

Corporate Services and Corporate Management Activities

Description

Integrated and effective corporate services help Environment Canada to carry out its mandate. The Department continues to transform its way of doing business in order to be better positioned to play the central role it was given by Parliament to coordinate the policies and programs of the Government of Canada with respect to the preservation and enhancement of the quality of the natural environment. Environment Canada's internal transformation agenda helps the Department deliver on its goal to protect the health of Canadians, preserve our natural environment and strengthen Canada's long-term competitiveness.

Environment Canada is putting significant effort into repositioning its enabling programs and services in order to better support results-based management and internal governance changes in a way that allows the Department to successfully address the environmental priorities of Canadians. This work is organized into two program areas:

- High quality corporate services and advice enable the Department to meet its strategic objectives.

- Strategic management support enables the Department to meet its objectives.

Plans and Priorities

Over the next three years, Environment Canada plans to:

1. Establish a viable foundation for its enabling programs and services, with a focus on high-risk areas in human resources, finance, administration, and information management / information technology (IM/IT). Environment Canada continues to build management and staff capacity in human resources, finance, administration and IM/IT so that corporate functions can appropriately assist the Department in delivering results. This work is expected to include implementing strategies to address critical departmental risks—specifically, better recruitment and retention plans, training for enabling staff and departmental managers, and implementation of a one-department approach for the provision of core services.

2. Ensure the delivery of essential financial, administrative, human resources, corporate management, and information management and information technology services to address mission critical, operational and key governance needs across Environment Canada. Work to support the greening of federal government operations and the implementation of a new Human Resources Management System (HRMS), People Soft V8.9, in the context of the government-wide Corporate Administrative Shared Services (CASS) initiative are also priorities. A performance measurement and monitoring framework will be developed and implemented to support results-based objectives for human resources management.

Planning Context

The Department is completing the transformation process that will enable it to fully plan, manage and report by results. The transformation has involved the re-definition of the results structure (Program Activity Architecture), the establishment of new management structures and processes, and the re-structuring of the organization.

These changes promote integrated management and decision-making in the context of a clearer view of results and strategic direction. Financial and human resources are clearly linked to results through a planning process that connects capacity to work. Performance information will support informed departmental decisions and transparent and balanced public reporting.

Results in this area are aimed at transforming Environment Canada's management framework in order to strengthen control and accountability, provide high-quality service, support and systems related to governance and program delivery, and support key departmental and government-wide management initiatives. The Department's corporate services activities are organized as follows:

- Corporate management and planning support departmental progress on results.
- Human resources are managed effectively and strategically in support of departmental objectives.
- Financial management frameworks are established and high quality financial services are provided.
- Administration and assets management enable effective, efficient, accountable and environmentally responsible departmental activities.
- Information and technology are managed as critical enabling assets.

Department-wide Services

Planning
Environment Canada has significantly revised and improved its overall approach to planning. The former decentralized approach has given way to a centralized "one-department" approach that aligns planning, priority-setting and resource allocation functions to the new Program Activity Architecture. The revised approach significantly enhances the overall transparency of proposed plans and priorities, enabling senior executive direction, engagement and strategic decision-making.

The planning process integrates corporate planning and decision-making and ensures that internal decision-making on priorities is aligned to annual reporting to Parliament through the Report on Plans and Priorities. Senior managers undertake business planning through results-based committees and teams. Managers at all levels from across the Department are engaged in the process to ensure consistent application of planning and reporting requirements. National management meetings are held to provide opportunities for managers to work through significant planning tasks on a collaborative basis.

Information Management and Information Technology
As part of Environment Canada's internal transformation, most of the Department's Information Management and Information Technology (IM/IT) staff have been transferred to a single branch under the direction of a Chief Information Officer (CIO). A small number of IM/IT staff with highly specialized program area knowledge and skills remains "embedded" in program areas.

The objective of consolidating IM/IT capacities is to provide more effective, efficient and equitable levels of IM/IT services to all areas of program delivery across the Department. Another objective of consolidation is to further develop the capacity to provide the coherent, authoritative and trusted information systems needed to achieve government and departmental objectives.

Management efforts in the IM/IT domain are directed towards re-alignment of our IM/IT resources to ensure the best outcomes from existing and evolving technological capacities. They are also focused on ensuring that Environment Canada's data and information holdings can be and are treated as critical departmental assets. This involves providing leadership in Information Management through the development of an integrated IM plan for the Department, by developing and promoting policies and best practices for the management of information, and implementing and maintaining technologies to support the function.

Another key focus will be ensuring that the informatics systems used in support of our mission-critical and other service support requirements continue to operate without interruption. This is particularly true for the systems used on a 24/7 basis in support of weather prediction and environmental emergency response, for example, given their direct link to the safety and well-being of Canadians. A prime example of such a system is the departmental supercomputer and related infrastructure used in the production of weather warnings and forecasts. This equipment

was recently upgraded to allow it to process more sophisticated weather and climate forecast models.

Information management and information technology are key enablers of program delivery in all strategic outcome areas through the provision of hardware infrastructure[6] and general-use software applications (e.g. email, office application suites, corporate finance and human resource applications). Within each strategic outcome area, IM/IT is also a key enabler of specific program activities through the development and implementation of specialized application software for the collection, storage, analysis and dissemination of environmental data and products as well as the implementation and maintenance of any specialized hardware infrastructure required by these activities.

Ongoing investment will be required to support the existing infrastructure as well as to respond to new work requirements and evolving technologies being introduced in the workplace. The ongoing development of a comprehensive IM/IT architecture will help to guide these efforts by fostering the adoption and use of consistent policies, standards and technologies that comply with those in use in the Government of Canada. The architecture will be supplemented by other efforts to ensure the efficient and effective application of IM/IT in the Department. These efforts include software management boards along with new "greening" policies to promote the effective use and life cycle management of IT while reducing the potential negative environmental impacts associated with that use. Through these policies, we hope to establish Environment Canada as a leader in this area.

Environment Canada has indicated its intention to be one of the first departments to participate in the Government of Canada's Corporate and Administrative Shared Services (CASS) initiative.[7] Shared services are viewed as a way of producing more effective, efficient and economical delivery of common services within and across government departments.

As part of that initiative, participating departments will migrate their human resource management systems to the PeopleSoft suite of applications.

Legal Services

The Department of Justice Canada is responsible for the legal affairs of the government as a whole and for providing legal services to individual departments and agencies. Services provided by the Department of Justice Canada include providing legal advice, preparing legal documents, drafting legislation, regulating or conducting litigation, and overseeing the legal mechanisms used to achieve the overall objectives of the government.

The Department of Justice Canada provides legal services to Environment Canada primarily through Environment Canada's Legal Services unit. The Department of Justice Canada also provides services through its Environmental Drafting Services Section, the Federal Prosecution Service and other units located at Justice headquarters and in the regions.

[6] Hardware infrastructure includes computer equipment, network infrastructure and any other required hardware (routers, switches etc.).

[7] http://www.psmod-modfp.gc.ca/initiatives/cass-smap_e.asp

High-quality legal advice enables Environment Canada to take decisions that are based on a thorough understanding of its legal authorities and relevant legal risks. Legal Services is committed to deliver results by ensuring that Environment Canada has access to appropriate levels of legal expertise; by identifying primary legal risks to the Department; and by making legal training available to Environment Canada officials where needs arise.

Like Environment Canada's other corporate functions, Environment Canada Legal Services is moving towards a "one-department" model with the aim of providing effective and efficient legal support of departmental priorities and objectives.

Audit and Evaluation

Audits and evaluations are used to improve the effectiveness and efficiency of departmental policies, programs and management. The November 2004 *Report of the Auditor General to the House of Commons* outlined the need to improve the quality of the internal audit function across government and a new government-wide Policy on Internal Audit came into effect on April 1, 2006. The audit and evaluation functions are carried out under the authority of the *Federal Accountability Act* (December 2006), the Treasury Board Policy on Internal Audit (April 2006) and the Treasury Board Evaluation Policy (coming into force in April 2007). The new *Federal Accountability Act* underscores the importance of the audit and evaluation functions in providing the necessary support to the Deputy Minister in his role as accounting officer. The proposed Treasury Board Evaluation Policy requires departments to evaluate programs, policies and initiatives, to use a risk-based planning approach in identifying projects, to use structured and disciplined approaches in carrying out evaluations, and to ensure the four key evaluation issues are addressed (i.e. relevance, success, cost effectiveness, and design and delivery).

Audits and evaluations are particularly important in the context of the implementation of the new governance framework. To reflect a stronger commitment to the audit and evaluation functions across the federal government, the internal audit and evaluation functions have been bolstered to ensure a comprehensive audit and evaluation program based on sound risk analysis of all departmental activities. To accomplish this, the Department is renewing and strengthening the capacity of the audit and evaluation function to ensure that it is well positioned to provide assurance and advice to senior management.

To enhance results-oriented and accountable management, the Audit and Evaluation Branch provides the Deputy Minister and senior management with objective, independent and evidence-based information, assurance and advice on management practices, controls and information, and on the performance of programs, policies and initiatives.

Integrated Departmental Enforcement

Environment Canada has identified as its overarching goal the attainment of the highest level of environmental quality as a means to enhancing the well-being of Canadians, preserving our natural environment and advancing long-term competitiveness. It is the responsibility of Environment Canada's enforcement program to enforce the laws administered by the Department in a fair, predictable and consistent manner to both manage risks and support Canadian competitiveness by providing a level playing field for regulatees. Canadians have a right to expect the government to not only regulate where necessary, but also to ensure those

regulations are adhered to once put in place.

Each year, Annual National Inspection Plans identifying priority areas of compliance verification for the coming year are developed in consultation with Environment Canada program areas and enforcement partners. The National Inspection Plan is the cornerstone of planning and reporting for the Enforcement Branch, feeding both internal plans and reports as well as annual reports to Parliament.

An integral component of the Enforcement Program is the assurance that its enforcement personnel are properly trained. Field work presents unique challenges and hazards that require continued review, renewal and updates of learning to ensure the safety of our officers. Several initiatives currently under way include: the development of a core learning program for Wildlife Enforcement Officers; designation and designation renewal for Enforcement Officers; implementation of the Career Progression Program; and a learning management strategy that will continue to ensure effective and efficient enforcement operations through national enforcement learning programs and products.

With respect to contributing to the government's environmental agenda, many benefits are derived from enforcement involvement in the regulatory development and amendment process. In the development of regulatory instruments for government initiatives such as the Clean Air Agenda and the Chemicals Management Plan, the Enforcement Branch will provide valuable input into the regulatory drafting process, contribute to a speedy and efficient review of regulatory text, and provide guidance to secure the enforceability of the proposed regulations and other enforceable instruments. By continuing to work with programs to develop regulatory frameworks and instruments, the Enforcement Branch will contribute to the attainment of the Department's over-arching goals.