

# **Environment Canada**

**2005-2006**

**Report on Plans and Priorities**

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Stéphane Dion  
Minister of the Environment



# Table of Contents

	Page
<b>Section 1 – Overview</b>	
Minister’s Message	1
Summary Information	3
Departmental Plans and Priorities	4
<b>Section 2 – Analysis of Program Activities by Strategic Outcome</b>	16
Protecting Canadians and their environment from domestic and global sources of pollution	18
Conserving biodiversity in healthy ecosystems	28
Helping Canadians adapt to their environment in ways that safeguard their health and safety, optimize economic activity and enhance environmental quality	40
<b>Section 3 – Supplementary Information</b>	48
Management Representation Statement	49
Organizational Information	50
Table 1: Departmental Planned Spending and Full Time Equivalents	51
Table 2: Program Activities	53
Table 3: Voted and Statutory Items listed in Main Estimates	54
Table 4: Net Cost of Department for the Estimates Year	56
Table 5: Summary of Capital Spending by Program Activity	57
Table 6: Sources of Respendable and Non-Respendable Revenue	58
Table 7: Resource Requirements by Branch or Sector	60
Table 8: User Fees	61
Table 9: Major Regulatory Initiatives	62
Table 10: Details on Project Spending	65
Table 11: Details on Transfer Payments Programs	66
Table 12: Foundations (Conditional Grants)	67
Table 13: Horizontal Initiatives	68
<b>Section 4 – Other Items of Interest</b>	69
Section 4.1 EC’s 2004-2006 Sustainable Development Strategy	70
Section 4.2 Management, Administration and Policy	72
Section 4.3 Key Electronic Resources	77

## **SECTION I**

### **OVERVIEW**

## Minister's Message



In Environment Canada's 2005-2006 Report on Plans and Priorities, Canadians will find detailed information on how the department intends to address our country's environmental challenges over the next three years.

This is a timely report, which underscores the need to change Canada's approach to environmental management and sustainability. There is increasing recognition that the environment is more crucial than ever in terms of improving our quality of life, and that the links between the environment and economic competitiveness are transforming the global economy.

Environment Canada is working to promote this new approach to sustainability through a framework for competitiveness and environmental sustainability. This will support the transformational change that is needed to achieve our environmental goals, while creating a world-leading sustainable economy in Canada.

The framework will take an integrated approach to the full range of sustainability challenges, including: climate change, clean air and water, land and habitat use, biodiversity and safety. It will also set out long-term, national objectives designed to enhance environmental quality, to protect the health of Canadians and to increase Canadian competitiveness.

The goals of the framework are fully integrated into the three strategic outcomes which Environment Canada is working with its partners to achieve:

1. Protecting Canadians and their environment from domestic and global sources of pollution
2. Conserving biodiversity in healthy ecosystems
3. Helping Canadians adapt to their environment in ways that safeguard their health and safety, optimize economic growth and enhance environmental quality.

The details of the action plans that are in place to achieve these outcomes are contained in this report.

The next three years will be a period of transformation for the department as it works both to implement the new approach to sustainability and to transform its management structures, creating a 21<sup>st</sup> century organization which delivers results and provides value for money to Canadians.

I believe that the department's ambitious three-year agenda serves the needs and interests of individual Canadians, their communities and the economy as a whole. As Environment Canada continues to transform its approaches, it will build on this agenda to help create an environmentally-sustainable economy which produces the highest possible quality of life for Canadians.

The importance of creating an environmentally-sustainable economy is one of the key themes in the new federal budget. The 2005 budget marks a turning point for Canada: it launches the country well on the road to competitiveness within a sustainable economy. This budget does more than inject \$5.2 billion (including \$3 billion in new, incremental funding) into federal environmental policy across government. It sends a clear message: in order for Canada to succeed in this new industrial revolution – the sustainable economy – our environmental and economic signals must both point in the same direction, one which moves us forward to a better quality of life for our people, a more competitive and prosperous economy, and enhanced protection of our natural environment.

I encourage you to join us in this endeavour.

The Honourable Stéphane Dion, P.C., M.P.  
Minister of the Environment

## Summary Information for Environment Canada

**Reason for Existence:** The legislation and regulations that provide the department with its mandate and allow it to carry out its programs can be found at: <http://www.ec.gc.ca/EnviroRegs>.

Under the *Department of 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;
- Enforcement of any rules or regulations made by the International Joint Commission relating to boundary waters; and
- Coordination of the policies and programs of the Government of Canada respecting the preservation and enhancement of the quality of the natural environment.

Over the planning period, Environment Canada will place an increased focus on the coordination of the policies and programs of the Government of Canada related to the preservation and enhancement of the quality of the natural environment.

### Planned Financial and Human Resources

Planned Resources	2005-2006	2006-2007	2007-2008
Financial Resources	\$852.9M	\$788.9M	\$743.2M
Human Resources	5,662 FTEs	5,595 FTEs	5,595 FTEs

### Strategic Outcomes

Strategic Outcomes	2005-2006	2006-2007	2007-2008
Protecting Canadians and their environment from domestic and global sources of pollution	349.8	305.8	286.3
Conserving biodiversity in healthy ecosystems	254.5	248.2	224.7
Helping Canadians adapt to their environment in ways that safeguard their health and safety, optimize economic activity and enhance environmental quality	248.6	234.9	232.2
Total Planned Spending	\$852.9M	\$788.9M	\$743.2M

### Departmental Priorities

Departmental Priorities	Type
Environmental Conservation and Protection	Ongoing
Environmental Sustainability Assessment	Ongoing
Climate Change	Ongoing
Weather and Environmental Services	Ongoing
Departmental Integration and Transformation	Ongoing

## Departmental Plans and Priorities

### Introduction

The Government of Canada is positioning Canada to be a world leader in environmental sustainability and has signalled this intention with an ambitious agenda set out in the October 2004 Speech from the Throne. Through this agenda, the Government of Canada has recognized that:

- Environmental sustainability is becoming more crucial than ever in terms of improving our quality of life;
- The links that bind the environment and economic competitiveness are driving change in the global economy;
- Those nations that succeed in reconciling the environment and the economy will gain an important economic advantage; and
- Canada must assert itself as a leader in the new industrial revolution, that of the sustainable economy, as it has done in all previous industrial revolutions.

To support this agenda, Environment Canada has begun to develop a new policy framework both to guide the ongoing activities of the department and to provide the department with a significant tool to collaborate with other partners on moving toward environmental sustainability. The overarching objective of the Competitiveness and Environmental Sustainability Framework (CESF) is to 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. The CESF is a national approach to facilitate transformational change in Canada to create a world-leading sustainable economy – an economy that recognizes that economic and environmental success go hand-in-hand.

The next three years will be a period of transformation for the department as it works both to implement the CESF and to transform its management structures creating a 21<sup>st</sup> century organization which delivers results and provides value for money to Canadians. Work has already begun on this transformation, and Environment Canada will continue these efforts

throughout the year as it works to meet its commitments of providing Canadians with the highest environmental quality while contributing to a healthy and dynamic economy.

Canada consists of 3,500,523 square miles of mostly landscape. It is apparently intended for the home of a broad-minded people.

The Group of Seven

### Operating Environment

#### *Determinants of economic competitiveness are changing*

The clear connection between environmental considerations and economic competitiveness is leading a transformation in the way the global economy works. More and more, we see the signs of what can only be described as a new Industrial Revolution – a revolution in which environmental sustainability is a key driver of creativity, of innovation and of competitiveness around the world. The countries that fail to integrate both environmental and economic factors will not position themselves well to improve, or even to maintain, the quality of life of their people.



The emerging model of competitiveness is one where sustained, long-term economic growth requires a long-term, comprehensive approach to sustainability, including adaptation, and which requires buy-in from citizens, industry and governments if it is to be successful. In fact, since consumers are increasingly aware of the impact that environmental degradation has on their health and well-being, more and more of them are demanding that businesses implement sustainable practices.

***Industrial leaders are recognizing the benefits of environmental sustainability***

In response to these demands, leading corporations and other national governments are leading change in the way they conduct business and approach the environment / economy nexus. Industry leaders are beginning to act, and they are reporting multiple benefits from moving toward a more environmentally-sustainable model:

Economic growth and technological progress are not enemies of the environment but are perhaps its best friends, since they allow us to reduce humanity's footprint on the natural world. High tech agriculture boosts farm productivity, which means a cheaper food supply and more land spared for nature. Better sewage treatment means that our rivers and streams can run freer of pollutants. Catalytic converters on cars and better filters on power-plant smokestacks have greatly reduced smog, smoke and soot in the air. But only rich societies can afford to pay for these. In the end, the best environmental program of all is the promotion of prosperity.

Ronald Bailey, editor: *The True State of the Planet*

- Increased efficiency and reduced operating costs (eco-efficiency);
- Reduced liability and risk;
- Opportunities to exploit new products and markets;
- Enhanced corporate and brand image; and
- Improved employee morale, recruitment and retention.

At the same time, other national governments such as Japan, Germany and the United States are developing long-term strategies for their economies based on achieving environmental sustainability. What this means for Canada is that it too must become an international leader, committed to innovative products and services with environmental quality if it is to maintain its economic advantage. This new shift in the nature of competition, then, offers enormous economic opportunity, mixed with a renewed environmental commitment.

***Addressing climate change is critical and offers economic opportunities***

As the world moves towards sustainability, it must address climate change. There is no greater environmental sustainability challenge than climate change, and addressing this issue is critical to our long-term competitiveness as well as to the health, safety and security of all Canadians.

Through the Kyoto Protocol, Canada and most other industrialized countries are striving to achieve ambitious near-term emission-reduction targets, but the challenge is much bigger than this one international agreement. Emission-reduction targets need to be deeper and a longer-term approach needs to be adopted. Even countries like the US, who have not ratified Kyoto, recognize the necessity of acting and are taking first steps towards major transformational change.

We know that there will be a new international agreement to follow-up on the Kyoto Accord, and Canada must be in a position to actively shape it so that Canadian interests are met. To do this, Canada must develop a strategic approach to climate change where the country as a whole takes aggressive action to achieve our near-term Kyoto targets within a context of long-term environmental and economic sustainability and adaptation. This means choosing our actions so as to achieve long-term benefits as well as near-term results. It also means focusing our efforts more clearly than we have to date on cities, industry, and individual Canadians.

At the same time, however, the Kyoto Protocol is not simply an ecological obligation to limit the climate changes generated by human activity. Kyoto marks an opportunity to transform the Canadian economy and Canadians' way of life. The search for the most practical ways of reducing emissions of such greenhouse gases as methane and CO<sub>2</sub> will help to provide the kinds of incentives needed to make our economy less wasteful, more efficient and more centred on renewable energy sources.

### **Our Strategic Response – Building a new national agenda on the environment**

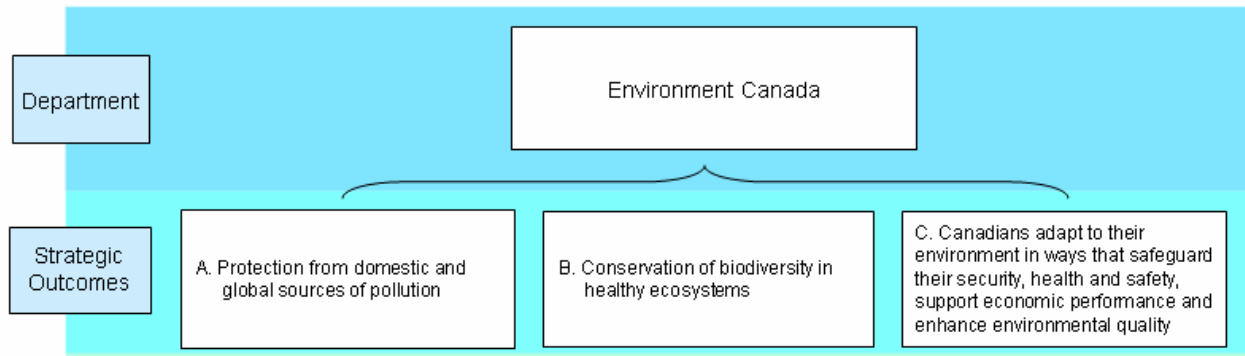
Canada's approach to environmental sustainability to date has been fragmented and has been hampered by inconsistencies and a short-term vision. It has often been characterized by antagonistic relationships between key stakeholders where environmental policies have been made often in isolation from basic economic and business principles.

In response Environment Canada will work with other federal departments and agencies, provincial and territorial governments, industry, Aboriginal peoples and with key stakeholders to develop the CESF – a national policy agenda which will strengthen the health of Canadians, the environmental health of our planet, and the long-term economic competitiveness of Canada. The CESF will set long-term national environment and health objectives and will take an integrated approach to the full range of sustainability challenges, including: climate change, clean air and water, land and habitat use, and biodiversity.

The CESF lays out a comprehensive vision with three overarching goals for the country as a whole to achieve:

- ***Enhancing the safety and well-being of Canadians***
  - Protecting Canadians against hazards in the environment thus contributing to improved health outcomes, lower health costs and greater safety and security for individuals.
- ***Preserving our natural environment***
  - Protecting, conserving and restoring Canada's ecosystems to ensure the highest level of environmental quality and access to Canada's natural capital for future generations.
- ***Advancing our long-term competitiveness***
  - Advancing sustainable approaches to economic development in order to achieve increased productivity; increased efficiency; more sustainable energy use.

## Departmental Response



## Strategic Outcomes

Environment Canada will contribute to each of the overarching goals of the CESF by taking action along three main fronts:

### **1. Protecting Canadians and their environment from domestic and global sources of pollution**

Canadians are affected every day by pollutants from many sources and in many different forms. We feel the effects of pressures on the environment through the pollution we breathe and through the toxic substances in the food and water we consume. For example, poor air quality combined with heat stress from hot summer weather has been associated with serious health impacts. Smog alerts are common in urban areas, and are linked to an increase in asthma attacks in children. The incidence of other respiratory diseases is also increasing.

At the same time, the environment itself is under continuous threat from a number of stressors, such as population growth, industrial activity (smog, hazardous air pollution, acidification, stratospheric ozone depletion) and unsustainable land use. These activities are leading to increased air and water pollution, climate change and the disappearance of habitat required in order to maintain the natural resilience of living things and their environment. Moreover, a healthy environment has the capacity to filter or purify air and water, sequester carbon, absorb heat, pollinate or germinate crops and plants, provide habitat for waterfowl and other species, and reduce the rate of soil erosion. Healthy ecosystems can aid in mitigating environmental stresses imposed by human activity. For example, aquatic systems can assimilate some waste, and certain plants and trees have the ability to absorb both air pollutants and soil contaminants (such as heavy metals and petroleum hydrocarbons). A healthy, natural, sustainable environment, then, positively affects the quality of life.

Environment Canada will act on three fronts to protect Canadians and their environment from domestic and global sources of pollution. First, we will seek to reduce the impact of human activity on the atmosphere and air quality. Second, the department will work to prevent or reduce the threats posed by toxic substances or other substances of concern in the environment. Third, Environment Canada will provide leadership for Canada's efforts to meet the targets set out by the Kyoto Accord in order to address climate change. It will work to mitigate the effects of climate change and help Canadians to adapt to these changes in our environment.

## **2. Conserving biodiversity in healthy ecosystems**

Canada's ecosystems provide the basis for our quality of life and represent a significant portion of the global environment. Canada has the world's longest coastline, nearly 25% of its wetlands, 20% of its wilderness areas, 10% of its forests, and 16% of the Arctic. Canadian forests, grasslands, wetlands, lakes and rivers and ocean ecosystems are key reproductive and feeding grounds of a wide variety of the planet's biodiversity. We are guardians of over 70,000 known species, and it is estimated that another 70,000 species could yet be found. Taken together, Canada's lands, waters, oceans and wildlife provide a vast array of services to human society – life-supporting natural processes that clean the air, purify the water, pollinate plants, absorb carbon dioxide, recycle nutrients, process wastes, control pests, and replenish soils.

At the same time, these ecosystems provide for the livelihoods of many Canadians. Our economy relies on our natural capital to remain productive – we obtain \$59B annually from our forests, \$35B from primary agriculture, \$19B from our oceans, and we spend \$12B on nature related recreational activities such as eco-tourism – and our trade surpluses largely depend on export of natural resources. Agriculture, transportation, construction, forestry, tourism and energy contribute about \$250 billion annually to Canada's gross domestic product (GDP).

However, increasing human population combined with increasing demand for goods and services is resulting in conflicts over land and water use, and compromising the long-term viability of ecosystems and threatening to eliminate the services they provide. To secure our essential life support systems 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 environment to function.

Environment Canada will act to conserve biodiversity and the health of ecosystems by building shared conservation and sustainable use strategies both globally and within Canada. Such strategies aim to ensure the sustainability of wildlife and ecosystems, contribute to the scientific understanding of ecosystems and develop partnerships to improve the health of nationally significant ecosystems.

## **3. Helping Canadians adapt to their environment in ways that safeguard their health and safety, optimize economic activity and enhance environmental quality**

Weather and environmental conditions can each have significant impacts upon the health and safety of Canadians, on their property, businesses, on the economy, and the environment in general. Floods, for example, can affect the availability and quality of drinking water by damaging infrastructure, changing patterns of groundwater recharge, and transporting urban and agricultural contaminants into lakes, rivers and wells. At the other end of the spectrum, droughts stress water supplies by depleting soil moisture reserves, reducing stream flows, lowering lake and reservoir levels, and diminishing groundwater. Accurate and timely weather forecasts and warnings, then, are crucial to individual Canadians on a daily basis.

At the same time, many of Canada's key economic sectors, such as agriculture, forestry, energy and construction, are weather and climate sensitive. For these industries, the quality, timeliness

and reliability of forecast weather and climatic conditions are important to their productivity and competitiveness.

Environment Canada will work to reduce risks to Canadians from weather-related and environmental hazards by providing warnings of hazardous and severe weather and by supporting other government departments and agencies in their decision-making. The department's work also helps weather-sensitive industries, such as agriculture, transportation, energy, fisheries, forestry, tourism and public infrastructure and construction to improve productivity and competitiveness, as well as assisting them to make their operations environmentally sustainable. We will also provide the federal government with essential scientific information to support the development of effective policies on key issues such as clean air, clean water and water management, and climate change.

### **Departmental Priorities**

To achieve these strategic outcomes, all of Environment Canada's activities are aligned to the department's five key priorities:

1. Environmental Sustainability Assessment;
2. Environmental Conservation and Protection;
3. Climate Change;
4. Weather and Environmental Services; and
5. Departmental Transformation.

#### **1. Environmental Sustainability Assessment**

Science provides the basis for Environment Canada's policies, programs, and services. Over 40% of Canada's environmental research capacity lies within the federal government, and about half of that is located in Environment Canada. It is critical for the success of Environment Canada and for environmental management in Canada that the department's science be of high quality, aligned with departmental and Government of Canada goals, linked to Canadian and international environmental science and technology capacity, and applied effectively to address the environmental and sustainable development needs of Canadians.

As Environment Canada works to implement the CESF, the department now needs to create a new, more horizontally-integrated "**science agenda**" which will allow us to better harness our environmental science capacity. Detecting, predicting, assessing and understanding environmental states and stressors are critical to achieving environmental sustainability and CESF outcomes. Information on the environment must be gathered for Canadians to support decisions related to national competitiveness, to protecting their health and safety and to conserving ecosystems' functions.

Environment Canada must work to ensure that the department's investment in science supports departmental services and policies and decision-making by providing a comprehensive picture of

the environment. The department must demonstrate national consistency and leadership on science-based methods for environmental measurement, assessment and management and reporting on the state of the environment, and must create a comprehensive environmental prediction system in Canada, by bringing together predictive capabilities in air, water and ecosystem disciplines.

To see through on this agenda, Environment Canada will over the next three years:

- Develop an integrated research agenda for the department;
- Work cooperatively with our international partners to identify and address global environmental concerns;
- Undertake integrated environmental assessments with consideration of natural, social and economic science assessments;
- Increase capacity across the department for environmental prediction to address priority issues; and
- Develop an integrated and sustainable national assessment, monitoring, and reporting program.

Through these efforts, the department will be responding to the needs of Canadians by generating and gathering the scientific data, information, and advice they need to understand and manage threats to their health, the environment and sustainable development as well as to understanding their impacts on the environment.

## **2. Environmental Conservation and Protection**

Despite many environmental accomplishments on a number of fronts (e.g., reducing the release of toxic pollutants and the use of harmful, ozone-depleting substances) significant problems remain that are having an impact both on the health and quality of life of Canadians and on the state of our environment.

This is leading to national concerns on a variety of issues ranging from the linkages of smog and air quality with respiratory ailments to the alarming implications of biodiversity decline. At the same time, the Canadian economy is still heavily reliant on the extraction of natural resources: \$58.7 billion from forest products alone (almost 4/5 being exports), providing more than one million jobs in Canada (Forest Products Association of Canada 2001). Fisheries products contributed an estimated \$19 billion (1998), employing 23,000 commercial vessels and 100,000 workers (Department of Fisheries and Oceans 2003).

Therefore, protecting the Canadian environment from pollutants and enhancing the country's natural capital is increasingly becoming the key to Canada achieving a competitive and environmentally sustainable economy. Major industrial sectors are demonstrating that improving efficiencies and reducing waste provide a competitive advantage, while enhancing environmental protection.

Over the next three years, Environment Canada will work to more closely integrate the department's activities into a clear "**performance agenda**" to protect both the environment and human health and conserve and enhance the country's delicate ecosystems. To do this, Environment Canada will concentrate its efforts through:

- Levering the forces of the economy and competitiveness through sector sustainability tables to achieve environmental results;
- Creating a clear and predictable environmental protection regime, which encourages and enables sustainable production and consumption;
- Moving to halt/reduce the rate of decline in biodiversity;
- Developing a more encompassing framework to serve broader conservation and resource management goals; and
- Integrating resource-based, species-based, habitat and protected areas management and conservation on an ecosystem-based approach.

### **3. Climate Change**

As has already been mentioned, there is no greater environmental sustainability challenge than climate change. Environment Canada recognizes this, and as such, is making progress on climate change issues a central part of its agenda. The Government has set clear directions on what Canada and Canadians need to do to meet our commitments under the Kyoto Protocol. We must find ways to increase the efficiency of our energy sources, and we must do more to conserve our use of them. We must develop more environmentally-friendly energy sources, and we must create new, transformative technologies. Finally, we have to learn to adapt to the changes which are occurring in our environment – both from a physical perspective, but also from a socio-economic perspective.

The Kyoto Accord will be only the first step however. Addressing climate change will require significant reductions in greenhouse gas (GHG) emissions and adaptation actions over the next 50 years. Environment Canada is therefore working to develop the strategic framework necessary to setting and meeting both near-term and long-term goals. Over the next three years, the department will:

- Reframe and refine our Climate Change Plan to address climate change over the long-term and to meet our Kyoto targets;
- Work to ensure that the post-Kyoto international climate change regime meets Canada's interests; and
- Help Canadians adapt to the effects of a changing climate.

### **4. Weather and Environmental Services**

Whether speaking of water quality, species at risk, the perceived increase in severe weather, or poor air quality, changing weather patterns and environmental conditions can have a significant

impact on the lives of Canadians and the environment around them. Subsequently, Canadians have come to depend on timely and reliable information regarding the weather and their external environment in order to make informed decisions during their day-to-day activities.

Environment Canada is committed to providing the best possible weather and environmental services to safeguard the environment and the social and economic well-being of Canadians.

Environment Canada will work with its partners to establish this “**service agenda**” with the following strategic objectives in mind:

- Improve the accuracy and timeliness of environmental information and warnings;
- Service improvement and quality management where the service is clearly based on the needs of users;
- Develop new environmental products and tools to better respond to changing clients’ needs;
- Increase partnerships in order to better leverage scarce resources and to facilitate private sector development; and
- Provide Canadians with the information and tools they need to make better environmental and socio-economic decisions.

## **5. Departmental Transformation**

In order to contribute to the Government of Canada’s environmental agenda and to achieve its departmental strategic outcomes, Environment Canada will have to transform its approach to doing business on a number of levels. Key elements of this transformation include:

### ***Working through key sectors***

Redefining the relationship between industry and government will be key to achieving national environment and health objectives. To this end, sector sustainability tables are being developed with industry, non-governmental organizations and Aboriginal peoples to determine how a sector would best meet those objectives. Sector sustainability tables will be permanent collaborative mechanisms between governments and industry that will take an integrated approach to “smart regulation” and the meeting of national environment and health objectives.

Membership on the tables will be based on a sector’s value chain and will be composed of decision makers from:

- Industry;
- Federal government departments and provincial and territorial governments;
- Non-governmental organizations (NGOs); and
- Aboriginal organizations.



The tables will be co-chaired by senior federal government and industry officials (a provincial/territorial co-chair may be added). The tables would identify how to achieve national objectives, based on:

- Approaches tailored to reflect business realities of sectors and firms;
- Flexible incentives that reward leaders and drive compliance; and
- Long-term standards and objectives, with interim targets; backstopped by regulations, with tough but fair and predictable penalties for those who fail to act.

***Transforming Environment Canada’s management framework to meet the objectives of the Competitiveness and Environmental Sustainability Framework (CESF)***

Transforming the way we do business is critical if Environment Canada is to coordinate the government-wide environment agenda and deliver on the CESF. If we are to work coherently with other federal departments, other governments and with the private sector, we must begin to integrate policy, programs and management structures at Environment Canada into “one department.”

Establishing a “one department” approach at Environment Canada is key to providing value for money to Canadians, and it will mean attaining excellence in all aspects of our work:

- Clear lines of accountability and responsibility;
- Effective decision-making mechanisms where decisions are made with knowledge of the full range of factors to be taken into account;
- Comprehensive planning and priority-setting processes where resource utilization is transparent and linked to verifiable results;
- Consistent, effective and efficient program delivery and service to clients; and
- Governance structures that promote a flexible team-based organization which anticipates and responds to changing government priorities and client needs.

Environment Canada will focus its efforts to effect change through its “**management agenda**” where the overarching goal is “to put in place integrated management structures and processes necessary to deliver outcomes and results and exercise accountability and control.” As part of this agenda, the department has identified five key management areas for transformation:

## **1. Governance**

An effective departmental governance system is central to Environment Canada’s overall transformation. The department’s new governance system is based on providing the structures and processes needed to collaborate on horizontal policy issues and make informed decisions. A team-based organization, built around the priorities found in the CESF and governed by boards of Assistant Deputy Ministers and Regional Directors General, reinforces the collaborative work and one department approach necessary to meeting the objectives of the CESF.

## **2. Planning and Management Framework**

As the first step towards renewing Environment Canada's planning and management framework, the department has organized the sum of its resources and activities around a Management, Resources and Results Structure (MRRS). This structure allows the department to align resources to intended results and show how activities contribute to Environment Canada's overarching strategic objectives.

With the development of the CESF, this framework will have to be restructured where appropriate to better align with the national goals as laid out in the policy agenda. Over the coming year Environment Canada will undertake to review the department's existing strategic outcomes and will reconstruct the MRRS as required. We will also work to link the departmental MRRS with other environment-based activities across the Government of Canada to better harness the total efforts of all government departments on issues affecting the environment.

## **3. Stewardship and Corporate Services**

Environment Canada recognizes that to deliver on its priorities, departmental management systems must be functioning in an integrated manner – we must function as “one department” if we are to deliver value for money to Canadians. As a result, Environment Canada will continue its efforts to create management systems and processes that provide consistent and equitable services, relevant information and early warning on resources, results and controls and that ensure compliance with policies, regulations, and legislation.

With a one-department approach Environment Canada will have a framework to assign and manage resources – people, money, assets – according to its priorities. The department will be able to track these resources, thus providing detailed information that will aid decision making - not only for setting direction, but also for making required course corrections and resource reallocation choices. The overall result will be more effective and accountable management and more responsible stewardship of public resources.

## **4. Human Resources**

The work of Environment Canada is completely dependent upon the quality and dedication of its people. An integral aspect of the Environment Canada transformation will be to renew its approach to managing human resources, and as a result, the department is launching its new framework, entitled a Strategy for People. This framework is a systematic and integrated approach designed to leverage the collective efforts and talents of all employees. It brings together a number of initiatives which, together, will provide Environment Canada and its employees with:

- An inclusive culture where everyone can contribute;
- An environment which promotes capacity building; and
- A healthy and respectful workplace.

The challenge for the coming year will be to implement some key, department-wide elements of this new agenda:

- Improved official language training strategy;
- Enhanced Occupational Health, Safety and Wellness Program; and
- Implementing the new human resources legislation within the department.

## **5. Outcome Projects and Resource Alignment**

The activities of Environment Canada will take place through Outcome Projects that are defined in terms of the results to which they contribute, and are linked together to form detailed Team plans. These Team plans, in turn, outline the key activities that will be undertaken to meet the department's priorities.

These Outcome Projects provide a basis for accountability, performance measurement, decision making and action. Advantages of this planning approach include increased transparency, improved strategic alignment, clarity of roles and responsibilities, and a framework to manage resources.

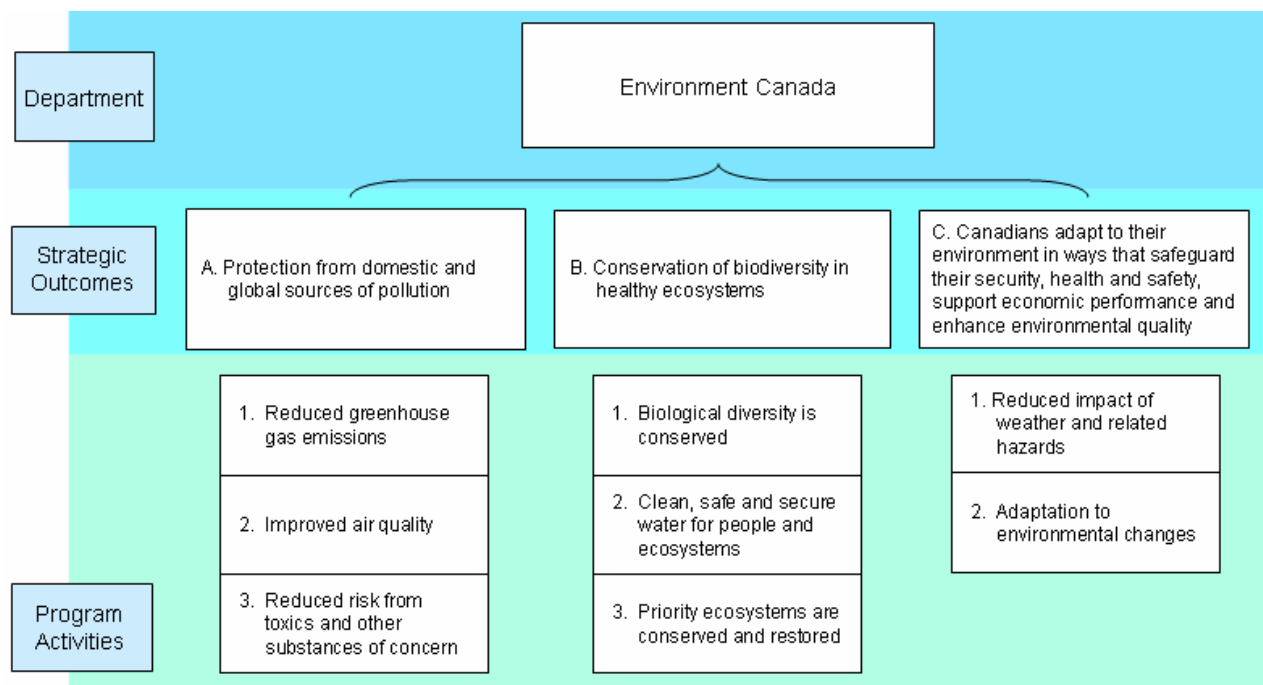
## **Conclusion**

In many respects, 2005-2006 will be a learning year for Environment Canada. Adopting the Competitiveness and Environmental Sustainability Framework will require a fundamental transformation of both the department's key priorities and the way the department functions in its day to day activities. Completing all the elements of this transformation will take years, and Environment Canada will have to become a learning department as it grows throughout this transformation. As Environment Canada continues to transform its approaches, it will build on this agenda to help create a world-leading and environmentally-sustainable economy which produces the highest possible quality of life for Canadians.

## **SECTION II**

### **ANALYSIS OF PROGRAM ACTIVITIES BY STRATEGIC OUTCOME**

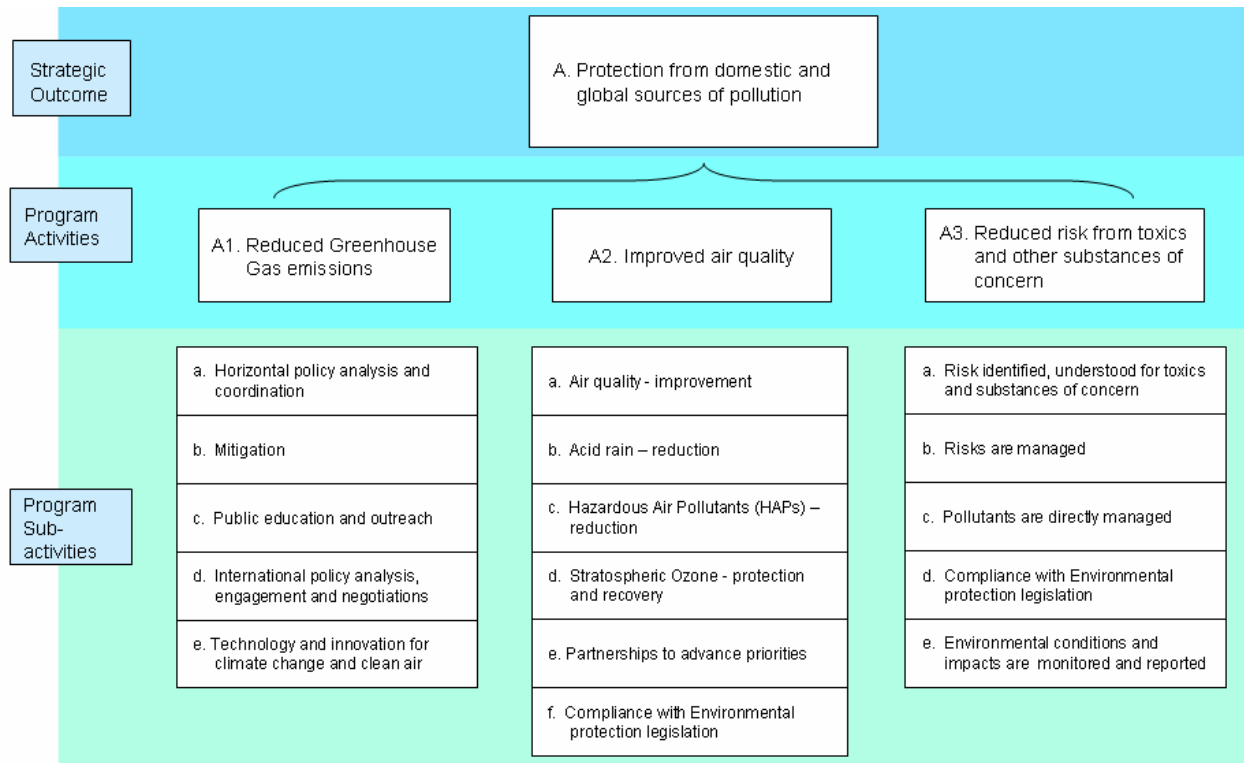
## Section 2: Analysis of Environment Canada by Program Activity



### Environment Canada's 2005-2006 Main Estimates

Program Activities (\$ millions)	Human Resources	Operating	Capital	Grants	Contributions and other transfers	Less: Revenues credited to the vote	Totals	2004-2005 Main Estimates
Strategic Outcome: Protection from domestic and global sources of pollution								
Reduced greenhouse gas emissions	137	42.7	0.2	----	11.2	0.5	<b>53.6</b>	34.0
Improved air quality	567	90.6	5.2	2.0	6.5	1.3	<b>103.1</b>	99.9
Reduced risk from toxics and other substances of concern	1,331	190.5	5.4	----	3.4	7.1	<b>192.2</b>	173.6
Strategic Outcome: Conservation of biodiversity in healthy ecosystems								
Biological diversity is conserved	677	96.5	0.5	----	22.2	1.4	<b>117.8</b>	107.9
Clean, safe and secure water for people and ecosystems	485	67.9	1.7	----	0.3	4.7	<b>65.2</b>	59.3
Priority ecosystems are conserved and restored	400	48.6	0.5	----	7.0	0.8	<b>55.3</b>	67.9
Strategic Outcome: Canadians adapt to their environment in ways that safeguard their security, health and safety, support economic performance and enhance environmental quality								
Reduced impact of weather and related hazards	1,330	189.1	12.0	0.0	2.5	48.0	<b>155.7</b>	163.1
Adaptation to environmental changes	734	101.7	5.7	0.0	0.5	15.6	<b>92.4</b>	99.4
<b>Totals</b>	<b>5,661 FTEs</b>	<b>827.7</b>	<b>31.2</b>	<b>2.0</b>	<b>53.6</b>	<b>79.3</b>	<b>835.2</b>	805.2

## Section 2.1: Pollution Prevention Strategic Outcome



### ***What is the issue?***

Scientific research shows that human activities (particularly the use of fossil fuels and the clear-cutting of forests) are accelerating the concentration of greenhouse gases in the atmosphere. As a result, the earth's average temperature is getting warmer. This could have far-reaching environmental, social and economic consequences.

There are strong links between air pollution and health problems – especially for the elderly, children and for those with respiratory and cardiac problems. A large number of studies show that air pollution can lead to premature death, increased hospital admissions, more emergency room visits and higher rates of absenteeism.

There is some evidence that some chemicals are accumulating in humans and in our ecosystems – in lakes, rivers, wildlife and in the North.

### ***What are we doing about it?***

Environment Canada has a role to play in both cleaning up the results of past contamination and in preventing more pollution. Our focus is therefore on prevention, as experience has shown that the cost of cleaning up past contamination is much greater than the cost of preventing pollution in the first place. We act on three fronts to protect Canadians and the environment from domestic and global sources of pollution – we seek to:

- Reduce greenhouse gas emissions;
- Reduce the impact of human activity on the atmosphere and air quality; and
- Prevent and reduce risks posed by toxic substances or other substances of concern to the environment and to human health.

## Section 2.1: Program Activity A1 – Reduced greenhouse gas emissions

### *What is the issue?*

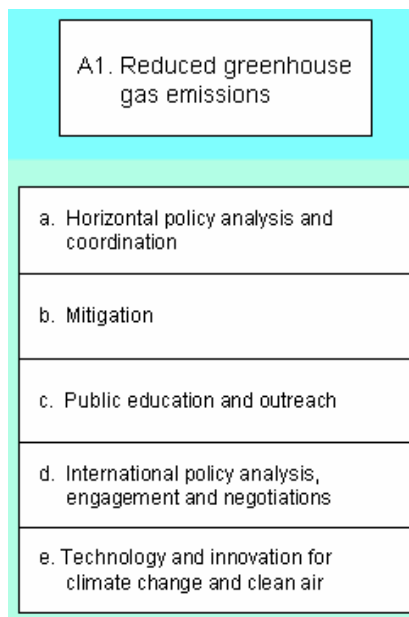
Greenhouse gas (ghg) emissions are altering the climate. Global temperature averages have risen 0.6°C over the last 100 years and a panel of international scientists has projected that average global temperatures could rise by as much as 1.4°C to 5.8°C by the end of the 21<sup>st</sup> century. In Canada, average temperatures could rise by as much as 5°C to 10°C in some regions.

### *What are we doing about it?*

Environment Canada has been part of global efforts to understand the science and impacts of global climate change since the mid-1970's. Working on the development of policies and plans to reduce greenhouse gas emissions has been a departmental priority since the late 1980's.

### *Major Initiatives*

The department's policy and program strategies to reduce greenhouse gas emissions are currently focused on the design and development of a new national climate change plan in cooperation with provinces/territories and stakeholders. Canada will host the Eleventh Conference of the Parties (CoP 11) to the United Nations Framework Convention on Climate Change in Montreal from November 28 to December 9, 2005. The meeting will mark the beginning of discussion among countries to determine the longer-term global approach on climate change after 2012.



<b>Program Area:</b> Reduce greenhouse gas emissions
<b>Activities:</b> Help Canada implement near-term and enduring emission reductions and set long-term goals to make the deep emission reductions needed to successfully address climate change and start working towards them.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Sustainable electricity production and use.</li> <li>– Sustainable transportation.</li> <li>– Clean and efficient industry.</li> <li>– Sustainable cities.</li> </ul>
<b>Indicators:</b> Carbon dioxide concentrations and global greenhouse gas emissions.
<b>Partners:</b> Other government departments (OGDs), provinces, territories, municipalities, the private sector, non-governmental organizations, Aboriginal organizations and the United States.
<b>Departmental Priority:</b> Climate change.

<b>Program Area:</b> Reduce greenhouse gas emissions
<b>Activities:</b> Provide leadership in bridging to a new sustainable, global climate change regime.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Continue to make progress in international implementation of key provisions in the Kyoto Protocol.</li> <li>– A framework for a new, sustainable international climate change framework that includes all industrialized countries and key developing countries and has commitments and timeframes based on the long-term transformative changes that are required globally.</li> <li>– Bilateral agreements with key developing countries.</li> </ul>

**Indicators:** Canada's level of progress in implementing the Kyoto Protocol and level of progress in developing a sustainable post-Kyoto climate change framework.

**Partners:** Other government departments, the private sector, other countries, NGOs, Aboriginal organizations, and multilateral organizations.

**Departmental Priority:** Climate change.

**Program Area:** Horizontal policy analysis and coordination

**Activities:** Leadership and coordination of domestic policy; in developing and implementing a national climate change plan together with Natural Resources Canada and including collaboration with OGDs, provinces, territories, municipalities, academics and the private sector; modeling and analysis; climate change communications; strategic coordination of clean-air co-benefit analysis, options analysis and development.

**Expected Results:**

- Development of a clear strategy to drive the transformational change needed across the Canadian economy to move towards Kyoto and be firmly grounded in the long-term objective.
- Transformative technologies are available.
- The full suite of policy instruments is used.
- Provinces and territories are better engaged.

**Indicators:** Canada's level of progress in implementing the Kyoto Protocol and level of progress in developing a sustainable post-Kyoto climate change framework.

**Partners:** Natural Resources Canada (NRCan); the Privy Council Office (PCO); and the Treasury Board of Canada Secretariat (TBS).

**Departmental Priority:** Climate change and environmental sustainability assessment.

**Program Area:** Mitigation

**Activities:** Work related to the realization of greenhouse gas (GHG) emission reductions and removals from many sectors including built environments, industry, transportation and other energy intensive sectors.

**Expected Results:** Industries, the transportation sector and Canadian cities accelerate their efforts to reduce GHG emissions to assist in meeting Canada's Kyoto Protocol objectives.

**Indicators:** Canadian fossil fuel consumption and secondary Canadian energy use.

**Partners:** Natural Resources Canada (NRCan), Agriculture and Agri-Food Canada (AAFC), Transport Canada and other federal departments; provincial and municipal governments; large industrial and commercial green power purchasers; electricity associations; power producers; environmental groups; Federation of Canadian Municipalities (FCM).

**Departmental Priority:** Climate change.

**Program Area:** Public education and outreach

**Activities:** Activities to help individual Canadians to do their part in meeting the climate change challenge.

**Expected Results:**

- Canadians are actively engaged in the One-Tonne Challenge and in emissions reduction actions.
- Canadians take energy efficiency/conservation considerations into account in their purchase, use and lifestyle decisions.

**Indicators:** Average level of greenhouse gas emissions produced by individual Canadians.

**Partners:** Municipalities, community groups, educators, the private sector including retailers, the financial sector, automakers, professional organizations (architects, engineers, transportation demand management planners), and youth.

**Departmental Priority:** Climate change.



<b>Program Area:</b> International policy analysis, engagement and negotiations
<b>Activities:</b> Leadership of Canada's participation in the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol processes and in the negotiation of a post-2012 climate change regime.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Establish bilateral action plans with key countries on climate change cooperation beyond 2012, and begin discussions on the form a post-2012 agreement will take.</li> <li>– In collaboration with key international partners, develop options for a sustainable international climate change post-Kyoto framework that includes all industrialized countries and key developing countries. Advance the policy framework for this new agreement by leveraging our bilateral agreements.</li> </ul>
<b>Indicators:</b> Canada's level of progress in developing a sustainable post-Kyoto climate change framework.
<b>Partners:</b> Foreign Affairs Canada (FAC); Natural Resources Canada (NRCan); Agriculture and Agri-food Canada (AAFC); Canadian International Development Agency (CIDA); other national governments; United Nations Framework Convention on Climate Change (UNFCCC).
<b>Departmental Priority:</b> Climate change.

<b>Program Area:</b> Technology and innovation for climate change and clean air
<b>Activities:</b> Advancing the research, development, demonstration and deployment of innovative climate friendly technologies, for realizing GHG reductions, through project support programs and the assessment of ancillary technology benefits such as Clean Air.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Advancing most promising innovative and climate friendly technologies through R&amp;D, demonstrations and environmental assessments; or accelerating those technologies in advanced stages of development, as identified through the existing climate change technology R&amp;D work (1998-2005), for enhanced commercialization and deployment through various existing or new mechanisms.</li> <li>– Accelerated R&amp;D, demonstration and deployment of innovative climate change technologies, domestically and internationally for enhancing GHG reductions, clean air benefits and other environmental benefits.</li> </ul>
<b>Indicators:</b> Level of deployment and commercialization of innovative climate friendly technologies.
<b>Partners:</b> Other government departments; Canada's Clean Development Mechanism (CDM/JI) office; foundations; provincial and territorial governments; industry associations.
<b>Departmental Priority:</b> Climate change.

**More Information**

Arctic Climate Impact Assessment	<a href="http://www.acia.uaf.edu/">http://www.acia.uaf.edu/</a>
Government of Canada Climate Change site	<a href="http://www.climatechange.gc.ca/english/">http://www.climatechange.gc.ca/english/</a>
Greenhouse Gas Reporting Site	<a href="http://www.ghgreporting.gc.ca">http://www.ghgreporting.gc.ca</a>
Greenhouse Gas Sources and Sinks	<a href="http://www.ec.gc.ca/pdb/ghg/ghg_home_e.cfm">http://www.ec.gc.ca/pdb/ghg/ghg_home_e.cfm</a>
Intergovernmental Panel on Climate Change (IPCC)	<a href="http://www.ipcc.ch/">http://www.ipcc.ch/</a>
One-Tonne Challenge	<a href="http://www.climatechange.gc.ca/onetonne/english/">http://www.climatechange.gc.ca/onetonne/english/</a>
Pilot Emission Removals, Reductions and Learnings Initiative (PERLL)	<a href="http://www.ec.gc.ca/PERLL/home_e.html">http://www.ec.gc.ca/PERLL/home_e.html</a>
United Nations Framework Convention on Climate Change	<a href="http://unfccc.int/2860.php">http://unfccc.int/2860.php</a>

## Section 2.1: Program Activity A2 – Improved air quality

### *What is the issue?*

Clean air is essential to both human and ecosystem health. Most air pollutants come from the combustion of fossil fuels in motor vehicles, factories, industrial or thermal power plants, home furnaces and wood-burning fireplaces. Some of the main air pollutants in Canada are sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC), airborne particles (also known as particulate matter or PM), and carbon monoxide (CO). VOCs and NO<sub>x</sub> react in the presence of sunlight, heat, and stagnant air to form ground-level ozone (O<sub>3</sub>), which lead to the creation of smog.

Smog is a noxious mixture of ground-level ozone and fine particulate matter that can often be seen as a haze in the air. It aggravates respiratory ailments and increases the occurrence of cardio-respiratory diseases. The finer particles – those with diameters equal to 2.5 micrometers (PM<sub>2.5</sub>) or less – pose the greatest threat to human health because they can travel deepest into the lungs. Particularly vulnerable to smog are people with heart or lung disease, the elderly, and small children. Air pollutants, SO<sub>2</sub> and NO<sub>x</sub>, also cause acid rain, which continues to severely stress ecosystems through the acidification of forests, wetlands, lakes, rivers, and streams.

Air quality is measured by the average concentrations of air pollutants in Canada and by trends in peak levels of ground-level ozone in Canada.

### *What are we doing about it?*

Environment Canada's broad policy and program strategy for addressing air quality issues is detailed in the federal 10 year Clean Air Agenda that was announced in 2001.

Ongoing activities include: air quality monitoring, forecasting and reporting; producing year round air quality forecasts; delivering summer smog forecast programs in collaboration with provinces and municipalities; developing CEPA regulations for the Volatile Organic Compound (VOC) content of three major product categories; and developing voluntary instruments such as Environmental Performance Agreements with two major user sectors.

Plans and priorities over the three year planning period include: continuing to implement the federal 10 year Agenda on Cleaner Vehicles, Engines and Fuels (2001-2011) and the federal Agenda for the Reduction of Volatile Organic Compound (VOC) Emissions from Consumer and Commercial Products (2004-2010) (with Health Canada); updating national Environmental Codes of Practice for the iron and steel sector to include emission limits for smog precursor gases (in 2006-2007); exploring potential to establish Codes of Practice for additional industrial sectors (by 2006-2007); completing the 2-year Joint Canada-U.S. projects on air quality in the Georgia-Basin Puget Sound and the Windsor-Detroit area (in 2006) and extending the adoption of particulate matter into provincial Air Quality Indices (AQIs) across Canada.

A2. Improved air quality

a. Air quality - improvement

b. Acid rain – reduction

c. Hazardous Air Pollutants (HAPs) – reduction

d. Stratospheric Ozone - protection and recovery

e. Partnerships to advance priorities

f. Compliance with Environmental protection legislation

## Major Programs and Initiatives

<b>Program Area:</b> Air quality improvement
<b>Activities:</b> National Air Pollution Surveillance (NAPS); Canadian Air and Precipitation Monitoring Network (CAPMoN); National Air Quality Prediction Program; INFO-SMOG; National Pollutant Release Inventory (NPRI); Clean Air Day; Commuter Challenge; vehicle scrappage program; volunteer emission testing; Canada-wide standards for particulate matter and ground level ozone; reduction of air pollutants from industrial sectors; residential wood heating; <i>CEPA 1999</i> .
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Targets are continuously improved.</li> <li>– Reduced transboundary flows of air pollution.</li> <li>– Reduced emissions from vehicles, engines and fuels.</li> <li>– Reduced emissions from industrial and other sectors.</li> <li>– Public engagement to reduce air pollution.</li> <li>– Canadians understand how to interpret air quality information and are aware of actions they can take.</li> <li>– Canadians take action to reduce air pollution.</li> </ul>
<b>Indicators:</b> Trends in peak levels of ground-level ozone and annual average concentrations of various air pollutants (such as NO <sub>x</sub> , VOC, SO <sub>2</sub> and PM <sub>2.5</sub> ).
<b>2004-2006 Sustainable Development Strategy Commitments:</b> <ul style="list-style-type: none"> <li>– The science and modeling related to particulate matter is improved and particulate matter is included in the national air quality forecasting program.<sup>SDS1.1.3</sup></li> <li>– A Canada-wide health-risk based air quality index is developed in partnership with the medical community, NGOs and provinces/territories and disseminated within a daily air quality forecasting program across Canada.<sup>SDS1.3.1</sup></li> </ul>
<b>Partners:</b> Provincial/territorial environment ministries; United States; transportation sector; Health Canada; Industry; provinces, territories and municipalities; Canadian Council of Ministers of the Environment; Environmental Non-Governmental Organizations (ENGOs); Health NGOs.
<b>Departmental Priority:</b> Environmental conservation and protection; environmental sustainability assessment.

<b>Program Area:</b> Acid rain reduction
<b>Activities:</b> Continue working with provinces and territories through the CCME to implement the Canada-Wide Acid Rain Strategy for Post-2000; Conduct ecosystem monitoring; Publish acid rain science assessment (in 2005).
<b>Expected Results:</b> Continued national, bilateral, and multilateral progress on acid rain.
<b>Indicators:</b> Emissions of SO <sub>2</sub> and NO <sub>x</sub> emissions; size of area receiving wet sulphate deposition in excess of critical load; size of areas receiving total acid deposition in excess of critical load.
<b>Partners:</b> Provincial and territorial Ministers of the Environment; Foreign Affairs Canada; Agriculture and Agri-food Canada; Canadian International Development Agency; Health Canada; Department of Indian and Northern Affairs Canada; Industry Canada; Pest Management Regulatory Agency; Canadian Council of Ministers of the Environment Task Groups; Environment Canada regions; provincial governments; universities.
<b>Departmental Priority:</b> Environmental sustainability assessment.

<b>Program Area:</b> Hazardous air pollutants (HAPs) reduction
<b>Activities:</b> Active participation in fora such as the Stockholm Convention on POPs and the United Nations Economic Commission for Europe POPs and Heavy Metals Protocols; Support international control regimes for persistent organic pollutants and heavy metals; Implement Canada-wide Standards for mercury emissions and products.
<b>Expected Results:</b> Continued national, bilateral, and multilateral progress on Hazardous Air Pollutants (HAPs).
<b>Indicators:</b> Atmospheric deposition of POPs and mercury into Canada's ecosystems; participation and implementation of international agreements and programs.
<b>Partners:</b> Provincial and territorial Ministers of the Environment; Foreign Affairs Canada; Agriculture and Agri-food Canada; Canadian International Development Agency; Health Canada; Department of Indian and Northern Affairs Canada; Industry Canada; Pest Management Regulatory Agency; Canadian Council of Ministers of the

Environment Task Groups, Environment Canada regions, provincial governments, universities.
<b>Departmental Priority:</b> Environmental sustainability assessment.

<b>Program Area:</b> Stratospheric ozone – protection and recovery
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Continued national, bilateral, and multilateral progress on stratospheric ozone protection and recovery</li> <li>– Continue to meet obligations under the Montreal Protocol on Substances that Deplete the Ozone Layer</li> <li>– Continue implementation of the domestic ozone-depleting substances (ODS) program.</li> <li>– Provide assistance to developing countries in meeting their Montreal Protocol obligations.</li> </ul>
<b>Indicators:</b> Annual production and consumption of controlled ozone depleting substances in Canada and globally.
<b>Partners:</b> Provincial/Territorial Environment Ministers; Department of Foreign Affairs and International Trade; Agriculture and Agri-food Canada; Canadian International Development Agency; Health Canada; Department of Indian and Northern Development; Industry Canada; Pest Management Regulatory Agency; Canadian Council of Ministers of the Environment Task Groups; Environment Canada regions; provincial governments; universities.
<b>Departmental Priority:</b> Environmental conservation and protection and environmental sustainability assessment.

<b>Program Area:</b> Partnerships to advance priorities
<b>Activities:</b> Increasing the number of environmental and related human health problems that are addressed by establishing partnerships focused on corrective action e.g. the delivery of EcoAction 2000 projects.
<b>Expected Results:</b> Community Based Partnerships – EcoAction <ul style="list-style-type: none"> <li>– GHG emissions are reduced in support of the One Tonne Challenge initiative.</li> <li>– Community projects in support of water and air quality objectives are funded.</li> </ul> International-based partnerships <ul style="list-style-type: none"> <li>– International partnerships to promote international environmental policies are developed and implemented.</li> <li>– The objectives of the North American Agreement on the Environmental Cooperation are implemented.</li> </ul>
<b>Indicators:</b> Number of new community projects and international partnerships.
<b>Partners:</b> Community groups; environmental groups; aboriginal groups and First Nations councils; service clubs; associations; and youth and seniors’ organizations.
<b>Departmental Priority:</b> Environmental conservation and protection.

<b>Program Area:</b> Compliance with environmental protection legislation
<b>Activities:</b> Informing and educating the regulated community about environmental laws and securing its commitment to compliance. Compliance is achieved through compliance assurance, compliance promotion, and enforcement activities.
<b>Expected Results:</b> Compliance promotion – Regulated community is informed of and educated on the <i>CEPA 1999</i> air-related regulations. Enforcement – Compliance with <i>CEPA 1999</i> air-related regulations by persons covered by these regulations is secured.
<b>Indicators:</b> Level of regulated communities’ compliance with <i>CEPA 1999</i> air-related regulations.
<b>Partners:</b> Transport Canada; the Royal Canadian Mounted Police; the Border Services Agency and provincial/territorial environment ministries.
<b>Departmental Priority:</b> Environmental conservation and protection.

## More Information

Canada’s Performance (environment chapter)	<a href="http://www.tbs-sct.gc.ca/report/govrev/04/cp-rc_e.asp">http://www.tbs-sct.gc.ca/report/govrev/04/cp-rc_e.asp</a>
Criteria Air Contaminants Emission Summaries	<a href="http://www.ec.gc.ca/pdb/cac/cac_home_e.cfm">http://www.ec.gc.ca/pdb/cac/cac_home_e.cfm</a>
National Pollutant Release Inventory (NPRI)	<a href="http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm">http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm</a>

## Section 2.1: Program Activity A3 – Reduced risk from toxics and other substances of concern

### *What is the issue?*

Addressing the problem of substances that may pose a risk to the environment or human health is complex. These substances can be released from many industrial, domestic and international sources. Once released into the environment, they can be dispersed to remote regions in air and water currents, and may accumulate in sediments, soil and organisms. The substances can be dangerous in and of themselves (such as lead and mercury) or they can combine with other substances to contaminate air, water or soil.

The *Canadian Environmental Protection Act 1999 (CEPA 1999)* defines a substance as toxic if it enters or may enter the environment in a quantity or concentration that has, or may have, a harmful effect on human life or health, the environment and its biological diversity or the environment on which life depends.

While toxic substances can affect all Canadians, the greatest health risk is for susceptible populations such as young children and the elderly. Some toxic substances persist in the environment and, while present in only small amounts, can affect many species and ecosystems. These substances build up in the tissues of living organisms such as the fish and wildlife that many Canadians consume. Aboriginal peoples, Inuit and others who consume these foods on a regular basis are particularly vulnerable.

### *What are we doing about it?*

*CEPA 1999* provides the legislative framework for preventing and managing the risks posed by toxic substances, chemicals, polymers and animate products of biotechnology. The *Act* recognizes the contribution of the management and control of toxic substances and hazardous waste to reducing threats to Canada's ecosystems and biological diversity. Environment Canada has primary responsibility for the implementation of *CEPA 1999* and jointly administers the research, categorization, assessment and management of toxic substances with Health Canada.

Environment Canada and Health Canada jointly administer the *New Substances Notification Regulations (NSNR)* under *CEPA, 1999*. Under these regulations, notification of any new substance, chemical, polymer or animate product of biotechnology is required prior to import or manufacture. All substances are assessed to determine if there is a risk to the environment or human health. If a substance is suspected of being toxic, conditions may be imposed on its use, or it may be prohibited from import or manufacture.

Canada is also addressing the potential risks posed by substances that were in use prior to introduction of the NSNR. Environment Canada and Health Canada are legislatively required under *CEPA, 1999* to categorize or sort, by September 2006, all of the approximately 23,000 substances on Canada's inventory of existing commercial chemicals according to characteristics

A3. Reduced risk from toxics and other substances of concern

a. Risk identified, understood for toxics and substances of concern

b. Risks are managed

c. Pollutants are directly managed

d. Compliance with Environmental protection legislation

e. Environmental conditions and impacts are monitored and reported

of inherent toxicity, persistence, bioaccumulation, and greatest potential for human exposure. Substances that meet the categorization criteria under this process will then undergo a screening level risk assessment to determine if they are toxic according to *CEPA, 1999* and require risk management measures.

### ***Major Programs and Initiatives***

Activities related to reducing the risk from toxic and other substances of concern can best be explained in terms of an ongoing cycle that starts with identifying and assessing the risk to both the environment and human health. These activities are managed through the development of risk management strategies and measures, ensuring the measures are complied with and monitoring, reporting on progress, and continually improving science. The program areas that support reducing risks from toxics and other substances of concern are outlined below.

<b>Program Area:</b> Risks are identified and understood for toxics and substances of concern
<b>Activities:</b> Risk assessment – risks posed by toxic substances are understood and substances requiring management are identified under the implementation of <i>CEPA 1999</i> and the New Substances Program (NSP).
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– The risks posed by toxic substances are understood and substances requiring risk management are identified.</li> <li>– Priority will be given to developing research and science strategy for emerging issues, including endocrine disrupting substances, persistent organic pollutants, animate products of biotechnology, products of nanotechnology, and pharmaceuticals.</li> <li>– Unauthorized use of new substances prevented.</li> <li>– Departmental responsibilities (classification recommendations) for The Canadian Shellfish Sanitation Program are fulfilled.</li> <li>– Develop an assessment priority-setting framework for substances that have met categorization criteria</li> </ul>
<b>Indicators:</b> Number of categorized commercial chemicals; Percentage of new substances notifications that are annually assessed within regulatory timeframe; Regulatory instruments in place to more efficiently address products of biotechnology; Identification of emerging issues.
<b>Partners:</b> Health Canada; Canadian Food Inspection Agency; Fisheries and Oceans Canada; and Agriculture and Agri-Food Canada.
<b>Departmental Priority:</b> Environmental sustainability assessment.

<b>Program Area:</b> Risks are managed
<b>Activities:</b> Risk management to address toxic substances and other substances of concern through the implementation of <i>CEPA 1999</i> and the Toxic Substances Management Policy, jointly administered by Environment Canada and Health Canada.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Risk management actions to address sources of greatest concern for those substances added to Schedule 1.</li> <li>– Releases to the environment of persistent, bioaccumulative, toxic and anthropogenic substances are virtually eliminated.</li> <li>– International obligations are met with respect to transboundary movements of hazardous waste and hazardous recyclable materials and with respect to Polychlorinated Biphenyls (PCBs).</li> <li>– Risks associated with the discharge of inadequately treated wastewater effluents are reduced over time.</li> </ul>
<b>Indicators:</b> Number of domestic releases of toxic substances for which control measures (e.g. regulations or voluntary instruments) are in place; number of substances identified as toxic listed on Schedule 1 under CEPA; the number of children admitted to hospital due to respiratory illness.
<b>Partners:</b> Canadian Council of Ministers of the Environment; Organization for Economic Cooperation and Development (OECD); Treasury Board Secretariat; Health Canada; Fisheries and Oceans Canada; Indian and Northern Affairs Canada and Arctic Council partner countries; Natural Resources Canada; and Industry Canada.
<b>Departmental Priority:</b> Environmental conservation and protection.

<b>Program Area:</b> Pollutants are directly managed
<b>Activities:</b> Pollutants posing environmental and related human health risks are directly managed through direct action, such as the issuing of ocean disposal permits, providing expert advice on project specific environmental assessments and strategic environmental assessments, environmental emergency planning, advancing the research, development, demonstration & deployment of prevention and control technologies; and federal contaminated site remediation.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Improved ability to directly manage pollutants through the development and implementation of risk management tools and strategies.</li> <li>– The negative environment impacts of land-based activities to coastal and marine environments are prevented</li> <li>– Soil and groundwater contamination from petroleum products and allied petroleum products storage tank systems of the Federal House and on Aboriginal lands are prevented.</li> </ul>
<b>Indicators:</b> Number of permits and environmental assessments; Progress in remediation of contaminated sites by custodial departments; Number of new technologies advanced and deployed for reducing pollutants; Quality of environmental assessments (project specific and strategic).
<b>Partners:</b> Department of Fisheries and Oceans; Transport Canada; Canadian Coast Guard; Canadian Environmental Assessment Agency; Public Works and Government Services Canada; Province of Nova Scotia; Cape Breton Regional Municipality; Health Canada; Parks Canada Agency; Department of National Defence; Indian and Northern Affairs Canada; Royal Canadian Mounted Police; Natural Resources Canada; Treasury Board Secretariat; Canadian Food Inspection Agency; Foreign Affairs Canada; International Trade Canada; Correctional Service of Canada; Agriculture and Agri-Food Canada; provincial governments.
<b>Departmental Priority:</b> Environmental conservation and protection; environmental sustainability assessment.

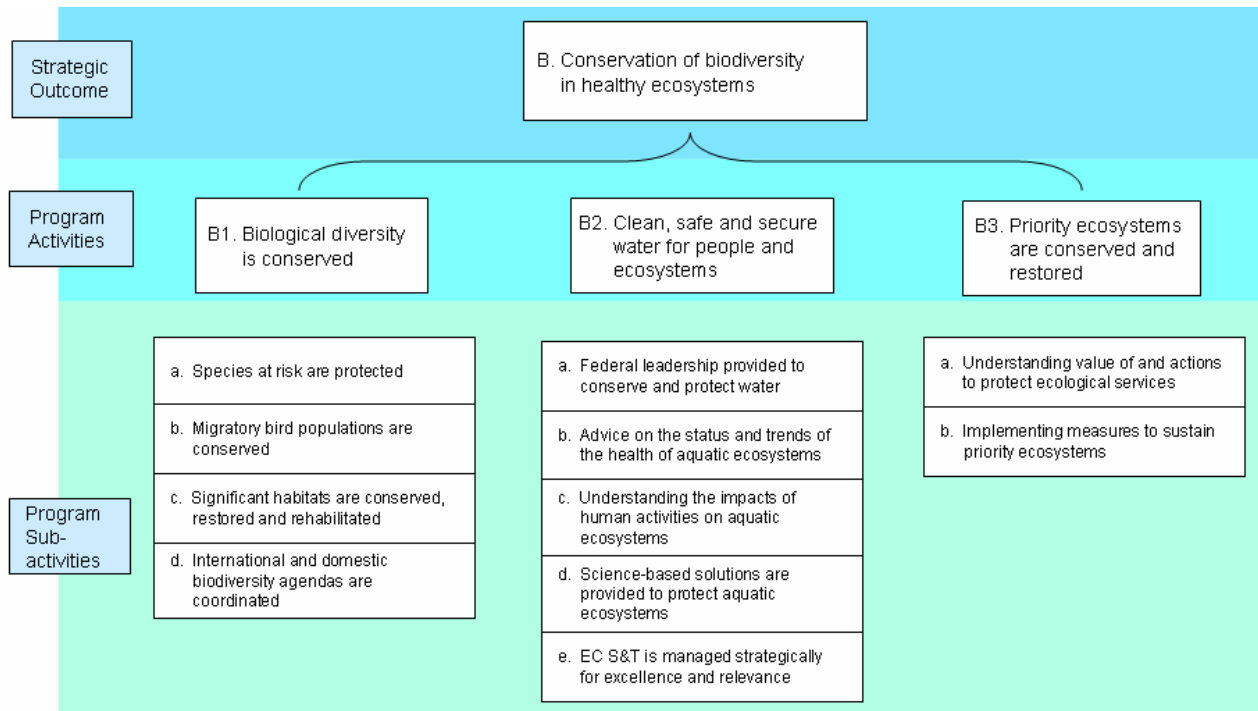
<b>Program Area:</b> Compliance with environmental protection legislation
<b>Activities:</b> Informing and educating the regulated community on environmental laws ( <i>CEPA 1999</i> and <i>Fisheries Act</i> section 36 (3) and securing its compliance. Compliance is achieved through compliance assurance, compliance promotion, and enforcement activities.
<b>Expected Results:</b> Compliance promotion – Regulated community is informed of and educated on the <i>CEPA 1999</i> and <i>Fisheries Act</i> section 36 (3). Enforcement – Compliance with <i>CEPA 1999</i> and <i>Fisheries Act</i> 36 (3) is secured.
<b>Indicators:</b> Level of the regulated communities' compliance with <i>CEPA 1999</i> regulations and other risk management tools, and the pollution prevention provisions of the <i>Fisheries Act</i> .
<b>Partners:</b> Department of Fisheries and Oceans; the Royal Canadian Mounted Police; the Border Services Agency; the Canadian Coast Guard and provincial/territorial environment ministries.
<b>Departmental Priority:</b> Environmental conservation and protection.

<b>Program Area:</b> Environmental conditions and impacts are monitored and reported
<b>Activities:</b> Monitoring and reporting; information collection through the National Pollutant Release Inventory (NPRI), <i>CEPA</i> Registry, and other avenues; making data available to Canadians.
<b>Expected Results:</b> Improve monitoring and reporting to in order to inform future government, business and citizen action on pollution prevention and control by collecting and providing information through the National Pollutant Release Inventory (NPRI), <i>CEPA</i> Registry, and other avenues.
<b>Indicators:</b> Quality of information reported out and contained in the National Pollutant Release Inventory (NPRI) and <i>CEPA</i> Registry; use of information in departmental decision-making.
<b>Partners:</b> National Air Pollution Surveillance (NAPS); provincial and territorial governments; Health Canada.
<b>Departmental Priority:</b> Environmental sustainability assessment.

## More Information

Canadian Environmental Protection Act, 1999	<a href="http://www.ec.gc.ca/CEPARegistry/default.cfm">http://www.ec.gc.ca/CEPARegistry/default.cfm</a>
National Pollutant Release Inventory (NPRI)	<a href="http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm">http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm</a>

## Section 2.2: Biodiversity Conservation Strategic Outcome



### *What is the issue?*

Canada is recognized around the world for its natural wealth, including its wildlife, forests, water and protected areas. Canada is home to over 71,500 known species of wild animals, plants and other organisms including 200 species of mammals, 400 species of birds, 1,100 species of fish and 4,000 species of plants. From a global perspective Canada has 20% of the world's remaining wilderness, 7% of the world's renewable freshwater, 25% of the global wetlands, 10% of its forests and the longest coastline in the world.

Despite this apparent abundance of resources, Canada's natural capital is at risk. Human induced pressures are contributing to significant declines in many species of animals and plants. Urbanization, agricultural intensification, forest harvesting and other resource extraction industries are increasingly leading to habitat loss and fragmentation. The long-term effects of acid rain, expanding use of pesticides and other toxic chemicals, and the threat of global climate change exacerbate this situation. Finally, increased international human movement and trade have led to new threats to wildlife and their habitat from introduced diseases and alien invasive species.

Clean, safe and secure water for people and ecosystems continues to be a shared vision for governments domestically and internationally. In Canada water quality, quantity and use issues are complex, and multi-jurisdictional. Water is a life sustaining part of our ecosystems. It is critical not only to human health and well being but also to sustainable growth and biodiversity. There are unique pressures that face both the water supply and water quality in parts of Canada. The federal government has numerous direct roles to play with regards to management of water and drinking water on federal lands and in federal facilities. At least 19 federal departments are in some way implicated in the management of water. This as a result provides a significant horizontal management challenge within the federal house. In addition, close collaboration with



provincial, territorial and municipal governments is essential since they bear the most responsibility for the day-to day management of water.

### ***What are we doing about it?***

Environment Canada’s programs, services and initiatives to conserve biological diversity (biodiversity) in healthy ecosystems focus on building shared sustainability strategies and partnerships for conserving Canada’s wildlife, ecosystems, fresh water and wetland resources; contributing to the scientific understanding of ecosystems; establishing science and technology practices; and developing partnerships to improve the health of nationally significant ecosystems. Activities under this strategic outcome are grouped into the following program areas:

- Conservation of biological diversity;
- Clean, safe and secure water for people and ecosystems; and
- Conservation and restoration of priority ecosystems.

## **Section 2.2: Program Activity B1 – Biological diversity is conserved**

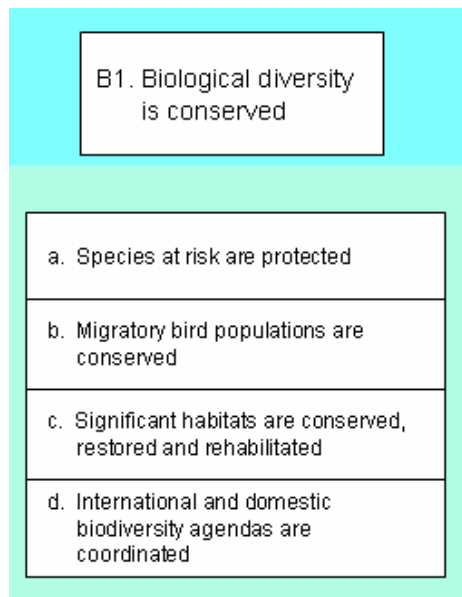
### ***What is the issue?***

The most significant threat to biodiversity lies in the loss, degradation and fragmentation of the habitats that animals and plants need to survive. While parks and protected areas help protect natural habitats, they are scattered throughout the country with, in some areas, only limited natural linkages between them.

Invasive alien species (IAS), including plants, animals and other organisms (e.g. microbes), are the second largest threat to biodiversity. In addition to environmental harm, they can also cause economic harm or harm to human health. Human actions are the primary means of invasive species introductions.

For nature conservation 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 including wilderness, parks, working landscapes and urban centres. More needs to be done to influence a wider range of private and public lands by engaging networks of stakeholders in habitat conservation strategies.

Conserving biodiversity will require not only that we maintain healthy populations of wild species, but also that we protect and recover species that have become threatened or endangered. We also need to ensure that the use of wildlife is sustainable.



## ***What are we doing about it?***

The lack of recognition of the interconnectedness of Canada's resources has meant that the impact of efforts to conserve Canada's natural legacy is not as significant as it could be. There is a strong need to develop partnerships with industry, academia and non-governmental organizations to promote and advance integrated conservation planning and management.

By legislation, the particular focus of EC's conservation efforts is on migratory birds, species at risk and their habitats.

## ***Major programs and initiatives***

<b>Program Area:</b> Species at risk are protected
<b>Activities:</b> Assessing whether species are at risk; protecting and recovering species at risk and their habitats; preventing species from becoming at risk; and ensuring that Canada's trade in non-endangered species is sustainable.
<p><b>Expected Results:</b></p> <p>The National Strategy for the Protection of Species at Risk and <i>Species at Risk Act</i> are implemented:</p> <ul style="list-style-type: none"> <li>– Species are assessed or reassessed through the formal processes of COSEWIC.</li> <li>– Species are listed under SARA and other regulations are developed as required to implement the Act.</li> <li>– Implementation policies and guidelines for SARA are developed/approved.</li> <li>– NACOSAR is established and aboriginal people are engaged in SARA implementation.</li> <li>– Recovery strategies are prepared for species listed as extirpated, endangered and threatened.</li> <li>– Provincial and territorial governments and Aboriginal organizations are engaged.</li> <li>– Stakeholder consultations contribute to desired results and NGOs and industry are engaged in protection and/or recovery.</li> <li>– Enforcement capability for species at risk is established.</li> <li>– International obligations related to species at risk are met and compliance with WAPPRIITA is promoted.</li> </ul>
<b>Indicators:</b> Change in status of reassessed species at risk; number of endangered and threatened species, sub-species and populations in each of Canada's ecozones; amount of habitat for species at risk that is effectively protected.
<b>Partners:</b> Department of Fisheries and Oceans (DFO); Parks Canada Agency; other government departments (OGDs); provinces and territories; NGOs; Wildlife Management Boards; Aboriginal organizations; industry. (on CITES – also Foreign Affairs Canada, Unites States and Mexico)
<b>Departmental Priority:</b> Environmental conservation and protection; environmental sustainability assessment.
<b>Program Area:</b> Migratory bird populations are conserved
<b>Activities:</b> Sustaining migratory bird populations through finalization of the CWS migratory bird program plan, continued development of partnerships under the North American Bird Conservation Initiative, update and enforcement of migratory bird regulations, outreach activities, and Aboriginal Cooperative management.
<p><b>Expected Results:</b></p> <ul style="list-style-type: none"> <li>– Knowledge of the status of migratory bird populations is acquired and conservation measures undertaken.</li> <li>– Compliance with the <i>Migratory Bird Convention Act</i> is promoted and enforced.</li> <li>– Awareness of stakeholders and the public is increased and support for migratory bird conservation initiatives obtained.</li> <li>– Cooperative management processes and structures are established to accommodate and respond to Aboriginal and treaty rights in land claim settlements.</li> <li>– Partnership initiatives for migratory bird conservation are developed and implemented.</li> <li>– Impacts of toxic substances and diseases on migratory birds and other wildlife at risk are understood and the advice provided supports timely interventions.</li> <li>– Impacts of oil and other pollution, illegally discharged from ships in Canada's Exclusive Economic Zone are</li> </ul>

reduced using existing enforcement capabilities of the Migratory Birds Convention Act and Canadian Environmental Protection Act with the potential for enhanced capability through amendments to the two Acts proposed in Bill C-15.
<b>Indicators:</b> Percentage of threatened and endangered species of migratory birds with stable or increasing populations; population levels of targeted migratory bird species and other wildlife under federal jurisdiction.
<b>Partners:</b> Primarily federal and State governments in the United States and Mexico; federal governments of nations in the Western Hemisphere as well as of Denmark and Finland; federal departments such as Agriculture and Agri-food Canada; Health Canada; Fisheries and Oceans; National Defence; Foreign Affairs Canada and NRCan; provincial governments as well as non-government agencies and organizations.
<b>Departmental Priority:</b> Environmental conservation and protection; environmental sustainability assessment.
<b>Program Area:</b> Significant habitats are conserved, restored and rehabilitated; overall ecosystem integrity is sustained
<b>Activities:</b> Protecting and conserving specific critical habitats; facilitating a national evolution toward systems of integrated landscape management.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– A steady increase in the number of Canadian ecosystems covered by an integrated landscape decision-making/management process.</li> <li>– Species at risk and their habitats are conserved through the Habitat Stewardship Program.</li> <li>– National Wildlife Areas, Marine Wildlife Areas, Migratory Bird Sanctuaries and RAMSAR sites are established and maintained, within the context of broader ecosystem/landscape plans.</li> <li>– Land donations to support conservation are enabled through the Ecological Gifts Program.</li> <li>– Aboriginal organizations and communities continue to be engaged.</li> <li>– Stakeholder consultations and participation continue to be used to contribute to desired results.</li> </ul>
<b>Indicators:</b> <ul style="list-style-type: none"> <li>– Area of conserved wildlife habitat that is under direct Environment Canada protection or protected through departmental partnerships and influence.</li> <li>– Area of the nation covered by integrated landscape decision-making/management processes.</li> </ul>
<b>Partners:</b> Aboriginal Peoples; other government departments; provinces and territories; industry and industry associations; environmental non-government organizations.
<b>Departmental Priority:</b> Environmental conservation and protection; environmental sustainability assessment.
<b>Program Area:</b> International and domestic biodiversity agendas are coordinated
<b>Activities:</b> Fulfill Canada's key international obligations under the Biodiversity Convention and domestic obligations under the Canadian Biodiversity Strategy.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Convention on Biological Diversity (CBD) decisions serve the environmental, economic, social and cultural interests of Canadians: Canadians have easy access to information on Canada's participation in the CBD and other international biodiversity forums.</li> <li>– Canada recognized globally as fulfilling its obligations and commitments under the CBD and as an influential contributor to implementing and reporting against the international target of reducing the rate of biodiversity loss by 2010.</li> <li>– Canada seen to be playing a significant role in the operation/strategic direction of the CBD, in enhancing capacity of other countries, and in promoting interests of indigenous people.</li> <li>– Facilitated implementation of the Canadian Biodiversity Strategy by Canadian jurisdictions, government departments, and resource sectors through management, co-ordination and identification of national implementation priorities and development of common biodiversity targets, indicators and supportive monitoring systems.</li> <li>– Environment Canada will continue its leadership role relating to <i>An Invasive Species Strategy for Canada</i> which was approved by the federal-provincial-territorial Ministers responsible for forests, fisheries and aquaculture, endangered species and wildlife in September 2004. Beginning in 2005-2006, the federal</li> </ul>

<p>government will initiate implementation of the Strategy in the areas of public awareness and risk analysis of alien plant and aquatic species.</p> <ul style="list-style-type: none"> <li>– Enhanced conservation and sustainable access and use of Canadian genetic resources facilitated through development (with provinces and territories, with input from aboriginal groups, and stakeholders) of an approach which identifies Canadian interests in this emerging priority and better positions Canada to be active, on a domestic-driven basis in negotiations on an international regime on Access and Benefit Sharing (ABS) of genetic resources and associated traditional knowledge.</li> </ul>
<p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>– National consensus on Biodiversity outcomes framework in support of 2010 target.</li> <li>– Biodiversity reporting system in place.</li> <li>– Introduction of ABS policy frameworks and pilot projects at national and sub-national levels.</li> </ul>
<p><b>Partners:</b> Fisheries and Oceans Canada; Natural Resources Canada; Indian and Northern Affairs Canada, Agriculture and Agri-Food Canada; Foreign Affairs Canada; Parks Canada Agency; Canadian International Development Agency; provinces and territories; private sector; and ENGOS.</p>
<p><b>Departmental Priority:</b> Environmental conservation and protection.</p>

<p><b>Program Area:</b> Natural Legacy Agenda</p>
<p><b>Activities:</b> Fulfil Environment Canada’s responsibility to develop environmental performance standards which will specify desired levels of environmental quality required of agriculture, and for validating beneficial management practices.</p> <p>The Oceans Action Plan builds upon Canada’s Oceans Strategy and is a continuation of efforts to develop a comprehensive strategy for oceans management. Environment Canada will work with the interdepartmental community in the implementation of Canada’s Oceans Action Plan, including the identification of Marine Protected Areas and the creation of integrated management zones in priority areas.</p>
<p><b>Expected Results:</b></p> <ul style="list-style-type: none"> <li>– Suite of standards for air, biodiversity, pesticides, and water elements that are at high risk from agricultural activities.</li> <li>– Environmental performance standards developed by the National Agri-Environmental Standards Initiatives (NAESI) will be implemented at the farm level through beneficial management practices leading to certification of Canadian agriculture practices and continued access to international markets.</li> <li>– Improved stewardship by agricultural producers of the land, water, air, and biodiversity.</li> <li>– Wild living resources are conserved (refer also to expected results under “Protecting species at risk” and “Sustaining Migratory Bird Population” major initiatives/programs).</li> <li>– Increased public and private stewardship on Canada’s lands and waters.</li> <li>– Canada’s protected areas are established, expanded and restored (refer also to expected results under “Protecting and conserving habitats” major initiative/program).</li> <li>– Strengthen the scientific information base.</li> </ul>
<p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>– Use of scientific information by decision-makers.</li> <li>– Standards are integrated by AAFC into beneficial agricultural management practices and to assess relative performance of the agriculture industry.</li> <li>– Amount of totally and strictly protected areas in Canada</li> </ul>
<p><b>Partners:</b> Agriculture and Agri-Food Canada, Health Canada and other federal departments as required; provinces and territories (individually or through the Canadian Council of Ministers of the Environment); academia; producers; National Round Table on the Environment and Economy; Aboriginal Peoples; Commission for Environmental Cooperation; NGOs; community level organizations; Fisheries and Oceans Canada; Parks Canada Agency.</p>
<p><b>Departmental Priority:</b> Environmental conservation and protection.</p>

## Section 2.2: Program Activity B2 – Clean, safe and secure water for people and ecosystems

### *What is the issue?*

Water – its availability, quality, and many uses to people and nature – is a fundamental sustainable development issue. Water is essential for life and for the health of humans and ecosystems and vital to many sectors of the economy.

Water issues are emerging as *the* critical issue of the 21<sup>st</sup> century. While water availability is not seen to be a critical problem in most of Canada, ever-increasing demands for water coupled with burgeoning populations and the looming impacts of climate change, have raised concerns in many jurisdictions about our ability to manage this vital resource in a sustainable manner. The urgency is heightened by the prohibitive costs of maintaining or adding new water storage, treatment, and distribution infrastructure.

The ability to secure a clean and healthy environment for Canadians is dependent upon our capacity to understand how our ecosystems are affected by human-induced stressors and to transfer that knowledge to Canadians and the global community. Only then can it be incorporated into decision-making. An understanding of the ecosystem structure, processes and functions, as well as the effects of economic activities, is a critical requirement for effective ecosystems-based management and it is of fundamental importance to sound decision-making.

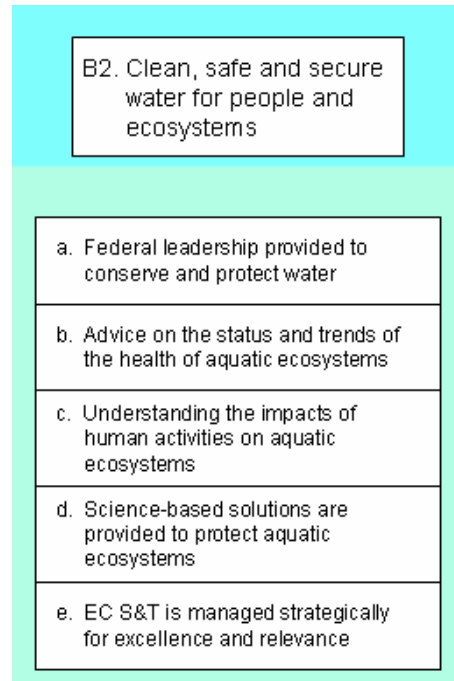
### *What are we doing about it?*

Environment Canada works in collaboration with other federal departments, provinces and territories (e.g. individually or 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) to share information, determine priorities for monitoring and research, provide timely and integrated scientific information and advice to decision-makers and promote sustainable water use in Canada and build best management practices for sustaining efficient use of Canada’s water.

### *Major programs and initiatives*

Environment Canada addresses critical water issues on a number of fronts:

<b>Program Area:</b> Federal leadership is provided to conserve and protect water
<b>Activities:</b> Governance; international and bi-national water initiatives.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– An integrated, watershed approach to water management in Canada is advanced and connected.</li> <li>– Shared water priorities are identified with Provinces and Territories and integrated into work plans.</li> <li>– Programs are tailored to deliver source water protection and water conservation through the First Nations Water Management Strategy in partnership with Indian and Northern Affairs and Health Canada.</li> <li>– Key sectoral strategies are developed and implemented to improve the efficient and sustainable use of water in</li> </ul>



<p>Canada.</p> <ul style="list-style-type: none"> <li>– Information on water issues is conveyed to respond to demands from national to local levels of decision-making.</li> <li>– The mix of water management instruments and tools (e.g. economic, policy, guidelines) are designed, modified, or adapted to promote uptake and optimize results.</li> <li>– Canada’s engagement in global water events and negotiations improve access to clean water and promote the use of Canadian expertise and technology.</li> <li>– Canada’s water quality and quantity interests are protected bi-nationally.</li> <li>– Federal water strategies are developed and implemented in a complimentary and comprehensive manner.</li> </ul>
<p><b>Indicators:</b> Coordinated federal water policy with targeted instruments and actions that support partnerships and deliver on common goals.</p>
<p><b>Partners:</b> Federal, provincial, territorial and municipal governments; other federal departments (approximately 20 federal departments and agencies have water-related roles); Canadian Council of Ministers of the Environment; NGO’s; the International Joint Commission; industry; academia.</p>
<p><b>Departmental Priority:</b> Environmental conservation and protection, Strategic Integration and Environmental Sustainability Assessment.</p>

<p><b>Program Area:</b> Advice on the status and trends of the health of aquatic ecosystems</p>
<p><b>Activities:</b> Providing leadership on the development and implementation of an affordable and demand-driven monitoring and reporting program on the status and trends of aquatic ecosystem health which will produce nationally consistent, locally relevant information and indicators for decision-makers and Canadians.</p>
<p><b>Expected Results:</b></p> <ul style="list-style-type: none"> <li>– Develop RésEau – a Canada-wide information portal integrating water quality/quantity and use data and information from distributed sources which will facilitate sharing, discovery, access and use by water management experts and the Canadian public (2005-2007).</li> <li>– Develop a water quality indicator that will provide a trusted source of information on national water quality by filling gaps in data through establishment of dedicated national water quality monitoring network and federal-provincial agreements; strengthened interpretive tools and assessment approaches and improved national reporting (2005-2008).</li> </ul>
<p><b>Indicators:</b> Policy- and decision-makers and Canadians have the scientific information they need on status of and trends in ecosystem health to make informed decisions to protect and conserve the environment.</p>
<p><b>Partners:</b> Other federal departments, provinces and territories (individually or through Canadian Council of Ministers of the Environment), science networks and the public (ENGOS, academia).</p>
<p><b>Departmental Priority:</b> Environmental sustainability assessment; weather and environmental services.</p>

<p><b>Program Area:</b> Understanding the impacts of human activities on aquatic ecosystems</p>
<p><b>Activities:</b> Conducting research to identify human activities that are having significant impact on aquatic ecosystems, ecosystems that are most vulnerable to those impacts and opportunities to minimize these impacts and transferring the knowledge to decision-makers who can take action to address aquatic ecosystem health issues.</p>
<p><b>Expected Results:</b></p> <ul style="list-style-type: none"> <li>– Advance scientific understanding of the impacts of land use practices and the effects of toxics and substances of concern and changes in climate and biodiversity on aquatic ecosystems.</li> <li>– Conduct and publish science assessments on taste and odour in drinking water sources, contaminated sediments, and ecosystem impacts of acid rain (2005-2007).</li> </ul>
<p><b>Indicators:</b> Use of research and scientific information by decision-makers.</p>
<p><b>Partners:</b> Other federal departments, provinces and territories (individually or through Canadian Council of Ministers of the Environment), science networks and ENGOS, academia, international academic community.</p>
<p><b>Departmental Priority:</b> Environmental conservation and protection; environmental sustainability assessment; climate change.</p>

<b>Program Area:</b> Science-based solutions are provided to protect aquatic ecosystems
<b>Activities:</b> Develop innovative science-based solutions (e.g., environmental quality standards and guidelines) and integrated water resource and landscape management actions to conserve, protect and promote sustainable use practices and to protect and enhance the health of aquatic species.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Develop environmental quality guidelines for aquatic ecosystems (water, sediment, tissue residues) to sustain, protect and enhance the quality of the environment and its major beneficial uses.</li> <li>– Develop soil quality guidelines for the remediation of contaminated sites and to sustain, protect and enhance the quality of the terrestrial environment and its major beneficial uses.</li> <li>– Provide expertise and guidance on the application of guidelines in priority government initiatives such as source water protection, agri-environmental standards and site-specific water quality indicators.</li> <li>– Promote the uptake of water quality assessment tools through training, technical publications and website information.</li> <li>– Develop sustainable water management practices (e.g. improved municipal wastewater treatment approaches, new technologies for remediation of contaminated sites and development of sustainable urban stormwater management practices).</li> <li>– Develop agri-environmental standards under the Agricultural Policy Framework for use in the management of impacts on water stemming from the agricultural sector.</li> </ul>
<b>Indicators:</b> The availability of innovative science-based solutions (e.g., environmental quality guidelines and standards).
<b>Partners:</b> Federal departments (Indian and Northern Affairs Canada; Health Canada; Agriculture and Agri-Food Canada; Fisheries and Oceans Canada); provincial and territorial governments (individually and through the Canadian Council of Ministers of the Environment); other national governments; industrial sectors, science networks; stakeholders; NGO's; academia.
<b>Departmental Priority:</b> Environmental conservation and protection; environmental sustainability assessment.

<b>Program Area:</b> EC's Science and Technology is managed strategically for excellence and relevance
<b>Activities:</b> Strategically managing EC's S&T and developing S&T policy for EC, contributing to and implementing federal S&T policy, and reporting on and communicating about EC's S&T effort.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Environment Canada's science and technology are high quality.</li> <li>– Environment Canada's science and technology efficiently and effectively support the department's mission and contribute to achieving the federal government's goals.</li> <li>– Environment Canada's science and technology are integrated with federal, Canadian and international environmental science and technology capacity.</li> <li>– Environment Canada's science and technology effectively address the environmental and sustainable development needs of Canadians.</li> </ul>
<b>Indicators:</b> Independent recognition of the quality of Environment Canada's science and technology and their management.
<b>Partners:</b> Other government departments; granting agencies and foundations (e.g. Canada Foundation for Innovation; Natural Sciences and Engineering Research Council of Canada; Canadian Institutes of Health Research; Social Sciences and Humanities Research Council); universities.
<b>Departmental Priority:</b> Environmental sustainability assessment; departmental transformation (strategic integration).

## Section 2.2: Program Activity B3: Priority ecosystems are conserved and restored

### *What is the issue?*

Canada's landscapes and seascapes are diverse. They contain varying habitats and ecosystems including tundra, grasslands, estuaries and forests. Associated with these ecosystems are many resources and assets either on the ground (such as trees, wildlife, wetlands, and soils) or below the ground or sea (such as oil and gas, minerals, and groundwater).

We need to understand how our ecosystems work and how they are affected by human-induced stressors so that we can transfer that knowledge to Canadians and the global community and use it to make sound and informed decisions.

The challenge is to build on the existing resource-based, species-based, habitat-based and protected areas-based management approaches to develop a more integrated and comprehensive framework that better serves broad conservation and resource management goals.

B3. Priority ecosystems are conserved and restored
a. Understanding value of and actions to protect ecological services
b. Implementing measures to sustain priority ecosystems:
Atlantic Coastal Action Program
Georgia Basin Action Plan
Great Lakes Action Plan
Northern Ecosystem Initiative
St. Lawrence Action Plan
Western Boreal Conservation Initiative

### *What are we doing about it?*

Ecosystem approaches provide integrated conservation planning and a framework for collaborative action to address the complex environmental issues affecting targeted ecosystems. Ecosystem approaches achieve results through partnerships, pooling resources, focusing science, coordinating efforts, sharing information and generating a broad basis for support. They help build the capacity of all the players involved to make better decisions and to effect change.

### *Major programs and initiatives*

Environment Canada works with a broad spectrum of governments and communities of interest in pursuit of shared objectives in six ecosystem initiatives across Canada:

<b>Program Area:</b> Understanding the value of and actions to protect ecological services
<b>Activities:</b> Environmental quality status and trends monitoring and reporting.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Enhanced linkages with networks in Canada and improved information sharing on ecosystem changes.</li> <li>– Integrated approach to the generation, acquisition and dissemination of information and knowledge.</li> <li>– More accessible information on ecosystem health and enhanced public awareness of ecosystem changes.</li> <li>– Policy- and decision-makers and Canadians have the scientific information on the status of and trends in ecosystem health to make informed decisions to protect and conserve the environment.</li> </ul>
<b>Indicators:</b> An improved understanding of the inter-related dynamics of the ecological, economic and social systems in ecosystems. <sup>SDS3.1.1</sup>
<b>Partners:</b> Other federal departments; provinces and territories (individually or through Canadian Council of Ministers of the Environment); science networks and the public (ENGOS, academia).
<b>Departmental Priority:</b> Environmental conservation and protection.



<b>Program Area:</b> Implementing measures to sustain priority ecosystems
<b>Activities:</b> Atlantic Coastal Action Program.
<p><b>Expected Results:</b></p> <ul style="list-style-type: none"> <li>– Local capacity built to assume a leadership role for sustainability at the community and regional ecosystem level.</li> <li>– Collaborative stewardship actions support the sustainability of Atlantic ecosystems and communities.</li> <li>– Local, scientific and indigenous knowledge supports improved public awareness and decision making by advancing the understanding of key ecosystem stresses.</li> <li>– Improved and enhanced environmental quality through priority actions identified in local comprehensive environmental management plans.</li> <li>– Improved public awareness and enhanced scientific understanding of environmental issues.</li> </ul>
<b>Indicators:</b> An improved understanding of the inter-related dynamics of the ecological, economic and social systems in ecosystems. <sup>SDS3.1.1</sup>
<b>Partners:</b> Atlantic Coastal Action Program communities; sub-regional ecosystem initiatives; federal departments (Fisheries and Oceans; Agriculture and Agri-Food Canada; Health Canada, Human Resources; Parks Canada Agency; Natural Resources Canada; ACOA; Industry Canada); 4 Atlantic provinces; private sector; academia; and other non-governmental organizations.
<b>Departmental Priority:</b> Environmental conservation and protection.

<b>Program Area:</b> Implementing measures to sustain priority ecosystems
<b>Activities:</b> Georgia Basin Action Plan.
<p><b>Expected Results:</b></p> <ul style="list-style-type: none"> <li>– Collaborative stewardship actions support the sustainability of the Georgia Basin.</li> <li>– Sustainable land, aquatic and resource planning and management support the conservation, protection and restoration of the environment, enhance human well-being, and contribute to a strengthened economy.</li> <li>– Scientific and indigenous knowledge supports improved decision-making by advancing the understanding of key ecosystem stresses.</li> <li>– Targeted ecosystems are protected from harmful human activities and affected key ecosystem components are restored.</li> </ul>
<b>Indicators:</b> A performance measurement framework is in place to help determine the impact of the Georgia Basin Action Plan. A mid-term evaluation will be conducted in 2006. For more information, refer to: <a href="http://www.pyr.ec.gc.ca/georgiabasin/index_e.htm">http://www.pyr.ec.gc.ca/georgiabasin/index_e.htm</a> .
<b>Partners:</b> Formal signatories – Fisheries and Oceans Canada; Parks Canada Agency; British Columbia Ministry of Water, Air and Land Protection; British Columbia Ministry of Sustainable Resource Management. Other partners include: Coast Salish First Nations; local and regional governments; non-government organizations and other federal and provincial departments.
<b>Departmental Priority:</b> Environmental conservation and protection.

<b>Program Area:</b> Implementing measures to sustain priority ecosystems
<b>Activities:</b> Great Lakes Action Plan.
<p><b>Expected Results:</b></p> <ul style="list-style-type: none"> <li>– Restored environmental quality in two Areas of Concern, resulting in the removal of the designation “Area of Concern.”</li> <li>– Completion of all required federal actions for Remedial Action Plans in at least six Areas of Concern.</li> <li>– Progress towards the rehabilitation of ecological systems in the remaining Areas of Concern.</li> <li>– Progress towards the virtual elimination or significant reductions for persistent bioaccumulative toxic substances such as mercury, dioxins, furans and PCBs.</li> </ul>

<b>Indicators:</b> An improved understanding of the inter-related dynamics of the ecological, economic and social systems in ecosystems. <sup>SDS3.1.1</sup>
<b>Partners:</b> Agriculture and Agri-Food Canada, Fisheries and Oceans Canada, Health Canada, Parks Canada, Natural Resources Canada, Public Works and Government Services Canada; Transport Canada, Ontario Ministry of Agriculture and Food, agencies of the U.S. federal government and the eight Great Lakes States.
<b>Departmental Priority:</b> Environmental conservation and protection.

<b>Program Area:</b> Implementing measures to sustain priority ecosystems
<b>Activities:</b> Northern Ecosystem Initiative.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– The health and sustainability of northern communities and ecosystems is enhanced.</li> <li>– Improved understanding and awareness of the ecosystem impacts of contaminants and climate change through a combination of local, traditional and scientific knowledge and methodologies.</li> <li>– Development of an Integrated Ecosystem Thresholds Model for implementation in the Canadian North.</li> <li>– Completion of an inventory of existing ecosystem indicators for the Canadian North.</li> <li>– Improved environmental stewardship capacity in northern communities and Aboriginal organizations.</li> </ul>
<b>Indicators:</b> An improved understanding of the inter-related dynamics of the ecological, economic and social systems in ecosystems. <sup>SDS3.1.1</sup>
<b>Partners:</b> Indian and Northern Affairs Canada; Natural Resources Canada; Agriculture and Agri-Food Canada; Fisheries and Oceans Canada; Governments of the Northwest Territories, Yukon, Nunavut, Quebec, Ontario, Newfoundland and Labrador; Innu Nation; Inuit Tapiriit Kanatami; Dene Nation; Council of Yukon First Nations; Cree Council of Northern Quebec; Naskapi First Nation; Inuit of Nunavik; academia; the private sector, non-governmental organizations; and northern communities.
<b>Departmental Priority:</b> Environmental conservation and protection.

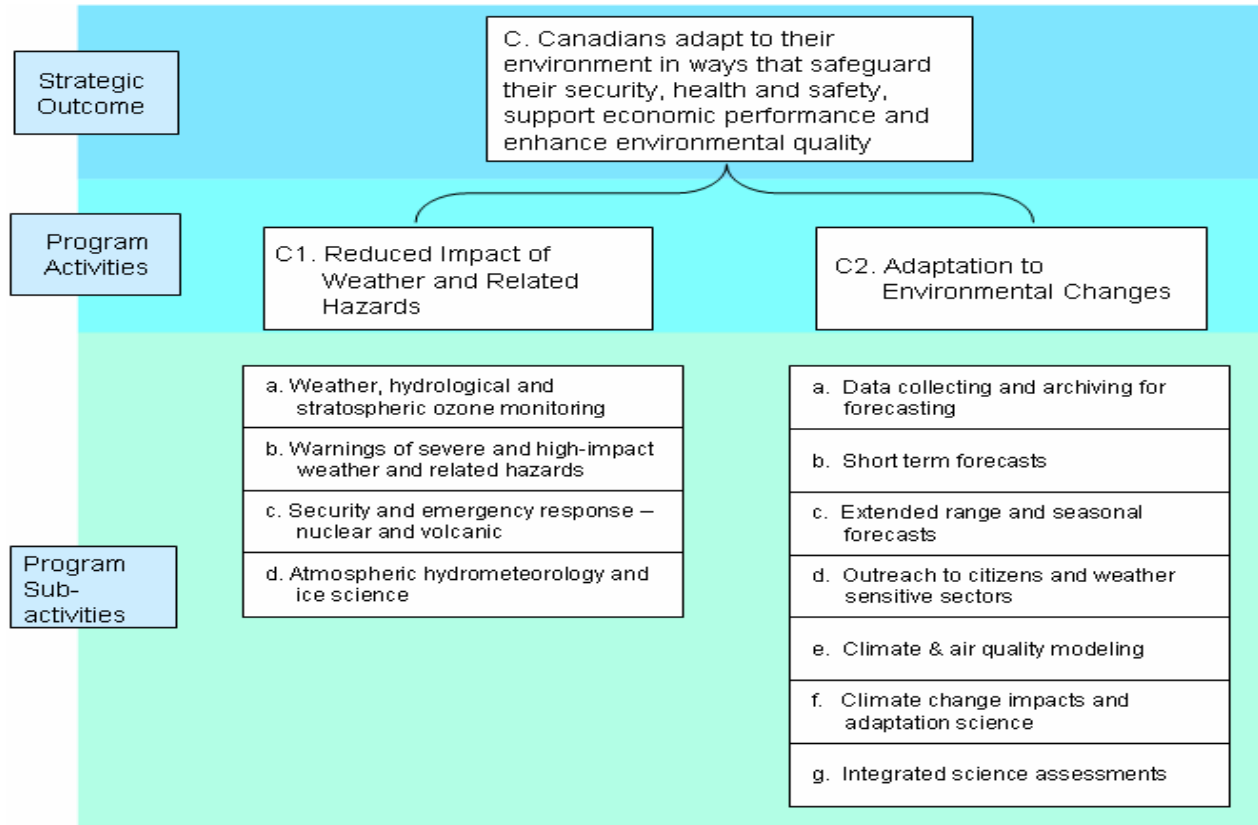
<b>Program Area:</b> Implementing measures to sustain priority ecosystems
<b>Activities:</b> St. Lawrence Action Plan.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Develop a concerted Canada-Quebec concept for the integrated management of the St. Lawrence.</li> <li>– Implement actions that contribute to the health and prosperity of the ecosystem.</li> <li>– Improve our knowledge of the St. Lawrence ecosystem (impacts of stresses, biodiversity, monitoring).</li> <li>– Increase public knowledge of the state of the ecosystem’s health.</li> <li>– Support local community groups (14 ZIP committees) and build new partnerships.</li> <li>– Implement and improve the sustainable navigation strategy for the St. Lawrence.</li> </ul>
<b>Indicators:</b> An improved understanding of the inter-related dynamics of the ecological, economic and social systems in ecosystems. <sup>SDS3.1.1</sup>
<b>Partners:</b> Federal departments (Environment Canada; Agriculture and Agri-Food Canada; Fisheries and Oceans Canada; Transport Canada; Canadian Space Agency; Public Works and Government Services Canada; Government of Quebec (Ministère du Développement durable et des Parcs, Ministère des Transports du Québec, Ministère des Ressources naturelles et de la Faune); Areas of Prime Concern (ZIP); Committees; non governmental organizations.
<b>Departmental Priority:</b> Environmental conservation and protection.

<b>Program Area:</b> Implementing measures to sustain priority ecosystems
<b>Activities:</b> Western Boreal Conservation Initiative.
<b>Expected Results for Phase I (2003-2008):</b> <ul style="list-style-type: none"> <li>– Production of knowledge and action that has worked towards conservation of boreal forests, and to sustain or increase populations of migratory birds in the boreal forest.</li> <li>– Working through partnerships, management of boreal forests in Canada are moving towards a model of conservation-based landscapes, based on the principles of protected areas and sustainable development.</li> <li>– Partnerships and resources are in place that will allow Phase II of WBCI to function as a nationally-based program across the boreal forest.</li> <li>– Improved understanding of the status of populations in the boreal forest acquired and contribution made to ensure recovery of species at risk.</li> <li>– There is an increased awareness and appreciation of boreal forests and their biodiversity in Canada.</li> </ul>
<b>Indicators:</b> Availability of knowledge relevant to biodiversity conservation in boreal forests; application of results to best practices, governance and conservation programs of partners and Environment Canada; existence of a national program within Environment Canada that is focused on the conservation of boreal forests.
<b>Partners:</b> Provincial and territorial departments; other federal government departments; ENGOs; forest and energy industry; academia; Aboriginal peoples.
<b>Departmental Priority:</b> Environmental conservation and protection.

### ***More Information***

Atlantic Coastal Action Program	<a href="http://atlantic-web1.ns.ec.gc.ca/community/acap/default.asp">http://atlantic-web1.ns.ec.gc.ca/community/acap/default.asp</a>
Georgia Basin Action Plan	<a href="http://www.pyr.ec.gc.ca/GeorgiaBasin/index_e.htm">http://www.pyr.ec.gc.ca/GeorgiaBasin/index_e.htm</a>
Great Lakes Action Plan	<a href="http://www.on.ec.gc.ca/greatlakes/">http://www.on.ec.gc.ca/greatlakes/</a>
St. Lawrence Action Plan	<a href="http://www.slv2000.qc.ca/index_az.htm">http://www.slv2000.qc.ca/index_az.htm</a>
Northern Ecosystem Action Plan	<a href="http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/nei-ien/dh00s00.en.html">http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/nei-ien/dh00s00.en.html</a>
Western Boreal Conservation Initiative	<a href="http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/da00s02.en.html">http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/da00s02.en.html</a>

## Section 2.3: Adaptation to the Environment Strategic Outcome



### ***What is the issue?***

As Canadians, we 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.

### ***What are we doing about it?***

Environment Canada works to reduce risks to Canadians from weather-related and environmental hazards by providing warnings of hazardous and severe weather and by providing science and information to support other government departments and agencies in their decision-making.

Forecasting services operate 24 hours per day, 365 days per year, to forecast weather and environmental conditions across Canada at the local, regional and national levels.

Environment Canada provides the federal government with essential scientific information to support the development of effective policies on key issues such as clean air, clean water and water management, and climate change.

Environment Canada's work also helps weather-sensitive sectors such as transportation, energy, agriculture, fisheries, forestry and tourism, to improve productivity and competitiveness, as well as assisting them to make their operations environmentally sustainable.

## Section 2.3: Program Activity C1

### Reduced impact of weather and related hazards

#### *What is the issue?*

The risks to health, safety, property and the economy from naturally occurring environmental hazards, such as ice storms, floods, hurricanes, drought, and wind, are increasing. As well, property and economic losses due to environmental hazards have increased dramatically in recent years.

In 1998, Canada spent \$3 billion to repair damage from high impact weather and related hazards. Not counting timber losses, the cost of fighting British Columbia's 2004 wildfires alone approached \$500 million. In total, nearly 2,500 forest fires destroyed 2,650 square kilometres of land, bush and residential areas. After back-to-back deluges in Edmonton in July 2004, insurers paid out close to \$160 million in over 12,000 claims.

#### *What are we doing about it?*

The long-term goal of Environment Canada's work in this program area is to improve Canadians' capacity to adapt to, anticipate, mitigate, withstand, and recover from high-impact weather events and related hazards. This helps to create healthy communities where threats from environmental hazards are minimized.

To further the benefits derived from warnings, Environment Canada continues to explore innovative ways to deliver weather warnings and information to Canadians in time for them to take action to protect themselves and their property. Media and private sector companies are key partners in getting warnings and forecasts out to Canadians. Technologies, such as cell phones, personal data assistants, laptop computers, the Internet, and digital radios, offer a variety of future opportunities.

Water continues to be a growing priority in Canada and Environment Canada plays a key role in monitoring, understanding, and predicting the impacts of environmental changes on Canada's water resources. Environment Canada works closely with provincial and other partners to make knowledge of current and forecast conditions of rain, snow and ice available so that critical drought and flood hazard impacts can be mitigated.

Environment Canada continues to support university-based research in climate and atmospheric sciences through the Canadian Foundation for Climate and Atmospheric Sciences (CFCAS).

C1. Reduced Impact of Weather and Related Hazards
a. Weather, hydrological and stratospheric ozone monitoring
b. Warnings of severe and high-impact weather and related hazards
c. Security and emergency response – nuclear and volcanic
d. Atmospheric hydrometeorology and ice science

## Major Programs and Initiatives

In partnership with others, Environment Canada wants to improve the capacity to anticipate, mitigate, withstand, and recover from high-impact events and related hazards by improving lead time, accuracy, utility and satisfaction with warnings. To achieve this goal, the following broad strategies are being pursued.

<b>Program Area:</b> Weather, hydrological and stratospheric ozone monitoring
<b>Activities:</b> Monitoring approaches and technology that will increase the likelihood of early detection of severe weather and its precursors.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Weather, climate, surface water, ice and stratospheric ozone are monitored.</li> <li>– Ensure optimization, contribution and continuing access to international monitoring data through initiatives such as the Global Earth Observation (GEO) initiative.</li> <li>– Better detect dangerous or changing weather/environmentally-related conditions by continuing modernization of monitoring equipment.</li> <li>– Continue to demonstrate leadership in environmental stewardship by cleaning up contaminated federal monitoring sites.</li> </ul>
<b>Indicators:</b> Integrity of monitoring networks.
<b>Partners:</b> Provincial water survey organizations; provinces; municipalities; World Meteorological Organization; Earth Observation Summit; intergovernmental and international stakeholders; Global Atmospheric Inc.; airlines; NAV Canada; National Oceanic and Atmospheric Administration/National Environmental Satellite, Data, and Information Service; RadarSat International; Natural Resources Canada; European Space Agency.
<b>Departmental Priority:</b> Environmental sustainability assessment and weather and environmental services.
<b>Program Area:</b> Warnings of severe and high impact weather and related hazards
<b>Activities:</b> Improving warning production and dissemination capability through production modernization.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Seamless, continued production of warnings by forecasters from the newly consolidated Storm Prediction Centres.</li> <li>– Warning improvements through scientific knowledge transfer to operations, more training and professional development for forecasters and automation of routine production.</li> <li>– Increased accessibility, use and reliability of warnings delivered through Environment Canada service channels (web, phone and Weatheradio) and partnered channels (media, radio and TV).</li> </ul>
<b>Indicators:</b> Integrity of monitoring networks, new data sources and improved spatial coverage.
<b>2004-2006 Sustainable Development Strategy Commitments:</b> <ul style="list-style-type: none"> <li>– Flood-related forecasting is improved and provincial stakeholders are provided with the water quantity science information required to better warn Canadians of floods.<sup>SDS1.3.2</sup></li> <li>– Canadians' access to and understanding of high impact weather warnings is improved.<sup>SDS1.3.3</sup></li> <li>– A national research and development approach is developed to help address the science needs associated with high-impact weather and climate events.<sup>SDS1.1.4</sup></li> </ul>
<b>Partners:</b> NAV Canada; telecommunications service providers; international Weather Services; Fisheries and Oceans Canada – Canadian Coast Guard; Pelmorex (The Weather Network/Météomédia); Canadian Association of Broadcasters; Broadcast News; media (radio, TV and print).
<b>Departmental Priority:</b> Weather and environmental services and environmental sustainability assessment.

<b>Program Area:</b> Security and emergency response
<b>Activities:</b> Improving support to emergency preparedness and response for citizens and first responders, including capacity to address atmospheric security threats.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Response agencies, other departments such as Health and National Defence and Canadians in general can ensure their safety in case of a volcanic eruption or a nuclear leak or explosion.</li> <li>– Completion of Canadian Meteorological Centre (CMC) fortification to ensure availability and reliability during high impact weather and security events.</li> <li>– Improved support to national security and national emergency events preparedness and response.</li> </ul>
<b>Indicators:</b> Satisfaction of federal departments and emergency response agencies with nuclear and emergency preparedness and response, contingency plans that take nuclear and volcanic threats into account (and actions taken should such an emergency occur).
<b>Partners:</b> Public Safety and Emergency Preparedness Canada; Department of National Defence; provincial and municipal emergency measures and response agencies; media; Health Canada.
<b>Departmental Priority:</b> Weather and environmental services and environmental sustainability assessment.

<b>Program Area:</b> Atmospheric hydrometeorology and ice science
<b>Activities:</b> Targeting atmospheric, hydrometeorology and ice science activities and associated predictive modeling capacity.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Forecast improvements through advancements in numerical weather prediction.</li> <li>– Focus and grow warning related science efforts through new national labs.</li> <li>– Better understanding of the nature and characteristics of vulnerabilities and adaptations by conducting scientific analyses, with partners as appropriate.</li> <li>– Improved hydro-meteorological prediction and modeling capacity by work with others.</li> </ul>
<b>Indicators:</b> Quality and utility of essential government services improved to meet client needs, improved technology and knowledge transfer; improvements introduced into meteorological/ice/hydrometric forecasts and services.
<b>Partners:</b> Universities; communities; National Water Research Institute; United States Weather Service; Department of Fisheries and Oceans.
<b>Departmental Priority:</b> Environmental sustainability assessment.

### *More Information*

Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)	<a href="http://www.cfcas.org/index_e.html">http://www.cfcas.org/index_e.html</a>
Canadian Meteorological Centre (CMC)	<a href="http://www.msc-smc.ec.gc.ca/cmc/index_e.html">http://www.msc-smc.ec.gc.ca/cmc/index_e.html</a>
Meteorological Service of Canada	<a href="http://www.msc-smc.ec.gc.ca/contents_e.html">http://www.msc-smc.ec.gc.ca/contents_e.html</a>
National Water Research Institute	<a href="http://www.nwri.ca/nwri-e.html">http://www.nwri.ca/nwri-e.html</a>

## Section 2.3 Program Activity C2: Adaptation to Environmental Changes

### ***What is the issue?***

Citizens and weather-sensitive sectors in Canada depend on the availability of Environment Canada's weather and environmental forecasts to inform their planning and decision-making.

Climate variability, air quality, water level, precipitation and general weather forecasts are increasingly important to agriculture, shipping, construction, media, health, environmental conservation, forestry, recreation and the public. These sectors seek increased predictive capacities for short and long term weather, climate and environmental conditions, and an improved ability to predict the presence and levels of threats in air and water.

The department needs to be able to continue meeting client needs, whether by working with the private meteorological sector in Canada to increase overall capacity, by augmenting service delivery options as budgets and technology permits, or by improving data accessibility and data quality.

From a science and service delivery perspective, increasing demands from the public and specialized clients for high quality, timely information will continue to exert pressure on the department's limited financial and human resources. New technology such as ensemble prediction (i.e. the generation of probabilistic forecasts), has the potential for higher quality short- and longer-term forecasts, but it will require greater effort and investment in education and outreach to make sure the new products are interpreted and used appropriately.

### ***What are we doing about it?***

Environment Canada maintains forecast and data dissemination systems, actively builds client relationships, seeks to work with the private sector to develop new markets, and has dedicated public outreach staff whose responsibility it is to catalyze the use of Environment Canada's weather information and ensure the effectiveness of that information for our stakeholders.

Efficient distribution of weather products and services is one key to reducing risk by optimizing the lead-time for decision-makers. We distribute products directly on the Internet, on our own network of radio transmitters and through advanced telephone technologies for automated or live access to forecast information. We also rely heavily on the media for mass distribution of our forecasts. Last year, we received approximately 40 million phone calls from the public for weather and environmental information and had 100 million visitors to the *Weather Office* Web site. Most of our services are provided to the public at no charge, but we also serve those requiring specialized information on a cost recovery basis where services are not available from the marketplace.

C2. Adaptation to Environmental Changes
a. Data collecting and archiving for forecasting
b. Short term forecasts
c. Extended range and seasonal forecasts
d. Outreach to citizens and weather sensitive sectors
e. Climate & air quality modeling
f. Climate change impacts and adaptation science
g. Integrated science assessments



## ***Major Programs and Initiatives***

Environment Canada provides the monitoring, production and service delivery infrastructure to produce weather, air quality, extended range and seasonal forecasts. These services continue to be refined and improved as the technological, scientific and demand drivers permit. Our work in these areas has been organized according to the program areas outlined below.

<b>Program Area:</b> Data collecting and archiving for forecasting
<b>Activities:</b> Improving access to all of its real-time and archived data holdings and providing a high level of quality control of this information.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Improved access to basic meteorological, hydrometric and climatological data by the public, private and academic sectors.</li> <li>– Enhanced data sets to effectively document and understand climatic processes.</li> </ul>
<b>Indicators:</b> Increased lead-time and increased quality of basic data disseminated to Canadians; Canadian climate data and information required to address global needs are collected, disseminated and archived.
<b>Partners:</b> Department of Fisheries and Oceans (Canadian Coast Guard); provinces and territories; international meteorological and hydrological services.
<b>Departmental Priority:</b> Environmental sustainability assessment and weather and environmental services.
<b>Program Area:</b> Short-term forecasts
<b>Activities:</b> Improving the accuracy of and access to short-term forecasts for citizens, weather-sensitive industries and institutions.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Forecast improvements through training of forecasters and improvement of tools and work environment.</li> <li>– Increased accessibility, use and reliability of forecasts delivered through Environment Canada service channels (web, phone and Weatheradio) and partnered channels (media, radio and TV).</li> <li>– Improvements to key services for highly weather-sensitive economic sectors such as Fisheries, Agriculture, Forestry, Energy and Transportation.</li> <li>– Increased capacity and role of the private sector in serving meteorological and hydrological needs in Canada.</li> <li>– Expand attribution in daily media broadcasts to Environment Canada for weather information.</li> </ul>
<b>Indicators:</b> Performance measurement benchmarks for accuracy of forecasts; benchmarks for quality of short-term forecasts; benchmarks for satisfaction of weather-sensitive industries with Environment Canada's weather services.
<b>Partners:</b> Telecommunications service providers; Broadcast News; media (radio, TV and print); international weather services; Pelmorex (The Weather Network/Météomédia); Department of Fisheries and Oceans – Canadian Coast Guard.
<b>Departmental Priority:</b> Weather and environmental services and environmental sustainability assessment.
<b>Program Area:</b> Extended range and seasonal forecasts
<b>Activities:</b> Improving the accuracy and use of extended range and seasonal forecasts for weather sensitive industries and institutions.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Improved extended range and seasonal forecasts.</li> <li>– More effective use of longer-range environmental prediction information leads to sustainable development decision-making.</li> </ul>
<b>Indicators:</b> The Canadian climate data and information required to address global needs are collected, disseminated and archived.

**Partners:** National Weather Services; Natural Resources Canada; Agriculture and Agri-Food Canada; weather-sensitive industries such as agriculture and energy.

**Departmental Priority:** Weather and environmental services and environmental sustainability assessment.

**Program Area:** Outreach to citizens and weather sensitive sectors

**Activities:** Increasing its support to information users with an expanded outreach program.

**Expected Results:** Canadian citizens and weather-sensitive sectors (private and public) receive meteorological information in a timely manner, properly understand it and know how to use it or react to it.

**Indicators:** 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:** Weather-sensitive industries; private meteorological service providers; schools; media; provinces; municipalities.

**Departmental Priority:** Weather and environmental services.

**Program Area:** Climate and air quality modelling

**Activities:** Research and development functions, undertaken in collaboration with academia and international agencies, pertaining to climate analysis, trends processes, and modelling, as well as stratospheric studies

**Expected Results:**

- The body of knowledge about climate analyses, climate trends processes and climate modelling, as well as stratospheric studies is increased.
- Environmental policies and services are developed based on sound atmospheric science.

**Indicators:** The successful production of new IPCC scenario runs and other coupled model runs at increasingly higher resolution and the successful development of a more comprehensive “Earth System” model. Canada meets its commitments to the US and Mexico in providing our methodology, data analyses and expertise. Scientific understanding of the complex chemical and dynamic processes associated with ozone depletion is understood to the level that dynamical-chemical models can replicate changes in stratospheric ozone.

**2004-2006 Sustainable Development Strategy Commitments:**

- Climate models are refined and used to inform climate change scenarios and policy discussions.<sup>SDS1.1.2</sup>

**Partners:** Academia; Ouranos partnership; BIOCAP; Intergovernmental Panel on Climate Change (IPPC); Natural Resources Canada (NRCan); National Water Research Institute (NWRI); Other Government Departments (OGDs); provincial environment and air quality agencies.

**Departmental Priority:** Environmental sustainability assessment.

**Program Area:** Climate change impacts and adaptation science

**Activities:** Research and development functions, undertaken in collaboration with academia and international agencies, pertaining to the effects on various segments of Canadian society of atmospheric change, and on how to mitigate, or adapt to, these effects. These functions support sound policy development and service improvements.

**Expected Results:**

- Awareness of impacts of climate change on economic development and planning processes.
- Scenarios and options 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 water management strategies.

**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, OGDs and other levels of government of the issues and adaptation strategies.

**Partners:** OGDs; provinces; territories; municipalities; universities and the private sector.

**Departmental Priority:** Environmental sustainability assessment and climate change.

<b>Program Area:</b> Integrated science assessments
<b>Activities:</b> Conducting integrated atmospheric-science assessments on key policy issues for Environment Canada, affected for improved environmental policy through science (e.g. to help set emission targets or ensure that the chosen policy options are optimal in the greater context of atmospheric issues). Also includes support to environmental assessments.
<b>Expected Results:</b> <ul style="list-style-type: none"> <li>– Government policy dealing with environmental issues is developed based on in-depth, integrated assessments of the current state of scientific knowledge.</li> <li>– The impact of various human activities on the atmospheric environment is assessed and taken into account.</li> </ul>
<b>Indicators:</b> Level of awareness and understanding by Canadians of the issue and the scientific basis of environmental policy. Acceptance of validity of approach and results by key stakeholders.
<b>Partners:</b> International Partners, Health Canada, NRCan, Agriculture and Agri-Food Canada, academia.
<b>Departmental Priority:</b> Environmental sustainability assessment.

### *More Information*

The Weather Office web site	<a href="http://weatheroffice.ec.gc.ca/canada_e.html">http://weatheroffice.ec.gc.ca/canada_e.html</a>
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## **SECTION III**

### **SUPPLEMENTARY INFORMATION**

## Management Representation Statement

I submit for tabling in Parliament, the 2005-2006 Report on Plans and Priorities (RPP) for Environment Canada.

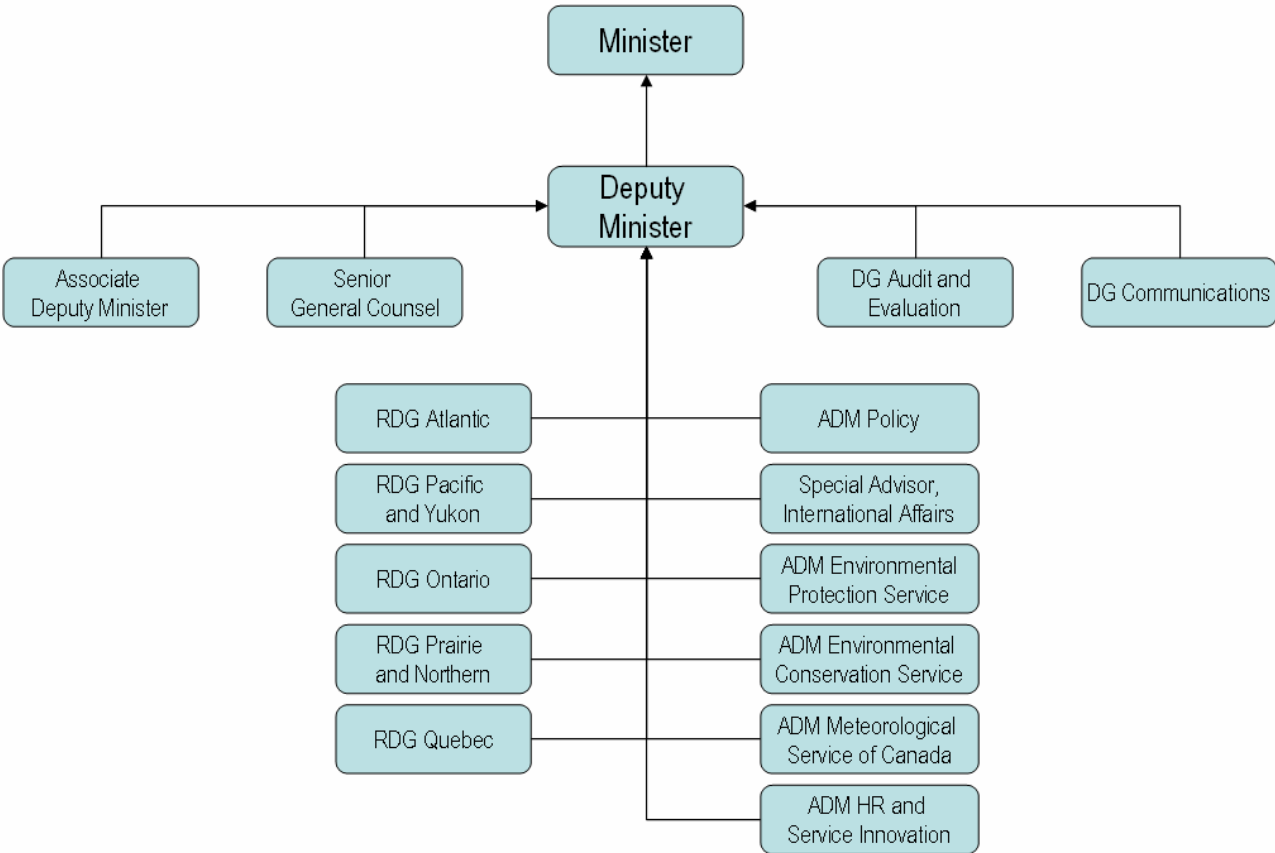
This document has been prepared based on the reporting principles contained in the *Guide to the Preparation of Part III of the Estimates: Reports on Plans and Priorities*.

- It adheres to the specific reporting requirements outlined in the TBS guidance;
- It is based on the department's approved accountability structure as reflected in its MRRS;
- It presents consistent, comprehensive, balanced and accurate information;
- It provides a basis of accountability for the results achieved with the resources and authorities entrusted to it; and
- It reports finances based on approved planned spending numbers from the Treasury Board Secretariat in the RPP and from estimates and public accounts in the DPR.

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Name:           Samy Watson  
Title:           Deputy Minister of the Environment

# Organizational Structure



**Table 1: Departmental Planned Spending and Full Time Equivalents**

(millions of dollars)	Forecast Spending 2004-2005*	<b>Planned Spending 2005-2006</b>	Planned Spending 2006-2007	Planned Spending 2007-2008
Biological diversity is conserved	108.7	<b>119.2</b>	118.1	97.3
Reduced impact of weather and related hazards	221.2	<b>203.6</b>	195.9	196.3
Reduced greenhouse gas emissions	35.0	<b>54.1</b>	16.9	14.8
Adaptation to environmental changes	116.0	<b>108.0</b>	103.5	103.6
Improved air quality	101.1	<b>104.4</b>	103.9	87.6
Clean, safe and secure water for people and ecosystems	64.3	<b>69.9</b>	69.0	67.3
Priority ecosystems are conserved and restored	69.2	<b>56.1</b>	55.6	56.0
Reduced risk from toxics and other substances of concern	180.7	<b>199.3</b>	194.7	195.4
Budgetary Main Estimates (gross)	886.2	<b>914.5</b>	857.6	818.3
Less Respendable revenue	(81.0)	<b>(79.3)</b>	(78.1)	(77.7)
<b>Total Main Estimates</b>	805.2	<b>835.2</b>	779.5	740.6
<i>Adjustments:</i>				
2004-2005 Supplementary Estimates and technical adjustments				
Grant in support of the development and demonstration of climate change and clean air technologies	100.0			
Operating budget carry forward	27.0			
Activities in support of greenhouse gas reduction under the Climate Change Action Plan for Canada	16.0			
Salary increases due to the signing of new collective agreements	16.9	<b>3.1</b>	3.5	3.5
Assessment, management and remediation of federal contaminated sites	8.1			
Funding for the environmental clean-up of the Sydney Tar Ponds and Coke Oven Sites in the Muggah Creek Watershed	4.8			
Funding for the northern gas pipeline project in the northwest Territories	3.7			
Funding to offer special income tax benefits to Canadians who donate ecologically sensitive land through the Ecological Gifts Program	2.4			
Funding to develop agri-environmental standards as part of the Agricultural Policy Framework	2.3			
Creation of the Advertising Reserve	(3.6)			
Transfer of Queens Quay West Land Corporation	(4.0)			
Other technical adjustments to operating and capital costs	(9.3)			
Environmental indicators (budget 2004)	-	<b>10.9</b>	7.1	7.3
Biotechnology Strategy	-	<b>1.0</b>	1.0	1.0
Government expenditure reductions	(2.5)	-	-	-

**Table 1 continued: Departmental Planned Spending and FTE's**

<b>Budget Announcements</b>				
Green Municipal Fund	150.0	-	-	-
Great Lakes Action Plan	-	<b>8.0</b>	8.0	8.0
Government expenditure reductions	-	<b>(5.3)</b>	(10.2)	(17.1)
<b>Total Planned Spending</b>				
Total Planned Spending	1,117.1	<b>852.9</b>	788.9	743.3
Less: Respendable Revenue	(10.0)	<b>(11.8)</b>	(11.8)	(11.8)
Plus : Cost of services received without charge	68.4	<b>72.3</b>	71.5	82.1
<b>Net cost of Program</b>	1,175.5	<b>913.4</b>	848.6	813.6
<b>Full Time Equivalent</b>	5,784	<b>5,662</b>	5,595	5,595

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

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

The Government also announced as part of Budget 2005:

- Its support on the Climate Change Plan for Canada by investing incremental resources in the amount of \$4 billion over five years (\$2B in new funding and \$2B in existing funding) for different Climate Change measures. Environment Canada is a key partner in the Climate Change Plan for Canada and will work with other partners to make substantial progress on its Climate Change objectives. Details of future allocations to departments are subject to an evaluation and review by Ministers.
- Incremental resources in the amount of up to \$872 million over five years to support Canada's Natural Environment. Part of these funds is earmarked for the Oceans Action Plan (\$28M) and the Invasive Species (\$85M). Details on future allocations are still subject to interdepartmental discussions and to the Government approval process.
- The Government has also announced its support to other environment related initiatives such as the Olympics 2010 in Vancouver (funding in the amount of \$87M over seven years) and the Northern Oil and Gas development (\$150M over four years).



**Table 2: Program Activities**

(millions of dollars)								
Program Activities	Operating	Capital	Grants and Contributions	Gross	Revenue	Total Main Estimates	Adjustments*	Total Planned Spending
Biological diversity is conserved	96.5	0.5	22.2	119.2	(1.4)	117.8	-1.9	115.9
Reduced impact of weather and related hazards	189.1	12.0	2.5	203.6	(47.9)	155.7	0.3	156.0
Reduced greenhouse gas emissions	42.7	0.2	11.2	54.1	(0.5)	53.6	0.0	53.6
Adaptation to environmental changes	101.7	5.7	0.5	108.0	(15.5)	92.4	0.2	92.6
Improved air quality	90.6	5.2	8.5	104.4	(1.3)	103.1	-0.4	102.8
Clean, safe and secure water for people and ecosystems	67.9	1.7	0.3	69.9	(4.7)	65.2	0.1	65.3
Priority ecosystems are conserved and restored	48.6	0.5	7.0	56.1	(0.8)	55.3	18.0	73.3
Reduced risk from toxics and other substances of concern	190.5	5.4	3.4	199.3	(7.1)	192.2	1.2	193.4
<b>Totals</b>	<b>827.7</b>	<b>31.2</b>	<b>55.7</b>	<b>914.5</b>	<b>(79.3)</b>	<b>835.2</b>	<b>17.7</b>	<b>852.9</b>

\*Adjustments to planned spending not identified in the Main Estimates.

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

**Table 3: Voted and Statutory Items listed in Main Estimates**

<b>(millions of dollars) 2005-2006</b>			
<b>Vote or Statutory Item</b>	<b>Truncated Vote or Statutory Item Wording</b>	<b>Current Main Estimates</b>	<b>Previous Main Estimates</b>
1	Operating expenditures	671.5	626.4
5	Capital expenditures	31.2	42.2
10	Grants and contributions	55.7	57.6
15	Payments to Queens Quay West Land Corporation	----	4.0
(S)	Minister of the Environment salary and motor car allowance	0.1	0.1
(S)	Contributions to employee benefits	76.7	75.0
	<b>Total Department or Agency</b>	<b>835.2</b>	<b>805.2</b>

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

Explanations of the \$30M net variance between 2004-2005 and 2005-2006.

\$45.1 million – Operating

The increase in Operating is mainly due to:

- \$27.5M in new funding for the Federal Contaminated Sites Accelerated Action Plan. The Plan, announced in Budget 2003, is an integrated government-wide approach to the risk management and remediation of those sites having significant human health and environmental risks.
- \$24M in new funding for the Climate Change Plan for Canada. The Climate Change Plan, announced in December 2002, is an integrated government-wide initiative put in place to implement the requirements of the Kyoto Protocol that was ratified on December 17, 2002. The Protocol requires Canada reduce its greenhouse gas emissions by an average of 6 percent below 1990 levels over the period 2008-2012.
- \$6.5M in new funding for the implementation of the Canadian Environmental Protection Act. This legislation, passed in 1999, protects the environment and human health of Canadians from the risks posed by pollution.
- \$3.5M for the implementation of the Species at Risk Act. This legislation, passed in 2000, will support a national strategy for the protection of endangered species and their habitat.

- \$3.0M for Northern Energy Development. This initiative will allow Canada to meet its obligations for pipeline development in the Northwest Territories (NWT).

These increases are offset by the following reductions:

- \$8.0M in funding for the Great Lakes Action Plan. This program funding was not part of the 2005-2006 Main Estimates as the program's renewal was under review.
- \$4.1M in reduced funding for the Meteorological Service Canada Transformation due to the phasing out of initial requirements in the first years of the transformation for recruitment and training of replacements for key skill sets (meteorologists, atmospheric and hydrometric technologists, and research scientists), commencement of the development of the curriculum and method of delivery for core training for meteorologists, and relocation and retraining of employees affected by the consolidation and modernization of forecast operations.
- \$3.6M which represent EC's contributions towards the Advertising Reserve. TB approved the creation of the Advertising Reserve to be established through a permanent return of advertising funds from departments.
- \$3.2M – Environment Canada's contribution toward the \$1 Billion federal government reallocation exercise. This amount brings EC's total contribution to \$9M.

#### (\$11.0) million – Capital

The decrease in Capital is due to:

- \$5.7M decrease in funding for the Ozone Annex as the construction of the facilities for this program has been completed.
- \$3.0M decrease in funding for Health and Safety capital projects for the Meteorological Service of Canada as the capital project has been finalized.
- \$1.7M in reduced funding for the Meteorological Service Canada Transformation due to the completion of initial asset investments required for the consolidation and modernization of forecast operations.

**Table 4: Net Cost of Department for the Estimates Year**

<b>2005-2006</b>	
(\$ millions)	<b>Total</b>
Net Planned Spending (Total Main Estimates plus Adjustments as per the Planned Spending Table)	<b>852.9</b>
<i>Plus: Cost of Services Received without Charge</i>	
Accommodation provided by Public Works and Government Services Canada (PWGSC)	<b>37.6</b>
Contributions covering employers' share of employees' insurance premiums and expenditures paid by TBS (excluding revolving funds)	<b>30.7</b>
Worker's compensation coverage provided by Social Development Canada	<b>1.5</b>
Salary and associated expenditures of legal services provided by Justice Canada	<b>2.5</b>
	<b>72.3</b>
<i>Less: Non-responsible Revenue</i>	<b>(11.8)</b>
<b>2005-2006 Net cost of Department</b>	<b>913.4</b>

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

**Table 5: Summary of Capital Spending by Program Activity**

(millions of dollars) <b>Program Activities</b>	<b>Forecast Spending 2004-2005</b>	<b>Planned Spending 2005-2006</b>	<b>Planned Spending 2006-2007</b>	<b>Planned Spending 2007-2008</b>
Biological diversity is conserved	0.6	0.5	0.5	0.5
Reduced impact of weather and related hazards	15.7	12.0	11.2	11.2
Reduced greenhouse gas emissions	0.2	0.2	0.3	0.4
Adaptation to environmental changes	8.3	5.7	5.4	5.4
Improved air quality	7.5	5.2	5.9	5.7
Clean, safe and secure water for people and ecosystems	1.8	1.7	1.7	1.7
Priority ecosystems are conserved and restored	0.6	0.5	0.5	0.5
Reduced risk from toxics and other substances of concern	8.3	5.4	5.8	6.0
<b>Totals</b>	<b>43.2</b>	<b>31.2</b>	<b>31.3</b>	<b>31.3</b>

The Long Term Capital Plan (LTCP) is a sub-set of the department's business plan and, as such, portrays Environment Canada's capital investment on a business line and results basis.

Environment Canada is a science-based department and a significant national science and technology (S&T) performer. Environment Canada's (EC) mandate, under the *Department of the Environment Act*, covers preservation and enhancement of the quality of the natural environment, renewable resources, meteorology, enforcement of the rules of the Canada-U.S. International Joint Commission, and the coordination of federal environmental policies and programs.

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 15 research institutes and laboratories, has 49 National Wildlife Areas, and over 4,600 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).

There are 4 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.
- Fleet, including off-road vehicles, to transport personnel to study sites and allow needs for a speedy response to programs.

**Table 6: Sources of Respendable and Non-Respendable Revenue by Program Activity**

<b>Respendable Revenue</b> (\$ millions)	Forecast Revenue 2004-2005*	<b>Planned Revenue 2005-2006</b>	Planned Revenue 2006-2007	Planned Revenue 2007-2008
<b>Biological diversity is conserved</b>				
Scientific and Professional Services	0.2	<b>0.9</b>	0.9	0.9
Information Products	0.1	<b>0.1</b>	0.1	0.1
Realty (Accommodation)	0.2	<b>0.1</b>	0.1	0.1
Regulatory Services	0.3	<b>0.3</b>	0.3	0.3
Sub-total	<b>0.8</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>
<b>Reduced impact of weather and related hazards</b>				
Scientific and Professional Services	9.5	<b>10.3</b>	10.8	11.1
Information Products	38.2	<b>36.7</b>	36.3	36.4
Realty (Accommodation)	0.5	<b>0.9</b>	0.9	0.9
Sub-total	<b>48.3</b>	<b>47.9</b>	<b>48.0</b>	<b>48.4</b>
<b>Reduced greenhouse gas emissions</b>				
Scientific and Professional Services	0.9	<b>0.5</b>	0.5	0.5
Sub-total	<b>0.9</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>
<b>Adaptation to environmental changes</b>				
Scientific and Professional Services	4.1	<b>4.4</b>	4.5	4.5
Information Products	12.1	<b>10.8</b>	10.7	10.7
Realty (Accommodation)	0.2	<b>0.3</b>	0.3	0.3
Sale of Sponsorships	0.1	<b>0.1</b>	0.1	0.1
Sub-total	<b>16.4</b>	<b>15.5</b>	<b>15.5</b>	<b>15.6</b>
<b>Improved air quality</b>				
Scientific and Professional Services	1.2	<b>1.2</b>	1.2	1.2
Realty (Accommodation)	0.0	<b>0.1</b>	0.1	0.1
Sub-total	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>
<b>Clean, safe and secure water for people and ecosystems</b>				
Scientific and Professional Services	4.4	<b>4.2</b>	4.1	4.0
Realty (Accommodation)	0.5	<b>0.5</b>	0.5	0.5
Sub-total	<b>4.9</b>	<b>4.7</b>	<b>4.6</b>	<b>4.5</b>
<b>Priority ecosystems are conserved and restored</b>				
Scientific and Professional Services	0.9	<b>0.5</b>	0.4	0.4
Information Products	0.0	<b>0.1</b>	0.1	0.1
Realty (Accommodation)	0.3	<b>0.2</b>	0.2	0.2
Sub-total	<b>1.3</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>
<b>Reduced risk from toxics and other substances of concern</b>				
Scientific and Professional Services	4.2	<b>4.3</b>	3.1	3.1
Information Products	0.2	<b>0.2</b>	0.2	0.2
Realty (Accommodation)	0.2	<b>0.2</b>	0.2	0.2
Regulatory Services	2.5	<b>2.4</b>	2.4	1.7
Miscellaneous	0.0	<b>0.1</b>	0.1	0.1
Sub-total	<b>7.1</b>	<b>7.1</b>	<b>6.0</b>	<b>5.2</b>
<b>Total Respendable Revenue</b>	81.0	<b>79.3</b>	78.1	77.7

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

**Table 6 continued: Sources of Respendable and Non-Respendable Revenue by Program Activity**

<b>Non-Respendable Revenue</b> (\$ millions)	Forecast Revenue 2004-2005*	<b>Planned Revenue 2005-2006</b>	Planned Revenue 2006-2007	Planned Revenue 2007-2008
<b>Biological diversity is conserved</b>				
Regulatory Services	4.4	4.4	4.4	4.4
Sub-total	4.4	4.4	4.4	4.4
<b>Reduced impact of weather and related hazards</b>				
Royalties	0.1	<b>0.0</b>	0.0	0.1
Information Products	1.6	<b>1.6</b>	1.6	1.6
Miscellaneous	2.2	<b>3.7</b>	3.7	3.7
Sub-total	3.9	<b>5.3</b>	5.3	5.4
<b>Adaptation to environmental changes</b>				
Royalties	0.3	<b>0.0</b>	0.0	0.1
Information Products	0.4	<b>0.4</b>	0.4	0.4
Miscellaneous	0.5	<b>1.0</b>	1.0	1.0
Sub-total	1.2	<b>1.4</b>	1.4	1.5
<b>Clean, safe and secure water for people and ecosystems</b>				
Scientific Equipment	0.4	<b>0.5</b>	0.5	0.5
Sub-total	0.4	<b>0.5</b>	0.5	0.5
<b>Reduced risk from toxics and other substances of concern</b>				
Miscellaneous	0.0	<b>0.1</b>	0.1	0.1
Sub-total	0.0	<b>0.1</b>	0.1	0.1
<b>Total Non-Respendable Revenue</b>	10.0	<b>11.8</b>	11.8	11.8
<b>Total Respendable and Non-Respendable Revenue</b>	91.0	<b>91.2</b>	89.8	89.5

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

Table 6 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.

**Sale of Sponsorships:** sponsorships and advertising sales.

The slight increase in revenue is ultimately caused by an additional \$1.6M in EBP recoveries and a reduction in information product sales culminating from product curtailments, service reductions and changes in standards.

**Table 7: Resource Requirements by Program Activity**

<b>2005-2006</b>	
<b>(\$ millions)</b>	<b>Departmental Planned Spending</b>
Biological diversity is conserved	115.9
Reduced impact of weather and related hazards	156.0
Reduced greenhouse gas emissions	53.6
Adaptation to environmental changes	92.6
Improved air quality	102.8
Clean, safe and secure water for people and ecosystems	65.3
Priority ecosystems are conserved and restored	73.3
Reduced risk from toxics and other substances of concern	193.4
<b>Totals</b>	<b>852.9</b>

This table displays Environment Canada's resources requirements at the departmental level.

The department is undergoing a major reorganization to realign its operations under a new accountability structure.



**Table 8: User Fees**

<b>Name of User Fee</b>	<b>Fee Type</b>	<b>Fee Setting Authority</b>	<b>Reason for Fee Introduction or Amendment</b>	<b>Effective date of planned change to take effect</b>	<b>Planned Consultation and Review process</b>
1. Migratory Bird Hunting Regulations: - Permits	Regulatory - Cost Recovery	- <i>Financial Administration Act</i> ; - <i>Migratory Bird Conservation Act</i>	As required		
2a. Wildlife Area Regulations: a) Schedule II: - Entrance fee for Cap Tourmente (QC)	Service - Cost Recovery	- <i>Canada Wildlife Act</i> ; - <i>User Fee Act</i>	User Fee increase		Consultations will take place regionally in Spring of 2005
2b. Wildlife Area Regulations: b) Schedule III - Permits to hunt Snow Geese	Service - Cost Recovery	- <i>Canada Wildlife Act</i> ; - <i>User Fee Act</i>	Increase in Fees (for cost recovery) and dates expired in Schedule		Consultations will take place regionally in Spring of 2005

**Table 9: Major Regulatory Initiatives**

Pollution Prevention Strategic Outcome / Program Activities	
CEPA 1999 Regulatory Initiatives (2005-2006)	Planned Results
<i>Amendments to the New Substances Notification Regulations (Chemicals and Polymers) – targeting publication in Canada Gazette Part II)</i>	Reduced risk from toxics and other substances of concern (pollution prevention). Consequential amendments to the <i>New Substances Notification Regulations (Organisms)</i> and the <i>New Substances Fees Regulations</i> are also being made as a result of these amendments.
<i>Chromium Electroplating, Chromium Anodizing and Reverse Etching Regulations (CG I completed Feb 11, 2005. Targeting publication in CG II in the fall 2005)</i>	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. These Regulations will result in a uniform approach to the control of hexavalent chromium releases from this sector in Canada.
<i>Ministerial Order to Add hexachlorobutadiene (HCBd) to the Virtual Elimination List (targeting publication in Canada Gazette Part II)</i>	Enacts the virtual elimination of HCBd in releases to the environment. This will result in the ultimate reduction of the quantity or concentration of HCBd in releases below the level of quantification specified by the Ministers in the List.
<i>Federal Petroleum Products and Allied Petroleum Products Storage Tank Systems Regulations (targeting publication in Canada Gazette Part I in June 2005)</i>	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. It will also fill the regulatory gap as provincial regulations generally do not apply to federal and Aboriginal lands.
<i>Amendments to the Metal Mining Effluent Regulations (MMER) (targeting publication in Canada Gazette Part I in Fall 2005)</i>	Environment Canada is planning to amend the MMER to: address some technical matters that have been identified through implementation experience; improve the clarity of interpretation; harmonize some MMER requirements with relevant components of the recently amended <i>Pulp and Paper Effluent Regulations</i> ; and address issues related to the process for scheduling of tailings impoundment areas (TIAs).
<i>Regulations limiting greenhouse gas emissions from Large Final Emitters (targeting publication in Canada Gazette Part I)</i>	To meet targets of emission intensity for large final emitters.
<i>Export and Import of Hazardous Waste and Hazardous Recyclable Material (targeting publication in Canada Gazette Part II)</i>	Revise the existing Export and Import of Hazardous Waste Regulations (1992) and introduce new elements necessary to further contribute to the protection of the environment and human health from the risks posed by the transboundary movement of hazardous wastes and hazardous recyclable materials.
<i>Polychlorinated Biphenyl (PCB) Regulations (targeting publication in Canada Gazette Part I)</i>	Modernize the framework to control the use and storage of PCB and its releases into the environment by phasing out by specific dates PCB equipments still in use, implement new tracking provisions for the PCBs currently in use and implement time limit for storing PCBs.
<i>Amendment to the Prohibition of Certain Toxic Substances Regulations, 2005 (targeting publication in Canada Gazette Part I)</i>	Prohibit toxic substances (2-methoxyethanol (2-ME), tetrachlorobenzenes (TeCBs) and pentachlorobenzene (OCB)) that pose serious risks to Canadians' health or their environment, to ensure the substances are not introduced into the Canadian market.
<i>Marine Spark-Ignition Engine and Off-Road Recreational vehicle Emission Regulation (targeting publication in Canada Gazette Part I and II)</i>	Introduce emission standards for large spark-ignition engines such as those found in forklifts and ice resurfacers, by amending these Regulations to include the 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 NOx, hydrocarbons and carbon monoxide.
<i>Regulations Limiting 2-Butoxyethanol Content in Consumer Products (targeting publication in Canada Gazette Part I)</i>	Reduce concentrations of 2-Butoxyethanol (2-BE) in indoor air during the use of consumer products containing the substance to below an established Tolerable Concentration.

CEPA 1999 Regulatory Initiatives (2006-2007)	Planned Results
<i>Amendment to the Prohibition of Certain Toxic Substances Regulations, 2005 (targeting publication in Canada Gazette Part II)</i>	Prohibit toxic substances (2-methoxyethanol (2-ME), tetrachlorobenzenes (TeCBs) and pentachlorobenzene (QCB)) that pose serious risks to Canadians' health or their environment, to ensure the substances are not introduced into the Canadian market.
<i>Amendments to the Off-Road Compression-Ignition Engine Emission Regulations (targeting publication in Canada Gazette Part I)</i>	Establish more stringent "Tier 4" emission standards for the 2008 and later model year diesel engines used in construction, agriculture, mining and forestry equipment. These planned amendments are required to maintain alignment with the emission standards of the U.S. and will reduce allowable emission levels by up to 95% for particulate matter and up to 40% for NOx and hydrocarbons.
<i>Regulations Limiting Volatile Organic Compounds (VOC) Content in Paints and Coatings (targeting publication in Canada Gazette Part I)</i>	Implement national VOC product content standards for certain categories of architectural and industrial maintenance coatings; align with the requirements in the U.S. to reduce emissions of VOCs (precursor pollutants contributing to the formation of ground-level ozone and particulate matter) into the atmosphere.
<i>Regulations Limiting Volatile Organic Compound (VOC) Content in Consumer Products (targeting publication in Canada Gazette Part I)</i>	Implement national VOC product content standards for certain categories of consumer products to align with the requirements in the U.S. to reduce emissions of VOCs (precursor pollutants contributing to the formation of ground-level ozone and particulate matter) into the atmosphere.
<i>Regulations Limiting Volatile Organic Compound (VOC) Content in Automobile Refinishing (targeting publication in Canada Gazette Part I)</i>	Develop national VOC product content standards for automobile refinish coatings that are aligned with the U.S. and CCME standards to reduce emissions of VOCs (precursor pollutants contributing to the formation of ground-level ozone and particulate matter) into the atmosphere.
<i>Amendments to the New Substances Notification Regulations (Living Organisms) (targeting publication in Canada Gazette Part I)</i>	Publication of the consultation report outlining outcome of multi-stakeholder consultations on the application of the Regulation to living organisms. Reduced risk from toxics and other substances of concern (pollution prevention)
<i>Amendments to the Prohibition of Certain Toxic Substances Regulations, 2005 (targeting publication in Canada Gazette Part II)</i>	Prohibit toxic substances (2-methoxyethanol (2-ME), tetrachlorobenzenes (TeCBs) and pentachlorobenzene (QCB)) that pose serious risks to Canadians' health or their environment, to ensure the substances are not introduced into the Canadian market.
<i>Regulations Limiting 2-Butoxyethanol Content in Consumer Products (targeting publication in Canada Gazette Part II)</i>	Reduce concentrations of 2-Butoxyethanol (2-BE) in indoor air during the use of consumer products containing the substance to below an established Tolerable Concentration.
<i>Amendments to the Metal Mining Effluent Regulations (MMER) (targeting publication in Canada Gazette Part II in Spring 2006)</i>	Environment Canada is planning to amend the MMER to: address some technical matters that have been identified through implementation experience; improve the clarity of interpretation; harmonize some MMER requirements with relevant components of the recently amended Pulp and Paper Effluent Regulations; and address issues related to the process for scheduling of tailings impoundment areas (TIAs).
<i>Regulations to prohibit the manufacture, sale and importation of Lead Fishing Gear (targeting publication in Canada Gazette Part I)</i>	Reduce the amount of lead that enters the environment by prohibiting the manufacture, sale and import of lead fishing gear.
<i>Regulation under the Fisheries Act for effluents released from municipal and other publicly-owned wastewater systems (targeting publication of draft regulation in 2007).</i>	The desired outcome is the fair, consistent and predictable application of the Fisheries Act and ensuring that the release of wastewater effluent does not pose unacceptable risks to human and ecosystem health or fisheries resources. Environment Canada is working with the other jurisdictions through the CCME to develop a Canada-wide Strategy for the management of municipal wastewater effluents. The strategy is to be completed by 2006 and will include: a harmonized regulatory framework including national standards; coordinated science and research; and an environmental risk management model to guide the decision making process. The regulation under the Fisheries Act will be Environment Canada's principal instrument to implement the CCME Canada-wide Strategy.

<b>CEPA 1999 Regulatory Initiatives (2007-2008)</b>	<b>Planned Results</b>
<i>Regulations Limiting Volatile Organic Compounds (VOC) Content in Paints and Coatings (targeting publication in Canada Gazette Part II)</i>	Implement national VOC product content standards for certain categories of architectural and industrial maintenance coatings; align with the requirements in the U.S. to reduce emissions of VOCs (precursor pollutants contributing to the formation of ground-level ozone and particulate matter) into the atmosphere.
<i>Regulations Limiting Volatile Organic Compound (VOC) Content in Consumer Products (targeting publication in Canada Gazette Part II)</i>	Implement national VOC product content standards for certain categories of consumer products to align with the requirements in the U.S. to reduce emissions of VOCs (precursor pollutants contributing to the formation of ground-level ozone and particulate matter) into the atmosphere.
<i>Regulations Limiting Volatile Organic Compound (VOC) Content in Automobile Refinishing (targeting publication in Canada Gazette Part II)</i>	Develop national VOC product content standards for automobile refinish coatings that are aligned with the U.S. and CCME standards to reduce emissions of VOCs (precursor pollutants contributing to the formation of ground-level ozone and particulate matter) into the atmosphere.
<b>Biodiversity Conservation Strategic Outcome / Program Activities</b>	
<b>Regulatory Initiatives (2005-2006)</b>	<b>Planned Results</b>
<i>Amendments to Species at Risk to modify the legal list of species and other provisions, as needed (publish regulations in 2005-2006).</i>	Amend schedule 1 and put in other provisions as required.
<i>Annual hunting regulations, through the Migratory Bird Conservation Act (MBCA), establishing hunting season dates and bag and possession limits for migratory game birds (publish regulations by the 1<sup>st</sup> quarter of 2005-2006).</i>	Through best available science allow hunting at sustainable levels.
<i>Overabundant Snow Goose regulation, through the Migratory Bird Conservation Act (MBCA), to establish special conservation seasons (publish regulation by the 4<sup>th</sup> quarter of 2005-2006).</i>	Maintain a spring hunting season for snow goose as a population control measure where needed.
<i>Permit and inspection fees, record keeping, marking of specimens, and designated ports of entry (publish regulations by the 4<sup>th</sup> quarter of 2005-2006).</i>	Provide for more efficient administration of the Convention on International Trade in Endangered Species (CITES) by Canada.
<i>Provisions for pre-Convention and ranched specimens (publish regulations by the 4<sup>th</sup> quarter of 2005-2006).</i>	Provide an exemption regulation for certain specimens as authorized under the Convention.
<i>Amendments to Canada Wildlife Area Regulations through the Canada Wildlife Act.</i>	To convert MBS to NWA and to establish Canada's first Marine Wildlife Area (Scott Islands NWA) and two new National Wildlife Areas (Iqaluituq NWA and Cape Searle/Reid Bay NWA)
<b>Regulatory Initiatives (2006-2007)</b>	<b>Planned Results</b>
<i>Amendments to Species at Risk to modify to the legal list of species and other provisions, as needed (publish regulations in 2006-2007).</i>	Amend schedule 1 and put in other provisions as required.
<i>Annual hunting regulations, through the Migratory Bird Conservation Act (MBCA), establishing hunting season dates and bag and possession limits for migratory game birds (publish regulations by the 1<sup>st</sup> quarter of 2006-2007).</i>	Through best available science allow hunting at sustainable levels.
<i>Overabundant Snow Goose regulation, through the Migratory Bird Conservation Act (MBCA), to establish special conservation seasons (publish regulation by the 4<sup>th</sup> quarter 2006-2007).</i>	Maintain a spring hunting season for snow goose as a population control measure where needed.

## Table 10: Details on Project Spending

Over the next three years the following projects have or are expected to exceed their delegated project approval level:

### **2005-2006**

1. Weather station construction Eureka N.W.T. (EPA)
2. Hydrometric Program (EPA)
3. Canadian Meteorological Centre – Facility Extension (EPA)
4. Modernization of the Climate Observing Program (EPA)

### **2006-2007**

1. Weather station construction Eureka N.W.T. (EPA)
2. Canadian Meteorological Centre – Facility Extension (EPA)
3. Modernization of the Climate Observing Program (EPA)

### **2007-2008**

1. Canadian Meteorological Centre – Facility Extension (EPA)

EPA = Effective Project Approval

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

## Table 11: Details on Transfer Payments Programs

Over the next three years, Environment Canada will manage the following transfer payment programs in excess of \$5 million:

### **2005-2006**

1. Contributions to Support Environmental and Sustainable Development Initiatives
2. Habitat Stewardship Contribution Program
3. Contribution to EcoAction 2000 – Community Funding Initiative
4. Contributions for the Opportunities Envelope Program

### **2006-2007**

1. Contributions to Support Environmental and Sustainable Development Initiatives
2. Habitat Stewardship Contribution Program
3. Contribution to EcoAction 2000 – Community Funding Initiative
4. Contributions for the Opportunities Envelope Program

### **2007-2008**

1. Contributions to Support Environmental and Sustainable Development Initiatives
2. Habitat Stewardship Contribution Program
3. Contribution to EcoAction 2000 – Community Funding Initiative

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

## Table 12: Foundations (Conditional Grants)

Over the next three years, Environment Canada will contribute to the following foundations using conditional grants:

### **2005-2006**

1. Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)
2. Sustainable Development Technology Canada (SDTC)
3. The Federation of Canadian Municipalities (FCM) Green Municipal Funds (GMF)
  - a. The Green Municipal Enabling Fund (GMEF)
  - b. The Green Municipal Investment Fund (GMIF)
4. Clayoquot Biosphere Trust (CBT)

### **2006-2007**

1. Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)
2. Sustainable Development Technology Canada (SDTC)
3. The Federation of Canadian Municipalities (FCM) Green Municipal Funds (GMF)
  - a. The Green Municipal Enabling Fund (GMEF)
  - b. The Green Municipal Investment Fund (GMIF)
4. Clayoquot Biosphere Trust (CBT)

### **2007-2008**

1. Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)
2. Sustainable Development Technology Canada (SDTC)
3. The Federation of Canadian Municipalities (FCM) Green Municipal Funds (GMF)
  - a. The Green Municipal Enabling Fund (GMEF)
  - b. The Green Municipal Investment Fund (GMIF)
4. Clayoquot Biosphere Trust (CBT)

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

## Table 13: Horizontal Initiatives

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

### **2005-2006**

1. An Accelerated Action Plan for Federal Contaminated Sites (lead)
2. Canadian Biotechnology Strategy (partner)
3. Canadian Rural Partnership (partner)
4. Climate Change (co-lead with Natural Resources Canada)
5. Great Lakes Action Plan (lead)
6. Implementation of the *Species at Risk Act* (lead)
7. Team Canada Inc. (partner)
8. Voluntary Sector Initiative (partner)
9. Youth Employment Strategy (partner)

Further information on the above-mentioned horizontal initiatives see <http://www.tbs-sct.gc.ca/est-pre/estime.asp>.



## **SECTION IV**

### **OTHER ITEMS OF INTEREST**

## Section 4.1: 2004-2006 Sustainable Development Strategy

Environment Canada's Sustainable Development Strategy (SDS) 2004-2006 highlights for Canadians key commitments that the department is undertaking over this three-year period to further our sustainable development objectives.

SDS 2004-2006 focuses on themes that enhance the capacity for integrated decision-making and increase the sustainability of operational aspects of the department:

- Information for Decision Making;
- Innovative Instruments;
- Partnerships for Sustainable Development;
- Managing for Sustainable Development.

The Strategy focuses on building a strong knowledge base which puts human and natural capital on an equal footing with economic capital, informs public debate and supports integrated decision-making. It advances innovative policy instruments to ensure that market signals support and advance a more competitive and prosperous economy and enhanced protection of our natural environment. It emphasizes partnerships and governance models that enable horizontal decision making at the government, community and corporate levels. And finally, the Strategy requires leadership by example in our own operations.

The Strategy also focuses on strengthening performance measurement and reporting on the commitments and outcomes of SDS 2004-2006. Since the tabling of the Strategy, work has continued to identify performance measures, determine targets and assign accountability which will help build a logic model for the Strategy.

The Competitiveness and Environmental Sustainability Framework (CESF) is a comprehensive and integrated approach to achieving the highest level of environmental quality, strengthening Canada's long-term competitiveness, and ensuring the health and well-being of its citizens. The Framework provides the department with a significant policy tool to engage other partners in moving towards environmental sustainability. During this period of transformation when the department will be concentrating on implementing the Framework, SDS 2004-2006 will continue to demonstrate key opportunities for Environment Canada to enhance its contribution to sustainable development by:

- Strengthening our departmental capacity to integrate social and economic considerations into our policy, programming, and operational decisions; and
- Developing and delivering the information, innovative instruments and partnership arrangements that will enable Canadians and Canadian institutions to better support sustainable development.

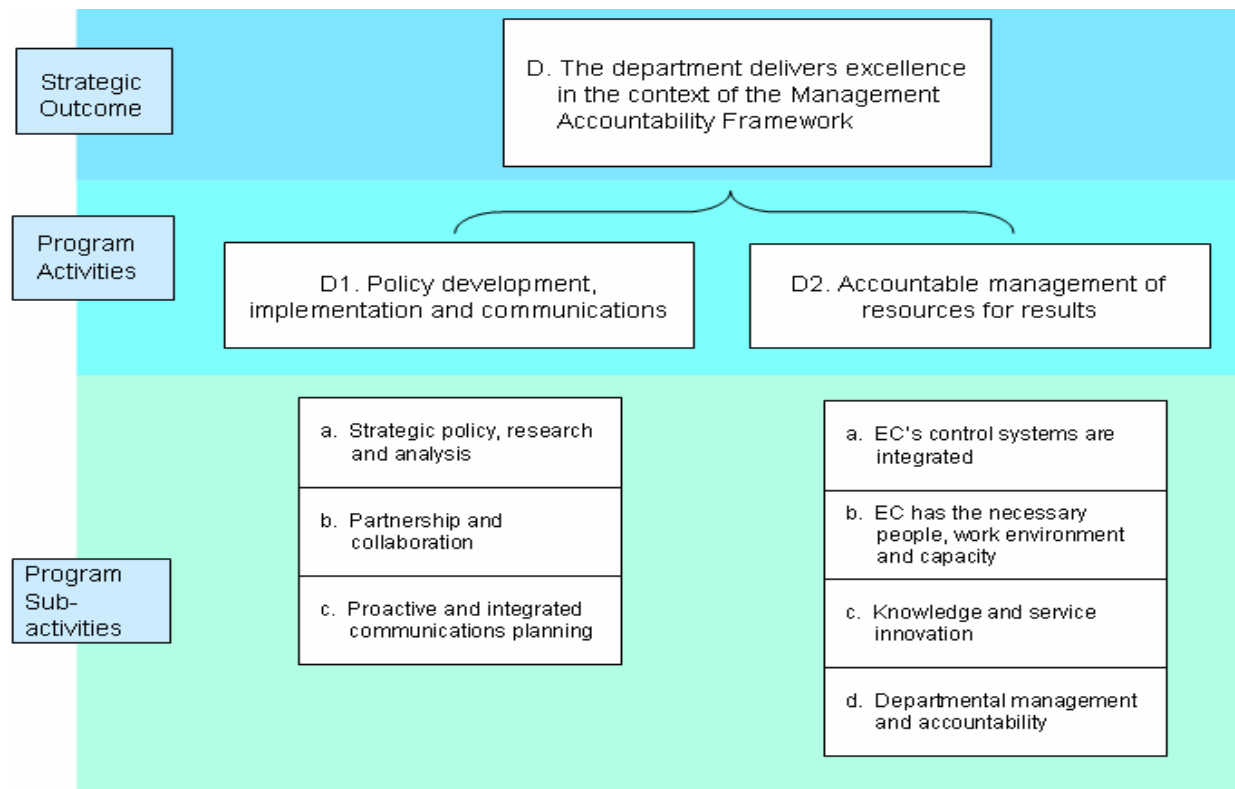
For more information on Environment Canada's 2004-2006 Sustainable Development Strategy, visit: [http://www.ec.gc.ca/sd-dd\\_consult/SDS2004/index\\_e.cfm](http://www.ec.gc.ca/sd-dd_consult/SDS2004/index_e.cfm).

# Sustainable Development Strategy 2004-2006

*Environment Canada's mission is to make sustainable development a reality in Canada by helping Canadians live and prosper in an environment that needs to be respected, protected and conserved.*

<b>Theme I</b> Information for Decision Making	<b>Theme II</b> Innovative Instruments	<b>Theme III</b> Partnerships for Sustainable Development	<b>Theme IV</b> Managing for Sustainable Development
<b>Long-term Outcomes</b>			
<b>Outcome I</b> Canadian institutions and individuals make decisions that support sustainable development.	<b>Outcome II</b> An optimal mix of instruments is used to achieve environmental and sustainable development goals.	<b>Outcome III</b> Environment Canada's partnerships effectively support the implementation of sustainable development.	<b>Outcome IV</b> Federal operations are managed sustainably and transparently and Environment Canada is a model for others inside and outside government.
<b>Intermediate-term Outcomes</b>			
<p><b>1.1</b> Environment Canada contributes to a strong, integrated environmental science system in Canada that supports sustainable development.</p> <p><b>1.2</b> Environment Canada effectively integrates socio-economic, natural capital and environmental information and indicators and disseminates this information to influence decision makers.</p> <p><b>1.3</b> Strengthened predictive capacity and information sharing reduce the impact of environmental threats on the health and safety of Canadians.</p>	<p><b>2.1</b> Innovative economic instruments are developed and applied to support sustainable development.</p> <p><b>2.2</b> Innovative agreements are negotiated with industry to further sustainable development goals.</p>	<p><b>3.1</b> Effective partnerships promote the sustainable development of Canadian communities.</p> <p><b>3.2</b> Environment Canada's partnerships with the corporate sector enhance productivity and the environmental performance of Canadian industry.</p> <p><b>3.3</b> Environment Canada's partnerships with other government departments and other levels of government support implementation of the department's environmental agenda and build toward a coordinated sustainable development agenda for Canada.</p>	<p><b>4.1</b> Environment Canada employees and managers understand sustainable development and incorporate its principles into their day-to-day decisions. These are further reinforced through the integration of the environmental management system into Environment Canada's operations and management framework.</p> <p><b>4.2</b> Environmental performance in federal operations has demonstrably improved.</p>

## Section 4.2: Management, Administration and Policy



### ***What is the issue?***

Environment Canada's operating context is complex. Environmental issues are global in nature, jurisdictions are shared and the challenge of integrating environmental considerations into economic and social decision-making is significant. As such, it is important to have the appropriate people, processes, systems and relationships in place internally so that we can focus on embedding environmental considerations into decision-making and addressing the environmental priorities of Canadians.

Transforming the way Environment Canada operates and manages and developing a clear policy agenda will help us focus our work, set priorities and build on our previous successes so that we can implement a comprehensive one department approach to achieving our goals.

Transforming the way Environment Canada works will allow us to provide more informed and coherent advice, maximize the results we achieve for the investment made and become a more agile organization that knows its capacity, continues to evolve and can deploy its resources where needed to effectively address immediate and ongoing priorities.

### ***What are we doing about it?***

Corporate programs, services, initiatives and activities are being rethought and realigned as part of Environment Canada's focus on departmental transformation and our ongoing work to develop integrated policy and horizontal management agendas.

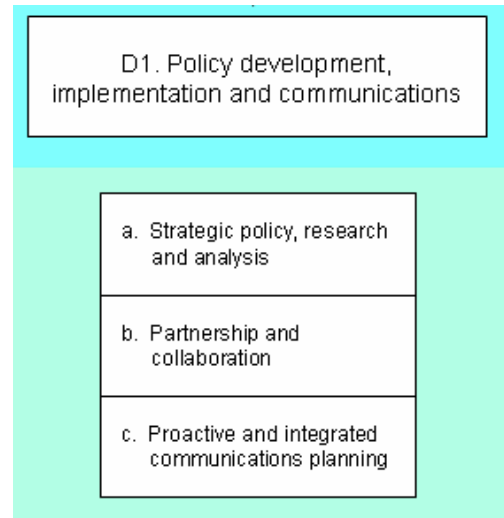
## Section 4.2: Corporate Services Program Activity D1 – Policy development, implementation and communications

### *What is the issue?*

Environmental issues are complex and global in nature. They also have widespread economic, social and local impacts.

Addressing climate change, for example, is a worldwide challenge and its solutions will likely have a major impact on our economy – in particular on our daily transportation and energy decisions. Air pollution, acid rain and water quality do not respect jurisdictional boundaries and they all have serious impacts on human and ecosystem health.

Developing a coherent policy suite, appropriate partnerships, and effective communications tools help to embed environmental considerations into everyone’s day to day decision-making.



### *What are we doing about it?*

A competitiveness and environmental sustainability policy framework will provide direction and a coherent agenda within which to position environmental issues and the work of Environment Canada. One purpose of the new policy framework is to further Canada’s long-term competitiveness by advancing sustainable approaches to economic development in order to achieve increased productivity, increased efficiency, and more sustainable energy use.

Although environmental issues affect many departments, Environment Canada is the lead for the coordination of the Government of Canada’s policies and programs with respect to the preservation and enhancement of the quality of the natural environment. This role places the department in a unique position to influence the agenda of other departments. It also means that most of the department’s initiatives need the support of other departments to be successful because most of the levers for action rest with others. Recognizing this symbiotic relationship, the department has taken a leadership role in the development of a government-wide environment and sustainable development agenda.

In this leadership role, the department is exploring the potential role for more innovative environmental policy tools that are tailored to the issues at hand. While regulation continues as a policy option, the department is expanding its use of information, partnerships, and economic instruments.

### *Major Programs and Initiatives*

<b>Program Area:</b> Strategic policy, research and analysis
<b>Activities:</b>
– Developing and coordinating strategic policies and approaches to advance departmental priorities and guide

<p>their implementation. Includes regional policy, budget submissions, Speech from the Throne input, competitiveness and environmental sustainability policy framework.</p> <ul style="list-style-type: none"> <li>– Developing creative approaches and instruments to advance environment and sustainable development priorities in policy, including integration of environmental and economic considerations, economic, regulatory and non-regulatory instruments. Includes ecological fiscal reform, environment and trade, smart regulation, energy and environment, natural capital indicators, economic analysis.</li> <li>– Providing a departmental level perspective of the state, trends and prospects for environmental issues of concern to Environment Canada.</li> </ul>
<p><b>Expected Results:</b> Strategic policy, research and analytical capacity and horizontal initiatives are developed to assure high quality policy options and advice.</p>
<p><b>Indicators:</b> Canadian institutions and individuals make decisions that support sustainable development. <sup>SDS1.1</sup></p>
<p><b>Partners:</b> Provinces and territories; finance, trade and energy sectors.</p>
<p><b>Departmental Priority:</b> Departmental transformation (strategic integration).</p>

<p><b>Program Area:</b> Partnership and Collaboration</p>
<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>– Developing strategic approaches and providing strategic advice on formal and informal agreements/ negotiations with Aboriginal groups, National Aboriginal organizations and Aboriginal environmental NGOs, federal/provincial/territorial, and members of the international community (e.g., other governments, NGOs, international organizations)</li> <li>– Building internal and external capacity and effective partnerships with Aboriginal groups, National Aboriginal organizations and Aboriginal environmental NGOs to advance environmental priorities.</li> <li>– Coordinating partnerships with industry and NGOs to advance environmental priorities; coordinating federal/provincial/territorial activities with the regions, PCO and Intergovernmental Affairs.</li> </ul>
<p><b>Expected Results:</b> Partnership and collaboration facilitate the implementation of strategic directions.</p>
<p><b>Indicators:</b> Canadian institutions and individuals make decisions that support sustainable development. <sup>SDS1.1</sup></p>
<p><b>Partners:</b> Provinces and territories; other government departments (OGDs) such as Foreign Affairs Canada, Canadian International Development Agency, Natural Resources Canada and Health Canada; NGOs; Aboriginal People; and other countries such as the United States; Mexico; Chile; Costa Rica and India.</p>
<p><b>Departmental Priority:</b> Departmental transformation (strategic integration).</p>

<p><b>Program Area:</b> Proactive and integrated communications planning</p>
<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>– Developing strategic approaches to departmental communications and ensure that departmental priorities and policy directions are presented in a consistent, coherent and coordinated manner.</li> <li>– Providing communications advice, services and support to the Minister and senior departmental officials, including service and regional communications teams (including media analysis and relations, public opinion research, public environment analysis and issues management).</li> </ul>
<p><b>Expected Results:</b> Proactive and integrated communications planning provides Canadians with information that facilitates and promotes sound environmental decision-making.</p>
<p><b>Indicators:</b> Canadian institutions and individuals make decisions that support sustainable development. <sup>SDS1.1</sup></p>
<p><b>Partners:</b> Treasury Board Secretariat; Privy Council Office; Cabinet Committees; Public Works and Government Services Canada; Public Service Commission; National Library of Canada; Media; Canadian public; other government departments (OGDs) such as Canadian Heritage, Natural Resources, Health Canada, Transport Canada, Industry Canada, Department of Fisheries and Oceans and Agriculture and Agri-food Canada.</p>
<p><b>Departmental Priority:</b> Departmental transformation (strategic integration).</p>

## Section 4.2: Corporate Services Program Activity D2 – Accountable management of resources for results

### ***What is the issue?***

Achieving results for Canadians is not just about the results that you achieve or how much they cost but also about how you achieve those results.

The Government of Canada is committed to strengthening public sector management especially in the areas of governance, accountability, transparency, and financial management.

Environment Canada is transforming how it does its business so that it can meet the management expectations of parliamentarians and Canadians and deliver on its commitments in a meaningful and cost-effective way.

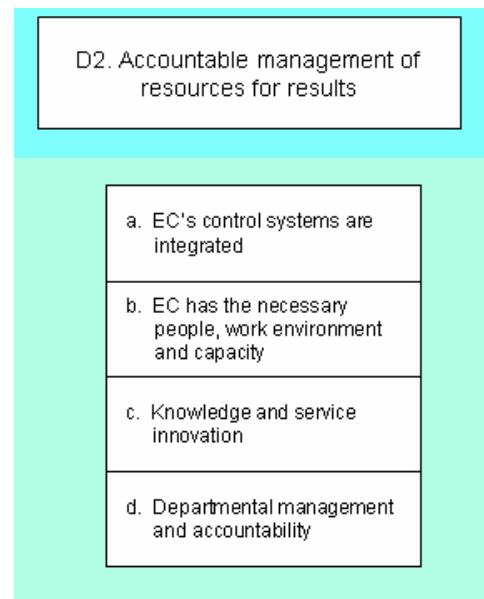
### ***What are we doing about it?***

Environment Canada is implementing a new governance structure that promotes decision-making informed by perspectives outside the responsible organizational unit. Under the Deputy Minister and the departmental Executive Management Council, Boards of Assistant Deputy Ministers and Regional Directors General are responsible for providing the leadership and direction required for Environment Canada to deliver on its mandate. The Strategic Integration and Departmental Management Services Boards contribute to delivering on Environment Canada's priorities in the areas of management, administration and policy.

Government-wide management initiatives are also helping Environment Canada transform how it does its business. Work related to populating the government-wide Expenditure Management Information System (EMIS) and departmental Program Activity Architectures and Management, Resources and Results Structures (MRRS) is being reinforced by the development of a comprehensive set of plans and the collection of detailed performance information to support internal management, priority-setting and allocation and reallocation decisions.

We are also using the Management Accountability Framework to help us focus on the areas where we need to strengthen our management and accountability tools, systems, policies or practices.

Several audits and evaluations are planned over the next three years. Planned 2005-2006 evaluations include evaluations of the *Species at Risk Act*, Meteorological Service of Canada transition; and management of Aboriginal files. Planned 2005-2006 audits include cash advances; petty cash and financial management processes at risk under the Financial Information Strategy (FIS).



We will continue to evolve our internal management framework as we transform the department and get organized to deliver on the goals of the Competitiveness and Environmental Sustainability Framework.

The major initiatives below reflect how Environment Canada is organizing its work to provide accountable management of resources for results.

<b>Program Area:</b> Environment Canada's control systems are integrated
<b>Activities:</b> Management of integrated administration, finance and informatics support systems including information management, technology and tools.
<b>Expected Results:</b> Environment Canada's control systems are integrated, effective and consistently improved and adapted to meet client needs.
<b>Indicators:</b> Assessment of Environment Canada against MAF stewardship indicators.
<b>Departmental Priority:</b> Departmental transformation (departmental management services).

<b>Program Area:</b> Environment Canada has the necessary people, work environment and capacity
<b>Activities:</b> Human resource services, strategic tools and systems are maintained to ensure a motivated, skilled and representative workforce.
<b>Expected Results:</b> Environment Canada has the necessary people, work environment, capacity and leadership to deliver results.
<b>Indicators:</b> Assessment of Environment Canada against MAF people indicators.
<b>Departmental Priority:</b> Departmental transformation (departmental management services).

<b>Program Area:</b> Knowledge and service innovation
<b>Activities:</b> Internal and external services for knowledge management, knowledge sharing and service innovation.
<b>Expected Results:</b> Knowledge is shared effectively and citizens, clients, and stakeholders are well served within Environment Canada, domestically and internationally.
<b>Indicators:</b> Assessment of Environment Canada against MAF indicators related to learning innovation and change management.
<b>Departmental Priority:</b> Departmental transformation (departmental management services).

<b>Program Area:</b> Departmental management and accountability
<b>Activities:</b> Planning and support activities to enhance management capacity (includes financial and non-financial planning and reporting functions, audit and evaluation, legal services, the development of leadership in environmental management and the assembling of an internal management capacity).
<b>Expected Results:</b> Departmental management is proactive, transparent, cost effective, accountable and continues to improve.
<b>Indicators:</b> Assessment of Environment Canada against MAF indicators related to governance and strategic direction, stewardship and accountability.
<b>Departmental Priority:</b> Departmental transformation (departmental management services).



## Section 4.3: Key Electronic Resources

Name	URL
Environment Canada Home Page (The Green Lane)	<a href="http://www.ec.gc.ca">http://www.ec.gc.ca</a>
Atlantic Canada Severe Summer Weather Awareness	<a href="http://www.atl.ec.gc.ca/weather/severe/summer_e.html">http://www.atl.ec.gc.ca/weather/severe/summer_e.html</a>
Atmospheric and Climate Science Directorate	<a href="http://www.msc-smc.ec.gc.ca/acsd/publications">http://www.msc-smc.ec.gc.ca/acsd/publications</a>
Canadian Biodiversity Strategy	<a href="http://www.bco.ec.gc.ca/en/activities/ProjectsDomestCBS.cfm">http://www.bco.ec.gc.ca/en/activities/ProjectsDomestCBS.cfm</a>
Canadian Community Monitoring Network (CCMN)	<a href="http://www.ccmn.ca/english">http://www.ccmn.ca/english</a>
CEPA Environmental Registry	<a href="http://www.ec.gc.ca/CEPARegistry">http://www.ec.gc.ca/CEPARegistry</a>
Clayoquot Biosphere Trust (CBT)	<a href="http://www.clayoquotbiosphere.org/">http://www.clayoquotbiosphere.org/</a>
Climate Change and Canadians: Achieving our Target Together	<a href="http://www.climatechange.gc.ca/plan_for_canada/climate/kyoto.html">http://www.climatechange.gc.ca/plan_for_canada/climate/kyoto.html</a>
Committee on the Status of Endangered Wildlife in Canada (COSEWIC)	<a href="http://www.cosewic.gc.ca/eng/sct5/index_e.cfm">http://www.cosewic.gc.ca/eng/sct5/index_e.cfm</a>
Consultations on the CEPA New Substances Notification Regulations and New Substances Program	<a href="http://www.ec.gc.ca/CEPARegistry/documents/part/nsnr-nsp_con/toc.cfm">http://www.ec.gc.ca/CEPARegistry/documents/part/nsnr-nsp_con/toc.cfm</a>
CWS Migratory Birds Regulatory Report Series	<a href="http://www.cws-scf.ec.gc.ca/birds/status/index_e.cfm">http://www.cws-scf.ec.gc.ca/birds/status/index_e.cfm</a>
Ecological Monitoring and Assessment Network	<a href="http://www.eman-rese.ca/eman/naturewatch.html">http://www.eman-rese.ca/eman/naturewatch.html</a>
Ecosystems	<a href="http://www.ec.gc.ca/ecos_e.html">http://www.ec.gc.ca/ecos_e.html</a>
Environment Canada: Clean Air	<a href="http://www.ec.gc.ca/air">http://www.ec.gc.ca/air</a>
Environment Canada's Departmental Performance Reports	
Environment Canada's Management Framework	<a href="http://www.ec.gc.ca/introec/dept_org.htm#mf">http://www.ec.gc.ca/introec/dept_org.htm#mf</a>
Environment Canada's National and Regional Web Sites	<a href="http://www.ec.gc.ca/regeng.html">http://www.ec.gc.ca/regeng.html</a>
Environment Canada's Reports on Plans and Priorities	<a href="http://www.ec.gc.ca/rpp/index_e.htm">http://www.ec.gc.ca/rpp/index_e.htm</a>
Environment Canada's Science and Technology	<a href="http://www.ec.gc.ca/scitech/index_e.htm">http://www.ec.gc.ca/scitech/index_e.htm</a>
Environment Canada's 2004-2006 Sustainable Development Strategy	<a href="http://www.ec.gc.ca/sd-dd_consult/SDS2004/index_e.cfm">http://www.ec.gc.ca/sd-dd_consult/SDS2004/index_e.cfm</a>
Environmental Acts and Regulations	<a href="http://www.ec.gc.ca/EnviroRegs">http://www.ec.gc.ca/EnviroRegs</a>
Experts Workshop on Water Quality Monitoring: The Current State of the Science and Practice	<a href="http://www.ccme.ca/assets/pdf/monitoring_workshop_current_state_eng.pdf">http://www.ccme.ca/assets/pdf/monitoring_workshop_current_state_eng.pdf</a>
Federal House in Order (FHIO)	<a href="http://www.fhio.gc.ca">http://www.fhio.gc.ca</a>
Federation of Canadian Municipalities (FCM)	<a href="http://www.fcm.ca">http://www.fcm.ca</a>
Greening Government	<a href="http://www.greeninggovernment.gc.ca">http://www.greeninggovernment.gc.ca</a>
Meteorological Service of Canada	<a href="http://www.weatheroffice.ec.gc.ca">http://www.weatheroffice.ec.gc.ca</a>
National Pollutant Release Inventory (NPRI)	<a href="http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm">http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm</a>
Nature Watch	<a href="http://www.naturewatch.ca">http://www.naturewatch.ca</a>
Pollution	<a href="http://www.ec.gc.ca/pollution_e.html">http://www.ec.gc.ca/pollution_e.html</a>
Regulatory Impact Analysis Statement	<a href="http://www.ec.gc.ca/seadisposal/regs/min_reg_g2_e.html">http://www.ec.gc.ca/seadisposal/regs/min_reg_g2_e.html</a>
Science Assessment and Integration Branch	<a href="http://www.msc-smc.ec.gc.ca/saib">http://www.msc-smc.ec.gc.ca/saib</a>
Species at Risk	<a href="http://www.speciesatrisk.gc.ca">http://www.speciesatrisk.gc.ca</a>
State of the Environment (SOE) Infobase	<a href="http://www.ec.gc.ca/soer-ree">http://www.ec.gc.ca/soer-ree</a>
Stewardship Canada	<a href="http://www.stewardshipcanada.ca">http://www.stewardshipcanada.ca</a>
Sustainable Development Technology Canada (SDTC)	<a href="http://www.sdtc.ca">http://www.sdtc.ca</a>
Sustaining the Environment and Resources for Canadians	<a href="http://www.environmentandresources.gc.ca">http://www.environmentandresources.gc.ca</a>
The Green Lane – Global Climate Change	<a href="http://www.ec.gc.ca/climate">http://www.ec.gc.ca/climate</a>
Water legislation	<a href="http://www.ec.gc.ca/water/en/policy/legreg/e_legis.htm">http://www.ec.gc.ca/water/en/policy/legreg/e_legis.htm</a>
<i>Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA)</i>	<a href="http://www.cws-scf.ec.gc.ca/publications/wappa/index_e.cfm">http://www.cws-scf.ec.gc.ca/publications/wappa/index_e.cfm</a>