



ESTIMATES

Environment Canada

**2000-2001
Estimates**

Part III – Report on Plans and Priorities

Canada

The Estimates Documents

Each year, the government prepares Estimates in support of its request to Parliament for authority to spend public monies. This request is formalized through the tabling of appropriation bills in Parliament. The Estimates, which are tabled in the House of Commons by the President of the Treasury Board, consist of three parts:

Part I – The Government Expenditure Plan provides an overview of federal spending and summarizes both the relationship of the key elements of the Main Estimates to the Expenditure Plan (as set out in the Budget).

Part II – The Main Estimates directly support the *Appropriation Act*. The Main Estimates identify the spending authorities (votes) and amounts to be included in subsequent appropriation bills. Parliament will be asked to approve these votes to enable the government to proceed with its spending plans. Parts I and II of the Estimates are tabled concurrently on or before 1 March.

Part III – Departmental Expenditure Plans which is divided into two components:

- (1) **Reports on Plans and Priorities (RPPs)** are individual expenditure plans for each department and agency (excluding Crown corporations). These reports provide increased levels of detail on a business line basis and contain information on objectives, initiatives and planned results, including links to related resource requirements over a three-year period. The RPPs also provide details on human resource requirements, major capital projects, grants and contributions, and net program costs. They are tabled in Parliament by the President of the Treasury Board on behalf of the ministers who preside over the departments and agencies identified in Schedules I, I.1 and II of the *Financial Administration Act*. These documents are to be tabled on or before 31 March and referred to committees, which then report back to the House of Commons pursuant to Standing Order 81(4).
- (2) **Departmental Performance Reports (DPRs)** are individual department and agency accounts of accomplishments achieved against planned performance expectations as set out in respective RPPs. These Performance Reports, which cover the most recently completed fiscal year, are tabled in Parliament in the fall by the President of the Treasury Board on behalf of the ministers who preside over the departments and agencies identified in Schedules I, I.1 and II of the *Financial Administration Act*.

The Estimates, along with the Minister of Finance's Budget, reflect the government's annual budget planning and resource allocation priorities. In combination with the subsequent reporting of financial results in the Public Accounts and of accomplishments achieved in Departmental Performance Reports, this material helps Parliament hold the government to account for the allocation and management of public funds.

As part of its ongoing efforts to streamline reporting requirements, the Treasury Board of Canada Secretariat has requested that Environment Canada and ten other departments explore alternative reporting structures to this year's *Report on Plans and Priorities*. It has, therefore, exempted the department from the usual guidelines for the preparation of this report.

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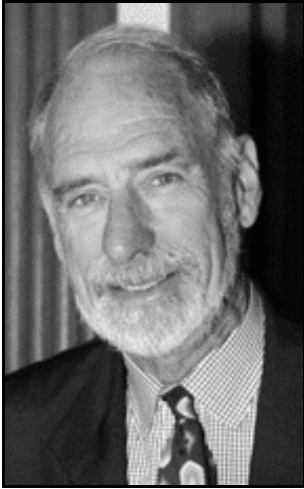


**David Anderson
Minister of the Environment**

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1. MESSAGE FROM THE MINISTER OF THE ENVIRONMENT



Canadians want concrete action to safeguard their health and the health of Canada's rich and diverse environment. I am pleased to present you with Environment Canada's 2000-2001 Report on Plans and Priorities which identifies what that action will be over the next three years.

This agenda will achieve results in protecting and enhancing our natural environment, and will increase the effectiveness of Environment Canada's services to the Canadian people. My priorities are: the implementation of a new *Species at Risk Act*; developing a national clean air strategy; responding to the threat of climate change; strengthening federal leadership on freshwater issues; and enhancing our service to Canadians in the area of weather service.

The Government's approach to protecting species at risk will emphasize providing assistance to help Canadians take voluntary actions to protect species, and make responsible stewardship an easy choice. In addition, we will have the tools to make sure that threatened or endangered species are protected in Canada, no matter where they live. Our approach is fair and pragmatic, and respects the roles of provincial and territorial jurisdictions, private landowners, land users and Aboriginal peoples. This balanced approach is the most sustainable, sensible and effective strategy for protecting species and their habitat.

Canadians are concerned about the quality of our air and water and the effects of pollution on both health and environment. This year, we will take action on Canada's smog problems by implementing Canada-wide standards on particulate matter and ozone in conjunction with the provinces, and negotiating action on ozone with the United States. Under the Post-2000 Acid Rain Strategy we will also take action on acid rain which continues to be a major problem, particularly in eastern Ontario. Specifically, we will work with the provinces to develop new emissions targets for sulfur dioxide. We will also continue to work with the United States, Mexico and others to reduce the long-range transport of air pollutants that may endanger the health of Canadians, especially those living in the North.

Climate change is a daunting challenge, but for an innovative economy it represents many opportunities. Climate change will affect all Canadians and, in the decades to come, we will have to reinvent the way we live, the foundation upon which our economy is built. Along with Natural Resources Canada, in collaboration with other federal departments, the provinces, territories, municipalities and many sectors of our society, Environment Canada will complete Canada's National Implementation Strategy, to determine how we will meet our Kyoto greenhouse gas reduction targets. Among the measures in the strategy will be the development of advanced technologies to reduce

greenhouse gas emissions, and building an improved scientific capacity to measure climate change and to predict impacts on ecosystems and the economy.

Finally, it is important that Environment Canada improve its role as a provider of vital services to Canadians. Millions of Canadians depend on Environment Canada for reliable, timely weather forecasts and warnings. These forecasts and warnings are essential for safeguarding Canadians' health and safety and for improving their economic decisions. And the atmospheric science behind the weather is the same science needed to understand air quality and water issues, as well as climate change. We need to modernize our weather system in Canada by introducing new technology and by improving our aging weather infrastructure. We must also improve our scientific understanding of our atmosphere and how it changes because of the strong links to how well our crops, trees and animals adapt to their changing environment. Our focus is to provide the best possible service to the millions of Canadians who rely on Environment Canada for weather information.

The Government of Canada is committed to preserving and enhancing our environment, and building a greater quality of life for all Canadians. In Budget 2000, the government has allocated an investment of \$700 million over four years to enable Environment Canada and its partners to develop new and innovative approaches to addressing environmental challenges. All Canadians have a role to play in ensuring we have healthy habitats, clean air and clean water, and that we are adapting to, and reducing the impacts of climate change and extreme weather. I encourage you to join with me in this challenge, and to contact my Department to learn how you can help.

Hon. David Anderson

Minister of the Environment

2. OUR APPROACH TO DOING BUSINESS

2.1 MAKING A DIFFERENCE IN THE QUALITY OF LIVES OF CANADIANS

The **mandate** of the Minister of the Environment is to preserve and enhance the quality of the natural environment, including water, air and soil quality; conserve Canada's renewable resources, including migratory birds and other non-domestic flora and fauna; conserve and protect Canada's water resources; carry out meteorology; enforce the rules made by the Canada - United States International Joint Commission relating to boundary waters; and coordinate environmental policies and programs for the federal government (*Department of Environment Act*). This large mandate is concerned with conserving and protecting our natural heritage, and with protecting our health and safety, all essential in ensuring the high quality of life that Canadians enjoy.

Environment Canada's mandate is conserving and protecting our natural heritage, and protecting our health and safety, all essential in ensuring the high quality of life that Canadians enjoy.

A diverse and healthy natural environment and a secure supply of natural resources are required for good human health, for the ongoing health of our agriculture, fisheries, and forestry industries, to name a few, and for the economic and social future of thousands of communities across Canada. Rising levels of resource and material consumption, expanding populations, and urban development have led: to increased wastes and pollution causing concerns about the air we breathe, the water we drink, and the food we eat; to the degradation or destruction of many ecosystems leading to loss of species; and to changes in our climate resulting in increased frequency of extreme weather events. Although development is essential to satisfy human needs and improve our quality of life, development must be sustainable; that is, it must meet the needs of the present without compromising the ability of future generations to meet their own needs. Environment Canada delivers on its mandate within this sustainable development context, as reflected in the Department's vision statement.

Environment Canada delivers on its mandate within the context of sustainable development.

At Environment Canada, our vision is to see a Canada where people make responsible decisions about the environment, and where the environment is thereby sustained for the benefit of present and future generations.

While a diverse and healthy environment is essential for maintaining good human health, Canadians must also have the tools to allow them to take action to protect themselves. As part of its mandate, Environment Canada provides Canadians with the tools they need to make informed, responsible decisions on environmental factors which

affect their health. These tools include such things as forecasts of smog, ultraviolet radiation, and windchill, and national standards for certain types of pollution.

Environment Canada provides Canadians with timely warnings of imminent or short-term risks and ensures they know how to protect themselves, their property and business.

Unexpected disasters frequently threaten Canadians by posing an immediate threat to their lives, property and businesses. These events include natural hazards, such as damaging winds, tornadoes, icebergs, ultraviolet radiation, and floods, and human-made emergencies such as the accidental release of toxic gases or radioactive material into the atmosphere. Severe social and economic disruption can follow these events without proper preparation and timely warnings. Environment Canada meets its mandate of minimizing risks to safety, health and business by giving Canadians timely warnings of imminent or short-term risks and ensuring they know how to protect themselves, their property and business.

The legislation and regulations which provide Environment Canada its mandate and allow it to carry out its programs can be found at:
<http://www.ec.gc.ca/who/acteng.html>

2.2 FULFILLING OUR MANDATE

Environment Canada strives to fulfill its mandate of conserving and protecting our natural heritage, and protecting the health and safety of Canadians, through the efforts of its four business lines:

- Nature;
- Clean Environment;
- Weather and Environmental Predictions; and
- Management, Administration and Policy.

The goals and key long-term results for each of these business lines are presented in Table 2.1. Indicators and targets for each long-term result can be found in Table 3.1 of Section 3.

Each business line is led by an Assistant Deputy Minister who provides functional leadership through building shared ownership for priorities, strategies and performance commitments among the senior management team.

A detailed description of Environment Canada's planning, reporting and accountability framework can be found at:
http://www.ec.gc.ca/introec/mf_e.htm

Table 2.1 Chart of Key Results Commitments

Goals	Long-Term Results
<i>with its partners, seek to provide Canadians with:</i>	<i>to be demonstrated by:</i>
<i>Nature Business Line</i>	
Conservation of biodiversity in healthy ecosystems.	<ul style="list-style-type: none"> • Conservation of biological diversity. • Understanding and reduction of human impacts on the health of ecosystems. • Conservation and restoration of priority ecosystems.
<i>Clean Environment Business Line</i>	
Protection from domestic and global sources of pollution.	<ul style="list-style-type: none"> • Reduced adverse human impact on the atmosphere and on air quality. • Understanding, and prevention or reduction of the environmental and human health threats posed by toxic substances and other substances of concern.
<i>Weather and Environmental Predictions Business Line</i>	
Adaptation to influences and impacts of atmospheric and related environmental conditions on human health and safety, economic prosperity and environmental quality.	<ul style="list-style-type: none"> • Reduced impact of weather and related hazards on health, safety, and the economy. • Adaptation to day-to-day and longer term changes in atmospheric, hydrological, and ice conditions.
<i>Management, Administration and Policy Business Line</i>	
Strategic and effective departmental management to achieve environmental results.	<ul style="list-style-type: none"> • Strategic and integrated policy priorities and plans. • A well-performing organization supported by efficient and innovative services.

The Departmental planned spending to deliver on these long-term results is presented in Table 2.2. Environment Canada will have a budget of approximately \$666M in 2000-2001. This total amount is allocated among four business lines as described in Figure 1. Section 3 provides more details on budget allocation by business line and long-term result. Although the budget of the Department has decreased since the mid-nineties during the height of Green Plan special project funding (\$737 million in 1994-95), it has remained relatively stable for the last four years at just over \$600 million. In 1999-2000, Environment Canada received \$14 million annually (over 5 years) to help implement its responsibilities under the *Canadian Environmental Protection Act, 1999*. Recent budget announcements will result in an increase of \$95M in 2000-2001. Fifty million of that will go to resource a sustainable development technology fund to be delivered by an organization outside the Department.

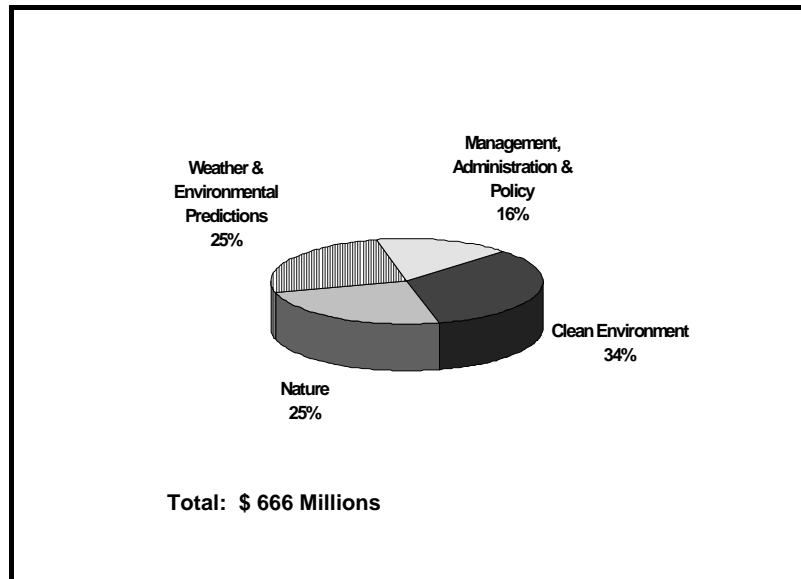


Figure 1: 2000-2001 Net Planned Spending by Business Line

Environment Canada continues to engage partners, leverage resources and pursue innovative delivery and funding strategies. For example, delivery of the Environmental Choice ecolabelling program is self sustaining through the private sector and the revenue base of the Meteorological Service of Canada has been substantially increased through service contracts.

In spite of new resources, financial challenges remain for Environment Canada. Currently many Departmental capital assets are beyond their usual operational lifespan. This capital asset base, which is estimated to be worth more than \$750 million, is invested in mandate-critical information technology, specialized laboratory facilities and scientific equipment. This equipment is essential for

meeting mandated environmental and service commitments, including providing weather forecasts and warnings to the public, enforcing regulations, and tracking the implementation of national standards. Environment Canada is committed to outlining an investment program to manage capital assets in a responsible manner in line with long-term business line priorities.

Table 2.2 Departmental Planned Spending

(\$ millions)	Forecast Spending 1999-2000 *	Planned Spending 2000-2001	Planned Spending 2001-2002	Planned Spending 2002-2003
Budgetary Main Estimates (gross)	601.5	649.8	629.1	603.3
Less: Respendable revenue	(69.9)	(78.6)	(81.6)	(78.4)
Total Main Estimates	531.6	571.2	547.5	524.9
Adjustments **	180.6	95.1	72.9	75.9
Net Planned Spending	712.2	666.3	620.4	600.8
Less: Non-respendable revenue	(7.4)	(6.8)	(6.8)	(6.8)
Plus: Cost of services received without charge	47.5	46.9	47.0	47.0
Net cost of Program	752.3	706.4	660.6	641.0
Full Time Equivalents	4,747	4,763	4,772	4,760

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

** Adjustments reflect primarily initiatives announced in Budget 2000.

The net cost associated with Departmental planned spending on programs will decline by \$45.9M in 2000-2001 from 1999-2000. This difference is primarily attributable to some significant one time expenditures in both 1999-2000 and 2000-2001, as announced in Budget 2000.

The one time increases announced in the Budget for 1999-2000 include \$62.5M to the Federation of Canadian Municipalities to endow Green Investment and Enabling Funds, and \$60M to the Canadian Meteorological and Oceanographic Society to create a fund for atmospheric and climate change science. Also included is \$14.8M to make departmental systems Y2K compliant.

The Budget also included a significant one time increase in 2000-2001 of \$50M for the establishment of a Sustainable Development Technology Fund. Multi-year increases were also announced in the Budget starting in 2000-2001 including: \$20M for species at risk; \$8M for the Great Lakes Action Plan and \$7M for enhanced enforcement.

Planned spending also shows a decline in 2002-2003 as a result of a decrease (\$20.5M) in existing project funding for the environmental clean-up of the Sydney Tar Ponds contaminated site.

2.3 MODERNIZING OUR MANAGEMENT PRACTICES

Environment Canada is continuing to modernize its management practices to ensure that it has value-based, results-oriented decision making at its core.

Environment Canada has been chosen as one of the eleven pilot departments participating in the government-wide Modernization of Comptrollership initiative. The Department is embracing this opportunity to continue modernizing its management practices to ensure that it has value-based, results-oriented decision making at its core. To do this, it will better link financial and non-financial information, and it will strengthen its risk management and performance measurement approaches and its human resources management. This will improve decision making in the Department, and will provide a citizen-centered focus, as the Department will be able to more clearly communicate whether it has achieved the results and benefits it expected, and explain to Canadians how it has spent its resources in obtaining them. A description of the activities Environment Canada is undertaking as part of this initiative can be found in Section 3.4.

2.4 TURNING OUR CHALLENGES INTO OPPORTUNITIES

In order to provide environmental leadership federally, nationally and globally, Environment Canada must turn the challenges of its complex operating environment into opportunities to effect change. Below is a brief description of some of the challenges the Department faces and the strategies it uses to contribute to ensuring Canadians continue to enjoy their high quality of life.

Shared jurisdiction for the environment

Jurisdiction in environmental matters is shared by the federal, provincial and territorial governments.

In Canada, jurisdiction in environmental matters is shared by the federal, provincial and territorial governments. In order to achieve effective environmental results, Environment Canada must facilitate the development of a shared environmental agenda in genuine partnership with other federal departments, and with all provinces and territories.

Guiding principles for facilitating cooperation on the environment amongst Canadian governments are articulated in the Canada-Wide Accord on Environmental Harmonization, signed in January 1998, by Environment Ministers across Canada, except Quebec. The vision of the Harmonization Accord is governments working in partnership to achieve the highest level of environmental quality for all Canadians. The guiding principles in this Accord were further reinforced in February 1999 when all provincial and territorial governments (except Quebec) and the federal government signed the Framework to Improve the Social Union for Canadians. This Framework describes

the new partnership between governments on social programs and policies, and sets out how governments should work together to better serve Canadians.

In addition to the shared jurisdiction of the environment amongst federal, provincial and territorial governments, self-government and comprehensive land claim agreements are acknowledging Aboriginal jurisdiction in the area of environmental management. Environment Canada is actively encouraging the development of a Protocol of Understanding to formalize the relationship between the Canadian Council of Ministers of the Environment and the leadership of the five national Aboriginal organizations.

Capacity of our partners

All orders of government, nongovernmental organizations, and communities large and small are facing significant financial pressures. As a result, capacity of municipal and provincial governments, newly recognized Aboriginal governments, and nongovernment organizations to deal with environmental issues is becoming more and more limited, increasing expectations of Canadians for leadership and action by Environment Canada. With increasing responsibilities and expectations, and the decrease in resources that the Department has faced in recent years, Environment Canada is challenged with ensuring its efforts and resources add the right tools to the tool box to support sound decision making and sustainable development. Environment Canada must actively engage the progressive, environmentally aware, leaders of the private sector to help it advance its priorities.

Capacity of our partners to deal with environmental issues is becoming more and more limited.

Global sources of environmental risk

International activities are increasingly a significant source of environmental risk. Climate change, urban smog, loss of species, and the transport of pollutants to the arctic, are examples of the way global pressures are affecting the quality of life of Canadians. Environmental issues such as these have led to an unprecedented degree of global action, since no nation acting alone can ensure national or global environmental security. Environment Canada must work in partnership with other nations and international organizations to monitor the environment and conduct environmental research and development, to tackle problems at their source, to effectively negotiate international agreements, and to provide markets for Canadian environmental technology and expertise. To maintain a leadership position in international negotiations, Environment Canada must play a role in ensuring Canada effectively implements its international obligations already in place.

No nation acting alone can ensure national or global environmental security.

Global trade agreements

Trade agreements are challenging governments to find new ways of undertaking environmental responsibilities.

Global trade agreements are challenging governments to find new ways of undertaking environmental responsibilities. While these agreements do not undermine our ability to protect the environment, Environment Canada must continue to work closely with its federal colleagues and the international community to ensure efforts aimed at improved productivity, economic efficiency and national competitiveness complement efforts to enhance domestic and global environmental conditions.

Science capacity

Canadians are demanding that government impose a reasonable, diligent and precautionary standard of action to minimize risk to their health, their environment and their businesses.

Recent government decisions in the areas of natural resource management (e.g., fish stocks) and public health and safety (e.g., the blood supply) have contributed to increasing public concern regarding the ability of government to effectively use scientific advice in decision making. Canadians are demanding that government impose a reasonable, diligent and precautionary standard of action to minimize risk to their health, their environment and their businesses. It is becoming increasingly difficult for Environment Canada, like other federal science-based departments, to address current and new areas of strategic importance, to generate scientific information for public policy issues and for international needs, and to leverage capacity in partnership with others.

In the October 1999 Speech from the Throne, the federal government recognized the problem with science capacity and called for enhancement of the knowledge infrastructure and more specifically for strengthening the government's capacity for conducting environmental science research. In December 1999, the Council of Science and Technology Advisors, in their report on Building Excellence in Science and Technology, concluded that there is a science capacity problem in the federal government that will require new resources if the federal government is to fulfill the mandates entrusted to it by the Canadian people.

If Environment Canada is to continue to be a credible source of unbiased and reliable scientific expertise to guide sound policy and decision making in the public interest, it must assess options for addressing science capacity challenges related to human resources and infrastructure. It must continue to be proactive in championing strategic domestic and international research partnerships in order to tackle problems of high priority to society.

2.5 DELIVERING THE NATIONAL VISION AT THE LOCAL LEVEL

Making sustainable development a reality means **involving Canadians** in environmental decision making and giving them the tools to build environmental thinking into their daily decisions, whether at work or at home. Program delivery in Environment Canada is achieved by drawing on the Department's scientific and technical knowledge combined with a strong regional understanding of the social, cultural and economic factors that shape attitudes, perceptions and behaviour.

Environment Canada's regional offices deliver the national vision for the environment at the local level.

Environment Canada's regional offices deliver the national vision for the environment at the local level. They work in partnership with provinces, territories, communities and others across the country and encourage them to set goals sensitive to local and regional ecosystems. They provide science-based information, tools for action, and opportunities for sharing of experiences and learning. Moreover, they help build the capacity of all the players involved to effect changes that will improve their quality of life.

2.6 ACHIEVING RESULTS THROUGH OUR PEOPLE

Environment Canada's successes are the result of a staff dedicated to respecting, conserving and protecting the Canadian environment. They are research scientists, meteorologists, climatologists, hydrologists, biologists, chemists, engineers, skilled technicians, law enforcement officers, policy analysts, economists, social scientists, human resource specialists, communications specialists, financial and administration advisors, information technology professionals, education and community outreach experts, and community project managers.

Environment Canada's successes are the result of a staff dedicated to respecting, conserving and protecting the Canadian environment.

They work to improve the quality of life of all Canadians by:

- creating, applying and transferring new scientific and technological knowledge;
- operating national infrastructure such as water, air and climate monitoring networks, research facilities, and weather forecasting services;
- building public understanding through development of science assessment and scientific tools, through reporting on the state of the environment and through electronic and traditional communications;

- building community capacity through partnerships, knowledge generation, ecosystem initiatives, outreach and support, consultations, increasing environmental literacy and engaging youth;
- prescribing the actions of others through legislation, regulation and permitting;
- managing national wildlife areas and migratory bird sanctuaries, conserving species, restoring habitat and cleaning up contaminated sites; and
- representing Canada's environmental interests abroad, by leading the development of national positions on environmental issues, developing protocols and conventions for global action and through international scientific cooperation on emerging issues.

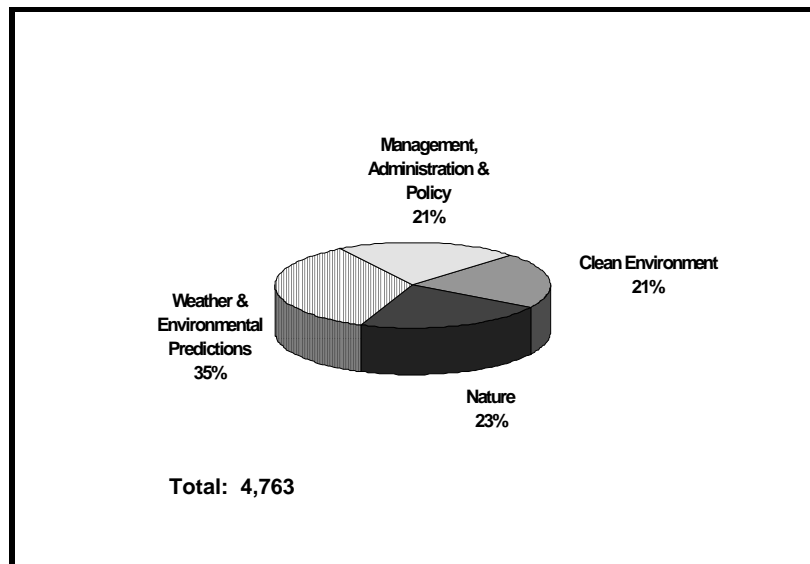


Figure 2: Distribution of Employees by Business Line

The distribution of Environment Canada's employees by business line for 2000-2001 is displayed in Figure 2. A more detailed distribution of employees by business line and regions can be found in Table 5.6 of Section 5.

2.7 SETTING OUR PRIORITIES

In recognition of the areas of greatest risk to the health and safety of Canadians and the health of our environment, the Minister of the Environment has set the following priorities as a focus for action:

- Species at risk;
- Climate change;
- Clean air and water; and
- Weather - safeguarding Canadians

Species at Risk

Canada's natural heritage is one of our most valued possessions. Our country is blessed with great natural beauty, and a vast diversity of marine and wildlife species, many of them unique to Canada. Unfortunately, species are becoming endangered in Canada, as elsewhere around the world, at an alarming rate. In recognition of the duty that Canadians have to the world and to future generations to protect our natural heritage, the government committed, in the Speech from the Throne in October 1999, to introducing a *Species at Risk Act* as one of its first environmental priorities for the new millennium. Funding provided in Budget 2000 for species at risk supports this commitment.

Species are becoming endangered in Canada at an alarming rate.

Environment Canada, with its partners, will focus on protecting species at risk and their critical habitat, will create a climate which makes responsible stewardship an easy choice, and will increase conservation efforts on migratory birds.

Climate change

Climate change has been called the most significant environmental problem the world has ever faced. One of the causes of climate change is the increase in emissions of greenhouse gases through the burning of fossil fuels (such as coal, oil, and natural gas) which is raising the average global temperature. These changes in global temperature in turn directly affect precipitation, wind patterns, and ocean circulation causing changes in climate and, consequently, ecosystems. Possible consequences of climate change in Canada include more severe weather events like droughts, winter storms and tornadoes; flooding and erosion in coastal regions; decreased water levels in the Great Lakes, greater risk from pests, diseases and fires in our forests and farms; loss of fish and wildlife habitat leading to loss of species; and increased air pollution.

Climate change has been called the most significant environmental problem the world has ever faced.

Over the last year, at the direction of First Ministers, more than 450 experts from government, the private sector, universities and environmental groups have worked together to analyze opportunities and barriers to addressing climate change, and to identify options for consideration in the development of Canada's national implementation strategy. In addition, over 200 projects have received contributions, totaling \$64 million, from the Climate Change Action Fund to support actions to reduce greenhouse gas emissions and to

increase our understanding of the Kyoto Protocol and Canada's implementation actions. Through technology demonstration projects, teacher's kits, public information kits, a climate change website, and print and radio advertising, Environment Canada has informed millions of Canadians about climate change, how it affects them, their business and their environment, and what actions they can take to reduce greenhouse gas emissions.

Canada will work with other governments and citizens to meet Canada's commitment under the Kyoto Protocol.

The Speech from the Throne in October 1999, reaffirmed that Canada will work with other governments and citizens to meet Canada's commitment under the Kyoto Protocol to reduce greenhouse gas emissions. Additional funds of more than \$500 million government-wide were provided in Budget 2000 for a number of critical areas - promoting technology innovation, enhancing climate and atmospheric research, helping municipalities take action, leading by example, renewing current programs that have been highly successful and investing in international emission reductions. Environment Canada will work with other federal departments, provinces, territories and stakeholders toward a domestic agenda to meet international emission reduction obligations and to negotiate international rules to implement the Kyoto Protocol that will meet Canada's interests; and it will co-lead with Natural Resources Canada, the development of a federal House in Order Strategy to address the reduction of greenhouse gas emissions from federal operations. Environment Canada scientists will continue to work closely with provinces, industry, universities, and international governments and institutions to monitor climate trends, understand how and why our climate is changing and the impacts that these changes will have on Canadians, their businesses and the natural environment. Through public outreach and education, Environment Canada will continue to build greater understanding by Canadians of climate change and the roles that they can all play in reducing greenhouse gas emissions.

Clean air and water

At least 5000 people die prematurely each year from the effects of poor air quality.

Air and water are the most basic of our needs, and impacts on them affect our day-to-day lives, our health and the health of our children. Currently in Canada, at least 5000 people die prematurely each year from the effects of poor air quality. Children, the elderly, and people with respiratory problems such as asthma and bronchitis, are particularly at risk. Even healthy people who exercise vigorously outdoors in urban areas are vulnerable. Our urban water consumption is second only to that of the United States. Beach closures, fish kills and shellfish bed closures are resulting from pollution and increasing frequency of floods, the latter causing contamination of water with sewage, silt and other debris. The estimated health care costs related to water pollution are \$300 million per year in Canada.

In the Speech from the Throne in October 1999, the government acknowledged the importance of ensuring that we have clean air and water to maintain the quality of life in our cities and rural communities. Environment Canada will increase efforts to improve our air quality by working with communities, provinces, industry, and other countries to focus actions to protect Canadians; it will focus its research efforts on improving understanding of the impacts of air pollution on human health; and it will support development and use of emission reduction technology.

Environment Canada will use the new tools in the *Canadian Environmental Protection Act, 1999*, to ensure a pollution prevention approach and to set and enforce tough pollution standards to keep our air and water clean. It will engage provinces, territories and communities to work together to ensure healthy aquatic ecosystems such as the Great Lakes. It will focus research efforts on detecting changes in water quality and on predicting fluctuations in water quantity.

Weather - Safeguarding Canadians

Weather-related disasters in Canada have resulted in over \$16 billion in economic losses over the past decade. For example, losses due to the prairie drought were \$3 billion, the 1998 ice storm \$2.5 billion, the Saguenay flood \$1.2 billion, the Red River flood \$400 million and the British Columbia south coast blizzard \$200 million. In the absence of adequate warnings, the impacts of weather and water hazards would be much more devastating. Advance warnings give Canadians a chance to take action to safeguard themselves, their property and their businesses and reduce the social and economic consequences of natural hazards.

Weather-related disasters in Canada have resulted in over \$16 billion in economic losses over the past decade.

Facing the threats and uncertainties of a changing climate and increased incidence of natural hazards, Canadians need a reliable, effective, weather and water warning service. Governments need this service in order to understand and anticipate the changes taking place in the environment so they can act to save lives and enhance the quality of life of all Canadians.

Environment Canada will renew its national weather service to ensure its long-term viability. It will begin the lengthy process of ensuring it has the employees and the knowledge base to maintain its reputation for scientific excellence, and modernizing the extensive monitoring and forecasting infrastructure required for the quality weather warnings and advisory services.

Specific strategies and key commitments to address these priorities are described by business line in Section 3.

3. BUSINESS LINE PLANS

This Section describes, by each of Environment Canada's four business lines, the long-term results being sought, and the strategies and key commitments to achieve those long-term results. Particular emphasis is placed on how the strategies and key commitments contribute to the Minister's priorities. Table 3.1, at the end of this Section, specifies measurable targets to be achieved over the planning period for Environment Canada's long-term indicators of environmental improvement or social change.

It is essential that Environment Canada work in partnership with others to help predict environmental problems and to develop and implement innovative solutions to those problems. Table 3.2 summarizes Environment Canada's key partners and the contributions they make towards achieving our long-term results.

Regulatory initiatives which will be used to help achieve key commitments are listed in Table 6.1.

3.1 NATURE BUSINESS LINE

In the Nature business line, Environment Canada acts to conserve biological diversity in healthy ecosystems by building shared sustainability strategies for Canada's wildlife and ecosystems, contributing to scientific understanding of ecosystems, and developing partnerships to improve the health of nationally significant ecosystems. In this business line, Environment Canada discharges federal responsibilities for managing wildlife (particularly migratory birds and species at risk), fresh water, and wetland resources, and also develops the science and technology policies and practices used throughout the Department. This business line is the primary contributor to the Minister's priority on species at risk, and is a key contributor to his priority on water.

In the Nature business line, Environment Canada acts to conserve biological diversity in healthy ecosystems.

Environment Canada, through the Nature business line, aims to achieve, in partnership with others, three long-term results:

- conservation of biological diversity;
- understanding and reduction of human impacts on the health of ecosystems; and
- conservation and restoration of priority ecosystems.

Net Planned Spending

(\$ millions)	Forecast Spending 1999-2000 *	Planned Spending 2000-2001	Planned Spending 2001-2002	Planned Spending 2002-2003
Results				
Conservation of biological diversity.	48.7	68.1	85.2	89.9
Understanding and reduction of human impacts on the health of ecosystems.	42.1	41.2	39.1	39.1
Conservation and restoration of priority ecosystems.	55.6	63.1	62.9	62.9
Gross Planned Spending	146.4	172.4	187.2	191.9
Less: Respendable Revenue	(6.3)	(6.9)	(7.2)	(7.1)
Net Planned Spending	140.1	165.5	180.0	184.8

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

The increase in resource levels are primarily related to new funding to protect species at risk beginning in 2000-2001 at \$20M and rising to \$40M in 2002-2003. As well, new resources for the Great Lakes Action Plan (\$8M/yr) are included on an ongoing basis beginning in 2000-2001.

LONG-TERM RESULT

✓ Conservation of biological diversity.

Conserving biodiversity and sustainably using biological resources are essential parts of Canada's effort to achieve sustainable development. Pressures on biodiversity, in Canada and world-wide, have resulted in significant declines in many species of animals and plants. In Canada, three hundred and thirty-nine species of plants and animals are considered at risk, with 86 of these species being endangered. The primary reason for this loss of species is destruction of habitat.

In recent years, Environment Canada acted to conserve biodiversity by renewing and signing, with our partners the United States and Mexico, the North American Waterfowl Management Plan. This Plan restores waterfowl populations in North America by securing, enhancing, and managing wetland and upland habitat across the continent. Environment Canada developed a work plan to implement its role under the federal, provincial and territorial Accord for the Protection of Species at Risk in Canada. Environment Canada also communicated to Canadians and the international community the progress Canada has made in conserving biodiversity through

The North American Waterfowl Management Plan restores waterfowl populations across the continent.

releasing Canada's first National Report on the Implementation of the Convention on Biological Diversity.

Over the next three years, Environment Canada will focus its efforts in conserving biological diversity through:

- protecting species at risk, and
- increasing targeted wildlife populations to healthy levels.

To **protect species at risk and their critical natural habitat**, Environment Canada will continue to build on the Accord for the Protection of Species at Risk in Canada. The next step for the federal government in meeting its commitments under this Accord will be the introduction in Parliament of the proposed *Species at Risk Act* in 2000. This Act will give the federal government a variety of tools to enable it, in cooperation with provincial and territorial governments, to ensure no species becomes extinct in Canada by identifying which species are at risk; ensuring that endangered and threatened species are protected; ensuring that there is a long-term plan for species restoration and survival; and ensuring that species habitat is protected. To achieve these goals, Budget 2000 announced \$90 million over the next three years and \$45 million in subsequent years. This funding will also assist Environment Canada in the development and implementation of **stewardship and incentive programs** to allow private landowners, land users, citizens, Aboriginal peoples and organizations to become directly involved in protecting species and their habitat. Budget 2000 announced tax incentives through the Ecological Gifts Program. This program will further encourage Canadians to make a contribution to nature by donating ecologically sensitive lands and then benefit from a reduction in capital gains tax.

An important component of conserving biological diversity is preventing species from becoming at risk. This means managing populations which are in decline as well as those that are overabundant due to loss of normal ecosystem checks. Environment Canada, which is responsible for managing migratory birds, is active in bird conservation, i.e., keeping common birds common. As most conservation actions for birds also involve actions to protect their habitat, other types of biodiversity benefit as well. Over the next three years, Environment Canada will implement the North American Bird Conservation Initiative. This Initiative was developed through the North American

Recovering Species

Canadian efforts to recover species at risk are paying off. In southern Ontario, reintroductions of the peregrine falcon (*anatum*) have been successful in natural areas along Lake Superior and urban areas where the birds nest on tall buildings. In 1998, Peregrines nested along the Niagara River, the first known nesting on a natural site in southern Ontario in over 30 years. Environment Canada continues its efforts on other species at risk such as the loggerhead shrike and king rail.

South Okanagan

The south Okanagan and lower Similkameen valleys form a narrow corridor between the western U.S. deserts and the grasslands of central British Columbia essential to the movement of wildlife. The ecosystem is home to a high concentration of species at risk. Environment Canada's Pacific and Yukon Region is developing a Program, with other partners, to conserve this corridor and recover the at-risk species. The Department will help provide the tools to enable the community to conserve the many areas of critical habitat—areas that provide natural and visual features fundamental to the economy and social fabric of this desert country.

Commission on Environmental Cooperation and expands Canada's cooperative bird conservation efforts with the United States and Mexico to include all species of birds and their habitat. Environment Canada will focus its efforts to **ensure healthy population levels** for several species of migratory birds such as black ducks, and trumpeter and tundra swans.

Coteau Grasslands Initiative

Building on the success of the North American Waterfowl Management Plan, the Prairie Habitat Joint Venture and its U.S. counterpart the Prairie Pothole Joint Venture, a new program is being developed. The Coteau Grasslands Initiative will address the needs of all prairie birds - waterfowl, shorebirds, songbirds and colonial waterbirds - using an integrated landscape approach. In order to achieve success, North American partners will approach this initiative on a sustainable landscape basis and thus will involve all land owners and users.

Environment Canada's **Regions** will support the delivery of biodiversity conservation needs in the context of regional needs. For example, Atlantic, Quebec and Prairie and Northern Regions will identify population trends for selected species of sea ducks; Quebec and Prairie and Northern Regions will manage overabundant populations of snow geese, Ontario Region will manage the same issue for Canada geese; and Atlantic and Pacific and Yukon regions will improve knowledge of coastal, marine and interior migratory birds. Regions will also continue to enforce federal wildlife

legislation to protect migratory birds and species at risk.

LONG-TERM RESULT

- ✓ **Understanding and reduction of human impacts on the health of ecosystems**

Securing a healthy environment for Canadians is dependent on our ability to understand how human-induced stresses on the environment affect Canada's ecosystems.

Securing a healthy environment for Canadians is dependent on our ability to understand how human-induced stresses on the environment affect Canada's ecosystems. Environment Canada advances scientific knowledge and understanding by conducting ecosystem research and monitoring and developing scientific tools such as environmental indicators and guidelines to assess and measure the state of ecosystem health.

Significant achievements over the past year included the initiation of several research projects under the Toxic Substances Research Initiative. This initiative is a collaborative undertaking with Health Canada to study the link between toxic substances and their effects on human health and the environment. As well, Environment Canada completed its assessment of municipal wastewater effluents, one of eight priority issues which the Department is assessing.

Over the next three years, Environment Canada will focus its efforts in understanding and reducing human impacts on the environment by:

- advancing the scientific knowledge of environmental issues of concern and communicating it to Canadians, and
- strengthening environmental science capacity.

On advancing the scientific knowledge of environmental issues of concern and communicating it to Canadians,

Environment Canada will conduct research and monitoring to detect and understand changes in ecosystems that could represent a threat to human health and the environment. New knowledge will be developed on emerging issues such as the impacts of endocrine disrupting substances and of biotechnology. By 2001, Environment Canada will complete its review of departmental monitoring programs in order to identify essential monitoring needs, current capacity and gaps. Moreover, by 2001, options will be developed for establishing a status and trends reporting system. This system will detect and inform Canadians of early changes in ecosystems so that they can take timely corrective actions. During the planning period the Department will also publish eight science assessments on key environmental issues, including the impacts of nutrients on the Canadian environment, the impact of bulk water removal and water diversion on aquatic ecosystems, the ecosystem effects of genetically modified organisms, a literature search of cumulative impacts, and the adequacy of the pulp and paper effluent regulations. By 2002, Environment Canada will also provide science-based advice and solutions to decision-makers on current environmental issues such as new techniques and approaches for sediment remediation, 20 science-based standards of environmental quality, and new ecosystem health indicators.

On strengthening environmental science capacity, Environment Canada will identify models for environmental science and technology governance; examine options for improving the connection between science advice and policy development; and develop recommendations to address science capacity issues related to human resources and infrastructure.

Environment Canada's **Regions** will support the understanding of human impacts on ecosystems in the context of regional needs. For example, Atlantic Region will examine the marine impacts from oil and gas development, it will also work with model forest research partners to influence the development of sustainable forest management practices; Pacific and Yukon Region will develop, by 2002, 12 environmental indicators on priority issues in their region in

Atlantic Cooperative Wildlife Ecology Research Network

The Atlantic Cooperative Wildlife Ecology Research Network (ACWERN) has entered its second five-year term with confirmation of funding support from the National Science and Engineering Research Council. This network builds on partnerships and brings together the ecological science capacities of Environment Canada and three universities-the University of New Brunswick, Acadia University and Memorial University. This network conducts research into a broad range of ecological questions that support Environment Canada's priorities and provide a highly qualified workforce in wildlife ecology with thirty doctoral, masters and honours students graduated to date, two of whom are presently working with Environment Canada, Atlantic Region.

addition to the 13 environmental indicators which they already track, such as levels of polychlorinated biphenyls in eggs of cormorants and population trends of seven species of interest in the region.

LONG-TERM RESULT

✓ Conservation and restoration of priority ecosystems.

Canadians face significant challenges in addressing freshwater sustainability. Environment Canada responds to these challenges by providing federal leadership and expertise in conserving and restoring Canada's water resources and aquatic ecosystems.

Last year, Environment Canada, in collaboration with a number of other federal departments, the provinces and territories, and a wide range of other partners, focused its efforts on developing a strategy to prohibit bulk water removals from Canadian water basins, moving its ecosystem initiatives into their next phases, and launching the Northern and Georgia Basin ecosystem initiatives.

Over the next three years, Environment Canada will focus its efforts for conserving and restoring priority ecosystems on:

- providing leadership in freshwater management, and
- enhancing ecosystem initiatives.

Environment Canada will provide **federal leadership in freshwater management** by actively pursuing further endorsement of the Canada-wide Accord for the Prohibition of Bulk Water Removal from Drainage Basins in 2000. Environment Canada will seek the advice of Canadians on how to better conserve and protect our freshwater resources through release of a federal discussion paper in 2000. During the planning period, Environment Canada will pursue a renewed Federal Water Policy and will work with other levels of government and Canadians to develop a National Freshwater Strategy to protect and conserve Canada's waters.

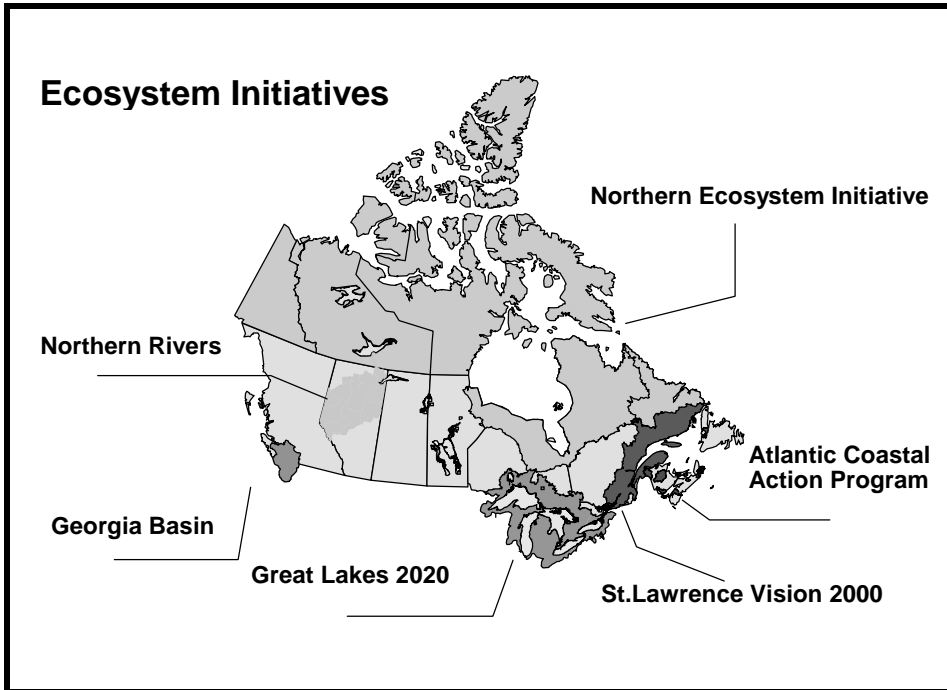
Ecosystem initiatives are cooperative efforts on targeted ecosystems to address and solve complex environmental issues as identified and agreed upon by stakeholders. Over the years, Environment Canada and its partners have produced a number of environmental

Environment Canada will seek the advice of Canadians on how to better conserve and protect our freshwater resources.

Biosphere's Ecowatch Network

The Biosphere's Ecowatch Network was set up to promote and support citizen involvement in environmental action. The Network is currently centralized in Quebec and Ontario and has close to 80 member organizations (citizens' groups, environmental groups, schools, municipalities, etc.) which participate actively in protecting water and the environment within the Great Lakes / St. Lawrence ecosystems, resulting in over 140,000 hours of observation and action annually. In the next few years, the Network will be expanded to other regions in order to promote the involvement of more Canadians in protecting their ecosystems.

improvements through ecosystem initiatives: 65,000 hectares of migratory bird habitat protected in the Fraser Basin; one and a half million hectares of park land protected in the Great Lakes region; action plans to enhance the sustainability of 13 Atlantic communities developed; and toxic effluent from 50 priority industrial plants along the St. Lawrence River reduced by 96%.



In order to **enhance ecosystem initiatives**, Environment Canada will commence the next phase of the Great Lakes Program, **Great Lakes 2020**, in 2000. Budget 2000 has augmented spending for the Great Lakes initiative by an additional \$8 million per year. This investment will enable the government to do its part to restore and maintain the physical and biological integrity of the five Areas of Concern in the Great Lakes Basin Ecosystem that we share with the United States. This investment will also permit completion of all federal actions necessary to restore a further eight areas of concern within Canadian jurisdiction, and will allow us to make substantial progress on restoring Toronto, Hamilton and Port Hope harbours. Full clean-

**Community Involvement
Priority Intervention Zones (ZIP) program**

Resulting from the St. Lawrence Action plan, the Priority Intervention Zones (ZIP) program acknowledges the importance of riverside populations for the protection, conservation, restoration and enhancement of the St. Lawrence consistent with sustainable development. This unique alliance allows riverside communities along the St. Lawrence and Saguenay rivers to identify their local priorities for action, to develop their own ecological rehabilitation action plans, and to concretely participate in their implementation. Another ZIP Committee will soon be set up bringing us closer to a complete coverage of the St. Lawrence ecosystem.

Nanaimo Estuary Water Quality Agreement

As part of the Georgia Basin Ecosystem Initiative, Environment Canada and the Snuneymuwx First Nation (SFN) signed an agreement to work towards restoring water quality in the Nanaimo Estuary. The 3-year agreement commits SFN to monitoring water quality and evaluating point and non-point sources of contamination in the estuary. Environment Canada staff will help prepare SFN to manage and improve water quality in their own shellfish harvesting areas. Eventually, improved water quality should allow for a sustainable harvest of clams from the estuary.

up of all of these areas will also require actions by partners as well.

Environment Canada will continue to conduct research as part of its efforts to conserve and restore priority ecosystems. For example, over the next three years, Pacific and Yukon Region will assess endocrine disrupting effects in pilot watersheds and key wildlife indicators; Prairie and Northern Region will assess natural and anthropogenic impacts of oil sands contaminants; Quebec Region will determine the possible origin and atmospheric contribution of airborne toxic substances to the St. Lawrence River; Atlantic Region will, through the Science Horizons and Science

Linkages programs, provide scientific research support to the implementation of Atlantic Coastal Action Program Comprehensive Environmental Management Plans.

Environment Canada will report from a national perspective on ecosystem initiatives to better communicate the results achieved through partnerships at the community level. To further support action towards more sustainable communities across Canada, Environment Canada will continue to provide funding support, resources and tools for community-based environmental projects through Eco-Action 2000 and other outreach initiatives.

In support of federal initiatives in the North, Environment Canada will support Indian and Northern Affairs Canada in the development of a Northern Sustainable Development Strategy in 2000.

For more information on this business line, see:

Canada's plan for protecting species at risk at
<http://www.ec.gc.ca/sara/index.html>

Compendium of Ecosystem Health Goals, Objectives and Indicators at
http://www3.ec.gc.ca/cehi/en/index_e.htm

Canada's freshwater resources at
<http://www.ec.gc.ca/water/index.htm>

Ecosystem Initiatives overview at
<http://www.ec.gc.ca/ecosyst/overview.html>

Atlantic Coastal Action Program at
http://www.ns.ec.gc.ca/community/acap/index_e.html

St. Lawrence Action Plan Vision 2000 at
<http://www.slv2000.qc.ec.gc.ca/slv2000/english/indexeng.htm>

Great Lakes 2000 at
<http://www.cciw.ca/glimr/intro-e.html>

Northern Rivers Ecosystem Initiative at
<http://www.ec.gc.ca/ecosyst/overview.html>

Georgia Basin Ecosystem Initiative at
http://www.pyr.ec.gc.ca/GeorgiaBasin/gbi_eIndex.htm

Northern Ecosystem Initiative at
<http://www.ec.gc.ca/ecosyst/overview.html>

3.2 CLEAN ENVIRONMENT BUSINESS LINE

In the Clean Environment business line Environment Canada acts to protect Canadians from domestic and global sources of pollution.

In the Clean Environment business line Environment Canada acts to protect Canadians and their environment from domestic and global sources of pollution. Emphasizing a pollution prevention approach, it leads in the development of shared, long-term strategies to reduce the impacts on the environment and human health of substances released as a result of human activity. It is also the primary contributor to the Minister's priorities of climate change and clean air and water.

Environment Canada, through the Clean Environment business line, aims to achieve two long-term results:

- reduced adverse human impact on the atmosphere and on air quality; and
- understanding, and prevention or reduction of the environmental and human health threats posed by toxic substances and other substances of concern.

Net Planned Spending

(\$ millions)	Forecast Spending 1999-2000 *	Planned Spending 2000-2001	Planned Spending 2001-2002	Planned Spending 2002-2003
Results				
Reduced adverse human impact on the atmosphere and on air quality.	93.8	97.1	63.0	63.0
Understanding, and prevention or reduction of the environmental and human health threats posed by toxic substances and other substances of concern.	133.6	134.2	123.3	101.8
Gross Planned Spending	227.4	231.3	186.3	164.8
Less: Respendable Revenue	(7.0)	(7.4)	(7.1)	(7.1)
Net Planned Spending	220.4	223.9	179.2	157.7

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

The decrease between 2000-2001 and 2001-2002 is primarily due to the one-time funding to create a Sustainable Development Technology Fund (\$50M) in 2000-2001. The change in spending levels between 2001-2002 and 2002-2003 is primarily related to decrease in existing project funding for the environmental clean-up of the Sydney Tar Ponds (\$21M).

LONG-TERM RESULT

- ✓ **Reduced adverse human impact on the atmosphere and on air quality.**

Environment Canada focuses on three broad categories of air pollutants, although all air issues are closely interconnected and have common sources and common health and environmental impacts. First, there are those pollutants that alter the atmosphere itself; the changes that result may then affect human and environmental health. This category includes emissions of greenhouse gases which are believed to cause climate change, and emissions of substances that deplete the stratospheric ozone layer. Second, some pollutants use the air as a pathway, with most environmental and human health effects arising after they are deposited on land or in water, often at considerable distances from their source. Examples include acid rain and persistent organic pollutants. Third, there are pollutants that reduce the quality of the air we breathe. Ground-level ozone and particulate matter are significant pollutants of this type. The ease with which air pollutants can travel across borders means that addressing air issues requires cooperation both internationally and across Canada. Increasingly, Environment Canada seeks to take actions with its partners that address several pollutants simultaneously, thus providing multiple benefits for the same investment.

During the past year Environment Canada concentrated its efforts on air issues in three critical areas: climate change, air quality and acid rain. Environment Canada, in partnership with Natural Resources Canada and the federal Climate Change Secretariat, made significant progress toward a National Implementation Strategy to meet Canada's commitment to reduce emissions of greenhouse gases. On air quality, regulations were put in place to control sulphur levels in gasoline and, with the passage of the *Canadian Environmental Protection Act, 1999*, Environment Canada gained additional tools and authorities for the management of emissions from vehicles and engines. Internationally, Canada became the first country to ratify two new Protocols to reduce the long-range atmospheric transport of heavy metals and persistent organic pollutants. On acid rain, federal and provincial Ministers of Energy and Environment signed the Canada-wide Acid Rain Strategy for Post-2000, which will reduce the remaining effects of acid rain in eastern Canada and ensure it does not become a problem in other parts of the country.

Over the next three years, Environment Canada will continue to focus its actions to reduce adverse human impact on the atmosphere and on air quality on:

The ease with which air pollutants can travel across borders means that addressing air issues requires cooperation both internationally and across Canada.

Canada was the first country to ratify 2 new international Protocols to reduce the long-range atmospheric transport of heavy metals and persistent organic pollutants.

- climate change,
- air quality, and
- acid rain.

Environment Canada advances technologies that reduce greenhouse gas emissions.

Climate change is a significant global challenge involving all four of Environment Canada's business lines. The Clean Environment business line is responsible for managing Environment Canada's contributions to the development of the National Implementation Strategy, preparing inventories of Canadian greenhouse gas emissions, and advancing technologies that reduce greenhouse gas emissions. Environment Canada is working with other federal departments, provinces and territories to develop a National Implementation Strategy, and a three-year business plan. These

documents, which are expected during fiscal year 2000-2001, will outline Canada's strategies to reduce emissions and to adapt to climate change in key sectors of the economy. Environment Canada will also continue to manage the public education and outreach component and co-manage (with Natural Resources Canada) the science, impacts and adaptation and the technology early action measures components of the Climate Change Action Fund. Additional funds were provided in Budget 2000 for the extension of the Climate Change Action Fund. Furthermore, the federal Budget provided an initial \$100 million for the creation in the coming year of a Sustainable Development Technology Fund to focus on environmental technologies, in particular those related to climate change and air quality solutions.

Montreal 2000 Electric Vehicles Project

In cooperation with fourteen other partners, Environment Canada's Quebec Region is taking part in the evaluation of the first light electric vehicles designed for organizations that have vehicle fleets. The project is intended to show the feasibility of adopting an alternative to fossil fuels. The use of electric vehicles will make it possible to reduce carbon dioxide emissions by more than 3.8 tonnes per vehicle per year.

Environment Canada will take decisive action in 2000-2001 to improve **air quality**. Canada-wide standards for particulate matter and ozone, two components of smog, are expected to be endorsed by the Canadian Council of Ministers of the Environment in 2000, with development of joint initial actions beginning immediately. Federal actions toward meeting these Canada-wide standards will be taken through the Federal Phase 3 Smog Plan, to be released in early 2000 in partnership with Natural Resources Canada, Transport Canada and Agriculture and Agri-Food Canada. Through its focus on actions with multiple benefits, the Federal Plan will address acid rain and certain toxic substances in addition to smog. Since much of the pollution which contributes to poor air quality originates beyond our borders, Environment Canada will seek agreement with the United States on an Ozone Annex to the Canada/U.S. Air Quality Agreement. By reducing nitrogen oxide emissions, this agreement will also help to address acid rain. The Department will also continue to support development of technologies and management options that reduce polluting emissions and will work with provinces and

Environment Canada will take decisive action in 2000-2001 to improve air quality.

others to inform Canadians of the effects of air pollutants and how their actions may reduce these effects.

Despite years of effort, **acid rain** continues to be a serious problem. Even if current Canadian and U.S. acid rain programs are fully implemented by 2010, about 800,000 square kilometres of eastern Canada will still receive harmful levels of acid rain. The Canada-wide Acid Rain Strategy for Post-2000, signed in 1998, commits federal, provincial and territorial governments to work in partnership to achieve reductions in acid deposition. Targets and timetables for further reductions of sulphur dioxide emissions will be presented to Ministers by the end of 2000.

Hazardous air pollutants are toxic substances that can travel long distances in the air, causing effects on human health and the environment at considerable distances from their source. Environment Canada will press for a global agreement by the end of 2000 to control persistent organic pollutants under the United Nations Environment Program. Canada, the United States and Mexico will also continue to work together through the North American Agreement on Environmental Cooperation to reduce the long-range transport of air pollutants. Budget 2000 commits a further \$20 million to projects which will assist developing countries and economies in transition in reducing or eliminating the release of persistent organic pollutants that may endanger the health of Canadians, particularly Aboriginal peoples living in the North.

In order to support actions on clean air and climate change, Environment Canada conducts **research and development** including: evaluating greenhouse gas mitigation technologies; assessing the impacts of climate change on northern water resources; understanding the importance of various sources of hazardous air pollutants, and their concentrations, interactions and effects in the Canadian environment; identifying factors delaying recovery of aquatic ecosystems in response to lower emissions of acid rain; and assessing the risks to human health and the environment posed by particulate matter and other contaminants.

Environment Canada's **Regions** will support the delivery of national priorities in the context of regional needs. For example, Ontario Region will contribute to action on climate change through wind power demonstration projects and energy audits of small and medium-sized businesses; Prairie and Northern Region will participate in the

Eco-Efficiency in Canada's Technology Triangle

Though less visible than larger industries, small to medium-sized businesses can cumulatively have a significant environmental impact. A pilot project developed by Environment Canada's Ontario Region, along with the Regional Municipality of Waterloo and local industry associations, will help firms in the metal finishing and automotive parts sectors reduce energy use, prevent pollution and become more "eco-efficient". Environmental audits will show how these companies can save money through process improvements while reducing discharges of toxic substances and recycling wastes. The project, to be delivered through the Ontario Centre for Environmental Technology Advancement, is expected to provide a model that may be used by other communities across Canada.

implementation of the province of Alberta's Acidifying Emissions Management Strategy; Atlantic Region will expand its air quality prediction program; and Pacific and Yukon Region, in cooperation with the province of British Columbia and the Greater Vancouver Regional District, will evaluate a prototype air quality forecast service for the Georgia Basin.

LONG-TERM RESULT

- ✓ **Understanding, and prevention or reduction of the environmental and human health threats posed by toxic substances and other substances of concern.**

Toxic substances in the environment present significant risks to the health of Canadians. Children are especially vulnerable — exposure to toxic substances can affect fetal, infant and childhood growth, impair development of nervous systems and cause abnormal development.

Much has been learned about the problem of persistent, bioaccumulative, toxic substances. Even when present in amounts only barely detectable, they can adversely affect many species and sensitive ecosystems. They can also build up in the tissues of aquatic animals that many Canadians consume, and affect the health of the consumers particularly those dependent on "country foods".

The past year laid the groundwork for concrete action in many areas related to toxic substances. Most significantly, passage by Parliament of the *Canadian Environmental Protection Act, 1999* will provide stronger powers and new tools and authorities to protect the environment and human health, opportunities to work with partners including Aboriginal peoples, and greater citizen participation and access to environmental information. An Enforcement Action Plan was completed, setting out a course to enhanced enforcement of environmental laws and regulations.

Over the next three years, Environment Canada will focus its efforts for understanding, and preventing or reducing threats posed by toxic substances and other substances of concern on:

- pollution prevention and control measures, including Canada-wide standards, for clean air and water;
- implementation of the *Canadian Environmental Protection Act, 1999*;
- renewal of the enforcement and emergencies programs; and

The Canadian Environmental Protection Act, 1999 will provide stronger powers and new tools and authorities to protect the environment and human health.

- further steps to address the Sydney Tar Ponds / Coke Ovens contaminated sites.

Several pollution prevention and control measures for **clean water** are planned. In 2000-2001, regulations or amendments to regulations to reduce harmful substances in effluents from the metal mining and pulp and paper sectors will be published. As a result of a cooperative effort by Environment Canada, Fisheries and Oceans, and provincial and territorial partners, Canada's National Programme of Action for the Protection of the Marine Environment from Land-based Activities will be released in 2000. Its objectives are to prevent pollution and protect habitat in the coastal zone. Environment Canada and Natural Resources Canada are also providing a \$125 million endowment, as announced in Budget 2000, to the Federation of Canadian Municipalities to create two complementary funds to help municipalities upgrade water and wastewater, transportation, waste management and other facilities and infrastructure. These projects are expected to improve air and water quality and reduce greenhouse gas emissions.

Development of **Canada-wide standards** for six substances is on track for their scheduled completion in 2000. These standards will fulfill commitments by federal, provincial and territorial environment ministers (except Quebec) in a sub-agreement under the Canada-wide Accord on Environmental Harmonization, and contribute to clean air and water and reducing soil contamination. In June 2000, Ministers are expected to sign standards for particulate matter, ground-level ozone, benzene (phase 1) and mercury emissions. Implementation of these standards will start in 2000-2001. Ministers are also expected to sign standards for dioxins and furans, petroleum hydrocarbons and mercury products later in 2000.

Herring Gull Monitoring Program

For more than 25 years, the herring gull has been a living barometer of toxic chemical contamination in the Great Lakes basin. Environment Canada's Canadian Wildlife Service continues to measure levels of over 75 toxic chemicals in eggs from 15 sites throughout the basin. Over the time period, efforts to restore the quality of the Great Lakes have resulted in declines of up to 90% of some chemicals. This continuing monitoring program was among the first to detect the effects of endocrine disrupting substances.

The **Canadian Environmental Protection Act, 1999** provides the legislative basis for most of the work of this business line and supports the Minister's priorities of climate change, clean air and water, and nature. The Act requires that more substances be assessed faster, establishes strict timelines for controlling toxic substances, and also requires the virtual elimination of releases of the most dangerous toxic substances, those which are persistent and bioaccumulative. New powers are provided for enforcement officers and the Minister now has the authority to require pollution prevention plans. Additional resources provided in Budget 2000 will strengthen Environment Canada's capacity to regulate biotechnology products and processes, as required by the Act.

Environment Canada will continue renewal of its enforcement program.

Budget 2000 strengthens Environment Canada's ability to enforce environmental laws.

Environment Canada will continue renewal of its **enforcement** program. Thirteen of fifteen projects under the Enforcement Action Plan are currently being implemented. These projects are designed to strengthen various aspects of the program such as operational policies, tools needed by enforcement staff, and a human resource framework that anticipates and prepares the program for the future. New program components required internally and by our enforcement partners will also be introduced, including an intelligence capacity. Budget 2000 strengthens Environment Canada's ability to enforce environmental laws through an allocation of an additional \$22 million over three years and in subsequent years provides ongoing funding of \$9 million per year.

Responding to **environmental emergencies** has become more complex with the introduction of new substances and industrial processes, the growth of biotechnology and the possibility of environmental terrorism. A Renewal Initiative, to be developed over 2000-2001, will identify actions the program must take over the next five years to fulfill its obligations under the National Environmental Emergencies Contingency Plan. The Renewal Initiative will also assess changes required by Part 8 of the *Canadian Environmental Protection Act, 1999*, which provides a clear legislative mandate for the program.

Endocrine Disrupting Substances in Agriculture

The Atlantic Region and the National Water Research Institute are collaborating on a study to evaluate the effects of endocrine disrupting chemicals on freshwater ecosystems due to pesticide run-off in intensive agricultural areas. This three year project will examine potato growing areas in Prince Edward Island and New Brunswick as they receive a higher than average application rate of pesticides compared to other crops. One potential benefit of this project will be to recommend the use of specific pesticides which do not result in endocrine disrupting effects in the environment.

Assessment and initial phases of remediation of the Sydney Tar Ponds / Coke Ovens **contaminated sites** will continue. Planned actions include a Phase II/III environmental site assessment, demonstration of environmental technologies, demolition of site structures, and construction of an interceptor sewer. Environmental studies to determine the nature and extent of contaminants present will be undertaken, as well as health studies to understand relationships between the rate of disease and various causal factors, including environmental influences.

In order to support actions on clean air and water, Environment Canada will conduct **research and development** including: assessing the adequacy of pulp and paper effluent regulations under the *Fisheries Act*; identifying the level of quantification for dioxins, furans, hexachlorobenzene and polychlorinated biphenyls (required for virtual elimination); assessing the impacts of toxic substances, including endocrine disrupting

substances, on aquatic ecosystems; fostering the development of environmentally beneficial applications of biotechnology; and advancing the development and deployment of technologies and practices for the prevention and reduction of pollution.

Environment Canada's **Regions** will support the delivery of national priorities in the context of regional needs. For example, on clean water, Atlantic Region will work with provinces to improve treatment of municipal wastewater effluents; Pacific and Yukon Region will undertake remedial action aimed at reopening commercial shellfish harvesting areas in the Georgia Basin, in partnership with the province of British Columbia and Fisheries and Oceans; and Quebec Region will lead the identification of options to reduce the environmental effects of textile mill effluents.

For more information on this business line, see:

Environment Canada's Climate Change web site at
<http://www.ec.gc.ca/climate/index.html>

Smog in Canada web site at
<http://www.ec.gc.ca/smog/index.html>

Clean Water resources at
http://www.ec.gc.ca/envpriorities/cleanwater_e.htm

Canadian Pollution Prevention Information Clearinghouse at
http://www3.ec.gc.ca/cppic/index_e.htm

Canada-wide standards at
http://www.mbnet.mb.ca/ccme/3e_priorities/3ea_harmonization/3ea2_cws/3ea2.html

Canadian Environment Protection Act Annual Report at
<http://www.ec.gc.ca/cepa/english/index.htm>

Enforcement program at
<http://www.ec.gc.ca/enforce/homepage/english/index.htm>

Environmental emergencies at
<http://www2.ec.gc.ca/ee-ue/>

Joint Action Group -- Sydney Tar Ponds / Muggah Creek Watershed at
<http://www.muggah.org/>

3.3 WEATHER AND ENVIRONMENTAL PREDICTIONS BUSINESS LINE

The long-term goal of this business line is to apply its meteorological and hydrological science for the maximum benefit of Canadians.

Weather is a significant factor in the daily lives of Canadians; virtually every Canadian hears at least one weather forecast per day. In the Weather and Environmental Predictions business line, Environment Canada is responsible for delivering Canada's weather and related environmental warnings and forecasts. In addition, it has the important federal responsibility in the monitoring of water quantity in collaboration with provinces and territories. Through this business line, Environment Canada represents Canada in the international co-operative program to monitor and predict changes in the global atmosphere. The long-term goal of this business line is to apply its meteorological and hydrological science for the maximum benefit of Canadians by helping to safeguard lives, avoid health risks, reduce property losses, enhance economic productivity, and contribute to the development of optimum environmental and economic policies. This business line is the contributor to the Minister's priority on safeguarding Canadians, and it contributes to his priorities of climate change, air quality and water.

The two long-term results Environment Canada aims to achieve through this business line are:

- reduction of the impact of weather and related hazards on health, safety and the economy; and
- adaptation to day-to-day and longer term changes in the atmosphere (weather, climate and stratosphere), hydrosphere (rivers, lakes and oceans), and cryosphere (snow and ice).

With numerous partners, it achieves these two results by providing weather forecasts and warning of extreme weather events, river, lake and sea ice conditions, UV radiation levels, information and forecasts related to water quantity, level and flow conditions, and research and scientific advice on climate, atmospheric science, air quality, and water quantity.

Environment Canada's Meteorological Service of Canada operates 365 days per year, 24 hours per day to deliver Canada's weather warnings and forecasts.

Operating 365 days per year, 24 hours per day with short-term delivery requirements for weather and related environmental warnings, forecasts and information, the Weather and Environmental Predictions business line is more operational than the Department's other business lines. The priorities for action are therefore oriented to sustaining the delivery of quality weather warnings and advisory services.

In recognition of the unique nature of this business line, and as part of its renewal process, the organization responsible for delivering the Weather and Environmental Predictions business line changed their

identity from the Atmospheric Environment Program to Environment Canada's Meteorological Service of Canada in December 1999.

Although Environment Canada has been investing in its infrastructure, resources (human and operating) and working with clients and partners, it continues to face growing pressures in all of these areas. Important decisions will have to be taken now and in the next several years in developing short-term coping strategies and long-term permanent solutions.

Net Planned Spending

(\$ millions)	Forecast Spending 1999-2000 *	Planned Spending 2000-2001	Planned Spending 2001-2002	Planned Spending 2002-2003
Results				
Reduced impact of weather and related hazards on health, safety and the economy.	248.3	173.3	168.7	163.7
Adaptation to day-to-day and longer term changes in the atmospheric, hydrological and ice conditions.	64.3	59.7	60.4	59.3
Gross Planned Spending	312.6	233.0	229.1	223.0
Less: Respendable Revenue	(61.7)	(63.8)	(66.8)	(63.7)
Net Planned Spending	250.9	169.2	162.3	159.3

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

The decrease from 1999-2000 to 2000-2001 is attributable to one-time funding in 1999-2000 for a grant to the Canadian Meteorological and Oceanographic Society (\$60M) and costs to make departmental systems Y2K compliant (\$15M).

The decreases in resource levels for future years reflect the repayment of the loan from Treasury Board for the costs of making departmental systems Y2K compliant.

LONG-TERM RESULT

✓ **Reduced impact of weather and related hazards on health, safety and the economy.**

Environment Canada, primarily through the media, informs Canadians of imminent or short-term weather and related environmental hazards through warnings, forecasts and information. Its objective is to ensure that Canadians have the knowledge and the time to react to protect themselves, their property and their businesses.

Each year Environment Canada issues approximately 14,000 warnings of high impact weather.

Each year Environment Canada issues approximately 14,000 warnings of high impact weather such as severe thunderstorms, tornadoes, and other related environmental events. It also provides hydrological and meteorological data, education and outreach, and technical support directly to Canadian citizens, clients and partners, and conducts research and development on which these products are based.

Ice Service

Under a three year initiative funded by the Search and Rescue Program, MSC's Canadian Ice Service is investigating the feasibility of providing warnings to northern communities of the breakup of landfast ice. With the study barely under way in its first year, the study team determined that the fast ice in Admiralty Inlet at the north end of Baffin Island was weakening rapidly during the first week of July. The study team relayed this information to the Hunters and Trappers Association in Arctic Bay, who advised a party of hunters camped on the ice. The next day, a large piece of ice broke loose where the hunters had been, and drifted into the open water of Lancaster Sound. This "non incident" potentially saved the lives of several hunters and prevented a very expensive Search & Rescue operation.

In the past year, in addition to the above ongoing roles, Environment Canada responded to a variety of events including the Japanese Nuclear Accident. By using its long range transport and dispersion model and global atmospheric data from other national governments, Environment Canada showed that no radioactive material was immediately expected to reach Canadian territory. Environment Canada provided meteorological support, through the preparation of daily forecasts, to the Department of National Defense's Disaster Relief Team in Turkey and supported Canadian forces in Bosnia and Kosovo.

Over the next three years, Environment Canada will focus its efforts in reducing the impact of weather and related hazards by:

- ensuring a sustainable weather and environmental prediction service and science base for Canada; and
- improving the effectiveness of its warnings of severe weather and environmental hazards.

Environment Canada is the primary employer of meteorologists and atmospheric physicists in Canada.

Environment Canada faces several challenges in ensuring a **sustainable weather and environmental prediction service for Canada**. Environment Canada is the primary employer of meteorologists and atmospheric physicists in Canada. Low recruitment over the past 10 years has resulted in universities scaling back their programs in these disciplines as is the case with hydrometric science. Combined with competition for these skilled workers, it is difficult to ensure adequate recruitment and retention to meet the critical need of Environment Canada in the near and long term. In order to address these challenges, Environment Canada will ensure a sustainable science and technology workforce by developing its 15 year strategic plan and implementing staffing reforms and succession plans in 2000-2001. It will work with universities and colleges to ensure appropriate education programs are offered.

The success of Canada's weather forecasts and warnings are critically dependent upon an extensive monitoring and forecasting

infrastructure throughout Canada. Systems comprising this infrastructure range from a network of thousands of individual monitoring sites for weather, water, climate, air quality and ocean waves, to networks of weather radars, lightning detection systems, satellite receiving stations and an ice reconnaissance aircraft. As part of a global monitoring community, it is important to have monitoring instruments which meet international standards. With the rapid development of technology, serviceability and obsolescence quickly becomes an issue. In many cases the useful life of equipment is only five to seven years.

Environment Canada will manage and sustain this national physical infrastructure by implementing a life cycle and integrated management approach to monitoring systems by 2001-2002; as part of the National Radar Project will install 5 Doppler Radars in 2000-2001; will deliver a modernized sea ice remote sensing capability by 2001-2002 and a modernized and automated water quantity network in 2003-2004; and will replace mercury-based equipment with alternative technologies by 2003-2004.

In order to ensure a citizen-focused weather and environmental prediction service, Environment Canada will publish service standards for warning lead times and begin annual performance reports against those standards in 2001-2002.

In order to reduce impacts on Canadians and their businesses, Environment Canada will **improve the accuracy and effectiveness of its warnings of severe weather and environmental hazards**. By 2003-2004, it will implement a national system for warnings on cable television, and will revitalize an extreme weather research program to improve its understanding of severe weather and its predictive capabilities.

Environment Canada will continue to **work with key partners, clients and stakeholders** in ensuring the safety of Canadians. To this end, in 2000-2001, Environment Canada will strive to renew its contracts and partnerships with the Department of National Defense and NAV CANADA, will work towards establishing a comprehensive agreement with the Department of Fisheries and Oceans for the provision of marine weather services, and in 2001-2002 will renew its partnerships and agreements with provinces and territories for the water program, which supports such things as provincial flood forecasting.

Regionally, Environment Canada responds to conditions which are unique to the various areas of the country. For example, Atlantic Canada is located at the convergence of major air flows, storm tracks

Warning Preparedness Meteorologist Program

To address the challenge of preparing the public to appropriately respond to summer and winter severe weather, the Prairie Storm Prediction Centre based in Winnipeg with staff in Calgary, Edmonton and Saskatoon, initiated the Warning Preparedness Meteorologist Program in the spring of 1998. This program was developed to strengthen the relationships with the media, emergency management officials, the education sector and the general public. Each year public outreach campaigns and activities are planned during Summer and Winter Severe Weather Awareness Weeks.

and currents, resulting in high weather variability. Combined with offshore oil and gas development and heavy tanker traffic, this puts the region at risk of catastrophic oil spills offshore. In response, Environment Canada Atlantic Region will focus on improving its warning capability in marine weather.

LONG-TERM RESULT

- ✓ **Adaptation to day-to-day and longer term changes in the atmospheric, hydrological and ice conditions.**

Environment Canada provides approximately 500,000 public weather forecasts, 200,000 marine weather forecasts and 400,000 aviation forecasts each year.

Environment Canada provides approximately 500,000 public weather forecasts, 200,000 marine weather forecasts and 400,000 aviation forecasts each year. It provides information on the water quantity in our rivers, lakes and oceans, allowing us to monitor conditions such as changing water levels in the Great Lakes. It provides information on ice and snow used for shipping and navigation. These types of information are essential for Canadians and their governments to understand the vulnerabilities and opportunities that these changes bring and to make informed decisions on adapting to those changes.

With the strong links between the atmosphere and global environmental issues, this business line also provides knowledge and understanding so that environmental policies are based on sound science.

Over the next three years, Environment Canada will focus its efforts on:

- ensuring Canada has the environmental prediction and science capacity to produce sound environmental policies, and
- building an environmental prediction capacity so that Canadians have modern, client-focused tools for integrated decision making.

Environment Canada operates state-of-the-art climate models that are used to project climate changes through the 21st century.

Environment Canada will ensure that Canada has an **environmental prediction and science capacity to produce sound environmental policies** which balance Canada's social and economic needs with its environmental needs. To do this, Environment Canada will improve its short-term to seasonal predictions; and build its science, impacts and adaptations capacity for priority areas such as climate change. For example, Environment Canada will provide scientific input and leadership for the Inter-governmental Panel on Climate Change Third Assessment Report which will be used by policy makers for international negotiations. Environment Canada will continue to operate state-of-the-art climate models that are used to project climate changes through the 21st

century. Environment Canada makes this information widely available to policy makers and climate change impact researchers. A strengthened capacity will produce enhanced understanding of the variability and trends in Canadian climate including extremes of precipitation, wind and temperature, as well as provide predictions of changes in the probabilities of climate extremes, by 2000-2001. Environment Canada will publish regional scale climate change scenarios by 2001-2002.

At a **regional** level Environment Canada's environmental prediction capabilities can also be applied to specific ecosystems. For example, in the Quebec Region, the development of regional climate models allows for a quantitative evaluation of the effects of increased levels of greenhouse gases on the St. Lawrence ecosystem.

Environment Canada will **build an environmental prediction capacity within the Department so that Canadians have modern, client-focused tools for integrated decision making.**

Environmental predictions of the state of the environment under various situations can be used by others to determine the impacts of water levels and flows on ecosystems, or impacts of global warming on natural habitat. Environment Canada will also diversify its applications to human health through such products as road weather and windchill forecasts, and to economic prosperity through the development of products such as tailored agricultural forecasts or aviation forecasts.

Environment Canada will develop specialized products for the media and transportation sectors by 2001-2002. For example, in support of the road weather program, Environment Canada will develop and implement a heat balance model by 2000-2001, which will allow road crews to more efficiently and effectively salt roads.

In order to ensure a client focus and improve service, Environment Canada will also implement a public weather service complaint strategy in 2001-2002 which will allow the public a venue to provide any feedback or concerns they may have.

Winnipeg Weather Station

An automated weather station and interpretive display was opened on Nov 5 1999 at The Forks, a popular historic site in downtown Winnipeg. The new Forks weather station will augment the weather information that has historically been collected at the Winnipeg International Airport. It will also provide the five to seven million annual visitors to the Forks with a unique opportunity to observe first-hand the equipment used to collect weather information throughout Canada and the world. The Forks weather station joins a network of over 160 similar stations throughout the prairies, and will record temperature, humidity, precipitation, wind speed and direction. This information is automatically relayed to Environment Canada's forecast centres and other weather centres around the world, and is used to produce weather and other environmental forecasts.

For more information on this business line, see:

Meteorological Service of Canada at
<http://www.tor.ec.gc.ca>

Weather forecasts at
<http://weather.ec.gc.ca>

Canadian Ice Service at
<http://www.cis.ec.gc.ca>

3.4 MANAGEMENT, ADMINISTRATION AND POLICY BUSINESS LINE

*In the
Management,
Administration
and Policy
business line
Environment
Canada develops
the Department's
integrated
management and
policy agenda.*

In the Management, Administration and Policy business line Environment Canada develops the Department's integrated management and policy agenda; specifically, its strategic medium and long-term agenda, leadership skills, partnerships, innovative means to inform and engage citizens, and provides efficient and innovative support services.

In the Management, Administration and Policy business line Environment Canada aims to achieve two long-term results:

- strategic and integrated policy priorities and plans; and
- a well-performing organization supported by efficient and innovative support services.

Net Planned Spending

(\$ millions)	Forecast Spending 1999-2000 *	Planned Spending 2000-2001	Planned Spending 2001-2002	Planned Spending 2002-2003
Results				
Strategic and integrated policy priorities and plans.	48.4	41.5	42.6	42.6
A well-performing organization, supported by efficient and innovative services.	52.9	66.7	56.8	56.9
Gross Planned Spending	101.3	108.2	99.4	99.5
Less: Respendable Revenue	(0.5)	(0.5)	(0.5)	(0.5)
Net Planned Spending	100.8	107.7	98.9	99.0

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

The increase is mainly due to additional funding in 2000-2001 for environmental remediation of a leased site.

LONG-TERM RESULT

✓ Strategic and integrated policy priorities and plans.

To be effective, Environment Canada's policy agenda must transcend short-term policy pressures, respond to the longer term needs of government and non-government partners (domestic and international), and be communicated to, and supported by, stakeholders and the public alike.

During the past year, Environment Canada made particular progress in advancing a sustainable development policy agenda through strengthened partnerships both inside and outside government and through sustained efforts to engage communities. The Department facilitated networking amongst community groups through such initiatives as Millennium Eco-Communities, by providing tools, access to expertise and resources. Environment Canada was also successful in incorporating environmental management into self-government and treaty framework agreements in British Columbia, Nunavut, the Yukon, the Northwest Territories and Labrador.

Millennium Eco-Communities help communities set and achieve environmental results.

Over the next three years, Environment Canada will focus its efforts in developing strategic and integrated policy priorities and plans by:

- facilitating the development of an integrated, informed and anticipatory policy agenda that is widely supported by its partners; and

- strengthening the link with citizens from coast to coast.

Environment Canada will develop an action plan for knowledge dissemination to Canadians.

Canadians link the environment to other important factors that determine quality of life; and sustaining the health of the environment continues to be a core Canadian value. In the Speech from the Throne in October 1999 the government committed to **report regularly to Canadians on progress in addressing their environmental concerns**. Environment Canada, in partnership with others, will develop an action plan for 2000-2001 including deliverables and a common framework for knowledge dissemination to Canadians. Budget 2000 provided \$9M over the next three years to Environment Canada and the National Roundtable on the Environment and the Economy, in collaboration with Statistics Canada, will work to develop environmental and sustainable development indicators.

Environment Canada will play a leadership role in the development of a government-wide policy research agenda on sustainable development.

Environment Canada will use **sustainable development as a framework** to provide leadership and influence across government. It will build on the successes achieved over the past year in raising the profile of sustainable development at the senior levels of government, and at enhancing departmental coordination and collaboration on medium to long-term research and planning for sustainable development. Environment Canada will advocate placing a greater emphasis on sustainable development in decision making, and will explore mechanisms to assist the government in carrying out this commitment. The drafting of Environment Canada's second Sustainable Development Strategy will provide an opportunity to seek the views of Canadians on areas where Environment Canada should focus its efforts for 2001-2004, and to work with other departments in opening up the dialogue on which areas would most benefit from federal coordination. In 2000-2001, Environment Canada will play a leadership role in the development of a government-wide policy research agenda on sustainable development; and in partnership with the Department of Foreign Affairs and International Trade and other departments, will develop a government-wide strategy to advance the environmental and sustainable development agenda in international fora. Working to enhance Aboriginal capacity for sustainable development, continuing to promote and facilitate the integration of the Aboriginal agenda into each of the business lines, and improving how the Department incorporates the knowledge and perspectives of Aboriginal peoples in decision making will require close collaboration with Aboriginal peoples.

Canadians want open, transparent, reliable and relevant information to make informed and timely decisions on environmental issues. To ensure a **stronger citizen-centered focus**, the Department will develop its vision of citizen engagement and client-centered service delivery; and will examine the effects information technology is having on citizens' capacity to make informed decisions. Specifically, the Department will transform scientific research and analysis into widely circulated, and easily understood public information materials; and will continue to improve community outreach tools and support programs that provide Canadians with concrete and realistic opportunities to become better environmental citizens.

Environment Canada will transform scientific research and analysis into widely circulated, and easily understood public information materials.

Canadians' readiness to embrace information technology is raising their expectations regarding the speed and level of service being provided to them by governments. Environment Canada will ensure that Canadians' involvement and information needs remain central to the Department's program delivery activities. Specifically the Department will develop a comprehensive Information Management/ Information Technology plan by the end of 2000.

Environment Canada will ensure that Canadians' involvement and information needs remain central to the Department's program delivery activities.

While **Regions** are actively involved in supporting the delivery of national programs, they also respond to unique local issues. For example, in support of the above-mentioned initiatives, the Quebec Region will focus on the communication of science (often published only in English) to French-speaking clientele; the Prairie and Northern Region will develop and implement a regional sustainable communities strategy and the Ontario Region will develop a sustainable communities pilot program. Similarly, the Atlantic Region will continue to engage federal and provincial partners in Sustainable Communities initiatives in the Annapolis and Bras d'Or areas of Nova Scotia. Through their participation in the Federal Councils, Environment Canada's regional offices are also working towards the development of policies and the management of horizontal issues such as Climate Change, greening and sustainable communities.

Community Partnerships

The Community Partnerships project is a collaborative multi-partnership arrangement between communities in Northern Manitoba - South Indian Lake, Lynn Lake, Leaf Rapids and others. The immediate goal is to identify a regional sustainable development approach for participating northern, rural and urban communities by using federal and provincial IM/IT resources for their local and regional planning purposes.

LONG-TERM RESULT

- ✓ **A well-performing organization supported by efficient and innovative services.**

Ensuring the Department has the capacity to achieve its environmental results means providing the frameworks, principles and systems to guide good management decision making and focusing on the development of a healthy work environment and a productive workforce. Last year, a key accomplishment was the implementation of a Departmental Management Framework which clearly defines accountabilities, strengthens the capacity to strategically allocate resources based on priorities and performance, and integrates Human Resource management issues into the business planning process.

Over the next three years, Environment Canada will focus its efforts in ensuring a well-performing organization by:

- strengthening the Management Framework, and
- continuing to develop the skills and diversity of the workforce.

Modern Comptrollership Initiative

As a Modern Comptrollership pilot department, Environment Canada is devoting increased attention to results based planning and reporting, integrated with the financial and non financial information necessary to improve our priority setting and decision making processes. The Atlantic Region will undertake a pilot initiative to advance this effort.

Environment Canada's management challenge is to function as an integrated whole with one strategic agenda. The Department requires a good foundation both in the way it organizes its work and in the way it manages its people. Environment Canada's Management Framework embodies the principles of Modern Comptrollership and the Department has been chosen as one of the eleven pilot departments participating in the government-wide **Modernization of Comptrollership** initiative. As part of this initiative, Environment Canada will champion a project to improve decision making and priority setting based on integrating financial, performance and Human Resources information. This project is one element of the strategy to continue to **strengthen the management framework** and the expected

completion date of the first phase of this project is December 2000. To enhance the accessibility, quality, utility and timeliness of management information, the Department will fully implement the Financial Information Strategy including the move to full accrual accounting by April 2001. In 2000-2001, Environment Canada will develop a framework for the identification and assessment of risk and with the introduction of new integrated financial and material systems will begin to implement the recommendations of a project designed to re-engineer internal business processes.

Values and Ethics are another key component of the Modern Comptrollership initiative. There is a need to clarify and reinforce ethical principles and values throughout the Department. Staff need to have a common view and understanding of the Department's values and ethics as the government's way of doing business is evolving, and new relationships with the public and stakeholders are developing.

Values and Ethics are a key component of the Modern Comptrollership initiative in Environment Canada.

In order to ensure that Human Resources practices are dynamic and integrated, as a strategic management function, Environment Canada has endorsed and established its planning process based on the "Framework for Good Human Resources Management". This framework focuses on leadership, values, productivity, an enabling environment, and a sustainable workforce. In 2000-2001, detailed Human Resources planning will occur within the business line.

Concrete action plans will be established and implemented to address concerns expressed in the **Public Service Employee Survey**. The most critical issue confronting the Department is the management of an increasing workload. As well, communication has been identified by employees as an issue, as they perceive a lack of consistent, timely and coherent messages throughout the Department. In the context of these concerns, the Department has determined that the main priority areas will be: workload, communications, career development and values and ethics. Another significant challenge facing the Department is in the area of official languages. These issues will be addressed in the departmental action plan.

Concrete action plans will be established and implemented to address concerns expressed in the Public Service Employee Survey.

Strengthening the **effective management of the workforce** continues to be important. There is a need to develop the management capacity to ensure that the Department has the leadership required for the future. During the upcoming year, the Department will continue to implement a competency based management approach to learning and development; and will implement the Universal Classification System. To improve the Department's capacity to address critical human resources issues, Environment Canada will develop innovative recruitment, development and retention strategies; and learning strategies that will enhance and build upon competencies of existing staff by the end of 2000.

While **Regions** are actively involved in supporting the delivery of national programs, they also respond to unique local issues. For example, in support of the above-mentioned initiatives, the Pacific and Yukon region integrates the delivery of its Environment Management Plan into regional business plans (in keeping with the principles of Modern Comptrollership), thereby enhancing its leadership credibility with employees, and with its partners in ecosystem sustainability. The Quebec Region will implement a performance management and monitoring system to reinforce the

management capacity of Phase Three of the St. Lawrence Action Plan Vision 2000.

For more information on this business line, see:

Modern Comptrollership at

Financial Information Strategy (FIS) at
http://www.tbs-sct.gc.ca/fis_sif/FIS-SIF_e.html

Public Service Employee Survey at
<http://www.survey-sondage.gc.ca/menu-e.html>

Millennium Eco-Communities at
<http://www.ec.gc.ca/eco>

3.5 PERFORMANCE MEASUREMENT

Environment Canada has specified several measurable targets to be achieved within the planning horizon, and against Environment Canada's long-term indicators of environmental improvement or social change. These targets and indicators are presented in Table 3.1.

In recognition of the demands of Canadians for greater accountability for the expenditure of public funds and for the results and quality of services delivered, Environment Canada is working towards improving its current performance measurement strategy to develop better indicators and targets throughout its business lines. For those indicators and targets which have changed since the previous Report on Plans and Priorities, a rationale for that change is provided in Table 3.1.

A detailed description of targets, indicators and key deliverables towards Environment Canada's Sustainable Development Strategy goals can be found in Section 4.2.

Table 3.1 Performance Measurement

Nature Business Line

✓ Conservation of biological diversity.

Indicators	Targets	Rationale for Change
Threatened and endangered species of migratory birds with stable or increasing populations.	Stable or increasing populations achieved by 2005 for 10 migratory bird species currently designated endangered or threatened.	
Population levels of targeted migratory bird species and other wildlife under federal jurisdiction.	By 2001, wintering populations of pintails to be increased by 100%; maintain stable population of mallards, trumpeter swans, tundra swans and black ducks. Management and protection of polar bears grounded in legislation by 2001.	
Area of wildlife habitat conserved under direct EC protection and through departmental partnerships and influence.	One million hectares of habitat protected under the North American Wildlife Management Plan by 2002. 6% increase of area protected by Environment Canada for wildlife by the year 2000. Incidences of chronic marine oil pollution affecting Atlantic seabirds reduced by 75% by 2004.	
Indicators of domestic and global biodiversity conservation (under development)	Biodiversity planning, reporting, performance measurement and information infrastructure in place by 2001.	

✓ *Understanding and reduction of human impacts on the health of ecosystems.*

Indicators	Targets	Rationale for Change
Measures of the impact of science in policies, programs and on clients. (under development)	<p>Improved knowledge of the impacts of specific stressors (e.g. land use practices, atmospheric change and pollution, and the cumulative impacts of stressors) by 2002.</p> <p>Scientific knowledge and tools for the development of management actions to reduce human impacts on the health of ecosystems by 2002* .</p> <p>Sustained Science and Technology capacity consistent with federal Science and Technology policy.</p>	

✓ *Conservation and restoration of priority ecosystems.*

Indicators	Targets	Rationale for Change
Under development	<p>A national accord on bulk water removals (including for the purposes of export) by 2001.</p> <p>A Canadian Great Lakes Basin Ecosystem Program by 2000.</p> <p>Priorities and action plans to ensure sustainability of northern communities and ecosystems (including ecosystem impacts of atmospheric change and major developments in the North) by 2001.</p> <p>Priorities in Northern Labrador and Northern Quebec identified by partners in the Northern Ecosystem Initiative by 2000.</p>	

Clean Environment Business Line

✓ *Reduced adverse human impact on the atmosphere and on air quality.*

Indicators	Targets	Rationale for Change
Canadian emissions of greenhouse gases.	Total emissions reduced to 6% below 1990 levels between 2008-2112, as provided for under the Kyoto Protocol once it is ratified.	
Air pollution related mortality, hospital admissions and asthma episodes.	Reduced by 25% from 1990 levels by 2005 and 50% by 2010.	<ul style="list-style-type: none"> Indicator from last year's RPP expanded to include mortality and asthma episodes. Target statement from last year's RPP modified to include an interim target.
Canadian emissions of sulphur dioxide and nitrogen oxides.	Permanent national limit on sulphur dioxide emissions of 3.2 million tonnes annually (first met in 1993).	<ul style="list-style-type: none"> Targets and schedules for further sulphur dioxide emissions reductions will be presented to federal and provincial Ministers of the Environment by end of 2000.
Domestic consumption and production of ozone depleting substances.	Consumption of HCFCs reduced 35% by 2004 (base year 1996) and production and consumption of methyl bromide reduced 50% by 2001 (base year 1991).	
Compliance with regulations.	Achieve 90% compliance with sulphur in fuels regulations within five years of coming into effect.	<ul style="list-style-type: none"> New target.

✓ *Understanding, and prevention or reduction of the environmental and human health threats posed by toxic substances and other substances of concern.*

Indicators	Targets	Rationale for Change
Categorization of substances on the Domestic Substances List for inherent toxicity, persistence and bioaccumulation.	All of the approximately 23,000 substances categorized (jointly with Health Canada) by 2006.	<ul style="list-style-type: none"> Target and indicator description revised to reflect Environment Canada's accountability. Target date specified following Royal Assent of CEPA 1999.

Indicators	Targets	Rationale for Change
Assessments of new substances where notifications have been submitted.	All notified substances assessed and conditions or other controls issued within regulatory timeframes for all substances suspected of being toxic (approximately 950 assessments per year).	<ul style="list-style-type: none"> Indicator and target statement from last year's RPP have been simplified.
Domestic releases of toxic substances for which EC controls are in place.	Risk management measures for all substances on the second Priority Substances List declared toxic will be proposed by 2002 and finalized by 2004.	<ul style="list-style-type: none"> New target based on requirements of CEPA 1999.
Development of Canada-wide standards.	Canada-wide standards for mercury, benzene, petroleum hydrocarbons and dioxins and furans presented to federal and provincial Ministers of the Environment by end of 2000.	<ul style="list-style-type: none"> Target date clarified.

Weather and Environmental Predictions Business Line

✓ *Reduced impact of weather and related hazards on health, safety and the economy.*

Indicators	Targets	Rationale for Change
Demographics of Science and Technology employees.	Increase the number of Science and Technology staff in the 20 to 35 age range by 2002-2003.	<ul style="list-style-type: none"> New target.
State of monitoring systems.	Modernize 10% of networks/systems by 2002-2003.	<ul style="list-style-type: none"> Scaled down target. Replaces the indicator and target related to monitoring systems outlined in last year's RPP.
State of monitoring systems.	Complete National Radar Project installation by 2003-2004.	<ul style="list-style-type: none"> Currently under review due to resource constraints.
Client satisfaction with warning and forecast services (includes quality, utility, timeliness and accessibility).	Maintain service standards in the Public Weather Charter by 2001-2002.*	<ul style="list-style-type: none"> New indicator and scaled down target. Replaces the three indicators and targets related to severe weather warning service standards and satisfaction outlined in last year's RPP.

Indicators	Targets	Rationale for Change
Percentage of operational federal hydrometric sites cleaned up.	Clean-up 25% of existing known contaminated federal monitoring sites by 2002-2003.	<ul style="list-style-type: none"> • New target.

✓ Adaptation to day-to-day and longer term changes in the atmospheric, hydrological and ice conditions.

Indicators	Targets	Rationale for Change
Public and government satisfaction with products and services (includes accuracy, utility and accessibility)	Implement a nationally coherent public weather service complaint strategy in 2001-2002.	<ul style="list-style-type: none"> • Scaled down target. Replaces the three targets outlined in last year's RPP for this indicator.
	Climate and hydrometric station information (i.e. types of data, parameters, observing program, etc.) accessible via the Internet by 2001-2002.	<ul style="list-style-type: none"> • New target.
	Climate and hydrometric data formatted for Internet access by 2001-2002.	<ul style="list-style-type: none"> • New target.
Canadians' awareness of changes to their physical environment and the effects of these changes on their health and safety.	Awareness of climate change and variability increases 10% over the 1999-2000 baseline by 2001-2002.	<ul style="list-style-type: none"> • Target currently under review due to resource pressures.
	Awareness of stratospheric ozone depletion and effects on human health increases 10% over the 1999-2000 baseline by 2001-2002.	<ul style="list-style-type: none"> • Target currently under review due to resource pressures.
Level of agreement of those affected by environmental policies with the scientific basis of policies	Stakeholder consultation demonstrates confidence in credibility of science.	<ul style="list-style-type: none"> • Target deleted due to resource pressures
Satisfaction of commercial clients and government partners	Service standards for ice and aviation products met in accordance with signed client agreements.	<ul style="list-style-type: none"> • Indicator and target withdrawn since these are contracted services.

Management, Administration and Policy Business Line

✓ **Strategic and integrated policy priorities and plans.**

Indicators	Targets	Rationale for Change
<p>Clear and effective policy priorities that are integrated with government-wide priorities.</p>	<p>Coordinated sustainable development agendas with key sectors (e.g. health) by end of 2000.*</p> <p>A renewed Sustainable Development Strategy for Environment Canada by December 2000.</p>	<ul style="list-style-type: none"> • New target.
<p>Strengthened support of federal environmental policy priorities and active engagement in implementation of these priorities by key partners.</p>	<p>Perspectives and knowledge of Aboriginal people consistently considered in EC decision-making and their capacity to participate in SD projects and initiatives is enhanced by end of 2000.*</p> <p>Increase the number of EC program areas with youth involvement in activities; and in providing strategic advice on key issues by December 2000.*</p> <p>Develop a strategy for youth participation in international fora by the end of 2000.*</p> <p>EC-environment/health NGO agenda by end of 2000.</p> <p>Develop a government-wide policy research agenda on Sustainable Development by providing Leadership on the Policy Research Initiative's Sustainability Project by March 2001.*</p>	<ul style="list-style-type: none"> • New Target • New Target • New target. • New Target
<p>Improve capacity of local communities and communities of interest to take action and share information.</p>	<p>100 communities benefit from information sharing and networking activities under the Millennium Eco-Communities initiative (MEC) by end of 2000.*</p>	

Indicators	Targets	Rationale for Change
Clear definition and advancement of Canada's environmental interests internationally.	A government-wide international strategy to advance the environmental and sustainable development agenda in international fora by end of 2000, in cooperation with DFAIT and other federal governments.	
Number of users of EC's Internet sites and information products.	A 10% increase over baseline year 2000 in the number of EC's Green Lane site visits; and improved access by Canadians to EC's information holdings by 2001.*	<ul style="list-style-type: none"> • New target.

✓ A well-performing organization supported by efficient and innovative services.

Indicators	Targets	Rationale for Change
Quality of corporate decision making (informed, realistic and communicated to staff).	Ongoing and future program funding linked to performance measurement information by 2001.	
	All decisions on strategic commitments of the Department supported by results-based implementation plans and reporting strategies by 2002.	<ul style="list-style-type: none"> • Target date delayed.
Degree to which the workforce is well led.	Communication of the Management Framework to build awareness and ownership to all staff by March 2001.	<ul style="list-style-type: none"> • New target.
	Increase consultations with, and involvement of employees affected or impacted by decisions.	<ul style="list-style-type: none"> • New target based on information from the PS Employee Survey.
	Departmental vision, direction and values are communicated effectively to all employees.	
	Clarify and reinforce ethical principles and values throughout the Department.	<ul style="list-style-type: none"> • New target based on principles of Modern Comptrollership.

Indicators	Targets	Rationale for Change
Degree to which the productivity and capacity of the workforce is achieved.	<p>Employee competencies are appropriately used to achieve organizational goals - 80% of employees report their capabilities are appropriately employed.</p> <p>Workforce increasingly representative of the public it serves - representation targets for women (technical category) 21.5%; Aboriginal Peoples 1.3%; Persons with Disabilities 4.9%; Visible minorities 9.8% by April 2005.</p> <p>An operative departmental economists network is established to improve departmental consistency/ capacity for economic support by end of 2000.</p>	<ul style="list-style-type: none"> • Targets aligned with departmental Employment Equity Action Plan • New target to establish and coordinate a departmental network of economists.
Degree to which the workplace environment supports and enables the work of employees.	<p>95% bilingual positions are filled by employees who meet the linguistic requirements of their positions.</p> <p>Baseline established for organizational health against which significant improvements will be made.</p>	
Degree to which the workforce is being developed to meet the evolving and future requirements of the Department.	Development of replacement plans for critical positions and groups.	<ul style="list-style-type: none"> • New Target
The extent to which Departmental environmental policy is applied and integrated into internal operations.	Reduce environmental risks and liabilities identified in the May 1999 Environmental Management Environment Programs by May 2000.*	

* These targets have been identified under EC's Sustainable Development Strategy.

3.6 KEY CO-DELIVERY PARTNERS

Nature Business Line	
✓ Conservation of biological diversity	
Key Co-Delivery Partners	Major Area of Cooperation
Provinces, territories, other federal departments	Implementation of the Accord for the Protection of Species at Risk in Canada
U.S., Mexico, provinces, other federal departments, private conservation agencies	North American Waterfowl Management Plan
Agriculture and Agri-Food Canada, Fisheries and Oceans, Natural Resources Canada and provinces	Implementation of the Biodiversity Convention and Strategy
✓ Understanding and reduction of human impacts on the health of ecosystems.	
Key Co-Delivery Partners	Major Area of Cooperation
Health Canada	Toxic Substances Research Initiative
Federal departments, provinces territories	Development of environmental quality guidelines and national environmental indicators
Health Canada, Industry Canada, Natural Resources Canada, Agriculture and Agri-Food Canada	Ecosystem science
Indian and Northern Affairs Canada	Northern Contaminants Program
Federal departments, provinces, territories, academia, community groups	Ecological monitoring and assessment
✓ Conservation and restoration of priority ecosystems.	
Key Co-Delivery Partners	Major Area of Cooperation
Federal and provincial governments, territories	Implementation of Federal Strategy to Prohibit Bulk Water Removals and development of federal water strategy
Community groups, non-profit organizations	EcoAction 2000
Arctic Council (Arctic states), other federal departments, territories, Aboriginal organizations, northern communities, non-governmental organizations, private sector	EC's Northern Agenda
Other federal departments, provinces, territories, Aboriginal organizations, communities, academia, non-governmental organizations, private sector	Ecosystem Initiatives

Clean Environment Business Line	
✓ <i>Reduced adverse human impact on the atmosphere and on air quality.</i>	
Key Co-Delivery Partners	Major Area of Cooperation
Natural Resources Canada	National Implementation Strategy on climate change
Canadian Council of Ministers of the Environment	Canada-wide standards
United States Environmental Protection Agency	Canada - U.S. Air Quality Accord
Provinces and Territories	Acid Rain
United Nations Agencies	International protocols
✓ <i>Understanding, and prevention or reduction of the environmental and human health threats posed by toxics substances and other substances of concern.</i>	
Key Co-Delivery Partners	Major Area of Cooperation
Health Canada	Assessment of toxic substances
Industry	Pollution prevention and emergency preparedness
Provincial and territorial governments	Enforcement of environmental laws and regulations
Department of Fisheries and Oceans	Protecting freshwater fisheries and the marine environment
Canadian Environmental Assessment Agency (CEAA)	Environmental assessment and CEAA review
Weather and Environmental Predictions Business Line	
✓ <i>Reduced impact of weather and related hazards on health, safety and the economy.</i>	
Key Co-Delivery Partners	Major Area of Cooperation
Media	Delivering warnings of weather and related environmental hazards to the public
World Meteorological Organization	Global telecommunications and data standards for the global exchange of meteorological data and products
Other government departments such as Health Canada, Department of National Defense, Department of Fisheries and Oceans (Coast Guard), Emergency Measures Organizations	Data, information and services to ensure safe delivery of their mandates and to safeguard public and marine safety (preventative and reactive).
Provinces	Hydrological and forestry information and data in support of transboundary water, floods, and forest management

Key Co-Delivery Partners	Major Area of Cooperation
<p>U.S. National Weather Service, Canadian Space Agency, U.S. National Oceanic and Atmospheric Administration, U.S. Corps of Engineers, U.S. Geological Survey</p> <p>International Atomic Energy Agency, Health Canada, International Civil Aviation Organization</p> <p>Universities, national and international research institutes, private sector</p> <p>Canadian Meteorological and Oceanographic Society and academia</p> <p>Thousands of volunteers (severe weather watchers, ham radio operators, ships of opportunity)</p>	<p>Radar and satellite data and imagery for warnings of weather, ice and related environmental hazards, transboundary flows and water management</p> <p>Emergency response related to nuclear accidents and volcanic eruptions</p> <p>Research and development on severe weather</p> <p>Programs to encourage youth and employment equity groups to pursue careers in science and atmospheric science in particular</p> <p>Detection of significant weather</p>
<p>✓ <i>Adaptation to day-to-day and longer term changes in atmospheric, hydrologic, and ice conditions.</i></p>	
Key Co-Delivery Partners	Major Area of Cooperation
<p>Media</p> <p>Research community (universities and institutes in Canada and abroad such as the UK Hadley Centre, the European Centre for Medium Range Weather Forecasts)</p> <p>Intergovernmental Panel on Climate Change, Inter-American Institute for Global Change Research and others</p> <p>Other government departments such as the natural resource departments and Health Canada</p> <p>U.S. National Weather Service, Canadian Space Agency, U.S. National Oceanic and Atmospheric Administration</p> <p>Cooperative federal and provincial agencies and thousands of volunteer climate observers</p>	<p>Delivering weather and environmental predictions and information to the public</p> <p>Multidisciplinary research and modelling related to atmospheric and environmental sciences</p> <p>Consensus on climate change science, impacts and advice for policy makers on adaptation and mitigation</p> <p>Data and R&D for understanding of environmental impacts on people and business and developing coping strategies</p> <p>Radar and satellite data and imagery for weather and environmental predictions</p> <p>Monitoring Canada's climate</p>

Management, Administration, and Policy Business Line	
✓ Strategic and integrated policy priorities and plans.	
Key Co-Delivery Partners	Major Area of Cooperation
Health Canada	Health/Environment Agenda
Indian and Northern Affairs Canada, Human Resources Development Canada, Health Canada	Aboriginal governance in Environment
Department of Foreign Affairs and International Trade	Furthering international cooperation
Canadian Council of Ministers of the Environment	Harmonization of environmental management between federal and provincial governments
✓ A well-performing organization supported by efficient and innovative services.	
Key Co-Delivery Partners	Major Area of Cooperation
Treasury Board Secretariat	Strengthening sound management
Public Works and Government Services Canada	Delivery of common services

4. HORIZONTAL INITIATIVES

4.1 MAJOR LEGISLATIVE AND REGULATORY INITIATIVES

Legislation and Regulations	Expected Results
<p><i>Species at Risk Act</i> - New legislation to be introduced for the protection of species at risk and their critical habitats.</p>	<ul style="list-style-type: none">• Provide a framework for protecting species at risk as well as safety net provisions when needed. Where combined federal and provincial efforts and private stewardship efforts are not sufficient to protect species and identified critical habitat, the Government of Canada would deploy measures to ensure protection.• Prevent Canadian indigenous species, subspecies and distinct populations of wildlife from becoming extirpated or extinct; provide for the recovery of endangered or threatened species; and to encourage the management of other species to prevent them from becoming at risk.
<p>Metal Mining Effluent Regulations - (Fisheries Act) - Revoke and replace - To reduce the environmental impact of metal mining discharges to the aquatic environment.</p>	<ul style="list-style-type: none">• Protect fish, fish habitat, and the use of fisheries resources by ensuring a consistent, maximum quality of effluent discharged to aquatic ecosystems.
<p>Tetrachloroethylene in Dry Cleaning Regulations - To reduce releases of tetrachloroethylene, commonly called PERC, to the environment from dry-cleaning facilities.</p>	<ul style="list-style-type: none">• Reduce threats to environmental and human health by reducing emissions of the solvent tetrachloroethylene from the dry cleaning sector.

4.2 ENVIRONMENT CANADA'S SUSTAINABLE DEVELOPMENT STRATEGY

Since the tabling of Environment Canada's Sustainable Development Strategy (SDS) in 1997, significant progress has been made against its four goals, which are to:

- strengthen Environment Canada's ability to meet sustainable development goals;
- be a more effective advocate of sustainable development;
- give Canadians the tools to make sound decisions in a changing environment; and
- set a good example in greening government operations.

Several of the Sustainable Development Strategy targets (specified in the next several pages) have either been met, or progress will continue over the upcoming years towards meeting the target. In a few instances targets have been reassessed (e.g. new targets established to replace others which were met last year, targets broadened or scaled down) based on the feasibility of their implementation.

Environment Canada, along with other federal departments, is now in the process of updating its Sustainable Development Strategy to be presented to the House of Commons by December 2000. As part of the Sustainable Development Strategy renewal process, Environment Canada will be carrying out consultations with stakeholders to seek input on its renewed Sustainable Development Strategy, as an agent for change.

Outstanding/ Ongoing Sustainable Development Strategy Targets and Deliverables for 2000-2001

SDS Goal	Targets	Indicator	Deliverables
1. Strengthen EC's Ability to Meet SD Goals	Contribute economic knowledge/tools to the development of management options for toxics programs by end of 2000. (NEW)	<i>Economic assessment of management options for toxics program.</i>	<ul style="list-style-type: none"> • develop a technical/economic screening framework for management options
	Improve departmental consistency/capacity for economic support by end of 2000. (NEW)	<i>An operative departmental economists network is established.</i>	<ul style="list-style-type: none"> • establish and coordinate a departmental network of economists
	By 2002, scientific knowledge and tools for the development of management actions to reduce human impacts on the health of ecosystems.	<i>Measures of the impact of science in policies, programs and on clients.</i>	<ul style="list-style-type: none"> • options developed for establishing a status and trends reporting system by 2001 • new ecosystem health indicators by 2002
2. Be a more effective advocate of SD	EC's base of support for SD is enlarged by ensuring <ul style="list-style-type: none"> • Coordinated sustainable development agendas with key sectors (e.g. health) by end of 2000. • Develop a government-wide policy research agenda on Sustainable Development by providing leadership on the Policy Research Initiative's Sustainability Project by March 2001. (NEW) 	<i>Strengthened support of federal environmental policy priorities, and active engagement in implementation of these priorities, by key partners.</i> As measured by: <ul style="list-style-type: none"> • number of mutually beneficial partnership arrangements in place with major sectors 	<ul style="list-style-type: none"> • consultations undertaken with sectors on specific problems/barriers in partnering with EC • health and other sector NGOs targeted, and a dialogue is initiated to identify mutual interests • an outreach strategy to encourage individual and collective action in place • a "partnerships plan" for NGOs with steps to improve mutual capacity to form effective partnerships

SDS Goal	Targets	Indicator	Deliverables
	<ul style="list-style-type: none"> • 100 communities benefit from information sharing and networking activities under the Millennium Eco-Communities initiative by end of 2000. • Increase the number of EC program areas with youth involvement in activities; and in providing strategic advice on key issues. by December 2000. (NEW) • Develop a strategy for youth participation in international fora by the end of 2000. (NEW) 	<ul style="list-style-type: none"> • number of communities benefiting from Millennium Eco-Communities and other community tools and initiatives • enhanced awareness of, and commitment to, EC's priorities and actions at the level of individual Canadians • number of youth working collaboratively with EC 	<ul style="list-style-type: none"> • further development and marketing of EC's community outreach resources, such as Millennium Eco-Communities • further development and expansion of Polaris and Youth Round Table to a broader base of youth • further recognition of environmental achievement
	<p>By end of 2000, the perspectives and knowledge of Aboriginal Peoples are consistently considered in EC decision making and their capacity to participate in SD projects and initiatives is enhanced.</p>	<p><i>Strengthened support of federal environmental policy priorities, and active engagement in implementation of these priorities, by key partners.</i></p> <p>As measured by:</p> <ul style="list-style-type: none"> • nature of partnership arrangements in place between EC and Aboriginal organizations • extent to which Aboriginal organizations feel they are being adequately engaged in EC decision making 	<ul style="list-style-type: none"> • meetings with Aboriginal organizations to discuss approach for the establishment of a framework for Aboriginal involvement in matters of the CCME • completion and adoption of the framework as regular modus operandi

SDS Goal	Targets	Indicator	Deliverables
<p>3. Give Canadians the tools to make sound decisions in a changing environment</p>	<p>Maintain service standards in the Public Weather Charter by 2001-2002. (NEW)</p>	<p><i>Studies of quality and utility of products and services.</i></p> <p>As measured by:</p> <ul style="list-style-type: none"> • surveys, client feedback mechanisms, client interviews 	<ul style="list-style-type: none"> • develop and implement service standards for warnings by end 2001 (NEW) • better understand the causes of severe weather and how best to observe its formation by end of 2002 (NEW) • install 10 new Doppler Radars and upgrade 16 others by end of 2003 (5 radars to be installed in 2000-2001, the remainder of the project currently under review due to resource constraints) • modernize sea ice remote sensing capability by end 2001 • modernize and automate water quantity networks by end of 2003 (delayed to 2003 from 2002 due to resource pressures) • develop hydrometric applications in the areas of water resource management including water flow and oil/chemical spills across jurisdictional boundaries by end of 2000 (withdrawn due to resource pressures)
	<p>Public and government satisfaction with products and services increased 10% in 2001-2002 over 1997-1998 baseline. (target scaled down due to resource pressures)</p> <p>Service standards for products and services met 80% of the time by 2000-2001. (target scaled down due to resource pressures)</p>	<p><i>Public and government satisfaction with products and services (includes accuracy, utility, accessibility)</i></p>	<ul style="list-style-type: none"> • by end of 2000, in partnership with provinces and other stakeholders, increase the number of Road Weather Systems (RWIS) to 75 from the present 45 (reduced from 100 to 75) • by end of 2000, develop and implement a heat balance model in support of Road forecast program • develop and implement 4-D data assimilation techniques into numerical models by end of 2001

SDS Goal	Targets	Indicator	Deliverables
			<ul style="list-style-type: none"> • improve predictions from climate and weather models as a result of better representations of clouds and aerosols by end of 2000 • physical/chemical processes in the life cycle of atmospheric constituents better understood by end of 2002 • improve seasonal and multi-seasonal climate predictions by end of 2001 (NEW) • extend public weather forecasts out to 7 days by end of 2002 (NEW) • deliver media and public education tools on climate change and air issues by end of 2000 (NEW) • in partnership with provinces and other stakeholders, expand Smog forecast to up to four locally-sensitive areas by end of 2000 (as funding permits)
	<p>A 10% increase over baseline year 2000 in the number of EC's Green Lane site visits; and improved access by Canadians to EC's information holdings by 2001. (NEW)</p>	<p><i>The number and characterization of Green Lane users</i></p> <p><i>User satisfaction: degree to which Canadian users are satisfied with EC's information, products and services for sustainable development (to support sound decision-making, individual and collective action) on the Internet.</i></p>	<ul style="list-style-type: none"> • implement a management and policy structure to facilitate the development and maintenance of a cohesive and integrated departmental Green Lane presence by December 2000

SDS Goal	Targets	Indicator	Deliverables
<p>4. Set a good example in the greening of government operations</p>	<p>Measurable progress by May 2000 to reduce environmental risks and liabilities identified in May 1999 Environmental Management Programs.</p>	<p><i>The extent to which departmental environmental policy is applied and integrated into internal operations.</i></p>	<ul style="list-style-type: none"> • continue with the integration of the EMS into departmental operations • service and regional EMPs are prepared • EMPs will include 3-year action plans for addressing environmental risks and liabilities • the departmental EMP, based on service and regional EMPs, is prepared and reflects department-wide priorities and targets • communications strategy to build employee awareness and participation • replace mercury-based equipment with alternative technologies by end of 2002 • clean up 25% of existing federal contaminated monitoring sites by end of 2002

5. FINANCIAL INFORMATION

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TABLE 5.1: SUMMARY OF CAPITAL SPENDING BY BUSINESS LINE

(\$ millions)	Forecast Spending 1999-2000 *	Planned Spending 2000-2001	Planned Spending 2001-2002	Planned Spending 2002-2003
Clean Environment	8.6	5.2	5.2	5.1
Nature	2.8	3.8	9.7	4.7
Weather and Environmental Predictions	30.6	18.8	20.8	17.8
Management, Administration and Policy	0.6	1.1	1.1	1.1
	42.6	28.9	36.8	28.7

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

The decrease from 1999-2000 to 2000-2001 is mainly due to funding in 1999-2000 for weather related radar acquisitions and for specific capital projects of a health and safety nature.

The decrease from 2001-2002 to 2002-2003 is mainly due to funding received in 2001-2002 for a one-time capital project of a health and safety nature.

TABLE 5.2: DETAILS ON MAJOR CAPITAL PROJECT SPENDING

(\$ millions)	Current Estimated Total Cost	Forecast Spending to March 31, 2000	Planned Spending 2000-2001	Planned Spending 2001-2002	Planned Spending 2002-2003	Future Year Spending Requirement
Nature						
Revitalization of Laboratories - National Water Research Institute (PPA - S)	5.7	-	-	-	-	5.7
Relocation of the NWRC	10.0	-	1.0	7.0	2.0	-
Weather and Environmental Predictions						
Doppler upgrade - Radar Network Modernization (EPA - S)	39.2	17.5	5.5	5.0	4.2	7.0
Weather station construction Eureka N.W.T. (EPA - S)	4.1	2.1	1.0	0.8	0.2	-
Weather Warning Delivery System (EPA - S)	3.8	2.9	0.7	0.2	-	-
Mercury manometer replacement program (EPA - S)	3.8	3.1	0.4	0.3	-	-
Automation & real-time access to discharge data-hydrology (EPA - S)	3.3	1.2	0.7	0.7	0.7	-
Modernization of the Climate Observing Program (EPA - S)	8.6	0.7	0.2	0.3	1.6	5.8
Upper Air Network Modernization Phase III (DA - S)	2.5	2.5	-	-	-	-
Procurement of Airborne Radars	6.5	6.5	-	-	-	-

(PPA) Preliminary Project Approval
(EPA) Effective Project Approval
(DA) Delegated Authority
(S) Substantive Estimate

TABLE 5.3: SUMMARY OF TRANSFER PAYMENTS

(\$ millions)	Forecast Spending 1999-2000 *	Planned Spending 2000-2001	Planned Spending 2001-2002	Planned Spending 2002-2003
Grants				
Clean Environment	64.5	52.0	2.0	2.0
Weather and Environmental Predictions	60.9	0.8	0.8	0.8
Management, Administration and Policy **	0.2	-	-	-
Total Grants	125.6	52.8	2.8	2.8
Contributions				
Clean Environment	20.9	31.8	34.3	16.1
Nature	16.3	15.0	13.7	13.7
Weather and Environmental Predictions	4.2	4.4	4.4	4.4
Management, Administration and Policy **	1.6	1.8	1.8	1.8
Total Contributions	43.0	53.0	54.2	36.0
Total Transfer Payments	168.6	105.8	57.0	38.8

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

** Grant moved to contribution.

The decrease in grants in 2000-2001 is related to one time payments to the Canadian Meteorological and Oceanographic Society (\$60M) and the Federation of Canadian Municipalities (\$62.5M) in 1999-2000. The decrease in grants in 2001-2002 is related to a one-time grant payment for the creation of a Sustainable Development Technology Fund (\$50M) in 2000-2001.

The increase in 2000-2001 contributions is mainly due to an increase in project funding related to the environmental clean-up of the Sydney Tar Ponds contaminated site. Future years changes in contributions are mainly due to a decrease in that funding in 2002-2003.

TABLE 5.4: SOURCE OF RESPONDABLE AND NON-RESPONDABLE REVENUE

Responsible Revenue

(\$ millions)	Forecast Revenue 1999-2000 *	Planned Revenue 2000-2001	Planned Revenue 2001-2002	Planned Revenue 2002-2003
Clean Environment				
Information Products	0.4	0.3	0.3	0.3
Scientific and Professional Services	5.0	5.0	4.8	4.8
Regulatory Services	1.5	1.9	1.8	1.8
Realty (Accommodation)	0.1	0.2	0.2	0.2
	7.0	7.4	7.1	7.1
Nature				
Information Products	0.3	0.4	0.4	0.3
Scientific and Professional Services	5.2	5.7	6.0	6.0
Realty (Accommodation)	0.7	-	-	-
Regulatory Services	0.1	0.8	0.8	0.8
	6.3	6.9	7.2	7.1
Weather and Environmental Predictions				
Information Products	48.6	50.7	53.4	50.7
Scientific and Professional Services	12.4	12.4	12.6	12.2
Realty (Accommodation)	0.5	0.5	0.6	0.6
Sale of Sponsorships	0.2	0.2	0.2	0.2
	61.7	63.8	66.8	63.7
Management, Administration and Policy				
Realty (Administration)	0.5	0.5	0.5	0.5
	0.5	0.5	0.5	0.5
Total Responsible Revenue	75.5	78.6	81.6	78.4

Non-responsible Revenue

(\$ millions)	Forecast Revenue 1999-2000 *	Planned Revenue 2000-2001	Planned Revenue 2001-2002	Planned Revenue 2002-2003
Clean Environment				
Miscellaneous	0.2	0.1	0.1	0.1
Nature				
Regulatory Services	2.2	2.0	2.0	2.0
Scientific and Professional Services	0.2	0.1	0.1	0.1
Miscellaneous	0.4	0.2	0.2	0.2
	2.8	2.3	2.3	2.3
Weather and Environmental Predictions				
Information Products	2.0	2.3	2.3	2.3
Scientific and Professional Services	-	-	-	-
Miscellaneous	1.9	2.0	2.0	2.0
Royalties	0.5	0.1	0.1	0.1
	4.4	4.4	4.4	4.4
Total Non-responsible Revenue	7.4	6.8	6.8	6.8
Total Responsible and Non-responsible Revenue				
	82.9	85.4	88.4	85.2

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

Please note that the increase from 1999-2000 and subsequent fluctuations in the planning years is primarily due to changes in NAVCAN and DND Contracts.

TABLE 5.5: NET COST OF PROGRAM FOR THE ESTIMATES YEAR

(\$ millions)	
Net Planned Spending	666.3
<i>Plus: Services Received without Charge</i>	
Accommodation provided by Public Works and Government Services Canada (PWGSC)	29.3
Contributions covering employees' share of employees' insurance premiums and expenditures paid by TBS	14.4
Workman's compensation coverage provided by Human Resources Canada	1.6
Salary and associated expenditures of legal services provided by Justice Canada	1.6
	46.9
<i>Less: Non-responsible Revenue</i>	(6.8)
2000-2001 Net cost of Program	706.4

TABLE 5.6: 2000-2001 GROSS PLANNED SPENDING BY ORGANIZATION AND BUSINESS LINE

	REG DIR GEN Pacific and Yukon	REG DIR GEN Prairie and Northern	REG DIR GEN Ontario	REG DIR GEN Quebec	REG DIR GEN Atlantic	DIR GEN Human Resources
Clean Environment	10.6	9.8	9.9	7.7	23.7	0.0
Nature	15.3	15.2	28.5 ⁽²⁾	21.5	9.2	0.0
Weather and Environmental Predictions	20.8	40.9	19.0	16.1	13.7	0.0
Management, Administration and Policy	8.7	7.5	9.3	5.1	5.0	6.2
Total - \$ millions	55.4	73.4	66.7	50.4	51.6	6.2
Full-Time Equivalents	462	622	469	477	362	81

REG DIR GEN = Regional Director General
ADM = Assistant Deputy Minister

NOTES:

- (1) Amount includes new Budget 2000 resources of a \$50M one-time funding for the creation of a Sustainable Development Technology Fund.
- (2) Amount includes new Budget 2000 resources of \$8.0M for the Great Lakes Action Plan.
- (3) Amount includes new Budget 2000 resources of \$20.0M for Species at Risk.
- (4) Figures include spendable revenue.

Climate Change Secretariat						Deputy Minister National Resources Canada			
ADM Policy and Communications	Corporate Offices	ADM Corporate Services	ADM Meteorological Service of Canada	ADM Environmental Protection Service	ADM Environmental Conservation Service		Total \$ Millions	Total FTE	
16.6	0.0	0.0	6.2	139.0 ⁽¹⁾	7.8		231.3	1,000	
0.0	0.0	0.0	0.0	1.5	81.2 ⁽³⁾		172.4	1,075	
0.0	0.0	0.0	122.1	0.0	0.4		233.0	1,672	
20.3	6.0	37.3	0.8	1.5	0.5		108.2	1,016	
36.9	6.0	37.3	129.1	142.0	89.9		744.9		
166	60	269	768	490	537			4,763	

6. OTHER INFORMATION

6.1 PLANNED REGULATORY INITIATIVES

Regulations	In 2000-2001, Environment Canada proposes to:
Amendment allowing establishment of Waterfowler Heritage Days - <i>Migratory Birds Regulations</i>	• publish regulations by the 1 st quarter of 2000-2001
Amendments to special conservation seasons to control overabundant species - <i>Migratory Birds Regulations</i>	• publish regulations by the 1 st quarter of 2000-2001
Annual hunting regulations establishing hunting season dates and bag and possession limits for migratory game birds - <i>Migratory Birds Regulations</i>	• publish regulations by the 1 st quarter of 2000-2001
Amendments to Schedule I to implement species decisions of 11 th Meeting of the Conference of the Parties to CITES (April 2000) - <i>Wild Animal and Plant Trade Regulations</i>	• publish regulations by the 2 nd quarter of 2000-2001
Amendment allowing for annual murre hunt in Province of Newfoundland and Labrador - <i>Migratory Birds Regulations</i>	• publish regulations by the 2 nd quarter of 2000-2001
Federal Halocarbon Regulations - Amendments	• publish regulations in the 2 nd quarter of 2000-2001
New Substance Notification Service Fees Regulations	• publish regulations in the 2 nd quarter of 2000-2001
New Substances Notification Regulations - Amendment (Schedules 9 & 10)	• publish regulations in the 2 nd quarter of 2000-2001
New Substances Notification Regulations - Amendment to section 16	• publish regulations in the 2 nd quarter of 2000-2001
Prior Informed Consent Regulations	• publish regulations in the 2 nd quarter of 2000-2001
Regulations Amending the Pulp and Paper Effluent Regulations (<i>Fisheries Act</i>)	• publish regulations in the 2 nd quarter of 2000-2001
Tetrachloroethylene in Dry Cleaning Regulations	• publish regulations in the 2 nd quarter of 2000-2001
Prohibition of Certain Toxic Substances Regulations Amendment (Benzidine and Hexachlorobenzene)	publish regulations in the 3 rd quarter of 2000-2001
Ozone-Depleting Substances Regulations - Amendment	• publish regulations in the 3 rd quarter of 2000-2001

PLANNED REGULATORY INITIATIVES (CONT'D)

Addition of the Parksville Protocol, which amends the Migratory Birds Convention (MBC), to the Schedule of the MBC Act

- publish Ministerial Order in the 4th quarter of 2000-2001

Amendment to establish and enlarge Migratory Bird Sanctuaries (Grindstone Island in New Brunswick and Iles-aux-Hérons in Quebec) - *Migratory Bird Sanctuary Regulations*

- publish regulations by the 4th quarter of 2000-2001

Regulations required to proclaim *Species at Risk Act*, including regulations governing elements of compensation, and regulations setting out terms of reference for the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

- publish regulations in 2000

Dichloromethane (DCM) Regulations

- publish regulations in 2000-2001

Regulations

In 2001-2002, Environment Canada proposes to:

Annual hunting regulations establishing hunting season dates and bag and possession limits for migratory game birds - *Migratory Birds Regulations*

- publish regulations by the 1st quarter of 2001-2002

Ocean Disposal Regulations

- publish regulations in 1st quarter 2001-2002

Comprehensive revisions to the *Migratory Birds Regulations* and the *Migratory Birds Sanctuary Regulations*

- publish regulations in 2001

Amendment to enlarge Alaksen National Wildlife Area in British Columbia - *Wildlife Area Regulations*

- publish regulations in 2001

Amendments to Schedule II to add species that may be harmful and require an import permit - *Wild Animal and Plant Trade Regulations*

- publish regulations in 2001

Interprovincial/Territorial Movement of Hazardous Waste Regulations

- publish regulations in 2001-2002

Metal Mining Effluent Regulations (*Fisheries Act*)

- publish regulations in 2001-2002

Polychlorinated Biphenyl Regulations

- publish regulations in 2001-2002

Regulations Respecting the Manufacture and Import of Residential Wood Combustion Appliances

- publish regulations in 2001-2002

Surface Finishing Hexavalent Chromium Release Regulations

- publish regulations in 2001-2002

Transboundary Movement of PCB Wastes Regulations

- publish regulations in 2001-2002

PLANNED REGULATORY INITIATIVES (CONT'D)

Regulations	In 2002-2003, Environment Canada proposes to:
Annual hunting regulations establishing hunting season dates and bag and possession limits for migratory game birds - <i>Migratory Birds Regulations</i>	<ul style="list-style-type: none"> publish regulations by the 1st quarter of 2002-2003
Provisions for pre-Convention and ranched specimens - <i>Wild Animal and Plant Trade Regulations</i>	<ul style="list-style-type: none"> publish regulations by 2002 publish regulations by 2002
Permit and inspection fees, record keeping, marking of specimens, and designated ports of entry - <i>Wild Animal and Plant Trade Regulations</i>	
Export and Import of Hazardous Wastes Regulations	publish regulations in 2002-2003
Export and Import of Prescribed Non-Hazardous Wastes Destined for Final Disposal Regulations	<ul style="list-style-type: none"> publish regulations in 2002-2003
New Regulation (emission standards for vehicles)	<ul style="list-style-type: none"> publish regulations in 2002-2003
New Substances Notification Regulations - Amendment to the Chemicals and Polymers Portion	<ul style="list-style-type: none"> publish regulations in 2002-2003
Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands	<ul style="list-style-type: none"> publish regulations in 2002-2003
Fish Habitat and Spill Reporting Regulations (<i>Fisheries Act</i>)	<ul style="list-style-type: none"> unscheduled
Federal Hazardous Wastes Regulations	<ul style="list-style-type: none"> unscheduled
Hydrofluorocarbons (HFCs) Regulations	<ul style="list-style-type: none"> unscheduled

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6.3 GLOSSARY

Benzene	A toxic substance (a known human carcinogen) present in gasoline.
Biodiversity / biological diversity	The variability among living organisms, including diversity within species, between species and of ecosystems.
Delegated Authority (DA)	Projects for which Treasury Board has delegated authority to the Department.
Dichlorodiphenyl Trichloroethane (DDT), chlordane	Synthetic, chlorinated, organic pesticides. Although no longer registered for use domestically, they may still enter the Canadian environment through long-range atmospheric transport or release from contaminated sites.
Dioxins and Furans	Popular names for two classes of chlorinated organic compounds, formed either as by-products during some types of chemical production that involve chlorine and high temperatures, or during combustion where a source of chlorine is present.
EcoAction 2000	A departmental funding program that helps Canadians take action in support of a healthy environment. It provides financial assistance to non-profit Canadian groups that wish to undertake local environmental projects.
Ecosystem	An integrated and stable association of living and non-living resources functioning within a defined physical location.
Effective Project Approval (EPA)	Treasury Board's approval of, and expenditure authorisation for, the objectives of the project implementation phase. Sponsoring departments and agencies are to submit for EPA only when the scope of the overall project has been defined and when the estimates have been refined to the substantive level.
Endangered species	A species facing imminent extirpation or extinction.
Endocrine-disruptive substances	Pollutants that mimic the effects of natural hormones, and can affect growth, development and reproduction of fish, wildlife and human.

GLOSSARY (CONT'D)

Environmental Management System (EMS)	A systematic approach for organizations to bring environmental considerations into decision making and day-to-day operations. It also establishes a framework for tracking, evaluating and communicating environmental performance. An EMS helps ensure that major environmental risks and liabilities are identified, minimized and managed.
Forecast Spending	Amount that reflects the best forecast of total planned spending to the end of the current fiscal year.
Greenhouse Gases (GHGs)	Gases in the atmosphere that trap the sun's energy and thereby contribute to rising surface temperatures. The main greenhouse gas that contributes to climate change is carbon dioxide (CO ₂), a byproduct of burning fossil fuels. Other greenhouse gases include methane (from agricultural sources) and nitrous oxide (from industrial sources).
Gross Planned Spending	Amount that reflects total planned budgetary spending whether funded through budgetary appropriations or revenue credited to the vote. It can also include adjustments anticipated as a result of budget measures.
Ground-Level Ozone	Ozone (O ₃) that occurs near the surface of the earth and is injurious to health. Its toxic effects make this pollutant a major component of smog.
Kyoto Protocol	An international agreement under the United Nations Framework Convention on Climate Change and signed by Canada in April 1998 that establishes binding targets for reducing emissions of greenhouse gases.
Net Cost of Program	Amount that reflects the addition of any planned non-budgetary spending and services provided without charge by other departments and agencies and offset by revenues credited to the Consolidated Revenue Fund.
Net Planned Spending	Amount that is planned budgetary spending net of any revenue credited to the vote.
Non-Respendable Revenue	The equivalent to revenue credited to the Consolidated Revenue Fund (CRF). The term Non-Respendable Revenue better explains the type of revenue it is as opposed to where the revenues will go.

GLOSSARY (CONT'D)

Particulate matter	Microscopic solid and liquid particles, of human and natural origin, that remain suspended in the air for some time. Particles give smog its color and affect visibility, and are believed to have adverse affects on vegetation and on various synthetic and natural surfaces.
Persistent Organic Pollutants (POPs)	Organic substances that do not break down quickly in the environment and are readily taken in by living organisms through contaminated food, water or air. These pollutants include some pesticides (e.g. DDT, Chlordane, Endrin); industrial chemicals (e.g. PCBs) or byproducts and contaminants (e.g. dioxins and furans).
Polychlorinated Biphenyls (PCBs)	This group of isomers was originally used for its flame-retardant attributes. Used since 1929 in the production of electrical transformers and lubricating oils, PCBs became regulated in Canada in 1977. The importation of all electrical equipment containing PCBs was banned in 1980.
Preliminary Project Approval (PPA)	Defines Treasury Board's authority to initiate a project in term of its intended operational requirement, including approval of, and expenditure authorisation for, the objectives of the project definition phase. Sponsoring departments and agencies are to submit a PPA when the project's complete scope has been examined and costed, normally to the indicative level, and when the cost of the project definition phase has been estimated to the substantive level.
Priority Substances List (PSL)	Two lists (list 1 and 2) of priority substances for assessment of toxic under CEPA. The first list of 44 substances has been assessed and management plans are being developed or implemented for the 25 substances that were assessed as toxic. The second list of 25 substances has been published in Part I of the Canada Gazette and is being assessed.
Report on Plans and Priorities	A department's primary strategic level planning document, intended for parliamentary and public scrutiny. It portrays the department's mandate, plans and priorities and sets out strategies for achieving expected key results.
Respendable Revenue	The equivalent to revenue credited to the vote. The term Respendable Revenue better explains the type of revenue as opposed to where the revenues go.
Species at risk	General term for species that are endangered, threatened or vulnerable.

GLOSSARY (CONT'D)

Stratospheric Ozone	The layer of the earth's atmosphere, extending from 15 to 35 kilometers above the earth, that protects life on the planet by absorbing harmful ultraviolet rays.
Substantive Estimate (S)	Estimate of sufficiently high quality and reliability so as to warrant Treasury Board approval as a cost objective for the project phase under consideration. It is based on detailed system and component design and takes into account all project objectives and deliverables. It replaces the classes of estimates formerly referred to as Class A or B.
Sulphur dioxide, SO₂, wet sulphate	A substance present in emissions from combustion of fossil fuels that enters the atmosphere and returns to earth with precipitation as acid rain.
Sustainable Development (SD)	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
The Green Lane	Environment Canada's World Wide Web site
Threatened species	A species likely to become endangered if limiting factors are not reversed.
Toxic substance	According to CEPA definition: A substance that is entering or may enter the environment in a quantity or a concentration or under conditions: <ul style="list-style-type: none">• having or that may have an immediate or long-term harmful effect on the environment, or• constituting or that may constitute a danger to the environment on which human life depends, or• constituting or that may constitute a danger in Canada to human life or health.
Transfer Payments	A payment authorized by a budgetary appropriation for which no goods or services are received in exchange, and that neither gives rise to financial claim nor represents the liquidation of financial obligations.
Vote	A request to Parliament for appropriation. A vote becomes an appropriation only when the Appropriations Act in which it is contained receives royal assent.

6.4 ACRONYMS

CCME	Canadian Council of Ministers of the Environment
CEAA	Canadian Environmental Assessment Agency
CEPA	<i>Canadian Environmental Protection Act</i>
CFCs	Chlorofluorocarbons
CITES	Convention on International Trade in Endangered Species
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DCM	Dichloromethane
DDT	Dichlorodiphenyl Trichloroethane
DFAIT	Department of Foreign Affairs and International Trade
DND	Department of National Defence
DSL	Domestic Substances List
EC	Environment Canada
EMP	Environmental Management Plan
EMS	Environmental Management System
FIS	Financial Information Strategy
FTEs	Full-Time Equivalents
GHGs	Greenhouse Gases
HFCs	Hydrofluorocarbons
MBC	Migratory Birds Convention
MEC	Millennium Eco-Communities
MSC	Meteorological Service of Canada
NGO	Non-Governmental Organization
PCBs	Polychlorinated Biphenyls
PERC	Tetrachloroethylene
POPs	Persistent Organic Pollutants
PS	Public Service
PSL	Priority Substances List
R&D	Research and Development
SARA	<i>Species at Risk Act</i>
SD	Sustainable Development
SDS	Sustainable Development Strategy
TBS	Treasury Board Secretariat
ZIP	Priority Intervention Zones

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