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# **PLANNING FOR A SUSTAINABLE FUTURE: A FEDERAL SUSTAINABLE DEVELOPMENT STRATEGY FOR CANADA**

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## **CONSULTATION PAPER**

Sustainable Development Office  
Environment Canada

March 2010

**Canada** 



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## A Message from the Minister

To maintain our standard of living in the 21st century, Canada must address the challenge of environmental sustainability. The issues are well known; we need to address climate change and air quality, maintain water availability and quality, and protect our natural heritage. Environmental issues must be balanced with economic considerations. By doing so, we can make long-term sustainable progress on the environment that is integrated with progress on the economic and social agenda for Canadians.



I am pleased to present to Canadians this consultation paper, *Planning for a Sustainable Future: A Federal Sustainable Development Strategy for Canada*, that will both strengthen how government promotes environmental sustainability, and improve the transparency and accountability of how we do it.

This Federal Sustainable Development Strategy represents a major step forward for the Government of Canada by including environmental sustainability as an integral part of its decision-making processes. It replaces a system that was established in 1995, when amendments to the *Auditor General Act* required key federal departments and agencies to table in Parliament their individual strategies for sustainable development. The old system had many problems and did not achieve the intended results. Without one government-wide strategy, environmental sustainability issues were often pushed to the margins of federal planning and reporting. There were no goals, no targets, and no way to measure federal accomplishments. In government as elsewhere, what gets measured gets done.

This system had many critics. In 2002, for example, the Commissioner of the Environment and Sustainable Development (CESD) observed that watching 32 departments and agencies try to prepare their strategies in the absence of an over-arching government-wide plan was like watching people try to assemble a large jigsaw puzzle without the picture on the box. Because the individual strategies were not integrated into broader government goals and targets, their contribution to environmental sustainability was very modest. The federal government was not showing leadership, and it was not delivering results.

To strengthen the system and to address some of the weaknesses found by the CESD, we are proposing a new approach. The three key elements of this Strategy represent the first major improvement in the system since 1995. First, the Strategy will provide an integrated, whole of government picture of actions to achieve environmental sustainability. Second, we are linking sustainable development planning and reporting with the Government's core expenditure planning and reporting system. And finally, we are establishing effective measurement, monitoring and reporting in order to track and report on progress to Canadians.

The Government of Canada welcomes this opportunity to improve planning and reporting for environmental sustainability. Taking into account international best practices and the purpose of the *Federal Sustainable Development Act*, Canada's first Federal Sustainable Development Strategy will take a pragmatic approach, based on key priorities.

The proposed approach is one of responsible, practical progress. It will deliver a significant advance in terms of sustainable development in Canada, and will also allow the Government to build on it as we learn over time. Focusing on environmental sustainability at the outset will allow the Government to address environmental sustainability in a clear and coherent way, while at the same time placing an emphasis on getting the framework right.

This consultation paper outlines the Strategy. It responds to the advice of many, including the CESD, on how to improve transparency and accountability. Now we are seeking further input and advice from the Commissioner, the Sustainable Development Advisory Council, Parliament, and all interested Canadians.

The paper sets out long-term goals and, for each goal, a series of targets for short- and medium-term action. Each goal and target is supported by specific government initiatives—some of which have already been launched, and some that will lead very soon to specific policies and programs.

*Planning for a Sustainable Future* will help Canadians and Parliament identify whether there are gaps in the system, and how effective the Government has been in hitting the targets it has set. It will become a very valuable tool to help government set ambitious goals that will lead to a more sustainable Canada.

For the first time the Government of Canada will have a coherent strategy for sustainable development across the various departments and agencies. The Strategy will streamline the way these departments and agencies report, and put sustainable development at the heart of government decision-making. This Strategy will be more transparent to Canadians, hold government departments and their Ministers more accountable, and will deliver better results.

I am looking forward to receiving guidance from Canadians on the issues that are presented in this consultation paper, and I am looking forward to implementing the new Strategy.

Jim Prentice  
Minister of the Environment

## Looking for Input and Advice from Canadians

Environment Canada is looking for guidance from Canadians on the basic structure of a government-wide strategy that will do a better job of incorporating environmental considerations into policy and program decisions in departments and agencies.

Chapter 1 of this consultation paper outlines the challenge of changing how government addresses environmental considerations in its decision-making. It identifies past weaknesses as identified by the Commissioner of the Environment and Sustainable Development.

Chapter 2 outlines the Government's proposed new approach to sustainable development planning and reporting. Sustainable development does not lend itself to quick fixes, and this Strategy is geared to establishing an on-going cycle of improvements over the long term. The chapter presents the three core elements of the proposed Strategy to make environmental decision-making more transparent: first, a government-wide picture of goals and actions to achieve environmental sustainability; second, integration of sustainability planning and reporting with the government's core expenditure planning and reporting system; and third, effective measurement and monitoring.

Chapter 3 describes the four main areas of action in the draft Strategy and includes details of the specific goals, targets and implementation strategies in each of these areas.

Chapter 4 describes the benefits of the proposed approach for establishing goals, targets and implementation strategies, and how they will be adjusted and strengthened over time.

Federal departments and agencies will contribute to the goals of the Strategy through the development of complementary departmental strategies that are built into their core Reports on Plans and Priorities.

The Government wants to benefit from the broadest possible range of expertise and guidance as it launches this process to make environmental decision-making more transparent and accountable to Parliament.

Your comments on the draft Federal Sustainable Development Strategy can be provided by email to [sdo-bdd@ec.gc.ca](mailto:sdo-bdd@ec.gc.ca) or mailed to the Sustainable Development Office at Environment Canada at the following address by July 12, 2010:

Federal Sustainable Development Office  
10 Wellington Street, 25th Floor  
Environment Canada  
Gatineau, QC K1A 0H3

A summary of the public input received will be posted online shortly after the completion of the review period.



## CHAPTER 1: Context

### Sustainable Development – Bringing Environmental Considerations into the Decision-Making Process

In 1972, the delegates of the United Nations Conference on the Human Environment recognized the interconnection of economic development and the environment. Some 15 years later, the World Commission on Environment and Development took this concept further when it defined *sustainable development* as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

That definition has helped shape public policy, business strategies, and individual choices for nearly a quarter century. It envisions a world where all decisions – what we produce, what we buy, where we live, what we value – are informed by the exigency of taking better care of the planet. Rather than looking at policy issues in terms of two pillars – economic and social, with environmental considerations a part of the economic pillar – the concept of sustainable development sees three equal and mutually reinforcing pillars, all of which must be strong: economic, social and environmental.

A truly sustainable economy would require that environmental considerations inform every decision made – by governments, by businesses and organizations, and by individuals. In the past decades, we can point to anecdotal evidence that this transformation is happening. We recycle. Our homes and vehicles are more energy efficient. We find innovative ways to reduce carbon dioxide emissions and pollution. We protect wilderness areas and rehabilitate rivers and lakes. The world has changed considerably since 1972. But it is not enough. We are still searching for a way to incorporate environmental considerations into everything we do – to promote the consideration of environmental factors in decisions in the same way we consider economic and social factors.

Around the world, many countries have taken steps to promote sustainable development, and there is much to learn from what has worked elsewhere, and what has not. An OECD study has found that, where governments have attempted to move too quickly and on too many simultaneous fronts to achieve sustainable development, governance systems have become overloaded and paralyzed, and little progress has been made.<sup>1</sup>

Other countries have taken modest, achievable first steps, and built upon early successes to expand into new areas. In these countries, environmental considerations have been better integrated into economic and social policy over time.<sup>2</sup> The key to success, it seems, is to focus on a few priorities early on and, in this way, lay the groundwork for longer-term institutional change.

### Canada's Approach – the Past

What has been Canada's approach? Over the past 15 years, we have taken a piecemeal approach that has neither paralyzed the system, nor delivered major results.

In 1995, amendments to the *Auditor General Act* required departments and agencies to develop their own sustainable development strategies. The Office of the Commissioner of the Environment and Sustainable Development (CESD) was created with a mandate to monitor the extent to which departments met the objectives of their sustainable development strategies.

This decentralized approach was a beginning but, in the years since then, many observers, including the CESD, have noted that the system is not truly setting Canada on the path toward a sustainable future. The Commissioner has published annual reports on this subject since 1998. Consistently, those audits have highlighted the following:

- The absence of an over-arching sustainable development strategy has meant there is neither central direction nor a longer-term focus.
- Inadequate performance measurement, monitoring and reporting have resulted in no information about whether initiatives are working or how they should be adjusted over time: there is no cycle of “plan, do, check, improve.”
- Sustainable development planning and reporting in government has been added on to, rather than integrated with, core planning and reporting requirements.
- Performance indicators were not accurate enough, comprehensive enough, or given in a timely enough manner to influence decision-making.
- Targets and goals at the departmental level have been so vague and unfocused that even when they were met, they failed to make any real difference.

As these criticisms accumulated, it became obvious that government needed to change its approach.<sup>3</sup>

### Canada's Approach – Planning for a Sustainable Future

In 2006, during the tabling of the fourth round of departmental strategies under the requirements of the *Auditor General Act*, the Government acknowledged the Commissioner's observations and committed to examining a range of options, including legislation and a review of global best practices, to make progress toward placing sustainability at the heart of the Government's activities.

In 2008, Parliament passed the *Federal Sustainable Development Act* (FSDA) which requires the Government of Canada to develop a comprehensive Federal Sustainable Development Strategy (FSDS).

Section 3 of the Act states that its purpose is “*to provide the legal framework for developing and implementing a Federal Sustainable Development Strategy that will make environmental decision-making more transparent and accountable to Parliament*”.

The proposed Strategy will be updated every three years, and will guide the various departments and agencies as they develop their detailed plans to support the Strategy. This will provide central coordination of the government’s activities, and it will link sustainable development to the core of the decision-making process.

To really work, the FSDS must be supported by a set of goals, targets, and implementation strategies and – just as important – a way of measuring progress. What gets measured gets done. The Government will report every three years on progress in achieving the goals and targets established in the Strategy.

Canadian policy makers have long sought a way to benchmark and track our country’s progress towards making its economy more sustainable. We use metrics such as the Gross Domestic Product to track economic progress. We measure infant mortality, high school retention rates, and literacy levels to assess various priorities for social policy. Policy makers have also developed hybrid measurements such as the Human Development Index or the Composite Learning Index to assess the interaction of economic and social objectives.

The proposed Strategy would establish the basis to strengthen sustainable development planning and reporting for the long term. It does not promise an overnight fix – that would be neither responsible nor sustainable. Rather, it puts in place a system of continuous improvement in making federal environmental decision-making more transparent and accountable to Parliament and to Canadians. The Strategy would deliver on this objective through three key features, each of which represents a major improvement over the existing system that is being replaced:

1. Providing an integrated, whole of government picture of actions to achieve environmental sustainability.
2. Linking sustainable development planning and reporting with the government’s core expenditure planning and reporting system.
3. Establishing effective measurement, monitoring and reporting in order to track and report on progress to Canadians.

We want to integrate actions throughout the government.

We want to establish the right measurement, monitoring and reporting structures to track progress and keep Canadians informed.

If we can get this right, and begin to measure in a meaningful way the government's progress in placing sustainability at the core of its programs and initiatives, we have a tool that can be used to advance sustainability across government. Once we begin succeeding in specific areas, we can replicate that success elsewhere. The increased transparency, the requirement to update the Strategy and to report on results every three years will help ensure we sustain progress over the long term. Eventually, we hope to have a set of tools and metrics that will be able to promote environmentally sustainable economic development throughout Canadian society.

## CHAPTER 2: A Strategic Approach

### Whole-of-Government Picture

The proposed approach of developing an integrated, whole-of-government picture of actions to achieve environmental sustainability will provide the first comprehensive view of federal activities in four broad environmental areas that are important to Canadians and their government. Goals, targets and implementation strategies have been identified in each of these areas:

- Addressing Climate Change and Air Quality;
- Maintaining Water Quality and Availability;
- Protecting Nature; and,
- Shrinking the Environmental Footprint – Beginning with Government.

Additional information on these challenges and how sustainable development can make a difference, is provided in Chapter 3 of this document. For the first time, Canadians will be able to see clearly what activities their government has under way to protect and enhance our natural heritage. It is an important first step.

### Linking Sustainable Development to Core Planning and Reporting

How can these four key priority areas be better incorporated into the government's system for expenditure planning and reporting? This is the second element of the proposed approach.

Repeatedly, over the past decade, the CESD has commented on the inadequacies of the approach of having sustainable development planning and reporting as a separate and distinct process divorced from core government planning and reporting requirements. This proposed Federal Sustainable Development Strategy would integrate sustainable development into core planning and reporting by making use of existing measures to coordinate government activities, set priorities, and assess results. One key process is the Expenditure Management System (EMS) by which the federal government plans, monitors and reports on all of its activities.<sup>4</sup> It involves five major stages:

1. Priority Setting
2. Planning
3. Budgeting
4. Measuring, Monitoring and Control
5. Reporting

With this proposed Federal Sustainable Development Strategy we would begin the process of moving sustainable development considerations to the heart of core government planning and reporting mechanisms. This will address a key concern of the Commissioner of the Environment and Sustainable Development, elevate the profile of sustainable development, and address several requirements of the *Federal Sustainable Development Act* – including, the need to increase the transparency and accountability of environmental decision-making.

Departmental contributions to the Strategy will be reflected in the Reports on Plans and Priorities and the Departmental Performance Reports that departments table in Parliament and about which their senior officials testify before Parliamentary Committees.<sup>5</sup> The process will be more transparent and have a higher profile. Parliamentarians, the CESD and others will be able to monitor progress, identify gaps and weaknesses in the FSDS, and hold the Government to account. This, in turn, will enhance the Government's progress in each successive three-year FSDS, thus initiating a cycle of continuous improvement.

### **Tracking Progress**

The third and final element of the proposed new approach – monitoring and reporting – would rely not only upon the highly evolved EMS, but would also draw upon information currently available through the Canadian Environmental Sustainability Indicators (CESI). CESI provides objective and rigorous data and will furnish half of the required indicators for assessing progress across the Strategy's targets. Together, EMS and CESI will enable the Strategy to report across departments and compare results to the government-wide targets and the national goals. The Federal Sustainable Development Office will use this data when it prepares the federal-wide progress reports on the Strategies, every three years.

The three elements of the proposed approach, when taken together, will establish the Federal Sustainable Development Strategy, and supporting departmental strategies, as a more complete, precise and quantifiable picture of what is being done to promote environmental sustainability. The improved transparency, accountability and integration will drive progress and form the basis of continuous improvement as we learn and build on best practices.

## CHAPTER 3: Four Areas of Focus

Best practices and international experience have taught us of the benefits of a strategic and targeted approach to sustainable development planning and reporting. This knowledge has driven the Government in its preparation of this first draft Federal Sustainable Development Strategy. The environment is important to Canadians and there are four key elements that have consistently placed high on their list of priorities and those of their government:

### *I. Addressing Climate Change and Air Quality*

Canadians are concerned about climate change and air quality. They believe everyone has a role in countering the problems, and they expect their government to lead.

The challenge is daunting but not impossible. In fact, over the past decades, the will to combat climate change has strengthened along with the awareness of the stakes involved. New technologies point the way to clean energy and to methods of removing greenhouse gases. Canadians are showing a determination to act to address climate change. The Government of Canada is committed to combating dangerous climate change and promoting sustainable, low-carbon growth, including through leading the world in clean electricity generation. Canada is working constructively with the international community to implement the Copenhagen Accord, the first-ever international agreement covering all major emitting countries. The Government will develop and implement a climate change and clean energy strategy that is harmonized with that of the United States, and has already taken the step of aligning its 2020 emission reduction target with theirs. Recognizing the integrated continental economic links, the Government will work to reduce emissions through the Canada-U.S. Clean Energy Dialogue launched last year with the U.S. administration.

The quality of the air we breathe is closely related to many of the issues that lead to climate change. Many air-borne substances have an impact on smog, pollution and our overall quality of life, including human health. Poor air quality affects plants and animals, may put species at risk, and can reduce the productivity of our farms.

Meeting the twin challenges of climate change and air quality requires new ways to produce and transport products, fuels and foods. It will change how we light and heat our homes and offices, and how we commute and travel. Globally, we are facing the need to create a low-carbon world, where economic growth and competitiveness are driven by clean and efficient technologies. Canada intends to be a leader in that future world.

### *II. Maintaining Water Quality and Availability*

Canadians are stewards of the third-largest supply of fresh water in the world. Canada has about seven per cent of the world's total renewable freshwater supply. But Canadians are among the highest water users per capita in the world. The demand for water is increasing, and often different interests have conflicting demands. Sometimes Canadians take water

for granted, by wasting or misusing it.

Canada's rivers, lakes, wetlands and ocean environments provide the ecosystems that sustain nature, as well as environments that replenish our spirit, provide recreation and help shape Canada's identity.

Access to safe, clean water is a crucial issue for Canadians and their government. The Government of Canada is committed to ensuring that all Canadians have access to a reliable and secure supply of clean water, and that our water resources are used wisely, both economically and ecologically. We will also help Canadians restore lakes and marine ecosystems that have been damaged by pollution.

### *III. Protecting Nature*

Canadians take great national pride in our rich and diverse natural heritage. We have maintained a tradition of conservation and sustainable use of our biological resources. Canada is a steward of many globally significant ecosystems, including 30 per cent of the world's boreal forests and 20–30 per cent of freshwater wetlands. Nature and natural ecosystems clean the air we breathe and the water we drink, support the food we grow, and play a critical part in maintaining our general well-being. They are vital to our economy, including forestry, primary agriculture, fishing and recreational activities.

But as the pressures increase on natural habitat, the stakes for protecting nature continue to grow as well. Over the past 40 years, the total area of urban land in Canada has almost doubled—often taking up areas rich in biodiversity such as coasts and river valleys. Wetlands have been particularly hard-hit by urban expansion. Grasslands are among the most threatened, and vast tracts of grasslands in the Prairies and southern Ontario have been converted to other uses. In the Arctic, the thawing of permafrost leads to the loss of wetlands in the polar desert. Invasive alien species also have an impact on our natural environment. Since the St. Lawrence Seaway was opened six decades ago, more than 180 alien species have been reported in the Great Lakes basin.

The Government maintains vigilance over species at risk, and works often in partnership with communities, to restore endangered species. Animals such as whooping cranes and sea otters have been brought back from near extinction, along with the Banff Springs snail, Blanding's Turtle and the Atlantic Whitefish.

### *IV. Shrinking the Environmental Footprint – Beginning with Government*

Governments, businesses, organizations and individuals can all do more to reduce their respective impact on the environment and shrink their environmental footprint. The federal government has a considerable environmental footprint that ranges from the energy used to heat and cool federal buildings and operate the federal vehicle fleet, to the goods purchased to deliver services to Canadians and the disposal of electronic equipment at the end of its useful life.

Canadians expect their government to lead in finding ways to reduce its environmental impact and find more sustainable ways to deliver results. The federal government has already launched initiatives throughout its operations, including the Policy on Green Procurement, and has made progress in important areas such as contaminated sites and reducing greenhouse gas emissions. Many departments and agencies have also made considerable progress with their own initiatives.

Public Works and Government Services Canada has worked across government to accelerate the greening of government operations. The Federal Sustainable Development Strategy will establish a more coordinated and coherent approach and, following the consultations, the final Strategy will include targets related to government operations that will apply broadly to federal departments and agencies.

The tables in Annex 1 list the areas where these new targets could be developed. The implementation strategies identified include current actions, as well as actions that departments and agencies could implement. Public Works and Government Services and Environment Canada continue to work with departments and agencies to define the targets and implementation strategies.

## CHAPTER 4: Clear Priorities

### Establishing Goals, Targets and Implementation Strategies

The tables in Annex 1 summarize current federal goals, targets and implementation strategies in the three substantive proposed areas discussed in Chapter 3. This is the first time that the federal government has brought together its initiatives and priorities for environmental sustainability in one place. The tables we are presenting for Themes I, II and III are based on current government commitments to meet existing targets and implementation strategies. The goals are aspirational and provide a long-term view.

The goals will evolve based on key commitments made by the Government in the future in policy and planning documents such as the Speech from the Throne, the Federal Budget, memoranda to Cabinet, Treasury Board submissions and departmental Reports on Plans and Priorities.

The targets are more specific. The need for specific, measurable, achievable, relevant and time-bound (or SMART) targets has underpinned the development of this draft Strategy.<sup>6</sup> In some areas, the targets are already quite strong. The target for water quality in First Nations Communities, for example, which is to increase the number of First Nations communities with acceptable water and wastewater facility risk ratings by 2013, meets the SMART criteria.

In some others, work remains to be done to improve the quality of targets with respect to the SMART criteria. In still others, such as air quality, targets remain to be established, and processes are currently under way to do so. The FSDS will drive the federal government to strengthen the existing targets and develop the missing ones to ensure all targets eventually reflect the SMART criteria over time. The Strategy will provide tools to improve government decision-making related to targets.

The future evolution of the goals, targets and implementation strategies will be guided by the following criteria:

Goals:

- Aspirational;
- Take a long-term view;
- Address important challenges and problems;
- Remain attuned to environmental information, data and indicators;
- Encourage flexibility in the choice of strategies for achievement; and,
- Reflect domestic and international priorities and commitments.

### Targets:

- Meet the SMART (Specific, Measurable, Achievable, Relevant and Time-bound) criteria;
- Take a medium-term view;
- Fall within federal jurisdiction and departmental mandates;
- Remain informed by environmental baseline data and indicators;
- Be consistent with government priorities; and,
- Reflect the precautionary principle.

### Implementation Strategies:

- Fit within the reporting and planning structures of government;
- Identify resources and activities; and,
- Contribute to the related target.

In this FSDS, not all the draft goals, targets and implementation strategies meet these criteria. Some elements will take time. But future Strategies will reflect these principles.

What will the results be? Each program and policy has its own impact, and Annex 1 describes the implementation strategy for each. The implementation strategies are categorized by four types, which the federal government has coined as LEAD:

- Leading by example—activities that will have a direct impact on government operations, or will change how the government manages;
- Enabling capacity—activities where the government is building the capacity of others to take action, or is making strategic investments in support of goals and targets;
- Advancing knowledge and communications—activities related to science, knowledge gathering and sharing, and public education; and,
- Demanding performance—activities, such as laws and regulations, that require industries or individuals to change behaviours.

### Next Steps

The approach to sustainable development planning and reporting presented here has been guided by best practices from around the world, including the United Kingdom, Norway and Sweden, but they have been adapted to meet Canada's situation, including our federal system.

By providing a clear picture of federal activities and linking sustainable development planning into the main planning and reporting system of government, Canada will be at the forefront of global efforts to incorporate sustainable development into government decision-making.

The draft FSDS draws upon the advice provided by the CESD and others over the years, and proposes an approach to address many of the challenges described in the past:

- Where the system lacked central direction and long-term focus, the Strategy will coordinate activities through the existing reporting procedures, and set long-term goals.
- Where the system had no mechanisms for continuous improvement, the Strategy implements the cycle of "plan, do, check, improve" that is incorporated in the EMS and CESI procedures.
- Where sustainable development had been an ineffective add-on to government planning and reporting, it will become thoroughly integrated into Reports on Plans and Priorities and Departmental Performance Reports.
- Where the system lacked performance indicators to monitor progress, the Strategy will draw information from both EMS and CESI.
- Where the targets for sustainable development were vague, the Strategy will provide specific, measurable, achievable, relevant and time-bound targets – SMART.

The FSDS initiates a cycle of continuous improvement that will enable government to do a better job at aligning the Strategy to evolving priorities. But this continuous improvement begins with this consultation paper, and the advice we seek from interested parties.

We invite Canadians to respond in detail by July 12, 2010.

Taking into account the input received, the Government will complete the first three-year Federal Sustainable Development Strategy under this proposed new approach, and table it in Parliament.

# ANNEX 1: Draft Federal Sustainable Development Strategy (FSDS) Goals, Targets and Implementation Strategies

## Theme I: Addressing Climate Change and Air Quality

### 1. Goal: Climate Change

**Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change.**

#### 1.1 Target: Climate Change Mitigation

**Relative to 2005 emission levels, reduce Canada's total greenhouse gas (GHG) emissions 17% by 2020.**

#### Implementation Strategies

##### 1.1.1 Clean Air Agenda

###### 1.1.1.1 Advancing Knowledge and Communications

- Targeted science
  - Conduct basic and applied research to increase knowledge of the effects of agricultural production on air; provide the science base for development and assessment of beneficial management practices. (AAFC)
  - Conduct targeted research to increase knowledge of climate change relative to agriculture; establish networks of scientists engaged in addressing climate change issues in a broader, integrated context (mitigation, adaptation, interdepartmental government efforts). (AAFC)
  - Assess and report on the collective environmental and economic impact of the adoption of sustainable agriculture practices by farmers on the Canadian landscape through two sub-programs: National Agri-Environmental Health Analysis and Reporting Program (NAHARP) and National Carbon Greenhouse Gas Accounting and Verification System (NCGAVS). (AAFC)
- Regulatory research and reporting
  - Departments have dedicated resources to scientific research and reporting in support of regulatory and other programs delivered, including data analysis, inventory development, monitoring, modeling and assessment of the effectiveness of efforts as well as research on options, costs and benefits, and technology assessments. (EC, HC, NRCan, TC)

###### 1.1.1.2 Demanding Performance

- Develop harmonized climate change strategies with the United States. (EC)
- Develop and/or implement an offset system. (EC)
- Develop and implement a single window reporting initiative for national emissions reporting. (EC)
- Develop renewable fuels regulations to mandate a 5% renewable fuel content in gasoline, and 2% renewable fuel content in diesel subject to technical feasibility. (EC)
- Develop greenhouse gas (GHG) emission regulations for new cars and light trucks and work with the United States and other international organizations to reduce greenhouse gases from other modes of transportation (heavy duty vehicles, rail, marine shipping, and aviation). (EC, TC)
- Enhance energy-efficiency regulations for consumer and commercial products. (NRCan)
- Endeavour to have emission regulations in place for the rail sector beginning in 2011. (TC)

- Develop and/or implement new rules within Canada's domestic regulatory regime to apply appropriate standards and recommended practices concerning greenhouse gases and air pollutant emissions adopted by the International Maritime Organization. (TC)
- Work with the United States on developing regulations, similar to those adopted by the International Maritime Organization, for ships serving domestic trade within Canada and the United States. (TC)
- Regulatory complement
  - Continue to support a Memorandum of Understanding (MOU) with the Railway Association of Canada consistent with U.S. air pollution standards and that ensures the rail industry continues to improve emission performance during the 2006–2010 period. Once the MOU expires, the voluntary approach will be replaced with a regulatory regime, under the *Railway Safety Act*, to take effect in 2011. (EC, TC)
  - Continue to support the MOU with the aviation industry to reduce emissions of greenhouse gases from aviation sources. The agreement sets an annual fuel-efficiency target that will achieve a cumulative reduction in greenhouse gas emissions of 24% by 2012, relative to 1990 levels. (TC)
  - Continue to support MOU between the Government of Canada and the auto industry respecting GHG emissions. (NRCan)
- Economic instruments
  - Participate in the International Civil Aviation Organization's work on emission trading for aviation. (TC)

## 1.1.2 Clean Energy

### 1.1.2.1 Enabling Capacity

- Work collaboratively with the United States through the Canada-U.S. Clean Energy Dialogue to advance clean energy priorities. (EC)
- Supply financial aid and develop capacity to reduce GHGs through adoption of emission reducing technologies and practices.
  - ecoEnergy for: Buildings and Houses, Retrofit, Industry, Renewable Power, Renewable Heat, and Technology Initiative. (NRCan)
  - ecoEnergy for Aboriginal and Northern Communities. (INAC)
- Use the Clean Energy Fund for transitioning the energy sector by developing and demonstrating new technologies that will reduce GHG emissions. (NRCan)

## 1.1.3 Clean Transportation

### 1.1.3.1 Enabling Capacity

- Programs focused on supplying financial aid and developing capacity to reduce GHGs and smog-forming pollutants through adoption of emission-reducing technologies and practices.
  - Deliver extensive outreach under the ecoTransport strategy to build knowledge and capacity for the adoption of emission-reducing technologies and practices. (TC)
  - Implement national Vehicle Scrappage Program to encourage Canadians to retire their old high-polluting vehicles (models 1995 or earlier) and to choose more sustainable transportation options. (EC)
- Research and development funding and partnerships to support hybrid and electric vehicle technology development and GHG emission reductions for surface, marine and air transportation. (TC)

### 1.1.3.2 Advancing Knowledge and Communications

- Targeted science and research
  - Develop improved materials and processes to achieve more energy-efficient, lower-emission vehicles. (NRCan)
- Consumer and industry information
  - Offer information programs and decision-making tools which help Canadians purchase, drive and maintain their vehicles in a manner which reduces fuel consumption and GHG emissions (ecoENERGY for Personal Vehicles, ecoENERGY for Fleets). (NRCan)

## **1.1.4. International**

### *1.1.4.1 Enabling Capacity*

- Develop and promote awareness and best practices.
  - Support the development of international standards and recommended practices with the International Civil Aviation Organization concerning GHGs and air pollutant emissions from aviation sources. (TC)
  - Support the development of international standards and recommended practices with the International Maritime Organization concerning GHGs and air pollutant emissions from marine sources. (TC)

### *1.1.4.2 Advancing Knowledge and Communications*

- International negotiations
  - United Nations
    - Participate in international negotiations on climate change, respect international registry and financial obligations. (EC)
    - Coordinate financial obligations, participate in negotiations. (DFAIT)
    - Participate in negotiations. (NRCan)
  - Asia-Pacific Partnership on Clean Development and Climate
    - Create guidelines for participation and establish governance structure. (EC, NRCan)
  - International Civil Aviation Organization
    - Contribute to a program of action for international aviation carbon dioxide emissions. (TC)
  - International Maritime Organization
    - Lead negotiations of agreements that reduce the impact of marine shipping on the environment while maintaining a high level of safety. (TC)
- International reporting
  - Develop and submit national GHG inventories (annual, detailed and prescribed GHG National Inventory Report and common reporting tables provided to the UN Framework Convention on Climate Change [UNFCCC]) to meet UNFCCC and Kyoto Protocol commitments. (EC)

## **1.1.5 Forestry**

### *1.1.5.1 Enabling Capacity*

- Support the development, provision and communication of recommended forest management strategies that enhance carbon sequestration and enable climate change adaptation (knowledge and decision-making tools). (NRCan)
- Supply financial aid and develop capacity to reduce GHGs through new and emerging bio-technology in the Canadian forest industry.
  - Next Generation Renewable Power Initiative: Enable renewal and transformation in the forest sector by supporting the development, commercialization and implementation of advanced clean energy technologies in the forestry sector. (NRCan)

### *1.1.5.2 Advancing Knowledge and Communications*

- Targeted science and research
  - Targeted measurement and research to reduce uncertainties related to climate change impacts on forests and related GHG emissions (including permafrost). (NRCan)
  - Coordinate national efforts in monitoring, research and data collection on forests to enable early detection of climate change impacts on forests and the provision of options for mitigation and adaptation. (NRCan)
  - Develop multidisciplinary assessments of the risks, vulnerabilities and opportunities that climate change poses to Canada's forests and the forest sector. (NRCan)
  - Develop multidisciplinary assessments of the risks associated with the new and emerging bio-technology in the Forest sectors and the risks they may have on the environment. (EC)

## 2. Goal: Air Pollution

### Clean air for Canadians to breathe and to support healthy ecosystems.

#### 2.1 Target: Air Pollutants

Targets for clean air are under development in consultation with provinces and stakeholders.

#### Implementation Strategies

##### 2.1.1 Clean Air Regulatory Agenda (CARA)

###### 2.1.1.1 Advancing Knowledge and Communications

- National Pollutant Release Inventory (NPRI) tracking through the *Canadian Environmental Protection Act, 1999* (CEPA 1999). (EC)
- Science and reporting
  - Departments dedicate resources to scientific research and reporting in support of regulatory and other programs delivered, including data analysis, inventory development, monitoring, modeling and assessment of the effectiveness of efforts as well as research on options, costs and benefits including economic and social and technology assessments. (EC, NRCan, HC, TC)
- Communicate outdoor air pollution health risks to Canadians.
  - Air Quality Health Index. (EC, HC)
  - Continue development of the Air Quality Health Index (AQHI) and support implementation into additional census metropolitan areas (CMAs). The AQHI provides current and forecast air quality information and advice on health risks in order to assist Canadians in making decisions on how to reduce their level of exposure. (EC, HC)

###### 2.1.1.2 Demanding Performance

- Enforce existing regulations.
  - Continue development and implementation of air pollutant emission regulations for various classes of on-road vehicles and large and small engines used in off-road applications and fuels. (EC)
  - Target regulations on volatile organic compounds (VOCs) in some commercial products, and air pollutants for most transportation (on-road vehicles and engines, off-road compression ignition engines and off-road small-spark ignition engines), including compliance monitoring and promotion of the regulations, and on renewable fuels once regulation is in place. (EC)
- New regulations
  - Continue cooperation with the United States on sustainable transportation and fuel quality. (EC)
  - Develop implementation plan for outcome of joint work with provinces and stakeholders, addressing all major sources of emissions of air pollutants and establishing National Ambient Air Quality Standards. (EC, HC)
  - Develop harmonized global technical regulations for vehicles and engines to ensure that stringent emission standards will be applied around the world. (EC)
  - Develop new regulations to reduce emissions of air pollutants from marine engines and recreational vehicles, on- and off-road diesel engines, and off-road large spark-ignition engines. (EC)
  - Work on energy-efficiency regulations for consumer and commercial products. (NRCan)
  - Endeavour to have emission regulations in place for the rail sector beginning in 2011. (TC)

- Continue work with the United States and France to secure approval from the International Maritime Organization of the proposal to designate North American waters as an Emission Control Area. (EC, TC)
- Work with the United States on developing regulations, similar to those adopted by the International Maritime Organization, for ships serving domestic trade within Canada and the United States. (TC)
- Regulatory complement
  - Build and maintain partnerships within the transportation sector to reduce emissions from freight transportation through fast and flexible voluntary actions that can support regulatory frameworks. (TC)
  - Implement a national regime for preparedness and response to hazardous and noxious substances incidents. (TC)

## **2.1.2. Clean Energy**

### *2.1.2.1 Enabling Capacity*

- ecoAction funded programs reduce GHG emissions and can directly or indirectly contribute to air pollutant emission reduction. (NRCan, TC, EC, INAC)

## **2.1.3 Clean Transportation**

### *2.1.3.1 Enabling Capacity*

- Programs focused on supplying financial aid and developing capacity to reduce GHGs and smog-forming pollutants through adoption of emission-reducing technologies and practices.
  - Deliver extensive outreach under the strategy to build knowledge and capacity for the adoption of emission-reducing technologies and practices under the ecoTransport Strategy. (TC)
  - Implement a national Vehicle Scrappage Program to encourage Canadians to retire their old high-polluting vehicles (models 1995 or earlier) and to choose more sustainable transportation options. (EC)
- Develop and promote awareness and best practices.
  - Promote voluntary energy conservation in the transportation sector through the design, manufacture and sale of fuel-efficient, light-duty motor vehicles (Fuel Consumption Program). (TC)
  - Support the development of international standards and recommended practices with the International Civil Aviation Organization concerning GHGs and air-pollutant emissions from aviation sources. (TC)
  - Support the development of international standards and recommended practices with the International Maritime Organization concerning GHGs and air-pollutant emissions from marine sources. (TC)

### *2.1.3.2 Advancing Knowledge and Communications*

- Consumer and industry information
  - Offer information programs and decision-making tools which help Canadians purchase, drive and maintain their vehicles in a manner which reduces fuel consumption and GHG emissions (ecoENERGY for Personal Vehicles, ecoENERGY for Fleets). (NRCan)

## **2.1.4 International**

### *2.1.4.1 Advancing Knowledge and Communications*

- International negotiations
  - Work with the U.S to reduce transboundary emissions under the Canada-U.S. Air Quality Agreement.(EC)
  - Work to lay the foundation for ratification of International Maritime Organization conventions where appropriate, including under the Convention for the Prevention of Pollution from Ships (MARPOL) – Annex VI. (TC)
  - Participate in the International Civil Aviation Organization Council's Committee on Aviation Environmental Protection. (TC)
  - Participate in negotiations for revisions of the Gothenburg Protocol to Reduce Ozone, Acidification and Eutrophication under the UNECE Convention on Long-range Transboundary Air Pollution. (EC)
- International reporting
  - Submit air pollutant inventories to meet international reporting requirements using National Pollutant Release Inventory (NPRI) to the UN Economic Commission for Europe to meet the reporting obligations of the Protocols ratified under the Convention on Long Range Transboundary Air Pollution). (EC)

## 2.2 Target: Chemicals Management

**Reduce risks to Canadians and impacts on the environment posed by toxic substances.**

### Implementation Strategies

#### 2.2.1 Advancing Knowledge and Communications

- Federal Chemicals Management Plan
  - Assess 100% of existing commercial substances as identified under the Chemicals Management Plan for risks to human health and/or the environment (100% of total of 4300 by 2020). (EC, HC)
  - Assess 100% of new substances, for which Environment Canada has been notified by industry of their intended manufacture or import, to determine if they are suspected of being toxic within the timelines in the regulation or established services standards. (EC, HC)
  - Apply life-cycle thinking, sustainable materials management and environmentally sound management of wastes principles to promote sustainable consumption and minimize the impacts of products and wastes on the environment and human health. (EC)

#### 2.2.2 Demanding Performance

- Develop at least one risk management instrument for 100% of substances added to the List of Toxic Substances within legally mandated timeframes. (EC, HC)
- Work with OECD and with the U.S. and Mexico under the auspices of the Commission for Environmental Cooperation to foster green growth collaborative initiatives. (EC)
- Work with provincial and territorial authorities to promote waste minimization and diversion, such as the implementation of the Canada-wide Action Plan on Extended Producer Responsibility. (EC)

## 2.3 Target: Indoor Air Quality

**Help protect the health of Canadians by developing health-based indoor air quality guidelines.**

### Implementation Strategies

#### 2.3.1 Advancing Knowledge and Communications

- Conduct exposure and risk assessments and source identification studies to support guideline development on priority indoor air contaminants. (HC)
- Radon information and awareness
  - Create a database of indoor radon concentrations, map areas of high radon potential in Canada, test for radon in federal buildings in high-risk, radon-prone areas. The strategy includes a radon awareness program. (HC)

#### 2.3.2 Enabling Capacity

- Develop guidelines for up to six contaminants by 2011 including ozone, carbon monoxide, particulate matter and nitrogen dioxide. These guidelines can be used by provinces and other jurisdictions in promoting reduced exposure to indoor air pollutants. (HC)

## Theme II: Maintaining Water Quality and Availability

### 3. Goal: Water Quality

**The quality of water is protected and enhanced so that it is clean, safe and secure for all Canadians and supports healthy ecosystems.**

#### 3.1 Target: Fresh Water Quality

**Complete federal actions to restore beneficial uses in Canadian Areas of Concern in the Great Lakes by 2020.**

**Reduce nutrient inputs into Lake Simcoe and Lake Winnipeg by 2012.**

#### Implementation Strategies

##### 3.1.1 Great Lakes

###### 3.1.1.1 Enabling Capacity

- Fund external work through Grants and Contribution Agreements to coordinate Remedial Action Plans related to the remediation and restoration of beneficial uses in Areas of Concern (AOCs) in the Great Lakes Basin and through the Great Lakes Sustainability Fund (GLSF) which provides technical and financial support to projects to clean up and restore AOCs. (EC)
- Establish important cooperative partnerships between the federal and provincial governments and engage the appropriate public and stakeholder participation in order to achieve the vision of a healthy, prosperous and sustainable Great Lakes ecosystem. (EC)
- Promote voluntary approaches where appropriate to achieve results beyond compliance to attain lake water quality targets with respect to toxics, critical pollutant reduction, municipal wastewater sources, etc. (EC)

###### 3.1.1.2 Advancing Knowledge and Communications

- Reporting
  - Release reports regularly on: State of the Great Lakes environmental indicators, the Great Lakes Binational Toxics Strategy, and status of Remedial Action Plans for AOCs in the Great Lakes. (EC)
- Monitoring, research and data collection
  - Coordinate with the United States scientific research and monitoring activities in the Great Lakes through the binational Co-operative Science and Monitoring Initiative. (EC)

###### 3.1.1.3 Demanding Performance

- International and federal/provincial/territorial binding commitments
  - Manage/deliver Great Lakes results:
    - Internally, within the Department, through the Great Lakes Basin Ecosystem Initiative;
    - Federally-provincially, between the Government of Canada and the Province of Ontario; and,
    - Binationally, between Canada and the United States through the Great Lakes Water Quality Agreement (GLWQA). (EC)

### **3.1.2 Lake Simcoe**

#### *3.1.2.1 Enabling Capacity and Advancing Knowledge and Communications*

- Provide financial and technical support through the Lake Simcoe Clean-Up Fund (LSCUF) to implement priority projects aimed at reducing phosphorus inputs, restoring fish and wildlife populations, and enhancing research and monitoring capacity that are essential to making progress in relation to the restoration of the Lake Simcoe Basin watershed. (EC)

#### *3.1.2.2 Demanding Performance*

- Take action to limit phosphates in laundry and dishwasher detergents. (EC)

### **3.1.3 Lake Winnipeg**

#### *3.1.3.1 Enabling Capacity*

- Provide financial support to projects having concrete, demonstrable results to reduce pollutants and, in particular, nutrient loads. (EC)

#### *3.1.3.2 Advancing Knowledge and Communications*

- Research and monitoring activities
  - Conduct science activities required to understand the relationship between the ecology and nutrient cycling within Lake Winnipeg. (EC)
  - Conduct monitoring activities for Lake Winnipeg and its sub-watersheds. (EC)

#### *3.1.3.3 Demanding Performance*

- Establish a governance office.
  - The Lake Winnipeg Basin Management Office will coordinate and manage the activities of the Lake Winnipeg initiative, work with existing water governance bodies, explore the need for an overarching basin mechanism to cooperatively develop a basin-wide strategy, and provide a forum for communication. (EC)
- Federal/provincial agreements
  - Work with the Province of Manitoba to establish a Canada-Manitoba Agreement to provide for a long-term collaborative and coordinated approach between the two governments to ensure the sustainability and health of the Lake Winnipeg Basin. (EC)

## **3.2 Target: Fresh Water Quality (continued)**

**Achieve a value between 81–100 on the Water Quality and Soil Quality Agri-Environmental Indices by March 31, 2030.**

**Reduce risks associated with wastewater effluent by 2020 in collaboration with provinces and territories.** (Note: risk reduction for wastewater effluents relates both to freshwater and marine).

### **Implementation Strategies**

#### **3.2.1 Water Quality and Soil Quality Agri-Environmental Indices**

##### *3.2.1.1 Enabling Capacity*

- Provide a systematic approach to farmers, through federal/provincial partnerships, to assess priority environmental risks and address them by developing effective plans to mitigate these risks and/or implement suitable preventative on-farm actions. (AAFC)
- Increase the adoption of sustainable agriculture practices at farm and landscape levels. (AAFC)

##### *3.2.1.2 Advancing Knowledge and Communications*

- Conduct basic and applied research to increase knowledge of the effects of agricultural production on soil and water; provide the science base for development and assessment of beneficial management practices. (AAFC)

- Conduct targeted research to increase knowledge of water resources relative to agriculture; establish networks of scientists engaged in addressing water resource issues in a broader, integrated context (environmental standards, microbial source tracking and interdepartmental government efforts). (AAFC)
- Assess and report on the collective environmental and economic impact of the adoption of sustainable agriculture practices by farmers on the Canadian landscape through the National Agri-Environmental Health Analysis and Reporting Program (NAHARP). (AAFC)
- Increase the understanding of the effectiveness of beneficial management practices (BMP) in an agricultural watershed setting, and improve the understanding of the long-term relationships between BMPs and related agricultural land use activities, both environmental and economic, through Watershed Evaluation of Beneficial Management Practices (WEBs). (AAFC)
- Identify opportunities to work within the Canadian Council of Ministers of the Environment (CCME) to develop nutrient management approaches from non-point agricultural sources. (EC)
- Work collaboratively with provinces to conduct and disseminate research on wastewater effluent. (EC)
- Work with the Northwest Territories, Nunavut, Quebec, and Newfoundland and Labrador to complete policy analysis and research for minimum performance standards for wastewater effluent for the far north. (EC)

#### 3.2.1.3 Demanding Performance

- Implement the federal aspects of the CCME strategy for the management of municipal wastewater effluent in Canada through effluent regulations under the *Fisheries Act* and through agreements with provinces and territories by 2012. (EC)
- Ensure compliance with performance standards for higher risk wastewater effluents by 2020. (EC)

### 3.3 Target: Marine Water Quality

**Prevent marine pollution from land-based activities.**

**Reduce marine pollution by reducing ship-source pollution spills by 2% annually from the previous year, based on 2003–2004 baseline.**

**Prevent marine pollution from uncontrolled dumping at sea.**

#### Implementation Strategies

##### 3.3.1 Leading by Example

- Implement programs to prevent pollution and respond to environmental incidences, including spills. (TC)

##### 3.3.2 Advancing Knowledge and Communications

- Provide advice and technical expertise in meeting international and national regulations.
  - Provide advice on garbage, ballast water, sewage and other marine pollution to support Canadian positions in international commitments. (EC, TC)
- Collect required data to support International Maritime Organization, Interpol and other domestic and international organizations. (EC, TC)

##### 3.3.3 Demanding Performance

- Ensure compliance with related environmental legislation that set controls for ships to manage ballast water, marine pollution and air emissions. (TC)
- Implement a national regime for preparedness and response to hazardous and noxious substances incidences. (TC)

- Monitor and regulate:
  - Discharges from marine vessels into the marine environment through inspections and the detection of oil discharges using the National Aerial Surveillance Program which may result in investigations and enforcement actions; and,
  - Canada's Marine Oil Pollution Preparedness and Response regime to ensure private industry maintains the required capacity to respond to oil spills caused by marine transportation. (TC)
- Advance positions and ratifications that can influence global rules and practices on dumping waste at sea and other marine pollution matters. (EC, TC)
- Advance Canadian positions on reducing and managing global marine pollution from ships. (TC)
- Adopt Marine Environmental Protection Committee (International Maritime Organization) requirements where applicable. (TC)
- Ensure that 90% of CEPA 1999 disposal at sea permits are issued within 120 days. (EC)
- Ensure that permitted disposal at sea is sustainable such that 85% of disposal site monitoring events do not identify the need for site management action (such as site closure). (EC)

### **3.4 Target: Drinking Water Quality**

**Increase the percentage of First Nation communities with acceptable water and wastewater facility risk ratings by 2013.**

**Help protect the health of Canadians by developing health-based water guidelines.**

#### **Implementation Strategies**

##### **3.4.1 Leading by Example**

- Undertake a National Assessment of First Nation communities to assess the current status and associated risk for all existing communal water and wastewater systems and analyze various options for community serviceability. (INAC)
- Update "Guidance for providing safe drinking water in areas of federal jurisdiction." (HC)

##### **3.4.2 Enabling Capacity**

- Enhance and expand the number of qualified waste and wastewater system operators in First Nation communities.
  - Enhance the Circuit Rider Training Program and increase the number of Circuit Rider trainers and operators. (INAC)
  - Ensure that training is available for all operators and that a regime is in place so that all water systems have the oversight of a certified operator. (INAC)
- Enhance capacity to monitor drinking water quality in First Nation communities to protect public health.
  - Maintain or increase the number of community sites having access to a trained Community-Based Water Monitor (CBWM) or Environmental Health Office (EHO). (HC)
  - Work with communities to increase the frequency of testing drinking water quality. (HC)

##### **3.4.3 Advancing Knowledge and Communications**

- Develop and disseminate technical guidance documents and protocols.
  - Develop and continuously update technical guidance protocols, such as the *Protocol for Safe Drinking Water in First Nations Communities and the Protocol for Wastewater Treatment and Disposal in First Nations Communities*. (INAC, EC)

- Develop up to five guidelines and guidance on water quality (i.e., drinking water, recreational water and water re-use) in collaboration with provinces/territories, supported by technical documents. (HC)
- Enhance public awareness and knowledge, as well as increase First Nations' confidence in drinking water by developing communications products on how to protect public health and prevent drinking water contamination in First Nation communities. (HC)
- Provide leadership to provinces and territories and internationally by sharing and disseminating scientific risk assessments on drinking water contaminants. (HC)
- Publish the Guidelines for Canadian Drinking Water Quality booklet annually on Health Canada's website and publish related documents as required. (HC)

#### **3.4.4 Demanding Performance**

- Develop appropriate regulatory framework and legislation for safe drinking water and wastewater treatment in First Nation communities. (INAC)

### **3.5 Target: Chemicals Management**

**Reduce risks to Canadians and impacts on the environment posed by toxic substances.**

#### **Implementation Strategies**

##### **3.5.1 Advancing Knowledge and Communications**

- Federal Chemicals Management Plan
  - Assess 100% of existing commercial substances as identified under the Chemicals Management Plan for risks to human health and/or the environment (100% of total of 4300 by 2020). (EC, HC)
  - Assess 100% of new substances, for which Environment Canada has been notified by industry of their intended manufacture or import, to determine if they are suspected of being toxic within the timelines in the regulation or established services standards. (EC, HC)

##### **3.5.2 Demanding Performance**

- Develop at least one risk management instrument for 100% of substances added to the List of Toxic Substances within legally mandated timeframes. (EC, HC)

## **4. Goal: Water Availability**

**Canadians manage and use water resources in a manner consistent with the sustainability of the resource.**

### **4.1 Target: Water Availability**

**Improve knowledge of water use and availability by sub-region in Canada by 2013.**

#### **Implementation Strategies**

##### **4.1.1 Advancing Knowledge and Communications**

- Conduct research and survey work in order to fill in information gaps with respect to water use and availability.
  - Conduct and synthesize surveys such as the Municipal Water and Wastewater Survey (EC) and the CESI Industrial Water Use Survey, Survey of Drinking Water Plants and Agriculture Water Use Survey. (Stats Can working with EC)
  - Continue work on collection of hydrometric data through the Water Survey of Canada. (EC)
  - Continue the development and implementation of Water Availability Indicators. (EC)
  - Re-start the production of the water-use accounts to calculate water-use intensities by sector and embodied in trade. (Stats Can working with EC, NRCan)
  - Complete 15 assessments for Canada's 30 key regional aquifers and produce a national groundwater inventory to help Canadians better understand and manage underground water resources. (NRCan)
- Promote federal water conservation and efficiency as part of infrastructure funding. (EC)
  - Promote voluntary water conservation and efficiency in the public sector. (EC)
  - Promote the development of national plumbing code for water efficiency through the Canadian Standards Association's Canadian Advisory Council on Plumbing (CACCP). (EC)

## Theme III: Protecting Nature

### 5. Goal: Wildlife Conservation

**Populations of wildlife maintained or restored to healthy levels.**

#### 5.1 Target: Terrestrial and Aquatic Wildlife Conservation

**Populations of wildlife, in particular migratory birds and species at risk, are maintained or restored to healthy levels by 2015.**

#### Implementation Strategies

##### 5.1.1 Enabling Capacity

- Fulfill Canada's obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) by helping to ensure that the status of no species is threatened by international trade. (EC, NRCan, DFO)
- Continue to lead and cooperate under the National Recovery Program (RENEW) with provinces and territories to fulfill all obligations under the Accord for the Protection of Species at Risk. (EC, PC)
- Develop 100% of recovery strategies, recovery action plans and management plans for aquatic species at risk within the legislated timelines, and in conformity with mandated requirements while addressing the backlog, by 2012. (DFO)

##### 5.1.2 Advancing Knowledge and Communications

- Maintain the Species at Risk Public Registry which fulfills the requirement under the *Species at Risk Act* (SARA). (EC)
- Continue to update all-bird Conservation Plans for the 22 Bird Conservation Regions (BCR). (EC)
- Continue to support the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assessments and re-assessments to understand and communicate progress in species survival and recovery. (EC)

##### 5.1.3 Demanding Performance

- Enhance the implementation of SARA within DFO, EC and Parks Canada to protect and recover species at risk relative to their respective mandates. (DFO, EC, PC)
- Develop and implement a regulation for the management of the incidental takes of migratory birds in accordance with the purpose of the *Migratory Birds Convention Act, 1994*. (EC)
- Implement migratory bird monitoring, enforcement (including permit issuance) and research under the species Joint Ventures of the North American Waterfowl Management Plan (NAWMP). (EC)
- Recruit and train new officers for the Compliance and Enforcement Program. (EC)

## **6. Goal: Ecosystem / Habitat Conservation and Protection**

**Productive and resilient ecosystems with the capacity to recover and adapt are maintained; and areas are protected in ways that leave them unimpaired for present and future generations.**

### **6.1 Target: Terrestrial Ecosystems and Habitat**

#### **Non-Park Protected Habitat**

**Protect and conserve 3.44 million hectares of habitat for target levels of wildlife populations, in particular migratory birds and species at risk by 2015.**

#### **Park Protected Habitat**

**Maintain or improve the overall ecological integrity in all national parks from March 2008 to March 2013.**

### **Implementation Strategies**

#### **6.1.1 Leading by Example**

- Make demonstrable progress towards establishing national parks in three unrepresented regions. (PC)
- Demonstrate environmental stewardship by minimizing the impact of town-site operations as well as meeting town-site targets for limits to growth, sewage effluent quality and management of contaminated sites. (PC)

#### **6.1.2 Enabling Capacity**

- Implement integrated activities and programs with other levels of government and external stakeholders that lead to the improvement of the state (environmental quality) of priority ecosystems across the country. (EC)
- Ensure the protection and conservation of specific critical habitats by facilitating an integrated landscape management approach. (EC)
- Manage National Wildlife Areas (NWAs), Migratory Bird Sanctuaries (MBSs) and Marine Wildlife Areas to protect wildlife habitat, and unique and productive ecosystems either directly and/or through partnership arrangements. (EC)
- Implement the Northwest Territories Protected Areas Strategy and the Inuit Impact and Benefits Agreement to establish up to six new NWAs in the NWT and three in Nunavut. (EC)
- Develop a framework that enables Aboriginal traditional knowledge to meaningfully inform all aspects of park and historic site planning and management. (PC)
- Engage Aboriginal peoples by establishing, by 2013, Aboriginal advisory relationships in various locations across Parks Canada. (PC)

### **6.1.3 Advancing Knowledge and Communications**

- Determine resilience of National Protected Areas network in the face of climate change and other anthropogenic stressors. (EC)
- Develop and apply models for economic valuation of ecosystem services to support sustainable development decision-making. (EC)
- Establish frameworks for identifying indicators and developing appropriate monitoring programs. (EC)
- Maintain the Conservation Areas Reporting and Tracking System. (EC)
- Ensure that Canadians will have increased opportunities to be involved with Parks Canada in activities they consider meaningful and relevant such as volunteering, stakeholder consultation and partnering. (PC)
- Increase access to information to Canadians through the renewal of the Parks Canada website and strategic investment in new media and social technologies. (PC)

### **6.1.4 Demanding Performance**

- Complete the development of the protected areas strategy including the development of permitting standards and updating management plans. (EC)
- Enhanced enforcement in Environment Canada Protected Areas (MBSs and NWAs). (EC)
- Increase the number of represented terrestrial natural regions from 28 in March 2007 to 29 of 39 by 2013. (PC)
- 20 national parks improve 1 ecological integrity indicator from March 2008 to March 2014. (PC)
- Ensure the development of national recovery strategies for species at risk that are found primarily on lands and waters Parks Canada administers. (PC)

## **6.2 Target: Marine Ecosystems**

**Improve the conservation of ocean areas and marine ecosystems by 2012.**

### **Implementation Strategies**

#### **6.2.1 Enabling Capacity**

- Develop integrated management structures to 31% of Canadian ocean area by 2012. (DFO)
- Designate six new Marine Protected Areas under the *Oceans Act* (DFO) and up to two Marine Wildlife Areas under the *Canada Wildlife Act* by 2012. (DFO, EC)
- Manage Canada's ocean areas through the adoption of integrated management approaches. (DFO)
- Increase protection for ecologically significant marine areas. (DFO)
- Identify indicators and develop draft monitoring plans for existing Marine Protected Areas. (DFO)

#### **6.2.2 Advancing Knowledge and Communications**

- Undertake research to improve understanding of marine ecosystems and support initiatives to identify and characterize vulnerable marine ecosystems. (DFO, EC)
- Provide advice on potential environmental impacts and ecological risks associated with specific high-priority ocean activities. (DFO, EC)

#### **6.2.3 Demanding Performance**

- Establish Marine Protected Areas for a variety of purposes, including the conservation and protection of species at risk and their habitats, the conservation and protection of unique habitats, and the conservation and protection of marine areas of high biodiversity or high biological productivity. (DFO)
- Increase the number of represented marine regions from 3 in October 2007 to 5 of 29 by March 2013. (PC, EC)
- Develop a national zoning framework for the national marine conservation area program. (PC)

## **6.3 Target: Managing Threats to Ecosystems**

**Threats of new alien invasive species entering Canada are understood and reduced by 2015.**

**Reduce the frequency, severity and consequences of environmental emergencies that affect Canada.**

### **Implementation Strategies**

#### **6.3.1 Leading by Example**

- Fulfill federal responsibilities related to prevention, detection, rapid response and management of invasive alien species. Key activities are related to governance (including international cooperation legislation/regulation, science and technology, risk analysis, information management and sharing, performance promotion, management, and mitigation). (EC, NRCan)

#### **6.3.2 Enabling Capacity**

- Implement the Invasive Alien Species Partnership Program, which provides funding to provinces, municipalities, educational institutions and non-government organizations, as well as to other groups who are working in support of the goals of the National Strategy – An Invasive Alien Species Strategy for Canada (2004). (EC, NRCan)
- Coordinate both national and regional environmental emergency preparedness capabilities. (EC)
- Continue to provide oversight of response actions taken by the responsible party or parties. (EC)
- Ensure that those responsible for the environmental emergency are assessed and recovering restoration costs from polluters. (EC)

#### **6.3.3 Advancing Knowledge and Communications**

- Ensure that all completed Invasive Alien Species Partnership Projects have addressed priorities set out in An Invasive Alien Species Strategy for Canada. (EC, NRCan)
- Improve information sharing on species imported into Canada. (NRCan)
- Develop spill models, analysis methods, fate and behaviour algorithms, measurement and remote sensing capabilities, decontamination protocols, and countermeasures used during incidents. (EC)
- Provide scientific and technical advice on weather and sea state and the behaviour and effects of chemicals, sampling and analysis, countermeasures, sensitivity mapping, trajectory, modeling, and operation of the 24/7 National Environmental Emergencies Centre in Ottawa. (EC)

#### **6.3.4 Demanding Performance**

- Implement Ballast Water Control and Management Regulations to prevent invasive species from ships' ballast water. This includes cooperating with the United States Coast Guard and Seaway Authorities to inspect all vessels entering the Seaway and Great Lakes to ensure compliance. (TC)
- Regulate chemical facilities to develop and implement Environmental Emergency Plans. (EC)
- Number of environmental emergency plans in place as required by s. 200 Environmental Emergency Planning Regulation under CEPA 1999. (EC)
- Percentage of environmental emergency incidents where the polluter voluntarily takes the necessary action to assess and restore the impacted environment. (EC)

## **7. Goal: Biological Resources**

### **Sustainable production and consumption of biological resources within ecosystem limits.**

#### **7.1 Target: Sustainable Fisheries and Aquaculture**

**Improve the management and conservation of major stocks to support sustainable fisheries annually, as evidenced in growth of the sustainability index (baseline 5.4 out of 10).**

- **4% increase 2009–10**
- **3% increase 2010–11**
- **2% increase 2011–12**

#### **Implementation Strategies**

##### **7.1.1 Enabling Capacity**

- Deliver an integrated fisheries and aquaculture program that is credible, science-based, affordable, effective and contributes to sustainable wealth for Canadians. (DFO)
- Support fisheries renewal by broadening the Department's ecosystem-based approach to science. (DFO)
- Sustainable development and integrated management of resources in or around Canada's aquatic environment through oceans and fish habitat management. (DFO)

##### **7.1.2 Advancing Knowledge and Communications**

- Increase the science knowledge base needed to support informed ecosystem-based environmental regulation and decision-making, especially that of regulatory-based programs such as Habitat Management and Aquaculture Management. (DFO)
- Undertake research to improve understanding of marine ecosystems and knowledge of straddling stocks and highly migratory species such as tuna, swordfish and Greenland halibut. (DFO)
- Increase knowledge of fisheries resources, their productivity and the ecosystem factors affecting them. (DFO)
- Complete and implement the International DFO Science Strategy by 2012. (DFO)

##### **7.1.3 Demanding Performance**

- Implement fully the strategies, plans and initiatives associated with the overarching Multi-year Strategic and Operational Planning Framework. (DFO)

#### **7.2 Target: Sustainable Forestry**

**Improve the management of Canada's forest ecosystems through the development and dissemination of knowledge.**

#### **Implementation Strategies**

##### **7.2.1 Advancing Knowledge and Communications**

- Assess and understand forest productivity and dynamics in support of Sustainable Forest Management. (NRCan)
- Provide National Forest Information for monitoring Canada's forests. (NRCan)
- Assess risks to Canada's forest biodiversity. (NRCan)
- Provide forest carbon research reporting and policy advice. (NRCan)
- Support the International Model Forest Network. (NRCan)

## Theme IV: Shrinking the Environmental Footprint – Beginning with Government<sup>1</sup>

### 8. Goal: Minimizing the environmental footprint of government operations.

#### 8.1 Target or targets to build capacity and encourage the greening of federal procurement activities.

##### Implementation Strategies

- Public Works and Government Services Canada continuously improves “greening” of consolidated procurement instruments.
- Conduct an analysis of departmental spending and environmental risks to identify greatest opportunities to reduce environmental impacts.
- Implement best practices for greening planning, acquisition, use and disposal of information technology equipment.
- Utilize Public Works and Government Services Canada’s Green Procurement Plans.
- Progressively integrate environmental considerations in procurement decision-making methods with respect to:
  - Ensuring that procurement and materiel management staff and acquisition cardholders have the necessary training to support green procurement policy objectives, e.g., Canada School of Public Service online course on Green Procurement (C215), as well as supplemental training to implement departmental green procurement plans and targets.
  - Monitoring, documenting and reporting on green procurement plans and targets.

#### 8.2 Target or targets to reduce GHG emissions from federal buildings.

##### Implementation Strategies

- Custodian departments and agencies:
  - Utilize Natural Resources Canada’s Federal Buildings Initiative.
  - Conduct energy audits and re-commissioning.
  - Implement building retrofits and upgrades.
  - Switch to lower-GHG-intensity fuels or energy sources.
  - Make use of on- and off-site renewable energy sources.
  - Optimize use of floor area.
- Government-wide services:
  - Reduce GHG intensity of central heating and cooling plants.
  - Implement energy-efficient information technology infrastructure and services.
- All departments and agencies:
  - Purchase energy-efficient/energy-saving equipment.
  - Conduct office equipment energy audits.
  - Develop and implement awareness campaigns to encourage energy-saving behaviours.

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<sup>1</sup>The implementation strategies sections identify a combination of actions already underway and those that could be considered by departments related to the different target areas.

### **8.3 Target or targets to reduce GHG emissions from federal fleets.**

#### **Implementation Strategies**

- Follow guidance provided in the Treasury Board Secretariat's Guide to Fleet Management for light-duty and executive vehicles.
- Utilize Natural Resources Canada's ecoENERGY for Fleets and FleetSmart programs.
- Purchase fuel-efficient and alternative fuel vehicles through use of green standing offers.
- Implement fleet rationalization/rejuvenation/right-sizing.
- Participate in Natural Resources Canada's SmartDriver and Fuel Management training.
- Install after-market devices to reduce fuel consumption or track vehicle-use statistics, e.g., anti-idling devices, heat recovery systems or Global Positioning System devices.
- Undertake vehicle sharing, e.g., a central pool of administrative vehicles for use by all departments.

### **8.4 Targets related to the construction, renovation and operation of federal buildings. These targets could include application of standards, such as the Canada Green Building Council's Leadership in Energy and Environmental Design (LEED®), Green Globes, and the Building Owners and Managers Association Building Environmental Standards (BEST), aimed at improving performance in areas such as energy efficiency, renewable energy use, water efficiency, waste management and indoor air quality.**

#### **Implementation Strategies**

- Register projects, wherever possible:
  - [www.cagbc.org](http://www.cagbc.org)
  - [www.greenglobes.com](http://www.greenglobes.com)
  - [www.bomabest.com](http://www.bomabest.com)
- Utilize a lifecycle approach, including the use of lifecycle assessment tools for accommodation and building management.
- Utilize an integrated design approach early in the project planning phase.
- Foster the use of wood and other sustainable materials in construction and renovation projects, while taking into account cost, project requirements, greenhouse gas emissions and the principles of sustainable development.
- Establish benchmarks for key environmental aspects such as energy, water management, and construction, renovation and demolition waste management.

### **8.5 Target for departments to achieve a common minimum average ratio of departmental office employees to printing units.**

#### **Implementation Strategies**

- Develop an inventory of organizational printing units.
- Utilize Public Works and Government Services Canada's Managed Print Services to facilitate improvements to organizations' imaging environment—specifically in regard to "greening" and increased efficiencies.

## **8.6 Target for departments to reduce their internal paper consumption.**

### **Implementation Strategies**

- Adopt a paper consumption directive, establishing a department-wide set of practices, guidelines and measurement procedures to reduce the environmental impact of paper consumption.
- Set all duplex-enabled printers and copiers to default duplex printing.
- Conduct a paper-intensity scan of the organization to determine which processes have the most significant impact on multipurpose office paper use, enabling appropriate actions to reduce this use.
- Utilize green meetings guide.
- Improve, or create awareness of, paper reduction practices of employees, including:
  - Intranet communication and promotion of paper reduction strategies, initiatives and best practices.
  - Use of Compensation Web Applications.
  - Use of collaborative tools (e.g., wikis).

## **8.7 Targets related to the management of federal contaminated sites as part of the Federal Contaminated Sites Action Plan (FCSAP) program.**

### **Implementation Strategies**

- Federal custodians plan and undertake assessment and remediation/risk management activities at contaminated sites for which they are responsible in order to reduce human health and ecological risks at the highest priority sites.
- Guidance and program policies developed by the program secretariat and the expert support departments are used by federal custodians in the program implementation activities.
- In 2010–11, site assessments will be undertaken on an estimated 1054 projects by 9 federal custodians in total while 143 remediation/risk management projects will be implemented by 13 custodians in total.

## **8.8 Target or targets to ensure surplus electronic and electrical equipment will be reused or recycled in an environmentally sound and secure manner.**

### **Implementation Strategies**

- In accordance with the Treasury Board Directive on Surplus Materiel, maximize reuse of surplus electronic and electrical equipment through:
  - Donation to Computers for Schools (first right of refusal).
  - Resale through Crown Assets Distribution Centres.
  - Transfer or donation to other departments and agencies or other qualifying charitable or non-profit organizations.
- Access provincial programs, where applicable, for final disposal of electronic waste.
- Access electronic waste recycling services through standing offer for disposal of electronic waste when other options are not feasible.
- Secure destruction is required for the disposal of surplus electronic and electrical equipment containing information that is Protected C, Secret or Top Secret.
- Departments that require secure destruction services may use existing contracts as a basis to develop their own. Examples may be obtained from the RCMP or PWGSC's [Canadian Industrial Security Directorate](#).
- Where material has been physically destroyed according to appropriate RCMP and Communications Security Establishment standards, the resulting shredded material is considered unclassified. This shredded materiel can then be recycled through the Standing Offer for disposal of e-waste.

## **8.9 Target to reduce the environmental impacts of federal government meetings.**

### **Implementation Strategies**

- Environment Canada's green meeting guide may be adopted or used as a reference for the development of the department/agency's guide.

## **ANNEX 2: List of Acronyms**

The following acronyms are used within the implementation strategies section of the tables to specify those federal organizations that lead, or share the accountability for, the activities identified in support of the targets.

**AAFC** – Agriculture and Agri-Food Canada  
**CFIA** – Canada Food Inspection Agency  
**DFAIT** – Department of Foreign Affairs and International Trade  
**DFO** – Department of Fisheries and Oceans  
**EC** – Environment Canada  
**HC** – Health Canada  
**INAC** – Indian and Northern Affairs Canada  
**NRCan** – Natural Resources Canada  
**PC** – Parks Canada Agency  
**PWGSC** – Public Works and Government Services Canada  
**TC** – Transport Canada

The following acronyms are frequently used throughout the tables and are presented here for convenience.

**AOCs** – Areas of Concern  
**AQHI** – Air Quality Health Index  
**BCR** – Bird Conservation Region  
**CARA** – Clean Air Regulatory Agenda  
**CCME** – Canadian Council of Ministers of the Environment  
**CEPA 1999** – *Canadian Environmental Protection Act, 1999*  
**CITES** – Convention on International Trade in Endangered Species of Wild Fauna and Flora  
**CMA** – Census Metropolitan Area  
**COSEWIC** – Committee on the Status of Endangered Wildlife in Canada  
**FCSAP** – Federal Contaminated Sites Action Plan  
**FSDA** – *Federal Sustainable Development Act*  
**GHG** – Greenhouse Gases  
**GLWQA** – Great Lakes Water Quality Agreement  
**MOU** – Memorandum of Understanding  
**NAWMP** – North American Waterfowl Management Plan  
**NPRI** – National Pollutant Release Inventory  
**PM** – Particulate Matter  
**SARA** – *Species At Risk Act*  
**Stats Can** – Statistics Canada  
**VOCs** – Volatile Organic Compounds

## ANNEX 3: Privacy Notice

The information you provide as part of this consultation process will be administered in accordance with the federal *Access to Information Act*. Likewise, any personal information you provide in relation to this consultation will be administered in accordance with the *Privacy Act* and other applicable laws. Where possible, please refrain from providing detailed information about yourself or personal information about others, other than perhaps your name, organization and contact information.

The information you provide is collected under the authority of the Department of the Environment. Its purpose is to invite interested parties to provide comments and/or observations on *Implementing a New Federal Sustainable Development Strategy: A Consultation Paper*. The information you provide may also be used by Environment Canada for policy analysis and research. Participation is voluntary and your acceptance or refusal to participate will not affect your relationship with Environment Canada.

To obtain information related to this consultation, you may submit a request in writing to Environment Canada, pursuant to the *Access to Information Act*. For access to your personal information, you may submit a request under the *Privacy Act*. Instructions for making a request are in the Info Source publication, available at local Service Canada centres or online at [www.infosource.gc.ca](http://www.infosource.gc.ca). When making a request, please refer to the name of the consultation: *Implementing a New Federal Sustainable Development Strategy: A Consultation Paper*.

The Department may wish to publish submissions, or portions thereof, in support of the policy development process on the Sustainable Development Strategy Section of the Green Lane (under development). Please note that consent will be obtained from the originator prior to any postings.

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### Endnotes

<sup>1</sup> Organisation for Economic Co-operation and Development, *The DAC Guidelines: Strategies for Sustainable Development*, p. 16–17, Paris, 2001.

<sup>2</sup> Organisation for Economic Co-operation and Development, *Good Practices in the National Sustainable Development Strategies of OECD Countries*, p. 15, Paris, 2006.

<sup>3</sup> Criticisms came out in a number of CESD annual reports, including those in each of the years from 1997 to 2002, and from 2005 to 2008 ([www.oag-bvg.gc.ca/internet/English/parl\\_lp\\_e\\_901.html](http://www.oag-bvg.gc.ca/internet/English/parl_lp_e_901.html)).

<sup>4</sup> For more information about the Government of Canada's Expenditure Management System, visit [www.tbs-sct.gc.ca/Pubs\\_pol/opepubs/TB\\_H/EXMA-eng.asp](http://www.tbs-sct.gc.ca/Pubs_pol/opepubs/TB_H/EXMA-eng.asp).

<sup>5</sup> For more information on Reports on Plans and Priorities, visit [www.tbs-sct.gc.ca/est-pre/estime.asp](http://www.tbs-sct.gc.ca/est-pre/estime.asp).

<sup>6</sup> Standard framework for establishing assessable targets to guide strategic planning. Widely used in results-based management, including by the Auditor General of Canada ([http://www.oag-bvg.gc.ca/internet/English/att\\_20031101se01\\_e\\_12771.html](http://www.oag-bvg.gc.ca/internet/English/att_20031101se01_e_12771.html)).