



Environment and Climate Change Canada

2016-17

Report on Plans and Priorities

The Honourable Catherine McKenna, P.C., M.P. Minister of Environment and Climate Change



Report on Plans and Priorities 2016-17

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Minister's Message



As the Minister of Environment and Climate Change, I am pleased to present the 2016-17 Report on Plans and Priorities.

This 2016–17 Report on Plans and Priorities of Environment and Climate Change Canada provides information on how the Department will support the Government on achieving our agenda in the coming year and I am fully confident that Environment and Climate Change Canada is prepared to successfully support me and work with our partners inside and outside government to deliver for Canadians. However, given our commitment to more effective reporting, this year's report will be the final submission using the existing reporting framework.

The Prime Minister and the President of the Treasury Board are working to develop new, simplified and more effective reporting processes that will better allow Parliament and Canadians to monitor our Government's progress on delivering real change to Canadians. In the future, Environment and Climate Change Canada's reports to Parliament will focus more transparently on how we are using our resources to fulfill our commitments and achieve results for Canadians.

These new reporting mechanisms will allow Canadians to more easily follow our Department's progress towards delivering on our priorities, which were outlined in the Prime Minister's mandate letter to me.

The report summarizes what actions we will undertake to implement our plan to address climate change and ensure a clean and prosperous environment, and a sustainable economy for present and future generations. Growing our economy and protecting our environment go hand-in-hand. Engaging Canadians and working with our partners and stakeholders at all levels is essential to achieve success. As such, our work will be results-based and informed by science, scientific evidence, engagement and feedback from Canadians.

We will build on the successful conclusion of the Paris Climate Change Conference and will develop a new pan-Canadian framework on climate change – a framework that will support our communities and our economy by making significant new investments in green infrastructure and clean technologies as we move toward a low-carbon economy. We will approach this task the same way we approached the Paris climate conference in collaboration with our provincial, territorial and Indigenous partners, fully engaged with all Canadians, and showing global leadership that Canadians can be proud of.

We will continue to protect biodiversity and sensitive ecosystems by managing and expanding the National Wildlife Areas and the Migratory Bird Sanctuaries by working with our colleagues from other departments and Agencies, such as Parks Canada. By responding quickly to the advice of scientists and completing robust species-at-risk recovery plans in a timely way, we will enhance the protection of Canada's endangered species and we will increase the proportion of Canada's marine and coastal areas that are protected. In order to achieve these tasks, the Department will work closely with the Canadian Environmental Assessment Agency to restore robust oversight and thorough environmental assessments, and to renew Canada's reputation for environmental stewardship.

Renewing our commitments to protecting the Great Lakes, the St. Lawrence River Basin and the Lake Winniped Basin are some of the actions we will take to ensure that our freshwater is treated as a precious resource that deserves protection and careful stewardship. In addition, we will continue the implementation of the Chemicals Management Plan by working closely with provinces and territories to set stronger air quality standards, monitor emissions, and provide incentives for investments that lead to cleaner air, cleaner water and healthier communities.

The Department will continue to provide high quality weather and climate services to Canadians and continue to undertake activities such as forecasting severe weather events and providing seasonal predictions to better protect and help Canadians adapt to the challenges of climate change.

We will actively collaborate with Parks Canada to engage Canadians and inspire broad awareness of the importance of conserving and protecting our land, water and wildlife as we support government-wide efforts to celebrate Canada's 150th anniversary in 2017.

These are just a few highlights of how we are planning to deliver our priorities for 2016–17 and look forward to providing leadership in the ongoing stewardship of a clean environment and sustainable economy.

The Honourable Catherine McKenna, P.C., M.P. Minister of Environment and Climate Change

Section I: Organizational Expenditure Overview

Organizational Profile

The Honourable Catherine McKenna, P.C., M.P. **Appropriate Minister:**

Institutional Head: Michael Martin

Ministerial Portfolio: **Environment and Climate Change Canada**

Enabling Instruments:

Department of the Environment Act"

Canadian Environmental Protection Act. 1999iii

Species at Risk Activ

International River Improvements Act^v

Canada Water Act^{vi}

The Lake of the Woods Control Board Act, 1921vii

Weather Modification Information Act VIII

Fisheries Actix (administration of the Pollution Prevention Provisions)

Antarctic Environmental Protection Act^x

Migratory Birds Convention Act, 1994xi

Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act^x

Canada Wildlife Actxiii

Federal Sustainable Development Actxiv

Canadian Environmental Assessment Act, 2012^{xv}

Environmental Violations Administrative Monetary Penalties Actxvi

National Wildlife Week Actxvii

Year of Incorporation / Commencement: 1971

Organizational Context

Raison d'être

Environment and Climate Change Canada is the lead federal department for a wide range of environmental and climate change issues. It plays a stewardship role in achieving and maintaining a clean environment by minimizing threats to Canadians and their environment from pollution; a safe environment by equipping Canadians to make informed decisions on weather, water and climate conditions; and a sustainable environment by conserving and restoring Canada's natural environment. The Department's program focus reflects that a clean environment and a strong economy go hand in

Four Cornerstones of our clean, safe and sustainable environment mandate: science, collaboration on climate change, regulation and service to Canadians

The four cornerstones provide a strong foundation for all our work. Together, they enable us to translate our raison d'être and Government of Canada priorities and principles into action, and they permeate and guide the programs and activities we pursue to achieve concrete results for Canadians.

We conduct and use science to inform decisions and actions. Science enables us to achieve our mandate and meet our legislative obligations—it points to where we need to take action. Robust scientific and technical capacity is key to all aspects of our work, from regulatory programs to protect wildlife and the environment, to initiatives that prevent and control pollution and support cleaner air for Canadians, to weather and environmental services we deliver, and to consultations with stakeholders on environmental assessments. We openly share data with and disseminate it to our federal, provincial, territorial and international partners to broaden capacity for achieving sound environmental and climate goals for Canadians.

We collaborate with partners and stakeholders to address climate change. Collaboration with diverse domestic and international partners and stakeholders is central to our leadership role to address environmental and climate change challenges, most notably through the establishment of a pan-Canadian Framework to address climate change. Through these strategic partnerships, we work to reduce air pollutant and greenhouse gas emissions and manage precious water and ecosystem resources, drawing on expertise to inform major resource development projects, and engaging the public in activities such as environmental assessments. We will collaborate with government, business and civil society leaders around the world to work towards a low-carbon, climate-resilient global economy.

We develop, promote and enforce compliance with regulatory regimes to protect Canadians and their environment. Working within the broader federal regulatory system, Environment and Climate Change Canada establishes, promotes compliance with and enforces regulations that protect Canadians and their environment. Our regulatory regime is informed by broad-based consultation and by science and provides effective and efficient tools to achieve environment and climate change goals and targets while avoiding duplication with other partners, including Canada's provinces and territories.

We serve Canadians where they live. Our workforce is strategically located across the country, with almost two-thirds of employees working in communities outside the National Capital Region. We work in field offices, laboratories, National Wildlife Areas and weather stations in every province and territory. Environment and Climate Change Canada employees bring a diverse perspective to programs and policies that support a clean, safe and sustainable environment in homes, businesses and communities across Canada.

In addition, over the next two years, Environment and Climate Change Canada will be supporting government-wide efforts to celebrate Canada's 150th anniversary in 2017. We will actively collaborate with Parks Canada to engage Canadians and inspire broad awareness of the importance of conserving and protecting our land, water and wildlife.

Responsibilities

A number of acts and regulations provide the Department with its mandate and allow it to carry out its programs. Under the *Department of the Environment Act*, the powers, duties and functions of the Minister of Environment and Climate Change extend to matters such as:

- the preservation and enhancement of the quality of the natural environment, including water, air and soil quality, and the coordination of the relevant policies and programs of the Government of Canada:
- renewable resources, including migratory birds and other non-domestic flora and fauna; and
- meteorology.

The Minister of Environment and Climate Change has primary responsibility for and carries out the departmental mandate through a number of other acts and regulations viii, such as the Canadian Environmental Protection Act, 1999 (CEPA 1999); the pollution prevention provisions of the Fisheries Act; the Federal Sustainable Development Act; the Species at Risk Act; the International River Improvement Act; the Migratory Birds Convention Act, 1994; the Canadian Wildlife Act; and the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act.

The Department is a key partner of the Canadian Environmental Assessment Agency and Parks Canada, which are both within the ministerial portfolio.

In addition, the Minister of Environment and Climate Change has secondary or shared responsibility for the successful execution of other federal departments' mandates, including the *Arctic Waters Pollution Prevention Act* (Transport Canada, Indigenous and Northern Affairs Canada, and Natural Resources Canada); the *Canada Oil and Gas Operations Act* (Natural Resources Canada), and the *Emergency Management Act* (Public Safety Canada).

Strategic Outcomes and Program Alignment Architecture

Environment and Climate Change Canada fulfills its mandate by promoting three Strategic Outcomes, each contributing to the Government of Canada Outcome of a clean and healthy environment. The Department's Strategic Outcomes and corresponding Program Alignment Architecture, including its Internal Services for 2016–17, are shown below.

- 1. **Strategic Outcome**: Canada's natural environment is conserved and restored for present and future generations
 - 1.1 Program: Biodiversity Wildlife and Habitat
 - 1.1.1 Sub-Program: Biodiversity Policy and Priorities
 - 1.1.2 Sub-Program: Species at Risk
 - **1.1.3 Sub-Program:** Migratory Birds
 - 1.1.4 Sub-Program: Habitat Conservation Partnerships
 - 1.1.5 Sub-Program: Protected Areas
 - 1.2 Program: Water Resources
 - 1.2.1 Sub-Program: Water Quality and Aquatic Ecosystems Health
 - **1.2.2 Sub-Program:** Water Resource Management and Use
 - 1.2.3 Sub-Program: Hydrometric Services
 - **1.3 Program:** Sustainable Ecosystems
 - 1.3.1 Sub-Program: Sustainability Reporting and Indicators
 - 1.3.2 Sub-Program: Ecosystem and Environmental Assessments and Monitoring
 - **1.3.3 Sub-Program:** Community Engagement
 - 1.3.3.1 Sub-Sub-Program: EcoAction Community Funding
 - 1.3.3.2 Sub-Sub-Program: Environmental Damages Fund
 - 1.3.3.3 Sub-Sub-Program: Environmental Youth Employment
 - 1.3.4 Sub-Program: Great Lakes
 - **1.3.5 Sub-Program:** St. Lawrence
 - 1.3.6 Sub-Program: Lake Simcoe/South-eastern Georgian Bay
 - 1.3.7 Sub-Program: Lake Winnipeg
 - 1.3.8 Sub-Program: Ecosystems Partnerships
 - **1.4 Program:** Compliance Promotion and Enforcement Wildlife

- 2. Strategic Outcome: Canadians are equipped to make informed decisions on changing weather, water and climate conditions
 - 2.1 Program: Weather and Environmental Services for Canadians
 - 2.1.1 Sub-Program: Weather and Environmental Observations, Forecasts and Warnings
 - **2.1.2 Sub-Program:** Health-related Meteorological Information
 - **2.1.3 Sub-Program:** Climate Information, Predictions and Tools
 - 2.2 Program: Weather and Environmental Services for Targeted Users
 - **2.2.1 Sub-Program:** Meteorological Services in Support of Air Navigation
 - 2.2.2 Sub-Program: Meteorological and Ice Services in Support of Marine Navigation
 - 2.2.3 Sub-Program: Meteorological Services in Support of Military Operations
- 3. Strategic Outcome: Threats to Canadians and their environment from pollution are minimized.
 - 3.1 Program: Substances and Waste Management
 - 3.1.1 Sub-Program: Substances Management
 - 3.1.2 Sub-Program: Effluent Management
 - 3.1.3 Sub-Program: Marine Pollution
 - **3.1.4 Sub-Program:** Environmental Emergencies
 - 3.1.5 Sub-Program: Contaminated Sites
 - 3.2 Program: Climate Change and Clean Air
 - 3.2.1 Sub-Program: Climate Change and Clean Air Regulatory Program
 - 3.2.1.1 Sub-Sub-Program: Industrial Sector Emissions
 - 3.2.1.2 Sub-Sub-Program: Transportation Sector Emissions
 - 3.2.2 Sub-Program: International Climate Change and Clean Air Partnerships
 - **3.2.3 Sub-Program:** Environmental Technology
 - 3.3 Program: Compliance Promotion and Enforcement Pollution

Internal Services

Organizational Priorities

Priority 1: A Clean Environment		
Description Manage substances and waste, and reduce pollution and emissions that directly or indirectly harm human health or the environment.	Priority Type ¹ Ongoing	Links to Strategic Outcome 3: Threats to Canadians and their environment from pollution are minimized.

Why this is a priority

Climate change is one of the greatest threats of our time and indisputable science points to changes on Earth due to human activity that will continue to have profound impacts on human health and the environment. Canada's domestic and international commitments require us to reduce our greenhouse gas (GHG) emissions. Reductions in emissions of air pollutants, short-lived climate pollutants and GHGs benefit both climate and air quality. In addition, harmful substances released into the environment and products that contain toxic substances threaten the health of Canadians and their environment. The application of sound science and clean technologies is vital to address these threats effectively.

Key Supporting Initiatives

Planned Initiatives	Start Date	End Date	Link to Department's Program Alignment Architecture
The Department will work with provinces, territories and Indigenous partners to establish a pan-Canadian Framework to address climate change.	2015–16	Ongoing	3.2.1.1 Industrial Sector Emissions 3.2.1.2 Transportation Sector Emissions 3.2.3 Environmental Technology
The Department will work collaboratively with the United States and Mexico, as well as with other government departments to develop an ambitious North American clean energy and environment agreement. The Department will establish and pursue international commitments, with emphasis on timely and efficient implementation of the Paris Agreement, that align with our domestic plans and contribute to a clean environment globally, as well as partnerships and climate finance to assist vulnerable countries transition to low carbon economies.	2015–16	Ongoing	3.1.1 Substances Management 3.2.2 International Climate Change and Clean Air Partnerships
Environment and Climate Change Canada will continue to work with provinces and territories to set strong air quality standards (AQS), implement the Air Quality Management System (AQMS), and provide incentives for investments that lead to cleaner air and healthier communities.	Ongoing (AQS) Ongoing (AQMS) 2015–16 (cleaner air)	Ongoing	3.2.1.1 Industrial Sector Emissions 3.2.1.2 Transportation Sector Emissions

^{1.} Type is defined as follows: previously committed to—committed to in the first or second fiscal year prior to the subject year of the report; ongoing—committed to at least three fiscal years prior to the subject year of the report; and new—newly committed to in the reporting year of the RPP or the DPR. If another type that is specific to the department is introduced, an explanation of its meaning must be provided.

Through our continued implementation of the Chemicals Management Plan and the pollution prevention provisions of the <i>Fisheries Act</i> , environmental risks posed by harmful chemicals and substances in the air, in water and on land will be assessed, and measures to prevent or manage those risks will be developed and implemented as appropriate.	Ongoing	Ongoing	3.1.1 Substances Management 3.1.2 Effluent Management
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Priority 2: A Safe Environment		
Description Provide Canadians with timely high-quality information on immediate and long-term environmental conditions.	Priority Type Ongoing	Links to Strategic Outcome 2: Canadians are equipped to make informed decisions on changing weather, water and climate conditions.

Why this is a priority

Canadians rely on accurate and timely weather and environmental services from Environment and Climate Change Canada to plan their daily activities and to make decisions about their safety. The same information is central to maintaining a healthy economy, particularly in sectors such as agriculture, resource development, transportation, tourism and recreation.

Key Supporting Initiatives

Planned Initiatives	Start Date	End Date	Link to Department's Program Alignment Architecture
Environment and Climate Change Canada will deliver science-based weather and environmental services 24 hours a day, 365 days a year to inform the decisions of	Ongoing	Ongoing	2.1.1 Weather and Environmental Observations, Forecasts and Warnings
individuals, families and an array of economic sectors.			2.1.2 Health-related Meteorological Information
The Department will pursue up-to-date research, technology and systems that support the collection and communication of current conditions and forecasts for the public and for the			2.2.1 Meteorological Services in Support of Air Navigation
aviation, marine and defence sectors. For example, we will continue to provide 24/7 meteorological, ocean and ice information vital to the operations of the Canadian Armed			2.2.2 Meteorological and Ice Services in Support on Marine Navigation
Forces, Canadian Coast Guard, and other federal users of weather and environmental information.			2.2.3 Meteorological Services in Support of Military Operations
To protect Canadians from the challenges of climate change, the Department will continue to undertake activities such as forecasting severe weather events and seasonal	Ongoing	Ongoing	2.1.1 Weather and Environmental Observations, Forecasts and Warnings
predictions, and to deliver Canada's national climate modelling program. We will work to make better science-			2.1.3 Climate Information, Predictions and Tools
based predictions of severe weather and climate-related events to inform provinces, territories and communities in preparing for and responding to such events. As the federal lead for adaptation, ECCC will also continue to advance the Federal Adaptation Policy Framework, which sets direction on adaptation at a high level.			3.1.4 Environmental Emergencies

Environment and Climate Change Canada will provide environmental science and monitoring to support, for example, the examination of the implications of climate change .	Ongoing	Ongoing	2.1.3 Climate Information, Predictions and Tools
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Priority 3: A Sustainable Environment		
Description Work to conserve and protect land, water and biodiversity.	Priority Type Ongoing	Links to Strategic Outcome 1: Canada's natural environment is conserved and restored for present and future generations.

Why this is a priority

Canada is a country with a rich natural environment that supports a diversity of plant and animal species. Taking a leadership role in the protection and conservation of these resources for the benefit of Canadians today and into the future is a core component of Environment and Climate Change Canada's stewardship role.

Key Supporting Initiatives

Planned Initiatives	Start Date	End Date	Link to Department's Program Alignment Architecture
Sound science and solid partnerships will provide the foundation to enhance protection of Canada's endangered species, complete robust species-at-risk (SAR) recovery plans in a timely way, manage and expand National Wildlife Areas and Migratory Bird (MB) Sanctuaries and increase the proportion of Canada's marine and coastal areas that are protected. Science will also inform the Department's work with the Canadian Environmental Assessment Agency to restore robust oversight and thorough environmental assessments (EA).	Ongoing (Protected Areas) Ongoing (MB) Ongoing (SAR) 2015–16 (EAs)	Ongoing	1.1.2 Species at Risk 1.1.5 Protected Areas 1.3.2 Ecosystem and Environmental Assessments and Monitoring
The Department will protect Canada's water resources and target key areas, including the Great Lakes, the St. Lawrence River Basin, the Lake Winnipeg Basin, the Atlantic ecosystems, and other water ecosystems, by engaging stakeholders and through effective science, monitoring, regulatory tools and watershed protection.	Ongoing	Ongoing	1.2.1 Water Quality and Aquatic Ecosystems Health 1.2.2 Water Resource Management and Use 1.2.3 Hydrometric Services 1.3.4 Great Lakes 1.3.5 St. Lawrence 1.3.6 Lake Simcoe/Southeastern Georgian Bay 1.3.7 Lake Winnipeg 1.3.8 Ecosystems Partnerships 3.1.2 Effluent Management
Environment and Climate Change Canada will monitor ecosystems and plant and animal species, and support various domestic and international partners in the conservation of important ecologically sensitive habitats by providing the necessary financial and technical assistance.	Ongoing	Ongoing	1.1.4 Habitat Conservation Partnerships

The Department will continue to develop and enforce a strong regulatory regime, including promoting compliance	Ongoing	Ongoing	1.4 Compliance, Promotion and Enforcement - Wildlife
to protect wildlife and prevent pollution.			3.3 Compliance, Promotion
			and Enforcement -
			Pollution

Priority 4: Management Priority		
Description Enhance service delivery to support the Department's mandate.	Priority Type Ongoing	Links to all Strategic Outcomes

Why this is a priority

Environment and Climate Change Canada will continue its work to ensure that internal services, including human and financial resources management, communication, information management and technology, are aligned to best support and enable the achievement of results.

Key Supporting Initiatives

Planned Initiatives	Start Date	End Date	Link to Department's Program Alignment Architecture
Environment and Climate Change Canada will leverage social media and other forms of communication to provide Canadians with timely information relating to our mandate and key priorities.	2015–16	Ongoing	Links to all PAA Programs
We will support Canada's Open Government Agenda by ensuring that strong systems are in place to gather, collect, communicate and disseminate information, and work to strengthen data management and recordkeeping capacities.	Ongoing	Ongoing	
With a strong focus on results, the Department will put in place mechanisms for robust performance measurement to support decision-making, reporting and strategic investment.	Ongoing	Ongoing	
The Department will adopt strategic and targeted actions to support employees and develop expertise (including scientific and technical) to achieve concrete results in accordance with our mandate.	Ongoing	Ongoing	

For more information on organizational priorities, see the Minister's mandate letter on the Prime Minister of Canada's Websitexix.

Risk Analysis

Environment and Climate Change Canada (ECCC) has identified certain risks that may impact the achievement of the Department's mandate, strategic outcomes and priorities. These risks are driven by varying aspects, some of which are changes in policy and strategic direction, potential environmental hazards and emergencies, the evolution of collaboration and partnerships with various stakeholders both at home and internationally, together with the ever-changing social, economic and environmental landscape and the need to advance science and technology. The Department has identified actions it could take to mitigate these risks and will monitor, review and respond to these and any potential emerging risks, as appropriate.

Key Risks

Risk	Risk Response Strategy	Link to Program Alignment Architecture
Achieving progress on our "Clean" stewardship mandate		Strategic Outcome 3
Many of the measures required to reduce greenhouse gas emissions are not under the responsibility of ECCC or the Government of Canada more generally.	Through its leadership and collaboration with partners and stakeholders, ECCC will work with its provincial, territorial, regional and international partners to align regional commitments and actions. In particular, ECCC will work with provinces and territories to establish a pan-Canadian Framework to address climate change. ECCC will continue to work collaboratively under the United Nations Framework Convention on Climate Change and bilaterally with key partners to advance work for an effective and timely implementation of the Paris Climate Change Agreement.	
Achieving progress on our "Safe" stewardship mandate		Strategic Outcome 2
Failure of ECCC's facility infrastructure and Information Technology systems may impede the Department's capacity to monitor and predict severe weather and other programs to Canadians.	In order to maintain capacity to predict severe weather and protect the health and safety of Canadians and the economy, particularly in sectors such as agriculture, resource development, transportation, tourism and recreation, ECCC works with its partners so that key facility and IT systems are maintained and any necessary planned outages are carefully scheduled so that service disruption is minimized. As part of its business continuity planning, ECCC also conducts regular risk analysis to inform priority setting and decision making.	

Achieving progress on our "Sustainable" stewardship mandate		Strategic Outcome 1
Population, industrial and economic growth may continue to put stress on the environment.	To mitigate potential harm to air quality, freshwater and terrestrial habitat and species ECCC, together with our provincial, territorial, and Indigenous partners will: use sound scientific evidence; promote compliance; enforce regulations; and, use processes to monitor, take or recommend actions to address this challenge. ECCC will strengthen its activities in the following areas: education, geo-mapping, watershed, marine and coastal protection, species at risk recovery plans, and expansion of habitats and sanctuaries.	

Planned Expenditures

Budgetary Financial Resources (dollars)*

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
902,089,198	902,089,198	871,955,579	815,884,001

^{*}All figures throughout this document are net of respendable revenues.

Environment and Climate Change Canada's planned spending reflects approved funding by Treasury Board to support departmental Strategic Outcomes and Programs. The decrease from 2016–17 to 2017–18 in planned spending is mainly due to the funding that will expire on March 31, 2017 for initiatives such as the Lake Simcoe Initiative, the Lake Winnipeg Basin Initiative, the completion of initiatives such as Federal Infrastructure and Single Windows as well as decreased requirements for Sustainable Development Technology Canada (SDTC) for the Sustainable Development Technology Fund, partially offset by increased funding for the Contaminated Sediment Remediation Projects. The decrease in planned spending from 2017–18 to 2018–19 is mainly due to the funding that will expire on March 31, 2018 for initiatives such as the Species at Risk program as well as the reduction in funding requirements for the Contaminated Sediment Remediation Projects, the Meteorological Service of Canada, the National Conservation Plan and SDTC for the Sustainable Development Technology Fund.

ECCC will seek ongoing funding for priority initiatives. Funding requests for such initiatives are subject to government decisions, and the outcomes will be reflected in future budget exercise and Estimates documents.

Human Resources (Full-Time Equivalents—[FTEs])*

2016–17	2017–18	2018–19
5,692	5,523	5,330

^{*}Totals may differ within and between tables due to rounding of figures. The FTE numbers throughout this document include students.

One FTE equals one person working a 37.5-hour work week full-time for the entire year, or any number of part-time employees whose combined hours of work equal one FTE. An average salary was used to calculate FTEs based on planned salary spending for the 2016–17, 2017–18 and 2018–19 fiscal years. Based on this calculation, Environment and Climate Change Canada plans to use 5,692 FTEs in 2016–17, with decreases of FTE utilization, linked to decreases in planned spending, in 2017–18 and 2018–19, as shown in the above table.

Budgetary Planning Summary for Strategic Outcomes and Programs (dollars)

Strategic Outcome, Programs and Internal Services	2013–14 Expenditures	2014–15 Expenditures	2015–16 Forecast Spending	2016–17 Main Estimates	2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
Strategic Outcome 1: Ca	Strategic Outcome 1: Canada's natural environment is conserved and restored for present and future generations						
Program 1.1 Biodiversity – Wildlife and Habitat	120,519,001	140,408,483	135,387,514	137,912,691	137,912,691	133,903,800	120,985,239
Program 1.2 Water Resources	100,322,337	92,453,058	95,770,862	80,035,023	80,035,023	82,145,076	82,198,388
Program 1.3 Sustainable Ecosystems	70,727,194	72,619,888	90,782,413	88,026,739	88,026,739	82,431,062	65,531,319
Program 1.4 Compliance Promotion and Enforcement	18,208,956	17,058,497	16,115,510	16,652,429	16,652,429	16,367,544	16,303,290
Strategic Outcome 1 Subtotal	309,777,488	322,539,926	338,056,299	322,626,882	322,626,882	314,847,482	285,018,236
Strategic Outcome 2: Ca	nadians are equi	oped to make info	ormed decisions	on changing wea	ther, water and c	limate conditions	5
Program 2.1 Weather and Environmental Services for Canadians	182,818,981	174,493,294	201,585,501	174,382,678	174,382,678	169,118,896	149,022,208
Program 2.2 Weather and Environmental Services for Targeted Users	26,618,144	25,886,657	15,562,711	19,267,384	19,267,384	18,998,851	19,027,920
Strategic Outcome 2 Subtotal	209,437,125	200,379,951	217,148,212	193,650,062	193,650,062	188,117,747	168,050,128
Strategic Outcome 3: Th	reats to Canadiar	s and their envir	onment from pol	ution are minimi	zed		
Program 3.1 Substances and Waste Management	84,616,666	86,779,805	85,149,099	74,912,985	74,912,985	68,461,079	66,263,946
Program 3.2 Climate Change and Clean Air	125,118,027	121,061,134	123,045,019	97,030,449	97,030,449	87,789,682	84,659,353
Program 3.3 Compliance Promotion and Enforcement – Pollution	44,661,876	42,309,866	37,560,222	34,672,528	34,672,528	34,487,231	34,914,402
Strategic Outcome 3 Subtotal	254,396,569	250,150,805	245,754,340	206,615,962	206,615,962	190,737,992	185,837,701
Internal Services Subtotal	205,338,366	203,115,955	182,351,884	179,196,292	179,196,292	178,252,358	176,977,936
Total	978,949,548	976,186,637	983,310,735	902,089,198	902,089,198	871,955,579	815,884,002

Strategic Outcome 1: Canada's natural environment is conserved and restored for present and future generations.

The variance between the 2015–16 forecast spending and the 2016–17 planned spending is mainly due to the decrease in funding requirements for the Contaminated Sediment Remediation Projects and to the funding that will expire on March 31, 2016 for initiatives such as the Great Lakes Nutrient Initiative, the Clean Air Regulatory Agenda and West Coast Energy Development. The decrease from 2016–17 to 2017–18 in planned spending is primarily due to the funding that will expire on March 31, 2017 for initiatives such as the Lake Simcoe Initiative and the Lake Winnipeg Basin Initiative. The decrease from 2017–18 to 2018–19 in planned spending is mainly attributable to the decrease in funding requirement for the Contaminated Sediment Remediation Projects and to the funding that will expire on March 31, 2018 for initiatives such as the Species at Risk program.

Strategic Outcome 2: Canadians are equipped to make informed decisions on changing weather, water and climate conditions.

The variance between the 2015–16 forecast spending and the 2016–17 planned spending is mainly due to the decrease in funding for the Meteorological Service of Canada as well as the funding that will expire on March 31, 2016 for initiatives such as the Clean Air Regulatory Agenda. The decrease from 2016–17 to 2017–18 in planned spending is primarily due to the completion of initiatives such as Federal Infrastructure, offset by the funding increase for the Meteorological Service of Canada. The decrease from 2017–18 to 2018–19 in planned spending is mainly attributable to the decrease in funding for the Meteorological Service of Canada.

Strategic Outcome 3: Threats to Canadians and their environment from pollution are minimized.

The variance between the 2015–16 forecast spending and the 2016–17 planned spending is mainly due to the funding that will expire on March 31, 2016 for initiatives such as the Clean Air Regulatory Agenda, offset by the increase in funding for SDTC for the Sustainable Development Technology Fund. The decrease from 2016–17 to 2017–18 in planned spending is primarily due to the decrease in funding for the World Class Oil Spills Regime, SDTC for the Sustainable Development Technology Fund, as well as the completion of the Single Windows Initiative. The decrease from 2017–18 to 2018–19 in planned spending is mainly attributable to the decrease in funding for SDTC for the Sustainable Development Technology Fund.

Internal Services

The variance between the 2015–16 forecast spending and the 2016–17 planned spending is mainly due to the funding that will expire on March 31, 2016. The decrease from 2016–17 to 2017–18 in planned spending is primarily due to the funding that will expire on March 31, 2017 for initiatives such as the Lake Simcoe Initiative, the Lake Winnipeg Basin Initiative and the completion of the Single Windows Initiative. The decrease from 2017–18 to 2018–19 in planned spending is mainly attributable to the funding that will expire on March 31, 2018 for initiatives such as the Species at Risk program and the World Class Oil Spills Regime.

See the previous Departmental Performance Report (DPR) for additional details on year-over-year variances between 2013–14 and 2014–15 expenditures.

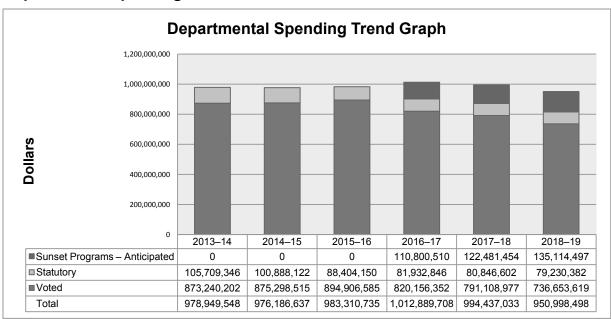
Alignment of Spending With the Whole-of-Government Framework

Alignment of 2016–17 Planned Spending with the Whole-of-Government Framework xx (dollars)

Strategic Outcome	Program	Spending Area	Government of Canada Outcome	2016–17 Planned Spending
	Program 1.1 Biodiversity – Wildlife and Habitat	Economic Affairs	A clean and healthy environment	137,912,691
Strategic Outcome 1:	Program 1.2 Water Resources	Economic Affairs	A clean and healthy environment	80,035,023
environment is conserved and restored for present and future generations	Program 1.3 Sustainable Ecosystems	Economic Affairs	A clean and healthy environment	88,026,739
idule generations	Program 1.4 Compliance Promotion and Enforcement – Wildlife	Economic Affairs	A clean and healthy environment	16,652,429
Strategic Outcome 2: Canadians are equipped to make informed decisions on changing weather, water and climate conditions	Program 2.1 Weather and Environmental Services for Canadians	Economic Affairs	A clean and healthy environment	174,382,678
	Program 2.2 Weather and Environmental Services for Targeted Users	Economic Affairs	A clean and healthy environment	19,267,384
Strategic Outcome 3: Threats to Canadians and their environment from pollution are minimized	Program 3.1 Substances and Waste Management	Economic Affairs	A clean and healthy environment	74,912,985
	Program 3.2 Climate Change and Clean Air	Economic Affairs	A clean and healthy environment	97,030,449
	Program 3.3 Compliance Promotion and Enforcement – Pollution	Economic Affairs	A clean and healthy environment	34,672,528

Total Spending by Spending Area (dollars)

Spending Area	Total Planned Spending	
Economic Affairs	722,892,906	
Social Affairs	0	
International Affairs	0	
Government Affairs	0	



Departmental Spending Trend

Note: Environment and Climate Change Canada will seek ongoing funding for priority initiatives. Funding requests for such initiatives are subject to government decisions and will be reflected in future budget exercise and Estimates documents.

For fiscal years 2013–14 and 2014–15, the amounts shown represent the actual expenditures as reported in the Public Accounts. For fiscal year 2015–16, the forecast spending represents the planned budgetary and statutory expenditures as presented in the Estimates documents (Main Estimates and Supplementary Estimates).

For the period 2016–17 to 2018–19, the planned spending reflects approved funding by Treasury Board to support the departmental Strategic Outcomes and Programs.

Environment and Climate Change Canada's actual spending for 2014–15 was \$976.2 million, a year-over-year decrease of \$2.8 million (0.3%) from the 2013–14 actual spending. This decrease is mainly due to a reduction in payments in lieu of severance, parental benefits and the related Employee Benefit Plan, as well as a reduced statutory payment to the Nature Conservancy of Canada (NCC), offset by a one-time transition payment made in 2014–15 as a result of the change from pay in arrears and increased funding for the National Conservation Plan.

The increase between 2014–15 actual spending and 2015–16 forecast spending is mainly due to the increase in funding for the National Conservation Plan, Meteorological Service of Canada and SDTC for the Sustainable Development Technology Fund as well as the new funding for Federal Infrastructure. These variances are offset by the payment in lieu of severance and parental benefits, the inclusion in 2014–15 of the one-time transition payment as a result of the change from pay in arrears, as well as the statutory payment in 2014–15 to the NCC.

The decreases between 2015–16 forecast statutory and voted spending and 2016–17 planned statutory and voted spending is mainly due to the funding that will expire on March 31, 2016 for initiatives such as the Clean Air Regulatory Agenda and Federal Contaminated Sediment Action Plan, as well as a reduction in funding for the Meteorological Service of Canada and for Contaminated Sediment Remediation Projects. These decreases are partially offset by increases for SDTC for the Sustainable Development Technology Fund.

For variance explanation between 2016–17 and 2018–19 planned spending, please see the <u>Planned</u> Expenditures section.

Estimates by Vote

For information on Environment and Climate Change Canada's organizational appropriations, consult the 2016-17 Main Estimates.xxi

Section II: Analysis of Programs by Strategic Outcomes

This section of Environment and Climate Change Canada's 2016–17 Report on Plans and Priorities describes the programs through which the Department delivers its core mandate, as well as key information for each program, sub- and sub-sub-programs.

Strategic Outcome 1: Canada's natural environment is conserved and restored for present and future generations.

Program 1.1: Biodiversity – Wildlife and Habitat

Program Description

This program aims to prevent biodiversity loss while enabling sustainable use by: protecting and recovering species at risk and their critical habitat; conserving and protecting healthy populations of migratory birds; and monitoring, conserving and restoring significant habitats by establishing and maintaining a network of protected areas, and developing and implementing stewardship programs. It also supports coordinated and coherent national assessment, research, planning and action to protect biodiversity, including viable, self-sustaining populations of species, healthy and diverse ecosystems, and genetic resources. The program forms strategic partnerships for integrated management of Canada's natural capital, including stewardship and the sustainable management of landscapes. This program has responsibilities under the *Species at Risk Act, Migratory Birds Convention Act, 1994, Canada Wildlife Act, Canadian Environmental Assessment Act* and *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act.* International responsibilities include the United Nations Convention on Biological Diversity (1992), the Migratory Birds Convention, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Conservation of Arctic Flora and Fauna Working Group of the Arctic Council, and the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention).

Budgetary Financial Resources (dollars)*

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
137,912,691	137,912,691	133,903,800	120,985,239

^{*}All figures throughout this document are net of respendable revenues.

Human Resources (Full-Time Equivalents - FTEs)*

2016–17	2017–18	2018–19
539	526	477

^{*}Totals may differ within and between tables due to the rounding of figures. The FTE numbers throughout this document include students.

Performance Measurement

Program 1.1: Biodiversity – Wildlife and Habitat				
Expected Results	Performance Indicators	Targets	Date to be Achieved	
Populations of migratory birds are secure	Proportion of assessed migratory bird species in General Status Reports whose status is considered to be "secure"	81%	2015 General Status Report	

	Status of listed species shows improvement upon reassessment	Proportion of federally listed species at risk for which Environment and Climate Change Canada is primarily responsible and for which recovery is feasible that exhibit, at the time of reassessment by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), population and distribution trends consistent with achieving the objectives of recovery strategies.	35%	March 2017	
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Planning Highlights

Environment and Climate Change Canada will address a number of priorities in support of commitments under the Species at Risk Act (SARA); reducing the backlog of recovery documents, listing additional species under SARA, and enhancing stewardship for protection. ECCC will continue to deliver on scientific assessments and recovery planning documents, and continue to implement recovery actions that foster action to protect and recover species at risk and that ensure protection of species and their critical habitats.

ECCC will collaborate with partners at home and internationally, including landowners and decisionmakers, to protect biodiversity and implement the Convention on International Trade in Endangered Species of Wild Flora and Fauna in Canada. The Department will continue to monitor the status of and conduct research on migratory birds and their habitats, collaborate with partners to manage key threats to migratory birds, and work to modernize the Migratory Birds Regulations.

To support local planning efforts to ensure that wildlife species, migratory birds and their habitats are more readily and fully considered in decision-making, the Department will develop planning tools and will launch implementation of Bird Conservation Regions Strategies. ECCC will maintain its network of National Wildlife Areas and Migratory Bird Sanctuaries, and will work towards the designation of new National Wildlife Areas.

The Department will continue to lead and coordinate actions in support of the Canadian Biodiversity Strategy, including through the implementation of actions agreed to by federal, provincial and territorial Ministers responsible for Conservation, Wildlife and Biodiversity, and through actively participating in and leading Canadian delegations at international meetings in support of biodiversity.

Sub-Program 1.1.1: Biodiversity Policy and Priorities

Sub-Program Description

This program enables Environment and Climate Change Canada to play a national leading role in engaging stakeholders, provincial and territorial governments, and other federal government departments in Canada's implementation of the United Nations Convention on Biological Diversity. The program provides scientific expertise, guidance and advice to decision makers, and develops and applies models for social, cultural and economic valuation of ecosystem services to support sustainable development decision-making. This work enables information about the ecosystem and the environmental effects of development proposals to be factored into decisions across different levels of government, environmental and non-governmental organizations, the industrial sector, the research community and the general public. Strategies used in Canada include the Canadian Biodiversity Strategy, the Biodiversity Outcomes Framework, and Access and Benefit Sharing of Genetic Resources. The program also coordinates the federal government's response to the 2004 Invasive Alien Species Strategy for Canada, implemented by federal science-based and regulatory departments and agencies, including the Canadian Food Inspection Agency, Agriculture and Agri-Food Canada, Natural Resources Canada, and Fisheries and Oceans Canada. In addition, Canada participates internationally in the Convention on Biological Diversity; the Nagoya Protocol on Access and Benefit Sharing of Genetic Resources; the Nagoya-Kuala Lumpur

Supplementary Protocol on Liability and Redress under the Cartagena Protocol on Biosafety; and Conservation of Arctic Flora and Fauna under the Arctic Council. As well, the program serves as the Canadian lead and national focal point for the UN-sponsored Intergovernmental Panel on Biodiversity and Ecosystem Services. Funding provided by the program includes Canada's annual contribution to the Secretariat of the Convention on Biological Diversity and support for international working groups.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
2,502,761	2,502,359	2,502,039

Human Resources (FTEs)

2016–17	2017–18	2018–19
20	20	19

Performance Measurement

Sub-Program 1.1.1: Biodiversity Policy and Priorities			
Expected Result	Performance Indicator	Target	Date to be Achieved
Biodiversity goals and targets are integrated into federal, provincial and territorial strategies and plans that have an impact on biodiversity	Percentage of federal departments with natural resource or environmental mandates that have integrated relevant cross-cutting and sectoral 2020 Biodiversity Goal and Targets into their strategies and/or plans	100%	December 2017
	Percentage of provincial and territorial governments that have publicly identified goals, targets or specific actions that directly support the 2020 Biodiversity Goals and Targets	100%	March 2019

Planning Highlights

- To advance global action of governments and other stakeholders to protect biodiversity, prepare for and coordinate Canada's participation in international meetings related to the Convention on Biological Diversity, the Nagoya Protocol on Access and Benefits Sharing of Genetic Resources, the Conservation of Arctic Flora and Fauna Working Group of the Arctic Council, and the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). Work will include ongoing implementation of the 2014–18 IPBES work program, and active international engagement.
- Fulfill responsibilities as the national focal point for the Convention on Biological Diversity, which includes providing information on Canada's biodiversity conservation activities and leading/engaging technical expert groups on priority issues.
- Continue to develop and apply models for valuation of ecosystem services to support sustainable development decisions and identify future priorities.
- Support the Invasive Alien Species (IAS) Strategy at the federal and national levels by coordinating
 issues and collaborating with partners (e.g., Canadian Council on Invasive Species), and by
 co-chairing the federal, provincial and territorial Invasive Alien Species Task Force. This work is
 aimed at preventing the introduction of IAS, detecting and rapidly responding to new IAS, and
 reducing the impact of established IAS.

- Provide ongoing leadership and coordination with federal, provincial and territorial partners to complete current priorities under the Canadian Biodiversity Strategy, including developing a plan for reporting on biodiversity goals and targets.
- Communicate to Canadians and stakeholders the work of the federal, provincial and territorial working group on biodiversity that serves as Canada's national biodiversity Clearing-House Mechanism under the Convention on Biological Diversity by updating and enhancing the working group's website (biodivcanada.ca xxii), which provides information on biodiversity to Canadians and enables ECCC to communicate to other countries our efforts to conserve biodiversity in Canada.
- Track and communicate the implementation of a range of federal national conservation initiatives, including the management of the Earth Rangers agreement. (See sub-programs 1.1.4 and 1.1.5.)

Sub-Program 1.1.2: Species at Risk

Sub-Program Description

This program's purpose is to implement the Species at Risk Act (SARA). SARA is the key federal government commitment to prevent wildlife species from being extirpated or becoming extinct, to provide for the recovery of wildlife species that are extirpated, endangered or threatened, and to manage species of special concern to prevent them from becoming endangered or threatened. The program provides for publication of recovery documents, identification of critical habitat, protection of wildlife species and their critical habitat, and progress reports. Species recovery is achieved in part through the Habitat Stewardship Program, the Aboriginal Fund for Species at Risk, the Interdepartmental Recovery Fund and the Species at Risk Protection on Agricultural Lands initiative, through which Indigenous peoples and other Canadians are engaged in a variety of conservation and recovery activities for species at risk and protection as well as recovery of critical habitat. The program relies on partnerships with provincial, territorial and other governments, as well as Indigenous peoples and other organizations (e.g., environmental organizations, sector associations). Authority for the program is based on SARA and Canada's obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act. This program may use funding from the following transfer payments: Biodiversity – Wildlife and Habitat, Habitat Stewardship Contribution Program and Assessed Contribution to CITES.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
60,001,840	57,694,864	45,828,885

Human Resources (FTEs)

2016–17	2017–18	2018–19
238	234	190

Performance Measurement

Sub-Program 1.1.2: Species at Risk			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Critical habitat is protected	Percentage of Threatened and Endangered species at risk for which Environment and Climate Change Canada is responsible: (i) whose critical habitat occurs wholly or in part within federal protected areas with that critical habitat described in the Canada Gazette;	(i) federal protected areas 100% (ii) federal lands 100%	(i) March 2017 (ii) March 2019

	(ii) whose critical habitat occurs wholly or in part on other federal lands with that habitat legally protected;		
Important habitat is secured, protected, improved and/or restored to enhance the recovery of species at risk	Total land area (in hectares) that has been (i) secured; (ii) protected (new); or (iii) protected (renewed)	(i) 7,000 (ii) 10,000 (iii) 100,000	(i) March 2017 (ii) March 2017 (iii) March 2017
Recovery strategies and management plans are developed	Percentage of species listed as Extirpated, Endangered, Threatened or Special Concern for which Environment and Climate Change Canada is responsible with a recovery strategy or management plan that is posted as proposed or final on the Species at Risk public registry	100%	March 2017

Planning Highlights

- Maintain support to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC Secretariat) to enable continued assessment of the status of wildlife species and serve as a scientific authority to COSEWIC.
- Consult on wildlife species eligible for listing under SARA and advance listing recommendations to the Governor in Council—work will include research on declining species of migratory birds to identify potential threats and to support listing of species under SARA.
- Continue to provide information on species at risk through the <u>Species at Risk Public Registry</u> xiii, including the posting of recovery documents in line with the Department's <u>Three-Year Recovery Document Posting Plan</u> xxiv, and to develop recovery strategies and management plans to implement the Plan in collaboration with the provinces and territories, Indigenous peoples, affected stakeholders and interested Canadians.
- Continue to support on-the-ground conservation, recovery and protection of species at risk through the Habitat Stewardship Program, Aboriginal Fund for Species at Risk and Species at Risk Partnerships for Agricultural Lands initiative.
- Collaborate with affected parties to implement protection under SARA by developing tools that
 achieve species at risk conservation and recovery, and complete and publish policies on a range of
 SARA provisions—for example, for survival and recovery, imminent threat, permitting and protection
 assessment.
- Continue to maintain the existing Species at Risk Funding program online application and tracking systems.
- Continue active international engagement on species at risk issues, including representing Canada at the 17th Conference of the Parties to CITES (September 2016).

Sub-Program 1.1.3: Migratory Birds

Sub-Program Description

This program supports actions to protect and conserve migratory bird populations. It is responsible for implementing the Migratory Birds Convention, signed with the United States in 1916, via the Migratory Birds Convention Act, 1994, and associated regulations. Activities include conserving populations, individual birds, and their nests and eggs, as well as efforts to conserve habitats of importance to birds. One of the key activities undertaken in this program is monitoring the status and trends of the wide diversity of bird species, as well as the broad range of landscapes where they occur. Another key component of the program is to undertake research to understand causes of change in bird populations in order to inform future conservation actions, whether for species below accepted targets or for species above their targets (e.g., overabundant species). Conservation actions—both within Canada and in other countries that share responsibility for migratory birds—are undertaken on the basis of the results of the monitoring programs and are informed by the results of research. Conservation actions include the promotion of management practices and stewardship actions that protect and conserve birds and their habitats, mitigation of stressors/factors that affect the population status of birds (including actions on habitats of importance to birds), development of policies and guidance to support the conservation of birds while also minimizing socio-economic impacts of birds (including managing health and safety issues associated with migratory birds), and taking actions to enforce the Act and associated regulations. The Migratory Birds program is delivered in partnership with other governments in Canada and internationally, inter-governmental and non-governmental organizations, and industry, with coordination through the North American Bird Conservation Initiative - Canada. Client groups include the Canadian public, gamebird hunters, Indigenous peoples (subsistence harvesting), natural resource economic sectors and natural resource users, and other governments (provincial/territorial and foreign). This program may use funding from the Biodiversity – Wildlife and Habitat transfer payment.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
18,798,852	18,231,241	18,588,658

Human Resources (FTEs)

2016–17	2017–18	2018–19
153	150	148

Performance Measurement

Sub-Program 1.1.3: Migratory Birds			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Migratory bird populations maintained at population goals	Proportion of migratory bird species within acceptable bounds of their population goals	60%	2020
Data are available to manage and assess bird populations	Proportion of migratory bird species whose population status can be assessed with high reliability	50%	December 2020

Planning Highlights

- Continue efforts to manage migratory birds within acceptable bounds of their population goals xxv by
 - maintaining key monitoring programs to understand population status, and evaluate approaches using new technologies to enhance efficiency and effectiveness;

- reporting on status and trends of each species through the Government of Canada website (Status of Birds in Canada xxvi);
- o for species in decline, including SARA listed species, researching causes of decline and supporting activities to restore populations; and
- o for overabundant species, researching causes and effects of overabundance and evaluating approaches that could be used to reduce populations.
- Collaborate on compliance promotion, stakeholder engagement and sector education with partners to incorporate priorities identified in Bird Conservation Region and SARA recovery strategies into their planning to mitigate threats and provide needed habitats.
- Work with various international bodies to address key threats to Canada's priority species when these threats occur outside Canada.
- Provide advice on the requirements for the protection and conservation of migratory birds during environmental assessments, especially those referenced in the *Canadian Environmental Assessment Act, 2012*, and by responding to assessments for major new development projects.
- Promote compliance with the Migratory Birds Regulations and the Migratory Bird Sanctuary Regulations (through Web publishing and targeted communications) and continue to develop approaches to minimize the risk and consequences of incidental take (such as by improving regulatory certainty for stakeholders). The Department will work with the Commission for Environmental Cooperation on its conservation efforts, as needed.
- Support sustainable resource development by providing the science necessary to understand and
 proactively track the potential environmental impacts of resource development projects on migratory
 birds.
- Support effective emergency response efforts associated with shipping activity, including continuing
 efforts to gather baseline information on the distribution and abundance of birds in marine
 environments at sites of proposed potential developments.

Sub-Program 1.1.4: Habitat Conservation Partnerships

Sub-Program Description

This program supports the delivery of Environment and Climate Change Canada's obligations under the Species at Risk Act, Migratory Birds Convention Act, 1994, and Canada Wildlife Act. It does this by funding projects and encouraging partnership and habitat conservation activities that secure, protect. improve and/or restore important and ecologically sensitive habitat to enhance the survival of wildlife—in particular, species at risk and migratory birds. The program provides mechanisms (e.g., tax incentives, funding initiatives) to engage a variety of organizations and individuals, including private land owners. environmental non-governmental organizations (e.g., land trusts) and other levels of government. Activities under the program include the National Wetland Conservation Fund, which supports on-theground activities to restore and enhance wetlands, helps identify areas where restoration activities should be prioritized, monitors the impacts of on-the-ground activities (i.e., through scientific assessments), and encourages stewardship and wetland appreciation by a wide variety of partners to build support for future wetland conservation and restoration activities, with a focus on working landscapes. Other activities include the delivery of the Ecological Gifts Program, a tax incentive program for private land owners who donate ecologically sensitive land to qualified recipients, and support for the implementation of the North American Waterfowl Management Plan (NAWMP), a Canada-United States-Mexico partnership of federal/provincial/state governments and non-governmental organizations that aims to conserve wetlands in North America. Work under the NAWMP is achieved through participation on the North American Wetlands Conservation Council and Habitat Joint Ventures, and implementation of the North American

Wetlands Conservation Act. In addition, the program makes an assessed contribution to the Convention on Wetlands of International Importance (Ramsar Convention) and to three programs wholly administered by partners—Wildlife Habitat Canada's Conservation Stamp Initiative, the Nature Conservancy of Canada's Natural Areas Conservation Program, and Earth Rangers. This program may use funding from the following transfer payments: Biodiversity – Wildlife and Habitat, Grants in support of the Natural Areas Conservation Program, and Assessed Contributions to the Ramsar Convention.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
40,452,098	40,452,098	40,452,098

Human Resources (FTEs)

2016–17	2017–18	2018–19
30	30	29

Performance Measurement

Sub-Program 1.1.4: Habitat Conservation Partnerships			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Priority habitat for waterfowl is retained in support of North American Waterfowl Management Plan objectives	Cumulative total priority waterfowl habitat (in hectares) retained in the medium term or permanently by Environment and Climate Change Canada and partners in support of North American Waterfowl Management Plan objectives	8,214,840 ha	March 2017
Important and ecologically sensitive habitat is secured to enhance the survival of wildlife, in particular, species at risk and migratory birds	Cumulative total ecologically sensitive land area (in hectares) secured (Ecological Gifts Program)	185,670 ha	March 2017
Priority habitats for waterfowl are restored in support of North American Waterfowl Management Plan objectives	Cumulative total priority waterfowl habitat restored by Environment and Climate Change Canada and partners in support of North American Waterfowl Management Plan objectives	1,512,908 ha	March 2017

Planning Highlights

- Maintain strong collaborative partnerships with international, federal, provincial, Indigenous and nongovernmental organizations and individuals to protect, improve and/or restore habitat to enhance the survival of migratory birds and species at risk through habitat stewardship programs.
- Develop and promote the <u>Ecological Gifts Program</u>^{xxvii} with a focus on increasing the amount of ecologically sensitive land (or rights in land) donated by Canadians.
- Participate in implementing the <u>North American Waterfowl Management Plan across the continent through work with national and international partners and in Canada by collaborating with partners to communicate with and engage stakeholders on conserving wetlands and retaining and enhancing priority habitat.
 </u>
- With national and international partners, participate in implementation of the Ramsar Convention on Wetlands of International Importance to promote the wise use of wetlands and to support partners in the nomination of any new proposed Ramsar Sites.

- Support on-the-ground wetland restoration and enhancement projects in Canada through the National Wetland Conservation Fund.
- Work with the Nature Conservancy of Canada and Wildlife Habitat Canada to ensure that delivery of their respective programs aligns with government priorities and that their work helps to inform that of the Department.

Sub-Program 1.1.5: Protected Areas

Sub-Program Description

The Protected Areas program supports the delivery of Environment and Climate Change Canada's obligations under the Canada Wildlife Act, Migratory Birds Convention Act, 1994, and the Species at Risk Act. The program manages a network of marine and terrestrial protected areas (National Wildlife Areas and Migratory Bird Sanctuaries) to protect key biodiversity areas required for the conservation of Canada's migratory birds, species at risk, and other wildlife. The Protected Areas program also promotes public awareness and understanding of wildlife and nature conservation and of Environment and Climate Change Canada's role in conservation efforts. It carries out strategic planning and coordination in support of the establishment of new protected areas, as well as the management of the existing network. It requires the support of the public and close collaboration with provincial and territorial governments. Indigenous groups, other wildlife management or natural resource agencies, non-governmental organizations and property owners. Program activities support initiatives that contribute to the further establishment of National Wildlife Areas, such as the Connecting Canadians to Nature initiative under the National Conservation Plan, the implementation of the Northwest Territories Protected Areas Strategy, and the fulfillment of the Crown's obligations under the Inuit Impact and Benefits Agreement. The program operates as part of a broader network of protected areas, including those managed by other federal departments (Parks Canada and Fisheries and Oceans Canada) and provincial and territorial agencies, along with conservation properties owned and/or managed by non-governmental organizations. The program directs research and conducts wildlife and habitat monitoring in its protected areas. Program work also includes landscape conservation assessment and planning, which plays a key role in consolidating species population, observation and habitat data to inform planning and decision-making for priority habitat protection and conservation, using regulatory (SAR critical habitat protection) and nonregulatory (stewardship funding) tools. This also includes monitoring and reporting on habitat conservation activities with the aim of tracking gains made towards Canada's Biodiversity 2020 and Federal Sustainable Development Strategy goals. This program may use funding from the Biodiversity – Wildlife and Habitat transfer payment.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
16,157,140	15,023,238	13,613,559

Human Resources (FTEs)

2016–17	2017–18	2018–19
98	92	91

Performance Measurement

Sub-Program 1.1.5: Protected Areas			
Expected Result	Performance Indicator	Target	Date to be Achieved
Habitat for the conservation of migratory birds, species at risk and rare or unique species is protected	Total area that is under legally binding protection as marine and terrestrial National Wildlife Areas and as Migratory Bird Sanctuaries	12,710,691 ha	March 2020

Planning Highlights

The Department will

- Continue progress in completing management plans for National Wildlife Areas (NWAs) and Migratory Bird Sanctuaries.
- Progress with conserving grassland habitat through the transfer of land to ECCC in Govenlock, Saskatchewan.
- Complete work to establish the Scott Islands marine NWA (proposed for designation in 2016), and Edéhzhie NWA (proposed for 2017).
- Implement the terms of a renewed seven-year Inuit Impact and Benefit Agreement (IIBA) for the Department's conservation areas in the Nunavut Settlement Area in collaboration with Inuit parties to the Agreement. As part of the renewed IIBA, the Department will continue to develop management plans and a Nunavut NWA Strategy.
- Maintain and improve the Reporting and Tracking System for Canada's protected lands in co-operation with the Canadian Council on Ecological Areas and the Department's Private Conservation Lands Database, including tracking progress on Canada's Biodiversity 2020 and Federal Sustainability Development Strategy goals.
- Consolidate and improve the Geospatial Knowledge Manage Initiative (GKMI), including maintaining and improving the integrated GKMI-WILDSPACE database.
- Develop the Wetlands Extent Indicator (a Canadian Environmental Sustainability Initiative [CESI] indicator) to provide accurate and relevant wetlands statistical data analysis and geospatial datasets and maps to enable CESI reporting.
- Fully implement the "Connecting Canadians to Nature" initiative under the National Conservation Plan at 10 NWAs, including the construction of trails, bridges and other visitor infrastructure. The Department will partner with local and national NGOs to offer innovative programming at these sites and implement a national geocaching program.

Program 1.2: Water Resources

Program Description

This program addresses the risks to and impacts on water resources from industrial activities, agriculture, climate change and other factors. It aims to minimize threats to Canada's water resources and aquatic ecosystems and to maintain the sustainability of such resources. The program is delivered in collaboration with partners, specifically other federal departments, provinces and territories, and a range of non-governmental organizations. The program focuses on Environment and Climate Change Canada's contribution to monitoring water quality and conducting water-related research and analysis and its role in collaborating with other departments to determine priorities for water quality and quantity as well as aquatic ecosystem monitoring and research. It provides scientific information and advice to decision makers and supports implementation of the Canada Water Act, Canadian Environmental Protection Act, 1999, Fisheries Act, International Boundary Waters Treaty Act, and International River Improvements Act.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
80,035,023	80,035,023	82,145,076	82,198,388

Human Resources (FTEs)

2016–17	2017–18	2018–19
571	564	556

Performance Measurement

Program 1.2: Water Resources				
Expected Result	Performance Indicator	Target	Date to be Achieved	
Threats to Canada's water resources and aquatic ecosystems are minimized and the sustainability of the resource is maintained	Percentage of core national monitoring sites whose water quality is rated as good or excellent	50%	In the 2012–14 data set (to be reported in the 2016–17 Departmental Performance Report)	

Planning Highlights

Environment and Climate Change Canada will continue to address the risks to and impacts on water resources. The Department will contribute data and expertise to inter-jurisdictional water management, including the International Joint Commission, and will participate in targeted studies and support the administration of apportionment agreements in addition to providing expertise to inform flood prediction and emergency response decisions across Canada.

The Department's work to improve the accessibility of hydrometric data and related products in real time through the ECCC Datamart will continue.

With respect to international efforts, the Department will leverage its participation in a number of international water management initiatives to advance domestic water initiatives. For example, ECCC staff participate in the World Meteorological Organization's Commission on Hydrology, and serve as the Canadian lead for the international Arctic Hydrological Cycle Observing System (HYCOS) project.

Ongoing work will include continued support for implementation of the Canada Water Act; Canadian Environmental Protection Act, 1999; Fisheries Act; International Boundary Waters Treaty Act; and International River Improvements Act. Efforts will include, for example, completing the renewal of all hydrometric agreements under the Canada Water Act for continued co-operation in the cost-shared National Hydrometric Program by Environment and Climate Change Canada, and the provinces and territories.

Sub-Program 1.2.1: Water Quality and Aquatic Ecosystems Health

Sub-Program Description

This program conducts research and monitoring activities to report on freshwater quality and aquatic ecosystem health of waters within the federal mandate and to contribute to informed decision-making on public policy and regulations related to water management in Canada (e.g., under the *Canada Water Act*, *Canadian Environmental Protection Act*, 1999, *Fisheries Act*, and *International Boundary Waters Treaty Act*). The program monitors and reports on the status and trends of freshwater quality and aquatic ecosystem health at provincial, territorial and international boundaries, within federal lands, and on nationally significant bodies of water using a cooperative and risk-based approach. The program identifies the hydrologic and aquatic ecosystem impacts of climate change and variability to inform adaptation planning and mitigation actions, including responsible resource development, and to support the

development of domestic and international climate and water policy decision-making. The program includes collaboration with the Canadian Food Inspection Agency and Fisheries and Oceans Canada to deliver data and information to inform the Canadian Shellfish Sanitation Program, a food safety program that aims to protect the health and safety of shellfish-consuming Canadians and that maintains international market access for Canada's shellfish exports. This program may use funding from the following transfer payment: Contributions in support of Water Resources.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
55,705,898	57,912,886	58,057,518

Human Resources (FTEs)

2016–17	2017–18	2018–19
317	313	309

Performance Measurement

Sub-Program 1.2.1: Water Quality and Aquatic Ecosystems Health			
Expected Result	Performance Indicator	Target	Date to be Achieved
Institutions engaged in trans-boundary water management have the water quality data, information and analysis they need to make water management decisions	Percentage of clients representing institutions engaged in trans-boundary water management who rank their satisfaction with water quality monitoring surveillance data, information and/or advice as 7 out of 10 or higher on a client satisfaction index	To be determined once a baseline value is measured (2016)	To be determined

Planning Highlights

- Work with Canadian Shellfish Sanitation Program partners (Fisheries and Oceans Canada and Canadian Food Inspection Agency) to optimize marine water quality monitoring while protecting the health and safety of shellfish-consuming Canadians and Canada's access to the international market.
- Deliver risk-based adaptive monitoring of freshwater quality and ecosystem health for waters within the federal mandate, and engage provincial and territorial partners towards a nationally consistent approach to water quality monitoring.
- Complete the implementation of the National Laboratory Management System, which integrates and harmonizes the workflows across ECCC's water laboratories to better support analytical needs for the purposes of monitoring, research, enforcement and emergencies.
- Undertake research in order to identify the hydrologic and aquatic ecosystem impacts of climate change and variability to inform adaptation planning and mitigation action, and to support domestic and international climate and water policy development and decision-making, with a focus on areas in the West and North and around the Great Lakes.

Sub-Program 1.2.2: Water Resources Management and Use

Sub-Program Description

This program supports integrated water management decisions at the federal, provincial, and territorial levels. It promotes and enables the application of science-based information to inform decision-making in an integrated and coherent manner consistent with the *Department of the Environment Act, International Boundary Waters Treaty Act, Canada Water Act* and *International River Improvements Act*. The program coordinates water quality and water quantity science and monitoring to inform decisions, policy development and management approaches. It provides science, engineering and monitoring information to domestic waterboards and Canada-U.S. waterboards (e.g., International Joint Commission) and contributes Departmental expertise to these water boards in order to regulate water levels and flows to protect ecosystems and a wide range of socio-economic interests related to domestic and Canada-U.S. transboundary waters.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
2,661,533	2,661,533	2,696,359

Human Resources (FTEs)

2016–17	2017–18	2018–19
28	28	27

Performance Measurement

Expected Result	Performance Indicator	Target	Date to be Achieved
Water resource decision-makers have the necessary information and stakeholder perspectives to make responsible and appropriate shared-resource decisions	Percentage of external water board members rating their satisfaction with Environment and Climate Change Canada's involvement on water boards and committees as 8 out of 10 or higher	80%	March 2017

Planning Highlights

- Meet domestic, international and legislative obligations through participation on inter-jurisdictional boards and studies, as well as by providing support to domestic Water Boards, to the International Joint Commission (IJC), and to special committees and projects.
- Work with the IJC to advance binational activities, including by leveraging approaches developed
 for the Lake of the Woods Control Board hydrological forecasting model for use with other Water
 Boards, participating in the Rainy Lake Rule Curves Review, and implementing special projects
 that support the review and evaluation of lake regulation plans under the Great LakesSt. Lawrence River Adaptive Management effort.
- Continue work on the integrated water-resources initiatives framework supported by the IJC for the Milk-St. Mary river systems, the Souris River, the Richelieu River and other important transboundary and international rivers.
- Support water resource decision-makers by providing information on natural water flows, apportionment and other calculations, using hydrometric data provided by the <u>Water Survey of</u> Canada^{xxix} and other relevant sources.

• Continue to manage licences and related business of the *International River Improvements Act* to ensure that Canada's water resources are developed and used in the national interest.

Sub-Program 1.2.3: Hydrometric Services

Sub-Program Description

This program provides critical hydrometric data, information and knowledge needed by Canadian jurisdictions to make informed water management decisions. The information provided by this program protects the health and safety of Canadians by supporting the goals and mandates of all levels of government that manage water. The data are used for flood forecasting, emergency response, infrastructure design and scientific research. The data are essential for improving economic efficiency in the agriculture, hydroelectricity and transportation sectors. Domestic and international water management boards under program 1.2.2. and international, federal, provincial, territorial and municipal agencies rely on the outputs of this sub-program for regulation of, and response to, changing water levels and flows. Under the *Canada Water Act*, the monitoring activities of this program are carried out through cost-shared bilateral agreements between Environment and Climate Change Canada and each of the provinces and territories (Indigenous and Northern Affairs Canada represents Nunavut). These agreements create the national framework within which Environment and Climate Change Canada collects, interprets and provides water level and flow information.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending	
21,667,592	21,570,657	21,444,511	

Human Resources (FTEs)

2016–17	2017–18	2018–19
226	223	220

Performance Measurement

Sub-Program 1.2.3: Hydrometric Services			
Expected Result	Performance Indicator	Target	Date to be Achieved
Canadians and their institutions have the hydrological data, information and knowledge they need to make water management decisions	Percentage of provincial and territorial partners rating their satisfaction with Environment and Climate Change Canada's hydrometric services as 8 out of 10 or higher	80%	March 2017

Planning Highlights

- Continue to improve the accessibility of real-time and historical data products on its <u>Water Office</u> website and Datamart, in support of the government-wide initiative on open data, and progress with modernizing data management and production systems, including by upgrading software to ensure business continuity.
- Enhance collaboration with provinces and territories to more effectively gather hydrometric monitoring data.
- In collaboration with provinces and territories, continue to use a risk-based approach to optimize network planning and design in support of identifying possible changes to the distribution of hydrometric monitoring stations across Canada.

- Through a consistent national cost-shared approach, continue to operate the hydrometric network based on complementary mandates set out in renewed hydrometric agreements with all provinces and territories, including for provision of expertise to provincial and territorial flood prediction and emergency response programs.
- Work bilaterally with the United States (U.S. Geological Survey and National Oceanic and Atmospheric Administration) on hydrometric training and technology developments to improve monitoring quality and efficiency measurement, and cross-border hydrometric monitoring.
- Examine new approaches for water management using satellite data to extend water monitoring capability beyond surface measurement, such as under the Water from Space initiative.
- Continue working with international organizations such as the World Meteorological Organization (WMO) Commission for Hydrology and the WMO Arctic-HYCOS (Hydrological Cycle Observing System) program to advance international co-operation on hydrologic knowledge, practices, instrumentation and open data.

Program 1.3: Sustainable Ecosystems

Program Description

This program aims to sustain Canada's ecosystems over the long term by providing Canadians, their governments and the private sector with the environmental information and tools required to incorporate social, economic and environmental considerations into decision-making and actions. Environmental assessments are a large part of this program. The ecosystem approach to environmental management focuses on maintaining the capacity of a whole system to produce ecological goods and services and genetic resources to support the economy, security, and health and well-being. This program focuses on: the development and implementation of Environment and Climate Change Canada's sustainability policies and strategies; provision of information to support integrated, ecosystem-scale planning; community engagement in remediation of sites; youth engagement; and research and reporting on environmental status and trends. The program facilitates interdisciplinary and cross-sectoral planning and information sharing among partners.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
88,026,739	88,026,739	82,431,062	65,531,319

Human Resources (FTEs)

2016–17	2017–18	2018–19	
436	412	406	

Performance Measurement

Program 1.3: Sustainable Ecosystems			
Expected Result	Performance Indicator	Target	Date to be Achieved
The health of selected ecosystems in Canada is closely monitored	Average score on a 100-point scale based on expert ratings of status and trends of key indicators of the health of selected ecosystems in Canada	52	December 2020

Planning Highlights

In support of sustainable ecosystems, Environment and Climate Change Canada will work to protect Canada's freshwater and priority ecosystems, including the Great Lakes, St. Lawrence River, Lake Simcoe/South-eastern Georgian Bay, Lake Winnipeg and Atlantic ecosystems, through sound science and regulatory tools and in collaboration with partners across Canada.

ECCC will continue to implement the <u>Federal Sustainable Development Strategy</u> xxxii, including consultation and development of new indicators and improving existing indicators.

The Department will participate in science-based environmental assessments that reflect environmental impacts, input from the public and Indigenous peoples, as well as new processes for the federal environmental assessment process.

In addition, the Department will continue to deliver key funding programs and youth environmental employment initiatives and will engage Canadians in building knowledge and awareness of the importance of, and commitment to, the protection and conservation of ecosystems.

At the global level, the Department will continue to advance Canada's international environmental objectives though engagement in international organizations such as the United Nations Environment Programme (UNEP) and the Organisation for Economic Cooperation and Development (OECD), as well as through bilateral and regional environment agreements.

Sub-Program 1.3.1: Sustainability Reporting and Indicators

Sub-Program Description

The Sustainability Reporting and Indicators program provides consolidated information to Parliament and Canadians on key environmental issues in Canada and related federal government activities, specifically through the Federal Sustainable Development Strategy (FSDS) and the Canadian Environmental Sustainability Indicators (CESI) initiative. To support the Federal Sustainable Development Act, this program ensures that Environment and Climate Change Canada meets its obligation to lead the implementation, tracking and reporting of the FSDS, whose mandate is to support and foster transparency and accountability to the public and Parliament. In accordance with the Act, a strategy is tabled in Parliament every three years, setting out the federal sustainable development goals, targets and implementation strategies. In addition, this program provides, at least once every three years, a report on the federal government's progress in implementing the FSDS. The CESI is integral to the implementation of both the FSDS and Environment and Climate Change Canada's broader public information mandate. Through close collaboration with science and data experts across the federal government, CESI develops and regularly reports on a wide range of environmental indicators used to track and report on the progress of the FSDS and to keep Parliament and Canadians informed and up-to-date on the state and trends of environmental issues of concern, including air quality and climate, water quality and availability, and protecting nature. This program may use funding from the following transfer payment: Sustainable Ecosystems.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
7,803,382	7,803,382	7,803,382

Human Resources (FTEs)

2016–17	2017–18	2018–19
58	57	56

Performance Measurement

Sub-Program 1.3.1: Sustainability Reporting and Indicators			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Canadians have access to and use environmental sustainability indicators produced by the Government of Canada	Annual number of visits to the Canadian Environmental Sustainability Indicators website	100,000	March 2017
Policies and plans of federal government departments reflect the goals and targets in the Federal Sustainable Development Strategy	Percentage of goals, targets and implementation strategies from the Federal Sustainable Development Strategy integrated into annual reporting by departments and agencies designated by the Federal Sustainable Development Act	100%	March 2017

Planning Highlights

The Department will

- Undertake consultations to inform development of the 2016–19 <u>Federal Sustainable Development</u> Strategy^{xxxiii}.
- Continue to refine the Canadian Environmental Sustainability Indicators to reflect/align with the Federal Sustainable Development Strategy and emerging environmental reporting priorities.

Sub-Program 1.3.2: Ecosystem and Environmental Assessments and Monitoring

Sub-Program Description

This program consists of a consolidated range of activities that support the assessment, evaluation and management of Canada's ecosystems in a sustainable manner. The program's diverse components provide scientific expertise, guidance and advice to decision makers across different levels of government, environmental and non-governmental organizations, industry, the research community and the general public. The program aims to ensure that ecosystem information and environmental effects of development proposals can be factored into decisions. The program activities involve conducting research, monitoring, assessing and reporting on the health of ecosystems and biodiversity. It includes collaboration with Alberta to implement an industry-funded, scientifically rigorous, environmental monitoring program for the Oil Sands region that integrates air, water, land and biodiversity components and results in an enhanced understanding of cumulative effects and environmental change. Environment and Climate Change Canada participates in federal environmental assessments, including those in the North, and contributes scientific expertise in territorial and provincial environmental assessments, which collectively provide a platform for the Department to contribute to the health of ecosystems. Elements of this program may use funding from the following transfer payment: Sustainable Ecosystems.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
20,399,853	20,348,333	20,648,208

Human Resources (FTEs)

2016–17	2017–18	2018–19
213	210	207

Performance Measurement

Sub-Program 1.3.2: Ecosystem Assessment and Approaches and Monitoring				
Expected Result	Performance Indicator	Target	Date to be Achieved	
Potential significant adverse environmental effects of projects, plans, programs or policies subject to federal environmental assessment legislation and Cabinet Directives are avoided or mitigated	Percentage of Environment and Climate Change Canada recommendations that are fully or partially incorporated into Decision Statements	60%	March 2017	

Planning Highlights

The Department will

- Continue to participate in federal environmental assessments under new processes that reflect public input and decisions informed by scientific evidence—both as a federal authority, as well as in other selected assessments related to the departmental mandate to contribute to the health of ecosystems in Canada:
- Contribute to (in collaboration with the Government of Alberta), an industry-funded, scientifically rigorous, environmental monitoring program for the oil sands region that integrates air, water, land and biodiversity components and results in an enhanced understanding of cumulative effects and environmental change.
- Provide guidance and coordination of project reviews on federal lands (to fulfill obligations under the Canadian Environmental Assessment Act, 2012, section 67) and for a whole-of-government approach to project coordination and consultation for the Major Projects Management Office Initiative.
- Track involvement in environmental assessments and reviews of projects on federal lands to promote continuous improvement of Environment and Climate Change Canada's engagement in these projects (approximately 70 each year).

Sub-Program 1.3.3: Community Engagement

Sub-Program Description

This program engages individual Canadians and communities in protecting and restoring the environment through behavioural change, capacity building, community-based funding programs and engagement activities.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
9,488,028	9,488,028	9,488,028

Human Resources (FTEs)

2016–17	2017–18	2018–19
18	18	18

Performance Measurement

Sub-Program 1.3.3: Community Engagement				
Expected Result	Performance Indicator	Target	Date to be Achieved	
Projects achieve their projected engagement of Canadians in individual and collective activities to protect, conserve or restore the natural environment	Number of Canadians engaged in individual and collective actions to protect, conserve or restore the natural environment	130,000 annually	March 2018	

Planning Highlights

The Department will continue to deliver programs that engage communities in protecting and restoring the environment, including by developing strategic plans that will strengthen program outcomes. (See subsub-programs 1.3.3.1, 1.3.3.2 and 1.3.3.3.)

Sub-Sub-Program 1.3.3.1: EcoAction Community Funding

Sub-Sub-Program Description

This funding program was established to provide financial support to not-for-profit and non-governmental organizations for community projects that have measurable positive impacts on the environment. Projects funded by EcoAction protect, rehabilitate or enhance the environment and build the capacity of communities and individuals to sustain these activities. Projects are funded in one of four priority areas: clean air, climate change, clean water or nature. The success of EcoAction projects requires the involvement of community members, including volunteers. This program uses funding from the following transfer payment: EcoAction 2000 – Community Funding Service.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
5,912,319	5,912,319	5,912,319

Human Resources (FTEs)

101110111111111111111111111111111111111		
2016–17	2017–18	2018–19
13	13	13

Performance Measurement

Sub-Program 1.3.3.1: EcoAction Community Funding				
Expected Result	Target	Date to be Achieved		
Funded projects achieve their planned goals for nature conservation, clean water and/or climate change	Average percentage of project environmental goals achieved	80%	March 2017	

Planning Highlights

The Department will

• Continue to deliver the EcoAction Program by identifying and providing funding to community based projects that support the priority areas of clean air, climate change, clean water or nature.

- Develop a strategic plan to strengthen the EcoAction Community Funding program's operational guidelines and internal management protocols for national consistency in process, governance and reporting.
- Refine and improve the program's management information system (aligned with departmental
 and government-wide systems) to increase efficiency of the Funding program. For example, quick
 data and information gathering through the improved information system will help better inform
 decisions, identify trends and support accurate and timely reporting on service standards.

Sub-Sub-Program 1.3.3.2: Environmental Damages Fund

Sub-Sub-Program Description

The Environmental Damages Fund (EDF), administered by Environment and Climate Change Canada on behalf of the Government of Canada, provides a mechanism for directing monies received as a result of fines, court orders and voluntary payments related to environmental infractions to priority projects that will benefit Canada's natural environment. Environment and Climate Change Canada works closely with other government departments to ensure that court-awarded fines are used for projects with positive environmental impacts and in a manner as intended by the court. EDF projects, including restoration, environmental quality improvement, research and development, and education and awareness, are managed with oversight from Environment and Climate Change Canada. Eligible recipients include non-governmental organizations, universities and other academic institutions, Indigenous groups, and provincial, territorial and municipal governments. EDF program partners include Transport Canada, Fisheries and Oceans Canada, and Parks Canada.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
422,709	422,709	422,709

Human Resources (FTEs)

2016–17	2017–18	2018–19
4	4	4

Performance Measurement

Sub-Sub-Program 1.3.3.2: Environmental Damages Fund				
Expected Results	Performance Indicators	Targets	Date to be Achieved	
Recognition by judges of the value of the Environmental Damages Fund to restore environmental damage or harm to wildlife	Annual number of court awards directing payment to the Environmental Damages Fund via non-directed legislation	5	March 2017	
Natural resources similar to those affected are restored	Area (in hectares) where natural resources similar to those affected has been restored	500	March 2017	

Planning Highlights

The Department will

- Direct funds received as compensation for environmental damage to support projects to restore
 natural resources and the environment under one or more of the four components of the
 Environmental Damages Fund (EDF): restoration, environmental quality improvement, education and
 awareness, and research and development.
- Develop a strategic plan for the EDF and work to enhance public and stakeholder awareness and understanding of the EDF.

- Streamline and harmonize national and regional EDF program delivery in order to accelerate the assessment of funds received, which will enable the Department to solicit and support more projects to restore natural resources affected by environmental infractions.
- Strengthen the EDF's research and development partnership with the Natural Sciences and Engineering Research Council of Canada, including through a review of the current memorandum of understanding.

Sub-Sub-Program 1.3.3.3: Environmental Youth Employment

Sub-Sub-Program Description

This program manages the Science Horizons Youth Internship Program, which is part of the federal Youth Employment Strategy led by Employment and Social Development Canada. Under the Science Horizons Youth Internship Program, wage subsidies are provided to qualifying organizations to support youth employment in science, technology, engineering, and mathematics (STEM). Funding recipients include small and medium enterprises, post-secondary educational institutions, provincial and municipal governments, and non-government organizations across Canada. This program uses funding from the following transfer payment: Contributions for the Science Horizons Youth Internship Program.

Budgetary Financial Resources (dollars)

201	6-17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
	3,153,000	3,153,000	3,153,000

Human Resources (FTEs)

2016–17	2017–18	2018–19
1	1	1

Performance Measurement

Sub-Program 1.3.3.3: Environmental Youth Employment			
Expected Result	Performance Indicator	Target	Date to be Achieved
Increased employment or return to advanced-level studies of participating youth in science, technology, engineering or mathematics	Percentage of youth participants that either obtain employment in, or return to advanced-level studies in, science, technology, engineering or mathematics	80%	March 2017

Planning Highlights

The Department will continue to deliver the <u>Science Horizons Youth Internship Program</u> xxxiv, which creates internship opportunities in the environmental field for post-secondary graduates in science, technology, engineering and mathematics.

Sub-Program 1.3.4: Great Lakes

Sub-Program Description

This program provides leadership, oversight, coordination, funding and governance mechanisms for the Great Lakes Ecosystem Initiative by managing, delivering and reporting on a number of key initiatives: the Canada-U.S. Great Lakes Water Quality Agreement, Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, Great Lakes Nutrient Initiative, Great Lakes Action Plan, and Action Plan for Clean Water (Great Lakes sediment remediation implementation). Work encompasses policy development, issues management, planning, reporting, coordination of science and monitoring, and the development, implementation and analysis of agreements, plans and initiatives. The program works in collaboration with other federal departments and other levels of government in Canada and the U.S., Indigenous groups, conservation authorities and watershed management agencies, municipalities, environmental organizations and stewardship networks. Specifically, it implements Remedial Action Plans and Lakewide Action and Management Plans to improve environmental quality and achieve the vision of a healthy and prosperous Great Lakes ecosystem. Through the Great Lakes Action Plan, it works to restore beneficial use impairments in identified Areas of Concern, and implements contaminated sediment remediation projects through the Action Plan for Clean Water. Through the Great Lakes Nutrient Initiative, it also works to determine phosphorus targets and identify possible actions to reduce levels that contribute to harmful algae. The program monitors and assesses the water quality and ecosystem health of the Great Lakes and develops action plans and strategies to address evolving and historic issues of concern in the Great Lakes, including species and habitat protection, chemicals of concern to Canada and the United States, and the identification of climate change impacts on Great Lakes water quality. The program also regularly reports federally and provincially through the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health and bi-nationally through the Canada-U.S. Great Lakes Water Quality Agreement, including specifically through the State of the Great Lakes reports on environmental indicators, the Progress Report of the Parties (Canada-U.S.), updates on Lakewide Action and Management Plans, Canada-Ontario Agreement Progress Reports, and a report on groundwater science. This program may use funding from the following transfer payment: Sustainable Ecosystems.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
30,425,831	35,269,097	18,242,186

Human Resources (FTEs)

2016–17	2017–18	2018–19
84	83	82

Performance Measurement

Sub-Program 1.3.4: Great Lakes				
Expected Result	Performance Indicators	Targets	Date to be Achieved	
Environment and Climate Change Canada and partners achieve near- term objectives for improvements in beneficial use impairments and environmental quality of the Great Lakes Basin ecosystem	Number of beneficial uses whose status is listed as "impaired" or "requires further assessment" for Canada's 17 Areas of Concern in the Great Lakes	70	December 2019	

Planning Highlights

The Department will

 Meet with Indigenous leaders to report on progress and seek input on implementation of the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health.

- Conduct the 2016 Great Lakes Public Forum to seek public input and report on proposed priorities for implementation of the Canada-U.S. Great Lakes Water Quality Agreement (GLWQA).
- Assess and report on Canada's performance on achieving binational targets for the reduction of phosphorus loadings to Lake Erie, and demonstrate and promote effective reduction approaches suitable for application in Lake Erie watersheds.
- Develop Canada's draft Action Plan to meet proposed phosphorus reduction targets for Lake Erie, including by engaging a range of stakeholders.
- Finalize the Canada-U.S. approach to comprehensively assessing nearshore waters of the Great Lakes.
- Coordinate research and monitoring activities with the U.S. in the Great Lakes to fulfill obligations under the Canada-U.S. GLWQA.
- Continue construction of the Randle Reef Contaminated Sediment Remediation Project in the Hamilton Harbour Area of Concern (with Public Services and Procurement Canada as the project manager).
- Advance action on priority restoration and protection under strategies for lake-wide habitat and species protection, and restoration and conservation, and report on the status of impairments to beneficial use in Great Lakes Areas of Concern and Areas of Concern in Recovery.
- Release the first Lakewide Action and Management Plan annual report for Lake Superior, as well as a draft Canada-U.S. report on the State of the Great Lakes.

Sub-Program 1.3.5: St. Lawrence

Sub-Program Description

This program provides leadership, oversight and coordination to the overall governance of the St. Lawrence Action Plan and reports results achieved collectively by the Government of Canada and Government of Quebec. It works to establish cooperative partnerships between the federal and provincial governments and non-governmental organizations in order to address biodiversity conservation, water quality improvement, and sustainability of beneficial uses. It also supports stakeholder participation in collaboration processes and communities in improving environmental quality through grants and contribution agreements. The program conducts and coordinates research, monitoring and prediction activities in the St. Lawrence with other federal and provincial departments and releases regular reports on the state of the St. Lawrence, fact sheets on 21 environmental indicators, and the results of the St. Lawrence Action Plan. This program may use funding from the following transfer payment: Sustainable Ecosystems.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
4,672,938	4,672,938	4,672,938

Human Resources (FTEs)

2016–17	2017–18	2018–19
23	22	22

Performance Measurement

Sub-Program 1.3.5: St. Lawrence			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Environment and Climate Change Canada and partners achieve near- term objectives for improvements in water quality, biodiversity conservation and beneficial uses in the St. Lawrence ecosystem	Estimated progress achieved against near- term goals identified in the St. Lawrence Action Plan	100%	March 2019
Non-federal government partners contribute to near-term objectives for improvements in water quality, biodiversity conservation and	Average number of participating external organizations per project funded by Environment and Climate Change Canada under the St. Lawrence Action Plan	3	March 2021
beneficial uses in the St. Lawrence ecosystem	Funds contributed by non-federal government organizations per dollar contributed by Environment and Climate Change Canada to projects under the St. Lawrence Action Plan	3.5	March 2021

Planning Highlights

The Department will

- Monitor and follow up on the projects under the 2016–2021 Joint Action Program of the St. Lawrence
 Action Plan through a committee of federal and provincial partners under the Canada-Quebec
 Agreement on the St. Lawrence 2011–26.
- Promote (through websites, trade shows and social media) the results of the St. Lawrence Action Plan and new projects, and provide information about funding available under the Community Interactions Program.
- Implement service standards that support transparency and the Government of Canada's Action Plan for reforming the administration of its grants and contributions programs, and make results of the impacts of the service standards available to the public.
- Participate in the program evaluation of the St. Lawrence Action Plan, in support of renewal of funding for the Canada-Quebec Agreement on the St. Lawrence 2011–26.

Sub-Program 1.3.6: Lake Simcoe / South-eastern Georgian Bay

Sub-Program Description

This program provides financial and technical support through the Lake Simcoe / South-eastern Georgian Bay Clean-Up Fund to implement priority projects through contributions to citizens, non-governmental organizations, provincial ministries, conservation authorities, land owners, universities and industry. The Fund also supports key research within federal departments. Priority objectives of the Fund are to support projects that: improve monitoring, assessment and information required to improve decision-making for phosphorus reduction strategies; conserve critical aquatic habitat and associated species through targeted aquatic habitat protection. restoration and creation; reduce rural and urban non-point sources of nutrients, including implementation of best management practices for soil, crops, livestock, etc. creation and rehabilitation of wetlands and naturalization of watercourses; and reduce discharges of phosphorus from point sources, including sewage, combined sewer overflows and urban storm water systems. This includes support to develop and test innovative approaches to manage urban storm water and wastewater. The initiative is administered by Environment and Climate Change Canada in consultation with Fisheries and Oceans Canada, Agriculture and Agri-Food Canada, the Province of Ontario, the Lake Simcoe Conservation Authority and other key stakeholders. Program investments are expected to improve water quality for recreational use, substantially reduce phosphorus loads from urban and rural sources, advance the restoration of a sustainable cold-water fishery, and restore ecological integrity. This initiative is a key component of the government's Action Plan for Clean Water and supports commitments of the

federal government related to the Canada-United States Great Lakes Water Quality Agreement. This program may use funding from the following transfer payment: Sustainable Ecosystems.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
7,808,907	606,346	574,280

Human Resources (FTEs)

2016–17	2017–18	2018–19
13	6	5

Performance Measurement

Sub-Program 1.3.6: Lake Simcoe/South-eastern Georgian Bay			
Expected Result	Performance Indicator	Target	Date to be Achieved
Environment and Climate Change Canada and partners achieve reductions in phosphorus loads and restoration and protection of fish and aquatic dependent wildlife populations of Lake Simcoe and South-eastern Georgian Bay	Estimated annual reductions in phosphorus inputs to the Lake Simcoe and South-eastern Georgian Bay watersheds due to projects supported by the program	4,000 kg	March 2017

Planning Highlights

The Department will

- Contribute to the completion of the Lake Simcoe/South-eastern Georgian Bay Clean-Up Fund program evaluation under the departmental Risk-Based Audit and Evaluation Plan, including preparing a summary of completed projects and the results achieved.
- Develop a summary of all completed Clean-Up Fund projects, including project documentation, financial information, and planned and actual achievements.
- Negotiate contribution agreements for successful funding applicants whose projects start in April 2016 (the final year of the Fund), and support current funding recipients.
- Maintain the Georgian Bay Science Consortium, which works to refine research and monitoring priorities, and develop new partnerships for science activities that support the watershed.

Sub-Program 1.3.7: Lake Winnipeg

Sub-Program Description

The Lake Winnipeg Basin Initiative (LWBI) focuses on three key areas: science (research, modelling and monitoring); transboundary partnerships; and the implementation and administration of the Lake Winnipeg Basin Stewardship Fund, which provides financial support for high-impact, solution-oriented projects aimed at reducing nutrient loads and improving the long-term ecological health of the lake and watershed. The program works with existing water governance bodies to explore options and opportunities to cooperatively develop and support implementation of a basin-wide nutrient strategy, in addition to providing a forum for communication. This includes working with the Province of Manitoba to continue implementation of the Canada-Manitoba Memorandum of Understanding Respecting Lake Winnipeg, which provides for a long-term collaborative and coordinated approach between the two governments to support the sustainability and health of the Lake Winnipeg Basin. The program financially supports the Lake Winnipeg Research Consortium to facilitate and enhance community-led scientific research via the only lake-based research vessel in existence (i.e., the Motor Vessel Namao). As well, the program financially supports the ongoing development and expansion of the single-window web information portal, housed at the University of Manitoba, to better promote and enable data sharing and

analysis with partners and other networks, in order to support research on Lake Winnipeg. This program may use funding from the following transfer payment: Sustainable Ecosystems.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
3,938,054	1,172,000	1,172,000

Human Resources (FTEs)

2016–17	2017–18	2018–19
22	11	11

Performance Measurement

Sub-Program 1.3.7: Lake Winnipeg			
Expected Result	Performance Indicator	Target	Date to be Achieved
Reduced nutrient loading in the Lake Winnipeg basin	Estimated reduction of phosphorus load in the Lake Winnipeg basin resulting from projects funded by Lake Winnipeg Basin Stewardship Fund	10,800 kg	March 2017

Planning Highlights

The Department will

- Participate in the planned program evaluation of the Lake Winnipeg Basin Initiative (as the current program will end in March 2017), and continue to protect the Lake Winnipeg Basin.
- Continue to oversee the delivery of the final year of the remaining multi-year funded projects as part of the Lake Winnipeg Basin Stewardship Fund.
- Continue to engage domestic and international transboundary water boards and organizations on nutrient issues in Lake Winnipeg and its basin.
- Conduct science-related work, including
 - o implementing the Science Subsidiary Arrangement under the Canada-Manitoba Memorandum of Understanding;
 - core monitoring on all Lake Winnipeg major tributaries and identifying sources and impacts of nutrient loadings to advance the remediation of water quality in Lake Winnipeg;
 - developing eutrophication-related indicators to summarize the ecological health of Lake Winnipeg, track and describe changes in nutrient concentrations in the Lake and provide performance measurements for ecologically relevant nutrient objectives;
 - conducting research studies on impacts of human activities on the delivery of nutrients in Lake Winnipeg tributaries and on knowledge gaps in nutrient processing in Lake Winnipeg; and
 - developing an integrated modelling framework for Lake Winnipeg to develop predictive capabilities and evaluate a range of nutrient management scenarios in support of reducing nutrient loads in Lake Winnipeg and its basin.

Sub-Program 1.3.8: Ecosystems Partnerships

Sub-Program Description

This program coordinates and oversees initiatives in targeted ecosystems in the Atlantic, Pacific and northern regions of Canada with the goal of ensuring their health, productivity and long-term sustainability. The program focuses on building partnerships, supporting actions, and strengthening collaboration between several levels of government, academia, industry, Indigenous groups and non-governmental organizations to enhance science and research and share knowledge and information in order to increase our understanding of and help to protect and restore these ecosystems. In Atlantic Canada, the Atlantic Ecosystem Initiatives supports collaborative ecosystem-based projects that lead to action to maintain healthy habitats and biodiversity, improve water quality, and address the impacts of climate change. The Gulf of Maine Initiative promotes effective conservation and responsible development in the Gulf of Maine Ecosystem through partnerships and collaboration. In Pacific and Northern ecosystems, including the Okanagan Basin and the Salish Sea, work continues on the development and implementation of water balance models and ecosystem health indicators to support informed decision-making on economic development, land use planning and the protection of habitat and biodiversity. This program may use funding from the following transfer payment: Sustainable Ecosystems.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
3,489,746	3,070,938	2,930,297

Human Resources (FTEs)

2016–17	2017–18	2018–19
5	5	5

Performance Measurement

Sub-Program 1.3.8: Ecosystems Partnerships			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Achievement of objectives for improvements in beneficial uses and environmental quality in priority ecosystems set by Environment and Climate Change Canada and collaborating organizations	Percentage of project expected results achieved	90%	May 2017
Engagement of partners in projects involving targeted ecosystems	Number of partners or organizations participating in Environment and Climate Change Canada supported projects which address program priorities in targeted ecosystems	30	May 2017
	Value of resources contributed by partners per dollar contributed by Environment and Climate Change Canada	1	May 2017

Planning Highlights

The Department will

In support of Atlantic Ecosystems Initiatives

• Implement a grants and contributions program that addresses common priorities in multiple ecosystems to improve the health, productivity and long-term sustainability of ecosystems in Atlantic

Canada. Through science governance, partnerships and action, support ecosystem-based projects that address the priority environmental issues of water quality, habitat and biodiversity, and the impacts of climate change.

In support of the Gulf of Maine Initiative

- Implement a grants and contributions program to support multi-partner science-based projects that
 contribute to the knowledge of and/or maintain the health of the Gulf of Maine ecosystem. Project
 results will inform decisions on habitat conservation, sustainable development and long-term
 ecosystem health.
- Collaborate with federal departments and provincial governments to identify and coordinate work on common priorities, and improve information sharing.

In support of Western and Northern ecosystems

- Support initiatives that inform environmental decision-making in key ecosystems, including the Okanagan and the Salish Sea, in such areas as water resource management, ecosystem health assessment and biodiversity strategies.
- Pursue collaborative opportunities to develop ecosystem health indicators for enhanced knowledge and decision support, using research and monitoring results as well as Indigenous peoples' traditional knowledge.

Program 1.4: Compliance Promotion and Enforcement – Wildlife

Program Description

This program works to conserve and protect the natural environment through compliance promotion and enforcement of the *Species at Risk Act, Migratory Birds Convention Act, 1994, Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act, Antarctic Environmental Protection Act* and *Canada Wildlife Act*. The program promotes compliance through the communication of information, education, and consultation with parties affected by these statutes. It maintains a contingent of enforcement officers whose activities consist of verifying compliance with acts, regulations and permits pertaining to wildlife and Environment and Climate Change Canada protected areas, gathering intelligence, conducting inspections and pursuing investigations regarding alleged offenders. The program also works with INTERPOL as well as the United States and Mexico under the auspices of the Commission for Environmental Cooperation to strengthen wildlife enforcement. These actions aim to reduce damage and threats to biodiversity for the benefit of Canadians and the international community.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
16,652,429	16,652,429	16,367,544	

Human Resources (FTEs)

2016–17	2017–18	2018–19
125	120	119

Performance Measurement

Program 1.4: Compliance Promotion and Enforcement – Wildlife				
Expected Result	Target	Date to be Achieved		
Targeted regulatees are penalized when non-compliant with wildlife laws and regulations administered by Environment and Climate Change Canada	Percentage of prosecutions that result in convictions	90%	March 2017	

Planning Highlights (See also Program 3.3 Compliance Promotion and Enforcement – Pollution)

In 2016–17, Environment and Climate Change Canada will Implement risk-based approaches to support effective targeting of, and (where appropriate) application of penalties to, those offenders that are non-compliant with wildlife laws and regulations. Efforts will focus on species that are at high risk of requiring conservation and/or are at high risk of being affected by non-compliance, including:

- Canadian and foreign species under the Convention on International Trade in Endangered Species of Wild Fauna and Flora as well as species at risk in Canada;
- · Northern Canadian species; and
- habitats or Protected Areas in Northern Canada.

The Department will also develop intelligence capacity to support improved risk-based enforcement decisions by developing a comprehensive understanding of wildlife and conservation crime. This knowledge will support work to target the worst offenders.

ECCC will identify enforcement priorities through consultation with partners (such as the U.S. and Mexico, under the auspices of the North American Wildlife Enforcement Group) to stop illegal shipments of wildlife by strengthening the enforcement of laws and regulations, exchanging information and training enforcement officers.

In partnership with international organizations, such as INTERPOL and the United Nations Office on Drugs and Crime, the Department will continue to take action to combat wildlife trafficking by exchanging experiences and best practices and by participating in operations to prevent wildlife and forest crime.

Strategic Outcome 2: Canadians are equipped to make informed decisions on changing weather, water and climate conditions.

Program 2.1: Weather and Environmental Services for Canadians

Program Description

This program provides reliable, accurate and timely forecasts and warnings, as well as weather and environmental intelligence to anticipate, manage and adapt to the risks and opportunities of changing weather, water, air quality and climate conditions. It involves monitoring, research, prediction and service delivery based on sound science to help Canadians make informed decisions in order to protect their health, safety, security and economic prosperity. Because a global effort is needed to monitor, understand and predict constantly changing weather, water, air quality, sea ice, and climate conditions, the program works with various collaborators around the world. Global collaborators include other national meteorological services, such as the U.S. National Oceanic and Atmospheric Administration and Météo France, as well as international organization such as the United Nations World Meteorological Organization and the Intergovernmental Panel on Climate Change. At the national level, collaborators include the media, academia and all levels of government in Canada. The program meets the Department's responsibilities under the Department of the Environment Act. Weather Modification Information Act, Emergency Management Act (2007), Convention of the World Meteorological Organization, and memoranda of agreement with other national meteorological and space agencies. The program provides forecasts and information in the event of environmental emergencies associated with the release of toxic and radioactive material in the atmosphere.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
174,382,678	174,382,678	169,118,896	149,022,208

Human Resources (FTEs)

_	1			
	2016–17	2017–18	2018–19	
	1,060	1,022	956	

Performance Measurement

Program 2.1: Weather and Environmental Services for Canadians				
Expected Result	Performance Indicators	Targets	Date to be Achieved	
Canadians use Environment and Climate Change	Public component of the Weather Warning Index (a weighted index of weather warning timeliness and accuracy)	7.9	September 2017	
Canada's weather and environmental services	Percentage of the population of a warned area who report having seen or heard a recent weather warning and who took actions in response	30%	July 2016	

Planning Highlights

Environment and Climate Change Canada will continue its work on a number of fronts to improve the timeliness, accuracy and breadth of weather and climate services for Canadians.

ECCC will work with its partners to ensure business continuity for the delivery of its mission-critical, 24/7 services, and it will continue to transform prediction and forecast systems by implementing innovations that improve services to Canadians. The Department will enhance international partnerships (such as

those supporting work on volcanic ash modelling, radiation trajectory and smoke modelling) and domestic partnerships that allow the exchange of data and expertise to be leveraged. It will also provide weather, water, air quality, ice and climate information in support of domestic and international emergency management efforts.

Work will also include preparing for and leveraging new data sources, such as satellite and partner networks, as well as ongoing modernization of weather monitoring infrastructure by upgrading and replacing equipment in its key networks (where required).

ECCC will expand and improve the Air Quality Health Index service to support better air quality forecasts in support of Canadians' health.

Sub-Program 2.1.1: Weather and Environmental Observations, Forecasts and Warnings

Sub-Program Description

This program provides 24/7 weather warnings and atmospheric and environmental forecasts and information, with lead times of minutes to weeks. Its purpose is to help Canadians and a variety of economic sectors anticipate dangerous meteorological events to allow sufficient time to protect themselves and their property. Product and service quality depends upon research, science, modelling, and the supercomputing capacity managed by Shared Services Canada. The program is delivered through collaborations involving data, science and information distribution in Canada and internationally. Collaborators are the media, all levels of government, academia, other national meteorological services, and research and space agencies. The program meets responsibilities under the *Department of the Environment Act* and *Weather Modification Information Act*, and supports other departments acting under the *Emergency Management Act (2007)*. This program uses funding from the following transfer payments: Assessed Contributions to the World Meteorological Organization and Grants and Contributions in support of Weather and Environmental Services for Canadians.

Budgetary Financial Resources (dollars)

•	Badgetary i manolar resources (donars)					
	2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending			
	153,801,142	148,866,429	128,973,060			

Human Resources (FTEs)

2016–17	2017–18	2018–19
887	853	789

Performance Measurement

Sub-Program 2.1.1: W	Sub-Program 2.1.1: Weather and Environmental Observations, Forecasts and Warnings				
Expected Result	Performance Indicators	Targets	Date to be Achieved		
Canadians have the information they need on current and	Percentage of the population who report that they are somewhat or very likely to access weather information during a typical day	90%	July 2016		
changing weather conditions	Percentage of public forecast maximum temperatures that were predicted within 3°C of the observed values three days in advance	82%	April 2017		
	Percentage of public forecast maximum temperatures that were predicted within 3°C of the observed values five days in advance	72%	April 2017		

Planning Highlights

In 2016-17, the Department will

- Advance work on a radar replacement project in order to ensure sustainability of the radar network to support weather forecasting, and in particular to observe, diagnose and predict severe weather.
- In collaboration with Shared Services Canada, implement the High Performance Computing solution that will improve environmental prediction, including improving lead time and accuracy of hazardous weather warnings.
- Continue work on the 24/7/365 operations and life-cycle management of the national monitoring networks, including by improving data acquisition systems, alerting and automated quality assurance for continuous operations of the national monitoring networks; and by implementing comprehensive national standards for streamlining effective life-cycle management of the national monitoring networks.
- Advance work on a number of key internal transformation projects, including
 - working with provinces and territories to expand the "network of networks" approach to share monitoring data;
 - developing an Earth observation strategy that will leverage the newly available satellite Earth observations in support of mission-critical service delivery;
 - continuing to modernize the data management system to support improved data quality and functionality in a centralized computing environment benefiting real-time forecasting activities, and scientific research using historical climate data;
 - implementing innovations to incorporate weather observations in computer forecasts for more efficient weather prediction systems;
 - modernizing the weather warning and forecast system to improve timeliness of warnings to Canadians; and
 - o implementing national installation and maintenance standards for the surface weather and climate network that reflect <u>World Meteorological Organization</u> guidelines.
- Continue to conduct meteorological research and development to improve weather and environmental prediction, and make this new knowledge available in scientific literature and through national and international fora.
- Leverage engagement with multilateral partners, such as the <u>World Meteorological Organization</u> the <u>Group on Earth Observations</u> and major national meteorological and hydrological organizations so that Canada benefits from science information and technologies developed abroad.

Sub-Program 2.1.2: Health-related Meteorological Information

Sub-Program Description

This program provides forecasts, tools, data and information on atmospheric conditions that affect health, such as air quality, extreme temperatures and ultraviolet (UV) radiation. It supports the mandates of Environment and Climate Change Canada, Health Canada and many provincial government agencies, along with public and non-governmental health agencies. The program includes work on the Air Quality Health Index (AQHI), info smog, UV Index forecast and other projects that assist Canadians in making informed decisions to protect their health and reduce pollution, and that enable health agencies to help vulnerable populations respond to changing atmospheric conditions. It is delivered across Canada through collaborations promoting data and information dissemination. Collaborators include the media, public health agencies at all levels of government, provincial environment agencies and non-governmental agencies. This program also makes use of systematic observations and monitoring of air pollutants, including data collected under the Canadian Air and Precipitation Monitoring Network

(CAPMoN) program, stratospheric ozone and UV radiation in the atmosphere. The program hosts the World Brewer Calibration Centre and World Ozone and UV Data Centre, operated on behalf of the World Meteorological Organization and used by over 75 government agencies around the world. The Centre generates a number of products delivered from various stratospheric ozone and UV observation sources, which are available online for use by the public and international meteorological community. This program may use funding from the following transfer payment: Contributions in support of Weather and Environmental Services for Canadians.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
2,171,306	2,106,629	1,904,106

Human Resources (FTEs)

2016–17	2017–18	2018–19
14	13	13

Performance Measurement

Sub-Program 2.1.2: Health-related Meteorological Information					
Expected Result	Performance Indicators	Targets	Date to be Achieved		
Canadians have the information they need to protect their health against	Percentage of targeted sensitive populations within selected regions receiving information on the Air Quality Health Index (AQHI) who report that they recall seeing or hearing AQHI information	15 - 25% of sensitive population (range is due to regional variation)	March 2017		
risks related to air quality and other atmospheric conditions	Percentage of the general population within selected regions receiving Air Quality Health Index (AQHI) who report that they recall seeing or hearing AQHI information	15 - 20% of general population (range is due to regional variation)	March 2017		

Planning Highlights

The Department will

- Deliver air quality information by way of daily forecast of the <u>Air Quality Health Index</u>xxxviii (AQHI) for 108 communities across Canada; this service will be available to the entire province of Ontario in 2016.
- Develop and transfer scientific knowledge to help extend the lead time of the AQHI forecast from its current 48 hours to 72 hours.
- Implement ongoing improvements to the air quality models to better assess health risks associated with air quality and other meteorological conditions, through ongoing use of tools and indices (originally developed for the Pan Am/Parapan Am Games).
- Continue to improve ECCC's air quality forecast model by incorporating the impact of smoke from forest fires.
- Provide data and scientific advice on ozone and Ultraviolet (UV) radiation to the World Ozone and UV
 Radiation Data Centre, and continue to operate the World Brewer Calibration Centre for the global
 scientific community monitoring the ozone layer.

Sub-Program 2.1.3: Climate Information, Predictions and Tools

Sub-Program Description

This program generates new knowledge and information about past, present and future states of the climate system and how it functions, as well as on the changing composition of the atmosphere and related impacts. Its work includes: developing global and regional climate models and scenarios; detecting human influence on climate change in Canada, including extremes; understanding the North and the Canadian cryosphere; and tracking atmospheric levels of greenhouse gases and aerosols across Canada, including in remote locations. These activities increase understanding of the impacts of climate change on society, economic sectors and ecosystems. Results from the program's analysis and research activities provide the scientific basis for policy development, mitigation, adaptation planning and decisionmaking for programs such as the Federal Adaptation Policy Framework, as well as products, services and tools to Canadians. In particular, climate services inform and assist users in adapting to both present climate variability and medium- to long-term changes in climate. The program shares data, science and information with all levels of government in Canada, academia, industry, consortia, standards councils, and the national and international scientific community, including organizations such as the World Meteorological Organization, and the Intergovernmental Panel on Climate Change. The program meets responsibilities under the Department of the Environment Act, Canadian Environmental Protection Act (1999), Emergency Management Act (2007), National Research Council Act (Canadian Commission on Building and Fire Codes), and United Nations Framework Convention on Climate Change (articles 4 and 5: monitoring and research). This program may use funding from the following transfer payment: Contributions in support of Weather and Environmental Services for Canadians.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017-18 Planned Spending	2018–19 Planned Spending
18,410,230	18,145,838	18,145,042

Human Resources (FTEs)

2016–17	2017–18	2018–19
159	156	154

Performance Measurement

Sub-Program 2.1.3: Climate Information, Predictions and Tools						
Expected Result Performance Indicator Target Date to be Achiev						
Clients and users have the information they require on climate projections, scenarios and climate data sets on various time and spatial scales	Annual number of downloads of climate datasets	25,000	March 2017			

Planning Highlights

The Department will continue its work to

- Provide and manage high-quality climate data and services to the public and key clients, including station and spatially integrated climate monitoring data products, as well as climate model outputs on various temporal and spatial scales, in support of the Department's commitment to meeting Government of Canada Open Data objectives.
- Provide data related to wind, snow loads, temperature and precipitation to support the application by municipalities of building codes in Canada.
- Develop early warning services in support of disaster risk reduction and advance development of a climate services strategy to improve warning products and services.

- Support implementation of the <u>Global Framework for Climate Services</u> at the international, regional and national levels, including leading domestic delivery of enhanced climate information and services in support of building climate resilience in Canada.
- Advance climate science of relevance to adaptation and mitigation planning, and make this new knowledge available in the scientific literature and through national and international fora.
- Contribute to international climate assessments, including new results focusing on climate extremes, which inform domestic and international mitigation and adaptation planning.

Program 2.2: Weather and Environmental Services for Targeted Users

Program Description

Environment and Climate Change Canada provides specific predictions and services for targeted, weather-sensitive sectors through formal arrangements and revenue contracts. Building on the core capabilities offered under Program 2.1, this program provides reliable, accurate and timely weather, climate and ice observations, predictions and services to support the specific decision-making needs of the aviation and marine transportation sectors and the Canadian military. It delivers services through various collaborations within Canada (including with other government departments), and internationally with the World Meteorological Organization, as well as with other countries and international bodies such as the International Civil Aviation Organization, the International Maritime Organization, and the International Convention for the Safety of Life at Sea (SOLAS). This program supports the Department in meeting obligations and responsibilities conferred by the *Department of the Environment Act* and the Convention of the World Meteorological Organization. It also helps other government departments meet their obligations under the *Aeronautics Act* and the treaty in support of International Civil Aviation, the *Oceans Act* and the *Fisheries Act*, and supports memoranda of agreement with the Department of Fisheries and Oceans/Canadian Coast Guard, the Department of National Defence, and various provincial and territorial agencies.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
19,267,384	19,267,384	18,998,851	19,027,920

Human Resources (FTEs)

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2016–17	2017–18	2018–19
388	382	376

Performance Measurement

Program 2.2: Weather and Environmental Services for Targeted Users					
Expected Result	Target	Date to be Achieved			
Targeted sectors have the meteorological and environmental information and services they need to operate efficiently and safely	Combined level of satisfaction of the main clients of the Meteorological Service of Canada (MSC) in terms of accessibility, timeliness and accuracy of products and services	7.5	March 2017		

Planning Highlights

Environment and Climate Change Canada will deliver tailored weather services to targeted users, including NAV CANADA, Transport Canada, the Canadian Coast Guard, and the Department of National Defence, who leverage foundational weather and environmental services information that support decision-making related to their business operations.

Sub-Program 2.2.1: Meteorological Services in Support of Air Navigation

Sub-Program Description

The Aviation Weather program provides a range of aviation weather services, including forecasts and warnings 24 hours/day, 365 days/year. The services are provided under a cost-recovery agreement with NAV CANADA, Canada's air navigation system operator, and support decision-making throughout the aviation industry, including domestic and international airlines and the regulating body, Transport Canada. Information supports both tactical and strategic decisions to optimize air transportation safety and efficiency.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
4,756,956	4,729,359	4,729,145

Human Resources (FTEs)

2016–17	2017–18	2018–19
142	140	138

Performance Measurement

Sub-Program 2.2.1: Meteorological Services in Support of Air Navigation				
Expected Result	Performance Indicator	Target	Date to be Achieved	
NAV CANADA and the aviation industry have the meteorological information and services they need to maximize their efficiency and aviation safety	Average rating, on a scale of 1 (very unsatisfactory) to 10 (very satisfactory), of client satisfaction with aviation weather services provided by Environment and Climate Change Canada	7.5	March 2017	

Planning Highlights

The Department will provide high-quality, relevant and timely 24/7 aviation weather forecasts and services to NAV CANADA in accordance with its contractual obligations.

Sub-Program 2.2.2: Meteorological and Ice Services in Support of Marine Navigation

Sub-Program Description

This program provides mariners, marine industries and regulatory agencies with forecasts of the weather, sea state and ice conditions 24/7. It supports the International Maritime Organization (IMO), the World Meteorological Organization and the International Hydrographic Organization by providing meteorological information for Canadian and international Arctic waters, and supports the goals and mandates of the Canadian Coast Guard (CCG) of Fisheries and Oceans Canada. The program helps marine industries and other interests operating in Canadian waters, including organizations involved in shipping, fisheries and resource extraction, to make tactical decisions (such as ship routing), in order to maximize their safety and efficiency. As a key collaborator, the CCG broadcasts information generated by this program to marine interests and provides in-situ weather, sea-state and ice information through their fleet operations to Environment and Climate Change Canada. The program also provides detailed sea- and lake-ice analyses and forecast information to CCG under a cost-recovered arrangement in support of the CCG ice management responsibilities. The program meets responsibilities under the *Department of the Environment Act*, *Oceans Act* and *Fisheries Act*. It also supports commitments to the IMO, *International Convention for the Safety of Life at Sea, 1974*, and the Global Maritime Distress and Safety System.

Budgetary Financial Resources (dollars)

2016–17 Planned Spend	ng	2017–18 Planned Spending	2018–19 Planned Spending
11,675,986		11,435,050	11,464,333

Human Resources (FTEs)

2016–17	2017–18	2018–19
145	142	140

Performance Measurement

Sub-Program 2.2.2: Meteorological and Ice Services in Support of Marine Navigation					
Expected Result	Performance Indicators	Targets	Date to be Achieved		
Marine communities have the weather, wave and ice information they need to operate safely and	Average level of agreement of Canadian Coast Guard Commanding Officers that they have the weather, wind and wave information they need and are able to access it	7.6	March 2017		
efficiently in Canadian waters	Index of accuracy and timeliness of marine gale warnings	8.2	March 2018		

Planning Highlights

The Department will

- Provide high-quality, timely, relevant weather and ice information and services to mariners and other marine interests.
- Provide high-quality, timely, relevant value-added ice information to the Canadian Coast Guard in accordance with service requirements and cost-recovery agreements.
- Collaborate with domestic and international partners to develop products and to enhance weather, marine services and ice information, including those compatible with electronic marine navigation systems.

Sub-Program 2.2.3: Meteorological Services in Support of Military Operations

Sub-Program Description

This program provides the Department of National Defence (DND) with the meteorological and oceanographic information, predictions and tools needed for the operations of the Canadian Armed Forces (CAF) in Canada and abroad. It is a collaborative program, operating under a memorandum of understanding with DND, responding to CAF-specific needs and recovering its incremental costs from DND. The program is critical to CAF operations, as it contributes to the effectiveness and safety of tactical, operational and strategic missions and exercises within Canada and in various active military areas globally. It also supports DND's legal and statutory responsibilities under the *Aeronautics Act*, the legal foundation for military aviation safety.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
2,834,442	2,834,442	2,834,442

Human Resources (FTEs)

2016–17	2017–18	2018–19
101	100	98

Performance Measurement

Sub-Program 2.2.3: Meteorological Services in Support of Military Operations			
Expected Result	Performance Indicator	Target	Date to be Achieved
The Department of National Defence has the meteorological and oceanographic information and knowledge it needs to optimize its operations in Canada and abroad	Average rating, on a scale of 1 (very dissatisfied) to 10 (very satisfied), of client satisfaction with services provided by Environment and Climate Change Canada to the Department of National Defence	7.5	March 2017

Planning Highlights

The Department will provide high-quality, relevant and timely (on a 24/7 basis) weather, ice and oceanographic information services to the Canadian Armed Forces in accordance with service requirements and cost-recovery agreements.

Strategic Outcome 3: Threats to Canadians and their environment from pollution are minimized.

Program 3.1: Substances and Waste Management

Program Description

Activities in this program reduce threats to human health and the environment posed by pollution and waste from human activities. The program assesses risks to the environment from substances that are already in commercial use (existing substances) and substances proposed for use in Canada (new substances). It also develops and implements measures to prevent or manage the risks from these substances and waste.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
74,912,985	74,912,985	68,461,079	66,263,946

Human Resources (FTEs)

2016–17	2017–18	2018–19
613	573	553

Performance Measurement

Program 3.1: Substan	Program 3.1: Substances and Waste Management			
Expected Result	Performance Indicator	Targets	Date to be Achieved	
Threats to Canadians and impacts on the	Percentage of drainage regions where Federal	Polybrominated diphenyl ethers (PBDE) in sediments	PBDEs: September 2022	
environment posed by harmful	Environmental Quality Guidelines are not exceeded	and in fish: 80%	PFOS: September 2023	
substances and waste are reduced	for selected substances in sediment, water and/or biota	Perfluorooctane Sulfonate (PFOS) in water and in fish: 80%		

Planning Highlights

Environment and Climate Change Canada, in collaboration with Health Canada, will launch the third phase of the Chemicals Management Plan and will continue to deliver the Plan through a range of activities that include conducting science-based assessments of new and existing substances; developing environmental quality guidelines; developing and implementing risk management instruments such as regulations, codes of practice and pollution prevention planning notices; and conducting integrated environmental monitoring and surveillance and targeted research on priority substances.

The Department will continue to maintain the <u>National Pollutant Release Inventory</u> xii. ECCC will also participate in a number of <u>international chemical and biotechnology-related fora</u> xiii and continue to engage and consult with its stakeholders at the national and international levels. It will also continue to administer its responsibilities related to the *Fisheries Act* pollution prevention provisions.

Sub-Program 3.1.1: Substances Management

Sub-Program Description

This program is responsible for assessing and managing risks to the environment from all existing substances identified under the Chemicals Management Plan, as well as from new substances (upon notification by industry of their import or manufacture). The program uses science-based risk assessment, priority setting and timely regulatory actions (or other measures where appropriate) to manage risks associated with substances determined to be harmful. It works to improve substance management through research and monitoring, cyclical updates of the Domestic Substances List, tracking of pollutant releases (through reporting to the National Pollutant Release Inventory) and ongoing performance assessment of control-risk measures. The program uses regulations and other control measures under the Canadian Environmental Protection Act. 1999 (Part 4 and 5. Controlling Toxic Substances) to address the risk posed by substances of concern throughout their life cycle (e.g., released to air, water, soil and sediments from industrial processes, consumer and commercial products, or end-of-life products and waste). Also included is the international and interprovincial movement of waste and hazardous recyclable material. The program maintains transparency with stakeholders through consultation processes, including engagement at the national and international levels. International engagement occurs through such organizations as the Organisation for Economic Co-operation and Development (OECD) and the United States-Canada Regulatory Cooperation Council. International obligations include commitments under the Basel, Rotterdam and Stockholm and Vienna Conventions, the Convention on Long-Range Transboundary Air Pollution and the Minamata Convention on Mercury. This program may use funding from the following transfer payments: Contributions in support of Substances and Waste Management and Assessed Contributions to the OECD.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
52,904,278	52,939,749	52,491,081

Human Resources (FTEs)

2016–17	2017–18	2018–19
441	432	426

Performance Measurement

Sub-Program 3.1.1: Substances Management			
Expected Result	Performance Indicator	Target	Date to be Achieved
Use of road salt by road organizations is minimized	Percentage of road organizations reporting under the Code of Practice that use pre-wetting or pre-treated road salts	95%	December 2019
Reduced volume of legacy PCBs in industrial equipment	Cumulative percentage of high concentration PCBs in equipment subject to end-of-use extensions that has been taken out of use	100%	March 2018
Releases of siloxane D4 to the environment by manufacturers and industrial users are reduced	Total estimated release of siloxane D4 from reporting industrial facilities subject to the Pollution Prevention Notice	47 kg	June 2017

Planning Highlights

The Department will

- Conduct targeted research on priority substances and issues under the <u>Chemicals Management Plan</u>x (CMP) and the *Canadian Environmental Protection Act, 1999* (CEPA 1999), and publish (on the CMP website) draft and/or final assessments of existing substances flagged for future consideration.
- Assess the approximately 500 notified new chemicals, nanomaterials and products of biotechnology prior to their introduction into Canada, and intervene as early as possible when the assessment identifies a risk to human health or the environment.
- Carry out environmental monitoring and surveillance of priority chemicals in air, water, sediment, fish, birds and wastewater to detect and characterize environmental change. This work generates sciencebased information essential to identifying risks and informing risk assessment and risk management, and supports informed decision-making.
- Continue to develop, implement and administer regulatory and voluntary risk management
 instruments to manage risks from harmful substances to the environment, including from microbeads
 in personal care products and emissions of air pollutants (volatile organic compounds) in selected
 consumer and commercial products.
- Support the sound management of chemicals, waste and products by participating in international
 initiatives that support Canada's domestic efforts, and by implementing domestic measures, including
 those supporting Canada's commitments under the Basel, Rotterdam and Stockholm, Vienna, and
 Minamata Conventions, as well as the Convention on Long-Range Transboundary Air Pollution. (See
 the Compendium of Canada's Engagement in International Environmental Agreements^{xliv}.)

- In consultation with the provinces, territories and other stakeholders, continue to develop, identify and
 make use of tools to improve the management of waste in order to reduce releases of toxic
 substances^{xlv}.
- Continue to develop information technology and management approaches to deliver programs, including a new <u>online notification and tracking system</u>^{xivi} for hazardous waste and hazardous recyclable materials.
- Collect (through the Single Window Reporting System), and publish in the <u>National Pollutant Release</u> <u>Inventory</u> information on releases, disposals and recycling of over 300 substances of concern for 2015.

Sub-Program 3.1.2: Effluent Management

Sub-Program Description

This program supports management of risks to the environment and human health from the discharge and deposit of waste residues into water (e.g. effluent). This is achieved through the development, implementation and administration of strategies and programs, such as pollution prevention plans, regulations, codes of practice, guidelines and environmental performance agreements. Under the Canadian Environmental Protection Act. 1999 and Fisheries Act, the program addresses waste discharges and substances of concern in the effluent of industrial and public sectors, including but not limited to mining and processing, forest products, municipal wastewater and other sectors. Key activities include: conducting policy research and risk analysis; developing and implementing regulations and other control instruments; assessing the results of environmental effects monitoring conducted by regulated facilities; providing technical advice to environmental assessments; and acting as the focal point for the Fisheries Act pollution prevention provisions (FA-PPP). Specifically, the program administers the FA-PPP, including the development of risk management instruments, and administers the Wastewater Systems Effluent Regulations, Metal Mining Effluent Regulations and Pulp and Paper Effluent Regulations to control or manage the deposit of deleterious substances into water in order to reduce the threats to fish and fish habitat and to human health from fish consumption. Program delivery requires collaboration with partners (including other federal government departments, other levels of government and associations) and consultation with industry. Indigenous groups and other stakeholders.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
4,824,069	4,647,398	4,647,397

Human Resources (FTEs)

2016–17	2017–18	2018–19
47	44	44

Performance Measurement

Sub-Program 3.1.2: Effluent Management				
Expected Result	Performance Indicators	Targets	Date to be Achieved	
Risk of effluent pollution from sectors regulated	Percentage of test results within regulatory limits for the <i>Metal Mining Effluent Regulations</i> (MMER)	95%	March 2017	
under the Fisheries Act is minimized	Percentage of test results within regulatory limits for the <i>Pulp and Paper Effluent Regulations</i> (PPER)	95%	March 2017	

Percentage of wastewater systems whose releases are within regulatory limits (Wastewater Systems Effluent Regulations)	To be determined as initial reporting is not yet complete. Target will be established in 2016–17	To be determined
Loading (in tonnes) of carbonaceous biochemical oxygen demand (CBOD) and suspended solids (SS) from wastewater systems	Decline	December 2020

Planning Highlights

The Department will

- Administer the *Wastewater Systems Effluent Regulations* and work with provinces and territories to streamline administration and, where possible, use bilateral agreements to avoid duplication.
- Continue to administer the Pulp and Paper Effluent Regulations and work with stakeholders to
 promote compliance with the regulatory requirements, including the environmental effects monitoring
 requirements.
- Continue to engage Indigenous and Northern Affairs Canada, Indigenous communities and stakeholders, and the Northwest Territories, Nunavut, Quebec, and Newfoundland and Labrador to work on minimum effluent quality standards for wastewater effluent for the Far North.
- Implement the Pollution Prevention Provisions of the Fisheries Act and continue to work with Fisheries and Oceans Canada to enable more efficient and streamlined administration of the Fisheries Act.
- Continue to administer the Metal Mining Effluent Regulations (MMER), including engaging with federal partners (including Fisheries and Oceans Canada, Indigenous communities and other stakeholders), to manage mine waste disposal from mining projects.
- Develop proposed amendments to the MMER arising from the recent ten-year review of these regulations, including regulatory approaches for the diamond and coal mining sectors.

Sub-Program 3.1.3: Marine Pollution

Sub-Program Description

This program assesses, controls and monitors the disposal at sea of wastes and other matter, and advises on marine pollution from ships. As of 2010, the program is responsible for assessing and controlling the risks to the environment resulting from Canadian activities in the Antarctic. The program uses a mix of regulatory and non-regulatory instruments to prevent marine pollution. It addresses impacts on sediments and other wastes, administers prohibitions and controls, and assesses and issues permits for disposal at sea and Antarctic expeditions. Two cost-recovery fees are applicable to disposal at sea permits: an application fee assessed on all permits, and a permit fee assessed on dredged and inert inorganic material. The program conducts research and develops decision-making and monitoring tools and standards and makes contributions to the federal coordination of marine pollution prevention (shipsourced). Relevant legislation for the program includes the *Canadian Environmental Protection Act*, 1999, including Part 7, Division 3 (Disposal at Sea), and the *Antarctic Environmental Protection Act*, 2003. International obligations include the London Convention and Protocol, the Antarctic Treaty and the Madrid Protocol. The program also works to advance Canadian positions to influence global rules aimed at reducing and managing global marine pollution from all sources. This program may use funding from the following transfer payment: Contributions in support of Substances and Waste Management.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
2,903,466	2,903,466	2,903,466

Human Resources (FTEs)

2016–17	2017–18	2018–19
34	33	33

Performance Measurement

Sub-Program 3.1.3: Marine Pollution				
Expected Result	Performance Indicator	Target	Date to be Achieved	
Reduced marine pollution from uncontrolled dumping at sea	Percentage of monitored sites assessed as sustainable	85%	March 2017	

Planning Highlights

The Department will

- Continue development of a strategy for the domestic implementation of marine geo-engineering amendments of the London Protocol that would enable Canada to ratify the London Protocol amendment.
- Continue to assess placement and disposal at sea regimes to support updating of requirements, including those under the London Protocol.
- Continue to assess and deliver permits for disposal at sea and Antarctic expeditions within service standards in accordance with the *Disposal at Sea Regulations* and the Antarctic Environmental Protection Regulations. Decisions taken will be consistent, based on the latest scientific and technical information available, and will include consultations with Indigenous groups and other stakeholders.
- Continue to conduct monitoring activities, including sediment sampling and sediment toxicology, to ensure that the use of disposal sites remains sustainable.
- Continue to improve guidance for permit applicants for the <u>Disposal at Sea</u>xiviii program and the Antarctic program, including by developing revised internal monitoring guidance, strategies, policies, and site management plans.

Sub-Program 3.1.4: Environmental Emergencies

Sub-Program Description

This program protects Canadians and their environment from the effects of emergency pollution incidents, through the provision of science-based expert advice and regulations. Specifically, it aims to reduce the frequency and consequences of emergency pollution incidents through five major activities: prevention, preparedness, response, recovery, and research and development. *Prevention* involves providing expert advice to proponents of large development projects through the environmental assessment process and regulating chemical facilities to develop and implement environmental emergency plans. Effective *preparedness* is built on role clarity, effective decision-making and communication, and trust and cooperation among government, industry and communities. During an emergency *response*, the National Environmental Emergencies Centre is Environment and Climate Change Canada's focal point for provision of scientific advice, such as weather forecasting, contaminant trajectory modelling, the fate and behaviour of hazardous substances, sensitivity mapping, the establishment of clean-up priorities, and the protection of sensitive ecosystems and wildlife, such as migratory birds and species at risk, as well as the

protection of culturally significant sites. *Recovery* activities include assessing damage and providing advice to polluters on repairing environments damaged by environmental emergencies. By providing trusted, science-based expert advice and information in a variety of formats, the program is able to assist emergency response agencies and industries in making responsible decisions about the environment before, during and after an environmentally significant pollution incident.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
13,451,766	7,506,097	5,679,108

Human Resources (FTEs)

2016–17	2017–18	2018–19
88	62	48

Performance Measurement

Sub-Program 3.1.4: Environmental Emergencies			
Expected Result	Performance Indicator	Target	Date to be Achieved
Regulatees comply with the requirements and obligations of the Environmental Emergency Regulations	Percentage of facilities requiring environmental emergency plans that have them in place as required by the Environmental Emergency Regulations	90%	March 2017

Planning Highlights

The Department will

- Continue the administration of the Environmental Emergency Regulations and repeal and replace the current Regulations to accommodate updates and the addition of substances to the list of hazardous substances.
- Implement and amend the *Notification Regulations* (under the *Canadian Environmental Protection Act, 1999* and the *Fisheries Act*) and renew the Notification Agreements between ECCC and the provinces and territories to enable timely transfer of pollution incident information to the Department.
- Conduct studies on hazardous materials, including non-conventional petroleum products such as diluted bitumen. Studies will encompass physical and chemical properties of the spilled petroleum products and their fate and behaviour, as well as spill modelling, countermeasures and shoreline interactions.
- Contribute to the implementation of preparedness and response initiatives on offshore, pipeline, tanker and rail safety, including the development of net environmental benefit analysis guidelines.
- Contribute to the delivery of new scientific knowledge on spilled petroleum products, to inform area response plans for four pilot areas in Canada.
- Provide scientific and technical advice on fate and behaviour of spill hazardous materials, sampling and analysis, countermeasures and spill modelling on a 24/7 basis.
- Provide environmental emergency advice for environmental assessments.
- Continue to strengthen the National Environmental Emergencies Centre to support its 24/7
 coordination and provision of science-based expert advice; the management of spills notifications; the
 evaluation that reasonable measures are taken to protect the environment and human health in the
 event of an environmental emergency; and its ability to take or direct reasonable measures, if
 required.

Sub-Program 3.1.5: Contaminated Sites

Sub-Program Description

This program is primarily directed to Environment and Climate Change Canada's responsibilities in supporting the Federal Contaminated Sites Action Plan (FCSAP). The FCSAP is a 15-year Government of Canada horizontal program aimed at reducing environmental and human health risks from known federal contaminated sites and associated federal financial liabilities. Fifteen federal departments (including Environment and Climate Change Canada), agencies and consolidated Crown corporations responsible for contaminated sites are currently involved in the FCSAP program, either as custodians of sites or in a supporting role. Environment and Climate Change Canada's responsibilities include hosting the FCSAP Secretariat, developing guidance and program policies, providing expert support to federal custodians for the assessment and remediation/risk management activities at their sites, and completing assessment and remediation/risk management activities at its own contaminated sites. In addition, the FCSAP Secretariat coordinates implementation of the Shared Sites Policy Framework.

Budgetary Financial Resources (dollars)

	2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
ſ	829,406	464,369	542,894

Human Resources (FTEs)

Tallian Nooda ood (1 120)					
2016–17	2017–18	2018–19			
3	2	2			

Performance Measurement

Sub-Program 3.1.5: Contaminated Sites			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Reduced uncertainty associated with environment and human health risk from federal contaminated sites	Number of funded sites where assessment activities have been conducted during Phase III of the Federal Contaminated Sites Action Plan	290	March 2020
Reduced liability at higher-risk federal contaminated sites	Reduction in liability at all Class 1 and Class 2 funded sites during Phase III of the Federal Contaminated Sites Action Plan	\$1.19 billion	2020
Reduced risk to the environment and human health from federal contaminated sites	Number of Class 1 and Class 2 funded sites where risk reduction activities have been completed during Phase III of the Federal Contaminated Sites Action Plan	231	2020

Planning Highlights

The Department will

- Provide program oversight for the ongoing delivery of the <u>Federal Contaminated Sites Action Plan</u> (FCSAP) in partnership with other federal departments and agencies, and consolidated Crown corporations.
- Provide expert advice to help federal custodians assess and remediate their contaminated sites to
 ensure that the highest-priority sites are remediated under FCSAP and to reduce the ecological risks
 they pose.
- Assess and remediate sites for which the Department is responsible.

 Prepare an annual report on the results of the FCSAP Program describing the progress made on managing federal contaminated sites.

Program 3.2: Climate Change and Clean Air

Program Description

This program aims to protect the health of Canadians, the environment and Canada's economy from the harmful effects of air pollutants and the impacts of greenhouse gas (GHG) emissions through the development and implementation of regulations and other control measures. Actions are based on sound scientific work, economic and policy analysis, and emissions monitoring and reporting. Work under this program includes: continued collaboration with other governments and stakeholders; delivery of sound scientific results, expert environmental science and technology advice, assessment, and program management in support of technology investment decisions, policy making and regulations; and cooperation with the United States to align GHG regulations as appropriate, reduce transboundary air pollution and advance clean technologies. It also involves participation and negotiation in, and contributions to, international fora, in order to address climate change and transboundary air pollution, and bilateral and multilateral processes in order to support Canada's positions and objectives.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
97,030,449	97,030,449	87,789,682	84,659,353

Human Resources (FTEs)

2016–17	2017–18	2018–19
309	302	298

Performance Measurement

Program 3.2: Climate Change and Clean Air			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Threats to Canadians, their health and their environment from greenhouse gas emissions are minimized	Canadian emissions of greenhouse gases (carbon dioxide equivalents) in megatonnes	Canada's national target is a 17% reduction from 2005 levels	2020
Improved air quality in Canada	Percentage of the Canadian population living in areas where the 24-hour and the annual Canadian Ambient Air Quality Standard (CAAQS) for fine particulate matter (PM _{2.5}) of 28 μg/m ³ and 10 μg/m ³ are achieved	Percentage increase over time	March 2017
	Percentage of the Canadian population living in areas where the 8-hour Canadian Ambient Air Quality Standard (CAAQS) for ground-level ozone of 63 parts per billion (ppb) is achieved	Percentage increase over time	March 2017

Planning Highlights

Environment and Climate Change Canada (ECCC) will work in partnership with provinces and territories to develop a pan-Canadian framework to address climate change and reduce GHG emissions, consistent with the Department's international obligations and commitment to sustainable economic growth. Through this collaboration, the Department will establish national targets for reducing emissions and work to set a price on carbon.

ECCC's international efforts will focus on establishing and pursuing international commitments that align with Canada's domestic plans on climate change and clean air, including by financing projects through the Least Developed Countries Fund that support the poorest and most vulnerable nations as they transition to low carbon economies.

The Department will collaborate with the provinces and territories to set strong air quality standards and to continue to implement the <u>Air Quality Management System</u>!.

ECCC will deliver relevant and sound science results, collect data and conduct analysis to inform the air pollutant and GHG policy and regulatory decision-making and activities that impact Canadians, their health and their environment. ECCC will continue to administer, promote compliance with and enforce pollution acts and regulations.

Sub-Program 3.2.1: Climate Change and Clean Air Regulatory Program

Sub-Program Description

This program develops domestic approaches to climate change and air pollution by controlling emissions of greenhouse gases (GHGs) and air pollutants (APs). The program develops and implements regulations and other instruments to reduce emissions while maintaining economic competitiveness, develops compliance flexibilities, negotiates equivalency agreements with provinces, and analyzes cross-cutting and emerging issues such as short-lived climate pollutants. It works with provinces and territories through the Canadian Council of Ministers of the Environment to implement the Air Quality Management System, which includes establishing new outdoor air quality standards and finalizing and implementing industrial emissions requirements. These activities are supported by legal and economic analysis, as well as extensive scientific research, monitoring and modelling. The program collects data using the National Pollutant Release Inventory and prepares regular reports on GHG and AP emissions to meet domestic and international reporting requirements (e.g., Air Pollutant Emission Inventory and National GHG Inventory Report to the United Nations Framework Convention on Climate Change).

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
30,825,764	30,591,271	31,192,160

Human Resources (FTEs)

2016–15	2017–18	2018–19
229	225	222

Performance Measurement

Sub-Program 3.2.1: Climate Change and Clean Air Regulatory Program			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Reduced emissions of air pollutants from regulated and/or targeted sectors	Canadian emissions of air pollutants from industrial and mobile sources	Decline in the three-year average	2021 (interim) 2036

Planning Highlights

The Department will

 Continue maintaining GHG and other air pollutant inventories to meet both international and domestic reporting requirements.

To address GHG emissions

- Improve regional understanding of GHG sources and sinks in Canada using observation-based methods, as well as publishing studies (including black carbon).
- Conduct targeted scientific and engineering studies to measure emissions by technology, equipment type, fuel and operating conditions; develop mass balance estimates; document and map management practices on land; and document waste management practices (such as landfill gas capture, composting and incineration) to measure the impact of changing practices on trends in emissions of greenhouse gases (especially methane) and air pollutants.
- Continue to provide policy and economic analysis, and regulatory support to advance the federal approach to reducing GHG emissions, in collaboration with provinces and territories.
- Continue to work with interested provinces and territories to develop equivalency agreements for GHG and air pollutant regulations.

To address air quality

- Leverage scientific tools, knowledge and strategic partnerships to deliver relevant and timely
 research results, improved prediction capacity and ambient air quality monitoring data to contribute
 to the understanding of how changes in air pollutant emissions (including those from the
 transportation and fuels sectors) impact air quality, Canadians' health and the environment.
- Continue to collaborate with provinces, territories and stakeholders to implement the <u>Air Quality Management System</u> (AQMS), which includes new ambient air quality standards, a framework for managing air quality through local air zones and regional airsheds, and emissions requirements for major industrial sectors and equipment types.
- Finalize, publish and begin implementing the *Multi-sector Air Pollutants Regulations*. The Department will also finalize and publish alternative instruments to reduce air pollution from emissions-intensive trade-exposed sectors.
- Provide air quality monitoring data, expertise, maps and analysis to guide implementation of the AQMS and to track benefits of the Canada-U.S. Air Quality Agreement.
- Seek approval from the Canadian Council of Ministers of the Environment (CCME) to establish and implement more stringent Canadian Ambient Air Quality Standards for sulphur dioxide (SO₂) and develop Canadian Ambient Air Quality Standards for nitrogen dioxide (NO₂) in collaboration with provinces, territories and stakeholders through the CCME.

Sub-Sub-Program 3.2.1.1: Industrial Sector Emissions

Sub-Sub-Program Description

This program aims to reduce emissions of air pollutants (APs) and greenhouse gases (GHGs) from industrial sectors under the *Canadian Environmental Protection Act, 1999* (CEPA 1999). Key activities include the development of GHG standards and regulations for electricity, oil and gas, and emissions-intensive trade-exposed sectors and the finalization of AP standards, regulations and other risk management instruments for major industrial sectors and equipment types, as part of the Air Quality Management System. This also includes negotiating and developing equivalency agreements with interested provinces or territories. It is responsible for reporting requirements under CEPA 1999 for tracking and reporting releases of harmful substances and for the

design and implementation of an electronic data collection and management system, which provides a harmonized system for reporting on GHG and AP emissions. The program provides information to Canadians and decision makers about the environmental and health impacts associated with air pollutants. This program may use funding from the following transfer payment: Climate Change and Clean Air.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
25,580,907	24,991,290	25,700,660

Human Resources (FTEs)

2016–17	2017–18	2018–19
181	178	175

Performance Measurement

Sub-Sub-Program 3.2.1.1: Industrial Sector Emissions			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Industrial sectors meet regulated emission intensity levels of greenhouse gases	Percentage of coal-fired electricity generation units meeting their regulated greenhouse gas emissions performance requirement	100%	December 2019

Planning Highlights

The Department will

On the scientific front

- With the provinces and territories and based on consultations with stakeholders, refine and harmonize data collection so that information in the national GHG inventory is more consistent with similar information produced by other jurisdictions.
- Conduct targeted studies to measure air pollution emissions at their source under operating conditions, and examine the impacts of air pollution on ecosystems and wildlife in order to evaluate the efficiency of pertinent regulations.

On the regulatory front

- Collect (through the Single Window Reporting System), and publish (through the <u>National Pollutant Release Inventory</u>^{lii}, information releases, disposals and recycling of key pollutants for 2015.
- Work with interested provinces and federal government partners to manage and expand the Department's Single Window Reporting System for regulatory reporting of emissions (including GHGs), pollutant releases and chemical substances.
- Continue to implement and administer the federal Coal-Fired Generation of Electricity Regulations.
- Advance development of regulations in support of reducing GHG emissions.
- Implement a work plan under the Canada-U.S. Air Quality Agreement to work in collaboration with the U.S. Environmental Protection Agency to address emissions from the oil and gas sector.
- Finalize, publish and begin implementing the *Multi-sector Air Pollutants Regulations* (MSAPR) for boilers and heaters, stationary engines and the cement sector. This will include continuing to explore an electronic data collection and management tool for regulatees reporting under the MSAPR, as well as developing future amendments to include other sectors.

- Work towards implementing the Base-Level Industrial Emissions Requirements for various equipment types and sectors using non-regulatory instruments.
- Continue to develop, improve and release annual Black Carbon inventories to support work done by the Department and the Arctic Council.

Sub-Sub-Program 3.2.1.2: Transportation Sector Emissions

Sub-Sub-Program Description

Under the *Canadian Environmental Protection Act, 1999,* this program aims to reduce emissions from transportation sources (vehicles, engines and fuels) through key activities such as the delivery of sound science and scientific advice, the development of greenhouse gas (GHG) and air pollutant regulations and the implementation and administration of those regulations. These activities also include scientific testing and emissions verification to ensure compliance with standards. In addition, the program works with Transport Canada to address air pollutant and GHG emissions from maritime shipping, through development of new domestic and international standards, and recommends practices for marine vessels in collaboration with the International Maritime Organization. As well, it shares information and identifies areas of joint interest with provinces and territories toward reducing emissions through the Mobile Sources Working Group. This program may use funding from the following transfer payment: Climate Change and Clean Air.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
5,244,857	5,599,981	5,491,500

Human Resources (FTEs)

2016–17	2017–18	2018–19
48	47	47

Performance Measurement

Sub-Sub-Program 3.2.1.2: Transportation Section Emissions			
Expected Results	Performance Indicators	Targets	Date to be Achieved
Reduced greenhouse gas emissions from new motor vehicles, engines and fuels sold in Canada	Average greenhouse gas emissions performance (in grams/mile) of fleets of new passenger automobiles sold in Canada	< 266.7 g/mi for model year ending December 2013	To be reported in the 2016–17 DPR
Reduced air pollutant emissions from new motor vehicles, engines and fuels sold in Canada	Average nitrogen oxide (NOx) emissions in grams/mile for new light-duty, on-road vehicles offered for sale in Canada (by model year)	0.07 grams/mile for model year ending December 2014	To be reported in the 2016–17 DPR

Planning Highlights

The Department will

 Develop proposed draft GHG emission standards (Phase 2) for post-2018 heavy-duty vehicles and engines in alignment with the U.S. Environmental Protection Agency (EPA) standards and test procedures.

- Collaborate with the U.S. EPA on several fronts in order to
 - determine if the stringency of standards for model years 2022–2025 remains appropriate;
 - under the framework of the Canada-U.S. Air Quality Committee, develop aligned vehicle and engine emission regulations and coordinate their implementation; and
 - assess vehicles for the presence of "defeat devices" (devices or strategies that reduce effectiveness of emissions control systems), including by acquiring and testing vehicles in a coordinated manner.
- Continue to administer 14 vehicle, engine and fuel regulations, including new requirements under the Tier 3 regulatory amendments. Work will include compliance verification testing and updating the Department's electronic reporting system to incorporate Tier 3 reporting requirements.
- Establish more stringent air pollution emission standards for off-road engines.
- Continue scientific work to assess the impacts of current and future ship emissions in Canada's
 Arctic, as well as analysis to support potential measures to reduce air pollutants from small marine
 diesel engines.
- Update the <u>national emissions inventory</u> to support programs and regulations to reduce air pollutants from marine vessels.
- Continue to provide expert technical and policy advice on GHG and black carbon emission reduction approaches to support Canada's participation in the International Maritime Organization.

The Department will also continue to co-chair the Mobile Sources Working Group with the Ontario Ministry of Environment and Climate Change, and conclude the implementation of the final year of the group's current Action Plan to address emissions from the mobile sources sector. It will also consider development of the next Action Plan in collaboration with provincial and territorial governments.

Sub-Program 3.2.2: International Climate Change and Clean Air Partnerships Sub-Program Description

This program leads the development and implementation of international agreements and cooperation programs to address air pollution and climate change. This includes coordinating the development of Canada's policy and negotiating positions and participation in relevant international fora. The program leads and participates in the United Nations Framework Convention on Climate Change and complementary international processes that help shape and implement collective actions to address climate change. It also leads Canada's participation in international partnerships, notably the Climate and Clean Air Coalition to reduce short-lived climate pollutants, the Arctic Council Task Force on Black Carbon and Methane and the Global Methane Initiative. The program meets international obligations by contributing to organizations such as the Intergovernmental Panel on Climate Change and the Inter-American Institute for Global Change Research. It works under the Canada-U.S. Air Quality Agreement to manage transboundary air pollution, implements the U.S.-Canada Clean Energy Dialogue to support bilateral collaboration on clean energy priorities, and participates in the Commission for Environmental Co-operation (CEC) to address common issues related to climate change mitigation and adaptation. The program also participates in negotiations to implement the Convention on Long-Range Transboundary Air Pollution, and coordinates Canada's participation under the Montreal Protocol and its Multilateral Fund towards the gradual elimination of ozone-depleting substances and promotes the control of hydrofluorocarbons at a global level. This program may use funding from the following transfer payments: Climate Change and Clean Air, Assessed contribution for Canada's share of the CEC budget and Grants under the Montreal Protocol.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
12,694,106	11,091,626	11,091,626

Human Resources (FTEs)

2016–17	2017–18	2018–19
24	23	23

Performance Measurement

Sub-Program 3.2.2: International Climate Change and Clean Air Partnerships				
Expected Result	Performance Indicator	Target	Date to be Achieved	
International negotiations on air pollutants and greenhouse gases are proceeding in a direction consistent with Canadian priorities and interests	Percentage of stated objectives to be achieved in international negotiations which were met or mostly met	Negotiations: 70%	March 2017	

Planning Highlights

The Department will

- Lead Canada's efforts under the United Nations Framework Convention on Climate Change (UNFCCC). In collaboration with UNFCCC parties, continue to negotiate the terms and conditions of the Paris Agreement and promote its entry into force in an effective manner and fulfill obligations and commitments under the Agreement.
- Continue to work with international partners, including the Arctic Council, the Climate and Clean Air Coalition (to reduce short-lived climate pollutants), the Gothenburg Protocol to the Convention on Long-Range Transboundary Air Pollution and the Global Methane Initiative.
- Deliver on Canada's obligations to international science-based organizations, specifically the Intergovernmental Panel on Climate Change and the Inter-American Institute for Global Change Research.
- Work together with North American partners and other government departments to develop an ambitious North American clean energy and environment agreement.
- Collaborate with the U.S. to reduce transboundary air pollution through the 1991 Canada-U.S. Air Quality Agreement, including by working jointly to address air and GHG emissions from the transportation and gas sectors.
- Negotiate an amendment to the Montreal Protocol to phase down the production and consumption of hydrofluorocarbons (HFCs) and develop domestic regulations.

The Department will also continue to collaborate with partners in multilateral fora and international organizations, such as the Major Economies Forum on Energy and Climate, the Organisation for Economic Co-operation and Development, the Commission for Environmental Co-operation and the United Nations Environment Programme. ECCC will also actively support other federal departments in global efforts to address environmental issues under the G-7, the G-20 and the World Meteorological Organization.

Sub-Program 3.2.3: Environmental Technology

Sub-Program Description

The program objective is to improve the environmental performance of technologies and processes, particularly with respect to clean air, climate change and sustainable development. The program achieves its results by providing policy analysis, technical and scientific support, and program oversight to select Government of Canada environmental or energy programs such as Sustainable Development Technology Canada and the Green Municipal Fund. This program may also use funding from the Climate Change and Clean Air transfer payment.

Budgetary Financial Resources (dollars)

2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
53,510,579	46,106,785	42,375,567

Human Resources (FTEs)

2016–17	2017–18	2018–19
56	54	53

Performance Measurement

Sub-Program 3.2.3: Environmental Technology				
Expected Results	Performance Indicators	Targets	Date to be Achieved	
Reduced emissions from the implementation of	Annual reduction of greenhouse gas emissions attributable to environmental technologies supported by the SD Tech Fund TM	9 Mt	December 2020	
environmental technologies funded under the SD Tech Fund TM	Annual reduction of air pollutant emissions attributable to environmental technologies supported by the SD Tech Fund TM	SOx: 3,500 t NOx: 4,000 t PM: 350 t VOC: 175 t	December 2020	
Emissions avoided as a result of completed municipal projects supported by the Green Municipal Fund	Total annual emissions of greenhouse gases (GHG) and air pollutants (criteria air contaminants) avoided as a result of capital projects supported by the Green Municipal Fund since its inception	GHGs: 380,000 t CACs: 460,000 kg	March 2019	

Planning Highlights

The Department will

- Support key federal technology programs (Sustainable Development Tech Fund of <u>Sustainable Development Technology Canada IIV</u>, <u>Green Municipal Fund IV</u>) to maximize environmental benefits and align intended outcomes with departmental priorities.
- Continue to promote positive environmental outcomes as a key consideration in federal technology investment decisions through providing an environmental perspective on interdepartmental initiatives, including the <u>Genomics Research and Development Initiative</u>^{Ivi}, as well as federal energy research, development and demonstration programs.
- Continue to lead the development of an international standard for Environmental Technical Verification (ISO 14034, under the International Organization for Standardization [ISO]).
- Promote the standard (ISO 14034) as a tool to harmonize environmental technology verification in all Canadian jurisdictions, and seek to incorporate it into other federal programs to increase market uptake of green technologies.

Program 3.3: Compliance Promotion and Enforcement – Pollution

Program Description

This program contributes to minimizing damage and threats to the natural environment and biodiversity through the promotion and enforcement of legislation administered by Environment and Climate Change Canada. Activities focus on pollution, including the release of toxic substances to air, water or land, and the import and export of hazardous waste that presents a risk to the environment and/or human health. The program maintains a contingent of compliance promotion and enforcement officers. Compliance promotion officers deliver activities to increase regulatees' awareness, understanding and compliance with regulations and other risk management instruments under the Canadian Environmental Protection Act, 1999 and the Fisheries Act, with the goal of increasing effectiveness in achieving desired environmental results. They also provide information on risk management instrument requirements, the benefits of compliance and the potential penalties of non-compliance, when applicable. Enforcement officers, on the other hand, conduct inspections to verify compliance with laws and regulations, gather intelligence, take enforcement action to bring offenders back into compliance, and pursue investigations where necessary. This program collaborates with international and domestic partners to strengthen transboundary environmental enforcement. Officers are provided training and are often supported by scientific analyses and expertise, including science advice to support enforcement actions. In addition, the program is supported by scientific analysis and expertise for the development and implementation of new and updated regulations.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
34,672,528	34,672,528	34,487,231	

Human Resources (FTEs)

2016–17	2017–18	2018–19
276	270	266

Performance Measurement

Program 3.3: Compliance Promotion and Enforcement - Pollution				
Expected Result	Performance Indicator	Target	Date to be Achieved	
Compliance with pollution laws and regulations administered by Environment and Climate Change Canada	Percentage increase in compliance with pollution-related sections of selected laws and regulations in response to targeted enforcement or compliance promotion efforts	10% increase in compliance (Chlorinated water releases from water treatment plants)	March 2019	

Planning Highlights (See also Program 1.4 Compliance Promotion and Enforcement – Wildlife)

In 2016–17, Environment and Climate Change Canada will undertake compliance promotion activities for key regulatory initiatives under the *Canadian Environmental Protection Act, 1999* and environmental provisions of the *Fisheries Act,* with an emphasis on small- and medium-sized enterprises, the Federal House² and Indigenous peoples, and contribute to the promotion of regulations concerning greenhouse gases (GHGs) and air pollutants as well as regulations under the Chemicals Management Plan.

^{2.} The Federal House includes federal departments, agencies, Crown corporations, federal works and undertakings, and activities that take place on federal and Indigenous land. Federal works and undertakings include organizations such as banks, airlines,

ECCC will deliver scientific analysis, technical support and data interpretation, and provide evidence and expert scientific advice for the enforcement of regulations concerning GHGs and air pollutants.

ECCC will also implement Phase 1 of the environmental compliance rate project on chlorinated water discharge with the goal of increasing by 10% the compliance of municipalities' drinking water treatment plants with the *Fisheries Act* general prohibition. This work supports the Department in meeting its expected result of compliance with the pollution laws and regulations it administers.

The Department will further identify enforcement priority areas, such as transboundary movement of hazardous wastes and engine emissions regulations, in consultation with experts and partners (including the U.S. and Mexico, through the Commission for Environmental Co-operation) and in consideration of compliance information.

ECCC will also address a number of existing enforcement priorities, including addressing problematic aspects of the off-road compression-ignition engine industry, ensuring that owners with end-of-use extensions under the *Polychlorinated Biphenyls* (PCBs) *Regulations* have properly disposed of PCB-containing equipment, and verifying compliance with the *Wastewater Systems Effluent Regulations* (WSER) for those not identified (as of December 2014) as compliant with the WSER. The Department will conduct targeted interventions in these priority areas, including intelligence analysis and increased inspection activity.

trucking companies and broadcasting systems. Under Canada's Constitution, the Federal House is not normally regulated by provincial laws, and separate measures can be required to ensure that all organizations are meeting national environmental requirements.

Internal Services

Internal Services Description

Internal Services are groups of related activities and resources that are administered to support the needs of programs and other corporate obligations of an organization. Internal services include only those activities and resources that apply across an organization, and not those provided to a specific program. The groups of activities are Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; Information Technology Services; Real Property Services; Materiel Services; and Acquisition Services.

Budgetary Financial Resources (dollars)

2016–17	2016–17	2017–18	2018–19
Main Estimates	Planned Spending	Planned Spending	Planned Spending
179,196,292	179,196,292	178,252,358	176,977,936

Human Resources (FTE)

2016–17	2017–18	2018–19
1,375	1,352	1,323

Planning Highlights

In 2016–17, Environment and Climate Change Canada will undertake key initiatives that work to maximize departmental systems and operations to support the mandate and drive efficiency; improve business processes and common services to maintain or improve levels of service and client satisfaction, and support achievement of an agile workforce and modern workplace while fostering a culture of engagement, innovation and creativity.

Specifically, the Department will

Align its internal services—including human and financial resources management, communication, information management and technology—to best support and enable the achievement of results.

- Strengthen reporting and integration of financial and non-financial information to support decisionmaking and efficiency.
- Continue to maximize capacity through improved reporting and data warehousing and by standardizing and integrating financial, materiel and asset business processes.
- Implement common human resources business processes and systems, including migration to a new human resources information system (My GCHR) and a new pay system (Phoenix).

Support Canada's Open Government Agenda by ensuring that strong systems are in place to gather, collect, communicate and disseminate information, and work to strengthen data management and recordkeeping capacities.

- Continue to streamline the Department's software applications inventory to reduce redundant or obsolete information technology solutions.
- Continue to lead the development of the Environment and Natural Resources theme on Canada.ca and leverage evolving trends in digital communications to enhance ECCC's ability to inform and engage Canadians.

Focus on results, putting in place mechanisms for robust performance measurement to support decision-making and reporting.

- Provide corporate support to plan, track and report on the progress of commitments, assess the
 effectiveness of work, advance performance measurement, and align resources with priorities,
 consistent with the Minister's mandate letter.
- Provide senior management with evidence-based information to support decision-making as described in the Risk-Based Audit and Evaluation Plan.
- Introduce performance measurement and policy compliance tracking tools to measure communications value against government-wide policies.

Adopt strategic and targeted actions to support employees and develop expertise (including scientific and technical) to achieve concrete results against our mandate.

- Continue to implement the Department's Talent Management initiative and further integrate with the Performance Management exercise to support employees and address succession planning.
- Partner with the Canada School of Public Service to implement its government-wide learning model, and support the departmental implementation of the Strategies for Building Future Capabilities, and the Public Service Employee Survey Management Action Plan.

Section III: Supplementary Information

Future-Oriented Condensed Statement of Operations

The future-oriented condensed statement of operations provides a general overview of Environment and Climate Change Canada's operation. The forecast of financial information on expenses and revenues is prepared on an accrual accounting basis to strengthen accountability and to improve transparency and financial management.

Because the future-oriented condensed statement of operations is prepared on an accrual accounting basis, and the forecast and planned spending amounts presented in other sections of the Report on Plans and Priorities are prepared on an expenditure basis, amounts may differ.

A more detailed future-oriented statement of operations and associated notes, including a reconciliation of the net cost of operations to the requested authorities, can be found on Environment and Climate Change Canada's website. Iviii

Future-Oriented Condensed Statement of Operations For the Year Ended March 31, 2016 (dollars)

Financial Information	2015–16 Forecast Results	2016–17 Planned Results	Difference (2016–17 Planned Results minus 2015–16 Forecast Results)
Total expenses	1,134,212,040	1,066,312,601	-67,899,439
Total revenues	88,595,683	88,595,683	0
Net cost of operations before government funding and transfers	1,045,616,357	977,716,918	-67,899,439

Total expenses are expected to decrease by \$67.9 million in 2016–17 in comparison with the forecast results of 2015–16. The overall decrease is mainly due to the reduction in funding for the Contaminated Sediment Remediation Projects and for the Meteorological Service of Canada as well as the funding that will expire March 31, 2016 for initiatives such as the Great Lakes Nutrient Initiative, the Clean Air Regulatory Agenda and West Coast Energy Development. The decrease is partially offset by the increase in funding for Sustainable Development Technology Canada for the Sustainable Development Technology Fund. Based on fiscal year 2015–16, total revenues for 2016–17 are expected to be similar as services provided will remain the same.

For comparative purposes, planned results are based on historical data and trends, and include 2016–17 Main Estimates whereas 2015-16 forecast results give the reader information on 2015-16 estimated spending based on historical data and trends, the 2015-16 Main Estimates, Supplementary Estimates A and B, and anticipated Supplementary Estimates C. Figures for the forecast and planned results do not include items such as carry-forward funding.

Environment and Climate Change Canada will seek ongoing funding for priority initiatives. Funding requests for such initiatives are subject to government decisions, and the outcomes will be reflected in future budget exercise and Estimates documents.

Supplementary Information Tables

The supplementary information tables listed in the 2016–17 Report on Plans and Priorities are available on Environment and Climate Change Canada's website. |Viiii

- Departmental Sustainable Development Strategy;
- Details on Transfer Payment Programs of \$5 Million or More;
- Disclosure of Transfer Payment Programs under \$5 Million;
- Horizontal Initiatives;
- Status Report on Transformational and Major Crown Projects;
- Upcoming Internal Audits and Evaluations over the next three fiscal years; and
- Up-Front Multi-Year Funding.

Tax Expenditures and Evaluations

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance Canada publishes cost estimates and projections for these measures annually in the <u>Tax</u> <u>Expenditures and Evaluations</u> publication. The tax measures presented in the Tax Expenditures and Evaluations publication are the sole responsibility of the Minister of Finance.

Section IV: Organizational Contact Information

Environment and Climate Change Canada Inquiry Centre

Tel.: 1-800-668-6767 (in Canada only) or 819-997-2800

Fax: 819-994-1412

Email: ec.enviroinfo.ec@canada.ca

Appendix: Definitions

appropriation: Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures: Include operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

Departmental Performance Report: Reports on an appropriated organization's actual accomplishments against the plans, priorities and expected results set out in the corresponding Reports on Plans and Priorities. These reports are tabled in Parliament in the fall.

full-time equivalent: Is a measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

Government of Canada outcomes: A set of 16 high-level objectives defined for the government as a whole, grouped in four spending areas: economic affairs, social affairs, international affairs and government affairs.

Management, Resources and Results Structure: A comprehensive framework that consists of an organization's inventory of programs, resources, results, performance indicators and governance information. Programs and results are depicted in their hierarchical relationship to each other and to the Strategic Outcome(s) to which they contribute. The Management, Resources and Results Structure is developed from the Program Alignment Architecture.

non-budgetary expenditures: Include net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance: What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve and how well lessons learned have been identified.

performance indicator: A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

performance reporting: The process of communicating evidence-based performance information. Performance reporting supports decision-making, accountability and transparency.

planned spending: For Reports on Plans and Priorities (RPPs) and Departmental Performance Reports (DPRs), planned spending refers to those amounts that receive Treasury Board approval by February 1. Therefore, planned spending may include amounts incremental to planned expenditures presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their RPPs and DPRs.

plans: The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

priorities: Plans or projects that an organization has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired Strategic Outcome(s).

program: A group of related resource inputs and activities that are managed to meet specific needs and to achieve intended results and that are treated as a budgetary unit.

Program Alignment Architecture: A structured inventory of an organization's programs depicting the hierarchical relationship between programs and the Strategic Outcome(s) to which they contribute.

Report on Plans and Priorities: Provides information on the plans and expected performance of appropriated organizations over a three-year period. These reports are tabled in Parliament each spring.

results: An external consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead they are within the area of the organization's influence.

Strategic Outcome: A long-term and enduring benefit to Canadians that is linked to the organization's mandate, vision and core functions.

sunset program: A time-limited program that does not have an ongoing funding and policy authority. When the program is set to expire, a decision must be made whether to continue the program. In the case of a renewal, the decision specifies the scope, funding level and duration.

target: A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

whole-of-government framework: Maps the financial contributions of federal organizations receiving appropriations by aligning their Programs to a set of 16 government-wide, high-level outcome areas, grouped under four spending areas.

Endnotes

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i Mandate letter: pm.gc.ca/eng/minister-environment-and-climate-change-mandate-letter
ii. Department of the Environment Act: www.laws-lois.justice.gc.ca/eng/acts/E-10/index.html
iii. Canadian Environmental Protection Act, 1999: www.laws-lois.justice.gc.ca/eng/acts/C-15.31/page-1.html#s-1.
iv. Species at Risk Act: www.laws-lois.justice.gc.ca/eng/acts/S-15.3/page-1.html#preamble
v .International River Improvements Act: www.laws.justice.gc.ca/eng/acts/l-20/index.html
vi. Canada Water Act: www.laws-lois.justice.gc.ca/eng/acts/C-11/index.html
vii. Lake of the Woods Control Board Act, 1921: www.laws-lois.justice.gc.ca/eng/acts/T-10.4/page-1.html
viii. Weather Modification Information Act: www.laws-lois.justice.gc.ca/eng/acts/W-5/index.html
ix. Fisheries Act. www.ec.gc.ca/pollution/default.asp?lang=En&n=072416B9-1
x. Antarctic Environmental Protection Act: www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=56303427-1
xi. Migratory Birds Convention Act, 1994: www.ec.gc.ca/nature/default.asp?lang=En&n=496E2702-1
xii. Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act:
www.ec.gc.ca/cites/default.asp?lang=En&n=18F4A0BC-1
xiii. Canada Wildlife Act: www.ec.gc.ca/alef-ewe/default.asp?lang=En&n=E8EA5606-1
xiv. Federal Sustainable Development Act: www.ec.qc.ca/dd-sd/default.asp?lanq=En&n=C2844D2D-1
xv. Canadian Environmental Assessment Act, 2012: www.laws-lois.justice.gc.ca/eng/acts/C-15.21/page-1.html
xvi. Environmental Violations Administrative Monetary Penalties Act: www.laws-lois.justice.gc.ca/eng/acts/E-
12.5/page-1.html
xvii. National Wildlife Week Act: www.laws-lois.justice.gc.ca/eng/acts/W-10/index.html
xviii Acts and regulations: www.ec.gc.ca/default.asp?lang=En&n=48D356C1-1
xix Prime Minister of Canada's Website: pm.gc.ca/eng/minister-environment-and-climate-change-mandate-letter
xx. Treasury Board Secretariat Whole-of-Government Framework: www.tbs-sct.qc.ca/ppq-cpr/frame-cadre-enq.aspx.
xxi. Treasury Board Secretariat 2014–15 Main Estimates: www.tbs-sct.gc.ca/ems-sqd/esp-pbc/me-bpd-eng.asp.
xxii Biodivcanada.ca: www.biodivcanada.ca/
xxiii Species at Risk Public Registry: www.registrelep-sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1
xxiv Three-Year Recovery Document Posting Plan: www.registrelep-
sararegistry.gc.ca/document/default e.cfm?documentID=947
xxv Acceptable bounds of their population goals: https://www.ec.gc.ca/indicateurs-
indicators/default.asp?lang=en&n=2FCEF3BF-1
xxvi Status of Birds in Canada: ec.gc.ca/soc-sbc/splash.aspx
xxvii Ecological Gifts Program: www.ec.gc.ca/pde-egp/default.asp?lang=En&n=72927A52-1%20-%20 1# 1
xxviii North American Waterfowl Management Plan: nawmp.wetlandnetwork.ca/
xxix Water Survey of Canada: www.ec.gc.ca/rhc-wsc/default.asp?lang=En&n=4EED50F1-1
xxx Water Office: wateroffice.ec.gc.ca/index e.html
xxxi WMO Arctic-HYCOS: arctichydra.arcticportal.org/about-the-program
xxxii Federal Sustainable Development Strategy: www.ec.gc.ca/dd-sd/default.asp?lang=En&n=CD30F295-1
xxxiii Federal Sustainable Development Strategy: www.ec.gc.ca/dd-sd/default.asp?lang=En&n=CD30F295-1
xxxiv Science Horizons Youth Internship Program: www.ec.gc.ca/financement-
funding/default.asp?lang=En&n=923047A0-1%20-%20 ep01
xxxv World Meteorological Organization: www.wmo.int/pages/index en.html
xxxvi World Meteorological Organization: www.wmo.int/pages/index en.html
xxxvii Group on Earth Observations: www.earthobservations.org/index.php
xxxviii Air Quality Health Index: www.ec.gc.ca/cas-aqhi/default.asp?lang=En&n=065be995-1
xxxix Global Framework for Climate Services: www.gfcs-climate.org/
xl Chemicals Management Plan: www.chemicalsubstanceschimiques.gc.ca/
xli National Pollutant Release Inventory: www.ec.gc.ca/inrp-npri/
xlii International chemical and biotechnology-related fora: synergies.pops.int/
xliii Chemicals Management Plan: www.chemicalsubstanceschimiques.gc.ca/plan/plan-eng.php
xliv Compendium of Canada's Engagement in International Environmental Agreements:
ec.gc.ca/international/default.asp?lang=En&n=0E5CED79-1%20-%20X-201501201052415
xlv Toxic substances : www.ec.gc.ca/toxiques-toxics/
xlvi Online notification and tracking system: www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=1F9EA1D7
xlvii National Pollutant Release Inventory: www.ec.gc.ca/inrp-npri/
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xlviii Disposal at Sea: www.ec.gc.ca/iem-das/ xlix Federal Contaminated Sites Action Plan:

www.federalcontaminatedsites.gc.ca/default.asp?lang=En&n=BAC292EB-1

I Air Quality Management System: www.ccme.ca/en/current_priorities/air/index.html li Air Quality Management System: www.ccme.ca/en/current_priorities/air/index.html

lii National Pollutant Release Inventory: www.ec.gc.ca/inrp-npri/

liii National emissions inventory: www.ec.gc.ca/ges-ghg/default.asp?lang=En&n=5B59470C-1

liv Sustainable Development Technology Canada: www.sdtc.ca/en

Iv Green Municipal Fund: www.fcm.ca/home/programs/green-municipal-fund.htm

Ivi Genomics Research and Development Initiative: grdi-irdg.collaboration.gc.ca/eng/about/

Ivii. Future-Oriented Statement of Operations: www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1.

Iviii. Environment and Climate Change Canada website: www.ec.gc.ca

lix. Government of Canada Tax Expenditures: www.fin.gc.ca/purl/taxexp-eng.asp.

www.ec.gc.ca

Additional information can be obtained at:

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