

Environment and Climate Change Canada

2016-17

Departmental Results Report

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



Departmental Results Report 2016–17

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Table of Contents

Minister's message	1
Results at a glance	3
Raison d'être, mandate and role: who we are and what we do	5
Raison d'être	5
Mandate and role	5
Operating context and key risks	7
Operating context	7
Key risks	7
Results: what we achieved	9
Programs	9
Program 1.1: Biodiversity – Wildlife and Habitat	9
Program 1.2: Water Resources	12
Program 1.3: Sustainable Ecosystems	14
Program 1.4: Compliance Promotion and Enforcement – Wildlife	16
Program 2.1: Weather and Environmental Services for Canadians	18
Program 2.2: Weather and Environmental Services for Targeted Users	20
Program 3.1: Substances and Waste Management	22
Program 3.2: Climate Change and Clean Air	25
Program 3.3: Compliance Promotion and Enforcement – Pollution	29
Internal Services	31
Analysis of trends in spending and human resources	33
Actual expenditures	33
Actual human resources	37
Expenditures by vote	38
Alignment of spending with the whole-of-government framework	38
Financial statements and financial statements highlights	
Financial statements	39
Financial statements highlights	39
Supplementary information	42
Corporate information	42
Organizational profile	42
Reporting framework	43
Supporting information on lower-level programs	44
Supplementary information tables	
Federal tax expenditures	44
Organizational contact information	
Appendix: Definitions	45
Endnotes	40

Minister's message



As Minister of Environment and Climate Change, I am pleased to present the 2016–17 Departmental Results Report for Environment and Climate Change Canada (ECCC). I am proud of this department's accomplishments, and the commitment and hard work of its people to achieve these results.

Looking back at 2016–17, ECCC's achievements advanced commitments to protecting our environment and growing our economy. These commitments are a shared responsibility, and ECCC is taking leadership while working together with its many partners including provinces and territories, Indigenous peoples, the international community, industry and others.

The adoption of the Pan-Canadian Framework on Clean Growth and Climate Change (the PCF) was a key accomplishment this year and an excellent example of the results that can be achieved through collaborative consultations. The PCF is an ambitious and achievable plan that will enable Canada to meet or exceed its Paris Agreement target of reducing greenhouse gas emissions by 30% below 2005 levels by 2030. The Framework will also make our communities more resilient to a changing environment, and ensure we take advantage of the economic opportunities afforded by an emerging low-carbon, clean-growth economy.

The Framework includes a number of mitigating actions that will both provide a strong foundation for deeper emissions reductions over time, and reduce emissions in the near term. For example, a price on carbon pollution will be extended to all Canadian jurisdictions in 2018; regulations for phasing down use of hydrofluorocarbons (HFCs) and reducing methane emissions are under development; the phase-out of traditional coal-fired electricity units is being accelerated; and consultations on a clean fuel standard are under way. These and other policies are designed to support the transition to a low-carbon economy and create opportunities for Canadians and businesses.

Significant progress was also made to: set and collaborate on robust policies and programs needed to achieve Canada's biodiversity goal for conserving, by 2020, at least 17% of Canada's lands and inland waters; protect and restore the Great Lakes; preserve and protect habitat and species at risk; and, provide ongoing contributions to environment assessments. The Department continued to provide important air and weather information and alerts.

You will find more details on all of these achievements within the following pages, I therefore invite you to read ECCC's 2016–17 Departmental Results Report to learn more about the contributions my Department and its officials are making to improve the environment.

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

Results at a glance

Prime Minister Trudeau, together with Canada's First Ministers. endorsed the Pan-Canadian Framework on Clean Growth and Climate Change. Guided by commitments in the Paris Agreement, the Framework reflects extensive consultation with Canadians, including with Indigenous peoples, youth, and community groups. The Framework is Canada's plan to grow our economy and foster job creation, with new technologies and exports, while reducing emissions and building resilience



"CLIMATE CHANGE IS INDISPUTABLE, AS ARE THE SIGNIFICANT IMPACTS IT IS HAVING IN CANADA AND AROUND THE WORLD." COMMUNIQUÉ OF CANADA'S FIRST MINISTERS (DECEMBER 9, 2016)

to adapt to a changing climate. Minister McKenna is responsible for leading work to reduce greenhouse gas emissions by 30% below 2005 levels by 2030, including setting a clear benchmark for pricing carbon pollution, phasing out coal-fired electricity and other complementary measures to reduce emissions, while also supporting adaptation decision-making through a Canadian Centre for Climate Services. These actions, together with other measures outlined in the Framework, will foster a healthy environment and help us transition to a stronger, more diverse and competitive economy. (For more detailed results please see page 25.)

To conserve and protect species and their habitats, ECCC completed recovery plans for over 70 species, published in the Species at Risk Registry, Eighteen terrestrial species were added to the Registry, a first step in their protection. Minister McKenna hosted a meeting of Canada's ministers responsible for parks, conservation, wildlife and biodiversity to set collective priorities and the path to achieving Canada's biodiversity goal for conserving, by 2020, at least 17% of Canada's lands and inland waters. (For more detailed results please see page 9.)

To improve the health of the Great Lakes, one of Canada's key ecosystems, a multi-year project was launched to construct a massive container to hold contaminated sediment in Hamilton Harbour, in collaboration with ECCC, local and provincial governments and the private sector. To help shape priorities and plans to improve water quality and protect the Great Lakes, a shared resource, Minister McKenna took part in a forum that drew hundreds of Indigenous peoples, youth and other stakeholders from Canada and the U.S. (For more detailed results please see page 14.)

ECCC completed the Multi-sector Air Pollutants Regulations, which established Canada's first-ever mandatory national air pollution emissions standards for major industrial facilities across the country. The regulations were published by the Government of Canada in June 2016. As part of the Air Quality Management System (AQMS), these new measures limit air pollution from a broad range of industries to provide clean air and healthier communities for Canadians. (For more detailed results please see page 26.)

The Department provided weather-related information to support emergency personnel responding to the Fort McMurray wildfire. ECCC delivered special products and information, including "up-to-the-moment" information on wind direction and downstream smoke, and issued alerts to support the safety of area residents and responders. (For more detailed results please see page 18.)

Under the new Oceans Protection Plan, announced in November 2016, ECCC laid the groundwork for its contributions, which will include enhancing marine weather forecasting, contributing to improved regional response planning, and enhancing Canada's 24/7 emergency response capacity to ensure the environment is protected in the event of an oil spill. (For more detailed results please see page 22.)

To support the Government's commitment to **reconciliation with Indigenous people** based on recognition of rights, respect, partnership and cooperation, ECCC committed to jointly establish three distinct and separate senior-level tables with First Nations, Inuit, and the Métis Nation. This commitment recognizes the importance of Indigenous people as full and effective partners in advancing clean growth and addressing climate change goals. (For more detailed results please see page 25.)

What funds were used?*

(2016–17 actual spending) \$1,005,868,280

Who was involved?*

(2016–17 actual Full-Time Equivalents [FTEs])
6.325

For more information on the Department's plans, priorities and results achieved, see the "Results: what we achieved" section of this report

^{*} Figures refer, as reported in the Public Accounts, to total 2016–17 departmental funds used (actual spending) and the actual FTEs and not strictly the selected achievements highlighted above.

Raison d'être, mandate and role: who we are and what we do 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 ao hand in hand.

Mandate and role

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;
- meteorology; and
- the enforcement of rules and regulations.

The Department delivers its mandate through other acts and regulationsⁱⁱⁱ, 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 Migratory Birds Convention Act, 1994, the Canada Wildlife Act, and the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act.

The Department works closely with the Canadian Environmental Assessment Agency and Parks Canada – its ministerial portfolio partners – to achieve many common goals. In addition, the Minister of Environment and Climate Change has secondary or shared responsibility for delivering on other federal departments' mandates, including the

ECCC SCIENCE AT WORK

As a science-based department, ECCC plays a significant role in providing evidence to support decisions and actions to protect the environment and to achieving cleaner air and healthier communities.

In 2016-17, ECCC:

- published the first-ever comprehensive Canadian Mercury Science Assessment Report¹. Its results informed implementation of the global Minamata Convention on Mercury¹¹ (which Canada ratified in 2017)
- applied innovative methods, technology and novel research to advance knowledge on air quality. The use of satellite and other measurement technology led to new findings about pollutants emitted to the air from the oil and gas, and other sectors.
- provided scientific testing, analysis, and advice to help verify industry compliance with vehicle and engine emissions, and fuel quality regulations.
- continued to provide Canadians with authoritative climate information, including on greenhouse gas science and monitoring results, to help them plan to reduce and cope with climate change.

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).

For more general information about the Department, see the "Supplementary information" section (page 42) of this report. For more information on the Department's organizational mandate letter commitments, see the Minister's mandate letter.

Operating context and key risks

Operating context

The economy and the environment go hand in hand. Growing the economy and protecting the environment is a collective challenge, but also an opportunity for Canada. Taking action on clean growth and climate change, preventing and managing pollution, conserving nature, and predicting weather and environmental conditions, require the commitments of not only Environment and Climate Change Canada (ECCC), but also all of its partners, including the provinces and territories, Indigenous peoples, other stakeholders and Canadians. It is for these reasons that ECCC emphasizes building, maintaining and strengthening these strategic partnerships. Ensuring effective engagement helps to advance policies, regulations, and services, and provides for a coordinated approach to achieve results for Canadians relating to the environment.

Science and technology form the foundation of ECCC's work. For instance, ECCC is relied upon to provide science-based weather and environmental information and services so that Canadians can make informed decisions relating to their health and safety.

In 2016–17, the Department took concrete actions to manage and mitigate its three key risks:

Key risks

Risks	Mitigating strategy and effectiveness	Link to department's programs	Link to mandate letter commitments or to government-wide and departmental priorities
Many of the measures required to reduce greenhouse gas emissions are not under the responsibility of ECCC or the Government of Canada more generally.	In 2016–17, ECCC reduced this risk through the deployment of effective mitigation strategies. For instance, through horizontal collaboration with provincial and territorial partners, the Pan-Canadian Framework on Clean Growth and Climate Change (PCF) codified the intended outcome of growing the economy while reducing greenhouse gas emissions. Under the PCF, three senior-level tables will be established with First Nations, Inuit, and the Métis Nation, in order to ensure an inclusive Indigenous engagement in efforts to combat climate change. On the international front, Canada collaborated with other countries under the United Nations Framework Convention on Climate Change to start implementation of the Paris Agreement. Grounded in science, ECCC developed and implemented regulatory measures to reduce short lived climate pollutants and phase down hydrofluorocarbons (HFCs) under the Montreal Protocol.	Climate Change and Clean Air	Develop a plan to combat climate change and reduce greenhouse gas emissions Renew nation-to-nation relationship with Indigenous peoples, based on recognition of rights, respect, cooperation, and partnership Develop an ambitious North American clean energy and environment agreement
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 2016–17, ECCC mitigated this risk through a number of strategies. The Department conducted business continuity planning, which included risk analysis in order to inform priority setting and decision making. ECCC also continued to make investments in infrastructure and upgrades to Information Technology systems, in order to maintain and enhance its capacity to deliver timely and accurate weather warnings to Canadians and to protect the health and safety of Canadians.	Weather and Environmental Services for Canadians Weather and Environmental Services for Targeted Users	Make available weather and climate information to Canadians

Population, industrial and economic growth	In 2016–17, ECCC took a number of effective actions to mitigate this risk.	Biodiversity – Wildlife and Habitat	Enhance protection of Canada's endangered species
may continue to	For example, the Department issued protection orders and made efforts to clear the species at risk recovery	Water Resources	Renew our commitment to
put stress on the environment.	backlog, in order to protect the species and their environment.	Sustainable Ecosystems	protect the Great Lakes, the St. Lawrence River Basin and the
	As part of the efforts to reduce pollution of water	Compliance Promotion and Enforcement – Wildlife	Lake Winnipeg Basin
	basins, ECCC also used sound scientific evidence to		Make available weather and
	monitor water quality and provide hydrometric information services to decision-makers.	Substances and Waste Management	climate information to Canadians
	Finally, in collaboration with its partners, the Department enhanced its weather warning systems and climate information tools (e.g. the Air Quality Health Index), in order to ensure the availability, timeliness, and accuracy of weather and climate	Weather and Environmental Services for Canadians	
	information to Canadians.	Weather and Environmental Services for Targeted Users	

In 2016–17, ECCC continued to monitor its corporate and program-level risks, and took mitigation actions when necessary. Going forward, ECCC will revise its corporate and program-level risks, in order to align to a new departmental results framework for future years.

Results: what we achieved

Programs

Program 1.1: Biodiversity – Wildlife and Habitat

"BY WORKING TOGETHER WITH INDIGENOUS GROUPS, NON-PROFIT ORGANIZATIONS, THE PRIVATE SECTOR, AND OTHER STAKEHOLDERS, WE CAN MEET THE 17 PER CENT BIODIVERSITY LAND TARGET FOR **CANADA BY 2020.**"

> - THE HONOURABLE CATHERINE MCKENNA, MINISTER OF ENVIRONMENT AND CLIMATE CHANGE (DECEMBER 23, 2016)

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).

2016-17 Results

The Canadian Wildlife Service, an organization that has been dedicated to conserving wildlife and habitat for seventy years, was established as a Branch, reinforcing the Department's commitment to conserving biodiversity. The Department relies on sound science that underpins a better understanding of stressors to species at risk and other wildlife, including impacts associated with climate change.

In February 2017, Minister McKenna hosted a meeting of Canada's Ministers responsible for parks, conservation, wildlife and biodiversity. During this meeting, Ministers committed to collaborate to achieve Canada's ambitious biodiversity goal to conserve, by 2020, at least 17% of Canada's lands and inland waters. This goal reflects Canada's global commitments under the United Nations Convention on Biological Diversity. In addition, the Ministers <u>confirmed collective priorities</u> related specifically to conserving species at risk, improving wildlife health, and taking action on invasive alien species.

ECCC and the Nunavut Tunngavik Incorporated negotiated a renewed Inuit Impact and Benefit Agreement to engage Inuit participation in decision-making on the use, management, and conservation of National Wildlife Areas and Migratory Bird Sanctuaries in the Nunavut Settlement Area. This Agreement respects and reflects Canada's commitments under the Nunavut

Land Claims Agreement, and supports the Minister's mandate to manage and expand protected areas.

PROTECTING MIGRATORY BIRDS

This year marked the 100th anniversary of the Migratory Birds Convention. This important Canada-U.S. agreement was launched to address the indiscriminate slaughter of birds and has served to shift the harvest of birds from uncontrolled to sustainable.

ECCC published the State of North America's Birds 2016 report^y, based on the first-ever conservation vulnerability assessment for all 1,154 native bird species in Canada, the continental United States, and Mexico. The work reflects species' population trends and sizes, extent of breeding and severity of threats to populations.

Terrestrial species were listed under the Species at Risk Act, a first step to protect these species and their habitats. Acting on its stewardship commitment to protect species and their habitat, the Department

PROTECTING NATURE: by the numbers...

Completed recovery plans and strategies for species:

- 71 in 2016–17
- 168 since 2014
- 25 Canadian Bird Conservation Strategies as of 2016–17

Species listed in 2016–17 for protection (under the Species at Risk Act):

- Final listing decision for 18 terrestrial species
- Proposals (for public comment) to amend listings for 26 terrestrial and aquatic species

ECCC Protected Areas in Canada (as of 2016):

- ECCC manages 54 National Wildlife Areas and 92 Migratory Bird Sanctuaries which, together, cover 12.4 million hectares (an area twice the size of Nova Scotia)
- As of 2016–17, ECCC has completed 88% of the backlog of recovery strategies and plans and developed a concrete plan for addressing the remainder by December 2018, in response to the recommendation of a 2012 evaluation of programs and activities that support the Species at Risk Act

issued a Ministerial order to protect the <u>Roseate Tern</u>^{viii} (on federal lands) and issued an emergency protection order to protect the recovery of the <u>Western Chorus Frog</u>^{ix}(on private lands). The latter is the first time an order was issued on private lands.

Proposed and final recovery strategies and management plans were published on the <u>Species at Risk Public Registry</u>^x for a total of 71 species. These robust science-based recovery documents identified the species-specific threats and the conservation actions needed to stop or reverse the decline of species. The strategies and plans reflected the outcome of extensive consultation and collaboration with provinces and territories, Indigenous peoples and private landowners, all important partners in successful species recovery.

In 2016–17, the Habitat Stewardship Program awarded over \$16.7 million in funding to 278 projects to support the recovery of species at risk and the protection of their habitat as well as to projects that aimed to maintain populations of wildlife species in order to prevent them from becoming a conservation concern.

In 2016-17, the Aboriginal Fund for Species at Risk awarded \$4.7 million to 87 projects to support Indigenous capacity

development and engagement in the implementation of the Species at Risk Act to protect species at risk and their habitat as well as to support Indigenous participation in projects that prevent other species from becoming a conservation concern.

ECCC's Protected Areas vision is to conserve key areas of biodiversity for the benefit of wildlife and the long term benefit of all Canadians and to encourage public understanding and participation in conservation of wildlife and wildlife habitat.

The Department continued to actively demonstrate Canada's international leadership in conserving nature. At the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Conference of the Parties (COP), Canada proposed to reduce or remove trade controls on certain species (such as wood bison, peregrine falcon and Eastern cougar) that are well-protected by Canada's strong management and are not threatened by trade or harvest. The Department demonstrated its leadership as two Canadian scientists were named as chairs to CITES committees, and Canada was recognized at the CITES COP for the leadership Canadian women provide to the Convention.

Results achieved

Expected Results	Performance Indicators	Targets	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results
Populations of	Proportion of assessed migratory	81%	2015	79% in 2015	77%	in 2010
migratory birds are secure	bird species in General Status Reports whose status is considered to be "secure"		General Status Report	last two reportin migratory bird p increasing from reflecting incren target. Data for this indi assessments of t (General Status	has been demong years, with the populations that a 77% in 2010 to 79% nental progress to cator are derived he status of special Reports) that are ad by the Species	percentage of re secure % in 2015, owards the 81% d from es in Canada prepared every 5
Status of listed species shows	Proportion of federally listed species at risk for which	35%	March 2017	7 35% as of May 2016 2015 2014 The target of 35% has been met in 2016–17. Ir previous reporting years, the target was either		36% as of May 2014
improvement upon reassessment	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	exceeded slightly (by 1% in 2014) or the value reported fell slightly short of the target (by 2% in 2015).
with achieving the objectives of recovery strategies.	

Budgetary Financial Resources (dollars)*

2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
137,912,691	137,912,691	154,140,480	153,035,992	15,123,301

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

Human Resources (Full-Time Equivalents—FTEs)*

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
539	614	75

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

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 nongovernmental 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.



2016-17 Results

ECCC SUPPORT DURING 2016 DROUGHT

ECCC's Water Survey program supported residents of southern Northwest Territories and the Prairies with tailored information measurements to help them plan during 2016 drought conditions. For example, frequent and community-specific data helped local authorities keep communities aware of current and expected conditions.

ECCC continued to provide reliable, timely and easy-to-use data on levels and flows of water (hydrometric data) to Canadians and to support provincial and territorial emergency efforts. For example, data on floods, droughts and other events caused by changes in water levels and flows are collected at and disseminated from an extensive network of hydrometric stations on Canada's rivers and lakes. The stations are operated in partnership with provinces, territories and others.

The Department provided the public with quality of freshwater, from monitoring stations across Canada. Over 30 data sets were made available through the Government of Canada's Open Data Portal^{xii}.

ECCC released an updated water website: wateroffice.ca xiii (in January 2017). The site reflects the Department's work to better

understand and meet stakeholders' needs for data and information, as recommended in a 2014–15 evaluation of the Hydrological Service and Water Survey program^{xiv}. The site provides hydrometric data (for example, on water levels and flow) to help protect the health and safety of Canadians, especially during flood season or during extreme rain, snow or other events. Other improvements to stakeholder engagement include regular and frequent meetings of the National Administrators Table, revitalizing workshops, surveys and the Canada Water Resources annual meeting.

WATER MONITORING: by the numbers...

National monitoring stations:

- 2,800 hydrometric stations monitor water levels and flow, including data published by ECCC from 700 third party stations
- 375 stations measure water quality
- ECCC operates its stations in partnership with provinces, territories and others

Relative risk to water quality in rivers monitored:

- 22% high
- 55% medium
- 23% low

ECCC water quality monitoring sites rated as good or excellent:

- 43% in 2013–2015
- 45% in 2012–2014

ECCC's new mobile-friendly site wateroffice.ca xi received over 54 million hits, and 1.6 million unique visits in 2016-17.

Results achieved

Expected Results	Performance Indicators	Targets	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results
Threats to Canada's water resources and	Percentage of core national monitoring sites whose water	50%	In the 2012– 14 data set	43% for the period 2013–15	45% for the period 2012–14	48% for the period 2011–13
aquatic ecosystems are minimized and the sustainability	quality is rated as good or excellent			The indicator value reported in 2016–17 shows a dec from the previous reporting year, with fewer national monitoring sites rating water quality as good or exce		
of the resource is maintained				This indicator provides an overall measure of the abit select rivers across Canada to support aquatic life. It 2016–17, freshwater quality was assessed at 178 mor sites in 16 drainage regions where the majority of Canadians live (i.e., where freshwater quality is at his risk of being impaired by human activity).		rt aquatic life. In 'sed at 178 monitoring majority of quality is at higher
				reporting period. I the information fro	,	0

Budgetary Financial Resources (dollars)

2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
80,035,023	80,035,023	79,297,907	70,732,520	-9,302,503

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
571	602	31

Program 1.3: Sustainable Ecosystems

"CLEANER GREAT LAKES MEAN BETTER COMMUNITIES, BETTER NATIONS AND BETTER NEIGHBOURS."

- THE HONOURABLE CATHERINE MCKENNA, MINISTER OF ENVIRONMENT AND

CLIMATE CHANGE (OCTOBER 6, 2016)

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.

2016-17 Results

The Department continued to address the health of the Great Lakes ecosystem under the <u>Canada-U.S. Great Lakes Water Quality Agreement and Concern William Stakeholders and Degan identifying approaches to prevent and control the presence of these substances in the Lakes.</u>

On September 28, 2016, Canada and the U.S. released a <u>Progress</u> <u>Report a Viii</u> of the Parties documenting actions taken since the 2012 Great Lakes Water Quality Agreement took effect in February 2013.

With the government of Ontario, the Department prepared a <u>Draft Canadian Domestic Action Plan</u>xix to reduce phosphorus loading to Lake Erie, reflecting results of consultation and engagement with Indigenous peoples and Great Lakes stakeholders. Further consultations in 2017 will lead to a final plan in 2018.

Under the <u>Canada-Québec Agreement on the St. Lawrence</u> XL, ECCC and the province of Québec launched the second five-year phase of joint programming. Almost 40 projects were initiated to protect, promote and improve the St. Lawrence aquatic ecosystem. In partnership with the Stratégie Saint-Laurent and its 13-member ZIP (zone intervention prioritaire) network, and through the <u>Community Interaction Program</u> XL, ECCC contributed over \$1.6 million and funded over 20 projects to improve the ecosystem, educate communities and promote the sustainable use of the St. Lawrence.

Through the <u>Lake Winnipeg Basin Stewardship Fund</u>xxii, ECCC

committed \$700,000 to fund 16 projects in this important ecosystem, with a focus on reducing and controlling nutrients, such as phosphorus. Through a multi-year project that ended March 31, 2017, the Lake Winnipeg Basin Stewardship Fund provided support to Manitoba Habitat and Heritage Corporation to contribute to the health of Lake Winnipeg by successfully restoring 389 hectares of previously drained wetlands in southern Manitoba.

In 2016, stewardship projects supported by the Lake Winnipeg Basin Stewardship Fund were preventing an estimated 20,932 kilograms of phosphorus per year from entering Lake Winnipeg and its tributary rivers. Since its inception in 2007, the Fund has prevented a cumulative total of 110,734 kilograms of phosphorus from entering Lake Winnipeg.

CLEANING UP THE GREAT LAKES



Taking a major step forward to clean up the largest, most contaminated site on the Canadian side of the Great Lakes, ECCC continued to work with Ontario and U.S. partners to clean up Randle Reef²⁴. The inwater construction of a 6.2-hectare containment facility to hold the most heavily contaminated sediment was launched in May 2016 and will be completed in 2022.

ECCC is working with the Government of Ontario, City of Hamilton, City of Burlington, Halton Region, Hamilton Port Authority and U.S. Steel Canada on this long-term initiative. ECCC's Minister launched a comprehensive review of federal environmental and regulatory processes to protect and sustain the natural environment while getting resources to market and creating jobs, and to restore confidence in Canada's environmental assessment processes. Science-based evidence provided by ECCC continued to underpin interim proposed new processes. The Department provided sound science and advice to assessments undertaken by the Canadian Environmental Assessment Agency (an ECCC partner agency). ECCC conducted five assessments of up-stream¹ greenhouse gas emissions, including for the <u>Trans</u> Mountain Expansion Project XXIII in collaboration with the Tsleil-Waututh Nation. In addition, the Department provided guidance to proponents on how to conduct their own assessments of up-stream greenhouse gas emissions for three projects, including Grassy Point.

Other key ECCC achievements in 2016–17 include:

- Among 22 projects ECCC funded through the Atlantic Ecosystems Initiatives and the Gulf of Maine Initiative, is an ecosystem health assessment of two watersheds surrounded by heavy agricultural land use (Little River, New Brunswick watershed and Cornwallis River, Nova Scotia watershed). Mainland Mi'kmaq (Nova Scotia) partners with the Fort Folly Habitat Recovery Program (New Brunswick) on the work. Through a 'Two-Eyed Seeing' approach, the partners integrate Mi'kmaw traditional knowledge with Western science to identify impacts of agriculture on Mi'kmaw communities.
- Following public consultations, the 2016–2019 Federal Sustainable Development Strategy xxiv was tabled in Parliament (October 2016). It included the environment-related 2030 Sustainable Development Goals XXV from the 2015 United Nations Sustainable Development Summit, and identified measurable and ambitious targets and government actions. More than 40 federal organizations measure and report to Canadians through the Strategy on over 30 environmental indicators XXVI.
- ECCC collaborated with Employment and Social Development Canada under the Science Horizons Youth Internship Program xxvii to fund environment-related jobs for approximately 750 college and university graduates. Over 90% of interns who completed the program were employed or decided to pursue further studies.

Results achieved

Expected Results	Performance Indicators	Targets	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results	
selected ecosystems in	on a 100-point scale based on	52	2020) -15) exceeded the t		
closely monitored	expert ratings of status and trends of key indicators of the health of selected ecosystems in Canada			The most recently reported data (2014–15) exceeded the target. Some of the component indicators used for calculating the score, depending on the ecosystem, include phosphorus and nitrogen levels, toxic contamination in sediments, and contaminants in waterbirds, among other The indicator value is calculated by averaging the scores of the four Canadian Great Lakes and the St. Lawrence River. Great Lakes indicators are updated every 3 years (next update is due in 2017–18) and the St. Lawrence indicators are updated every 5 years (next update due in 2019–			

Budgetary Financial Resources (dollars)

	2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
·	88,026,739	88,026,739	106,683,277	98,446,872	10,420,133

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
436	416	-20

¹ Upstream emissions vary by resource and project type, and generally include emissions from extraction, processing, handling and transportation.

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.



2016–17 Results (See also Program 3.3 Compliance Promotion and Enforcement – Pollution)

ECCC conducted inspections and took enforcement measures which identified targeted activities needed to protect Canada's wildlife and their habitats, and to support recovery of endangered species.

For example, ECCC inspections and intelligence-gathering pointed to the urgent need to take action to recover the Western Chorus Frog XXIX, an endangered species. As a result of this work ECCC issued (in July 2016) an Emergency Order XXXX under the Species at Risk Act to address the imminent threat to the frog's habitat in the Bois de la Commune (La Prairie, Québec). The Order sets out numerous prohibitions to protect the habitat and to prevent activities that could harm this at-risk species. They prohibit, for example, use of a pest control product or fertilizer in the habitat, operating a motor vehicle off roads or paved paths, and any construction that would impede the migration of the frog.

The Department continued to monitor and enforce compliance with wildlife laws and regulations. Prosecution of 157 cases of noncompliance, resulted in \$208,007 of "offender pay" penalties (from fines, tickets, certain court orders and convictions). Often money is directed to the Environmental Damages Fund XXXIII. It is subsequently used to fund priority projects that restore the natural environment and conserve wildlife in the region where the original offence occurred. For example, Nature New Brunswick XXXIIII., a non-profit organization that works to conserve and protect the province's natural heritage, received \$125,000 in 2016 from the Environmental Damages Fund. The money will further the work of local migratory bird research programs along the Bay of Fundy, generating important information to increase understanding of migratory patterns and to help conserve migratory birds in the area.

WILDLIFE ENFORCEMENT PROFILED

The work and achievements of ECCC's Wildlife Enforcement Division was featured on CBC television's "The Fifth Estate" in April 2016.

With wildlife trafficking on the rise in Canada, and worth up to \$30 billion globally, the investigative show brought fresh attention to the issues to viewers across Canada.

The feature brought stunning footage of some of the illegal wildlife and wildlife parts seized by ECCC, and provided the public a glimpse of the inspections undertaken across Canada, and of the forensic laboratory testing ECCC scientists use to determine if products seized are prohibited.

Stolen Treasures xxviii is an eightminute segment that can be viewed on line, starting at the 22:00 mark of the broadcast.

ENFORCING WILDLIFE LEGISLATION: by the numbers...

In 2016-17, ECCC:

- Conducted 3,566 inspections to verify compliance with wildlife laws and regulations, and initiated 223 new investigations to gather evidence and take appropriate enforcement measures against alleged offenders
- Based on findings of inspections and investigations, took 466 enforcement measures, including prosecutions, compliance orders, contraventions and warnings that collectively resulted in 152 convictions and a total of \$208,007 in penalties

ECCC's international leadership role with INTERPOL's Wildlife Crime Working Group contributed to a global anti-wildlife trafficking operation xxxiii. Under the international operation, nearly 900 suspects were identified around the world and some 1,400 seizures of illicit products were made, including reptiles, polar bear hide, walrus and elephant tusks, with an estimated value of more than \$5 million. This collaboration helps build capacity and improve information-sharing for better enforcement around the world.

Results achieved

Expected Results	Performance Indicator	Target	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results
Targeted regulatees are penalized when non-compliant with wildlife laws and regulations administered by	Percentage of prosecutions that result in convictions	90%	March 2017	97%	95%	Not applicable – indicator introduced in 2015–16
Environment and Climate Change Canada				years have exc This indicator is effectiveness of convictions in compliance. The based on the replus the number	tor values for the last two reporting exexceeded the target. tor is a measure of the ess of the program in achieving is in cases of suspected nonce. The reported percentage is the number of judgements of guilt umber of uncontested tickets, out il number of prosecutions and	

Budgetary Financial Resources (dollars)

2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
16,652,429	16,652,429	17,880,767	17,511,301	858,872

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
125	139	14

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.

2016-17 Results

ECCC climate research informed work led by Canadian academics and Health Canada to predict the spread of Lyme disease in Eastern Canada. Increases in temperature due to climate change have enabled the spread of the heat-loving tick, whose territory continues to expand, including further into Canada.

In May 2016, the Department provided weather-related information to support emergency personnel weather FOR CANADIANS: by the numbers... responding to the Fort McMurray wildfire. ECCC delivered

In 2016–17, ECCC:

- provided weather information to Canadians 24 hours a day, seven days a week
- issued 480,000 weather forecasts, watches and warnings
- received at <u>weather.gc.ca</u> <u>xxxv</u> more than 550 million visits (over 1.5 million a day)— more than any other page on the Canada.ca website
- received more than 13 million requests (for radar images, precipitation and temperature observations, weather forecasts, special bulletin, warning and alerts) from 500,000 users a day through its Datamart*
- received over 500,000 requests a day for weather data, from 5,000 users a day through GeoMet**
- had 14,000 specialized subscribers to its email weather alert service, "<u>EC Alert me</u>" XXXVI
- had 83,000 twitter followers, with accounts for over 830 communities
- provided AQHI*** information about local air quality at 114 locations, home to 28 million Canadians (1% increase over 2015–16)

*DataMart enables users to receive large volumes of ECCC weather observations and forecast data.

**GeoMet gives users access to ECCC's raw numerical weather prediction model data that they can download into their own tools and in interactive climate maps.

***Air Quality Health Index

AIR QUALITY INFO ON THE GO

ECCC supported the development of a new mobile app XXXIV "AQHI Canada", created and launched by Alberta Environment and Parks, which enables Canadians to access local air quality information and forecasts, including a scale that allows users to "self-calibrate" about the best time to go outside. It is especially useful for people who are sensitive to air pollution.



responding to the Fort McMurray wildfire. ECCC delivered special products and information, including "up-to-the-moment" information on wind direction and downstream smoke, and issued alerts to support the safety of area residents and responders.

The Department also tracked and made available information related to the intensity and direction of Hurricane Matthew which impacted Canada's East Coast communities in October 2016. ECCC provided relevant meteorological and air quality information to Canadian Northern communities when Alaska's Pavlof Volcano erupted in September 2016.

A trial heat warning program was launched in collaboration with the Province of Ontario and its municipal governments, where heat warnings are issued following several consecutive days and nights of extreme heat to help protect seniors, young children and others at risk for heat-related health problems.

ECCC continued to deliver weather forecasts and warnings to Canadians 24/7. The <u>Weather Warning Index</u> measures overall performance (such as timeliness and accuracy) of the forecast system. Through ongoing investments in infrastructure and upgrades since 2013, timeliness and accuracy of warnings has improved to 8.1 in 2016 (up from 7.4 in 2011).

The Department made improvements to its delivery of weather warnings through Alert Ready XXXVIII, the national public alerting system. With Alert Ready, radio and TV broadcasters automatically interrupt regular programming and send ECCC tornado warnings directly to air.

ECCC continued to upgrade its infrastructure in order to provide cutting-edge weather and climate data integration and processing systems. In collaboration with Shared Services Canada, ECCC worked to renew its high-performance computing capacity. The Department launched the process to replace the aging 31station weather radar network to ensure its long-term sustainability and reliability, and to deliver weather monitoring information directly to Canadians.

Results achieved

Expected Results	Performance Indicator	Target	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results
Canadians use Environment and	Public component of the Weather Warning Index (a	7.9	September 2017	8.1 in 2014 to 2016	8.4 in 2013 to 2015	8.3 in 2012 to 2014
Climate Change Canada's weather and environmental services	weighted index of weather warning timeliness and accuracy)	red index of weather grimeliness and (cy) The value of this independence of the continual		ndicator has exhibited minor the last three reporting years, but xceeded the target. three-year moving average, d on the timeliness and accuracy pes: severe thunderstorm, rainfall, d and snowfall.		
	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	Next available data set to be reported in 2019 20	45% in 2015– 16	43% in 2012–13
				The target of 30% has been exceeded in each of the last two reporting years.		
				The most recent results are based on a telephone survey administered in 2015–16. The survey will be administered every 2 years to Canadians who live in areas where there was a weather warning.		

Budgetary Financial Resources (dollars)

	2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
•	174,382,678	174,382,678	189,968,112	180,123,302	5,740,624

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)	
1,060	1,097	37	

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.

2016 - 17 Results

ECCC continued to deliver tailored weather services on a 24/7 basis to targeted users such as NAV CANADA, Transport Canada, the Canadian Coast Guard, and the Department of National Defence. These users rely on the services and related information to support decision-making related to their business operations.

Improvements made to its Global Ice-Ocean Prediction System (GIOPS), enhance the Department's ability to support safe navigation along Canadian coastal areas. The GIOPS is a strong marine environmental prediction tool used across federal departments and agencies. It has the capacity to provide information needed to respond to environmental emergencies (such as oil spill, search and rescue missions). The upgraded GIOPS better supports the work of ECCC's Canadian Ice Service xxxix, and

WEATHER SERVICES FOR TARGETED USERS: by the numbers...

In 2016-17, ECCC:

- issued 530,000 aviation-related forecasts, warnings and other aviation products through its Canadian Meteorological **Aviation Centres**
- issued 12,196 ice products for mariners and other users

SUPPORTING SAFER AIR SPACE

To improve aviation weather forecast services, ECCC put in place the Aviation Weather Events Manager. This system enables meteorologists to focus on the areas of adverse weather that could have a significant impact on aviation operations in Canada. The forecasts are used by domestic and international airlines operating in Canadian air space.

the mariners and Arctic communities that rely on ice information and prediction for the seasonal resupplies, ice travel, and hunting and fishing on ice.

ECCC began running a new Regional Ice-Ocean Prediction System expected to provide Canada with high-resolution, short-term iceocean analyses and predictions for parts of the North Atlantic and the Arctic oceans. The system is leveraging Government of Canada investments in high performance computing and will be evaluated to determine if it provides the expected benefits to Northern communities, mariners and energy-exploration missions.

Results achieved

Expected Results	Performance Indicators	Targets	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results
Targeted sectors	Combined level of	7.5	March 2017	8.6	8.4	8.3
have the meteorological and environmental information and services they need to operate efficiently and safely	satisfaction of the main clients of the Meteorological Service of Canada (MSC) in terms of accessibility, timeliness and accuracy of products and services	(on a scale of 0 – 10)		the last three repo exceeded the tars. The indicator med in terms of access products and serv Service of Canada Department of No	issures the combined ibility, timeliness and ices provided by that a (MSC) to its three titional Defence, NA Guard. Data for this	d level of satisfaction d accuracy of e Meteorological main clients: V CANADA, and the

Budgetary Financial Resources (dollars)

2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
19,267,384	19,267,384	22,787,760	15,643,525	-3,623,859

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
388	332	-56

Program 3.1: Substances and Waste Management

"... BY WORKING TOGETHER WITH OUR PARTNERS ALONG THE COASTS AND ACROSS THE COUNTRY, I KNOW WE CAN PRESERVE OUR COASTLINES FOR GENERATIONS TO COME."

- THE RIGHT HONOURABLE JUSTIN TRUDEAU, PRIME MINISTER OF CANADA (NOVEMBER 7, 2016)

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.

2016-17 Results

The Prime Minister launched (in November 2016) the Oceans Protection Plan , a \$1.5 billion national strategy to create a world-leading marine safety system that reflects traditional knowledge and expertise of Indigenous peoples and coastal communities. ECCC's role in this major initiative is clearly set out in the Plan. The Department will enhance marine weather forecasting through a five-year project to provide more detailed marine weather services in high-traffic areas. Also under the Plan, ECCC will improve response planning by testing a new concept for emergency response plans based on local risks and conditions. To enhance 24/7 emergency response capacity, ECCC will provide emergency



officers on each coast, increase the number of wildlife service staff, enhance its 24/7 oil spill modelling capacity, and improve communications and enforcement officer readiness to ensure the environment is protected in the event of an oil spill.

ECCC proposed regulations to ban the use of microbeads in personal care products. Once in force, the <u>Microbeads in Toiletries Regulations</u> will prohibit the manufacture and import of toiletries that contain these tiny plastic beads. The ban was proposed following a unanimous vote in the House of Commons (in March 2015) to add microbeads to the list of toxic substances under the Canadian Environmental Protection Act, 1999.

As part of the <u>government-wide strategy</u> xlii on asbestos, the Department collaborated with Health Canada to begin the development of regulations to ban asbestos and products containing this harmful substance. The comprehensive ban, to be in effect by the end of 2018, will protect Canadians from future exposure with the goal of reducing the incidence of asbestos-related diseases. Consultations with stakeholders will take place in 2017.

ECCC proposed changes to expand and strengthen Canada's Metal Mining Effluent Regulations. This key tool aims to protect fish, their habitats and human health from negative impacts of effluent from metal mining operations. The regulatory changes reflect extensive consultations with Indigenous groups and stakeholders. Once in force, the amendments will extend the regulations to diamond mines, currently not addressed by the regulations.

ECCC published regulations prohibiting five harmful substances following a scientific review of their impacts on the environment and/or human health. The substances are: hexabromocyclododecane (HBCD); perfluorocatanoic acid, its salts, and its precursors (PFOA); perfluorocarboxylic acids, their salts, and their precursors (LC-PFCAs); polybrominated diphenyl ethers (PBDEs); and perfluorocatane sulfonate, its salts and its precursors (PFOS). The Regulations Amending the Prohibition of Certain Toxic Substances Regulations, 2012 prohibit their manufacture, use, sale, offer for sale or import in Canada.

Other key ECCC achievements in 2016–17 include:

- Administered and enforced new national standards for Canada's wastewater treatment systems under the Wastewater Systems Effluent Regulations, and continued administration and enforcement of the Pulp and Paper Effluent Regulations. These regulations limit the release of harmful substances into waters frequented by fish.
- Began work under the third phase of Canada's <u>Chemicals Management Plan No.</u> launched in May 2016. ECCC and Health Canada continue to assess the remaining 1,550 of the 4,300 priority chemicals. This work is expected to be completed by 2020. In addition, close to 500 new substances were assessed this year before their introduction to the Canadian market. Once assessed, and when required, the two departments take actions (such as limiting use or requiring permits) to reduce the risks posed by toxic substances to Canadians and their environment.
- Continued to prevent marine pollution from dumping of waste at sea, as a Party to the London Protocol and London Convention (marine pollution prevention treaties). ECCC monitored 14 ocean disposal sites nationally (11% of the 125 actively used sites). Eighty-one permits were issued for the disposal of 7.1 million tonnes of low-risk waste and other matter. The Department also contributed to the new Strategic Plan for the London Protocol and assisted Madagascar and Ghana with their efforts to join the London Protocol.
- Reduced environmental and human health risks from federal contaminated sites by providing oversight and expert support to the 14 responsible federal departments under the Federal Contaminated Sites Action Plan. These departments assessed 326 sites (including two ECCC sites) and completed risk reduction activities at 103 sites (including two ECCC sites).
- Published a code of practice to ensure the environmentally sound end-of-life management of lamps containing mercury.
- Provided scientific expertise in support of actions to lessen the impacts of long-range pollutants on air quality in the Arctic, under the Stockholm Convention on Persistent Organic Pollutants and the Arctic Monitoring and Assessment Programme.

MANAGING SUBSTANCES AND WASTE IN 2016–17: by the numbers...

Moving hazardous waste... ECCC issued nearly 1,700 regulatory permits for imports, exports or transit through Canada, covering some 35,000 individual shipments of hazardous waste and hazardous recyclable materials.

Tracking pollutants...
Through the <u>National Pollutant Release</u>
<u>Inventory</u>, xliv ECCC collected and published information on releases of some 300 pollutants from over 7,000 facilities across Canada.

The information keeps Canadians informed, encourages reductions in releases, and helps ECCC identify and manage risks related to pollutants.

Addressing chemicals...
ECCC collaborated with Health Canada under the Chemicals Management Plan to assess 353 existing potentially harmful substances and completed the assessment of all 473 new substance notifications accepted from industry.

Results achieved

Expected Results	Performance Indicator	Target	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results
Threats to Canadians and impacts on the environment posed by harmful substances and waste are reduced	Percentage of drainage regions where Federal Environmental Quality Guidelines (FEQG) are not exceeded for selected substances in sediment, water and/or biota	Polybrominated diphenyl ethers (PBDE) in sediments and in fish: 80% Perfluorooctane Sulfonate (PFOS) in water and in fish: 80%	PBDEs: September 2022 PFOS: September 2023	alternate year threat to the elements is a synth the environme municipal / inlong time to b can build up i PBDEs are a gretardants. The remain in the their release. I concentration sediment can	PFOS Surface water: 100% of drainage regions sampled in the period 2011 to 2015 were found not to exceed FEQG for PFOS concentrations in surface water. Fish tissue: 100% of drainage regions sampled in the period 2011 to 2014 were found not to exceed FEQG for PFOS concentrations for fish health. Less, PBDEs and PFOS, many are used to indicate environment. The tic chemical that must have through treated or dustrial wastewater. It reak down in the environment for long is the occurrence of PBE above FEQGs in fish pose a risk to aquatic further evaluation modern.	e a potential ay enter into untreated takes a very ronment and sms. d in flame ganisms, and periods after DE tissue and life, and

^{*}Only pentaPBDE results are reported in this table as it is the PBDE of highest concern.

Budgetary Financial Resources (dollars)

2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
74,912,985	74,912,985	91,141,832	87,801,448	12,888,463

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
613	625	12

Program 3.2: Climate Change and Clean Air

"TODAY, ECONOMIES ARE SHIFTING TOWARDS CLEANER, MORE SUSTAINABLE GROWTH. AND CANADA MUST DO THE SAME."

- THE HONOURABLE CATHERINE MCKENNA, MINISTER OF ENVIRONMENT AND CLIMATE CHANGE,
AT THE CANADIAN CLIMATE FORUM, OTTAWA (OCTOBER 20, 2016)

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.

2016-17 Results

On climate change and clean growth...

In December 2016, Canada's First Ministers endorsed the Pan-Canadian Framework on Clean Growth and Climate Change XIVI (the "PCF"). The Framework establishes a clear path for fulfilling Canada's commitment to the principles of the Paris Agreement to accelerate and intensify actions and investments needed for a sustainable low-carbon future, to hold the increase in global average temperatures to well below 2°C above pre-industrial levels, and to work to limit the increase to 1.5°C.



ECCC led the development of the PCF, Canada's plan to: 1) meet our emissions reduction target; 2) grow the economy; and 3) help communities adapt to a changing climate. The PCF was developed with the provinces and territories, and with extensive and deliberate consultations with Indigenous peoples, youth, community groups, the private sector, non-government organizations and individual Canadians. The PCF is built on four pillars: pricing carbon pollution; taking action to reduce emissions in each sector of the economy; adapting to climate change; and supporting clean technologies, innovation and jobs.

The PCF is consistent with Canada's international commitments and puts Canada on the pathway to meet or exceed its international obligation to reduce greenhouse gas (GHG) emissions by 30% by 2030, relative to 2005 levels. The PCF also includes complementary mitigation measures to drive GHG reductions across the economy. It puts a <u>price on carbon pollution and the pollution of the most effective and efficient ways to reduce GHG emissions and drive clean growth. In October 2016, the federal Government announced its approach to pricing carbon pollution in Canada, which will apply to a broad set of emission sources throughout Canada in 2018. In May 2017, the Government released a technical paper laying out the details of the federal carbon pricing backstop.</u>

Under the PCF, ECCC work informed the November 2016 Government of Canada announcement to establish a future Canadian Centre for Climate Services. One of the Centre's objectives is to improve access to authoritative, foundational climate data, information and services, working with partners such as the provincial and territorial governments and Indigenous peoples to support climate adaptation-related decisions across the country.

To further reduce GHG emissions, including from Canada's largest emitters, ECCC proposed amendments to the Heavy-Duty Vehicle and Engine Greenhouse Gas Emission Regulations, and continued to work on amendments to coal-fired electricity regulations to accelerate the phase out of coal-fired electricity generation. The Department proposed regulations to phase down hydrofluorocarbons (HFCs), a measure that would reduce Canada's annual consumption of this GHG by 85%, by 2036.

Working towards setting a national clean fuel standard, the Department published a <u>clean fuel discussion paper</u> standard, the Department published a <u>clean fuel discussion paper</u> in February 2017 to launch consultations, which ran until April 2017. ECCC drafted proposed regulations to reduce methane emissions from the oil and gas sector by 40-45% by 2025, compared to 2012 levels. These draft regulations were published in May 2017.

In November 2016, the Department submitted Canada's <u>Mid-Century Long-term Low Greenhouse Gas Development Strategy</u> to the United Nations Framework Convention on Climate Change, as called for under article 4.19 of the Paris Agreement. Canada, alongside Mexico and the U.S., became one of the first nations to submit a mid-century strategy, thus leading and encouraging other countries to follow suit. The strategy looks beyond 2030 to start a conversation on the ways we can reduce emissions for a cleaner, more sustainable future by 2050.

Canada continued to deliver on its financial commitment (\$2.65 billion by 2020) to support developing countries' transition to low-carbon and climate-resilient economies. In 2016–17, Canada's \$268M supported developing countries' abilities to implement, adapt and report on their plans and actions. Five million dollars went to the <u>Climate and Clean Air Coalition</u> to support reduction of short-lived climate pollutant emissions from several sectors in developing countries.

With a contribution of \$462K in 2016–17, ECCC began delivering on its \$10M commitment to the World Meteorological Organization (WMO) for <u>Climate Risk and Early Warning Systems</u>, with a focus on aiding the poorest and most vulnerable small islands and developing states strengthen their ability to adapt to climate impacts.

On air quality...

ECCC remained committed to improving Canada's air quality by continuing to implement the Air Quality Management System, a comprehensive and cross-Canada framework to improve air quality in collaboration with provinces and territories. ECCC worked with Health Canada, provinces, territories and stakeholders to develop new Canadian Ambient Air Quality Standards for sulphur dioxide. These standards were announced in October 2016 by the Canadian Council of Ministers of the Environment. Consultations

ENGAGING DIVERSE VOICES IN CLIMATE CHANGE

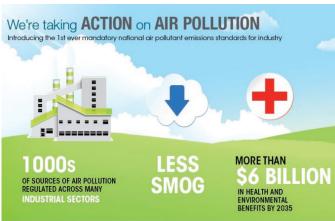
To take effective action on climate change, ECCC worked with other federal departments and agencies, provinces and territories, Indigenous peoples, youth, municipalities, businesses, civil society, as well as with other countries. For example, ECCC

- Provided provinces and territories with flexibility to design their own carbon pricing policies to meet emissions reduction goals, or to adopt the federal approach.
- Is establishing three distinct senior-level tables with each of First Nations, Inuit and the Métis Nation, to engage Indigenous peoples in clean growth and climate change to ensure that decisions are informed by traditional knowledge along with scientific information.
- Hosted a high-level event at the <u>United Nations Climate Conference (COP22)</u> in Marrakech, Morocco to highlight the significant climate change leadership and actions of Indigenous peoples with the business community in Canada, and helped further advance the implementation of a <u>Local Communities and Indigenous peoples Platform</u>, adopted at COP22.
- Played a leadership role globally to achieve an international agreement to phase down the use of HFCs under the <u>Montreal Protocol</u>. III
- Minister McKenna hosted a first national <u>youth</u> <u>summit on climate change</u> in November 2016 to engage youth in all parts of the country (broadcast through social media) in partnership with youth hosts and other federal departments, advocates and presenters.

were ongoing on proposed new ambient standards for nitrogen dioxide. Throughout the year ECCC's scientific data, analysis and expertise helped to inform the work on the new standards for both substances.

ECCC published the <u>Multi-Sector Air Pollutants Regulations</u> (MSAPR) in June 2016 which set national air pollutant standards for various industrial sources (for example, certain gas-fueled boilers used in many industrial facilities, and cement kilns). MSAPR includes the first-ever mandatory national air pollution emissions standards for major industrial facilities in Canada. Under the regulations, it is expected that reduction of nitrogen oxide emissions will lead to more than \$6 billion in cumulative health and environmental benefits for Canadians.

To promote best practices and encourage better environmental performance, the Department published (in 2016) codes of practice for several industries. These codes cover fine particulate matter emissions from the aluminum sector, particulate matter and volatile organic compound emissions from the iron, steel and ilmenite sector, and volatile organic compound emissions from the asphalt sector.



Canada's Multi-Sector Air Pollutants Regulations

On the international front, ECCC continued work to reduce transboundary air pollution under the bilateral <u>Canada-U.S. Air Quality Agreement Viii.</u> In the area covered under this agreement, acid-rain causing emissions have been reduced by two-thirds, and smog-causing emissions have been reduced by half to date. The Department works with the U.S. and European partners under the <u>Convention on Long-range Transboundary Air Pollution Viii</u>, and continued to take part in international processes aimed at reducing global emissions of short-lived climate pollutants, including with the Arctic Council, the Climate and Clean Air Coalition, and the Global Methane Initiative.

Results achieved

Expected Results	Performance Indicators	Targets	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results
Threats to Canadians,	Canadian emissions of	Canada's	2020	722 Mt in 2015	727** Mt in 2014	729** Mt in 2013
their health and their environment from greenhouse gas emissions are minimized	greenhouse gases (carbon dioxide equivalents) in megatonnes	target is a 17% reduction from 2005 levels *		The indicator values show a declining trend over the last three reporting years. Emissions in 2015 represent a 2.2% decrease from 2005 (decline of 16 Mt from 738 Mt in 2005). The values are based on data from Canada's 2017 Nat Inventory Report submitted to the United Nations Frame Convention on Climate Change. They are a sum of greenhouse gas emissions from the following sectors: transportation, electricity, oil and gas, heavy industry, buildings, agriculture, and waste and others (includes a production, light manufacturing, construction and forest resources).		assent a 2.2% 738 Mt in 2005). a's 2017 National ations Framework a sum of g sectors: y industry, s (includes coal
Improved air quality in Canada	Percentage of the Canadian population living in areas	Percentage increase over time	March 2017	92% of monitoring stations (2013 to 2015)	96% of monitoring stations (2012 to 2014)	91% of monitoring stations (2011 to 2013)
	where Canadian Ambient Air Quality Standard (CAAQS) for fine particulate matter (PM2.5) of 28 µg/m³ (24 hour) and 10 µg/m³ (annual) are achieved	adian ient Air ity dard AQS) for fine culate er (PM2.5) of g/m³ (24) and 10 and 10 and 10 and 10 and 10 archieved arcordinate.		Indicator methodology is under development. In a proxy indicator is used: the percentage of mon stations of the National Air Pollution Surveillance purposes where measured outdoor concentrations of fine matter are below the 24-hour and the annual CA 2015. Fine particulate matter is also a major com smog and has been linked to adverse effects on health and the environment. The proxy indicator has fluctuated over the past 3 years. The number of monitoring stations reporting concentrations of fine particulate matter below the annual CAAQS improved by 5% between and 2015–16, then declined by 4% the following years.		f monitoring ance program fine particulate and CAAQS for recomponent of ats on human past 3 reporting porting allow the 24-hour atween 2014–15

Percentage of the Canadian population living in areas where the 8-	Percentage increase over time	March 2017	88% of monitoring (2013 to 2015)	82% of monitoring stations (2012 to 2014)	81% of monitoring stations (2011 to 2013)
hour Canadian Ambient Air Quality Standard (CAAQS) for ground-level ozone of 63 parts per billion (ppb) is achieved			Indicator methodology a proxy indicator is used stations of the National where measured outdo ozone are below the 8-1 ozone is a highly irritatin smog. It has been linked and the environment. Over the last three report	d: the percentage of Air Pollution Surveilla or concentrations of hour CAAQS for 201. g gas and is a majord to adverse effects orting years, the proxection of the proxection	f monitoring ance program f ground-level 5. Ground level r component of on human health by indicator value

^{*} Canada has committed to a 2030 target of a 30% reduction below 2005 levels. The 2030 target will replace the 2020 target starting in the 2017-18 Departmental Results Report

Budgetary Financial Resources (dollars)

2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
97,030,449	97,030,449	159,369,236	149,504,223	52,473,774

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
309	727	418

^{**}Values published in ECCC's 2015-16 Departmental Performance Report (DPR) and the 2014-15 DPR were 732 Mt and 510 Mt, respectively. The difference between those numbers and the values reported here is the result of continual improvements in methods for estimating carbon dioxide equivalents. As such, historical emissions may be changed in future publications as new data become available and methods and models are refined and improved.

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.

2016–17 Results (See also Program 1.4 Compliance Promotion and Enforcement – Wildlife)

ECCC conducted inspections and took enforcement measures under the Canadian Environmental Protection Act, 1999 (CEPA 1999) and the Fisheries Act, and promoted compliance with some 33 pollution-related regulations and other risk management tools, such as standards, codes of practice and permits.

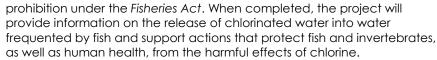
To protect Canada's freshwater resources, the Department conducted inspections and issued warnings in accordance with the Wastewater Systems Effluent Regulations. As a result of 259 inspections, ECCC officers issued 206 warnings to ensure municipalities respect their reporting and monitoring obligations. These reports allow the Department to better understand wastewater treatment in Canada.

PROMOTING COMPLIANCE WITH AND ENFORCING POLLUTION MEASURES: by the numbers...

In 2016-17, ECCC:

- Promoted compliance with 33 pollution regulations with almost 17,000 members of communities regulated, including through workshops, information sessions, videos and Twitter
- Conducted over 6,800 inspections and 270 investigations to verify compliance with pollution laws and regulations
- Inspections and investigations resulted in over 4,300 enforcement measures (such as tickets, directions, warnings, and environmental protection compliance orders)
- Enforcement efforts resulted in 28 successful prosecutions under CEPA and the Fisheries Act, totalling over \$4.6 million in penalties, fines and contributions to the Environmental Damages Fund

The Department undertook the first phase of a project to determine compliance by municipal drinking water treatment plants with the general



ECCC's investigation of a major property management company revealed that the business did not meet its obligations concerning use, storage and disposal of electrical equipment containing polychlorinated biphenyls (PCBs). Results of the investigation contributed to the company being fined \$975,000, the highest ever imposed under CEPA 1999.

The Department launched a project to increase compliance with the registration requirements of the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (STR) on First Nations and federal lands. Compliance with the STR contributes to lower risk of soil and groundwater contamination from petroleum spills and leaks from storage tank systems. Even relatively small leaks can have serious environmental impacts to the environment and human health, including contamination of drinking water.



Results achieved

Expected Results	Performance Indicator	Target	Date to achieve target	2016–17 Actual results	2015–16 Actual results	2014–15 Actual results
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 drinking water treatment plants)	March 2019	Wastewater Systems Effluent Regulations: 12% (increase from 2014–15 baseline of 59% to 71% in 2016–17)	Dry-cleaning Regulations: 12% (increase from 2012–13 baseline of 51% to 63% in 2015–16)	Metal Mining Effluent Regulations: Baseline value of >90% measured. Efforts to be directed to other sectors in future years
				regulations dem compliance lev This indicator me pollution laws in pollution-related years. This appreciation on a those with higher only a few regulations.	eporting years, selfonstrated a 12% is els, exceeding the easures complian. Canada by focuted regulations in different provides Cata variety of sector er risk of non-complations are the objector rate.	ncrease in e 10% target. ce with sing on different ferent reporting nadians with s focusing on oliance. While ject of
					compliance inforn	·

Budgetary Financial Resources (dollars)

2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
34,672,528	34,672,528	42,463,209	40,339,332	5,666,804

Human Resources (FTEs)

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
276	340	64

Supporting information on results, financial and human resources related to Environment and Climate Change Canada's lower-level programs is available on the Department's $\underline{\text{website}}^{\text{lix}}$ and on TBS's $\underline{\text{InfoBase}}^{\text{lx}}$.

Internal Services

Description

Internal Services are those groups of related activities and resources that the federal government considers to be services in support of programs and/or required to meet corporate

"WE BELIEVE THAT ECCC IS A GREAT PLACE TO WORK"

- Dr. Stephen Lucas, Deputy Minister & Dr. Martine Dubuc, Associate Deputy Minister, Environment and Climate Change Canada

ECCC NAMED THE 20TH BEST EMPLOYER IN CANADA AS RECOGNIZED BY
FORBES MAGAZINE (FEBRUARY 2017)

obligations of an organization. Internal services refers to activities and resources of the 10 distinct service categories that support program delivery in the organization, regardless of the Internal Services delivery model in a department. The 10 service categories are: Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; Information Management Services; Information Technology Services; Real Property Services; Material Services; and Acquisition Services.

2016-17 Results

ECCC's internal services continued to support delivery of results on departmental priorities, while aligning with government-wide system changes and improvements.

The Department strengthened reporting and integration of financial and non-financial information to support decision-making and efficiency. For example, better integration of financial management and procurement planning approaches resulted in improved forecasting accuracy.

To support the ongoing implementation of the Phoenix pay system, and to support employees affected by pay-related problems, ECCC established a "tiger team" of experts to assist in identifying issues and guide employees to key resources, and created a dashboard to enable senior managers to track issues and escalate priority cases.

In alignment with the new Treasury Board Policy on Results, and following extensive consultation, the Department created a new Departmental Results Framework (DRF) that embeds the Minister's mandate commitments and leadership on clean growth and climate change, and ECCC's core business. The DRF sets out expected results and performance indicators for each.

COMMUNICATING WITH CANADIANS: by the numbers...

In 2016–17, ECCC's Communications Branch was busy, for example:

- Posted 300 videos to share scientific and other information with Canadians
- Responded to more than 15,000 enquiries and requests from the public and 1,600 from media
- Organized some 75 public events (including with youth, Indigenous peoples and communities across Canada)
- Received more than three million visits at ec.gc.ca and more than 550 million visits to weather.gc.ca
- Made more than 7,000 Twitter posts, close to 2,500 Facebook posts
- Made close to 250 Instagram posts (October 2016 to March 2017)

LOW-CARBON AND GREEN OPERATIONS AT ECCC

ECCC continued to make investments to reduce energy and water consumption at facilities under its custody. The Department:

- Launched a "shut-the-sash" campaign to reduce the energy loss and consumption from the use of fume hoods in laboratories. At just one facility, the Pacific Environment Science Centre in Vancouver, this will reduce GHG emissions by 47 tonnes in 2017.
- Reduced its light vehicle fleet by 35 vehicles (4.8%). Approximately 12% of ECCC's light duty vehicle fleet (80 vehicles) is hybrid vehicles.
- Improved the water heating system at the Canada Centre for Inland Waters (Burlington, Ontario), achieving a near-50% reduction in water consumption: about 4,000 cubic metres each month.

The Department used development of the DRF as an opportunity to review its management structures and, where necessary, adjust them to better align programs to achieve results in a cohesive and strategic way. ECCC's work on the DRF was seen by the Treasury Board Secretariat as a best practice and the Department was often asked to provide its tools and approach to assist other government departments and agencies as they develop their DRFs.

To support employee-led innovation projects, ECCC's Blueprint 2020 initiative funded 11 pilot projects in 2016–17. Results include the launch of the ECCC Student Network, a behavioural insights workshop for 50 employees across the country, testing of visualization dashboards to monitor web media, improved data analysis in human resources, and testing crowdsourced social media data to enhance climate modelling.

ECCC continued to support Canada's <u>Open Government</u> Agenda by ensuring that strong systems are in place to gather, collect, communicate and disseminate information.

Budgetary Financial Resources (dollars)

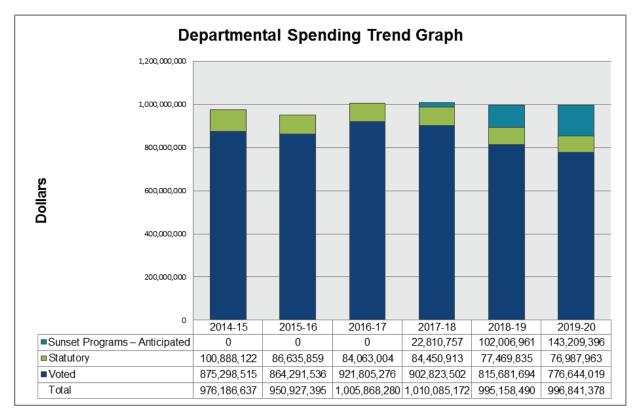
2016–17 Main Estimates	2016–17 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2016–17 Difference (actual minus planned)
179,196,292	179,196,292	194,907,490	192,729,765	13,533,473

2016–17 Planned	2016–17 Actual	2016–17 Difference (actual minus planned)
1,375	1,433	58

Analysis of trends in spending and human resources Actual expenditures

Departmental spending trend graph

The following chart depicts the departmental spending trend over a six-year period. For fiscal years 2014-15, 2015-16 and 2016-17, the amounts shown represent the actual expenditures as reported in the Public Accounts. For fiscal year 2017-18, 2018-19 and 2019-20, the planned spending represents the planned budgetary and statutory expenditures as presented in the 2017-18 Departmental Plan.



Environment and Climate Change Canada's actual spending for 2016-17 was \$1,005.9 million, a year-over-year increase of \$55.0 million, (5.8%) from the 2015-16 actual spending. This increase is mainly due to increased spending for temporary initiatives such as the contribution to the Canada Foundation for Sustainable Development Technology, International Climate Financing, Youth Employment Strategy, the Contaminated Sediment Remediation projects, the Revitalization of Canada's Weather Radar Network and 2016 Federal Infrastructure Initiative.

See the <u>2015-16 Departmental Performance Report VIIII</u> (DPR) for additional details on year-over-year actual spending variances between 2014-15 and 2015-16.

For 2017-18 to 2019-20, the figures represent total planned spending for the fiscal year, which reflects approved funding by Treasury Board to support the Departmental strategic outcomes. Planned spending in Voted authorities from 2017-18 to 2019-20 is declining, mainly as a result of reduced funding profile for major initiatives and sunsetting program, including the following:

Major initiatives sunsetting in 2017-18:

- Lake Simcoe/South-Eastern Georgian Bay Clean-Up Fund;
- Great Lake Nutrient Initiative; and
- Lake Winnipeg Basin Initiative.

Major initiatives sunsetting in 2018-19:

- Horizontal Management Framework for Addressing Air Pollution;
- Horizontal Management Framework for Clean Growth and Climate Change;
- Species at Risk Act Program; and
- Federal Infrastructure Budget 2016 announcements.

Major initiatives sunsetting in 2019-20:

- National Conservation Plan; and
- Action Plan on Clean Water.

Statutory authorities from 2017-18 to 2019-20 are fairly stable from one year to the other.

The Sunset Programs – Anticipated for 2017-18 to 2019-20 mostly reflect announcements in Budget 2016 and/or Budget 2017 that are not yet reflected in voted reference levels for those years but are provided to give a more complete picture of the planned spending of the Department.

See the <u>2017-18 Departmental Plan</u> (DP) for additional details on year-over-year planned spending variances between 2017-18 and 2019-20.

Budgetary performance summary for Programs and Internal Services (dollars)

Strategic Outcomes	Programs and Internal Services	2016–17 Main Estimates	2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending	2016–17 Total Authorities Available for Use	2016–17 Actual Spending (authorities used)	2015–16 Actual Spending (authorities used)	2014–15 Actual Spending (authorities used)
SO 1: Canada's natural environment is conserved and restored for present and future generations	Program 1.1 Biodiversity – Wildlife and Habitat	137,912,691	137,912,691	135,322,453	121,360,716	154,140,480	153,035,992	150,399,093	140,408,483
	Program 1.2 Water Resources	80,035,023	80,035,023	69,722,840	72,152,481	79,297,907	70,732,520	81,784,289	92,453,058
	Program 1.3 Sustainable Ecosystems	88,026,739	88,026,739	84,520,845	65,379,639	106,683,277	98,446,872	78,790,925	72,619,888
	Program 1.4 Compliance Promotion and Enforcement – Wildlife	16,652,429	16,652,429	16,297,080	16,095,331	17,880,767	17,511,301	19,971,764	17,058,497
SO 2: Canadians are equipped to make informed decisions on changing weather, water and climate conditions	Program 2.1 Weather and Environmental Services for Canadians	174,382,678	174,382,678	194,578,410	187,770,089	189,968,112	180,123,302	181,347,768	174,493,294
	Program 2.2 Weather and Environmental Services for Targeted Users	19,267,384	19,267,384	18,728,707	18,707,542	22,787,760	15,643,525	15,321,848	25,886,657
	Program 3.1 Substances and Waste Management	74,912,985	74,912,985	84,357,041	91,454,269	91,141,832	87,801,448	83,529,612	86,779,805
SO 3: Threats to Canadians and their environment from pollution are minimized	Program 3.2 Climate Change and Clean Air	97,030,449	97,030,449	147,118,686	99,319,825	159,369,236	149,504,223	119,607,526	121,061,134
	Program 3.3 Compliance Promotion and Enforcement – Pollution	34,672,528	34,672,528	41,696,948	34,143,478	42,463,209	40,339,332	40,634,373	42,309,866
	Subtotal	722,892,906	722,892,906	792,343,010	706,383,370	863,732,580	813,138,515	771,387,198	773,070,682
	Internal Services	179,196,292	179,196,292	194,931,405	186,768,159	194,907,490	192,729,765	179,540,197	203,115,955
	Total	902,089,198	902,089,198	987,274,415	893,151,529	1,058,640,070	1,005,868,280	950,927,395	976,186,637

The 2016-17 planned spending figures in the Departmental Results Report reflect those that had been published in the 2016-17 Report on Plans and Priorities (RPP). The 2016-17 RPP was tabled in Parliament prior to Budget 2016 and therefore, does not reflect new funding announced in the Budget. The 2017-18 and 2018-19 planned spending figures in the Departmental Results Report reflect those that had been published in the 2017-18 Department Plan (DP). The 2017-18 DP was tabled in Parliament prior to Budget 2017 and therefore, does not reflect new funding announced in the Budget. The Department's planned spending increases as program renewals and Budget announcement items are included in Estimates processes.

The 2016-17 Total authorities available for use includes all items approved through the Estimates processes for fiscal year 2016-17. The overall variance of \$156.5 million between the 2016-17 Total authorities available for use (\$1,058.6 million) and the 2016-17 planned spending (\$902.1 million) is mainly attributed to an increase in authorities following the Budget 2016 announcements related to the following initiatives:

- Addressing Air Pollution;
- Clean Growth and Climate Change;
- Federal Contaminated Sites Action Plan;
- Great Lakes Ecosystem;
- Revitalize Canada's Weather Radar Network;
- Inuit Impact and Benefit Agreement; and
- Youth Employment Strategy.

The overall \$52.7 million variance between the 2016-17 Total authorities available for use (\$1,058.6 million) and 2016-17 Actual spending (\$1,005.9 million) is explained by the following:

- Funding being moved into future years for the Action Plan on Clean Water, the Revitalization of Canada's Weather Services, the World Class Tanker Safety System South of 60° and the Federal Infrastructure Initiative;
- Unspent funds in the Operating vote being carried forward to 2017-18 to provide the Department with additional flexibility its requires to fund pressures and address strategic investments; and
- Unspent funds in the Capital vote being carried forward to next year to continue implementing activities mainly related to the Federal Infrastructure Initiative.

The overall \$54.9 million increase between the 2015-16 Actual spending of \$951.0 million and the 2016-17 Actual spending of \$1,005.9 million is mainly due to the following variances in funding:

- Strategic Outcome 1: The actual spending for 2016-17 is higher than the actual spending for 2015-16 mainly due to additional funding received throughout the year for the Youth Employment Strategy, the Great Lakes Ecosystem and the Contaminated Sediment Remediation Projects initiatives. These increases have been offset by the realignment of the Pacific Environment Centre lease expenditures to the Internal Services.
- Strategic Outcome 2: The actual spending for 2016-17 is lower than the actual spending for 2015-16 mainly due to decreases in spending as a result of the completion of the Ensuring the Integrity of Government of Canada's Weather and Environmental Monitoring and Supercomputing Infrastructure Initiative and the Pan American Games in 2015-16. These decreases have been offset by an increase due to additional funding received for the Revitalize Canada's Weather Radar Network initiative.
- Strategic Outcome 3: The actual spending for 2016-17 is higher than the actual spending for 2015-16 mainly due to new funding received for Addressing Air Pollution, Clean Growth and Climate Change, World Class Tanker Safety System South of 60° and Federal Contaminated Sites Action Plan initiatives. The increase is also due to the payment of a contribution for the Canada Foundation for Sustainable Development Technology.
- Internal Services: The actual spending for 2016-17 is higher than the actual spending for 2015-16 mainly due to the realignment of the Pacific Environment Centre lease expenditures from Program 1.2 - Water Resources to Real Property.

Actual human resources

Human resources summary for Programs and Internal Services (full-time equivalents)

Strategic Outcomes	Programs and Internal Services	2014-15 Actual	2015-16 Actual	2016-17 Planned	2016-17 Actual	2017-18 Planned	2018-19 Planned
SO 1: Canada's natural environment is conserved and restored for present and future generations	Program 1.1 Biodiversity – Wildlife and Habitat	600	600	558	614	546	498
	Program 1.2 Water Resources	701	694	622	602	598	590
	Program 1.3 Sustainable Ecosystems	359	371	456	416	422	407
	Program 1.4 Compliance Promotion and Enforcement – Wildlife	133	131	133	139	128	126
SO 2: Canadians are equipped to make informed decisions on changing weather, water and climate conditions	Program 2.1 Weather and Environmental Services for Canadians	1,086	1,108	1,041	1,097	1,072	1,018
	Program 2.2 Weather and Environmental Services for Targeted Users	409	351	366	332	371	365
SO 3:	Program 3.1 Substances and Waste Management	618	632	664	625	629	584
SO 3: Threats to Canadians and their environment from pollution are minimized	Program 3.2 Climate Change and Clean Air	705	670	765	727	813	496
	Program 3.3 Compliance Promotion and Enforcement – Pollution	363	336	358	340	353	294
	Subtotal	4,974	4,893	4,963	4,892	4,932	4,378
	Internal Services	1,487	1,429	1,506	1,433	1,443	1,382
	Total	6,461	6,322	6,469	6,325	6,375	5,760

The variance between actual and planned full-time equivalents (FTE) is mainly due to management's efforts to stabilize and control future salary requirements through personnel departures and delays in staffing vacant positions, and resources being realigned from initial plans in order to meet program needs.

Expenditures by vote

For information on Environment and Climate Change Canada's organizational votes and statutory expenditures, please consult the <u>Public Accounts of Canada 2017 No. 18</u>

Alignment of spending with the whole-of-government framework

Alignment of 2016–17 actual spending with the whole-of-government framework (dollars)

Strategic Outcomes	Programs	Spending area	Government of Canada activity	2016–17 Actual spending
	1.1 Biodiversity – Wildlife and Habitat	Economic Affairs	A clean and healthy environment	153,035,992
SO 1: Canada's natural environment is conserved and	1.2 Water Resources			70,732,520
restored for present and future generations				98,446,872
	1.4 Compliance Promotion and Enforcement – Wildlife			17,511,301
SO 2: Canadians are equipped to	2.1 Weather and Environmental Services for Canadians			180,123,302
make informed decisions on changing weather, water and climate conditions	2.2 Weather and Environmental Services for Targeted Users			15,643,525
\$O 3:	3.1 Substances and Waste Management			87,801,448
Threats to Canadians and their environment from	3.2 Climate Change and Clean Air			149,504,223
pollution are minimized	3.3 Compliance Promotion and Enforcement – Pollution			40,339,332

Total spending by spending area (dollars)

Spending area	Total planned spending	Total actual spending	
Economic affairs	722,892,906	813,138,515	
Social affairs	N/A	N/A	
International affairs	N/A	N/A	
Government affairs	N/A	N/A	

Financial statements and financial statements highlights

Financial statements

The financial highlights offer an overview of Environment and Climate Change Canada's Statement of Operations and Departmental Net Financial Position.

The Unaudited Financial Statements are prepared on an accrual basis, in accordance with Government's accounting policies, which are based on Canadian Public Sector Accounting Standards (PSAS). This differs from appropriation-based reporting, which is used to prepare the "Actual Expenditure" of the Analysis of trends in spending and human resources section of this report. As such, this section is prepared on a modified cash basis, and not an accrual basis. Reconciliation between Parliamentary Appropriations used (modified cash basis) and the Net Cost of Operations (accrual basis) is set out in Note 2 and 3 of the Unaudited Financial Statements.

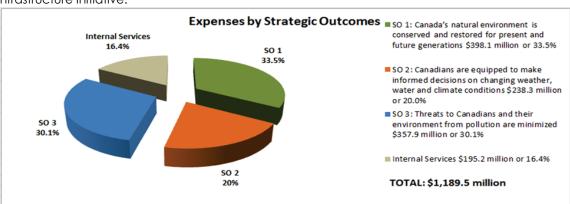
The Environment and Climate Change Canada's financial Statements unaudited for the year ended March 31, 2017, are available on the departmental <u>website</u> livil.

Financial statements highlights

Condensed Statement of Operations (unaudited) For the Year Ended March 31, 2017 (dollars)							
Financial Information	2016–17 Planned Results	2016–17 Actual	2015–16 Actual	Difference (2016–17 actual minus 2016–17 planned)	Difference (2016–17 actual minus 2015–16 actual)		
Total expenses	1,066,313,359	1,189,506,240	1,132,391,254	123,192,881	57,114,986		
Total revenues	88,596,271	85,404,035	84,807,419	(3,192,236)	596,616		
Net cost of operations before government funding and transfers	977,717,088	1,104,102,205	1,047,583,835	126,385,117	56,518,370		

Expenses by Strategic Outcomes

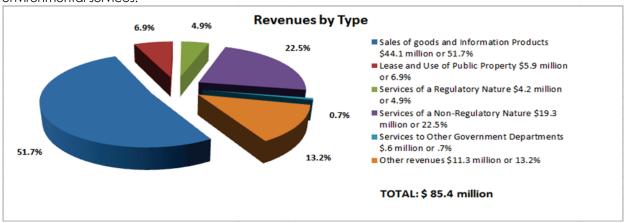
Total departmental expenses by Strategic Outcomes amounted to \$1,189.5 million for 2016–17 (\$1,132.4 million for 2015–16). The increase of \$57.1 million or 5 percent is mostly due to increased spending for temporary initiatives such as the contribution to the Canada Foundation for Sustainable Development Technology, International Climate Financing, Youth Employment Strategy, the Contaminated Sediment Remediation projects, the Revitalization of Canada's Weather Radar Network and 2016 Federal Infrastructure Initiative.



See Note 16 of the Departmental Financial Statements for further breakdown of expenditures – Segmented information by Standard Objects and Strategic Outcomes.

Revenues by Type

Total revenues amounted to \$85.4 million for 2016–17 (\$84.8 million for 2015-16). This amount excludes \$11 million earned on behalf of Government. The majority of the revenue in 2016-17 is derived from Environment and Climate Change Canada's sales of goods and information products and services of a non-regulatory nature. Major revenue items include for example: Oil Sands monitoring activities, Ocean disposal permit applications, Hydrometric services, Ocean disposal monitoring fees and Weather and environmental services.

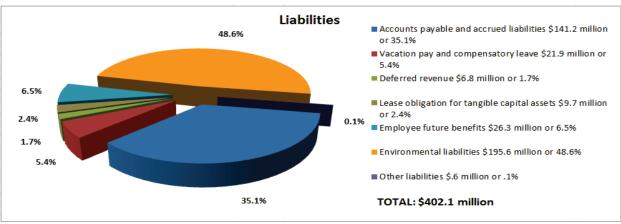


Condensed Statement of Financial Position (unaudited) as at March 31, 2017 (dollars)						
Financial Information	2016–17	2015–16	Difference (2016–17 minus 2015–16)			
Total net liabilities	402,133,081	366,506,525	35,626,556			
Total net financial assets	158,494,632	148,456,701	10,037,931			
Departmental net debt	243,638,449	218,049,824	25,588,625			
Total non-financial assets	412,783,493	392,107,606	20,675,887			
Departmental net financial position	169,145,044	174,057,782	(4,912,738)			

Liabilities by Type

Total liabilities were \$402.1 million at the end of 2016–17. This represents an increase of \$35.6 million or 10 percent from the previous year's total liabilities of \$366.5 million. The accounts payable and accrued liabilities and environmental liabilities represent the largest component of liabilities at \$336.8 million (83.8 percent of total liabilities) in 2016–17.

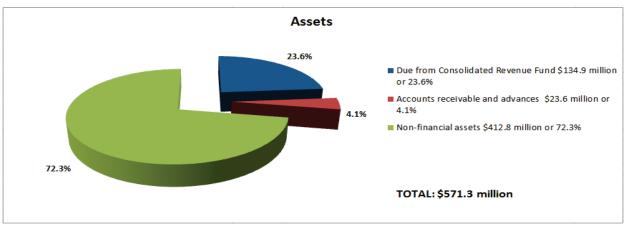
The increase in Environment and Climate Change Canada's total net liabilities valuation is mainly attributable to the Environmental Liabilities. The closing liability as at March 31, 2017 is an increase of \$57 million compared to March 31, 2016. This is mainly due to the implementation of more rigorous decontamination regulations in British Columbia. Environment and Climate Change Canada has reviewed its remediation costs for the PEC site and has increased its estimate by \$70 million.



See Notes 4 to 8 and Notes 12 and 13 of the Departmental Financial Statements for more details – Accounts payable and accrued liabilities; Deferred revenue; Lease obligation for tangible capital assets; Employee future benefits; Environmental liabilities; Contractual obligations; Contingent liabilities.

Assets by Type

Total net financial assets (\$158.5 million) and non-financial assets (\$412.8 million), together valued at \$571.3 million, have increased by \$30.7 million or 5.7 percent in 2016-17. The tangible capital assets continue to represent the largest component of assets at \$382.9 million (67 percent of total assets) in 2016-17. The increase in Environment and Climate Change Canada's total net assets valuation is mainly attributable to inventory that has increased by \$13.5 million mostly due to more purchases made for Meteorological supplies (\$5.4 million), radar equipment (\$4.2 million) and computer equipment (\$2.6 million).



See Notes 9 to 11 of the Departmental Financial Statements for more details – Accounts receivable and advances; Inventory; Tangible Capital Assets.

Supplementary information

Corporate information

Organizational profile

Appropriate minister: The Honourable Catherine McKenna, P.C., M.P.

Institutional head: Dr. Stephen Lucas

Ministerial portfolio: Environment and Climate Change Canada

Enabling instruments:

Department of the Environment Act <u>lxviii</u>

<u>Canadian Environmental Protection Act, 1999 Ixix</u>

Species at Risk Act Ixx

International River Improvements Act
 \(\text{LXXI} \)

Canada Water Act | XXIII

The Lake of the Woods Control Board Act, 1921 MANUAL

• Lac Seul Conservation Act

• <u>Fisheries Act luxiv</u> (administration and enforcement of the Pollution Prevention Provisions)

Antarctic Environmental Protection Act IXXX

Migratory Birds Convention Act, 1994 | District 1

 Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act bxxiii

Canada Wildlife Act | IXXVIII

Federal Sustainable Development Act Lixxix

Canadian Environmental Assessment Act, 2012

• <u>Environmental Violations Administrative Monetary</u> Penalties Act^{luxxi}

National Wildlife Week Act
 National Wildlife Week Act

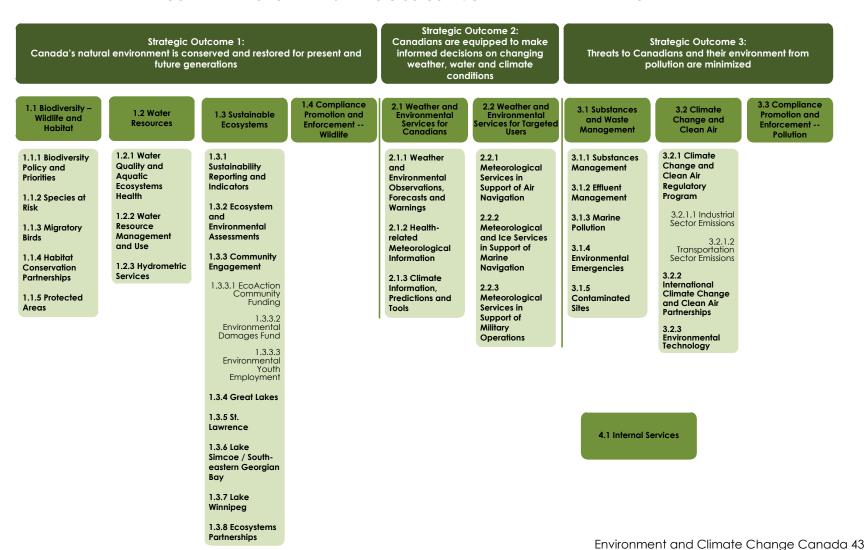
Canadian Environmental Week Act

Year of incorporation/commencement: 1971

Reporting framework

The Environment and Climate Change Canada's Strategic Outcomes and Program Alignment Architecture of record for 2016-17 are shown below

GOVERNMENT OF CANADA STRATEGIC OUTCOME: CLEAN AND HEALTHY ENVIRONMENT



Supporting information on lower-level programs

Supporting information on results, financial and human resources related to Environment and Climate Change Canada's lower-level programs is available on the Department's <u>website</u> loxxiv and on TBS's <u>InfoBase</u>.

Supplementary information tables

The following supplementary information tables are available on Environment and Climate Change Canada's <u>website</u> <u>lxxxvi</u>.

- Departmental Sustainable Development Strategy;
- Details on Transfer Payment Programs;
- Horizontal Initiatives;
- Internal Audits and Evaluations:
- Response to Parliamentary Committees and External Audits;
- Status Report on Transformational and Major Crown Projects;
- Up-front Multi-year Funding; and
- User Fees, Regulatory Charges and External Fees.

Federal tax expenditures

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 each year in the Report on Tax Expenditures Lixavii. This report also provides detailed background information tax expenditures, including descriptions, objectives, historical information and references to related federal spending programs. The tax measures presented in this report are the responsibility of the Minister of Finance.

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 (crédit)

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

budgetary expenditures (dépenses budgétaires)

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

Core Responsibility (responsabilité essentielle)

An enduring function or role performed by a department. The intentions of the department with respect to a Core Responsibility are reflected in one or more related Departmental Results that the department seeks to contribute to or influence.

Departmental Plan (Plan ministériel)

Provides information on the plans and expected performance of appropriated departments over a three-year period. Departmental Plans are tabled in Parliament each spring.

Departmental Result (résultat ministériel)

A Departmental Result represents the change or changes that the department seeks to influence. A Departmental Result is often outside departments' immediate control, but it should be influenced by program-level outcomes.

Departmental Result Indicator (indicateur de résultat ministériel)

A factor or variable that provides a valid and reliable means to measure or describe progress on a Departmental Result.

Departmental Results Framework (cadre ministériel des résultats)

Consists of the department's Core Responsibilities, Departmental Results and Departmental Result Indicators.

Departmental Results Report (Rapport sur les résultats ministériels)

Provides information on the actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

Evaluation (évaluation)

In the Government of Canada, the systematic and neutral collection and analysis of evidence to judge merit, worth or value. Evaluation informs decision making, improvements, innovation and accountability. Evaluations typically focus on programs, policies and priorities and examine questions related to relevance, effectiveness and efficiency. Depending on user needs, however, evaluations can also examine other units, themes and issues, including alternatives to existing interventions. Evaluations generally employ social science research methods.

full-time equivalent (équivalent temps plein)

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-wide priorities (priorités pangouvernementales)

For the purpose of the 2017–18 Departmental Plan, government-wide priorities refers to those high-level themes outlining the government's agenda in the 2015 Speech from the Throne, namely: Growth for the Middle Class; Open and Transparent Government; A Clean Environment and a Strong Economy; Diversity is Canada's Strength; and Security and Opportunity.

horizontal initiatives (initiative horizontale)

An initiative where two or more federal organizations, through an approved funding agreement, work toward achieving clearly defined shared outcomes, and which has been designated (for example, by Cabinet or a central agency) as a horizontal initiative for managing and reporting purposes.

Management, Resources and Results Structure (Structure de la gestion, des ressources et des résultats)

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 (dépenses non budgétaires)

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance (rendement)

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 (indicateur de rendement)

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 (production de rapports sur le rendement)

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

planned spending (dépenses prévues)

For Departmental Plans and Departmental Results Reports, 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 Departmental Plans and Departmental Results Reports.

plans (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 (priorité)

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 (programme)

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 (architecture d'alignement des programmes)

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

results (résultat)

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.

statutory expenditures (dépenses législatives)

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

Strategic Outcome (résultat stratégique)

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

sunset program (programme temporisé)

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 (cible)

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.

voted expenditures (dépenses votées)

Expenditures that Parliament approves annually through an Appropriation Act. The Vote wording becomes the governing conditions under which these expenditures may be made.

Endnotes

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<sup>1</sup> Canadian Mercury Science Assessment Report: <u>www.ec.ac.ca/mercure-mercury/default.asp?lana=En&n=32909A5D-1</u>
Minamata Convention on Mercury: <a href="www.mercuryconvention.org/">www.mercuryconvention.org/</a>
Acts and regulations: <a href="www.ec.gc.ca/default.asp?lang=En&n=48D356C1-1">www.ec.gc.ca/default.asp?lang=En&n=48D356C1-1</a>
iv Minister's mandate letter: <u>pm.gc.ca/eng/minister-environment-and-climate-change-mandate-letter</u>
v State of North America's Birds 2016 report: www.stateofthebirds.org/2016/
vi Confirmed collective priorities: www.scics.ca/en/product-produit/news-release-meeting-of-federal-provincial-territorial-
ministers-responsible-for-conservation-wildlife-and-biodiversity/
vii Evaluation of programs and activities that support the Species at Risk Act: www.ec.gc.ca/ae-ve/6AE7146E-0991-4C2F-
BE2F-E89DF4F8ED1E/13-018 EC ID 1568 PDF accessible ANG.pdf
viii Roseate Tern: www.reaistrelep-sarareaistry.ac.ca/species/speciesDetails e.cfm?sid=40
www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=2961
*Species at Risk Public Registry: https://www.registrelep-sararegistry.gc.ca/default.asp?lang=En&n=24F7211B-1
xi Wateroffice.ca: <u>wateroffice.ec.gc.ca/</u>
xii Open Data Portal: open.canada.ca/data/en/dataset?a=water+quality
xiii Wateroffice.ca: wateroffice.ec.gc.ca/
xiv Evaluation of the Hydrological Service and Water Survey program: http://www.ec.gc.ca/ge-
ve/default.asp?lang=En&n=7EE00CFE-1&offset=7&toc=show
xv Clean up Randle Reef: www.randlereef.ca/
xvi Canada-U.S. Great Lakes Water Quality Agreement: binational.net/glwga-ageal/
xvii Eight Chemicals of Mutual Concern: binational.net/2016/05/31/cmcdesig-pcpmdesig/
xviii Progress Report: binational.net/2016/09/28/prp-rep/
xix Draft Canadian Domestic Action Plan: binational.net/2017/03/10/dap-pan/
« Canada-Québec Agreement on the St. Lawrence: planstlaurent.qc.ca/en/home.html
xii Community Interaction Program: planstlaurent.ac.ca/en/funding_program/community_interaction_program.html
xxii Lake Winnipeg Basin Stewardship Fund: <a href="www.ec.gc.ca/eau-water/default.asp?lang=En&n=D7134110-1">www.ec.gc.ca/eau-water/default.asp?lang=En&n=D7134110-1</a>
xxiii Trans Mountain Expansion Project: www.ceaa-acee.gc.ca/050/details-eng.cfm?evaluation=80061
xxiv 2016–2019 Federal Sustainable Development Strategy: www.fsds-sfdd.ca/index.html#/en/goals/
xxv 2030 Sustainable Development Goals: <u>sustainabledevelopment.un.org/sdas</u>
xwi Environmental indicators: www.ec.gc.ca/indicateurs-indicators/default.asp?lang=En&n=31D0F52A-1
xvii Science Horizons Youth Internship Program: www.ec.gc.ca/scitech/default.asp?lang=En&n=B58899DC-1
xxviii Stolen Treasures: <u>www.cbc.ca/fifth/episodes/2014-2015/stolen-treasures</u>
xxix Western Chorus Frog: www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=1312
xxx Emergency Order: <a href="www.registrelep-sararegistry.gc.ca/default.asp?lang=En&n=C9071C8C-1">www.registrelep-sararegistry.gc.ca/default.asp?lang=En&n=C9071C8C-1</a>
xxxi Environmental Damages Fund: <a href="www.ec.gc.ca/edf-fde/default.asp?lang=En&n=1ECA5451-1">www.ec.gc.ca/edf-fde/default.asp?lang=En&n=1ECA5451-1</a>
xxxii Nature New Brunswick: <a href="https://www.naturenb.ca/home/">www.naturenb.ca/home/</a>
xxxiii Anti-wildlife trafficking operation: www.interpol.int/en/News-and-media/News/2017/N2017-022/
Mobile app: www.ec.gc.ca/cas-aqhi/default.asp?lang=En&n=47327A59-1%20-%20X-201312181657298
xxxv Weather.gc.ca: weather.gc.ca/
xxxvi EC Alert me: <u>ecalertme.weather.gc.ca/</u>
www.ec.ac.ca/indicateurs-indicators/default.asp?lang=en&n=81552A43-1
xxxiii Alert Ready: www.ec.gc.ca/meteo-weather/default.asp?lang=En&n=F06AEFDC-1
xxxix Canadian Ice Service: www.ec.gc.ca/glaces-ice/
<sup>xl</sup> Oceans Protection Plan: <a href="www.tc.gc.ca/eng/oceans-protection-plan.html">www.tc.gc.ca/eng/oceans-protection-plan.html</a>
xii Microbeads in Toiletries Regulations: www.ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=238
*** Government-wide strategy: www.canada.ca/en/innovation-science-economic-
development/news/2016/12/government-canada-asbestos.html
xiii Regulations Amending the Prohibition of Certain Toxic Substances Regulations, 2012: <a href="www.ec.ac.ca/lcpe-">www.ec.ac.ca/lcpe-</a>
cepa/eng/regulations/DetailReg.cfm?intReg=226
xiliv National Pollutant Release Inventory: www.ec.gc.ca/inrp-npri/
xtv Chemicals Management Plan: www.canada.ca/en/health-canada/services/chemical-substances/chemicals-
management-plan.html
```

xlvi Pan-Canadian Framework on Clean Growth and Climate Change:

FBC1580C2F4B/CFS discussion paper 2017-02-24-eng.pdf

framework/pricing-carbon-pollution1.html

www.canada.ca/en/services/environment/weather/climatechange/pan-canadian-framework.html

xviii Clean fuel discussion paper: www.ec.gc.ca/lcpe-cepa/D7C913BB-13D0-42AF-9BC7-

**** Price on carbon pollution: www.canada.ca/en/services/environment/weather/climatechange/pan-canadian-

```
xiix Mid-Century Long-term Low Greenhouse Gas Development Strategy: unfccc.int/files/focus/long-
term strategies/application/pdf/canadas_mid-century_long-term_strategy.pdf
United Nations Climate Conference (COP22): <a href="www.cop22-morocco.com/">www.cop22-morocco.com/</a>
Local Communities and Indigenous peoples Platform: newsroom.unfccc.int/paris-agreement/new-un-platform-to-
boost-indigenous-peoples-and-local-communities-climate-action/
  Montreal Protocol: ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-ozone-layer
Youth summit on climate change: ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-
ozone-layer
Climate and Clean Air Coalition: <a href="www.ccacoalition.org/en">www.ccacoalition.org/en</a>
V Climate Risk and Early Warning Systems: public.wmo.int/en/media/press-release/climate-risk-and-early-warning-
systems-prioritize-most-vulnerable
Multi-Sector Air Pollutants Regulations: <a href="www.ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=220">www.ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=220</a>
wii Canada-U.S. Air Quality Agreement: <a href="www.ec.gc.ca/air/default.asp?lang=En&n=83930AC3-1">www.ec.gc.ca/air/default.asp?lang=En&n=83930AC3-1</a>
Viii Convention on Long-range Transboundary Air Pollution: www.unece.org/env/lrtap/30anniversary.html
lix Department's website: <a href="www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1">www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1</a>
Ix InfoBase: tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start
bi Policy on Results: <a href="https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=31300">www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=31300</a>
|xii Open Government: open.canada.ca/en
2015-16 Departmental Performance Report: <a href="www.ec.gc.ca/default.asp?lang=En&n=3BDD7703-1">www.ec.gc.ca/default.asp?lang=En&n=3BDD7703-1</a>
www.ec.gc.ca/default.asp?lang=En&n=A3B6C81F-1
Public Accounts of Canada 2017: <a href="https://www.tpsgc-pwgsc.gc.ca/recgen/cpc-pac/index-eng.html">www.tpsgc-pwgsc.gc.ca/recgen/cpc-pac/index-eng.html</a>
kwi Whole-of-government framework: www.tbs-sct.gc.ca/ppg-cpr/frame-cadre-eng.aspx
Departmental website: <a href="www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1">www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1</a>
Ixviii Department of the Environment Act: <u>laws-lois.justice.ac.ca/ena/acts/E-10/index.html</u>
wix Canadian Environmental Protection Act, 1999: <u>laws.justice.gc.ca/eng/acts/C-15.31/</u>
Lex Species at Risk Act: <u>laws.justice.gc.ca/eng/acts/S-15.3/index.html</u>
International River Improvements Act: <a href="mailto:laws.justice.gc.ca/eng/acts/l-20/index.html">laws.justice.gc.ca/eng/acts/l-20/index.html</a>
Lowi Canada Water Act: Laws-lois.justice.gc.ca/eng/acts/C-11/index.html
Lake of the Woods Control Board Act, 1921: laws-lois.justice.gc.ca/eng/acts/T-10.4/page-1.html
bxiv Fisheries Act: <u>laws-lois.justice.gc.ca/eng/acts/F-14/</u>
have Antarctic Environmental Protection Act: <u>laws-lois.justice.gc.ca/eng/acts/A-11.44/</u>
bavi Migratory Birds Convention Act, 1994: <u>laws.justice.gc.ca/eng/acts/M-7.01/</u>
bavii 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
Laxviii Canada Wildlife Act: <a href="www.ec.gc.ca/alef-ewe/default.asp?lang=En&n=E8EA5606-1">www.ec.gc.ca/alef-ewe/default.asp?lang=En&n=E8EA5606-1</a>
boxix Federal Sustainable Development Act: <a href="mailto:laws-lois.justice.gc.ca/eng/acts/F-8.6/">laws-lois.justice.gc.ca/eng/acts/F-8.6/</a>
Local Canadian Environmental Assessment Act, 2012: Laws-lois.justice.gc.ca/eng/acts/C-15.21/page-1.html
Environmental Violations Administrative Monetary Penalties Act: laws-lois.justice.ac.ca/ena/acts/E-12.5/page-1.html
National Wildlife Week Act: <a href="mailto:laws-lois.justice.gc.ca/eng/acts/W-10/index.html">laws-lois.justice.gc.ca/eng/acts/W-10/index.html</a>
Localian Environmental Week Act: laws-lois.justice.gc.ca/eng/acts/e-11/index.html
Department's website: <a href="www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1">www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1</a>
InfoBase: tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start
leavi Environment and Climate Change Canada's website: ec.gc.ca/default.asp?lang=En&n=31D9FF32-1
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lxxxvii Report on Tax Expenditures: www.fin.gc.ca/purl/taxexp-eng.asp

www.ec.gc.ca

Additional information can be obtained at:

Environment and Climate Change Canada Public Inquiries Centre 7th floor, Fontaine Building 200, Sacré-Coeur boul. Gatineau, Québec K1A OH3

ec.enviroinfo.ec@canada.ca

Telephone: Toll free: 800-668-6767 (in Canada only) or local 819-997-2800