



Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada

Canada

# Environment and Climate Change Canada

2021–22

## Departmental Plan

---

The Honourable Jonathan Wilkinson, P.C., M.P.  
Minister of Environment and Climate Change

Cat. No.: En1-65E-PDF  
ISSN: 2371-7874

Unless otherwise specified, you may not reproduce materials in this publication, in whole or in part, for the purposes of commercial redistribution without prior written permission from Environment and Climate Change Canada's copyright administrator. To obtain permission to reproduce Government of Canada materials for commercial purposes, apply for Crown Copyright Clearance by contacting:

Environment and Climate Change Canada  
Public Inquiries Centre  
7<sup>th</sup> Floor, Fontaine Building  
200 Sacré-Cœur Boulevard  
Gatineau QC K1A 0H3  
Telephone: 819-938-3860  
Toll Free: 1-800-668-6767 (in Canada only)  
Email: [ec.enviroinfo.ec@canada.ca](mailto:ec.enviroinfo.ec@canada.ca)

Cover photo: © GettyImages.ca  
Inside photos: © Environment and Climate Change Canada

© Her Majesty the Queen in Right of Canada, represented by the Minister of Environment and Climate Change, 2021

Aussi disponible en français

**Table of Contents**

From the Minister .....	1
Plans at a glance .....	3
Core Responsibility: Taking Action on Clean Growth and Climate Change .....	5
Core Responsibility: Preventing and Managing Pollution .....	18
Core Responsibility: Conserving Nature .....	25
Core Responsibility: Predicting Weather and Environmental Conditions .....	31
Internal Services: planned results .....	36
Spending and human resources .....	39
Planned spending.....	39
Planned human resources .....	43
Estimates by vote .....	45
Future-oriented Condensed statement of operations .....	45
Corporate information .....	46
Organizational profile .....	46
Raison d'être, mandate and role: who we are and what we do .....	47
Operating context .....	47
Reporting framework.....	48
Supporting information on the program inventory.....	49
Supplementary information tables .....	49
Federal tax expenditures .....	49
Organizational contact information.....	49
Appendix: definitions .....	50
Endnotes.....	53

---



## From the Minister



As the Minister of Environment and Climate Change, I am pleased to present the 2021–22 Departmental Plan.

In a year that marks the 50<sup>th</sup> anniversary of the Department's creation, and the 150<sup>th</sup> anniversary of the Meteorological Service of Canada, this plan builds on the past while outlining strategic action on clean growth and climate change, preventing and managing pollution, conserving nature, and predicting weather and environmental conditions.

Environment and Climate Change Canada continues to implement the Pan-Canadian Framework on Clean Growth and Climate Change (PCF) and the new actions outlined in Canada's strengthened climate plan, A Healthy Environment and a Healthy Economy. Our Department remains committed to meeting and exceeding our 2030 emissions reductions goals under the Paris Agreement and putting Canada on a path to a net-zero emissions future.

Environment and Climate Change Canada is coordinating actions across the Government of Canada to support investments in energy efficiency, the development and adoption of clean energy, increased production and use of zero-emission vehicles, reduced emissions from oil and gas activities and landfills, and a proposal to gradually increase the price on carbon. At the same time, we will continue to work with domestic and international partners on shared approaches to this critical global challenge.

The Department will continue to work to eliminate harmful single-use plastic items, while supporting alternatives and recycling capabilities.

We will also continue to deliver Canada's Chemicals Management Plan, and lead work with Health Canada and the National Research Council Canada to prevent air pollution, improve air quality and avoid negative impacts on health and the environment.

To prevent pollution of our waters we will continue our work to implement the wastewater and pulp and paper effluent regulations and to develop new regulations to address effluent from coal mining and oil sands mining. We will continue work to protect waters from surplus nutrients, and will lead in the development of the new Canada Water Agency.

In order to meet our goal of conserving 25% of lands and oceans by 2025 and 30% by 2030, ECCC will continue work with partners in the public, private and non-profit sectors. We will also continue work with partners to support nature conservation projects to protect biodiversity across the country, advance reconciliation with Indigenous peoples by supporting their leadership in conservation, and continue implementation of the Pan-Canadian Approach to Transforming Species at Risk Conservation in Canada.

As we mark the Meteorological Service of Canada's 150<sup>th</sup> anniversary with its long history of service to Canadians, we also recognize its scientific expertise, cutting-edge data management, and its response to changing needs. This year will see the replacement of six outdated radars across Canada and the installation of a new radar in the lower Athabasca region, making use of the most modern technology available.

While we continue to address the COVID-19 pandemic, we intend to lead by example in lowering our carbon footprint by reducing energy-related GHG emissions from our buildings and fleet by 40% relative to 2005 levels and achieving at least 80% zero-emission vehicles in our administrative fleet by 2030. We also aim to divert at least 75% of our Department's non-hazardous and plastic waste from landfills by 2030.

We have an ambitious program ahead of us. I invite you to read this Plan for details on ECCC's priorities, and our commitment to deliver on them as we work towards a cleaner and more prosperous future.

---

The Honourable Jonathan Wilkinson, P.C., M.P.  
Minister of Environment and Climate Change

## Plans at a glance

Environment and Climate Change Canada (ECCC) is the lead federal department for strategic action on a wide range of environmental matters, including action on clean growth and climate change, preventing and managing pollution, conserving nature, and predicting weather and environmental conditions. The Department's program focus reflects the interdependence of environmental sustainability and economic well-being. ECCC works in partnership with provincial, territorial and municipal governments, Indigenous partners, and communities to deliver important programs and services that are essential to ensuring the health and well-being of Canadians and the environment, in a manner that respects the Government of Canada's commitment to openness, effectiveness and transparency in government. As Canada and the world continue to grapple with the COVID-19 pandemic, the Government of Canada is taking action to address immediate challenges, and looks ahead to solutions that can foster a strong, more resilient future.

### Taking Action on Clean Growth and Climate Change

Taking action on climate change enables Canada to be better prepared to mitigate the climate risks ahead (such as flooding, wildfires, extreme heat, spread of infectious disease), create jobs, and make Canada's economy more competitive – particularly when investments, consumers, and governments are increasingly basing their decisions on environmental sustainability.

The Government of Canada remains committed to meeting and exceeding Canada's Paris Agreement target of a 30% reduction of greenhouse gas (GHG) emissions below 2005 levels, and to putting Canada on a path to achieving a prosperous, net-zero emissions future. To support these goals, ECCC will continue to work with its federal partners, provinces, territories, Indigenous partners and stakeholders to implement the Pan-Canadian Framework on Clean Growth and Climate Change, as well as the new actions outlined in Canada's strengthened climate plan, *A Healthy Environment and a Healthy Economy*, released on December 11, 2020. Among key initiatives, in support of Canada's clean fuel standard, ECCC aims to publish the proposed final regulations for liquid fuels in 2021 and will work to bring them into force in 2022.

Taking action on climate change at home also allows Canada to build the global momentum towards ambitious climate action. In 2021-22, ECCC will continue to promote the implementation of the Paris Agreement by advocating for ambitious mitigation efforts and by shaping global discussions on sustainable finance to ensure that environmental and social considerations are reflected in investment decisions.

The Department will continue to play a leadership role in the transition to net-zero carbon, climate-resilient, and green Government of Canada operations. Specifically, ECCC will continue to work toward reducing energy-related GHG emissions from its buildings and fleet by 40% relative to 2005 levels by 2030, with the aspiration to achieve this target by 2025. ECCC will decarbonize its fleet with a view to achieving at least 80% zero-emission vehicles in its administrative fleet by 2030, and will reduce the environmental impact of its building operations and procurement practices, aiming to divert at least 75% of non-hazardous and plastic waste from landfills by 2030, and assisting in the transition to a net-zero, circular economy. ECCC will provide federal coordination and leadership to advance Canada's adaptation to climate change.

### Preventing and Managing Pollution

ECCC will continue to lead the *Federal Leadership Towards Zero Plastic Waste* initiative, a comprehensive agenda to achieve the Government of Canada's goal of zero plastic waste by 2030. Priorities for 2021-22 include a proposal to appropriately manage single-use items that are harmful to the environment, and a proposal for recycled content requirements for plastic products. Prototype development will begin for successful sector- and product-specific solutions to reduce plastic waste and improve its recovery, supported through the Canadian Plastics Innovation Challenges. ECCC will continue to promote broad endorsement of the Oceans Plastics Charter, which has support of 26 governments and over 70 businesses and organizations globally in fall 2020.

To reduce air pollution and improve air quality, ECCC will continue to lead the work with Health Canada and the National Research Council Canada to prevent air pollution, improve air quality and avoid negative impacts on health and the environment. The Department will continue to implement Canada's

Air Quality Management System, in collaboration with provinces and territories, as well as regulations to reduce air pollutants from key industrial sources, vehicles, engines and fuels, and consumer and commercial products.

More broadly, ECCC will continue to protect the environment and Canadians from harmful substances by delivering Canada's Chemicals Management Plan with Health Canada.

ECCC will continue to prevent water pollution by implementing the pollution prevention provisions and developing regulations under the *Fisheries Act* and under the *Canadian Environmental Protection Act, 1999* (CEPA). In 2021-22, ECCC plans to publish proposed Coal Mining Effluent Regulations for consultation, and to continue to collaborate with affected Indigenous communities and to discuss with industry the design of new regulations to address effluent from oil sands operations.

Through science-based research and monitoring, and investments to reduce excess nutrients, ECCC will continue to protect the Great Lakes, Lake Winnipeg, and the St. Lawrence River, and will take actions to protect Lake Simcoe and other large lakes. The Department will focus on improving, restoring and protecting these important watersheds, including by engaging with local communities and Indigenous organizations. The Government of Canada will continue to develop a new Canada Water Agency to work with the provinces, territories, Indigenous communities, local authorities, scientists, and others to identify the best ways to keep freshwater safe, clean, and well-managed. ECCC will continue to provide science advice to Canada's \$1.5 billion Oceans Protection Plan.

### Conserving Nature

To achieve the Government of Canada's ambitious goal to conserve 25% of lands and oceans by 2025 and work toward 30% by 2030, ECCC will develop a plan in collaboration with Parks Canada Agency and the Department of Fisheries and Oceans, and in partnership with provinces, territories, municipalities, Indigenous peoples and the private, philanthropic, and non-profit sectors. The Department will continue to advocate for countries around the world to commit to this same goal to address the global loss of nature.

ECCC will continue to conserve areas of high ecological and biodiversity value in collaboration with provinces, territories, Indigenous peoples, industry and private foundations and trusts. This will include conservation of prairie grasslands in southwestern Saskatchewan, and support to 68 nature conservation projects across the country to protect biodiversity. Two-thirds of projects are led by or implemented in partnership with Indigenous peoples. ECCC will also continue to transform its approach to terrestrial species at risk conservation through ongoing implementation of the *Pan-Canadian Approach to Transforming Species at Risk Conservation in Canada*, including through partnerships with Indigenous peoples.

The Government of Canada has committed to using nature-based solutions to address the dual challenge of climate change and biodiversity loss. *A Healthy Environment and a Healthy Economy* is Canada's strengthened climate plan to create jobs and support people, communities and the planet – it builds on the Pan-Canadian Framework on Clean Growth and Climate Change (2016), outlining 64 measures and \$15 billion in investments to significantly reduce carbon pollution.

### Predicting Weather and Environmental Conditions

In 2021-22, ECCC will proudly mark the Meteorological Service of Canada's 150<sup>th</sup> anniversary. One of the nation's longest-standing government institutions, the Service has a long history of serving Canadians by providing accurate and timely information on weather and environmental conditions to help them make decisions about their health, safety and economic well-being. In 2021-22, ECCC will continue to improve service to Canadians through its scientific expertise, a leading-edge approach to data management, and a continued focus on the changing needs of its clients and stakeholders. The Department will replace six outdated radars across Canada and will install a new radar in the lower Athabasca region, making use of the most modern technology available to forecast short-term severe weather events associated with thunderstorms, tornadoes, ice storms and blizzards.

For more information on Environment and Climate Change Canada's plans, priorities and planned results, see the "[Core responsibilities: planned results and resources, and key risks](#)" section of this report.



## Core Responsibilities: planned results and resources, and key risks

### Core Responsibility: Taking Action on Clean Growth and Climate Change

#### Description

Through engagement with other federal departments and agencies, provinces, territories, Indigenous peoples, and other stakeholders, and external experts, the Department will support and coordinate the implementation of the Pan-Canadian Framework on Clean Growth and Climate Change (PCF); work to reduce Canadian greenhouse gas (GHG) emissions; drive clean growth; develop regulatory instruments; support businesses and Canadians to adapt and become more resilient to climate change; and contribute to international climate change actions to increase global benefits.

#### Planning highlights



#### Meeting and Exceeding Canada's 2030 GHG Reduction Target and Putting Canada on a Path to Net-Zero

Since 2016, the Government of Canada has been working with provinces, territories, and Indigenous partners to implement the

Pan Canadian Framework (PCF) on Clean Growth and Climate Change to reduce greenhouse gas (GHG) emissions, help Canada adapt and become more resilient to the impacts of a changing climate, and spur clean growth. Canada has made great progress, and as a result, Canada's GHG emissions are trending downwards to 2030. At the same time, science has confirmed that more needs to be done and that global emissions must reach carbon neutrality by 2050 to limit warming to 1.5°C. Climate considerations are also increasingly integrated into investment, business, and consumer decisions, which presents massive economic opportunities for clean technologies.

Building on the PCF, the Government of Canada recently published its strengthened climate plan, *A Healthy Environment and A Healthy Economy*, to create jobs, enable Canada to meet and exceed its 2030 GHG emissions reduction target, and provide a solid foundation for Canada's goal to achieve net-zero emissions by 2050. In 2021-22, ECCC will continue to work with provinces, territories, Indigenous partners, and stakeholders to implement the PCF. ECCC will also lead the implementation of the new measures identified in the new climate plan, and will support work with partners to refine the proposed measures.

First Nations, Inuit, and Métis peoples have been at the forefront of drawing attention to the impacts of climate change. They have reinforced the need to take action to reduce pollution, to adapt to the impacts of climate change, and to improve the ways in which the natural environment is respected and protected. In doing so, they reinforce that leadership by Indigenous peoples is critical to achieving the foundational changes required to address climate change. In 2021-22, as identified in *A Healthy Environment and a Healthy Economy*, ECCC will continue its partnership and constructive dialogue with First Nations, Inuit, and the Métis to advance Indigenous climate leadership and ensure federal policies and programs are designed to address Indigenous peoples' climate priorities.

#### COVID-19 Contingency

Despite these times of uncertainty due to the COVID pandemic, the Department is committed to ensure results for Canadians on clean growth and climate change. ECCC continues to identify options to streamline operations and programming, better support partners and clients, and realign priorities.

#### **Net-Zero Advisory Body**

In December 2020, the Government of Canada announced the creation of a Net-Zero Advisory Body to consult with Canadians and provide independent advice to the Minister on pathways to achieve net-zero emissions by 2050.

The Government of Canada tabled legislation in November 2020 to enshrine Canada's net-zero emissions target for 2050 in law and require the Government to set national targets for the reduction of GHG emissions at five-year intervals. This legislation will ensure transparency and accountability through requirements for emissions reduction plans, progress reports, and assessment reports with respect to each five-year target. Plans will contain important information, such as descriptions of the key emissions reduction measures the Government of Canada intends to undertake to achieve the target for a particular milestone year.

In *A Healthy Environment and a Healthy Economy*, the Government of Canada committed to launching a Net-Zero Challenge for large industrial emitters to encourage and help them develop and implement plans to

transition their facilities to net-zero emissions by 2050.

### **Federal carbon pollution pricing system**

A [price on carbon pollution](#)<sup>1</sup> across Canada creates incentives for individuals, households, and businesses to choose cleaner options, including green technology. Under the *Greenhouse Gas Pollution Pricing Act*, the federal carbon pollution pricing system has two parts: a regulatory charge on fossil fuels (the fuel charge); and a performance-based pricing system for industrial facilities, known as the Output-Based Pricing System (OBPS). The system applies in those provinces and territories that requested it and in those that did not have their own system that meets the federal benchmark stringency criteria. The OBPS is designed to put a price on carbon pollution and reduce the risk of carbon leakage from industry, enabling industries to maintain competitiveness relative to international peers and affording them the flexibility to meet emissions limits through emissions trading and the use of GHG offset credits.

In 2021-22, ECCC will develop and administer an Emissions Trading and Reporting System to report and track compliance units under the OBPS, and publish regulations establishing the federal GHG Offset System. The Department will submit its annual report on the *Greenhouse Gas Pollution Pricing Act* to Parliament.

In 2021-2022, the Department will also complete the interim review and expert assessment of carbon pricing in Canada and will engage provinces and territories, as well as Indigenous organizations on the proposals in *A Healthy Environment and A Healthy Economy* to strengthen carbon pollution pricing and the federal benchmark for the post-2022 period.

### **Carbon pollution pricing proceeds programming**

The federal carbon pollution pricing system returns all direct proceeds to individuals, families, and businesses through payments and climate action programs. Those governments that opted for the federal pricing system receive all the proceeds back to decide how to reinvest them. In the remaining provinces where the federal price on carbon pollution is in effect, the Government of Canada returns most of the fuel charge proceeds directly to families through Climate Action Incentive payments, delivered through annual tax returns. Through these payments, the majority of households receive more money back than they pay. The remainder of those revenues are returned to small and medium sized businesses and other small emitters.

Going forward, the federal carbon price will continue to be revenue neutral, and the Government of Canada remains committed to helping households make investments to increase energy efficiency and further reduce emissions. The Government will continue to return all proceeds from the federal fuel charge back to Canadian families and their communities, ensuring that the majority of households receive more in payments than they face in costs. These payments will move from annual to quarterly payments starting as early as 2022.



## Low Carbon Economy Fund

To support actions under the PCF, ECCC will continue to implement the [Low Carbon Economy Fund<sup>ii</sup>](#) to provide up to \$2 billion in funding to reduce carbon pollution. Specifically, in 2021-22 the Department will continue to implement the Low Carbon Economy Leadership Fund by working with provinces and territories and providing up to \$1.4 billion in support to help them to deliver on their commitments to reduce carbon pollution and contribute to meeting or exceeding Canada's 2030 climate target.

The Department will also continue to administer the second component of the Low Carbon Economy Fund, the Low Carbon Economy Challenge, which provides approximately \$500 million in support to projects that will generate clean growth, reduce greenhouse gas emissions, and help meet or exceed Canada's Paris Agreement commitments.

## Climate Action and Awareness Fund

Launched in September 2020, the Department is administering the [Climate Action and Awareness Fund<sup>iii</sup>](#) (CAAF), a funding initiative that will invest up to \$206 million over five years to support Canadian projects that help to reduce Canada's greenhouse gas emissions and help to build a sustainable net zero emissions economy by 2050. Environment and Climate Change Canada is using funds from the Environmental Damages Fund, as well as \$15 million over five years from the Climate Action Fund, to create this unique opportunity.

## Regulations to reduce GHGs and pollutants

To realise Canada's target to achieve a 30% reduction (relative to 2005 emission levels) in Canada's total greenhouse gas (GHG) emissions by 2030, ECCC plans to publish final regulations for the [clean fuel standard<sup>iv</sup>](#) in 2021. The clean fuel standard is based on a lifecycle carbon intensity approach that takes into account the emissions associated with all stages of fuel production and use—from extraction through processing, distribution, and end-use. It will reduce the lifecycle carbon intensity of liquid fuels used in Canada and will support the production of cleaner fuels in Canada to enable the changes required for long-term decarbonization in Canada. ECCC will finalize proposed the regulations in 2021 and intends to bring them into force in 2022. In 2021-22 the Department will establish a credit and trading system for reporting, tracking and trading of compliance credits under the clean fuel standard, and will develop a lifecycle assessment model for the determination of lifecycle carbon intensity values under the standard.

ECCC will continue to use regulations to reduce GHG emissions from the oil and gas, transportation, electricity and other industrial sectors that contribute significantly to total GHG emissions in Canada. Specifically, here are some examples of how the Department will work to achieving this goal:

- Work with Transport Canada, Innovation, Science and Economic Development Canada, and Natural Resources Canada to develop supply-side policy options to achieve additional reductions from Canada's light-duty vehicle fleet, including regulations and investments to accelerate and expand the consumer availability of ZEVs in Canada as demand grows.
- Work to align Canada's Light-Duty Vehicle regulations with the most stringent performance standards in North America post-2025, whether at the United States federal or state level.
- Develop options to strengthen the *Heavy-duty Vehicle and Engine GHG Emission Regulations*.
- Take action to transform the off-road sector beginning with the electrification of small engines such as those in lawn and garden equipment.

### Partnerships to Step up ZEVs

ECCC will continue to work with federal partners (Innovation, Science and Economic Development Canada, Transport Canada and Natural Resources Canada) to advance zero-emission vehicle (ZEV) targets of 10% of light-duty vehicle sales per year by 2025, 30% by 2030, and 100% by 2040.

- Collaborate with the U.S. under the Canada-United States Air Quality Agreement and California via the recent memorandum of understanding with the California Air Resources Board on measures to advance clean transportation and GHG emission reductions.
- Continue to implement regulations reducing the release of methane and certain Volatile Organic Compounds (VOC) from the upstream oil and gas sector, and develop a proposed approach to achieve further methane reductions from the oil and gas sector by establishing new targets and associated regulations for 2030 and 2035, based on international best practices.
- Continue to implement natural gas-fired electricity generation regulations and accelerated coal power phase-out. The regulations are expected to reduce GHG emissions by 12.8Mt of CO<sub>2</sub>e in 2030. Coal-fired electricity generating units are the highest emitting stationary sources of GHGs and air pollutants in Canada.
- Work with provinces, territories and other stakeholders to consider the need for and timing of a clean electricity regulatory standard to ensure that all investments in fossil fuel-fired electricity generation are consistent with the goal of net zero emissions by 2050.
- Continue to implement the *Ozone-depleting Substances and Halocarbon Alternatives Regulations* to prevent the release of HFCs, which are powerful short-lived climate pollutants that contribute to climate change. These controls are expected to prevent the release of 1Mt of CO<sub>2</sub> equivalents in 2020 and 7Mt in 2030 that are expected to result in cumulative GHG emission reductions between 2018 and 2030 of 37 Mt. The HFC phase-down came into effect on January 1, 2019.

ECCC will also continue to implement [Canada's Strategy on Short-lived Climate Pollutants](#)<sup>v</sup> (SLCPS). SLCPs are potent GHGs and air pollutants, such as black carbon, methane, hydrofluorocarbons and ground-level ozone, which contribute to climate warming and can affect air quality. In 2021-22, the Department will publish a progress report on commitments under the SLCP Strategy and continue to advance domestic and international work to reduce SLCP emissions.

The latest information on emissions of greenhouse gases and air pollutants will continue to be published by ECCC in the following annual inventories and reports:

- [National Inventory Report: Greenhouse Gas Sources and Sinks in Canada](#)<sup>vi</sup>
- [Overview of Reported Emissions: Facility Greenhouse Gas Reporting Program](#)<sup>vii</sup>
- [Canada's Air Pollutant Emissions Inventory](#)<sup>viii</sup>
- [Canada's Black Carbon Emissions Inventory](#)<sup>ix</sup>

## Nature-Based Climate Solutions

Climate change and biodiversity loss are often referred to as dual crises, for which integrated and complementary solutions are both crucial and urgent. Canada has a role to play in implementing such solutions, in part due to the fact that we have one of the world's largest carbon stores in nature. The Government of Canada has committed to protecting a quarter of Canada's land and oceans in five years, including by using nature-based solutions to fight climate change. By conserving, restoring and improving management practices in our carbon-rich ecosystems, Canada will achieve important benefits for Canadians and nature, including building climate resilience and supporting mental health and well-being through increased access to nature. As identified in Canada's new climate plan, *A Healthy Environment and a Healthy Economy*, released in December 2020, ECCC will continue to work with federal partners, provinces, territories, conservation organizations, Indigenous communities, the private sector, and civil society to implement new investments. These include: \$3.16 billion over ten years to plant two billion trees (led by Natural Resources Canada); \$631 million over ten years to enhance wetland, peatland, grassland and agricultural carbon sequestration potential; and \$98.4 million over ten years to establish a new Natural Climate Solutions for Agriculture Fund (led by Agriculture and Agri-Food Canada). Canada's new climate plan incorporates Natural Climate Solutions as one of its five pillars. It builds on Canada's international leadership to scale up nature-based climate solutions, including through its work with the Global Commission on Adaptation.

## ECCC's operations – advancing towards net-zero carbon, climate-resilient and green operations

ECCC will continue to work toward reducing energy-related GHG emissions from its facilities by implementing cost-effective GHG emission reduction projects, in addition to rationalizing its real estate portfolio, optimizing space, and ensuring that all new buildings and major building retrofits prioritize low-carbon investments. The Department will also assess opportunities to deploy on-site clean electricity in its buildings and purchase off-site clean electricity to help achieve 100% clean electricity usage by 2022, where available.

Moreover, ECCC will take actions to reduce energy use in its fleet through fleet-sharing, the purchase of zero-emission vehicles (ZEVs) to reach 80% of fleet by 2030 and, where possible, through the provision of ZEV charging stations within its facilities. In 2021-22, the Department will take a strategic approach to reduce the environmental impact of its operations and procurement practices, with a view of diverting at least 75% of non-hazardous and plastic waste from landfills by 2030, thus supporting the country's transition to a net-zero, circular economy. Among other specific actions, ECCC will start tracking waste diversion rates in its high-occupancy buildings, and finalize its Departmental Green Procurement Plan, which will promote the use of sustainable plastic in goods, and include criteria to reduce the environmental impact of procurement decisions while still ensuring best value.

In 2021-22, ECCC will implement actions identified in its Departmental Adaptation Plan to address climate change risks to its assets, services and operations.

### **Enhancing action on climate change adaptation**

Canada is warming at twice the average global rate and three times this rate in the North, which in turn is increasing the frequency and intensity of flooding, droughts, and wildfires, and contributing to permafrost thaw and sea-level rise. To meet this growing challenge, ECCC is working with partners to enhance action on climate change adaptation.

In 2021-22, ECCC will lead an initiative to engage with provincial and territorial governments, Indigenous peoples, businesses, and communities to develop a National Adaptation Strategy that will establish a shared vision for resilience in Canada, and priorities for collaboration. This new approach will include the development of metrics to measure progress at the national level.

ECCC will also continue to collaborate with provinces and territories through the Canadian Council of Ministers of the Environment to share knowledge and best practices in order to advance adaptation efforts across jurisdictions.

### **Enhancing climate services**

The Canadian Centre for Climate Services (CCCS) provides Canadians with information and support to consider climate change in their decisions. CCCS works with partners and stakeholders to help Canadians increase their resilience to climate change through information, training, guidance, and resources to support climate-smart decisions in line with the efforts of the Pan-Canadian Framework on Clean Growth and Climate Change.

In 2021-22, ECCC will continue to expand the national network of regional climate service organizations to increase local capacity. CCCS will continue to collaborate with partners to develop climate products and tools, such as with the Federation of Canadian Municipalities to assist municipalities. The Centre will also continue to improve access to its online climate tools, including the launch of the transportation and building sector modules on [ClimateData.ca](https://climate.data.ca)<sup>x</sup>. New training material will be released to help Canadians use climate information and we continue to respond to individual enquiries through our Climate Services Support Desk.

### International engagement during the COVID-19 pandemic

In response to travel restrictions and the cancellation of in-person meetings and events, ECCC will continue to engage with international partners through virtual means in an effort to deliver ECCC's planned results for 2021–22. This includes the negotiation and implementation of environment provisions in Free Trade Agreements and other bilateral/regional environmental cooperation agreements, as well as the promotion of clean technology abroad. Canada continues to work with multilateral and bilateral partners to deliver on its climate finance commitment, and is closely engaging them to understand the implications of the COVID-19 pandemic on the implementation of specific projects. Although virtual meetings may not foster relationship building and support the achievement of outcomes in the same way as in-person meetings, today's technology allows ECCC to maintain effective communication with international partners in an effort to advance common environmental goals. It is acknowledged, however, that not all partner countries may be in a position to advance cooperation with Canada in the context of the COVID-19 pandemic, and a small number of activities with our partners are not expected to be able to proceed until the pandemic subsides.

### Meeting Canada's commitments to its international partners under the Paris Agreement

ECCC will continue its leadership role in increasing the global response to climate change by working with international partners to implement the Paris Agreement, which Canada ratified in October 2016. Canada will continue to engage internationally to advance ambitious and inclusive climate action at a November 2021 Conference of the Parties (COP 26). This includes ensuring Indigenous peoples are engaged in developing international climate policy, and by promoting gender equality and the role of women in climate action around the world. Canada will also remain steadfast in its efforts to ensure that international market mechanisms are guided by a robust set of rules and operate with environmental integrity.

ECCC will continue to support developing countries transition to resilient, low-carbon economies. Canada is on track to meet its climate finance commitment of \$2.65 billion by March 2021. Canada's climate finance is delivered in a way that is consistent with its [feminist international assistance policy](#)<sup>4</sup>, promotes gender equality, and helps empower all women and girls. In 2021–22, ECCC will assist in bilateral projects with up to ten developing countries to implement controls on HFCs in accordance with agreed individual country work plans.

ECCC will also continue to advance clean growth and climate action in support of the goals of the Paris Agreement through international partnerships and initiatives. For example, ECCC will continue to co-lead the Powering Past Coal Alliance (PPCA) with the United Kingdom. The PPCA is the world's first and only government-led initiative seeking to accelerate the global phase-out of emissions from coal power.

### Reflecting clean growth and climate change in free trade agreements

Canada seeks to include ambitious, comprehensive, and enforceable environmental provisions in its free-trade agreements. This includes obligations to maintain robust environmental

governance as trade and investment are liberalized, and commitments on a range of global environmental issues, including illegal wildlife trade, sustainable fisheries and forestry management, climate change, and clean technology. These commitments are being implemented as part of agreements with key trading partners, including the United States, Mexico, the European Union and countries party to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership.

### Key Risks

The Department's ability to deliver results for Canadians on clean growth and climate change requires extensive collaboration with federal, provincial, territorial, Indigenous, and international partners, as well as the private and non-profit sectors and civil society, to address common uncertainties in this area. In particular, the Department will support and coordinate the implementation of the Pan-Canadian Framework on Clean Growth and Climate Change (PCF), as well as support engagement efforts as part of *A Healthy Environment and a Healthy Economy*.



The Department will continue to enhance its strategic relationships, such as enabling the development of a coordinated government-wide engagement strategy. The Department will facilitate bilateral and multilateral virtual cooperation and targeted studies to continue to drive international leadership and advance commitments, and explore new means of planning and conducting consultations in a coordinated fashion.

Additionally, ECCC plays an important role in supporting efforts by the Government of Canada to adapt to the impacts of changing climatic realities. Adaptation enables the continued delivery of organizations' mandates, protection of assets, avoidance of service disruptions, and design of programs to account for climate change impacts and risks. Adaptation also allows organizations to take advantage of any opportunities to address related uncertainties. To be resilient in the face of climate change, ECCC will finalize the Departmental Adaptation Plan to address the risks in ECCC's Climate Change Risk Assessment, and develop an implementation plan to identify concrete adaptation actions.



**United Nations' 2030 Agenda<sup>1</sup> and Sustainable Development Goals<sup>xii</sup>**

In defining a whole of government view of federal environmental sustainability commitments and actions, the 2019-2022 Federal Sustainable Development Strategy, developed and coordinated by ECCC, supports Canada's overall response to the United Nations Sustainable Development Agenda. ECCC's continued implementation of activities in support of its core responsibility for *Taking Action on Clean Growth and Climate Change* will directly contribute to the achievement of numerous sustainable development goals. For example, pricing carbon pollution and implementing associated regulations will comprehensively and directly combat climate change and its impacts by reducing greenhouse gas emissions and stimulating investments in clean innovation ([Goal 7<sup>xiii</sup>](#) and [Goal 13<sup>xiv</sup>](#)), while initiatives such as climate action incentives and partnership funding will promote inclusive and sustainable economic growth ([Goal 8<sup>xv</sup>](#)). Supporting resilient infrastructure and innovative and inclusive approaches to industrial development will be achieved through LCEF incentives ([Goal 9<sup>xvi</sup>](#)), which will also foster sustainable business, employment and consumption practices ([Goal 1<sup>xvii</sup>](#) and [Goal 12<sup>xviii</sup>](#)). ECCC will continue to work with Employment and Social Development Canada as they work toward delivering a whole-of-society 2030 Agenda National Strategy.

When considered together, ECCC initiatives represent a comprehensive approach to facilitate Canada's shift to a low carbon economy, reduce greenhouse gas emissions, achieve clean and sustainable growth, and promote innovation in industrial technologies and processes that will create sustainable industries and jobs and enhance Canada's competitiveness. ECCC's programs will also help regions and communities plan for and adapt to the impacts of climate change, and so mitigate threats to health, safety and well-being.

<sup>1</sup> In 2015, all United Nations (UN) member states came together and adopted Transforming Our World: The 2030 Agenda for Sustainable Development. At its heart are 17 Sustainable Development Goals that encompass key social, economic, and environmental challenges.



## Planned results for Taking Action on Clean Growth and Climate Change

Departmental Result: Canadian greenhouse gas and short-lived climate pollutant emissions are reduced					
Departmental result indicator	Target	Date to achieve target	2017–18 actual result	2018–19 actual result	2019–20 actual result
GHG emissions from light duty vehicles	27% improvement in performance vs 2011 standard (measured by CO <sub>2</sub> e g/mile) for manufacturer model year 2019 reporting	December 2020 [2019 model year reporting] <sup>2</sup>	18% improvement [2015 model year reporting] <sup>3</sup>	16% improvement [2016 model year reporting]	17% improvement in performance [2017 model year reporting]
GHG emissions from heavy duty vehicles	Reporting for 2020 Model Year:  Percentage improvement in GHG emissions performance for manufacturer model year 2018–2020 reporting relative to the 2010 model year: • 13%: heavy-duty pick-up trucks and vans • 11%: Combination Tractors • 5%: Vocational vehicles	December 2021	This is a new indicator. Results are not available for this year.	Results not yet available. The performance results for the 2018-19 model year fleet will be available in the 2020-21 reporting cycle.	2018 Model Year (based on information submitted by companies in their end of model year reports which was due on June 30, 2019) • 12.2%: heavy-duty pick-up trucks and vans • 19.1%: Combination Tractors • 8.5%: Vocational vehicles
Black carbon emissions, as reported in Canada's Black Carbon Emissions Inventory	25% decrease from an annually calculated 2013 baseline of national emissions	December 2025	36 Kt [18% reduction from baseline]	36Kt (17% reduction from baseline)	37Kt (15% reduction from baseline)
HFC emissions	10% reduction in consumption relative to calculated Canadian HFC baseline of 18,008,795 tonnes of CO <sub>2</sub> e	December 2021	This is a new indicator. Results are not available for this year.	Results not yet available.	Consumption 13.76% below baseline for calendar year 2019

<sup>2</sup> Results will be available in fall/winter 2021

<sup>3</sup> This result was amended to reflect revised calculations, and differs from past publications.

Reduce methane emissions from the oil and gas sector	Annual decrease towards a 40–45% reduction as measured in 2025, relative to 2012 levels	December 2025	Results not yet available. Emission reductions will be estimated in 2020 based on compliance actions.	Results not yet available. Emission reductions will be estimated in 2020 based on compliance actions.	
Emissions reductions are being achieved under the Clean Fuel Standard building on the Renewable Fuels Regulations	Over 20 Mt annual GHG emissions reduction in 2030	December 2030	This is a new indicator. Results are not available for this year.	Results are not available for these years. <sup>4</sup>	
Percentage of coal-fired electricity generation units meeting their regulated GHG emissions intensity performance requirement	100%	December 2021	This is a new indicator. Results are not available for this year.	Results not yet available.	Results not yet available. Complete reporting will be available in 2021–22. <sup>5</sup>
Carbon pollution pricing systems are in place in Canada	13 Provinces and Territories have in place a price on carbon pollution that meets the benchmark or the federal system applies	As of September 1, 2019, this target has been met.	With the implementation of the federal carbon pollution pricing system, there will be a price on carbon pollution in every jurisdiction in Canada in 2019.	As of March 31, 2019, all 10 provinces had in place carbon pollution pricing systems that aligned with the benchmark or the federal system.	As of March 31, 2019, all 10 provinces had in place carbon pollution pricing that aligns with the federal benchmark (either a provincial system or the federal backstop).  The federal backstop applied in Nunavut and Yukon beginning in July 1, 2019. The Northwest Territories' carbon pollution pricing system came into force on September 1, 2019.

<sup>4</sup> A proposed Regulatory approach was published in June 2019 for the liquids class. The draft regulations have not been published – they are on track for 2020. Draft regulations for gaseous and solid classes are to follow about a year later.

<sup>5</sup> As of July 2020, of the 9 units required to meet the performance standard by January 1, 2020: 2 have shut down, 3 have until 2021 to provide a report demonstrating compliance with the regulation, and 4 are subject to equivalency agreements with specific provinces.

GHG emissions from ECCC operations are reduced	40% GHG emissions reduction relative to 21,549 <sup>6</sup> tonnes of CO <sub>2</sub> e in 2005–06 <sup>7</sup>	2031	24.6%	31%	35.2%
<b>Departmental Result: Indigenous peoples are engaged in clean growth and climate change</b>					
Departmental result indicator	Target	Date to achieve target	2017–18 actual result	2018–19 actual result	2019–20 actual result
Co-development of indicators with Indigenous peoples to ensure they are engaged in the implementation of the PCF, through three distinct senior-level joint tables with First Nations, Inuit and the Métis Nation.	These indicators are developed by the target date	March 31, 2021 <sup>8</sup>	This is a new indicator. Results are not available for this year.	Results not yet available. A new date to achieve this target is being established in consultation with Indigenous partners. <sup>9</sup>	In 2019–20, ECCC held a number of meetings of the senior-level bilateral tables with First Nations and the Métis. These meetings led to productive discussions on issues related to clean growth and climate change that matter most to the Indigenous groups, including carbon pollution pricing and the administration of federal programming.
<b>Departmental Result: Canada contributes to reducing greenhouse gas emissions and increasing climate resilience globally</b>					
Departmental result indicator	Target	Date to achieve target	2017–18 actual result	2018–19 actual result	2019–20 actual result
Cumulative amount of private finance mobilized through Canada's public sector investments	Higher cumulative amounts mobilised in private climate finance, from year to year (reaching overall a ratio of private sector finance leveraged by Canada's public sector investments, of at least 1 to 0.5)	Long-term cumulative indicator	This is a new indicator, as of 2021–22. First year of reporting will be for 2021–22.		

<sup>6</sup> Baseline numbers have changed as a result of the methodology used to calculate the baseline.

<sup>7</sup> This is an interim target, established by Treasury Board Secretariat (TBS) in its Greening Government Strategy, towards a full 80% reduction below 2005 levels by 2050.

<sup>8</sup> The target date has been amended from March 2020 to March 31, 2021. (To be confirmed in collaboration with Indigenous partners)

<sup>9</sup> Significant progress has been achieved to date, however more time is needed for this co-development process. The senior bilateral PCF tables are co-led in partnership with Indigenous partners. To date, there have been PCF table meetings with Inuit, Métis and First Nations to define indicators and ensure meaningful engagement of Indigenous peoples in implementing the PCF.

GHG reductions resulting from international initiatives funded by Canada	Higher cumulative reductions from year to year, from the baseline, reaching minimum reduction of 200 Mt of GHGs.	Long-term cumulative indicator	An estimated reduction of 24.8 Mt of GHGs is expected from funds delivered so far	An estimated cumulative reduction of 175.7 Mt of GHGs is expected from Canada's \$2.65B funding	New results are expected to become available in early 2021
Cumulative number of people in developing countries who benefited from Canada's adaptation finance	Higher cumulative number of people in each consecutive year, reaching at least 10M people by 2030.	December 2030	An estimated 650,000 people with increased resilience are expected from funds delivered so far	A cumulative estimate of 4,593,285 people will have increased their resilience as a result of Canada's \$2.65B funding	New results are expected to become available in early 2021
<b>Departmental Result: Canadian communities, economies and ecosystems are more resilient</b>					
<b>Departmental result indicator</b>	<b>Target</b>	<b>Date to achieve target</b>	<b>2017-18 actual result</b>	<b>2018-19 actual result</b>	<b>2019-20 actual result</b>
Number of individuals, businesses, and governments accessing climate services and using that information to inform decision-making	Increase from baseline	Annually in March	This is a new indicator. Results are not available for this year	Results not yet available. The baseline will be established when the Canadian Centre for Climate Services (CCCS) has been functioning for one full year. The CCCS became operational in October 2018, thus a baseline will be set in 2019-20	180,390 visits to access climate services during 2019-20.

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>xx</sup>.

#### Planned budgetary financial resources for Taking Action on Clean Growth and Climate Change\*

<b>2021-22 budgetary spending (as indicated in Main Estimates)</b>	<b>2021-22 Planned spending</b>	<b>2022-23 Planned spending</b>	<b>2023-24 Planned spending</b>
540,359,130	540,359,130	284,689,573	254,559,871

\*All figures, throughout the document, are net of spendable revenues.

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>xx</sup>.

**Planned human resources for Taking Action on Clean Growth and Climate Change\***

<b>2021–22 Planned full-time equivalents</b>	<b>2022–23 Planned full-time equivalents</b>	<b>2023–24 Planned full-time equivalents</b>
570	511	510

\* Totals may differ within and between tables due to the rounding of figures. The Full-Time Equivalents numbers, throughout the document, include students.

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>xxi</sup>.

## Core Responsibility: Preventing and Managing Pollution

### Description

Collaborate with provinces, territories, Indigenous peoples and others to develop and administer environmental standards, guidelines, regulations and risk management instruments to reduce releases and monitor levels of contaminants in air, water and soil, and promote and enforce compliance with environmental laws and regulations.

### Planning highlights

#### Toward a circular economy

In September 2021, Canada will host the World Circular Economy Forum (WCEF) – an international event co-organized by ECCC and the Finnish Innovation Fund Sitra. This global event brings together leaders, businesses, policymakers, and experts to present solutions for a circular economy. The 2021 forum will focus on the cross-cutting issues and topics that are central to economic recovery and the circular transition. WCEF2021 will identify the key actions and systemic changes needed to create the conditions for long-term success on the path to a thriving global circular economy.

#### Law enforcement during the COVID-19 pandemic

Canada's environmental laws remain in effect, and regulatees are being reminded that compliance requirements have not changed. Where COVID-19 has had an impact on regulatees' ability to maintain or come into compliance, they are advised to document the steps taken to try to achieve compliance and the obstacles caused by the pandemic. Enforcement officers have continued to respond to urgent situations at all times, and proactive enforcement activities have been evaluated on a case-by-case basis in the context of potential harm to the environment and the health and safety of officers and members of the public.

#### Addressing plastic waste and pollution



Figure 1: Main areas of action for a circular plastics economy in Canada

ECCC is leading the *Federal Leadership Towards Zero Plastic Waste* initiative, a comprehensive agenda to achieve the Government of Canada's goal of zero plastic waste by 2030. The initiative aims to increase knowledge about plastic waste and pollution in order to inform and take support targeted actions that will prevent or reduce waste across the plastics lifecycle. In addition, by increasing the amounts that are collected and recovered back into the economy, it is estimated that Canada can avoid 1.8 million tonnes of greenhouse gas emissions per year and create up to 42,000 jobs across the country. Priorities for 2021-22 include the proposal to manage appropriately single use items that are harmful in the environment and the proposal for recycled content requirements for plastic products. In 2021-22, successful sector- and product-specific solutions to reduce plastic waste and improve its recovery, as supported through the Canadian Plastics Innovation Challenges, will begin prototype development. ECCC and other federal government departments will continue to work with

provinces and territories through the Canadian Council of Ministers of the Environment to implement the 2018 [Canada-wide Strategy on Zero Plastic Waste<sup>xxi</sup>](#). The comprehensive Strategy targets each stage in the life-cycle of plastics through a suite of activities described in its [Action Plan<sup>xxii</sup>](#).

Canada will also continue to take a leadership position in addressing plastic waste both nationally and internationally. Since 2018, Canada has spearheaded the Ocean Plastics Charter, which remains the only global framework to take a comprehensive approach to addressing marine plastics pollution by encouraging ambitious action and cooperation by governments, businesses and organizations. In support of the Charter, Canada has committed \$100M to address plastic waste in developing countries, spark innovation to beat plastic pollution, and support innovative private-public partnerships. As of October 2020, it is supported by 26 governments and 70 businesses and organizations globally. ECCC will continue to promote broad endorsement of the Charter in 2021-22.

## Chemicals Management Plan

To protect the environment and Canadians from harmful substances, ECCC will continue to deliver Canada's [Chemicals Management Plan<sup>xiv</sup>](#) (CMP) in collaboration with Health Canada. As of October 2020, the two departments had addressed 3,928 of 4,363 chemicals identified in 2006 as priorities for attention, while the remaining 435 priority chemicals will be addressed in subsequent years as required. The pace and volume of this risk assessment work was identified as a noteworthy accomplishment in a recent [evaluation of the CMP<sup>xv</sup>](#), in particular when compared to other agencies involved in chemical regulation around the globe. In 2021-22, ECCC will complete the process of aligning its Canadian Notice and Manifest Tracking System with the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations*. ECCC regulatory activities in 2021-22 will include taking action on toxic substances by proposing amendments to the *Prohibition of Certain Toxic Substances Regulations, 2012* to include two new flame retardants, DP and DBDPE, and to further restrict five substances. ECCC and Health Canada will continue to support regional First Nation leadership organizations to host community sessions on environmental protection on reserve lands. Certain populations in Canada, such as expectant mothers, children, the elderly, and Indigenous communities, are more vulnerable to harmful substances and their needs should be carefully considered in selecting risk management measures.

Under the CMP, several research projects will address issues of fate<sup>10</sup>, bioaccumulation and the effects of CMP priority substances. ECCC is committed to continuous improvement and will work with Health Canada to better protect people and the environment from harmful substances, including by strengthening the *Canadian Environmental Protection Act, 1999* (CEPA).

## Reducing Air Pollution, Improving Air Quality

ECCC will continue to lead the work with its key federal partners, Health Canada and National Research Council Canada, to address air pollution with the aim of improving air quality and reducing impacts on health and the environment. ECCC will continue to collaborate with provinces and territories to implement the [Air Quality Management System<sup>xvi</sup>](#) (AQMS), a comprehensive approach to reducing outdoor air pollution in Canada. The Department will complete a review of the 2020 national ambient air quality standards for fine particulate matter (PM<sub>2.5</sub>) and, if warranted, propose more stringent standards. In 2021-22, ECCC will continue to monitor levels of key air pollutants in collaboration with provinces and territories through the National Air Pollutant Surveillance Program, leverage its high performance computing infrastructure to conduct research and modelling to understand atmospheric chemistry processes and their impacts on ecosystems and human health, work to improve models to predict atmospheric contaminant effects on air quality, and



<sup>10</sup> Chemical fate describes where a chemical goes when it gets out into the environment and how it might be chemically transformed in the process.

provide scenarios to support policy development. The Department will continue to collaborate with Health Canada to implement the [Air Quality Health Index<sup>xxvi</sup>](#), to help Canadians make decisions to protect their health.

ECCC will continue to develop, administer, and amend, where appropriate, regulations to reduce air pollutant emissions from industrial sources, vehicles, engines and fuels, and consumer and commercial products. The Department will continue to administer the *Multi-sector Air Pollutants Regulations* (MSAPR), as well as various non-regulatory instruments that address air pollutant emissions from industrial sectors. The Department will also administer the *Regulations Respecting Reduction in the Release of Volatile Organic Compounds (Petroleum Sector)*, published in November 2020, which will reduce air pollution from petroleum refineries, upgraders and certain petrochemical facilities. ECCC will also continue to assess options to reduce emissions from other sources of air pollution in the oil and gas sector, including from petroleum storage tanks and loading operations. In addition, ECCC will administer the *Off-Road Compression-Ignition (Mobile and Stationary) and Large Spark-Ignition Engine Emission Regulations*, published in December 2020.

ECCC will continue the work that began in 2020-21 to identify future government action for the reduction of volatile organic compound emissions from consumer and commercial products over the 2020-2030 period.

ECCC will also continue efforts internationally to reduce transboundary air pollutants, including under the [Canada-U.S. Air Quality Agreement<sup>xxvii</sup>](#) and the Convention on Long-Range Transboundary Air Pollution.

### Protecting Canada's Freshwater Resources

The Great Lakes, St. Lawrence River and Lake Winnipeg are among Canada's most important freshwater resources and in 2021-22, ECCC will continue to focus effort on improving, restoring and protecting these and other large lakes, such as Lake Simcoe. This includes undertaking the science necessary to improve water quality, and to conserve and enhance aquatic ecosystems in these vital watersheds. The Department will engage Indigenous organizations and communities in conservation and restoration of its freshwater resources, including by implementing key water agreements, and will support Indigenous community and organization capacity development projects. The Department will also increase public engagement in conservation and restoration through citizen science.

The Great Lakes Basin is home to one-in-three Canadians and one-in-ten Americans. It provides significant environmental and economic benefits to both countries. According to the [State of the Great Lakes 2019<sup>xxx</sup>](#), published in June 2020, Great Lakes water quality is assessed overall as "fair and unchanging", but with ongoing challenges that include invasive species and excess nutrients that contribute to toxic and nuisance algae.

To address these challenges and protect and conserve these major lakes, ECCC will continue to lead the implementation of the Great Lakes Water Quality Agreement (GLWQA) in cooperation with other federal departments, U.S. federal and state agencies, the International Joint Commission, Indigenous communities and organizations and other partners, and continue work to finalize bi-national priorities for 2020-2023. In partnership with the government of Ontario, the Department will lead the implementation of a new Canada-Ontario Agreement (2021-2026) and will continue to implement the Canada-Ontario Lake Erie Action Plan. These major agreements are aligned to address key challenges, such as algae in Lake Erie, chemical pollution, and plastic waste.

ECCC will implement the Great Lakes Protection Initiative program to restore the water quality and ecosystem health of Great Lakes Areas of Concern, and to prevent toxic and nuisance algae in Lake Erie,



#### Restoring Hamilton Harbour

Cleaning up [Randle Reef<sup>xxxix</sup>](#) is one of the most significant steps remaining to remediate Hamilton Harbour and remove it from the list of Great Lakes Areas of Concern. ECCC will continue to collaborate with the Ontario Ministry of the Environment, Conservation and Parks, Stelco, Hamilton-Oshawa Port Authority, City of Hamilton, City of Burlington, and Halton Region to complete the eight-year Hamilton Harbour project by 2022. Once completed, the site will be turned over to the Hamilton Oshawa Port Authority, which will maintain the facility in perpetuity and use the site as valuable port land.



among other priorities. The Department will lead the development of a detailed inter-agency implementation plan to achieve Canada-Ontario targets under the Lake Erie Domestic Action Plan.

The St. Lawrence River is recognized worldwide, as reflected by the Ramsar Convention designations of its four Wetlands of International Importance, as well as the United Nations Educational, Scientific and Cultural Organization (UNESCO) designations of the Lac Saint-Pierre Biosphere Reserve and the Miguasha National Park World Heritage Site. The Department will continue its priority work under the Canada-Québec Agreement on the St. Lawrence (St. Lawrence Action Plan 2011-2026) to conserve, restore, protect, and develop this major river. ECCC will continue its monitoring program and publish the results of 21 indicators of St. Lawrence water quality in 2020-21.

In 2021-22, ECCC will collaborate with Manitoba to implement the new Canada-Manitoba Memorandum of Understanding (MOU) Respecting Lake Winnipeg and the Lake Winnipeg Basin. Under the MOU, work will continue with Indigenous and other partners to reduce nutrient loadings in the Basin and support Manitoba's plan to reduce phosphorus in Lake Winnipeg by 50% (by 2022).

In other major basins, such as the Saint John River (Wəlastəkw) watershed, the Department will continue efforts to increase coordination and collaboration with other government departments, Indigenous people, and stakeholders to identify and advance water quality and ecosystem priorities, goals, and objectives.

ECCC is the lead federal department for the administration of the pollution prevention provisions of the *Fisheries Act* which prohibit water pollution that is harmful to fish. In 2021-22, ECCC plans to publish proposed Coal Mining Effluent Regulations for consultation, and to undertake consultations to advance the development of a new Oil Sands Effluent Regulation.

### Supporting the development of a Canada Water Agency

The Government of Canada will create a new Canada Water Agency to work together with provinces, territories, Indigenous communities, local authorities, scientists, and others, to find the best ways to keep our water safe, clean, and well managed.

### Science advice to Oceans Protection Plan

The whole-of-government [Oceans Protection Plan<sup>xxx</sup>](#) (OPP) is a \$1.5 billion plan to strengthen Canada's marine safety system and protect coastal ecosystems. In 2021-22, ECCC will support the implementation of a state-of-the-art safety system and actions to preserve and restore marine ecosystems through the OPP. In addition to providing ongoing scientific expertise, and environmental and weather data on a 24/7 basis to support effective responses to environmental emergencies, the Department will contribute research on the physical and chemical properties and environmental behaviour of spilled bitumen, including the use of alternative response measures.

#### Federal Sustainable Development Strategy (FSDS) 2019-2022

An Act to Amend the *Federal Sustainable Development Act* came into force on December 1, 2020, thus expanding the number of federal organizations required to contribute to the FSDS and report on their sustainable development activities from 27 to more than 90. In 2021-22, in addition to providing ongoing advice to departments and agencies, and reporting federal progress against the strategy, ECCC will continue to support the significant number of organizations newly subject to the FSDS, and will begin to work on the next Strategy to be developed under the amended Act.

ECCC's Canadian Environmental Sustainability Indicators program supports the FSDS through data and information that tracks Canada's performance on key environmental sustainability issues including climate change and air quality, water quality and availability, and protecting nature. ECCC will report on progress of the 2019-2022 FSDS in 2021.

## Federal contaminated sites

In 2021-22, ECCC will continue to provide expert advice to help federal custodians assess and remediate their contaminated sites to ensure that the highest-priority sites are remediated, and risks associated with human health and environmental protection be reduced, under the Federal Contaminated Sites Action Plan (FCSAP).

## Food Safety and Security

The Department will work with Indigenous partners, stakeholders, land-users and communities, and will conduct research and monitoring to inform decision-making regarding contaminants in Canadian ecosystems and traditionally harvested foods. ECCC will monitor priority contaminant trends in ecosystems, including in northern and arctic environments, in support of domestic and international chemical management initiatives and to support initiatives addressing food safety and security, and the maintenance of traditional ways of life.

## Key Risks

To prevent and manage pollution across Canada, the Department needs to address any uncertainties regarding the development and implementation of environmental standards, guidelines, regulations and other risk management instruments to reduce releases and monitor levels of contaminants in air, water and soil, and to promote and enforce compliance with environmental laws and regulations.

Extensive collaboration with various partners, including businesses, non-governmental organizations, municipalities, provinces, territories and Indigenous communities, is an essential component of the department's efforts to deliver anti-pollution programming (e.g., on plastic waste, air pollution, oil sands monitoring, protecting Canada's freshwater resources).

Additionally, ECCC will support strategic partnerships, both domestic and international, to address the new realities of climate change by maintaining alignment of these partnerships with key government-wide objectives, and exploring new means of planning and conducting consultations in a coordinated fashion. The Department will also leverage membership in international fora in order to deliver programming designed to manage climate change and transboundary air pollution.



**United Nations' 2030 Agenda and [Sustainable Development Goals](#)<sup>xxii</sup>**

The diverse programs and strategies under ECCC's core responsibility for Preventing and Managing Pollution will contribute very substantially to more than half of the 17 UN Sustainable Development Goals. Continued enforcement of the *Canadian Environmental Protection Act 1999* and key provisions of the *Fisheries Act*, coupled with the implementation of the Chemicals Management Plan, implementation of Canada's obligations under the chemicals and waste multilateral environmental agreements, and advancement of regulations to protect air and water quality and promote clean fuels, will support healthy lives and well-being for all ([Goal 3](#)<sup>xxiii</sup>), while also advancing the sustainable management of water and sanitation ([Goal 6](#)<sup>xxiv</sup>), promoting sustainable production and consumption practices ([Goal 12](#)<sup>xxv</sup>) and fighting climate change ([Goal 13](#)<sup>xxvi</sup>).

Through the implementation of domestic and international measures focused on responsible waste management, oceans protection, and the elimination and reduction of plastics waste and pollution in the environment, ECCC will support sustainable use of marine resources ([Goal 14](#)<sup>xxvii</sup>) and promote inclusive approaches to sustainable development, industrialization, and urbanization ([Goal 8](#)<sup>xxviii</sup>, [Goal 9](#)<sup>xxix</sup>, [Goal 11](#)<sup>xl</sup>, [Goal 15](#)<sup>xli</sup>, and [Goal 16](#)<sup>xlii</sup>). ECCC will also continue to be an active partner and leader in global action on pollution prevention and management ([Goal 17](#)<sup>xliii</sup>).

**Commitment to Experimentation: Using behavioural insight to improve key aspects of reporting by dry cleaners**

ECCC will experiment with applying behavioural insights (BI) to improve reporting by dry cleaners under the *Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations* in an effort to improve the number of completed reports and to decrease the number of errors in reports submitted. In 2021–22, using a randomized controlled trial, the Department will supply regulatees with self-addressed stamped envelopes to encourage completion and submission of reports, testing if this affects the number of reports received. A revamped reporting package will be sent to all regulatees in February, with information to help them better understand their responsibilities under the regulations and to identify common points of error in report completion. A subset of these regulatees will be provided with pre-stamped return envelopes. The dual goal is to both assess improvements in the quality and number of reports submitted, and to assess the impact of improving the quality of information material used to support regulatees. Depending on results, the approach used with dry cleaners could be applied to support reporting under other regulations.

**Commitment to Experimentation: Stakeholder Engagement to Advance Supply Chain Transparency for Chemicals in Products**

ECCC will apply a policy lab approach to engage Canadian stakeholders in co-developing new solutions to enhance supply chain transparency for chemicals in products. The evaluation is expected to begin in summer 2021.

**Planned results for Preventing and Managing Pollution**

<b>Departmental Result: Canadians have clean air</b>					
<b>Departmental result indicator</b>	<b>Target</b>	<b>Date to achieve target</b>	<b>2017–18 actual result</b>	<b>2018–19 actual result</b>	<b>2019–20 actual result</b>
Percentage of Canadians living in areas where air quality standards are achieved	85%	December 2030	70% for the 2013–15 data period.	77% for the 2014–16 data period (most recent available). <sup>11</sup>	75% (Based on 2015–17 data)
<b>Departmental Result: Canadians have clean water</b>					
<b>Departmental result indicator</b>	<b>Target</b>	<b>Date to achieve target</b>	<b>2017–18 actual result</b>	<b>2018–19 actual result</b>	<b>2019–20 actual result</b>
Percentage of wastewater systems where effluent quality standards are achieved	100%	December 2040	76%	73% <sup>12</sup>	74%

<sup>11</sup> Air quality monitoring results are subject to data validation and are available 18–24 months after data collection. In the 2018–19 and 2019–20 Departmental Plans, data were reported in the year the data were collected. As of the 2018–19 Departmental Results Report, data will be reported in the year that the data is validated. This ensures that the most recent data are reported in any given fiscal year.

<sup>12</sup> The Quebec equivalency agreement has reduced the number of wastewater systems subject to the *Wastewater Systems Effluent Regulations* which altered this result.

Departmental Result: The Canadian environment is protected from harmful substances					
Departmental result indicator	Target	Date to achieve target	2017-18 actual result	2018-19 actual result	2019-20 actual result
Percentage of substances that are added to Schedule 1 of the CEPA (Toxic substances list) because they pose a risk to the environment that have controls in place within legislated timelines.	100%	March 31, 2022	Results are not available for these years. First results will be reported in the 2020-21 Departmental Results Report.		

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>xiv</sup>.

### Planned budgetary financial resources for Preventing and Managing Pollution

2021-22 budgetary spending (as indicated in Main Estimates)	2021-22 Planned spending	2022-23 Planned spending	2023-24 Planned spending
356,702,104	356,702,104	339,022,613	330,169,771

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>xv</sup>.

### Planned human resources for Preventing and Managing Pollution

2021-22 Planned full-time equivalents	2022-23 Planned full-time equivalents	2023-24 Planned full-time equivalents
2,089	2,029	2,019

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>xvi</sup>.

## Core Responsibility: Conserving Nature

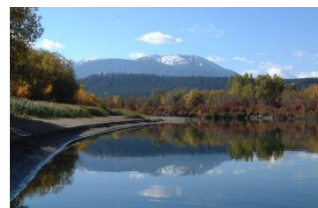
### Description

Protect and recover species at risk and their critical habitat; conserve and protect healthy populations of migratory birds; engage and enable provinces and territories, Indigenous peoples, stakeholders, and the public to increase protected areas and contribute to conservation and stewardship activities; expand and manage the Department's protected areas; and collaborate with domestic and international partners to advance the conservation of biodiversity and sustainable development.

### Planning highlights

#### Meeting Canada's international commitments for Nature

In September 2020, Prime Minister Justin Trudeau joined 75 heads of state, government representatives and biodiversity stakeholders to launch the Leaders Pledge for Nature – a ten-point plan to put nature and biodiversity on a path to recovery by 2030. Recognizing that successfully addressing the biodiversity loss crisis demands concerted international effort and commitment, leaders committed to actions such as placing biodiversity, climate and the environment at the heart of COVID-19 recovery efforts, implementing an ambitious post-2020 global biodiversity framework, and transitioning to sustainable patterns of production and consumption, and sustainable food systems. ECCC will continue its global leadership for nature by engaging with international partners to negotiate and agree on a new post-2020 global biodiversity strategy to guide nature action over the next decade. Canada will continue to support a Canadian to serve as co-chair for this important negotiation, and will advance commitments at the 15th Conference of the Parties to the Convention on Biological Diversity in the fall of 2021. The Department will aim for a simple, measurable framework that focuses on the direct drivers of global biodiversity loss with recognition of the important roles of women, youth and Indigenous peoples. Importantly, Canada will advocate for a global target of 30% conservation of land and sea, by 2030 (see further details below). ECCC will continue to provide the Chair of the Convention on Endangered Species of Wild Flora and Fauna (CITES) Standing Committee. The Department will continue to monitor threats to species around the world, and act to effectively contribute to their conservation and sustainable use. ECCC will continue to lead and raise awareness of the role of wildlife trade in the spread of zoonotic diseases.



#### Protect 25% of Canada's Lands and Oceans

The Speech from the Throne committed Canada to conserve 25% of our country's lands and oceans by 2025 and work toward 30% by 2030. ECCC will continue to work with Parks Canada Agency and the Department of Fisheries and Oceans on an ambitious plan to achieve these targets. Recognizing that the loss of nature is a global issue requiring global action, Canada will also advocate that countries around the world set a high ambitious 30% conservation goal for 2030, as advocated by the Prime Minister in September 2020.

Canada's historic investment of \$1.3 billion over five years (Budget 2018) under Canada's [Nature Legacy Initiative](#)<sup>xvii</sup> provided \$500 million, matched by partners, to establish the [Canada Nature Fund](#)<sup>xviii</sup>. Efforts supported under the Canada Nature Fund will continue to expand a network of protected and other conserved areas across Canada. They include:

- The [Target 1](#)<sup>xix</sup> Challenge program, which provides up to \$175 million to support the implementation of new conservation projects across all provinces and territories; and

- The Natural Heritage Conservation Program, which launched in April 2019 and provides a \$100 million investment to help secure private lands and private interests in lands.

To achieve these targets, ECCC will work with provinces and territories, Indigenous peoples, key industry sectors, and private foundations and trusts to continue to build a network of protected and other conserved areas across Canada. For example, the federal and provincial governments will work with the ranching community to conserve prairie grasslands and manage pastures in southwestern Saskatchewan in an environmentally, economically, and socially responsible way in order to support wildlife habitat protection, livestock production, and local and Indigenous community interests. The Department continues to collaborate with partners to conserve ecosystems and landscapes in ways that benefit lower income, rural and Indigenous communities.

The Department will follow through on more than 68 nature conservation projects announced in June of 2020 to protect biodiversity from coast to coast. Nearly two-thirds of these are led or are being implemented in partnership with Indigenous peoples, with the aim of creating Indigenous Protected and Conserved Areas that will contribute substantially to the 25% terrestrial protected area target for Canada.

### Canada's approach to transforming species at risk conservation

The [Nature Legacy for Canada Initiative<sup>l</sup>](#) sets out a roadmap to protect Canada's biodiversity through the protection of lands and waters, and the conservation of species at risk. With this initiative and support from the Canada Nature Fund, the [Pan-Canadian Approach to Transforming Species at Risk Conservation in Canada<sup>li</sup>](#) (Pan-Canadian Approach) reflects a shift to a more multi-species and ecosystem-based approach to conservation, with more targeted and collaborative federal provincial and territorial, and Indigenous partnership approach focussed on conservation planning and action on shared priority places, species, and sectors.

In 2021-22, ECCC will continue to implement the Pan-Canadian Approach by supporting the recovery and conservation of six identified shared priority species (Barren-ground Caribou (including the Dolphin and Union population), Boreal Caribou, Greater Sage-grouse, Peary Caribou, Southern Mountain Caribou, and Wood Bison) and other species of federal interest, through investments, including investments from partners and ongoing collaborative conservation planning arrangements.

In 2021-22, ECCC will continue to invest in projects to support ongoing species at risk conservation in 11 federal-provincial-territorial priority places. ECCC will also continue to administer the Canada Nature Fund's Community-Nominated Priority Places for Species at Risk—a \$15.6 million, four-year funding initiative to support community-led projects that protect and conserve species at risk. For example, an investment of \$2 million over four years in *Kootenay Connect* will support a project that aims to help protect and restore species-at-risk habitat and ecological connectivity in four biodiversity hotspots in the Kootenay region of southeastern British Columbia.

Guided by the Pan-Canadian Approach, ECCC will continue to implement the *Species at Risk Act* (SARA) through listing, recovery planning, and protection action. ECCC will continue to engage with provinces, territories, Indigenous communities, scientists, industry and other stakeholders in the delivery of SARA activities. The Department will continue to enhance compliance promotion and enforcement capacities and methods by building computer forensics capacity to assist with investigations, modernizing officer training and equipment, and recertifying officers to ECCC standards through an internal *National Use of Force Team*.

#### Law enforcement during the COVID-19 pandemic

Canada's environmental laws remain in effect, and regulatees are being reminded that compliance requirements have not changed. Where COVID-19 has had an impact on regulatees' ability to maintain or come into compliance, they are advised to document the steps taken to try to achieve compliance and the obstacles caused by the pandemic. Enforcement officers have continued to respond to urgent situations at all times, and proactive enforcement activities have been evaluated on a case-by-case basis in the context of potential harm to the environment and the health and safety of officers and members of the public.

## Wildlife health: A One Health Approach

In 2021-22, ECCC will continue efforts to implement the [Pan-Canadian Approach to Wildlife Health<sup>lii</sup>](#) in collaboration with its provincial and territorial counterparts, and to conduct research and monitoring to inform decision-making regarding impacts of multiple stressors and cumulative effects on wildlife health following a One Health approach. One Health is defined as a collaborative, multisectoral, and transdisciplinary approach which recognizes the interconnection between people, animals, plants, and their shared environment. By working with at the local, regional, national, and global levels, and with fulsome engagement of Indigenous partners and communities, One Health is an approach that recognizes that the health of people is closely connected to the health of animals and their shared environment. The Pan-Canadian Approach to Wildlife Health embodies the spirit of One Health, and encourages collaboration and cooperation across the human, animal and environmental sectors to achieve shared benefits. A coordinated and harmonized Pan-Canadian Approach to Wildlife Health is needed as failures in wildlife health in one jurisdiction have the potential to adversely impact citizens or species in another jurisdiction. The approach reflects a shift to more multi-species and ecosystem-based conservation, and more collaborative wildlife health surveillance in association with land-users, and with full engagement of Indigenous stakeholder and partner groups. Aims of the collaborative, multi-disciplinary and multi-sectoral One Health approach include an increase in surveillance and readiness/preparedness to address environmental changes that have impacts on all sectors, including advancing efforts to address issues surrounding Indigenous food safety and security and the maintenance of a traditional way of life. By promoting collaboration across all sectors, a One Health approach can achieve the best health outcomes for people, animals, and plants in a shared environment.

### COVID-19 contingency plans

In response to the COVID-19 pandemic, ECCC has established contingency plans for the delivery of critical services. For example, site-specific plans are in place to maintain safe visitor access to publicly accessible National Wildlife Areas, and to protect employee health and safety at sites. Since June 1, 2020 over 100,000 people have visited our National Wildlife Areas.

### Collaborating with Indigenous peoples

ECCC remains committed to meaningful engagement with Indigenous peoples in conservation, through the implementation of a number of programs that support Indigenous reconciliation and Indigenous leadership to achieve conservation outcomes that support Canada's goals. The Department will continue working to renew nation-to-nation relationships with Indigenous peoples as part of the implementation of the Pan-Canadian Approach and the federal *Species at Risk Act*. Under the Canada Nature Fund, partnerships with First Nations, Inuit, and Métis will advance the conservation of species at risk in a manner that recognizes and enables Indigenous leadership, knowledge systems, and interests in land management. In 2021-22, projects will contribute to building Indigenous partners' capacity to: lead the development and implementation of recovery and protection measures for at-risk species (including several culturally significant caribou species); negotiate and implement conservation agreements for the collaborative conservation of species at risk; and support meaningful participation in *Species at Risk Act* consultation and cooperation processes.

ECCC will continue to work with its three Indigenous governance bodies to co-deliver its [Indigenous Guardians Pilot Program<sup>liii</sup>](#) to support more than 70 First Nations, Métis and Inuit communities' Guardians initiatives in protecting sensitive and culturally important areas and species, monitoring ecological health, and maintaining Indigenous cultural sites. The Pilot will conclude in 2022, and will include an evaluation of the funded initiatives' benefits and the Pilot's effectiveness. Supporting Indigenous leadership in conservation is a central component of Canada's effort to protect 25% of Canada lands and oceans by 2025, and lay a foundation for achieving 30% by 2030. Work funded under the Canada Nature Fund will support the establishment of 30 Indigenous Protected and Conserved Areas (IPCAs), across Canada through funding opportunities, such as the Target 1 Challenge program.



## Migratory Birds

The Department will continue to monitor and assess the status of migratory bird populations and habitats, model the causes and effects of population changes, establish measurable population and habitat goals and conservation priorities, identify conservation actions in consultation with stakeholders, modernize and develop regulations, enforce laws that protect migratory birds, their nests and habitats, and develop new strategic directions for migratory bird conservation. This delivers on the Government of Canada's exclusive responsibility for migratory birds. The Minister's advice to the Governor in Council is based on science, including Indigenous traditional knowledge, and consultations with affected parties to assess the socio-economic impacts of decisions.

## Impact assessments

Under the *Impact Assessment Act*, ECCC will continue to provide expertise and advice related to climate change, air quality, water quality, environmental preparedness and emergencies, and biodiversity. This will include developing guidance for project proponents on standard methodologies to address common issues and contribute to the federal approach to cumulative effects under the IAA. In particular:

- The Department will publish two technical guides to support the final Strategic Assessment of Climate Change (SACC), which was published in 2020. While the SACC provides guidance on how climate change should be considered in impact assessments, ensuring greater transparency, clarity, consistency, and improved process certainty, the technical guides will provide additional technical guidance on specific elements of the SACC. This will allow the proponents to be better prepared for impact assessments, which may in turn result in a more timely assessment process. The SACC provides Canadians with a clear link between impact assessment and national objectives on climate change.
- The Department will contribute to conducting and publishing the Strategic Assessment of Thermal Coal Mining (SATCM), by leading the committee of government officials responsible for conducting the SATCM. The SATCM will guide decision-makers on how new thermal coal mine projects will be considered under the IAA.

## Key Risks

The effective management of information assets is critical to the Department's ability to conserve nature. Many areas of uncertainty exist, such as the effect of COVID-19 and other factors that could impede collaboration with external partners, the technical work needed to monitor populations, and the establishment of protected and conserved areas. Other uncertainties include effects that might impede ECCC's capacity to leverage scientific data and Indigenous knowledge systems, and to adapt its approaches and programming to climate change and enforcement of legislation that facilitates conservation. In particular, ECCC needs to maintain ongoing capacity to protect and recover species at risk and critical habitat; increase support to others to expand and effectively manage protected areas and contribute to conservation and stewardship activities; expand and effectively manage the Department's protected areas; and advance the conservation of biodiversity and sustainable development.

To leverage available sources of information to support evidence-based decisions and activities, ECCC will develop a strategic approach to investments in information management systems, infrastructure, and tools that compel the appropriate management of information and allow for corporate information and data sharing.




**United Nations' 2030 Agenda and [Sustainable Development Goals](#)<sup>liv</sup>**

ECCC's new Pan-Canadian Approach to Species at Risk and its substantial new investments in federal and other protected areas under its Nature Legacy initiative, combined with ongoing action for wetlands protection, habitat stewardship, and wildlife conservation, will serve to: conserve biodiversity and the quality and viability of natural ecosystems; preserve and restore air and water quality; and promote sustainable land use and wildlife harvesting practices. These will primarily support the UN sustainable development goals of life in water ([Goal 14](#)<sup>lv</sup>) and life on land ([Goal 15](#)<sup>lv</sup>).

**Planned results for Conserving Nature**

<b>Departmental Result: Canada's wildlife and habitat are conserved and protected</b>					
<b>Departmental result indicator</b>	<b>Target</b>	<b>Date to achieve target</b>	<b>2017–18 actual result</b>	<b>2018–19 actual result</b>	<b>2019–20 actual result</b>
Percentage of migratory bird species that are within target population ranges	60%	December 2021	Result is not available for this year.	58%	57%
Percentage of Canadian areas conserved as protected areas and other effective areas-based conservation measures	Increase toward achievement of 17% to 20% from a baseline of 10.6% in 2015 (Terrestrial lands & inland waters)	2022	10.5%	11.8%	12.1%
<b>Departmental Result: Canada's species at risk are recovered</b>					
<b>Departmental result indicator</b>	<b>Target</b>	<b>Date to achieve target</b>	<b>2017–18 actual result</b>	<b>2018–19 actual result</b>	<b>2019–20 actual result</b>
Percentage of species at risk for which changes in populations are consistent with recovery objectives	60%	May 2025	43%	41%	41% <sup>13</sup>
<b>Departmental Result: Indigenous peoples are engaged in conservation</b>					
<b>Departmental result indicator</b>	<b>Target</b>	<b>Date to achieve target</b>	<b>2017–18 actual result</b>	<b>2018–19 actual result</b>	<b>2019–20 actual result</b>
Percentage of Indigenous peoples engaged with ECCC who indicate that the engagement was meaningful	61%	April 2022	This is a new indicator. Results are not available for this year	61%	69%

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>lvii</sup>.

<sup>13</sup> 41% of species at risk show progress towards population and distribution objectives. Evidence for another 12% of species at risk is mixed, with evidence of both improving and declining trends.

**Planned budgetary financial resources for Conserving Nature**

<b>2021-22 budgetary spending (as indicated in Main Estimates)</b>	<b>2021-22 Planned spending</b>	<b>2022-23 Planned spending</b>	<b>2023-24 Planned spending</b>
325,886,137	325,886,137	313,718,807	141,879,293

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>lviii</sup>.

**Planned human resources for Conserving Nature**

<b>2021-22 Planned full-time equivalents</b>	<b>2022-23 Planned full-time equivalents</b>	<b>2023-24 Planned full-time equivalents</b>
1,192	1,179	790

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>lix</sup>.

## Core Responsibility: Predicting Weather and Environmental Conditions

### Description

Monitor weather, water, air quality and climate conditions; provide forecasts, information and warnings to the Canadian public and targeted sectors through a range of service delivery options; conduct research; develop and maintain computer-based models for predicting weather and other environmental conditions; and collaborate and exchange data with other national meteorological services and with international organizations.

### Planning highlights

#### Providing Canadians with environmental and weather information to support decisions

In 2021-2022, ECCC will proudly mark the 150<sup>th</sup> anniversary of the establishment of the Meteorological Service of Canada (MSC). As one of the nation's longest standing government institutions, the Service has a long and proud history of serving Canadians with accurate and timely information on weather and environmental conditions to help them make decisions about their health, safety and economic well-being. In 2021-2022, ECCC will not only look back on 150 years of a sustained success, but also look forward in order to continuously improve the Service through its scientific expertise, a leading edge approach to data management, and a continued focus on the changing needs of its clients and stakeholders.

Every day, ECCC uses a state-of-the-art supercomputer to bring together 13 million observations about Canada's environment and other data available from domestic and international partners. The supercomputing infrastructure was updated in January 2020 to offer an increase of two-and-a-half times the calculation power in order to operate several weather and environmental models (e.g., air quality, hydrology), including the first global coupled ocean-atmosphere model. ECCC also serves on average six to twelve million machine-to-machine requests for weather and environmental data and products on a daily basis. ECCC's meteorologists and scientists work around the clock in prediction centres across the country to deliver expert forecasts for the weather and extreme weather conditions. Quality assured data and information on water levels and flows are provided in real-time to provincial and territorial clients to allow mitigation of water-related events. This helps Canadians, provincial and territorial emergency management organizations, and weather-sensitive businesses prepare for weather and flooding events, and become more resilient to the consequences of climate change. For example, the Canadian Hurricane Centre meteorologists track the intensity and path of storms and issue warnings for those storms with the potential to affect Canada or its waters. In addition, ECCC will continue to leverage social media to broaden its reach when notifying Canadians of the potential for high-impact weather events. Weather warnings provide information that can assist Canadians, including vulnerable elderly people, children, the homeless, and the chronically ill or their caretakers, to make informed decisions in weather scenarios that may pose them increased risks.

#### COVID-19 Contingency

The Meteorological Service of Canada (MSC) is a 24-7 Canada-wide mission-critical organization responsible for safeguarding Canadians, Canadian businesses, Federal, provincial and territorial (FPT) partners, and key sectors, such as the aviation, defense and marine sectors, by providing weather observations, forecasts and warnings regarding extreme meteorological, marine and ice conditions. The MSC also supports water quantity management decisions and provincial/territorial flood management and response by providing observations and expert advice on water quantity and flow. Throughout the COVID-19 pandemic, ECCC has successfully sustained these critical services with minimal disruption by invoking its business continuity management plan. As Canada's response to the pandemic evolves, information and services will continue to be managed and prioritized, as necessary, under ECCC's business continuity management framework. ECCC will continue to adapt operational procedures and safety protocols, engage with partners at all levels, and adjust planned operations and related expenditures to protect the health and safety of employees and maintain the continuity of mission-critical operations.

### Upgrading weather radars and stations



In 2021-22, ECCC will continue to implement the Government of Canada's \$131 million [Canadian Weather Radar Replacement Program](#)<sup>ix</sup> to replace outdated technology with a minimum of 27 new radars by March 2023. Nineteen new radar systems have been installed and a further seven are planned to be installed in several communities across Canada in 2021-22. Radars are the primary tools used by meteorologists to forecast short-term severe weather events associated with thunderstorms, tornadoes, ice storms, and blizzards. The new radars use the most modern technology available and will provide more

detailed information on precipitation type and storm structure, and allow ECCC to give Canadians greater lead time to protect themselves and their property.

### Helping Canadians prepare for hurricanes and other weather events

The Canadian Hurricane Centre provides Canadians with the critical services they need for the annual hurricane season. ECCC's state-of-the-art weather forecasting systems will continue to alert Canadians of approaching tropical storms and hurricanes days in advance. Meteorologists focus their attention on the storms that have the potential to affect Canada and its waters, and issue warnings according to a storm's path and intensity. Canadians can continue to access updated forecasts and warnings at [www.weather.gc.ca](http://www.weather.gc.ca)<sup>ix</sup>, by subscribing to ECCC's hurricane e-bulletins [www.hurricanes.ca](http://www.hurricanes.ca)<sup>ix</sup>, and through local media outlets.

In 2021-22, the Department will continue to innovate to improve its weather and environmental forecasting system, including through continuous improvement of weather and environment (e.g., high impact weather and flood) prediction models and technical innovations, such as the development and implementation of active radar and Lidar<sup>14</sup> sensors.

### Modernizing national water monitoring for Canadians

Systematic monitoring of water levels and flow has always been a priority in Canada, and continues to be increasingly important as Canada is warming at twice the average global rate. A warmer climate means more weather extremes, including increased frequencies of droughts and floods. Better information on water levels and flows means Canadians, water managers, and public authorities have access to the information they need to be prepared and make decisions.

In 2021-22, ECCC's National Hydrological Service will continue to modernize and strengthen its engineering and technical capacity, modernize its hydrometric infrastructure, and put in place new technologies to gather and analyze water information.

The National Hydrological Service will continue to work in partnership with the provinces and territories to co-develop capability for the prediction of water quantity, starting with five major basins in Canada (the Saskatchewan, Nelson, Mackenzie, Columbia and Churchill Rivers), the Great Lakes, and the St. Lawrence River. This work will be completed for the Churchill and Mackenzie Rivers in the next two years. This modernization of infrastructure and prediction development represents a \$90 million federal government investment over five years, ending in 2022-2023. ECCC will continue to provide expert advice and recommendations to inter-jurisdictional and international water boards. This investment will also modernize engineering models and systems for better service delivery to partner agencies involved with domestic and transboundary water management across the country.

---

<sup>14</sup> Method for measuring distances (ranging) by illuminating the target with laser light and measuring the reflection with a sensor.

## Modernization of flood maps

With the modernization of flood maps, ECCC supports the Government of Canada's priority to improve the resilience of communities in Canada most at risk of flooding. ECCC is working with Natural Resources Canada (NRCan) and Public Safety Canada to strengthen both policy and science related to flood mapping. ECCC also engages with provinces and territories through existing governance structures to inform flood mapping engineering methods and approaches to assess flood maps, and supports NRCan in advancing a national flood-mapping standard. This program will support the dissemination of authoritative flood risk information to the public and inform decision-makers at all levels and in many areas, including in municipal planning and urban development.

## Weather-CAN Application

ECCC will continue to provide up-to-date weather information to Canadians through the WeatherCAN application. Canadians can access current weather conditions and receive push notifications<sup>15</sup> for weather alerts for locations anywhere in Canada. In 2021-22, ECCC will continue to develop tailored weather products for the WeatherCAN application, focusing on potential impacts of a weather situation to help better communicate risk to Canadians.

## Key risks

The Department relies on its capital infrastructure to achieve its mandate and deliver mission-critical services. This infrastructure requires maintenance and ongoing investment to prevent rust-out and to ensure functionality in the face of changing and increasingly complex needs. In response to these potential impacts, ECCC is exploring means of enhancing its capital planning to identify capital infrastructure deficits, priorities and funding needs.

The Department's ability to effectively leverage and manage the internal and external information and data required to sustain core operations and deliver world-class meteorological, environmental and hydrological information and services for Canadians could be hampered by its capacity to access, collect, share, and analyze the increasing volume and complexity of data, which is vital to the timely delivery of programs and services for Canadians.

To address these uncertainties, ECCC will explore means of enhancing data governance and transparency, empowering people, promoting a data culture, fostering an enabling data structure, and treating data as a strategic asset. ECCC will also develop a strategic approach to investments in information management systems and tools that compel the appropriate management of data and allow for data mining, branch inter-operability and inter-branch information sharing.

In addition, in support of ECCC's core missions and program integrity, the Department is exploring approaches to enhance multi-year capital planning by identifying capital infrastructure deficits, determining critical infrastructure priorities and funding needs, establishing robust principles to guide risk-based allocation decisions, and completing an enterprise-wide assessment of capital needs.

---

<sup>15</sup> A push notification is a message that pops up on a mobile device.



### United Nations' 2030 Agenda and [Sustainable Development Goals](#)<sup>lxiii</sup>

ECCC's weather and environmental observations, forecasts and warnings, including its water monitoring programs, are vital for governments, industry, and citizens alike to make daily decisions related to weather-dependent economic activities. ECCC's work under the Air Quality Program and on the Air Quality Health Index, together with its extreme weather warnings, contribute to public health and safety ([Goal 3](#)<sup>lxiv</sup>). Its weather forecasts play a vital role in assisting farming, forestry, transportation and other sectors plan and schedule their operations for optimal production and sustainability ([Goal 12](#)<sup>lxv</sup>), while water-monitoring services contribute to responsible water conservation and use ([Goal 6](#)<sup>lxvi</sup>). More generally, the accumulated knowledge about weather and climate patterns and trends supports the development of effective long-term strategies for water and air quality management, action on climate change, and conservation of marine resources for sustainable development ([Goal 13](#)<sup>lxvii</sup> and [Goal 14](#)<sup>lxviii</sup>).

#### Commitment to Experimentation: Upper Air Renewal II

ECCC continues to investigate how to improve weather warnings and forecasts for Canadians through the pursuit of new technologies that can be integrated into existing monitoring networks to complement the Department's existing upper air data. In 2021-22, data quality testing for the Aircraft Meteorological Data Relay (AMDAR) and GPS Met technologies will continue to be done at the Canadian Centre for Meteorological and Environmental Prediction in Dorval, Quebec. Further, two emerging LiDAR systems (Doppler wind and water vapour) were put through comparative feasibility testing and resulting data were analyzed for model applications. The final stage of the project will be to determine which of these technologies will be used to augment the Upper Air network beyond 2023.

### Planned results for Predicting Weather and Environmental Conditions

Departmental Result: Canadians use authoritative weather and related information to make decisions about their health and safety					
Departmental result indicator	Target	Date to achieve target	2017-18 actual result	2018-19 actual result	2019-20 actual result
Index of the timeliness and accuracy of severe weather warnings on a scale of 0 to 10	8.2	June 2023	8.4 <sup>16</sup> (three year rolling average 2015-17)	8.6 (three year rolling average 2016-18)	8.8 (three-year rolling average 2017-2019)
Percentage of Canadians that use ECCC information to address water-related impacts on health, safety, economy and environment	80%	May 31, 2022	This is a new indicator. Results are not available for this year.	70.5% <sup>17</sup>	73%

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>lxix</sup>.

<sup>16</sup> This result was amended to reflect revised calculations, and differs from past publications.

<sup>17</sup> Budget 2018 investments into the Hydrological Services program are expected to improve these results.

**Planned budgetary financial resources for Predicting Weather and Environmental Conditions**

<b>2021–22 budgetary spending (as indicated in Main Estimates)</b>	<b>2021–22 Planned spending</b>	<b>2022–23 Planned spending</b>	<b>2023–24 Planned spending</b>
270,383,537	270,383,537	274,047,688	212,854,461

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>xxx</sup>.

**Planned human resources for Predicting Weather and Environmental Conditions**

<b>2021–22 Planned full-time equivalents</b>	<b>2022–23 Planned full-time equivalents</b>	<b>2023–24 Planned full-time equivalents</b>
1,718	1,703	1,526

Financial, human resources and performance information for Environment and Climate Change Canada's Program Inventory is available in the [GC InfoBase](#)<sup>xxx</sup>.

## Internal Services: planned results

### 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 obligations of an organization. Internal Services refers to the activities and resources of the 10 distinct services that support Program delivery in the organization, regardless of the Internal Services delivery model in a department. These services are:

- Management and Oversight Services
- Communications Services
- Legal Services
- Human Resources Management Services
- Financial Management Services
- Information Management Services
- Information Technology Services
- Real Property Management Services
- Materiel Management Services
- Acquisition Management Services

### Planning highlights

ECCC remains committed to transitioning to net-zero carbon and climate-resilient operations while also reducing other environmental impacts, including those associated with waste management, plastics and water usage. The Department will continue to implement measures that support the government-wide goal of reducing energy-related GHG emissions from Government of Canada operations by 40% from 2005 levels by 2030, with the aspiration of achieving this target by 2025. To this end, ECCC will work collaboratively with partners to define a modern workplace of the future.

ECCC will take a strategic approach to reduce the environmental impact of building operations and procurement practices to support the government-wide goals of diverting at least 75% of non-hazardous and plastic waste from landfills by 2030, and assisting in the transition to a net-zero, circular economy.

ECCC will endeavor to progressively implement a plan to reduce the ecological footprint of printing, develop and deliver employee training on reduction of waste and eco-conscious procurement practices, and develop a departmental waste management plan with time-bound targets to reduce and divert waste.

The Department expanded the vehicle telematics project to include all ECCC vehicles. Telematics devices allow for real-time data collection of vehicle locations, distances travelled and GHGs produced to provide a better understanding of Departmental fleet usage and identify opportunities to improve efficiencies and reduce ECCC's carbon footprint. Although significant progress was made in the implementation of this project in 2019-20, COVID-19 has delayed vehicle enrollment as access to buildings and vehicles is limited. Despite delays, vehicle

#### ECCC's COVID-19 Response

In the context of the pandemic, the rapid deployment of new digital tools is an ECCC priority to support safe workplace environments. ECCC will continue to evolve its response to COVID-19 by building upon innovations introduced in 2020-21 across ECCC business areas, such as the extensive use of MS 365 to support virtual work. A task team will continue to effectively leverage existing and new innovations while respecting public health best practices in order to support employees and maintain operations, regardless of how the COVID-19 pandemic evolves. Priority plans include the ongoing procurement of personal protective equipment and any other resources deemed necessary to ensure the continuity of ECCC's critical services. Moving forward, our 3 phased approach to the return to worksites will continue to be implemented carefully in alignment with the latest national and local public health guidance. Employee's health and safety will remain at the forefront of decision-making.



telematics enrollment and implementation will continue in 2020-21 and become a standard tool for Fleet management at ECCC as telematic devices are upgraded to next generation hardware and new devices are deployed to all ECCC fleet vehicles.

**Diversity & Inclusion and Employment Equity: Key Areas of Focus**

- Ongoing engagement with employee-led networks.
- Purposeful action to increase recruitment and retention of diverse employee groups to close employment equity gaps.
- Strengthened commitments to learning, including leadership and second language development for employment equity designated groups.
- Financial support for employee networks and departmental activities related to Diversity & Inclusion through a centralized Diversity & Inclusion departmental fund.

The *Accessible Canada Act* came into force on July 11, 2019. To meet or surpass legislative requirements, ECCC will continue to implement its three-year Accessibility Strategy (2019-2021), and will prepare an accessibility plan for publication in 2022. The objective is to proactively identify and remove existing barriers, prevent the creation of new ones, and facilitate the full participation of persons with disabilities.

Diversity, Inclusion and Employment Equity remains a critical departmental and government-wide priority. ECCC will continue its collaboration with employee-led networks through departmental and pan-governmental Diversity & Inclusion / Employment Equity governance structures, including engagement through an ongoing consultative process which will lead to the collaborative development and launch of the Department's 2021-2024 Diversity & Inclusion and Employment Equity Action Plan. Ongoing dialogue with employee-led networks on strategy implementation and adjustments will continue to ensure ECCC's vision and strategy remains responsive to needs identified through employee-led networks.

The Department will continue to provide tools and advice to employees to support meaningful inclusion of Indigenous perspectives in the development of policies, programs and legislation, and the delivery of ECCC's daily operations. The Department will implement Indigenous consultation and engagement planning tools through its existing department-wide integrated planning process, provide formal and informal training opportunities to all ECCC employees, hold Indigenous awareness activities throughout the year, and continue to promote ECCC as a career destination for Indigenous peoples.

ECCC continues to implement its Digital Strategy by modernizing services to Canadian citizens and businesses. At the beginning of the global pandemic, ECCC successfully deployed digital tools, such as Microsoft Teams and the Return to Workplace application, to contribute to a stable virtual and safe workplace. As the pandemic evolves, IM/IT will continue collaborating with ECCC's COVID-19 response team to implement other services, such as Desktop Telephony, to meet program needs. In addition, the Department has increased remote network access capacity to further expand remote work capability, and will continue to procure additional equipment, such as laptops and smartphones, to better support ECCC employees as they continue to deliver world class services for Canadians and businesses.

The Department will continue to enhance collaboration with key partners through secure communication, instant messaging and group video conferencing, and to provide flexibility for employees to work smarter and more efficiently, regardless of their location. Additionally, the Department will create a Vendor Relationship Management unit to respond to program delivery demands.

Through its Data and Analytics Strategy, ECCC will focus on key activities to increase data interoperability and access, enhance the Department's data literacy, support experimentation through innovation, and augment insight from our data to support decision making. ECCC will also continue to roll out the planned phases of the Department's first Data and Analytics Strategy, enabling and encouraging the use of data in decision making.

ECCC will continue its ongoing work to implement Electronic Document and Records Management System (EDRMS), a leading-edge information management system. The system supports the secure management of a range of information, including protected documents, and facilitates collaboration amongst users to easily share, organize, evaluate, identify and dispose of information. The Department will work closely with

Shared Services Canada and the Canadian Centre for Cyber Security to manage and safeguard the information and data collected, thus ensuring the secure delivery of programs and services to Canadians and businesses.

ECCC will continue to provide support to employees affected by the government-wide pay transformation initiative and will support Public Services and Procurement Canada to address the backlog of pay issues. The Department will continue to contribute to the government-wide HR-to-Pay stabilization efforts, including to the Next Generation Human Resources and Pay system initiatives.

The Department remains committed to providing a supportive, respectful and stigma-free environment that promotes mental health and wellness. ECCC is focusing on psychological support, along with the three other psychosocial factors deemed to be priorities aligned with the Mental Health Strategy: workload, clear leadership, and respect.

To fulfill its mandate, the Department relies on highly qualified and specialized personnel. Faced with a highly competitive labour market, the evolution of ECCC's business requirements are driving a need for new skills and competencies to address the complex policy, program, scientific and regulatory issues facing the Department. To ensure it has the capacity to respond quickly and effectively to emerging priorities, ECCC will continue to maintain the flexibility to realign resources to priority files, and support managers in human resources and succession planning in order to attract and retain highly qualified and experienced personnel in a timely manner.

### Planned budgetary Financial Resources for Internal Services

<b>2021-22 budgetary spending (as indicated in Main Estimates)</b>	<b>2021-22 Planned spending</b>	<b>2022-23 Planned spending</b>	<b>2023-24 Planned spending</b>
205,816,512	205,816,512	202,989,859	191,532,597

Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>bxi</sup>.

### Planned human resources for Internal Services

<b>2021-22 Planned full-time equivalents</b>	<b>2022-23 Planned full-time equivalents</b>	<b>2023-24 Planned full-time equivalents</b>
1,602	1,585	1,520

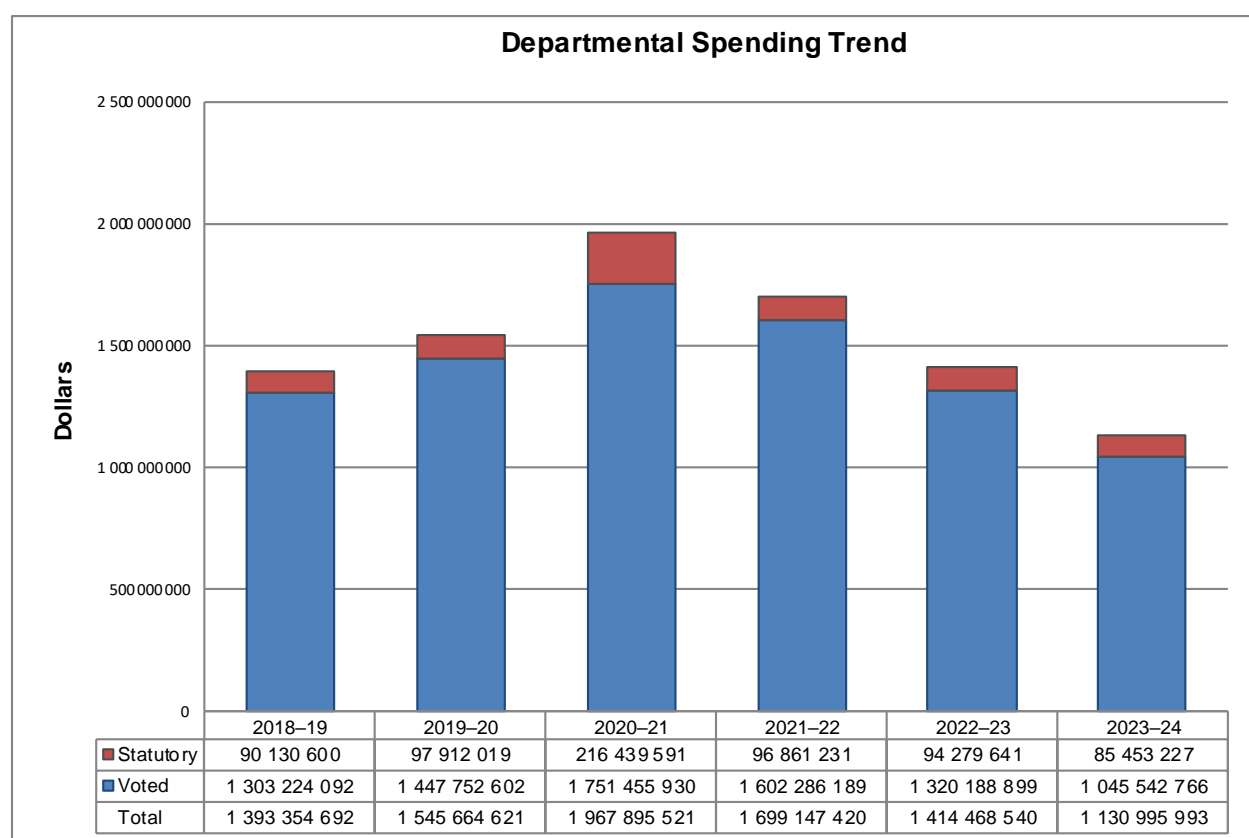
Financial, human resources and performance information for ECCC's program inventory is available in the [GC InfoBase](#)<sup>bxi</sup>.

## Spending and human resources

This section of Environment and Climate Change Canada's 2021–22 Departmental Plan describes the spending and human resources by programs through which the Department delivers its mandate.

### Planned spending

#### Departmental spending 2018–19 to 2023–24



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

For fiscal years 2018-19 and 2019-20, the amounts shown represent the actual expenditures as reported in the Public Accounts.

For fiscal year 2020-21, the forecast spending represents the planned budgetary and statutory expenditures as presented in the Estimates documents (Main Estimates and Supplementary Estimates approved to date), the Operating and Capital Budget carry forward, the approved reprofiles of funds to future years, and other adjustments from Treasury Board central votes.

For the period from 2021-22 to 2023-24, the planned spending reflects approved funding by Treasury Board to support departmental priorities.

Environment and Climate Change Canada's actual spending for 2019–20 was \$1,545.7 million, a year-over-year increase of \$152.3 million (11%) from the 2018–19 actual spending. This increase is mainly due to activities related to temporary initiatives such as: Protecting Canada's Nature, Parks & Wild Spaces, the Low Carbon Economy Fund, initiatives associated with the revitalization of meteorological services, the Federal Contaminated Sites Action Plan and Strong Arctic and Northern Communities.

The increase of \$422.2 million (27.3%) from 2019-20 actual expenditures of \$1,545.7 million to 2020-21 forecast spending of \$1,967.9 million is mainly due to the reprofile of funds for the Low Carbon Economy Fund and due to an increase for Climate Action Incentive Fund and Protecting Canada's Nature, Parks and Wild Spaces initiative. This increase is partially offset by a decreasing funding profile for Federal Contaminated Sites Action Plan and Strong Arctic and Northern Communities.

For explanation of the variance between 2020-21 forecast spending and 2023-24 planned spending, please see the Budgetary planning summary section.

### Budgetary planning summary for core responsibilities and Internal Services (dollars)

The following table shows actual, forecast and planned spending for each of Environment and Climate Change Canada's core responsibilities and to Internal Services for the years relevant to the current planning year.

Core Responsibilities and Internal Services	2018-19 Expenditures	2019-20 Expenditures	2020-21 Forecast Spending	2021-22 budgetary spending (as indicated in Main Estimates)	2021-22 Planned Spending	2022-23 Planned Spending	2023-24 Planned Spending
Taking action on Clean Growth and Climate Change	341,084,047	391,473,954	790,408,485	540,359,130	540,359,130	284,689,573	254,559,871
Preventing and Managing Pollution	348,236,529	370,747,565	375,950,986	356,702,104	356,702,104	339,022,613	330,169,771
Conserving Nature	242,306,745	293,277,471	326,802,234	325,886,137	325,886,137	313,718,807	141,879,293
Predicting Weather and Environmental Conditions	237,877,381	260,270,783	266,096,330	270,383,537	270,383,537	274,047,688	212,854,461
<b>Subtotal</b>	<b>1,169,504,702</b>	<b>1,315,769,773</b>	<b>1,759,258,035</b>	<b>1,493,330,908</b>	<b>1,493,330,908</b>	<b>1,211,478,681</b>	<b>939,463,396</b>
Internal Services	223,849,990	229,894,848	208,637,486	205,816,512	205,816,512	202,989,859	191,532,597
<b>Total</b>	<b>1,393,354,692</b>	<b>1,545,664,621</b>	<b>1,967,895,521</b>	<b>1,699,147,420</b>	<b>1,699,147,420</b>	<b>1,414,468,540</b>	<b>1,130,995,993</b>

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

### Budgetary planning summary

Excluding funding announced in Budget 2021, approximately \$1,699.1 million in total funding is anticipated for 2021–22. The decrease of \$268.8 million from 2020–21 forecast spending to 2021–22 planned spending is mainly due to a decreasing funding profile for the Low Carbon Economy Fund, initiatives supporting Clean Growth and Climate Change and Youth Employment and Skills Strategy. This is also due to the sunset of the Climate Action Incentive Fund and the Chemical Management Plan. This decrease is partially offset by an increasing funding profile for the Federal Contaminated Sites Action Plan, for Strong Arctic and Northern Communities and to modernize the enforcement of environmental laws and regulations.

Overall, there is a decrease in planned spending over the 2021–22 to 2023–24 planning horizon presented in the summary table. This is the result of sunset of initiatives with temporary funding. Funding requests for such initiatives are subject to government decisions and will be reflected in future Budget exercises and Estimates documents.

Major initiatives whose funding profile will decrease in 2022–23 include the:

- the Low Carbon Economy Fund;
- the Great Lake Ecosystem Initiatives;
- the National Zero Waste Plastic Strategy; and
- the Protecting Canada's Nature, Parks and Wild Spaces initiative.

Major initiatives whose funding profile will decrease in 2023–24 include:

- the Protecting Canada's Nature, Parks and Wild Spaces initiative;
- the initiatives associated with the revitalization of meteorological services;
- the Adapting Canada's Weather and Water Services initiative;
- the Low Carbon Economy Fund; and
- Impact Assessment and Regulatory Regime Implementation.

## 2021-22 Budgetary planned gross spending summary (dollars)

The following table reconciles gross planned spending with net planned spending for 2021-22.

Core Responsibilities and Internal Services	2021-22 planned gross spending	2021-22 planned revenues netted against expenditures	2021-22 planned net spending
Taking action on Clean Growth and Climate Change	540,359,130	0 <sup>18</sup>	540,359,130
Preventing and Managing Pollution	375,408,999	-18,706,895	356,702,104
Conserving Nature	328,821,083	-2,934,946	325,886,137
Predicting Weather and Environmental Conditions	323,140,720	-52,757,183	270,383,537
<b>Subtotal</b>	<b>1,567,729,932</b>	<b>-74,399,024</b>	<b>1,493,330,908</b>
Internal Services	207,176,599	-1,360,087	205,816,512
<b>Total</b>	<b>1,774,906,531</b>	<b>-75,759,111</b>	<b>1,699,147,420</b>

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

Environment and Climate Change Canada's major sources of revenues netted against expenditures are the following:

- Provinces who receive water quantity monitoring services;
- Canadian Association of Petroleum Producers who funds the Joint Canada-Alberta implementation Plan for Oil Sands;
- NAVCAN to whom Environment and Climate Change Canada provides aviation weather services;
- Department of National Defence who receives detailed weather services in support of its military operations; and
- Canadian Coast Guard who receives ice and marine monitoring forecasts and services.

<sup>18</sup> There are no 2021-22 planned revenues netted against expenditures under the "Taking action on Clean Growth and Climate Change" core responsibility. Proceeds from the Federal Output Based Pricing System will be recorded by ECCC once revenues are collected. All direct proceeds raised from the Federal Output Based Pricing System will be returned to the province or territory where they were collected under a statutory authority. Revenues from the Federal Output Based Pricing System have been delayed to 2021 due to the Covid-19 pandemic, while proceeds to be recorded by ECCC have been deferred to 2022.

## Planned human resources

The following table shows actual, forecast and planned full-time equivalents (FTEs) for each core responsibility in Environment and Climate Change Canada's Departmental Results Framework and to Internal Services for the years relevant to the current planning year.

### Human resources planning summary for core responsibilities and Internal Services (FTEs)\*

Core responsibilities and Internal Services	2018-19 actual FTEs	2019-20 actual FTEs	2020-21 forecast FTEs	2021-22 planned FTEs	2022-23 planned FTEs	2023-24 planned FTEs
Taking action on Clean Growth and Climate Change	509	593	599	570	511	510
Preventing and Managing Pollution	2,196	2,293	2,237	2,089	2,029	2,019
Conserving Nature	1,027	1,176	1,183	1,192	1,179	790
Predicting Weather and Environmental Conditions	1,627	1,706	1,708	1,718	1,703	1,526
<b>Subtotal</b>	<b>5,359</b>	<b>5,768</b>	<b>5,727</b>	<b>5,569</b>	<b>5,422</b>	<b>4,845</b>
Internal Services	1,584	1,645	1,614	1,602	1,585	1,520
<b>Total</b>	<b>6,943</b>	<b>7,413</b>	<b>7,341</b>	<b>7,171</b>	<b>7,007</b>	<b>6,365</b>

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

One FTE equals one person working a 37.5-hour work week for the entire year, or any number of part-time employees whose combined hours of work equal one FTE. For fiscal years 2018–19 and 2019–20, the amounts shown represent the actual FTEs as reported in the Departmental Results Report. The total forecast and planned FTE for fiscal years 2020–21, 2021–22, 2022–23 and 2023–24 are calculated using the forecasted FTEs for 2020–21 as per the departmental financial system, adjusted for sunset initiatives for future years.

The amount of FTEs between actual FTEs in 2019–20 and forecasted FTEs in 2020–21 is fairly stable. No major changes affecting the FTEs were made to the 2020–21 forecast.

The overall decrease of 170 FTEs between the 2020–21 forecast and the 2021–22 planned FTEs is the result of decreasing funding profile and sunset initiatives with temporary funding related to the:

- Low Carbon Economy Fund, under the Taking Action on Clean Growth and Climate Change Core Responsibility; and
- Chemicals Management Plan, under the Preventing and Managing Pollution Core Responsibility.

Overall, there is a decreasing trend in planned FTEs over the 2021–22 to 2023–24 planning horizon. This is the result of sunset initiatives with temporary funding. Funding requests for such initiatives are subject to government decisions and will be reflected in future Budget exercises and Estimates documents.

The overall decrease of 164 FTEs between the 2021–22 and 2022–23 planned FTEs is the result of decreasing funding profile and sunsetting initiatives with temporary funding related to the:

- National Zero Waste Plastic Strategy, under the Preventing and Managing Pollution Core Responsibility;
- Carbon Pricing, under the Taking Action on Clean Growth and Climate Change Core Responsibility;
- Oceans Protection Plan, under the Predicting Weather and Environmental Conditions Core Responsibility;
- Great Lake Ecosystem Initiatives, under the Preventing and Managing Pollution Core Responsibility;
- Canada's Marine Safety Response, under the Preventing and Managing Pollution Core Responsibility; and
- Low Carbon Economy Fund under the Taking Action on Clean Growth and Climate Change Core Responsibility.

The overall decrease of 642 FTEs between the 2022–23 and 2023–24 planned FTEs is the result of decreasing funding profile and sunsetting initiatives with temporary funding related to the:

- Protecting Canada's Nature, Parks and Wild Spaces, under the Conserving Nature Core Responsibility;
- Initiatives associated with the revitalization of meteorological services, under the Predicting Weather and Environmental Conditions Core Responsibility;
- Adapting Canada's Weather and Water Services initiative, under the Predicting Weather and Environmental Conditions Core Responsibility;
- Impact Assessment and Regulatory Regime Implementation, under the Conserving Nature Core Responsibility;
- Protecting Marine Life, under the Preventing and Managing Pollution Core Responsibility; and
- Implement British Columbia Agreements, under the Conserving Nature Core Responsibility;



## Estimates by vote

Information on Environment and Climate Change Canada's organizational appropriations is available in the [2020–21 Main Estimates](#).<sup>lxxiv</sup>

## Future-oriented Condensed statement of operations

The future-oriented condensed statement of operations provides an overview of Environment and Climate Change Canada's operations for 2020–21 to 2021–22.

The amounts for forecast and planned results in this statement of operations were prepared on an accrual basis. The amounts for forecast and planned spending presented in other sections of the Departmental Plan were prepared on an expenditure basis. Amounts may therefore differ.

A more detailed future-oriented statement of operations and associated notes, including a reconciliation of the net cost of operations to the requested authorities, are available on Environment and Climate Change Canada's [website](#).<sup>lxxv</sup>

### Future-oriented Condensed statement of operations for the year ending March 31, 2022 (dollars)

Financial information	2020–21 forecast results	2021–22 planned results	Difference (2021–22 planned results minus 2020–21 forecast results)
Total expenses	2,107,375,933	1,811,536,412	(295,839,521)
Total revenues	99,474,892	92,001,274	(7,473,618)
Net cost of operations before government funding and transfers	2,007,901,041	1,719,535,138	(288,365,903)

Total expenses are expected to decrease by \$295.8 million in 2021–22 in comparison with the forecast results of 2020–21. The overall decrease is mainly attributable to a decreasing funding profile for the Low Carbon Economy Fund, initiatives supporting Clean Growth and Climate Change and Youth Employment and Skills Strategy. This is also due to the sunset of the Climate Action Incentive Fund and the Chemical Management Plan. This decrease is partially offset by an increasing funding profile for Strong Arctic and Northern Communities and to modernize the enforcement of environmental laws and regulations.

Based on fiscal year 2020–21, total revenues for 2021–22 are expected to decrease by \$7.5 million mostly due to a decrease in anticipated collections from the Joint Canada-Alberta implementation Plan for Oil Sands and a decrease in revenues from the Cost Sharing Agreement for the Randle Reef Remediation Project.

For comparative purposes, planned results are based on historical data and trends, and include 2021–22 Main Estimates. 2020–21 forecast results give the reader information on 2020–21 estimated spending based on historical data and trends, the 2020–21 Main Estimates, Supplementary Estimates B, government wide initiatives, carry-forward and funding received from Treasury Board for compensation adjustments.

# Corporate information

## Organizational profile

### Appropriate minister:

The Honourable Jonathan Wilkinson, P.C., M.P.

### Institutional head:

T. Christine Hogan

### Ministerial portfolio:

Environment and Climate Change Canada

### Enabling instruments:

- [Department of the Environment Act](#)<sup>lxxvi</sup>
- [Canadian Environmental Protection Act, 1999](#)<sup>lxxvii</sup>
- [Species at Risk Act](#)<sup>lxxviii</sup>
- [Greenhouse Gas Pollution Pricing Act](#)<sup>lxxix</sup>
- [International River Improvements Act](#)<sup>lxxx</sup>
- [Canada Water Act](#)<sup>lxxxi</sup>
- The [Lake of the Woods Control Board Act, 1921](#)<sup>lxxxii</sup>
- [Weather Modification Information Act](#)<sup>lxxxiii</sup>
- [Fisheries Act](#)<sup>lxxxiv</sup> (administration of the Pollution Prevention Provisions)
- [Antarctic Environmental Protection Act](#)<sup>lxxxv</sup>
- [Migratory Birds Convention Act, 1994](#)<sup>lxxxvi</sup>
- [Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act](#)<sup>lxxxvii</sup>
- [Canada Wildlife Act](#)<sup>lxxxviii</sup>
- [Federal Sustainable Development Act](#)<sup>lxxxix</sup>
- [Environmental Violations Administrative Monetary Penalties Act](#)<sup>xc</sup>
- [National Wildlife Week Act](#)<sup>xci</sup>
- [Impact Assessment Act](#)<sup>xcii</sup>

Year of incorporation / commencement: 1971

## **Raison d'être, mandate and role: who we are and what we do**

"Raison d'être, mandate and role: who we are and what we do" is available on Environment and Climate Change Canada's [website](#)<sup>xciii</sup>.

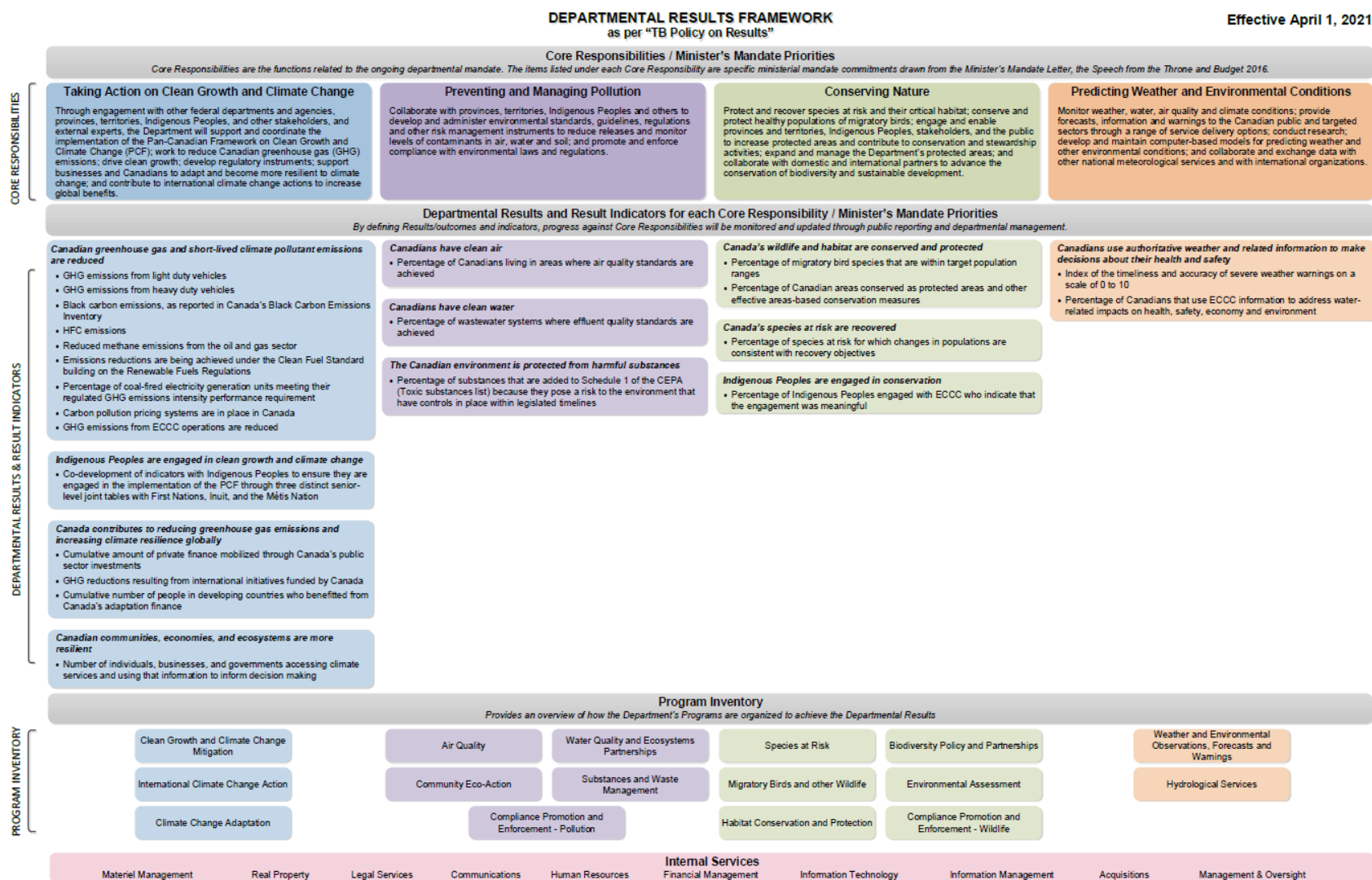
For more information on the department's organizational mandate letter commitments, see the [Minister's mandate letters](#)<sup>xciv</sup>.

## **Operating context**

Information on the operating context is available on Environment and Climate Change's [website](#)<sup>xcv</sup>.

## Reporting framework

Environment and Climate Change Canada's approved Departmental Results Framework and Program Inventory for 2021–22 are as follows:



## Supporting information on the program inventory

Supporting information on planned expenditures, human resources, and results related to Environment and Climate Change Canada's Program Inventory is available in the [GC InfoBase](#).<sup>xvii</sup>

## Supplementary information tables

The following supplementary information tables are available on Environment and Climate Change Canada's [website](#).<sup>xviii</sup>

- Departmental Sustainable Development Strategy;
- Details on transfer payment programs;
- Gender-Based Analysis plus;
- Horizontal Initiatives; and
- Up-front multi-year funding.

## Federal tax expenditures

Environment and Climate Change Canada's Departmental Plan does not include information on tax expenditures that relate to its planned results for 2021–22.

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 Federal Tax Expenditures](#).<sup>xviii</sup> This report also provides detailed background information on 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 819-938-3860  
Email: [ec.enviroinfo.ec@canada.ca](mailto: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)**

A report on the plans and expected performance of an appropriated department over a three-year period. Departmental Plans are tabled in Parliament each spring.

### **Departmental priority (priorité ministérielle)**

A plan or project that a department has chosen to focus and report on during the planning period. Departmental priorities represent the things that are most important or what must be done first to support the achievement of the desired departmental results.

### **Departmental Result (résultat ministériel)**

A consequence or outcome that a department seeks to achieve. 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)**

A framework that consists of the department's core responsibilities, departmental results and departmental result indicators.

### **Departmental Results Report (rapport sur les résultats ministériels)**

A report on a department's actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

### **experimentation (expérimentation)**

The conducting of activities that seek to first explore, then test and compare, the effects and impacts of policies and interventions in order to inform evidence-based decision-making, and improve outcomes for Canadians, by learning what works and what doesn't. Experimentation is related to, but distinct from innovation (the trying of new things), because it involves a rigorous comparison of results. For example, using a new website to communicate with Canadians can be an innovation; systematically testing the new website against existing outreach tools or an old website to see which one leads to more engagement, is experimentation.

### **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.

**gender-based analysis plus (GBA+) (analyse comparative entre les sexes plus [ACS+])**

An analytical process used to assess how diverse groups of women, men and gender-diverse people experience policies, programs and services based on multiple factors including race, ethnicity, religion, age, and mental or physical disability.

**government-wide priorities (priorités pangouvernementales)**

For the purpose of the 2021–22 Departmental Plan, government-wide priorities refers to those high-level themes outlining the government's agenda in the 2020 Speech from the Throne, namely: Protecting Canadians from COVID-19; Helping Canadians through the pandemic; Building back better – a resiliency agenda for the middle class; The Canada we're fighting for.

**horizontal initiative (initiative horizontale)**

An initiative in which two or more federal organizations are given funding to pursue a shared outcome, often linked to a government priority.

**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.

**plan (plan)**

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.

**planned spending (dépenses prévues)**

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts 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.

**Program (programme)**

Individual or groups of services, activities, or combinations thereof that are managed together within the department and focus on a specific set of outputs, outcomes, or service levels.

**Program Inventory (répertoire des programmes)**

Identifies all of the department's programs and describes how resources are organized to contribute to the department's Core Responsibilities and Results.

**result (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.

**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

- <sup>i</sup> Putting a price on carbon pollution: <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/putting-price-on-carbon-pollution.html>
- <sup>ii</sup> Low Carbon Economy Fund: <https://www.canada.ca/en/environment-climate-change/services/climate-change/low-carbon-economy-fund.html>
- <sup>iii</sup> Climate Action and Awareness Fund: <https://www.canada.ca/en/services/environment/weather/climatechange/funding-programs/climate-action-awareness-fund.html>
- <sup>iv</sup> Clean Fuel Standard: <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-standard.html>
- <sup>v</sup> Canada's Strategy on Short-Lived Climate Pollutants: [http://publications.gc.ca/collections/collection\\_2018/ecccc/En4-299-2017-eng.pdf](http://publications.gc.ca/collections/collection_2018/ecccc/En4-299-2017-eng.pdf)
- <sup>vi</sup> National Inventory Report: Greenhouse Gas Sources and Sinks in Canada: [https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/inventory.html?utm\\_campaign=not-applicable&utm\\_medium=vanity-url&utm\\_source=canada-ca\\_ghg-inventory](https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/inventory.html?utm_campaign=not-applicable&utm_medium=vanity-url&utm_source=canada-ca_ghg-inventory)
- <sup>vii</sup> Overview of Reported Emissions: Facility Greenhouse Gas Reporting Program: [https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/facility-reporting.html?utm\\_campaign=not-applicable&utm\\_medium=vanity-url&utm\\_source=canada-ca\\_ghg-reporting](https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/facility-reporting.html?utm_campaign=not-applicable&utm_medium=vanity-url&utm_source=canada-ca_ghg-reporting)
- <sup>viii</sup> Canada's Air Pollutant Emissions Inventory: [https://www.canada.ca/en/environment-climate-change/services/pollutants/air-emissions-inventory-overview.html?utm\\_campaign=not-applicable&utm\\_medium=vanity-url&utm\\_source=canada-ca\\_apei](https://www.canada.ca/en/environment-climate-change/services/pollutants/air-emissions-inventory-overview.html?utm_campaign=not-applicable&utm_medium=vanity-url&utm_source=canada-ca_apei)
- <sup>ix</sup> Canada's Black Carbon Emissions Inventory: [https://www.canada.ca/en/environment-climate-change/services/pollutants/black-carbon-emissions-inventory.html?utm\\_campaign=not-applicable&utm\\_medium=vanity-url&utm\\_source=canada-ca\\_black-carbon](https://www.canada.ca/en/environment-climate-change/services/pollutants/black-carbon-emissions-inventory.html?utm_campaign=not-applicable&utm_medium=vanity-url&utm_source=canada-ca_black-carbon)
- <sup>x</sup> ClimateData.ca: <https://climatedata.ca/>
- <sup>xi</sup> Canada's Feminist International Assistance Policy: [https://www.international.gc.ca/world-monde/issues\\_development-enjeux\\_developpement/priorities-priorites/policy-politique.aspx?lang=eng](https://www.international.gc.ca/world-monde/issues_development-enjeux_developpement/priorities-priorites/policy-politique.aspx?lang=eng)
- <sup>xii</sup> Sustainable Development Goals: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- <sup>xiii</sup> Goal 7: <https://www.un.org/sustainabledevelopment/energy/>
- <sup>xiv</sup> Goal 13: <https://www.un.org/sustainabledevelopment/climate-change/>
- <sup>xv</sup> Goal 8: <https://www.un.org/sustainabledevelopment/economic-growth/>
- <sup>xvi</sup> Goal 9: <https://www.un.org/sustainabledevelopment/infrastructure-industrialization/>
- <sup>xvii</sup> Goal 1: <https://www.un.org/sustainabledevelopment/poverty/>
- <sup>xviii</sup> Goal 12: <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>
- <sup>xix</sup> GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- <sup>xx</sup> GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- <sup>xxi</sup> GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- <sup>xxii</sup> Canada-wide Strategy on Zero Plastic Waste: <https://www.ccme.ca/files/Resources/waste/plastics/STRATEGY ON ZERO PLASTIC WASTE.pdf>
- <sup>xxiii</sup> Action Plan: <https://www.ccme.ca/en/resources/waste/waste/plastic-waste.html>
- <sup>xxiv</sup> Chemicals Management Plan: <https://www.canada.ca/en/health-canada/services/chemical-substances/chemicals-management-plan.html>
- <sup>xxv</sup> Evaluation of the Chemicals Management Plan: <https://www.canada.ca/en/health-canada/corporate/transparency/corporate-management-reporting/evaluation/chemical-management-plan.html>
- <sup>xxvi</sup> Air Quality Management System: <https://www.ccme.ca/en/resources/air/aqms.html>
- <sup>xxvii</sup> Air Quality Health Index: <https://www.canada.ca/en/environment-climate-change/services/air-quality-health-index/about.html>
- <sup>xxviii</sup> Canada-United States Air Quality Agreement: <https://www.canada.ca/en/environment-climate-change/services/air-pollution/issues/transboundary/canada-united-states-air-quality-agreement-overview.html>
- <sup>xxix</sup> Randle Reef: <http://www.randlereef.ca/>
- <sup>xxx</sup> State of the Great Lakes 2019: <https://binational.net/2020/06/03/soal-edal-2019-2/>
- <sup>xxxi</sup> Oceans Protection Plan: <https://tc.canada.ca/en/initiatives/oceans-protection-plan/report-canadians-investing-our-coasts-through-oceans-protection-plan#about>
- <sup>xxxii</sup> Sustainable Development Goals: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- <sup>xxxiii</sup> Goal 3: <https://www.un.org/sustainabledevelopment/health/>
- <sup>xxxiv</sup> Goal 6: <https://www.un.org/sustainabledevelopment/water-and-sanitation/>
- <sup>xxxv</sup> Goal 12: <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>
- <sup>xxxvi</sup> Goal 13: <https://www.un.org/sustainabledevelopment/climate-change/>

- xxxvii Goal 14: <https://www.un.org/sustainabledevelopment/oceans/>
- xxxviii Goal 8: <https://www.un.org/sustainabledevelopment/economic-growth/>
- xxxix Goal 9: <https://www.un.org/sustainabledevelopment/infrastructure-industrialization/>
- xl Goal 11: <https://www.un.org/sustainabledevelopment/cities/>
- xli Goal 15: <https://sustainabledevelopment.un.org/sdg15>
- xlii Goal 16: <https://www.un.org/sustainabledevelopment/peace-justice/>
- xliii Goal 17: <https://www.un.org/sustainabledevelopment/globalpartnerships/>
- xliv GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- xlv GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- xlvi GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- xlvii Canada's Nature Legacy Initiative: <https://www.canada.ca/en/services/environment/conservation/nature-legacy.html>
- xlviii Canada Nature Fund: <https://www.canada.ca/en/environment-climate-change/services/nature-legacy/fund.html>
- lix Pathway to Canada Target 1: <https://www.conservation2020canada.ca/home>
- i Canada's Nature Legacy Initiative: <https://www.canada.ca/en/services/environment/conservation/nature-legacy.html>
- ii Pan-Canadian Approach to Transforming Species at Risk Conservation in Canada: <https://www.canada.ca/content/dam/eccc/documents/pdf/species-risk/pan-canadian-approach-transforming-species-risk-conservation-canada.pdf>
- iii A Pan-Canadian Approach to Wildlife Health: [http://www.cwhc-rscf.ca/docs/technical\\_reports/EN\\_PanCanadian%20Approach%20to%20Wildlife%20Health%20Final.pdf](http://www.cwhc-rscf.ca/docs/technical_reports/EN_PanCanadian%20Approach%20to%20Wildlife%20Health%20Final.pdf)
- iiii Indigenous Guardians Pilot Program: <https://www.canada.ca/en/environment-climate-change/services/environmental-funding/indigenous-guardians-pilot.html>
- lv Sustainable Development Goals: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- lv Goal 14: <https://www.un.org/sustainabledevelopment/oceans/>
- lvi Goal 15: <https://sustainabledevelopment.un.org/sdg15>
- lvii GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- lviii GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- lix GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- lx Canadian Weather Radar Replacement Program: <https://www.canada.ca/en/shared-services/corporate/publications/weather-radar-replacement-program.html>
- lxi Weather Information: <https://weather.gc.ca/>
- lxii Hurricane forecasts and facts: [www.hurricanes.ca](http://www.hurricanes.ca)
- lxiii Sustainable Development Goals: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- lxiv Goal 3: <https://www.un.org/sustainabledevelopment/health/>
- lxv Goal 12: <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>
- lxvi Goal 6: <https://www.un.org/sustainabledevelopment/water-and-sanitation/>
- lxvii Goal 13: <https://www.un.org/sustainabledevelopment/climate-change/>
- lxviii Goal 14: <https://www.un.org/sustainabledevelopment/oceans/>
- lxix GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- lxx GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- lxxi GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- lxxii GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- lxxiii GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- lxxiv 2020–21 Main Estimates: <https://www.canada.ca/en/treasury-board-secretariat/services/planned-government-spending/government-expenditure-plan-main-estimates.html>
- lxxv Future-Oriented Statement of Operations: [www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1](http://www.ec.gc.ca/default.asp?lang=En&n=31D9FF32-1)
- lxxvi Department of the Environment Act: [www.laws-lois.justice.gc.ca/eng/acts/E-10/index.html](http://www.laws-lois.justice.gc.ca/eng/acts/E-10/index.html)
- lxxvii Canadian Environmental Protection Act, 1999: [laws-lois.justice.gc.ca/eng/acts/C-15.31/](http://laws-lois.justice.gc.ca/eng/acts/C-15.31/)
- lxxviii Species at Risk Act: [laws-lois.justice.gc.ca/eng/acts/S-15.3/](http://laws-lois.justice.gc.ca/eng/acts/S-15.3/)
- lxxix Greenhouse Gas Pollution Pricing Act: <https://laws-lois.justice.gc.ca/eng/acts/G-11.55/>
- lxxx International River Improvements Act: [laws-lois.justice.gc.ca/eng/acts/I-20/](http://laws-lois.justice.gc.ca/eng/acts/I-20/)
- lxxxi Canada Water Act: [www.laws-lois.justice.gc.ca/eng/acts/C-11/index.html](http://www.laws-lois.justice.gc.ca/eng/acts/C-11/index.html)
- lxxxii Lake of the Woods Control Board Act, 1921: [www.laws-lois.justice.gc.ca/eng/acts/T-10.4/page-1.html](http://www.laws-lois.justice.gc.ca/eng/acts/T-10.4/page-1.html)
- lxxxiii Weather Modification Information Act: [www.laws-lois.justice.gc.ca/eng/acts/W-5/index.html](http://www.laws-lois.justice.gc.ca/eng/acts/W-5/index.html)
- lxxxiv Fisheries Act: [laws-lois.justice.gc.ca/eng/acts/F-14/page-4.html#h-13](http://laws-lois.justice.gc.ca/eng/acts/F-14/page-4.html#h-13)
- lxxxv Antarctic Environmental Protection Act: [laws-lois.justice.gc.ca/eng/acts/A-11.44/](http://laws-lois.justice.gc.ca/eng/acts/A-11.44/)
- lxxxvi Migratory Birds Convention Act, 1994: [www.ec.gc.ca/nature/default.asp?lang=En&n=496E2702-1](http://www.ec.gc.ca/nature/default.asp?lang=En&n=496E2702-1)
- lxxxvii Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act: [laws.justice.gc.ca/eng/acts/W-8.5/](http://laws.justice.gc.ca/eng/acts/W-8.5/)
- lxxxviii Canada Wildlife Act: [laws.justice.gc.ca/eng/acts/W-9/](http://laws.justice.gc.ca/eng/acts/W-9/)
- lxxxix Federal Sustainable Development Act: [laws.justice.gc.ca/eng/acts/F-8.6/](http://laws.justice.gc.ca/eng/acts/F-8.6/)

- <sup>xc</sup> Environmental Violations Administrative Monetary Penalties Act: [www.laws-lois.justice.gc.ca/eng/acts/E-12.5/page-1.html](http://www.laws-lois.justice.gc.ca/eng/acts/E-12.5/page-1.html)
- <sup>xcj</sup> National Wildlife Week Act: [www.laws-lois.justice.gc.ca/eng/acts/W-10/index.html](http://www.laws-lois.justice.gc.ca/eng/acts/W-10/index.html)
- <sup>xcii</sup> Impact Assessment Act: <https://laws.justice.gc.ca/eng/acts/I-2.75/index.html>
- <sup>xciii</sup> Environment and Climate Change Canada's website: [www.canada.ca/en/environment-climate-change/corporate/transparency/priorities-management/departamental-plans.html](http://www.canada.ca/en/environment-climate-change/corporate/transparency/priorities-management/departamental-plans.html)
- <sup>xciv</sup> Minister's mandate letter: <https://pm.gc.ca/en/mandate-letters/2021/01/15/minister-environment-and-climate-change-supplementary-mandate-letter>
- <sup>xcv</sup> Environment and Climate Change Canada's website: [www.ec.gc.ca](http://www.ec.gc.ca)
- <sup>xcvi</sup> GC InfoBase: [www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start](http://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#start)
- <sup>xcvii</sup> Environment and Climate Change Canada's website: [www.ec.gc.ca](http://www.ec.gc.ca)
- <sup>xcviii</sup> Government of Canada Tax Expenditures: [www.fin.gc.ca/purl/taxexp-eng.asp](http://www.fin.gc.ca/purl/taxexp-eng.asp)