



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

ENVIRONMENTAL PROTECTION OVERVIEW



Environment and Climate Change Canada's **50th anniversary**
50^e anniversaire d'Environnement et Changement climatique Canada

Meteorological Service of Canada's **150th anniversary**
150^e anniversaire du Service météorologique du Canada

Canada 

PURPOSE

- Overview
- Key Elements
- Legislative Framework
- Overview of Programs
- Recent and Anticipated Bills
- Key Partners
- Ongoing Challenges

ENVIRONMENTAL PROTECTION – KEY ELEMENTS

- Monitoring, preventing and managing pollution from all its various sources.
 - Preventing and reducing air and water pollution.
 - Managing the risks from chemical substances.
 - 24/7 scientific & technical support to environmental emergencies.
 - Ensuring hazardous waste is properly managed / safely disposed.
 - Reducing GHG emissions.
- Shared jurisdiction with provincial and territorial governments.
 - Collaborative mechanisms include Canadian Council of Ministers of the Environment, Canadian Environmental Protection Act National Advisory Committee, and other issue-specific engagements.
- ECCC has strong reputation for regulatory excellence, produces high volume of regulatory initiatives based on:
 - Science-based initiatives.
 - Extensive engagement and collaboration.
 - Transparency.
 - Outcomes-based risk management measures.

ENVIRONMENTAL PROTECTION - LEGISLATION FRAMEWORK

- Key environmental protection Acts provide authority to manage risks to the environment and human health from pollution:
 - *Canadian Environmental Protection Act, 1999 (CEPA)*.
 - *Fisheries Act* (pollution prohibition).
 - *Migratory Birds Convention Act (MBCA)* (pollution prohibition).
 - *Greenhouse Gas Pollution Pricing Act (GGPPA)*.
 - *Impact Assessment Act (IAA)*.
 - *Antarctic Environmental Protection Act*.
- Legislation or regulation must be linked to an appropriate constitutional head of power, for example:
 - Criminal law.
 - Sea coast and inland fisheries.
 - Ability to make laws for peace, order and good government of Canada.

CANADIANS HAVE CLEAN AIR

Air pollution is the single largest environmental risk to human health; it degrades the environment and can reduce economic productivity.

CANADIANS HAVE CLEAN WATER

Water pollution affects every facet of life, causing risk to human health, the environment, and economic productivity.

CANADIANS HAVE A CLEAN ENVIRONMENT

Solid waste pollution and chemicals can cause harm to human health and the environment. If not managed, they can lead to air emissions, land disturbance and water pollution.

Pollution of all kinds disproportionately impacts Indigenous Peoples and marginalized communities.

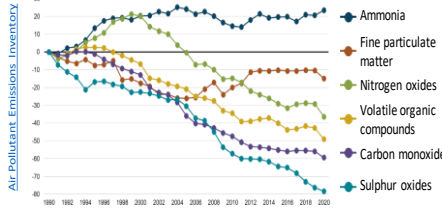
CONTEXT

- In Canada, air pollution contributes to ~15,300 early deaths and \$120B in health costs every year
- Results in **reduction of crop yields** and costs our farmers **hundreds of millions in lost production**
- Although 5 of 6 key pollutants decreased by 18-65% since 1990, **ambient levels of smog pollutants have plateaued in recent years and are expected to worsen**

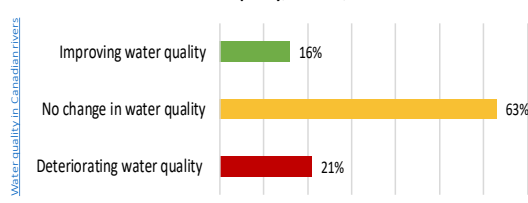
- There are **significant threats to freshwater quality in Canada**, which can vary regionally in nature and magnitude
- Each year, the National Environmental Emergencies Centre receives **=2000 notifications** of oil spills to fresh/marine water
- In Canada, **2-3 million tonnes** of material is disposed of at sea every year

- Each year, over **4.3 million tonnes of plastic waste** is thrown away in Canada, only **9% is recycled**, and without action the **lost economic value** of unrecovered plastic could be \$11.1 billion by 2030
- Canada has thousands of unremediated **federal contaminated sites**
- **=500 new substance notifications/year** and **=30 existing substances** assessed and managed per year

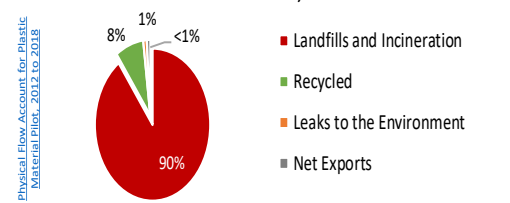
Percentage change in Canada air pollutant emissions (1990-2020)



Trends in fresh water quality, Canada, 2002 to 2019



Fate of Canada's Plastic Waste, 2018



MAJOR AREAS OF WORK

- Developing air quality standards and emissions requirements pursuant to the **Air Quality Management System**
- Developing **regulations and other instruments** to limit emissions from industry, vehicles, engines, fuels, and products
- Communicating to help Canadians reduce the risk of exposure through the **Air Quality Health Index and related messaging**
- **Engaging internationally** to protect the ozone layer, reduce transboundary air pollution, and address short-lived climate pollutants
- Investing in **scientific research and monitoring on air pollutants** to inform policy and regulatory decision making

- Developing, modernizing, and implementing **legislation and regulations to control water pollution**, through the *Fisheries Act* and *Canadian Environmental Protection Act*
- Investing in **scientific research and monitoring** on pollution in aquatic ecosystems to inform decision-making by governments and stakeholders
- **Coordinating with PTs, Indigenous organizations, and stakeholders** on the management of water resources
- Restoring and protecting **water quality and aquatic ecosystem health**

- Implementing the **Chemicals Management Plan** to limit risks to human health and the environment
- With provinces and territories, advancing the **Canada-wide Strategy on Zero Plastic Waste** to achieve zero plastic waste by 2030
- Investing in **science** to understand environmental and health impacts of plastics, chemicals, and other solid wastes
- Administering the **Federal Contaminated Sites Action Plan** to prioritize clean up of sites with greatest risk

PRIORITY TARGETS AND COMMITMENTS

- Commitments toward ensuring Canadians have clean air:**
- **Strengthening air pollutant regulations for vehicles and engines**
 - Delivering the renewed federal agenda to strengthen and develop control measures for VOC emissions from consumer and commercial products
 - **Reducing emissions of methane and black carbon** in line with Canada's *Strategy on Short-Lived Climate Pollutants and Faster and Further: Canada's Methane Strategy*
 - **Developing GHG regulations to reduce the combustion of fossil fuels**, which will also reduce air pollution

- Commitments to ensure Canada's water resources are clean and well-managed:**
- FRESH WATER**
- **\$43M B2022** • Creating a **Canada Water Agency** and modernizing the *Canada Water Act*
 - **\$19M B2022** • Sustaining the **Freshwater Action Plan**
 - **\$25M B2022** • Investing in **freshwater science and research**
 - Developing **new regulations** for coal mining and oil sands effluent and **modernizing** Pulp and Paper Effluent Regulations
- OCEANS**
- **\$2B B2022** • **Renewing and expanding the Oceans Protection Plan**

- Commitments on plastics, foundational legislation, chemicals management, and environmental justice:**
- **\$183M B2022** • Investing in **science, regulatory measures, and sector solutions** to reduce plastic waste and increase circularity
 - **MLC** • **Strengthening the Canadian Environmental Protection Act** to protect Canadians and the environment from harmful substances
 - **MLC** • **Prioritizing clean-up of contaminated sites** in areas where Indigenous Peoples, racialized and low-income Canadians live
 - **MLC** • Supporting legislation to require the development of an **environmental justice strategy**
 - **MLC** • **Developing strategies to prevent risks** from classes of substances and products, and support informed substitution

1. WATER POLLUTION (*FISHERIES ACT*)

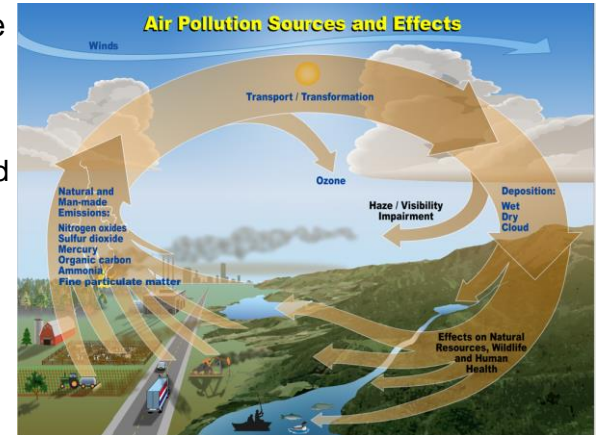
- ECCC is the lead for pollution prevention under the Fisheries Act
 - Prohibits deposit of deleterious substances (pollution) into waters frequented by fish unless authorized by regulation
- Ongoing application of general prohibition to all unregulated sectors and activities, and administration of regulations:
 - Pulp and Paper Effluent Regulations (1992; modernization underway)
 - Wastewater Systems Effluent Regulations (2012)
 - Metal and Diamond Mining Effluent Regulations (2018)

Current Issues

- New regulations and approaches under development:
 - Coal mining effluent
 - Oil sands mining effluent
 - Northern Wastewater Systems

2. AIR QUALITY

- Work with HC and NRC to address outdoor and indoor air pollution under the Air Quality Program
- Work with P/Ts to implement Air Quality Management System (AQMS):
 - Ambient air quality standards; Industrial emission limits for certain sectors and equipment; P/T air zones and federally managed airsheds to manage transboundary pollution; Mobile sources; reporting on state of the air
- Regulations for industry, vehicles, engines, fuels, consumer/commercial products and various industrial sectors
- Ongoing implementation and administration of vehicle, engine and fuel regulations, including regular reporting and publication of data



- Work under the Convention on Long-range Transboundary Air Pollution (Air Convention) and the Canada–U.S. Air Quality Agreement (AQA) to address transboundary air pollution
- Work on short-lived climate pollutants, which both affect air quality and have climate warming impacts:

Current Issues

- ***Redacted***
- Work to resolve impasse at CCME on developing new ambient standards for PM2.5
- Continue to demonstrate international leadership as part of the methane strategy

3. CHEMICALS MANAGEMENT PLAN (CMP)

- Operates largely under CEPA, managed jointly with Health Canada.
- Addresses health or environmental risks from wide range of substances.
 - Science-based decision making grounded in research, monitoring, information gathering and risk assessments.
 - Risk management measures (wide range of instruments, including regulations and pollution prevention plans).
- 23,000 existing substances in use between 1984 and 1987 were screened for risks and 4300 identified for further assessment and risk management as needed.
 - Assessments of these 4300 largely completed.
- Assessment and management of 500 new substances every year.

Current Issue

- Program needs to evolve
 - Passage of CEPA reform Bill (S-5) and need to renew CMP funding will create opportunity/need to develop vision and goals for modernized CMP
 - A modernized program could address, for example, chemicals in products, alternatives, vulnerable populations, occupational exposure, and informed decision-making (labeling)

4. INTERNATIONAL ENGAGEMENT ON CHEMICALS AND WASTE

- Domestic efforts alone are not sufficient to effectively protect the health and environment of Canadian from risks that originate beyond our borders
 - While long-range environmental transport is still a concern, our attention has also turned to risks via trade. Canada may be a small market with limited influence, but larger economies struggle with these same issues
- By working with other jurisdictions and organizations we are able to advance science, fill data needs, access best available science and develop internationally recognized approaches to make better informed decisions, to strengthen protections for Canada while also advancing sound management of chemicals and waste around the world
- Canada is a Party to
 - **five global, legally binding, multilateral environmental agreements (MEAs) focussed on chemicals and waste:** Basel Convention, Rotterdam Convention, Stockholm Convention, Minamata Convention, Montreal Protocol
 - **Regional agreement:** UNECE Convention on Long Range Transboundary Air-Pollution
 - **a voluntary, multi-stakeholder and multi sectoral policy framework:** Strategic Approach to International Chemicals Management (SAICM and its successor),
 - **international organizations, initiatives and scientific/ technical bodies:** UNEP Science-Policy Panel on Chemicals, Waste and to Prevent Pollution, OECD Working Party on Risk Management
 - Canada engages in **bilateral and regional cooperation** - EU, U.S., Australia, others

5. FEDERAL CONTAMINATED SITES ACTION PLAN (FCSAP)

- Established in 2005 to reduce risks to health and environment (federal government liability)
- Whole-of-government approach: 19 agencies, departments, and Crowns work together to assess, remediate and risk manage their contaminated sites (e.g. fuel storage facilities, old dump sites, navigational systems, military bases)
- From 2005 through 2021-22:
 - \$5.1B spent on the assessment and remediation of the highest risk sites
 - Assessment and remediation activities at over 12 000 sites
- Program was renewed for 15 years (2020 to 2034)
 - Budget 2019 provided \$1.16 B for Phase IV, from 2020 to 2024

Current Issues

- ***Redacted***
- Enhancing Indigenous engagement and participation

6. WASTE MANAGEMENT

- ECCC regulates and tracks transboundary movement of hazardous waste and hazardous recyclable material via the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* under using CEPA regulations.
- Canada is a Party to international instruments with requirements for controlling export, import and transit of certain waste.
 - *Basel Convention* transboundary movements of hazardous waste and their disposal)
 - OECD Decision (recyclables in the OECD)
 - *Canada-USA Agreement* (because US is not a Party to Basel)
 - Canada-USA Arrangement on non-hazardous waste

Current Issue

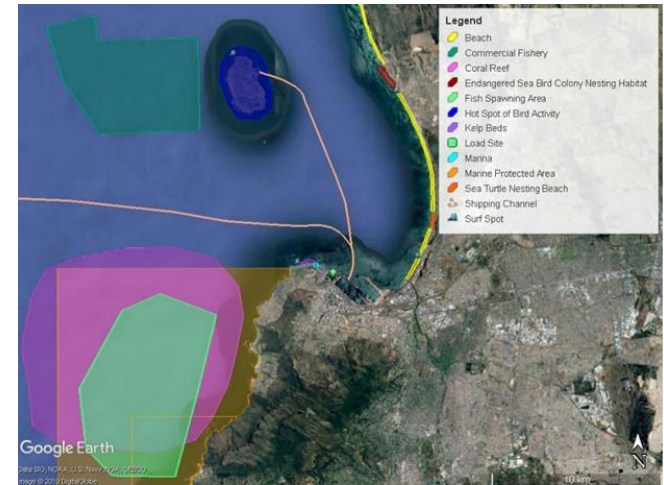
- Enhance collaboration with partners to reduce illegal exports of waste.
- In the process of ratifying the Ban amendment under the Basel Convention (will require reg amendments)

7. MARINE PROGRAMS

- CEPA prohibits disposal at sea of substances from ships, aircraft, platforms or other structures.
- Minister may issue permits for disposal of low risk waste (listed on CEPA Schedule 5), such as dredged material or fish processing waste.
 - CEPA prescribes rigorous assessment process for decisions to issue disposal at sea permits. (CEPA Schedule 6).
- CEPA's disposal at sea provisions implement the 1996 London Protocol on the prevention of pollution from dumping of waste at sea.
- The Antarctic Environmental Protection Act implements Canada's obligations under the Protocol on Environmental Protection to the Antarctic Treaty and ensures Canadian activities in the Antarctic are assessed for potential environmental effects.

Current Issues

- Implementation of a collaborative decision making agreement with Tsleil-Waututh Nation in BC
- Add sub-seabed CO2 sequestration to Schedule 5 of CEA and develop permitting regime
- Develop a position on the regulation of marine geoengineering activities
- Regulations to remove overlap between CEPA and DFO's Aquaculture Activity Regulations
- Canada's request to become a Consultative Party to the Antarctic Treaty
- Revise the cost recovery program for disposal at sea permits



ECCC carefully selects suitable disposal sites to avoid harming amenities and causing pollution, and works with other countries through the London Protocol to see that they can achieve the same level of marine protection.

8. ZERO PLASTIC WASTE

- 1st phase (2019-22) - \$64 million *Federal Leadership Towards Zero Plastic Waste in Canada*
- 2nd phase (2022-27) - \$210.9 million *Advancing a Circular Plastics Economy for Canada* to be delivered by ECCC, CIRNAC, DFO, HC, NRC, StatCan, TC
- ECCC priority work areas, which include activities under the CCME:
 - **Science** – \$82.1M for ECCC, CIRNAC, HC, NRC, StatCan
 - **Regulations** – \$65.7M for ECCC, HC
 - **Innovation** – \$16.4M for ECCC
- Current Issues
- Coalition of plastic manufacturers has applied for two judicial reviews, challenging:
 - CEPA Schedule 1 listing of “plastic manufactured items”
 - Publication of the Single Use Plastic Prohibition regulations
- Developing regulations on recycled content, recyclability and compostability labelling
- Federal plastics registry in development
- Ongoing negotiations on a legally-binding global agreement on plastic pollution for 2024
- Unfunded mandate letter commitment (ISED, ECCC): Infrastructure & innovation fund to scale-up and commercialize technologies and solutions for reuse and recycling



9. ENVIRONMENTAL EMERGENCIES

- *Environmental Emergency Regulations* provide authority on the prevention of, preparedness for, response to and recovery from environmental emergencies at facilities.
- The National Environmental Emergencies Centre (NEEC) is one of ECCC's critical services, operating 24/7. For ECCC responding to an environmental emergency entails:
 - Managing a 24/7 notification system
 - Overseeing and monitoring response efforts by the responsible party
 - Providing scientific and technical advice (spill trajectory modelling, weather, wildlife, shoreline cleaning methods)
 - Authority to require that all reasonable and appropriate measures are taken and to take action, if needed
 - NEEC managers close to 40 000 environmental emergency notifications year.
- Ocean Protection Plan (OPP)) 2.0 – ECCC will invest \$239M over 9 years (2022-23 to 2030-31) to protect, preserve, and restore Canada's oceans and waterways and strengthen marine research and science.

Current Issues

- Amend CEPA and other federal legislation to allow use of Alternative Response Measures – to expand tools available to manage and clean oil spilled from ships, offshore exploration and production, and federally regulated pipelines.
- Develop Canadian position on the proposed OECD *Decision-Recommendation concerning chemical accident prevention, preparedness and response* instrument by Spring 2023.

10. ENVIRONMENTAL ASSESSMENT

- EPB is focal point for the provision of ECCC scientific information, knowledge and advice regarding a proponent's characterization of effects and the efficacy of mitigation measures, as required by the *Impact Assessment Act (IAA)*, and other EA regimes (e.g. *CEAA 2012*, *Territorial Boards*).
- Federal Authority on effects within federal jurisdiction including: climate change, biodiversity (focused on migratory birds and species at risk), air quality, water quality, environmental preparedness and emergencies.
- Leads Government's approach to cumulative effects through collaboration with external and internal partners and provides strategic advice to the [Open Science and Data Platform](#) (OSDP) for Cumulative Effects

ENVIRONMENTAL PROTECTION BILLS (CURRENTLY IN PARLIAMENT)

- *Bill S-5 introduced February, 2022.*
 - Focused on modernizing **CMP** and recognizing **right to a healthy environment** under CEPA.
 - First time CEPA reform bill tabled since Act came into force + 20 years ago.
 - Now with Standing Committee on Environment and Sustainable Development (the ENVI Committee); clause-by-clause study ongoing.
 - Identical to Bill C-28, which died on Order Paper in 2021.
- Private Member's Bills on various topics.
 - Bill C-226 - *National Strategy Respecting **Environmental Racism and Environmental Justice Act*** (previously Bill C-230 [Lib.]).
 - Bill S-234: *An Act to amend CEPA (final disposal of **plastic waste**)* (previous Bill C-204 [CPC]).
 - Bill C-219: **Canadian Environmental Bill of Rights**

KEY PARTNERS

Key federal partners

- Health Canada.
- Fisheries and Oceans Canada / Canadian Coast Guard (DFO/CCG).
- National Research Council (NRC).
- Natural Sciences and Engineering Research Council (NSERC).
- Agriculture and Agri-Foods Canada (AAFC).
- Transport Canada.
- Natural Resources Canada (NRCan).
- Industry, Science and Economic Development (ISED).
- Treasury Board.
- Justice.

Other partners include

- Provinces and Territories:
 - Canadian Council of Ministers of the Environment (CCME).
 - CEPA National Advisory Committee (NAC).
 - Bilateral discussions and arrangements.
- Indigenous communities and organizations.
- Industry.
- Academia.
- Environmental and health NGOs.

ONGOING CHALLENGES

- Coordination with GHG mitigation agenda.
 - Identifying co-benefits.
 - Managing cumulative regulatory burden.
 - Improving integration of climate and air policies to avoid unintended consequences.
- Managing international impacts.
 - Foreign impacts on Canada.
 - Transboundary air pollution (incl. Short-Lived Climate Pollutants, Persistent Organic Pollutants).
 - Content of imported products.
 - Canadian impacts on other countries.
 - Transboundary mining.
 - Canada-US air pollution.
- Capacity to manage and digitize regulatory data.
 - To reduce regulatory costs.
 - To inform decision-making.
 - To increase information to Canadians.
- Indigenous engagement.
 - Consultation fatigue, capacity and funding.
 - Alignment with overall agenda on reconciliation and implementation of UNDRIP.
- Developing and implementing legislative initiatives stemming from or implicating ECCC Minister

SUPPLEMENTAL BRIEFINGS

- Key topics to be discussed :
 - Climate change mitigation.
 - Zero plastic waste.
 - Chemicals Management Plan.
 - CEPA reform.