



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

ENVIRONMENTAL PROTECTION OVERVIEW

SEPTEMBER, 2023



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 

KEY ELEMENTS

- Monitoring, preventing and managing pollution from all its various sources.
 - Preventing air and water pollution
 - Preventing risks from chemical substances
 - 24/7 scientific & technical support to environmental emergencies.
 - Controlling the transboundary movement of hazardous waste in accordance with international obligations
 - Reducing GHG emissions
- Shared jurisdiction with provincial and territorial governments.
 - Collaborative mechanisms include Canadian Council of Ministers of the Environment, CEPA National Advisory Committee, and other issue-specific engagements.
- ECCC produces a very high volume of regulatory initiatives
 - Extensive engagement and collaboration
 - Outcomes-based unless not possible

LEGISLATIVE FRAMEWORK

- Authority to manage risks to environment and 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 (POGG)

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.

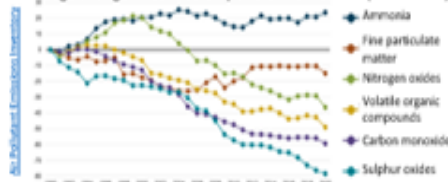
CONTEXT

*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

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

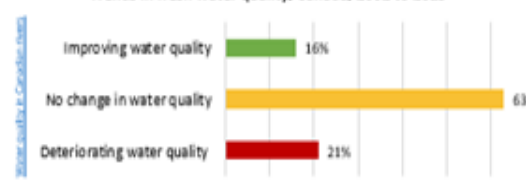


*There are significant threats to freshwater quality in Canada, which can vary regionally in nature and magnitude

*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

Trends in fresh water quality, Canada, 2002 to 2019



*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

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, engines and petroleum facilities
- *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, including the publication of final Clean Electricity Regulations

Commitments to ensure Canada's water resources are clean and well-managed:

- FRESH WATER**
- \$43M **2022** *Creating a Canada Water Agency and modernizing the Canada Water Act
 - \$19M **2022** *Sustaining the Freshwater Action Plan
 - \$25M **2022** *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 **2022** *Renewing and expanding the Oceans Protection Plan

Commitments on plastics, foundational legislation, chemicals management, and environmental justice:

- \$183M **2022** *Investing in science, regulatory measures, and sector solutions to reduce plastic waste and increase circularity
- *Strengthening the Canadian Environmental Protection Act to protect Canadians and the environment from harmful substances
- *Prioritizing clean-up of contaminated sites in areas where Indigenous Peoples, racialized and low-income Canadians live
- *Supporting legislation to require the development of an environmental justice strategy
- *Developing strategies to prevent risks from classes of substances and products, and support informed substitution

WATER POLLUTION (*FISHERIES ACT*)

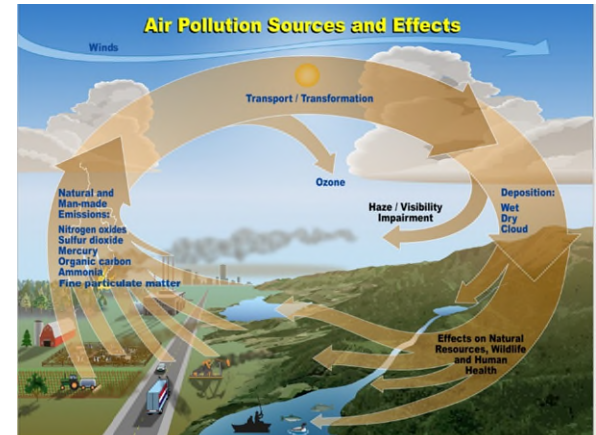
- ECCC is the lead for pollution prevention under the *Fisheries Act*
 - Prohibits deposit of deleterious substances (pollution) into waters frequented by fish unless authorized by regulation
- Ongoing application of general prohibition to all unregulated sectors and activities, and administration of 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

AIR QUALITY

- Work with HC and NRC to address outdoor and indoor air pollution under the Air Quality Program
- Work with PTs 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
- Work under the Convention on Long-range Transboundary Air Pollution 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

- Mandate to negotiate amendments to the Gothenburg Protocol to the Air Convention and Canada-U.S. AQA
- Work within CCME to finalize new ambient standards for PM2.5
- Developing regulations on emissions of VOCs from petroleum liquid storage and loading operations
- Engagement of Indigenous communities on air pollution

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, and risk assessments
 - Risk management measures (wide range of instruments, including regulations and pollution prevention plans)
- Categorization process used to prioritize 4300 out of 23,000 substances in use in 2006
 - Assessments of these substances almost complete, with over 200 associated risk management instruments
- Risk assessment and management of approximately 500 new substances each year
- Passage of CEPA reform Bill (S-5) enables strengthening of chemicals management regime and recognizes that Canadians have a right to a healthy environment as provided under CEPA

Current Issues

- Implementation of S-5 with focus on commitments to be completed within 2 years of coming into force
- CMP Renewal: current program ends in 2024 and renewal needed to keep it going
- Program needs to evolve
 - Royal Assent and coming into force of CEPA reform Bill S-5 (June 2023) and need to renew CMP funding will guide vision and goals for modernized CMP

INTERNATIONAL ENGAGEMENT ON CHEMICALS AND WASTE

- Domestic effort alone insufficient to protect from risks originating outside Canada
 - long-range environmental transport
 - imported products
- International work strengthens our science, ensures Cdn measures are credible and can help influence global supply chain measures
- Canada is a Party to
 - **Five multilateral environmental agreements focussed on chemicals and waste:** Basel, Rotterdam, Stockholm and Minamata Conventions, + Montreal Protocol
 - **Regional agreement:** UNECE Convention on Long Range Transboundary Air-Pollution
 - **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, OECD Working Party on Chemical Accidents
 - Canada engages in **bilateral and regional cooperation** - EU, U.S., Australia, others

FEDERAL CONTAMINATED SITES ACTION PLAN (FCSAP)

- Established in 2005 to reduce 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

WASTE MANAGEMENT

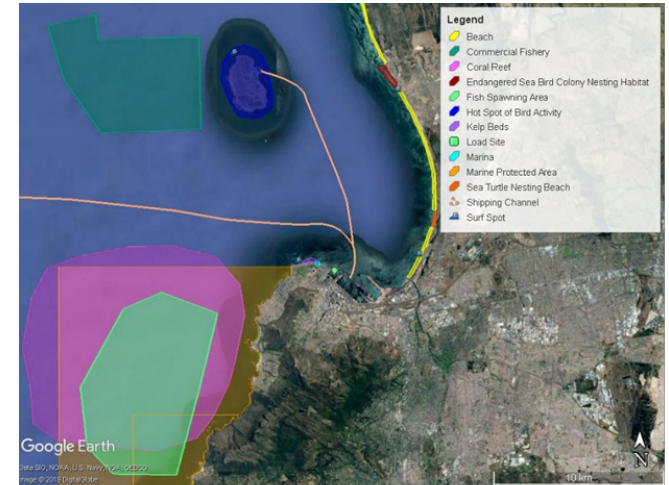
- ECCC regulates and tracks transboundary movement of hazardous waste and hazardous recyclable material via the *Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations* under CEPA
- Canada is a Party to international instruments with requirements for controlling export, import and transit of certain waste
 - *Basel Convention* (transboundary movements of waste and recyclable material)
 - OECD Decision (waste destined for recovery in OECD countries)
 - *Canada-USA Agreement* (transboundary movement of hazardous waste) and *Canada-USA Arrangement* (transboundary movement of non-hazardous waste) – both required to enable trade of waste with the US which is not a Party to the Basel Convention

Current Issue

- Enhance collaboration with partners to reduce illegal exports of waste.
- In the process of ratifying the Basel Ban amendment as well as recent amendments to control transboundary movements of e-waste (will require reg amendments)

MARINE PROGRAMS

- CEPA disposal at sea provisions implement the London Protocol on the prevention of pollution from dumping of waste at sea
 - Prohibits disposal at sea of most substances from ships, aircraft, platforms or other structures\
 - Authorizes permits for disposal of low risk waste (on CEPA Schedule 5), such as dredged material or fish processing waste
 - Permits must be based on a rigorous assessment process
- Antarctic Environmental Protection Act implements Antarctic Treaty and ensures Canadian activities in Antarctic are assessed for environmental effects



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.

Current Issues

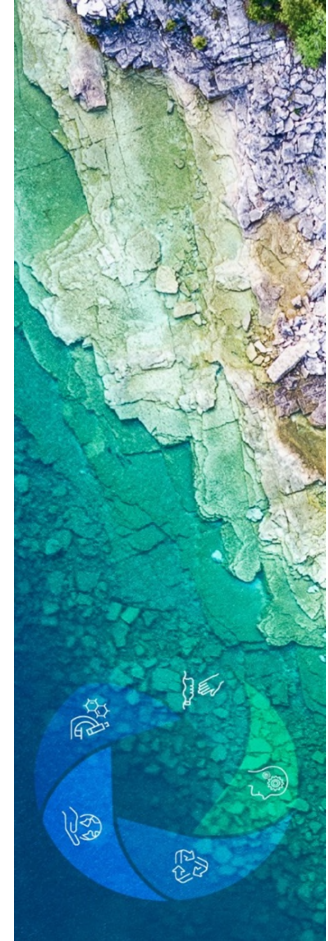
- Implementation of a collaborative decision making agreement with Tsleil-Waututh Nation
- Add sub-seabed CO2 sequestration to Schedule 5 of CEA and develop permitting regime
- Develop a position on the regulation of marine geoengineering activities
- Regulations to remove overlap between CEPA and DFO's 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

ZERO PLASTIC WASTE

- 1st phase (2019-22) \$64 M *Federal Leadership Towards Zero Plastic Waste in Canada*
- 2nd phase (2022-27) \$210.9 M *Advancing a Circular Plastics Economy for Canada* (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
- Pollution Prevention (P2) Planning Notice to reduce plastic food packaging waste
- Federal plastics registry in development
- Ongoing negotiations on a legally-binding global agreement on plastic pollution for 2024
- Unfunded mandate letter commitment (ISED, ECCC): fund to scale-up and commercialize technologies and solutions for reuse and recycling



ENVIRONMENTAL EMERGENCIES

- The National Environmental Emergencies Centre (NEEC) operates 24/7:
 - Managing a 24/7 notification system
 - Overseeing and monitoring response efforts by the responsible party
 - Providing scientific and technical advice and services such as spill trajectory modelling, site-specific weather, wildlife, shoreline cleaning methods)
 - Authority to oversee and require that all reasonable and appropriate measures are taken and to take action, if needed
 - NEEC receives approx. 40 000 environmental emergency notifications per 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

- ***Redacted***
- ***Redacted***
- Support departmental participation in the Marine Pollution, Preparedness, Response and Recovery initiative of the OPP in order to create a cohesive, national system for preparing for and responding to all marine pollution incidents, regardless of source

ENVIRONMENTAL ASSESSMENT

- EPB is ECCC's single-window for the provision of scientific information, knowledge and advice* regarding proponent's characterization of effects and efficacy of measures to mitigate effects
- Federal Authority on effects within Minister's mandate, 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 and co-leads with NRCAN the development of the Open Science and Data Platform (OSDP) for Cumulative Effects
- Leads the implementation of ECCC's commitments associated with the Trans Mountain Pipeline Expansion

**As required by the *Impact Assessment Act (IAA)*, and other EA regimes (e.g.. *CEAA 2012*, *Northern EA legislation*).*

ENVIRONMENTAL PROTECTION BILLS

- *Bill S-5 received Royal Assent June 2023.*
 - Modernizes CEPA by:
 - recognizing a right to a healthy environment, as provided under the Act; and,
 - strengthening Canada's chemicals management regime.
 - ECCC and HC jointly responsible for implementation, which includes:
 - internal awareness-raising;
 - external engagement and communications;
 - working groups tasked with implementing specific deliverables under Act.
- Private Member's Bills (currently in Parliament) on various topics.
 - Bill C-317 - An Act to establish a national strategy respecting flood and drought forecasting [LIB]
 - 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 S-241 - Jane Goodall Act [Affiliation: Progressive Senate Group]
 - Bill C-219: ***Canadian Environmental Bill of Rights*** [NDP]

KEY PARTNERS

Key federal partners

- Health Canada.
- DFO/CCG
- National Research Council (NRC).
- NSERC
- AAFC
- Transport Canada.
- NRCan
- ISED
- TBS
- Justice.
- CNSC

Other partners include

- Provinces and Territories:
 - 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.
 - Waste exports.
- Effectively supporting and integrating with other Government of Canada priority initiatives (i.e. Critical Minerals Strategy, and the Freshwater Action Plan).
- Ability to advance regulatory work in a highly inflationary environment.
- Indigenous engagement.
 - Consultation fatigue, capacity and funding.
 - Alignment with overall agenda on reconciliation and implementation of UNDRIP and renewed CEPA's Right to a Healthy Environment.