Implementation Framework for the Right to a Healthy Environment under the *Canadian Environmental Protection Act, 1999*

Government of Canada Gouvernement du Canada

Canada

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Executive Summary

In the preamble of the *Canadian Environmental Protection Act, 1999* (CEPA) the Government of Canada recognizes that every individual in Canada has the right to a healthy environment, as provided for in CEPA. CEPA was amended in 2023 to include this recognition and related provisions that include a requirement to develop an implementation framework to set out how this right will be considered in the administration of the Act. As required by CEPA, this framework sets out how the Government of Canada, and in particular Environment and Climate Change Canada (ECCC) and Health Canada (HC), will consider the right in the administration of CEPA to fulfill the Government's duty to protect this right to a healthy environment, which is subject to reasonable limits. Unless otherwise indicated, all mention of the right to a healthy environment discussed in this framework is limited to the right as provided for in CEPA (the "right" or "right to a healthy environment").

The development of this framework was informed by input, information, and perspectives provided through public engagement on the *Draft Implementation Framework for the Right to a Healthy Environment under the Canadian Environmental Protection Act, 1999*, Indigenous- and youth-led engagement activities, and various other discussions. A 'What We Heard Report' was published alongside the framework to summarize the input, information and perspectives received from these engagement activities. ECCC and HC would like to acknowledge and thank everyone who contributed to the development of the framework. ECCC and HC look forward to continuing these conversations and relationships through implementation of the framework to identify opportunities for improvements over time.

This framework is divided into two parts.

The first part of this framework elaborates on the meaning of the right to a healthy environment, Indigenous rights, certain principles, and relevant factors as they relate to CEPA (sections 1.0-5.0). The second half provides flexible and practical guidance for government decision-makers on considering these elements in the administration of CEPA to support protection of the right (section 6.0 onwards).

In the first part, this framework builds on the CEPA definition of a healthy environment by elaborating on substantive and procedural elements that are provided for under CEPA and that give meaning to the right. Specifically, it explains how CEPA contributes to an environment that is protected from harmful substances, pollutants, and waste, and that has clean and healthy air and water, a sustainable climate, and healthy ecosystems and biodiversity. The right also includes procedural elements of access to information and participation in decision-making.

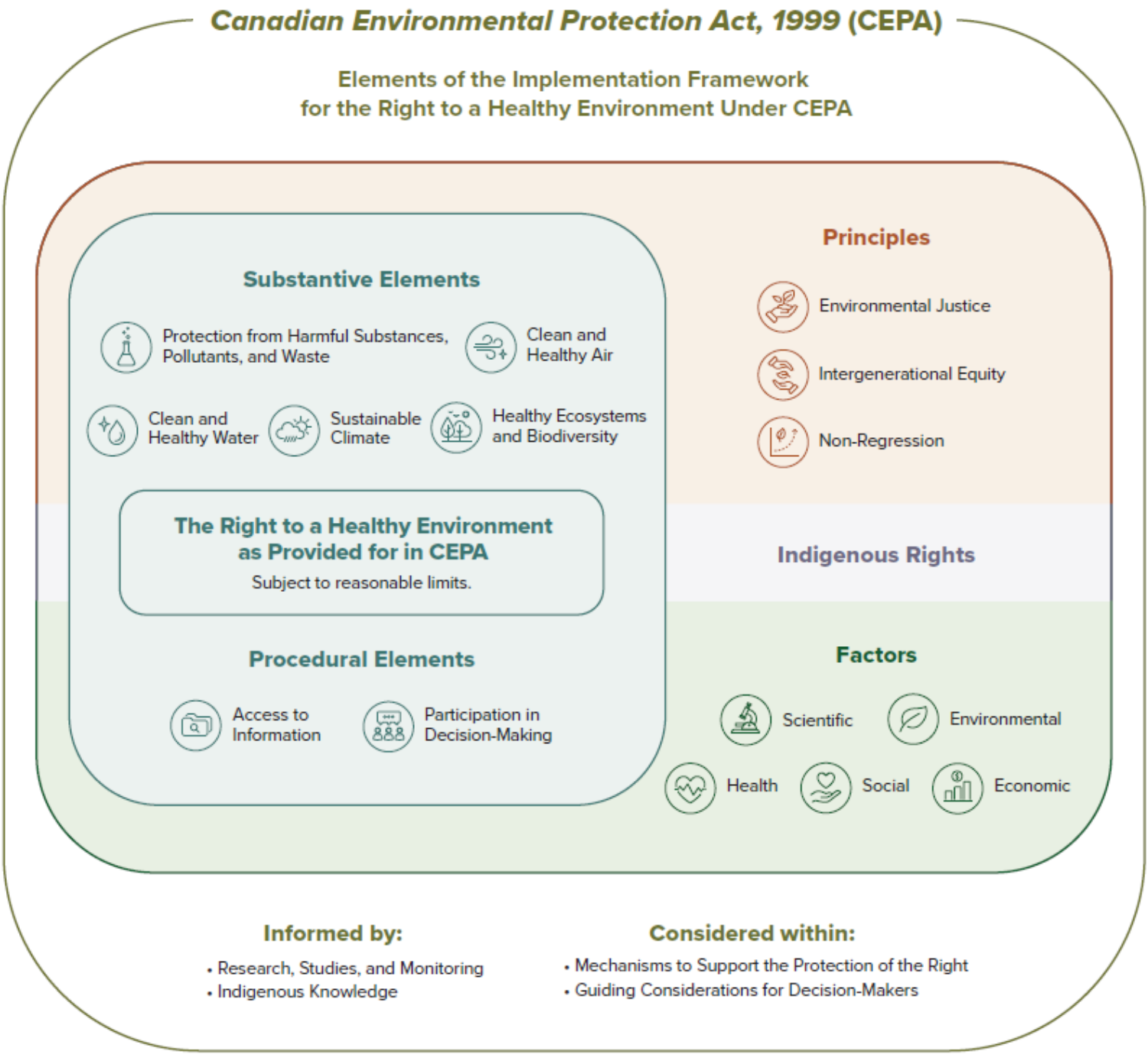
It then elaborates on Indigenous rights and on the principles of environmental justice, intergenerational equity, and non-regression, which are important for CEPA decision-makers to consider when making decisions under the Act. This framework also elaborates on five factors – scientific, environmental, health, social, and economic – which, among others, may be relevant in interpreting and applying the right and in determining the reasonable limits to which it is subject.

This framework also provides a summary of research, monitoring, and studies undertaken by ECCC and HC that support the protection of the right, and highlights the importance of bridging, braiding, and weaving Indigenous knowledge with western science in CEPA decision-making.

In the second part, the framework sets out how CEPA decision-makers can use this framework to consider the right in the administration of the Act by applying the guiding considerations included in section 6.1 of this framework, as appropriate, and through mechanisms that are well established and in place to support protection of the right. Examples of these mechanisms are also described in this framework.

In the administration of CEPA, the Government of Canada will aim to fulfill its duty of protecting the right as it relates to the substantive elements, through consideration of the procedural elements, CEPA principles, and relevant factors described above, recognizing the right is subject to reasonable limits. These key elements and their interrelatedness are shown in the image below.

A transition period for implementation will be in place to allow ECCC and HC to support continued protection of the environment and human health. ECCC and HC look forward to learning through experience and continuing to work with partners to enable updated approaches under the framework and identify areas for updates to the framework itself.


Canadian Environmental Protection Act, 1999 (CEPA)
Elements of the Implementation Framework for the Right to a Healthy Environment Under CEPA
Substantive Elements
Protection from Harmful Substances, Pollutants, and Waste
Clean and Healthy Air
Clean and Healthy Water
Sustainable Climate
Healthy Ecosystems and Biodiversity
The Right to a Healthy Environment as Provided for in CEPA
Subject to reasonable limits.
Procedural Elements
Access to Information
Participation in Decision-Making
Principles
Environmental Justice
Intergenerational Equity
Non-Regression
Indigenous Rights
Factors
Scientific
Environmental
Health
Social
Economic
Informed by:
• Research, Studies, and Monitoring
• Indigenous Knowledge
Considered within:
• Mechanisms to Support the Protection of the Right
• Guiding Considerations for Decision-Makers

1.0 Introduction

The right to a healthy environment discussed in this framework is the one provided for in the *Canadian Environmental Protection Act, 1999* (CEPA) and it applies only in the administration of CEPA. The framework is guidance for decision-makers and, where there is conflict between the provisions of this framework and the obligations under the Act, the text of the Act prevails. The framework is only to be applied and read in a manner consistent with any applicable laws (legislation or regulation). Any applicable law prevails in the event of an inconsistency.

In the preamble of CEPA, the Government of Canada recognizes that every individual in Canada has the right to a healthy environment ("the right"), as provided for in CEPA. CEPA was amended in 2023 to include, among other things, this recognition and related provisions that include a requirement to develop an implementation framework to set out how this right will be considered in the administration of the Act. As required by CEPA, this implementation framework ("this framework") sets out how the Government of Canada, and in particular Environment and Climate Change Canada (ECCC) and Health Canada (HC), will consider the right in the administration of CEPA to fulfill the Government's duty to protect the right to a healthy environment, which is subject to reasonable limits.

The first part of this framework is structured as follows:

- Sections 2.1 and 2.2 elaborate on the meaning of this right as it is provided for in CEPA by outlining, respectively, substantive elements and procedural elements of a right to a healthy environment that are provided for in CEPA.
- Section 3.0 explains how respecting the rights of Indigenous peoples should be considered in decisions that affect Indigenous peoples.
    - Section 3.1 highlights the significance of Indigenous knowledge for CEPA decision-making.
- Section 4.0 elaborates on some of the principles to be considered in the administration of CEPA, such as the principles of environmental justice, non-regression, and intergenerational equity.
- Section 5.0 elaborates on some of the relevant factors to be considered when interpreting and applying the right and in determining the reasonable limits to which it is subject.

The second part of this framework describes how these elements will be put into practice. It describes how the right will be considered in the administration of the Act and provides flexible guidance for CEPA decision-makers to support protection of the right, which is subject to reasonable limits:

- Section 6.1 lists guiding considerations to be applied by CEPA decision-makers, as appropriate.
- Section 6.2 describes examples of mechanisms available to support protection of the right (additional details in Annex 1).

    - Section 6.2.1 focuses on the process to apply a weight of evidence approach and the precautionary principle when conducting and interpreting the results of a CEPA risk assessment or a review of a decision in another jurisdiction, in respect of the protection of the right.
- Section 6.3 provides examples of how the principles may be upheld.
- Section 7.0 describes research, studies, and monitoring activities to support protection of the right (additional details in Annex 2).
- Section 8.0 focuses on accountability and transparency for the implementation of the framework.

A transition period will be in place to allow ECCC and HC to support continued protection of the environment and human health. Recognizing that CEPA decisions are informed by analyses and consultations that are often the result of years of work, it will take time for CEPA decisions and actions to fully reflect and apply the considerations set out in this framework. In determining which decisions or actions will apply this framework during the transition period, the main factors being considered are the protection of human health and the environment. The objective is to continue to advance timely CEPA decisions and actions; preventing negative impacts on the environment and human health, while the right to a healthy environment is being fully integrated into the administration of the Act.

1.1 Engagement on Development of the Framework

The development of this framework was informed by input and perspectives provided through public engagement on the *Discussion Document on the Implementation Framework for a Right to a Healthy Environment under the* Canadian Environmental Protection Act, 1999 and the *Draft implementation framework for the right to a healthy environment under the* Canadian Environmental Protection Act, 1999. This framework has also been informed by workshops that included various stakeholders and Indigenous peoples, including Indigenous- and youth-led engagement activities, and other discussions. A What We Heard Report was published alongside the framework to summarize the input, information and perspectives from Indigenous peoples, individuals, youth, non-governmental and civil society organizations and associations, academia, representatives from businesses and industry associations, and others. The What We Heard Report includes responses to comments and showcases changes made to the framework based on the comments. This framework may be updated in future years as experience is gained through implementation. ECCC and HC will work with interested persons throughout the implementation of the framework to identify potential gaps and areas for updates.

1.2 Background

CEPA is the cornerstone of Canada's environmental legislation, and an important part of the Government of Canada's legislative framework aimed at preventing pollution and protecting the environment and human health. It provides the Government of Canada with broad powers to use a variety of regulatory and non-regulatory tools to address a wide range of pollution sources, including substances (such as chemicals and animate products of biotechnology), hazardous

waste, hazardous recyclable material, marine pollution, fuels, greenhouse gas (GHG) emissions, and environmental emergencies. It provides specific authorities under Part 9 related to activities carried out on federal and Aboriginal lands, and to federal works, Crown Corporations, and undertakings. It sets out a risk-based approach to substances and pollution, which means that both hazard and exposure are considered in the identification of risks when the Government of Canada takes actions to protect the environment (including the interrelationships between land, air, water, and other living creatures, plants and micro-organisms) and people in Canada.

Protecting the environment and human health is a shared responsibility across jurisdictions and there are many other laws and policies at the federal, provincial, and territorial levels and developed by Indigenous governments and communities that contribute to pollution prevention and protection of human health and the environment in Canada. The CEPA principles of national standards and intergovernmental cooperation recognize, respectively, the federal leadership role in creating science-based, national environmental standards and the need for the federal government to endeavour to act in cooperation with other governments in Canada to protect the environment and health of people in Canada. The duty to protect the right to a healthy environment as provided for in CEPA, however, is limited to the CEPA context and is not applicable to other governments, laws, policies, and contexts. This is the case even when other best-placed federal Acts are used to address risks identified through CEPA processes.

The CEPA management cycle was established to support the administration of the Act and includes well-established processes and procedures that will allow for consideration of the right throughout the cycle. It outlines how the Government of Canada identifies and assesses risks and manages pollution, in order to protect the environment and people in Canada from risks that impact their health. It consists of the steps shown in Figure 1, in which public participation and consultation, intergovernmental co-operation, and engagement with Indigenous peoples are integral elements of the process at all the other steps. Descriptions of each of these steps can be found in the Guide to Understanding CEPA. Additional details can be found in the CEPA Annual Report, which provides an overview of the activities conducted under each of these steps and the results achieved each year. While not all CEPA activities follow the full cycle, they typically fall under one or more of the steps. These steps may repeat or overlap as emerging issues are identified, new information about risks is sought, or experience with implementing protections shows the need for changes to how the risk is being managed or protections are being enforced. Within each of these steps, there are decisions and actions that are taken to administer the Act where the right can be considered, as described in section 6.0. Examples of key decision points for each step are highlighted in the figure below.

Figure 1: CEPA management cycle steps and examples of key decision-making points where the right is considered

The preamble of CEPA also recognizes the Government of Canada's commitment to implementing the United Nations Declaration on the Rights of Indigenous Peoples (UN Declaration), including free, prior, and informed consent (FPIC). The *United Nations Declaration on the Rights of Indigenous Peoples Act* (the UN Declaration Act) provides a framework for the Government of Canada's implementation of the UN Declaration. Information on the UN Declaration Act and the Government of Canada's understanding of the references to FPIC can be found in this backgrounder.

This framework supports CEPA decision-making that is aligned with Canada's obligations under the UN Declaration and the UN Declaration Act, when such decisions affect Indigenous peoples. This is described throughout the framework, particularly in sections 2.2.2 on Participation in Decision-Making, 3.0 on Indigenous Rights, and 3.1 on Indigenous Knowledge, and the associated guiding considerations (section 6.1).

2.0 What is the Right to a Healthy Environment as provided for in CEPA?

CEPA's purpose is pollution prevention and the protection of the environment and human health by preventing and managing risks from various pollution sources. CEPA actions also contribute to sustainable development. The right to a healthy environment encompasses substantive elements and procedural elements that fall within this CEPA context and are described below. It is important to note that the right in CEPA is not absolute and is subject to reasonable limits.

Outside of CEPA, the concept of a right to a healthy environment is not new. Various approaches to this concept have been developed in other countries, through the work of the UN Special Rapporteur on the human right to a healthy environment, in academic literature, and in some provincial and territorial legislation. However, at the global level, there is no binding treaty that recognizes or defines a right to a healthy environment. Canada supported the 2022 UN General Assembly resolution on the Human Right to a Clean, Healthy and Sustainable Environment (A/Res/76/300) but noted, along with several countries, that there is no common or internationally agreed upon understanding of the content and scope of such a right. While ECCC and HC reviewed other approaches in the development of this framework and adapted what was relevant in the CEPA context, this does not mean the framework is adopting any of those other approaches. Rather, the framework sets out the meaning and application of the right to a healthy environment as provided for in CEPA and within the context of CEPA. At the same time, the approach to the right provided for in CEPA as set out in this framework does not define or limit Canada's position on how this concept may evolve at the global level.

Elaborating on the meaning of the right to a healthy environment as it is provided for in CEPA assists CEPA decision-makers in considering the right in the administration of the Act. It also assists individuals, Indigenous peoples, organizations, and stakeholders in Canada in understanding how the right is being protected in the administration of the Act.

2.1 Substantive Elements of the Right to a Healthy Environment

A healthy environment is defined in CEPA as an environment that is clean, healthy, and sustainable. Building on this definition, this framework sets out the substantive meaning of the right to a healthy environment as it is provided for in CEPA, recognizing that CEPA is not the only legislation providing authorities related to these areas.

The substantive meaning includes the right of every individual in Canada to live in an environment that is protected from harmful substances, pollutants, and waste, and where actions taken under CEPA contribute to:

- clean and healthy air and water;
- a sustainable climate; and
- healthy ecosystems and biodiversity.

CEPA provides the legal framework for tools that can assist in the protection of some aspects of these elements, which are interrelated and fundamental for human health. In the context of the Act, a healthy environment includes consideration of both human health and the health of the environment, including its biological diversity, recognizing that protecting environmental and human health is a shared responsibility across jurisdictions.

A clean, healthy, and sustainable environment does not mean there will be no pollution in the environment, but it stresses the importance of preventing, managing and reducing pollution to protect human health and the environment.

Measuring progress towards a healthy environment in the CEPA context is challenging given the many governments, laws and policies that provide protections in these areas. However, many CEPA activities contribute to broader Government of Canada frameworks and strategies that are aimed at pollution prevention and sustainable development. These can provide insight into whole-of-government or department-wide objectives and progress in addressing pollution and promoting sustainable development more broadly. They include HC's Departmental Sustainable Development Strategy and ECCC's Departmental Sustainable Development Strategy, as well as the Federal Sustainable Development Strategy (FSDS) and the *Canadian Net-Zero Emissions Accountability Act*.

To better understand the substantive elements of the right, the following sections describe some related activities that are provided for under CEPA.

2.1.1 Protection from Harmful Substances, Pollutants, and Waste

Within CEPA, there are specific requirements and authorities for the assessment and management of existing substances that have been or are being used in Canada and for new substances that are proposed to be introduced. ECCC and HC assess and manage risks to human health and the environment posed by substances that may be found in food (including retail and country foods), consumer products, drugs, drinking water, air, soil, waste, and industrial releases that may enter the environment, through programs including the Chemicals Management Plan (CMP). Research, studies, monitoring, and surveillance (described in section 7.0 and Annex 2), as well as information collected through the National Pollutant Release Inventory (NPRI) and various information gathering approaches under CEPA, help inform decision-making, as outlined in the Information gathering fact sheet.

The Federal Environmental Quality Guidelines (FEQG) are established under CEPA to provide recommended chemical thresholds to support federal initiatives. Preventative FEQGs, often developed for water, biological tissue and sediment, provide thresholds of acceptable quality of the ambient environment, below which there is low likelihood of direct adverse effects from the chemical. Remedial FEQGs, often developed for soil and groundwater, include remediation values

protective of ecological functions and are used to assess and help manage contaminants at contaminated sites.

CEPA also provides the Government of Canada with authorities to manage the movement of hazardous waste and hazardous recyclable materials across international and provincial or territorial borders, including authorities to define hazardous waste and hazardous recyclable material and to issue permits for international movements.

For marine environments, CEPA's Disposal at Sea program regulates and monitors activities related to waste disposal at sea through a permitting scheme. CEPA permits the disposal of authorized dredged material and non-hazardous waste, while simultaneously assessing impacts on marine ecosystems and reporting on sediment quality and highlighting any concerns.

Additionally, the *Environmental Emergency Regulations, 2019* aim to help reduce the frequency and severity of accidental releases of over 200 hazardous substances into the environment by setting requirements to be met by industries in order to prevent, prepare for, respond to and recover from environmental emergencies that may occur at fixed facilities across Canada. The *Release and Environmental Emergency Notification Regulations* reinforce provincial and territorial interests to be the first point of contact for pollution incidents occurring in their communities, while ensuring that ECCC receives the information it needs in a timely way to be informed and intervene, if necessary.

2.1.2 Clean and Healthy Air

Within CEPA, there are specific requirements and authorities for the assessment and monitoring of air pollutants; the development and implementation of regulatory and non-regulatory risk management instruments to reduce releases of air pollutants and their precursors from industrial sources, consumer and commercial products, vehicles, engines and fuels; and the establishment of objectives for certain air pollutants in the ambient air. Risk management instruments addressing GHGs can also reduce air pollution, and actions to address air pollution can also help address near-term climate change, given that some air pollutants are also short-lived climate pollutants.

The Government of Canada works collaboratively with provinces and territories through the Air Quality Management System and other processes. This includes developing, reviewing and updating air quality standards, known as the Canadian Ambient Air Quality Standards. The System is grounded in the principles of continuous improvement and keeping clean areas clean and covers key outdoor air pollutants, including fine particulate matter ($PM_{2.5}$), ground-level ozone (ozone), sulfur dioxide, and nitrogen dioxide. Ongoing reviews of the Canadian Ambient Air Quality Standards help ensure they incorporate the latest scientific information. The Government of Canada also develops health-based air quality objectives and residential indoor air quality guidelines for a wide array of prioritized pollutants to support all levels of government and other partners in managing air quality. The Government of Canada also reports local air quality conditions

and the associated health risks through the Air Quality Health Index (AQHI). The AQHI helps people understand what air quality around them means in terms of potential impacts for their health. The Government of Canada also develops a variety of educational and awareness products related to indoor and outdoor air pollutants – for example, information sheets on contaminants such as $PM_{2.5}$, ozone, and wood smoke.

2.1.3 Clean and Healthy Water

CEPA provides authorities to assess and manage the release of substances found to be toxic to aquatic environments as well as nutrients that degrade or have a negative impact on an aquatic ecosystem through development and implementation of regulatory and non-regulatory instruments. It also includes provisions to develop guidelines for the protection of human health, including water quality guidelines for treated drinking water and for recreational water use. The guidelines are developed collaboratively with the provinces and territories and are used by other jurisdictions as a basis to establish their own regulatory requirements regarding the quality of drinking water in their jurisdictions.[1] The guidelines set recommended maximum acceptable concentrations or treatment goals for a number of substances based on known human health effects associated with each contaminant, exposure levels, and availability of water treatment and analytical technologies. In some cases, they also provide aesthetic objectives for taste or odour, when they play a role in determining whether consumers will consider the water drinkable.

2.1.4 Sustainable Climate

The six main GHGs – carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride – are listed as Schedule 1 substances under CEPA, allowing the Government of Canada to regulate these emissions across industry sectors including: oil and gas; electricity; vehicle and engine emissions and fuels; and consumer and commercial product emissions. Regulations address some of the major sources of GHG emissions in Canada and contribute toward the Government of Canada's target of net-zero GHG emissions by 2050, established under its domestic climate legislation, the *Canadian Net-Zero Emissions Accountability Act*. This target reflects Canada's commitments under the Paris Agreement and the Intergovernmental Panel on Climate Change's *2018 Special Report on Global Warming of 1.5°C*.

The Greenhouse Gas Reporting Program, which collects information yearly from individual facilities on their GHG emissions, is also established under CEPA.

2.1.5 Healthy Ecosystems and Biodiversity

All actions under CEPA to protect the environment from pollution contribute to healthy ecosystems and support biodiversity. When administering the Act, the Government is protecting the environment (including its biological diversity) from the risks of adverse effects of the use and release of substances found to be toxic under CEPA, of pollutants and of waste, as well as ensuring

[1] Responsibilities for drinking water in First Nations communities in Canada are shared between First Nations, the Government of Canada, and provincial and territorial governments, depending on the location. A summary can be found on Indigenous Services Canada's (ISC) website.

the safe and effective use of biotechnology. ECCC also identifies natural areas where the amount of acidifying pollution transferring from the air to soil or water is high enough that ecosystem damage is possible or likely. In addition, the CEPA principle of "ecosystem approach" recognizes the interrelationships between land (including soil), air, water, wildlife, and human activities, and considers environmental, social, and economic elements that affect the environment as a whole.

2.1.6 Conclusion

It is important to identify these substantive elements within the framework to provide context and clarity about the types of environmental and health issues that are applicable to the right to a healthy environment in CEPA and how CEPA activities contribute to the protection of the right where relevant. It is also important that CEPA decision-makers recognize the interconnectedness of each of these areas and work collaboratively to address environmental health issues. Where possible, they should also consider the cumulative effects of pollution, whether from a single source or multiple sources of pollution. Within the CMP, for example, this could involve an analysis, characterization, and possible quantification of the combined risks to health or the environment from exposure to multiple chemicals when conducting risk assessments of substances under CEPA.[2]

2.2 Procedural Elements of the Right to a Healthy Environment

Procedural elements of access to information and participation in decision-making are already included in CEPA processes and support the protection of the right. Guidance for ECCC and HC decision-makers on how to consider these procedural elements, as appropriate with the CEPA context, can be found in section 6.1.

2.2.1 Access to Information

Access to information supports individuals in Canada in their ability to make informed decisions about their and their communities' health and environment, to understand how government decisions are made, and to hold governments accountable for those decisions. It facilitates participation and engagement on health and environmental issues to inform decision-making under CEPA and builds public trust. Access to information aligns with Open Government and Open Science goals. It also supports FPIC, which describes processes that are, among other things, informed by adequate and timely information related to decisions that affect Indigenous peoples, their communities and territories.

Providing access to information under CEPA includes efforts whereby:

- information is consistently made freely available, is regularly updated to reflect new developments, and is easy to find, access, and use;

[2] Cumulative effects are not defined in CEPA and there are different approaches to understanding and analyzing cumulative effects used by different agencies within the Government of Canada (for example, as used in impact assessment), as well as different approaches internationally. This is an evolving area of interest for many and is noted as a priority area for many CEPA programs in the Plan of Priorities.

- the language and format of information resources proactively address the needs of a range of audiences, from those requiring comprehensive, technical details, to those requiring concise, non-technical information;
- information resources are made available and adapted for those most impacted by the decision; and
- transparency, building public trust, and access to information is balanced with the Government of Canada's obligations to protect privacy, confidential business information, and protection of any Indigenous knowledge that has been shared, in accordance with applicable federal law (see section 3.1 on Indigenous knowledge).

Information related to CEPA activities is regularly made available online, including via the CEPA Annual Report and the CEPA Registry; see also section 8.1 for more details about a new CEPA Right to a Healthy Environment Portal.

2.2.2 Participation in Decision-Making

Participation in decision-making under CEPA provides interested parties, including Indigenous peoples, with the opportunity to influence the decisions that may impact them. Involving a variety of voices, especially populations who may be disproportionately impacted by a decision, contributes to more informed and effective Government of Canada decision-making.

Meaningful participation in CEPA decision-making includes, where appropriate, efforts whereby:

- any interested person who wants to participate in an engagement has an opportunity to do so;
- a diversity of voices and perspectives are sought, including from people with different genders, ages, cultural backgrounds, socio-economic status, abilities, occupations, geographic locations, and other intersectional characteristics;
- populations who may be disproportionately impacted are identified and offered distinctive opportunities to participate in decisions that may impact them;
- information is made available, in an appropriate level of detail and format, to ensure interested persons are able to participate in an informed way;
- the needs and constraints of interested persons are taken into consideration when determining timelines for review of materials and to respond (recognizing that, in some cases, comment periods are bound by CEPA requirements);
- technical assistance, accessibility and financial resources are considered and provided where possible throughout the engagement process; and
- summaries of input received and how it has informed decision-making are provided when the engagement is finalized.

Meaningful participation of Indigenous peoples in decisions affecting Indigenous rights may require further efforts to be consistent with the Government of Canada's legal obligations associated with section 35 of the *Constitution Act, 1982* ("section 35 rights"), including the duty to consult, or statutory frameworks like the UN Declaration Act, which requires consultation and cooperation in certain contexts. Meaningful participation is also important in the implementation of modern treaty

obligations and supporting the jurisdiction of Indigenous governments. The UN Declaration emphasizes the importance of participation of Indigenous peoples in decision-making affecting them in Articles 18 and 19.

> **Article 18:** *Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions*.
>
> **Article 19:** *States shall consult and cooperate in good faith with the Indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them*.

Meaningful participation of Indigenous peoples includes the elements listed above, as well as additional efforts, as appropriate, to:

- differentiate Indigenous engagement from general public and stakeholder engagement where Indigenous peoples define how and what engagement looks like;
- build trust and respectful relationships, being mindful that this takes time and thoughtful consideration;
- engage on a distinctions-basis with First Nations, Inuit, and Métis, respecting any cultural practices, protocols, governance structures and timelines, including rights and jurisdictions set out in modern treaties or self-government agreements;
- be inclusive of the voices of Indigenous Elders, Knowledge Holders, seniors, youth, women, men, persons with disabilities, gender-diverse persons and two-spirit persons;
- learn about and recognize historic and ongoing impacts of colonialism and structural discrimination and how these may impact participation and experiences of the topic of the engagement;
- respect the duty to consult which is derived from section 35 of Canada's *Constitution Act, 1982*; and
- provide opportunities for consultation and cooperation as required in circumstances where rights under the UN Declaration or measures under the UN Declaration Act Action Plan are implicated.

Opportunities for meaningful participation in decision-making are made available throughout the various CEPA management cycle steps, with information about engagement activities available through the CEPA Registry, the CMP website, and the Consulting with Canadians webpage. The new CEPA Right to a Healthy Environment Portal outlined in section 8.1 also provides links to opportunities for participation.

3.0 Indigenous Rights

Respect for section 35 rights, including the inherent right of self-government, and for the Government of Canada's legislative and policy commitments to First Nations, Inuit, and Métis should inform decision-making under CEPA.

Specific rights and jurisdictions of Indigenous governments are also articulated in modern treaties and self-government agreements. This includes ownership and control over lands, and jurisdiction regarding the environment on those lands. Modern treaties will articulate processes for consultation where rights and jurisdictions may be impacted. Moreover, modern treaties articulate the government-to-government relationship between the Crown and Indigenous governments and, increasingly, Indigenous governments will view collaborative governance arrangements, including participation in decision making, as central to that relationship.

There are a number of reasons to explicitly focus on Indigenous rights in the framework. Indigenous peoples have special constitutional, nation-to-nation, government-to-government, and Inuit-Crown relationships with the federal government. First Nations, Inuit, and Métis have rights in relation to lands and resources and a unique and often subsistence-based relationship with the land and environment; because of this close relationship, Indigenous peoples may face disproportionate impacts from increased exposures to chemicals compared to the general population in Canada. In protecting the right to a healthy environment, it is important to consider how past and ongoing inequities, injustices, and disproportionate impacts resulting from settler colonialism and imposed policies, governance, and laws exacerbate the concerns for the health of the environment for Indigenous peoples. Highlighting Indigenous rights also reminds CEPA decision-makers of the varied worldviews and perspectives of First Nations, Inuit, and Métis.

The UN Declaration contains 24 preambular provisions and 46 articles. While it must be read and understood in its entirety, the following articles pertaining to human health and environmental rights may be relevant to many of the decisions made under CEPA and can be used to prompt reflection by CEPA decision-makers as they are making decisions that affect Indigenous people:

> **Article 21.1.** *Indigenous peoples have the right, without discrimination, to the improvement of their economic and social conditions, including, inter alia, in the areas of [...] sanitation, health and social security.*
>
> **Article 24.2.** *Indigenous individuals have an equal right to the enjoyment of the highest attainable standard of physical and mental health. States shall take the necessary steps with a view to achieving progressively the full realization of this right.*
>
> **Articles 26.1. and 26.2.** *Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired [...and] to own, use, develop and control the lands, territories and resources that they*

possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.

Article 29.1. *Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources [...]*

Article 29.2. *States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of Indigenous peoples without their free, prior, and informed consent*.

Article 29.3. *States shall also take effective measures to ensure [...] that programmes for monitoring, maintaining and restoring the health of Indigenous peoples, as developed and implemented by the peoples affected by such materials, are duly implemented*.

Articles 18 and 19, identified in relation to participation in decision-making (section 2.2.2), are also relevant when making decisions impacting Indigenous peoples.

Actions under CEPA that help protect the environment and human health from pollution contribute to the implementation of the UN Declaration Act in a broad sense. In applying this framework, CEPA decision-makers may need to consider how their decisions respect and contribute to the fulfillment of obligations under the UN Declaration Act, alongside and as part of their consideration of the right to a healthy environment.

3.1 Indigenous Knowledge

CEPA recognizes the role of Indigenous knowledge in informing decisions about protection of the environment and human health. As stewards of their lands and territories, Indigenous peoples have practiced identifying, understanding, predicting, mitigating, and adapting to changes and impacts to the environment since time immemorial. Bridging, braiding, and weaving Indigenous knowledge with western science will provide robust information for CEPA decision-making, which supports the protection of the right.

Learning directly from nations or communities that may be affected by CEPA decisions or that indicate an interest in CEPA decision-making is one way that CEPA decision-makers can honour the distinct cultures, knowledge systems, worldviews, and kinship networks among their nations and communities. This may involve preliminary work by ECCC and HC to identify which regions or Indigenous populations are likely to be most affected by the decision. Developing working, authentic relationships with potentially affected Indigenous nations or communities will help to enable any Indigenous knowledge that is shared to be bridged, braided, and woven with western science and other information applied to CEPA decision-making in meaningful and appropriate ways.

Article 31.1 of the UN Declaration states that "Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures [...] They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions." ECCC and HC are bound by various federal laws and policies that govern information sharing and control by the Government of Canada. Subject to federal laws and policies, it is important to note that there are Indigenous-led frameworks that exist for Indigenous data sovereignty, such as the First Nations principles of OCAP (ownership, control, access, and possession), the CARE Principles for Indigenous Data Governance (collective benefit, authority to control, responsibility, and ethics), and the National Inuit Strategy on Research. The Indigenous science indicators and perspectives of repatriation, reconciliation, renewal, respect, reciprocity, responsibility, and relationships developed by ECCC's Indigenous Science Division can also support decision-making. As set out in the UN Declaration Action Plan Measure 30, a whole-of-government approach to the management and sharing of Indigenous data is being developed by the Government of Canada in collaboration with Indigenous peoples, which, once developed, will inform CEPA decision-making.

In addition, a mechanism to support this work is listed in Annex 1: the development of guidance with respect to Indigenous knowledge for the administration of CEPA. It is expected to include themes such as bridging, braiding, and weaving Indigenous knowledge and western science when applying a weight of evidence approach, working with Indigenous Knowledge Holders, and protecting Indigenous knowledge and Indigenous data sovereignty.

A number of important knowledge concepts were shared with ECCC and HC by First Nations and Métis in the development of the framework. The development of the new Guidance on Indigenous knowledge for the administration of CEPA will provide the opportunity for these concepts to be more fully contextualized in conversation with Knowledge Holders. ECCC and HC will seek input and permission from First Nations, Inuit, and Métis for additional knowledge concepts and strive to include all distinctions and regions.

4.0 Principles

CEPA Principles

A number of CEPA principles are set out in the preamble and section 2 of the Act (administrative duties) and described in the Guide to Understanding CEPA.

Principles included in CEPA's preamble have been used to guide CEPA decision-making since 1999. They are applied on a case-by-case basis when determined to be relevant and, while distinct from the right to a healthy environment as provided for in CEPA, consideration of these principles can be relevant in protecting the right. This framework elaborates on three new principles added to CEPA – namely environmental justice, intergenerational equity, and non-regression – describing how they will be considered in the administration of CEPA to fulfill the duty to uphold

these principles. Examples of how the principles can be upheld at every stage of the CEPA management cycle can be found in section 6.3, with additional guiding considerations identified in section 6.1.

4.1 Environmental Justice

The principle of environmental justice within the CEPA context seeks to advance the fair and equitable protection of all people in Canada from disproportionate environmental or health risks and to advance their equitable access to meaningful participation in decision-making under the Act.

Environmental justice is a broad concept which has been applied across various contexts to support equitable decision-making processes and outcomes. As a principle to be upheld within CEPA, environmental justice involves four key tenets:

- Distributive justice, which relates to advancing towards equitable protection from pollution risks in CEPA decision-making.
- Procedural justice, which involves equitable representation and participation in CEPA decision-making.
- Recognitional justice, which aims to acknowledge and respect the differences between individuals, collective identities, and their concerns, needs and livelihoods when making decisions under CEPA.
- Restorative justice, which relates to redress or remedy of harm caused by pollution through CEPA risk management and enforcement (as discussed in sections 8.2 and 8.3).

Environmental justice concerns may arise in various contexts, including when populations are located in close proximity to environmental hazards; when inaction, or delayed action, leads to harmful exposures that could otherwise have been avoided; when there are gaps in environmental protection and compliance; and/or when there are limited opportunities to participate in decision-making.

Upholding the principle of environmental justice involves identifying and considering the factors that can lead to certain populations not being equitably protected by and/or less able to participate in CEPA decision-making. The CEPA Consideration of vulnerable populations in risk assessment fact sheet describes how populations who may be disproportionately impacted by pollution include those with the potential for greater susceptibility or greater exposure due to differences in sex, gender, physical characteristics, race, life stage, behaviours, culture, geography, occupation, or socio-economic status. The intersection of these factors may further increase the disproportionate impacts experienced, or likely to be experienced, by these populations and by subpopulations within them. For example, within a population who is disproportionately impacted by air pollution from a nearby industrial activity (geography), children are likely to be more susceptible than the broader population as their biological systems are still developing (life stage).

Environmental Racism and Environmental Justice in Canada

The *Act respecting the development of a national strategy to assess, prevent and address environmental racism and to advance environmental justice*, which received Royal Assent on June 20, 2024, requires the development of a national strategy to promote efforts across Canada to advance environmental justice and to assess, prevent and address environmental racism. The strategy will reflect environmental justice priorities across the Government of Canada separately from the consideration of the principle of environmental justice in CEPA decision-making.

Environmental justice concerns are often linked to historic and ongoing impacts of colonialism, environmental racism, and discriminatory laws, policies, and social attitudes. Understanding the specific histories and forms of structural discrimination that have led to certain populations being disproportionately impacted by pollution in specific ways as well as recognizing and acknowledging past harms is important when looking to achieve more equitable outcomes and participation in decision-making, especially when past harms were caused by government action or inaction.

In addition, Indigenous peoples' rights and special constitutional relationships with the Crown need to be understood and respected in CEPA decision-making that may impact Indigenous peoples. This includes the involvement of Indigenous peoples in decision-making processes.

Consideration of environmental justice in CEPA decision-making can be supported by analysis to characterize the distribution of risks and benefits within and among different populations using an intersectional approach. Existing tools, such as Gender-Based Analysis (GBA) Plus, can help with identifying populations who may be disproportionately impacted and understanding how and why they may not be equitably protected by a CEPA decision. Throughout the CEPA management cycle, transparency about what inputs and perspectives inform decision-making, including input from populations who may be disproportionately impacted by pollution, can assist in uncovering considerations relevant to procedural and recognitional justice.

4.2 Intergenerational Equity

The principle of intergenerational equity within the CEPA context emphasizes that it is important to meet the needs of the present generation without compromising the ability of future generations to meet their own needs.

The health and environmental needs of current and future generations are interrelated. Upholding this principle involves consideration of human health and the long-term health of ecosystems and their biological diversity. Intergenerational equity is particularly a concern in relation to pollution issues under CEPA that can have long-term impacts on human health and/or the environment, such as substances that are persistent, that have endocrine-related, mutagenic, or developmental or reproductive effects, or that contribute to climate change. It is also important to recognize the mental health impacts that can result from long-term pollution issues such as concern about the cumulative effects of pollution and anxiety and grief over the current and future impacts of climate change.

Delaying actions to address environmental and health risks that are caused by past and current generations may negatively impact future generations, but actions taken by the current generation can also have benefits for future generations in terms of improved environmental health or socio-economic conditions – this is why it is important to take action in a timely manner. CEPA decision-making may need to consider the needs of future generations in support of this principle, recognizing that, just as present generations may be disproportionately impacted by pollution in different ways, future generations are not homogenous and will experience different impacts and have different needs based on different characteristics and the intersection between these characteristics.

The concept of Seven Generations, which reflects teachings originating with many First Nations including the Anishinabek Nation, Haudenosaunee Confederacy, Nehiyaw (Plains Cree), Nitsitapi (Blackfoot), is one approach to considering intergenerational equity. It involves considering the effects of present actions for the seven generations coming after us and remembering the knowledge, intentions, and actions of the seven generations who came before.

This framework does not attempt to define a generation, pointing instead to CEPA-specific considerations that are likely to have long-term effects on human health and the environment, such as the substance characteristics listed above. Considering and including the voices of youth from diverse populations in CEPA decision-making can be one way of considering this principle, as youth will live the longest with the negative or positive impacts of actions taken today.

4.3 Non-Regression

The principle of non-regression within the CEPA context means to prevent reduced levels of environmental and human health protection and, where feasible, to continuously improve these levels of protection.

For risks identified under CEPA, non-regression is upheld when developing and implementing risk management actions to protect the environment and/or human health. For example, taking action to establish measures to address newly assessed risks; determining that existing measures are ineffective or inadequate; identifying new sources of risk; or implementing measures to address adverse unintended consequences or emergencies are actions that contribute to upholding non-regression. These decisions and actions are based on the best available scientific information, informed by Indigenous knowledge, when available, and reflect evolving best practices.

Setting environmental and/or human health objectives for substances found toxic under CEPA and then measuring and evaluating performance of the strategies, instruments, or actions put in place to work towards those objectives is an important step in assessing if non-regression is being upheld. Communicating clear rationales for changes in decisions or actions promotes transparency and understanding of CEPA. This is especially important for decisions where a change in approach is being taken that may appear to lessen the degree of environmental or health protection but rather reflects updated science, evidence, or other important factors.

Maintaining adequate resources and expertise for CEPA activities, including for developing, implementing, monitoring, evaluating, and enforcing environmental and human-health protections, may also be a factor in non-regression. A change to any of these elements may have implications for the levels of environmental or human health protection provided under CEPA and could result in regression.

4.4 Conclusion

Principles help guide decision-making under CEPA. In protecting the right, it is important for decision-makers to also consider the interrelationships between these principles. For example, improving protections for populations who may be disproportionately impacted by pollution now can help to uphold environmental justice for future generations. Similarly, looking at how to advance equitable protection of future generations should involve consideration of how future generations will be diverse and have diverse future needs. Examples of how each of the three principles described in this section can be upheld throughout the CEPA management cycle can be found in section 6.3.

5.0 Relevant Factors

CEPA requires that this framework elaborate on relevant factors to be taken into account in interpreting and applying the right and in determining the reasonable limits to which it is subject.

CEPA identifies scientific, social, health, and economic factors to be elaborated on in the framework, but other factors may also be relevant in CEPA decision-making: for example, this framework has added and described an 'environmental' factor below. Considering these factors is not new for ECCC and HC decision-makers. These factors are often interrelated; however, they may not all be relevant to every decision made under CEPA. Such decision-making, particularly within CEPA risk management, involves situations where many considerations need to be evaluated on a case-by-case basis, and choices made between one or more possible actions. In taking the factors into account, decision-makers also consider how the decision upholds the CEPA principles, including environmental justice, intergenerational equity, and non-regression. Consideration of the five factors involves, as relevant:

- **Scientific:** Using the best data, evidence, methods, and practices available as the foundation for CEPA activities and to inform decisions to address risks to the environment and human health. This includes focusing on a risk-based approach, which considers a substance's characteristics as well as exposure to the substance. This also involves using a weight of evidence approach that considers multiple lines of evidence, including Indigenous knowledge when shared, and applying precaution in a way that transparently reflects uncertainties. Updating analyses and decisions as required with new evidence and considering cumulative effects of pollution in the decision-making process where information is available are also considerations of the scientific factor. Using an interdisciplinary approach that integrates multidisciplinary research helps to fully capture the complexity and interactions between ecological and health effects, exposure risks, and the impacts of an action or decision.

- **Environmental:** Considering the improvement of ecosystems and their biological diversity (including all living organisms), climate change, and air and water quality in CEPA decision-making and recognizing that these are interconnected and there may be instances where a decision may positively impact one and negatively impact the other. In these instances, it is important to recognize the impact of a decision on vulnerable environments[3] and to consider cumulative effects of pollution, where information is available. Indigenous knowledge can inform this decision-making, recognizing the depth of biological and ecological knowledge held by Indigenous peoples about their traditional territories.

- **Health:** Analyzing the potential adverse human health impacts of pollution and the benefits of actions under CEPA. This may include analysis of the impacts of decisions at both the individual and community health levels, with particular attention to effects on populations who may be disproportionately impacted by pollution and, where information is available, to cumulative effects. Where information is available, mental health impacts of pollution could also be part of this consideration when taking actions under CEPA – for example, when designing communications and outreach material. For decisions affecting Indigenous peoples, consideration of this factor should involve recognizing holistic approaches to

[3] Vulnerable environment is a term that was added to CEPA in 2023. CEPA did not define vulnerable environments and the Government's position is currently under development.

health (including cultural, spiritual, and community health and well-being alongside physical and mental health) common in many Indigenous Nations and communities, considering the impacts on any unique or subsistence-based relationships with the land and environment that might lead to increased exposures, and the interconnectedness of the environment with the maintenance and restoration of health.

- **Social:** Considering social factors in decisions to address risks to the environment and human health; for example, a population may be disproportionately impacted by pollution due to differences in income and social status, gender, education and literacy, or other socio-economic characteristics. Evaluating the social impacts of the decision can include considering community well-being at different scales (e.g., household or regional level), as well as equity and perceived risk to a community (and how this will impact behaviours). It can also involve assessing the potential impacts on cultural practices, traditions, and heritage and recognizing the intrinsic value of cultural diversity. In Canada, this includes recognizing the spiritual relationship Indigenous peoples have with their lands, territories and the living things within them, and the distinct relationships and land-based practices that are an important, ongoing part of the cultures of First Nations, Inuit, and Métis.

- **Economic**: Assessing economic factors in CEPA decision-making, including in the development of regulations, involves considering financial and economic returns alongside health, social, environmental, and other relevant costs and/or benefits. Analysis of economic factors is done in a robust and evidence-based manner in accordance with principles laid out in Canada's Cost Benefit Analysis (CBA) Guide as developed by Treasury Board Secretariat. This includes conducting analyses to identify costs and benefits to all affected businesses, governments, and individuals; the availability of technological solutions; and if there are any costs or benefits that may be disproportionately distributed amongst different populations, as well as to factor in the social cost of GHGs.

Efforts to consider these factors should be transparent, while recognizing data may be limited or unavailable for certain aspects. The guiding considerations listed in section 6.1 will be used by CEPA decision-makers at ECCC and HC to help consider these factors, as appropriate.

6.0 Protecting the Right under CEPA

In making decisions under CEPA, the Government of Canada will aim to fulfill its duty of protecting the right as it relates to the substantive elements, through consideration of the procedural elements, CEPA principles, and relevant factors described above, recognizing the right is subject to reasonable limits. Many of the elements, principles, and factors are interconnected and this is reflected in the mechanisms outlined below: for example, given the procedural aspect of environmental justice, mechanisms that help uphold this principle should also support the procedural element of participation in decision-making. However, decision-making under CEPA typically involves situations where these considerations need to be evaluated on a case-by-case basis and choices are made between one or more possible actions.

While the Government of Canada has a duty to protect the right, it is not absolute and is subject to reasonable limits. When applicable, and on a case-by-case basis, relevant factors will be considered when interpreting and applying the right and in determining the reasonable limits to which it is subject, taking into account the relevant facts and details of the specific decision. A clear explanation of the rationale for the decision and how the factors were considered can help to clarify the robust, reasoned, and rational consideration of relevant factors, evidence, and inputs.

This section of the framework focuses on practical ways that the right will be protected and the principles upheld under CEPA. Specifically, section 6.1 highlights guiding considerations to be applied throughout the administration of CEPA, and particularly at the key decision points identified in Figure 1. Section 6.2 provides examples of specific mechanisms (i.e., policy tools and approaches) for each step of the CEPA management cycle, with Annex 1 providing more detail on the mechanisms and their current or expected outcomes. Section 6.3 provides more concrete guidance on what upholding the principles could look like at each step of the CEPA management cycle.

6.1 Guiding Considerations

Recognizing the variety of actions and decisions that are taken under CEPA, this framework includes guiding considerations as a flexible tool to support decision-makers at ECCC and HC in fulfilling the duty to protect the right. These considerations are intended to provide guidance to decision-makers about how to consider the right in the administration of the Act, namely when implementing or updating a mechanism or making decisions under a key decision point, but they are not intended to be mandatory (see Figure 1). Decision-makers will need to determine which considerations are relevant and to describe their consideration in the appropriate documents (e.g., assessment reports, risk management documents).

The following guiding considerations can be applied, as appropriate:

Procedural Elements

- Access to information, including:
    - Making public-facing information available, including ease of locating relevant information in formats that reflect the level of technical detail needed by various audiences, in particular those most impacted by the decision.
    - Maintaining and updating publicly available information to ensure relevance.
    - Translating information into both official languages and, where possible, other languages spoken by those most impacted by the decision.
    - Providing transparency about the inputs to decision-making, including information obtained through engagement and consultation, while continuing to adhere to applicable federal laws and policies.
- Participation in decision-making, including:

- Engaging meaningfully with those most impacted by the decision, including by providing relevant supports such as funding, accessible information, and access to technical expertise, where possible.
- Allowing sufficient time for engagement (reflecting the complexity of the information) using methods of engagement that are appropriate to the populations who want to participate and include considerations of accessibility.
- Reporting back on how input received during engagement was considered.
- Providing distinctions-based, early, and meaningful engagement opportunities for First Nations, Inuit, and Métis so that Indigenous peoples can participate in decision-making in ways that respect their distinct cultural practices, protocols, kinship networks, and timelines.

Principles

- Environmental justice, including:
  - Using an intersectional approach to identify and consider how to equitably protect human health, including how the distribution of risks, exposures or outcomes may lead to populations being disproportionately impacted by pollution.
    - Paying attention to the differences between individuals, collective identities, and their needs, concerns and livelihoods.
  - Supporting equitable access to information and participation in decision-making, with specific opportunities for populations who may be disproportionately impacted by pollution.
  - Considering how the historic and ongoing inequities caused by colonialism, environmental racism, and discriminatory laws, policies, and social attitudes that have led to certain populations being disproportionately impacted by pollution can be combatted through more equitable and inclusive decision-making.
    - Reflecting the unique priorities and perspectives of Indigenous Elders, youth, gender-diverse and two-spirit people, women, men, and persons with disabilities.
- Intergenerational equity, including:
  - Identifying and communicating the possibility for intergenerational effects.
  - Using an intersectional approach to consider intergenerational equity implications.
  - Taking timely action to avoid environmental and human health risks being passed on to future generations and to maximize the benefits to future generations.
  - Supporting access to information and participation in decision-making for youth and organizations representing children.
- Non-regression, including:
  - Considering if the decision leads to a decrease in the level of environmental or human health protection currently provided under CEPA.
  - Communicating the evidence and rationale for changes in protections.
  - Establishing performance measurement objectives and indicators to assess if strategies, instruments, or actions – or changes to these strategies, instruments, or actions – could, or did, lead to regression.
  - Considering feasible opportunities for improvement.

- Other CEPA principles, including:
    - Promoting sustainable development and considering an ecosystem approach,
    - Using science-based decision-making as a foundation,
    - Emphasizing the precautionary principle, pollution prevention and polluter pays,
    - Supporting intergovernmental cooperation and national standards by pursuing opportunities to cooperate, collaborate or harmonize actions with other governments, including provincial, territorial, municipal, and Indigenous governments.
- Identifying information or data gaps that could pose challenges to considering the right and relevant principles and considering these as potential future priorities for research, studies or monitoring that could support protection of the right,

Factors

- Using best available **science**, data, methods, practices, and evidence, including Indigenous knowledge, drawing on interdisciplinary approaches where appropriate.
- Considering the positive and negative impacts that decisions could have on the **social**, **economic,** and **environmental** conditions and on the **health** of people in Canada.
    - Including consideration of cumulative effects of pollution on health and environmental factors.

Indigenous Rights and Knowledge

- Identifying if the decision impacts section 35 rights, paying particular attention to if there are cumulative effects to be considered within the decision and how they may impact section 35 rights, including Treaty Rights.
- Considering whether the consultation and cooperation obligations in the UN Declaration Act are engaged and, if so, considering the relevant UN Declaration articles, including Articles 18 and 19 on the rights of Indigenous peoples to participate in decision-making that may affect their rights.
- Identifying opportunities for the decision to promote reconciliation, mutual respect and understanding, embrace meaningful relationships with Indigenous peoples, and advance the objectives of the UN Declaration Act.
- Bridging, braiding and weaving Indigenous knowledge with western science and, when applicable, including Indigenous-developed guidelines and assessments.
- Taking steps to protect any confidential Indigenous knowledge that is shared through engagement in accordance with the direction of Knowledge Holders, to the extent permitted under applicable federal laws and policies.

6.2 Mechanisms to Support Protection of the Right as provided for in CEPA

The Government of Canada has many existing tools and policy approaches under CEPA that support the protection of the right: in this framework, these are referred to as mechanisms. These mechanisms provide a strong foundation for the consideration of the right as provided for in CEPA. There are also opportunities to expand existing mechanisms and introduce new ones to further integrate consideration of the right into CEPA decision-making. Given the vast number and diverse

nature of the programs, activities, and decisions under CEPA, a sub-set of mechanisms from each CEPA management cycle step are shown as examples in Figure 2 below. Descriptions of these mechanisms and of their anticipated outcomes are provided in Annex 1.

Figure 2: CEPA management cycle and examples of mechanisms that support protection of the right

Acronyms in figure: Regulatory Impact Analysis Statement (RIAS), Strategic Environmental and Economic Assessment (SEEA), Gender-Based Analysis Plus (GBA Plus), National Pollutant Release Inventory (NPRI)

6.2.1 Process to Apply a Weight of Evidence Approach and the Precautionary Principle in CEPA Risk Assessments

CEPA requires that the framework set out one of these mechanisms explicitly: the process to apply a weight of evidence approach and the precautionary principle when conducting and interpreting the results of a risk assessment or a review of a decision in another jurisdiction, in respect of the

protection of the right (ss.5.1 (1.1)).[4] CEPA risk assessments already use a weight of evidence approach and precaution in decision-making.

A weight of evidence approach involves using multiple forms of evidence to support a conclusion. While the approach will vary depending on the amount and type of data available, the steps generally include information gathering; critically assessing the quality or reliability of the information; assembling similar information to develop individual lines of evidence; critically assessing each line of evidence; and combining the lines of evidence to characterize risk and reach an assessment conclusion.

Precaution is applied in CEPA risk assessments by using conservative but realistic assumptions to account for the uncertainty identified at various stages of an assessment, depending on the weight of evidence and uncertainties for the particular data set being evaluated. This process is described in more detail in an online fact sheet.

6.3 Upholding the Principles of Environmental Justice, Intergenerational Equity, and Non-Regression

The following table highlights ways that environmental justice, intergenerational equity, and non-regression could be upheld at each CEPA management cycle step. The principles are interrelated and some of the tools used to identify, assess, and manage risk will support CEPA decision-makers in upholding more than one principle.

CEPA Management Cycle Step	**Environmental Justice**	**Intergenerational Equity**	**Non-regression**
Research and monitoring	Identify who is or has the potential to be disproportionately impacted, including when setting priorities and designing studies. Seek to understand what the potential impacts might be through data analyses in order to support subsequent steps in	Generate and analyze data to help identify intergenerational effects of pollution, how these may have different impacts on different populations, and if there are related intergenerational equity impacts in order to support subsequent steps in the CEPA management cycle.	Design studies, analyze data, and share results to help understand how activities (e.g., risk management actions, compliance activities, and enforcement measures) may impact protection of human health and the environment (e.g., analysis of trends in exposure, investigation

[4] Applies to assessments under Part 5 in CEPA, other than the assessment of substances and activities that are new to Canada.

	the CEPA management cycle. Conduct real-world studies of chemical mixtures' impacts on a regional scale where environmental justice challenges were identified. Design studies to collect data that can be disaggregated, where possible, by a range of intersectional factors (e.g., location, sex, gender, race, age, etc.). Share disaggregated results, where possible, to support CEPA decision-making and access to information for the public, other governments, Indigenous peoples, and other researchers.	Generate new information on substance characteristics that may have intergenerational or long-term effects on human health or the environment, such as persistence, endocrine-related effects, mutagenicity, and developmental and reproductive toxicity, as well as on substances that contribute to climate change.	and monitoring of replacement and emerging chemicals, chemical mixtures and cumulative effects on the environment).
Risk assessment	In assessing risk and developing guidelines, identify if risks are present for populations or communities with a greater susceptibility or exposure and if risk management actions are needed. More details on how to	Consider substance characteristics as factors in priority-setting for risk assessments and in the evaluation of risks. For example, the Consideration of endocrine-related effects in risk assessment fact sheet, and the Ecological risk	Refer to science, research, data, and evidence to help identify and characterize environmental and human health risks, and to support consideration of continuous improvement of protections of human health and the environment.

	consider populations who may be disproportionately impacted by pollution are available in the Consideration of vulnerable populations in risk assessment fact sheet.	classification of organic substances approach fact sheet provide relevant guidance. Timely assessment of substances that may have intergenerational effects.	Clearly communicate the evidence and rationale for any changes in risk assessment priorities or risk assessment conclusions.
Risk management	Consider how a particular decision may have disproportionate impacts or create or contribute to differing risks or benefits for different population groups in the selection, design, and implementation of the corresponding risk management instruments or actions. Establish outreach and risk communication strategies, working with other departments or external organizations where appropriate, that reach out to populations who may be disproportionately impacted by pollution or who may require additional support to implement protective measures.	Consider risk assessment outcomes and potential for intergenerational effects when selecting and designing appropriate risk management objectives, instruments, or actions. Consider substance characteristics as factors for evaluating instrument options – for example, the Persistence and Bioaccumulation Regulations and the need to take timely action to limit intergenerational effects. Use analytical tools when developing the RIAS for a regulation, including SEEA and GBA Plus, to help identify potential long-term impacts on the environment and human health.	Establish objectives, baselines, and indicators to support analysis of risk management strategies and actions using science and multidisciplinary research and evidence. Consider the net impacts to social well-being in the CBA, where feasible based on available data and information, and summarize in the RIAS for proposed regulations (or when regulatory amendments are proposed). Consider the incremental benefit or potential for regression when adopting or repealing risk management actions or instruments.

	Use analytical tools when developing the RIAS for a regulation, including SEEA and GBA Plus, to help identify potential populations who may be disproportionately impacted and understand how and why they may not be equitably protected by a CEPA decision.	Respect legislated timelines for primary and secondary risk management actions put in place under CEPA to manage the environment and health risks identified.	
Compliance promotion and enforcement	Promote and enforce compliance with risk management actions or instruments to support effective implementation, in line with the restorative justice element of environmental justice. Consider populations who may be disproportionately impacted by pollution by analyzing relevant data, including geographically-based data on demographics and socio-economic indicators, when identifying priorities in order to equitably protect all populations.	Promote and enforce compliance with risk management actions to support effective implementation so that a disproportionate share of the costs and risks of pollution are not shifted onto future generations.	Promote and enforce risk management actions in accordance with the CEPA Compliance and Enforcement Policy, designed to prevent reduced levels of environmental and human health protection. Select the appropriate enforcement response to secure compliance as quickly as possible with no recurrence of violation.

Performance measurement and evaluation	Consider populations who may be disproportionately impacted by pollution when identifying priorities. Where risks to populations who may be disproportionately impacted by pollution have been identified, identify and measure any disproportionate impacts on these populations. Where populations who may be disproportionately impacted by pollution have been identified, work with them to ensure the reporting of performance results will be relevant to them and meet their needs.	Consider substances with characteristics that can lead to intergenerational effects in priority-setting. Assess the effectiveness of risk management strategies and actions to determine whether they are having the desired impacts to address the identified risks, and what follow-up actions are needed. Where feasible, consider intergenerational equity in performance measurement evaluation (PME) and recommended follow-up actions.	Measure to determine if existing actions are effective or to identify and recommend action on potential regression. Evaluate whether new or additional actions are needed, if other sources of potential risk can be identified for further risk assessment, or if the stringency of actions should be modified as a result of new information and/or science, without resulting in increased risk to human health or the environment.
Public participation	Support procedural and recognitional justice elements of environmental justice. Provide opportunities for engagement for priority-setting in risk assessment and risk management, with specific opportunities and outreach to populations who may be disproportionately impacted by the decision in question and for youth and organizations representing children. Share tailored information to help different populations understand how they may be impacted by pollution and to support more informed participation. Provide technical assistance, tools, and resources throughout the engagement process.		

	Provide transparent justification, analysis, and reasoning for changes to environmental and human health protections.
Indigenous engagement	Share information, provide resources (including funding for capacity to engage when possible) and opportunities for engagement and relationship-building with First Nations, Inuit, and Métis on environmental health issues that impact their rights, lands, and peoples.

7.0 Research, Studies and Monitoring to Support Protection of the Right

ECCC and HC lead and collaborate on a number of research studies and monitoring activities, including modelling activities to support the protection of the right as provided for in CEPA. These activities provide essential data and information about the state of the environment and exposure to chemicals and pollution, including their presence in humans, air, water, biota and other environmental media, their effects on human health and the environment, their mechanisms of action, and their sources, levels, and trends. Knowledge and data generated can help the Government of Canada protect the right and uphold the principles, including any Indigenous-led, distinctions-based, and culturally relevant data and research. In alignment with the modernization of CEPA, the ECCC Science Strategy 2024-2029 identifies areas of focus that guide research and monitoring, several of which are elaborated upon in Annex 2.

Spotlighted Example: Integrated Chemical Mixtures Project (ICMP)
The Integrated Chemical Mixtures Project (ICMP) is a research and monitoring project established as part of the implementation of the amended CEPA. ECCC received four years of funding, commencing in 2023-24, to conduct research and monitoring activities to expand the knowledge base to protect the right to a healthy environment as provided for in CEPA – notably, to generate knowledge on real-world exposure to, and effects from, chemical mixtures in the environment.

The goal of the ICMP is to develop an innovative approach to evaluate and address exposure to multiple substances and their cumulative impacts on multiple environmental media including air, biota, water, sediment, and soil. The ICMP will focus on two site case studies as proof of concept. Engagement with impacted Indigenous communities, the local population, industries, municipalities, and provincial partners in relation to these two sites is a pillar of the project and will be supported by grants and contribution funds. ICMP will also conduct environmental justice analyses, by examining air pollution in the ICMP case study sites, for example. The project takes root in local knowledge and priorities, performs cutting-edge science, is integrated across multiple environmental media and is efficient and relevant. These elements make it a strong example of how protection of the right, as provided for in CEPA, is considered in CEPA research and monitoring.

Annex 2 provides details on research studies and monitoring activities undertaken by ECCC and HC that support protection of the right; however, it is not exhaustive. Additional information on research and monitoring under CEPA and examples of how they inform CEPA decision-making can be found in the CEPA Annual Report

Spotlighted Example: The Air Quality Benefits Assessment Tool (AQBAT)
The Air Quality Benefits Assessment Tool (AQBAT) has been developed by researchers at HC to estimate the health benefits (positive impacts) or damages (negative impacts) resulting from changes in outdoor air quality in Canada. It has been used to analyze the burden of disease attributable to air pollution, including from specific sources such as wildfire smoke and gasoline and diesel emissions. AQBAT informs key scientific and communications reports on the health impacts of air pollution in Canada and helps the government estimate health burdens related to air pollution as a whole in Canada, as well as from specific sources, including transportation, industrial sectors, and wildfire smoke.

These assessments help guide regulatory priorities and justify actions both at the federal level and through other levels of government. For example, AQBAT has played a key role in estimating the costs and benefits of proposed regulatory initiatives and in informing regulatory compliance cases.

HC researchers update data, parameters, and methodology for AQBAT as new air quality and health baseline data becomes available, along with new scientific and economic parameters, and in response to methodological innovations. AQBAT will be used to update the previous publications looking at wildfire impacts across Canada, incorporating data from 2019 to 2023. The capacity of the tool is being expanded to include air pollution and health data at higher geographic resolution. This capacity will enable the examination of inequities in the distribution of health impacts of air pollution, which could support the advancement of environmental justice.

8.0 Accountability and Transparency

It is important for individuals in Canada to understand how the Government of Canada is protecting the right to a healthy environment and to be able to hold the Government accountable in doing so, recognizing the right is subject to reasonable limits. This framework introduces a new CEPA Right to a Healthy Environment Portal on the CEPA Registry to support transparency and accountability. Compliance promotion and enforcement, CEPA remedies for the public to use in the case of environmental harm, and performance measurement and reporting are also relevant to accountability, with transparency as a foundation. In terms of the protection of the right to a healthy environment, the procedural elements of access to information and participation in decision-making also support transparency and accountability.

8.1 CEPA Registry and CEPA Right to a Healthy Environment Portal

The CEPA Registry remains a centralized location for documents relating to the administration of CEPA. Improving the design and organization of information on the CEPA Registry for better access to information can help make information easier to find and understand. Keeping webpages up to date and linking compliance and performance results with each risk management action, where available, are important ways to communicate that the right has been protected.

To further strengthen accountability and transparency related to the right to a healthy environment, a new CEPA Right to a Healthy Environment Portal has been established on the CEPA Registry. This portal serves as a space where the public can:

- access information on the issues addressed under CEPA that matter to them, including opportunities to participate in CEPA decision-making;
- connect to CEPA program contacts;
- learn how to access existing remedies under CEPA; and
- connect with the implementation framework team through a dedicated email address.

8.2 CEPA Compliance Promotion and Enforcement

Government of Canada actions under CEPA to promote accountability can include compliance promotion and enforcement activities or putting in place additional risk management actions to remedy the environmental damage being experienced. Compliance promotion and enforcement activities are guided by the CEPA Compliance and Enforcement Policy. Information about enforcement activities is accessible through:

- the CEPA Annual Report – summarizes enforcement priorities, inspections, investigations and measures, including written warnings, Environmental Protection Compliance Orders, and administrative monetary penalties.
- the Environmental Offenders Registry – enables the public to search for information on convictions of corporations obtained under CEPA and other federal environmental laws.
- Enforcement Notifications – gives the public the ability to subscribe to Enforcement Notifications, which contain information on successful prosecutions.

Legal proceedings related to environmental enforcement will often result in a fine being directed to the Environmental Damages Fund, which is then used to support projects that benefit Canada's natural environment, often in the areas where the violation occurred.

Members of the public can also report illegal activities that threaten the environment to national enforcement headquarters (noting this does not initiate any of the tools described in the following section).

8.3 CEPA Remedies in the Event of Environmental Harm

There are several existing tools under CEPA that the public can use to request the Government of Canada to act if they believe that environmental damages have occurred or if they believe there has

been non-compliance with CEPA. For example, CEPA provides the public with opportunities to request an investigation of an alleged offence (section 17) and then to pursue a civil suit, and/or civil action to recover damages (section 22). It also provides opportunities to seek an injunction (section 39); or to file a notice of objection requesting that a board of review be established (sections 9(3), 10(5), 134 or 332(2)).

Guidance on what information needs to be included in a request for an investigation will be developed and shared on the new CEPA Right to a Healthy Environment Portal. This will help make this remedy more accessible to the public, while avoiding requests that do not meet applicable requirements.

8.4 Performance Measurement, Evaluation, and Reporting

CEPA performance measurement and evaluation for risk management actions for substances found to be toxic under CEPA also support accountability. The PME Strategy sets out the approach to evaluate the effectiveness of strategies and actions taken on substances found toxic under CEPA and future prioritization under this strategy will take the right and principles into account, as described in the relevant mechanism in Annex 1.

The Minister of Environment and Climate Change will report on this implementation framework annually within the CEPA Annual Report, which is submitted to Parliament and posted online for public access. The CEPA Annual Report provides an overview of the activities conducted and results achieved under CEPA each year. It must now include information on the implementation of the framework (for example, highlighting mechanisms and actions that have protected the right) as well as measures taken to advance reconciliation with Indigenous peoples.

As noted in section 2.1, the Government has already established goals, reporting frameworks, and indicators related to pollution prevention and sustainable development, such as the FSDS and Departmental Sustainable Development Strategies for ECCC and HC. Many CEPA activities are reported on through these frameworks. Aspects of actions taken and results achieved under CEPA are also reported on through ECCC and HC's Departmental Plans and Departmental Results Reports as well as through Canada's Sustainable Development Goals reporting mechanisms such as the Canadian Indicator Framework. While these reports bring together actions taken under a number of different Acts to which the right does not apply, they can provide insight into whole-of-government or department-wide progress in addressing pollution and promoting sustainable development.

9.0 Looking Forward

Additional guidance and training will be provided to support ECCC and HC officials in implementing this framework, including how to reflect consideration of the right in relevant CEPA decision-making documentation. It is important to recognize that, as knowledge and experience are gained with

implementing the framework, approaches may evolve and opportunities to improve consistency across CEPA programs and activities are likely to emerge.

ECCC and HC are committed to implementing, monitoring, and evaluating the activities described in this framework and to applying lessons learned during implementation. Such experience will enable improvements under the framework and identify areas for updating the framework itself.

Engagement will be ongoing, transparent, and inclusive to ensure that a full range of voices continue to be represented as the framework is implemented and evolves and to capture the experience of individuals in Canada. Existing committees that include key CEPA stakeholders and partners such as the CEPA National Advisory Committee (NAC), the NPRI Multi-Stakeholder Work Group, and the CMP Civil Society Organization bilateral meetings will be key to ongoing engagement. ECCC and HC will also work to identify other opportunities to listen to a broader range of perspectives and particularly to collaborate with First Nations, Inuit, and Métis.

The right to a healthy environment is novel and this framework provides flexible guidance to decision-makers to support consideration of the right in the administration of the Act. ECCC and HC look forward to learning through experience and continuing to work with partners throughout implementation to enable updated approaches under this framework and identify areas for updates to this framework itself.

Annex 1: Examples of CEPA Mechanisms to Support Protection of the Right

The following mechanisms are examples of policy tools and approaches that CEPA programs at ECCC and HC already use or that they plan to develop to support protection of the right. Examples are provided for each step of the CEPA management cycle, but this table is not intended to list all the CEPA mechanisms that programs will be implementing. The table also describes the anticipated outcomes of each mechanism, identifying which key decision points it impacts, why the mechanism is important, if it helps uphold CEPA principles, and how it protects the right.

Research and monitoring	Outcomes
Setting priorities for CEPA research and monitoring and project development	
Enhance the process for the identification of research priorities to include priorities and projects related to a right to a healthy environment. This will include engaging internally with CEPA programs about data gaps that pose challenges to considering the right and upholding the principles. A new mandatory question on the right to a healthy environment will also be added to research proposal templates to encourage researchers to consider and articulate how their work helps to protect the right.	Enhancements to this mechanism will ensure that the right is integrated into existing research priority-setting processes and projects and is considered in the planning stages of research and monitoring projects, supporting the CEPA principle of science-based decision-making and upholding the three new principles. Setting priorities is an important decision point from which subsequent decision points flow. Integrating consideration of the right at this stage and in the development of research and monitoring projects supports its consideration throughout CEPA research and monitoring activities and in the generation of research and data to support protection of the right at subsequent CEPA management cycle steps.

Risk assessment	Outcomes
Identification of risk assessment priorities under CEPA	
ECCC and HC have adopted an approach for the identification of priorities for risk assessment under CEPA. This approach is applied on an ongoing basis to identify needs for data gathering/generation and to help determine risk assessment priorities. It will be reviewed in light of the right and the principles.	This existing mechanism helps protect the right by establishing a systematic and transparent approach to identifying data needs and setting priorities for risk assessments. As described in the factsheet, key drivers for prioritization include substances that could have an impact on intergenerational equity,

Results of the prioritization approach are communicated through the Plan of Priorities.	such as substances with mutagenic, reproductive, and endocrine disrupting effects, as well as substances that are impacting populations who may be disproportionately impacted by pollution, substances with the potential to contribute to cumulative risks, and substances with known hazardous properties that are used in products available to consumers. Updating the approach could help make the connections between these drivers and consideration of the right and the principles more explicit, which could also help to provide clearer and more transparent information about how this process supports protection of the right.
Request to assess a substance under CEPA	
CEPA allows for the public to submit requests for a substance to undergo assessment under CEPA. The Ministers may either grant the request and add the substance to the Plan of Priorities or deny the request. An online request form provides accompanying guidance on what type of information to include in such requests. The form includes sections that allow the public to raise considerations about populations who may be disproportionately impacted by substances; cumulative effects; and hotspots. A record of requests for assessments received and the Government's decision and rationale are published online.	This mechanism provides for public participation in decision-making in setting priorities for risk assessments. It complements and is part of the identification of priorities for assessment under CEPA described above. While the final decision is made by the Minister of Environment and Climate Change, the request mechanism provides insight into what assessments the public would like to see prioritized. The request form and accompanying guidance facilitate this participation by providing details on what information to include, decreasing the likelihood of a request being denied for administrative or procedural reasons. The form also includes space for information related to populations who may be disproportionately impacted by pollution, cumulative effects, and hotspots, thereby supporting consideration of environmental justice, as well as space for information related to substance characteristics that can

	have implications for intergenerational equity, such as persistence, endocrine-related effects, mutagenicity, and developmental and reproductive toxicity. If the request is accepted, this information can be considered in the gathering information and assessing risk decision points. The online record of requests received supports access to information in relation to risk assessments.
Process to apply a weight of evidence approach and the precautionary principle in CEPA risk assessments	
Risk assessments use a weight of evidence approach, which involves using multiple forms of evidence to support a conclusion. This process includes gathering available and relevant information from multiple sources and critically assessing the quality and reliability of the information, individually and as a whole. Precaution is applied depending on the weight of evidence and uncertainties for the particular data set being evaluated. This process is described in an online fact sheet.	This mechanism supports protection of the right by ensuring decisions do not rely on any one piece of information or line of evidence. Information can be gathered from other regulatory bodies and international organizations, the scientific literature, databases, computer models, consultation with experts, and engagement with stakeholders and Indigenous peoples. It supports consideration of the CEPA principle of science-based decision-making. The fact sheet describing this approach supports access to information about the mechanism, while risk assessment documents include sections describing the weight of evidence for assessing risk and the uncertainties related to either the risks to the environment or human health.

Risk management	Outcomes
Instrument Choice Framework	
Further integration of the consideration of the right into the instrument choice process, including the decision on whether risk management actions should be taken under CEPA or under another Act. This will include	Improvements to this mechanism will ensure that the right is considered and that the principles are upheld when ECCC or HC evaluate instrument options to decide which are most appropriate to manage an identified

improved consideration of populations who may be disproportionately impacted by pollution in instrument selection and expanded analysis to include consideration of non-regression and intergenerational equity in instrument choice analysis.	environmental or human health risk. Pollution prevention, polluter pays, and the precautionary principle are among the CEPA principles considered in this process. What this looks like in practice will depend on the specific risks that have been identified and consideration of any relevant factors. It could include selecting instruments to specifically address the risks to populations who may be disproportionately impacted by pollution, choosing instruments that can be implemented more quickly to avoid impacts falling on future generations, or selecting secondary instruments that increase the levels of protection relative to the primary instruments. Information about the instrument choice process, including what types of considerations and analysis are used, will be made more accessible to the public to support access to information.
Regulatory instrument development process	
When developing regulatory instruments, detailed analyses are conducted on potential impacts and reported in the RIAS. Required analyses are set out in the Cabinet Directive on Regulations and currently include a CBA, a SEEA, a GBA Plus, and an Assessment of Modern Treaty Implications, among others. Ultimately, proposed regulations are published in the *Canada Gazette,* Part I, and are subject to a public comment period through the Online Regulatory Consultation System (ORCS), as an example. This system allows any person to submit comments on specific parts of the proposed regulations without a login or user account. These comments are then made publicly available. Comments and information received are taken into	This mechanism supports detailed analysis related to protection of the substantive elements of the right and to consideration of the principles during the design of regulations through tools such as the CBA, SEEA (that now also includes a Climate, Nature, and Economy Lens), GBA Plus, and Assessment of Modern Treaty Implications. For example, GBA Plus helps identify populations who may be disproportionately impacted, how they are likely to be impacted differently from other populations, and how to limit or prevent these impacts. Use of the SEEA also supports consideration of the CEPA principle of sustainable development. Publication of the supporting analysis, of the draft regulations, and of all the comments

consideration before the regulation is finalized.	received supports transparency and access to information, while the public comment system supports participation in decision-making.
Impact analysis for non-regulatory instruments	
For non-regulatory instruments, expand analysis of the potential impacts on intergenerational equity and on people of different ages, sex, gender, and other characteristics (e.g., GBA Plus analysis) and any cost-benefit considerations in the development of these instruments.	This mechanism expands and encourages the analyses conducted in evaluating options for designing non-regulatory instruments. While not mandatory, distributional impact analysis (usually conducted at instrument selection stage) and GBA Plus can play a similar role in supporting protection of the right and upholding the principles as the mandatory analyses do for regulations. Proposed non-regulatory instruments are also published for public comment before the instrument is finalized, supporting access to information and participation in decision making.
Health-based air quality objectives (HBAQOs)	
HC has developed a process and consulted federal, provincial, territorial, municipal and other air partners to identify priority pollutants for the development of HBAQOs. HBAQOs will identify safe exposure levels of outdoor air pollutants of concern for human health to address key air pollutants not covered by the Canadian Ambient Air Quality Standards. These will consider human health risks only, be voluntary for stakeholders (including provinces and territories), include values for short- and/or long-term exposures, and represent the highest safe exposure levels. They will be available for public comment before being finalized.	This mechanism will help protect the "clean and healthy air" element of the right and help uphold the principles of environmental justice and non-regression by addressing air pollutants not already covered through another system. The prioritization process also reflects consideration of the CEPA principles of intergovernmental cooperation and national standards. The public comment period supports participation in decision-making, while information about how the HBAQOs were prioritized and the rationale for the objectives themselves is available online, supporting access to information.
Risk communication approach	
Enhance CEPA risk communication and engagement activities by focusing on populations who may be disproportionately impacted by pollution. This will include	This mechanism supports the procedural element of access to information and helps to uphold the principle of environmental justice by collaborating with stakeholders who work

targeting prioritized populations who may be disproportionally impacted, substances found to be toxic under CEPA, and hotspots in Canada.	directly with populations who may be disproportionately impacted and by adapting HC communication on substances found to be toxic under CEPA to meet their needs.

Compliance Promotion	Outcomes
Setting priorities for compliance promotion activities	
Consideration of the right and principles will be integrated into the existing systematic and structured risk-based process used to determine annual compliance promotion priorities and guide the compliance promotion activities.	This mechanism will expand the existing compliance promotion priority-setting process to include consideration of the right and the principles. This could include prioritizing compliance promotion activities for an instrument which impacts a population who may be disproportionately impacted by a pollution source to uphold environmental justice, considering the risks of non-compliance in prioritization to uphold non-regression, or considering past non-compliance in prioritizing the next year's activities to support access to effective remedies. Compliance promotion supports consideration of the CEPA principle of pollution prevention through its efforts to increase awareness and ensure those who are subject to regulations understand the requirements they must meet. Information about compliance promotion priorities and activities is available in the CEPA Annual Report, supporting access to information.

Enforcement	Outcomes
Setting priorities for enforcement activities	
ECCC's Enforcement Branch's risk-based planning approach focuses on identifying the highest risk non-compliance areas and allocating the majority of time and resources to these areas. This approach supports the Enforcement Branch's ability to consider the	This mechanism will allow for consideration of the right, as well as of the principles through continued enhancement of the Enforcement Branch's risk-based planning approach.

right and uphold the principles in branch planning. The Enforcement Branch collects and analyzes data on the type, outcomes, and location of its enforcement activities. To consider the principle of environmental justice, this data is analyzed in relation to geographically-based data, including with respect to demographics and socio-economic indicators like income level and the relative presence of equity-seeking groups, which can be used to modify the risk-based planning.	This includes prioritizing enforcement activities where a risk to a population who may be disproportionately impacted by a pollution source has been identified, thereby helping to uphold environmental justice. It also helps to uphold non-regression and the precautionary principle by prioritizing enforcement of regulations meant to address risks of serious or irreversible damage to the environment or human health.

Performance Measurement, Evaluation, and Reporting	Outcomes
PME Strategy	
Implementation of the PME Strategy will be improved by considering the principles when prioritizing substances for evaluation. PME reports are made available online.	This mechanism will integrate consideration of the right and principles into the process for setting priorities for performance measurement and evaluation. This will involve factoring new considerations into PME prioritization, including whether substances are likely to have disproportionate impacts on certain populations or have characteristics that lead to intergenerational effects, or where there are concerns that regression may be occurring. This also supports consideration of the CEPA principle of science-based decision-making. The publication of PME reports online supports access to information about the effectiveness of the actions taken to address risks posed by substances managed under CEPA.
Exploring new approaches to make NPRI more relevant and accessible	
Building on the NPRI dashboard and the Reimagining pollution data project, explore approaches to improve the accessibility, use, representation, and meaning of NPRI data.	This mechanism will explore ways of presenting NPRI data that makes it more relevant to populations who may be disproportionately impacted by a pollution

	source and easier for these populations to understand and use, helping to uphold the principle of environmental justice and supporting access to information. Having accessible data also helps CEPA decision-makers to protect the right in risk assessment, risk management, and performance measurement by ensuring that decisions are informed by data that includes which populations may be most impacted and evidence-based.
Prioritization and timing of CEPA regulatory reviews	
Integrate the consideration of the principles when prioritizing and establishing the timing of a review of an existing regulation under CEPA, as per requirement under the Cabinet Directive on Regulation. Incorporate considerations of the protection of the right when conducting a review of a regulation.	This mechanism will integrate consideration of the right and principles in the process of regularly reviewing regulations to evaluate if they are meeting their intended environmental and/or human health objectives, which helps uphold the principle of non-regression. Conducting reviews of regulations could also take into account populations who may face disproportionate social, environmental, human health impacts. The review process typically involves external consultations, supporting participation in decision-making, and the results are reported online, supporting access to information.

Public Participation & Consultation, Intergovernmental Co-operation, Indigenous Engagement	Outcomes
CEPA NAC	
CEPA NAC is a forum for provincial, territorial, and Indigenous governments to advise on actions being proposed under CEPA, enabling national cooperative action and seeking to avoid duplication in regulatory activity among governments. Under paragraph 6(2)(c) of CEPA, the NAC can have up to six Indigenous government representatives (as defined under the Act) but often several of the positions	Enhancements to this mechanism aim to increase Indigenous representation on CEPA NAC without requiring legislative changes that are beyond the scope of this framework. This would improve how CEPA NAC addresses Indigenous priorities and improve Indigenous participation in decision-making and access to information through this key forum for

remain vacant. Enhancements could include addressing this representation gap, identifying barriers to participation of Indigenous governments, and developing strategies for outreach and recruitment for filling these positions.	intergovernmental cooperation, all of which will help uphold environmental justice.
Guidance on Indigenous knowledge for the administration of CEPA	
In a timely fashion, work with Indigenous peoples to develop Guidance on Indigenous knowledge for the administration of CEPA that provides ECCC and HC with guidance on how to approach bridging, braiding, and weaving Indigenous knowledge with western science in their work, drawing inspiration from existing guidance and resources such as the Indigenous Knowledge Policy Framework for Project Reviews and Regulatory Decisions and from ECCC's Science Strategy 2024-2029. It may include themes such as bridging, braiding, and weaving Indigenous knowledge and western science when applying a weight of evidence approach, working with Indigenous Knowledge Holders, and Indigenous data sovereignty. It may also include knowledge concepts that have been shared with HC and ECCC by First Nations and Métis through engagement on the right to a healthy environment implementation framework. ECCC and HC will seek suggestions and permission from First Nations, Inuit, and Métis for additional knowledge concepts: this could include distinctions-based primers. Development of this guidance will necessarily involve working with and seeking direction from Indigenous Knowledge Holders.	This new mechanism aims to improve how Indigenous knowledge is respectfully included in CEPA decision-making by providing guidance to ECCC and HC staff on how to approach Indigenous knowledge including by building relationships with Knowledge Holders, understanding the specific context of any knowledge shared, and protecting Indigenous knowledge in accordance with the direction of Knowledge Holders. The guidance may also address Indigenous data sovereignty, including the protection of any Indigenous knowledge that has been shared in accordance with applicable federal law. This guidance will help uphold environmental justice and ensure that Indigenous peoples are included in the decision-making process.
Government of Canada and Stakeholder Working Groups	
ECCC and HC engage several industry sectors to hear their perspectives on CEPA risk management actions related to their sector. Additionally, ECCC and HC engage with the	Improvements to this mechanism aim to enhance access to information for members of the public who have interest in the types of conversations that occur between

CMP Civil Society Organization bilateral meetings to enhance engagement and outreach with the public. To enhance transparency, they will post information about meetings to the CEPA Registry.	Government and stakeholders, including industry groups and civil society organizations.
CMP Civil Society Organization bilateral meetings	
Enhance range of perspectives and voices at the CMP Civil Society Organization bilateral meetings by including youth representatives.	Public participation in decision-making is important and can be strengthened throughout the CEPA management cycle; enhancing the membership of the CMP Civil Society Organization bilateral meetings is an example of how CEPA decision-makers can provide opportunities for youth to be considered in decision-making. Involving youth in tables such as this is another way to uphold the principle of intergenerational equity by making sure the voice of future generations is heard.

Annex 2: CEPA Research and Monitoring Programs

The following sections provide a summary of some of the main monitoring and research activities at ECCC and HC that help support protection of the right as provided for in CEPA.

Monitoring

Human health-related monitoring and surveillance activities that support CEPA decision-making include the nationally-representative Canadian Health Measures Survey (CHMS), the Northern Contaminants Program (NCP), the First Nations Environmental Contaminants Program, the Total Diet Study, and the Maternal-Infant Research on Environmental Chemicals (MIREC) Research Platform. These activities collect human biomonitoring data and health information from people living in Canada. These datasets can be used to identify populations who may be disproportionately impacted by pollution, taking into consideration socio-economic factors, age, geographic regions, and factors encompassed by Sex and Gender Based Approach Plus (an approach similar to GBA Plus used by HC that includes consideration of biological sex). Opportunities to leverage these existing datasets through further disaggregation are being explored to allow for analyses of certain populations who may be disproportionately impacted by pollution. Studies that follow the same individuals over time, like MIREC, will continue to be important under CEPA to understand health effects over time through critical windows of exposure (e.g., pregnancy, childhood, adolescence). Monitoring and surveillance activities also track trends in exposure (e.g., national level trends in the CHMS, individual level trends in MIREC) and monitor replacement chemicals, which can help support non-regression. Trends in exposure over time in the Canadian population from the CHMS are used to inform the Canadian environmental sustainability indicators (CESI) and PMEs under the CMP.

Programs such as ECCC's Environmental Monitoring and Surveillance Program and Crown-Indigenous Relations and Northern Affairs Canada's NCP enable the regular collection of data on the concentration of substances and monitoring of trends in various environmental media across Canada, including the Arctic, on surface water, sediment, air, aquatic biota and wildlife. Sampling sites are selected based on data needs for decision-making, while leveraging existing monitoring programs in place.

In addition, the Wastewater Monitoring Program at ECCC provides data on the levels of selected substances (often from consumer products) entering wastewater treatment plants, the fate of these substances through typical wastewater and sludge treatment processes, and the levels being discharged in wastewater treatment plant effluents and solids residuals, all of which can inform CEPA decision-making.

Most of ECCC's activities under the Freshwater Quality Monitoring and Surveillance program fall under the *Canada Water Act*, but some are reported under CEPA since it supports CEPA decision-making by providing information on chemicals of concern in water, sediments and aquatic biota at

national sites across Canada. Much of the program's monitoring is carried out through federal-provincial/territorial agreements.

There are several air quality monitoring programs such as the Canadian Air and Precipitation Monitoring Network (CAPMoN) and the National Air Pollution Surveillance (NAPS) program that measure air quality, deposition of pollutants to ecosystems, and a wide range of air pollutants in regional locations. Work to measure key air pollutants is done in collaboration with provincial, territorial, and regional government networks. Long-term air monitoring of pollutants such as mercury and particulate matter, both nationally and globally, provides key information used to understand their transport into and around the Canadian environment. Long-term monitoring of pollutants in air and precipitation provides data to assess population exposure and impacts and can be used to identify areas across Canada where pollutant deposition has exceeded the level of exposure below which significant harmful ecological effects are not expected to occur.

Air pollution exposure at the household and neighbourhood scale can be assessed by a variety of methodologies, including field studies, remote sensing, and modelling approaches. This research can help identify inequality in the distribution of air pollution exposure and health impacts by location and socio-economic status. Remote sensing and modelling approaches can also identify priority areas that may not be observed with monitoring (e.g., near industrial emitters, neighbourhood scale within cities, etc.).

Air quality monitoring in specific indoor environments in the context of research projects has also led to the development of risk management actions and guidance for partners (e.g., municipal and provincial partners) to protect human health (e.g., Best Practices for Improving Air Quality in Ice Arenas). Monitoring is also being expanded in response to the risks of wildfire smoke, with low-cost sensors being distributed to expand air quality monitoring networks in rural areas, and particularly to Indigenous communities.

The Canadian Greenhouse Gas Measurement Program operates a network of stations to measure carbon dioxide and other GHGs at sites across Canada, including coastal, interior, and arctic regions of the country. These data provide information that helps to understand how the Earth's climate system is changing, including understanding natural and human sources of GHGs.

Monitoring information from these ECCC programs can be found on the ECCC's page in the Government of Canada's Open Data portal and are used to inform relevant CESI indicators. HC also publishes air pollution exposure data from field studies on the Government of Canada's Open Data portal.

The ECCC Disposal at Sea Program conducts monitoring studies of the environmental conditions at representative disposal sites each year. These studies can assess the physical, chemical, and biological features of a site and also look at cumulative effects and the long-term sustainability of

the sites. Disposal site monitoring helps to ensure that the permit conditions are met and that conditions are adequate to protect the marine environment and human health. Guidelines and technical guidance are available online to provide more detailed and transparent information on how monitoring for disposal at sea is conducted, and details on monitoring activities for each year can be found in the CEPA Annual Report.

Research and Studies

Research and studies under CEPA include scientific research, as well as policy and economic research and studies, all of which can support protection of the right as provided under CEPA.

Priority areas for research and studies related to substances, as outlined in the Plan of Priorities, include:

- studying the persistence, bioavailability, bioaccumulation, toxicity and cumulative effects of priority chemicals and chemicals of emerging concern, including chemicals impacting populations or environments that may be at increased risk due to either greater exposure or greater susceptibility;
- understanding the impacts of chemicals on Indigenous Peoples and their communities;
- understanding the impacts of chemicals on low-income communities in Canada;
- bridging science knowledge gaps and informing risk assessments of new and existing chemicals of potential risk (e.g., potential substitutes for substances with known toxicity and endocrine disruptors) in priority areas (e.g., human health effects, and routes and sources of exposure);
- generating and integrating knowledge to support the increasingly complex priorities faced by risk assessment and risk management, such as cumulative effects, real-world exposure to complex mixtures, and to support bridging, braiding and weaving Indigenous knowledge and western science;
- where data and information are available, examining the interconnection between climate change and the exposure of ecosystems and human populations to harmful chemicals (particularly due to extreme weather events, which can mobilize contaminants from industrial sites, agricultural runoff or damaged infrastructure), and developing solutions for effective, adaptable, resilient risk management to mitigate chemical exposures;
- developing new computational and laboratory methodologies that allow a greater number and variety of chemicals to be studied, including those for which little is known (e.g., development of methods to expand the list of chemicals, such as per- and polyfluoroalkyl substances (PFAS), that can be identified and quantified in various matrices); and
- enabling modern toxicity testing, including advancing the use of new approach methods (NAMs) (i.e., new technologies, methodologies or approaches (or a combination thereof, such as computational or cell culture models) to support reducing animal testing), where possible, to further the understanding of how environmental exposures lead to negative health impacts.

This work helps CEPA decision-makers to better understand real-world exposures and supports efforts to identify populations who may be disproportionately impacted by pollution, as well as to

understand how they may be disproportionately impacted. Studies can also help identify early potential impacts of environmental exposures and the ability of chemicals to cause changes that may be passed on to future generations. For example, studies may examine potential endocrine-related effects of chemicals that may impact fertility and reproductive success or look at potential mutagenic effects of chemicals, which can cause irreversible and heritable changes in genetic materials.

Other human health research initiatives are aimed at helping to understand chemical exposures in populations who may be disproportionately impacted. This includes research related to the Firefighter Action Plan, helping to protect firefighters from harmful chemicals as well as exposure studies in other occupational settings. Research and engagement workshops have also been held as part of the development of the National Framework on Cancers Linked to Firefighting.

Another important area of research that informs CEPA decision-making relates to air pollution. ECCC leads several research projects on a wide range of air pollutants, including some that identify sources of air pollution that pose the greatest risk, some that research how substances are dispersed through the atmosphere, and some that gather information to assess impacts of substances on the environment, particularly through atmospheric processes. This research contributes to developing and improving tools and techniques that may be used to take the best action to protect the environment and human health.

HC conducts research on the different components of air pollution, how they interact, the potential impacts on various adverse health outcomes (all-causes as well as disease specific morbidity [e.g., hospitalization] and mortality, such as neurological and cardiovascular adverse health outcomes), and how the timing (e.g., in utero, early development) and duration of exposure(s) may influence health outcomes. This research considers how air pollution may impact certain populations in different ways (e.g., pregnant people, children, elderly), and is investigating factors that may exacerbate the effects of air pollution using considerations relevant to environmental justice (e.g., social and racial disparities, etc.). In addition, research can identify the risks associated with different air pollution sources (e.g., industry sectors, transportation, etc.).

HC also conducts research projects that examine social inequities. A research project investigating Indoor Environmental Quality and Health in Subsidized Housing in British Columbia has begun, recognizing that indoor environmental quality (IEQ) data from subsidized housing is extremely limited. This hinders governments' capacity to protect residents from growing and compounding threats such as wildfire smoke and extreme heat events, and from indoor contaminants. Residents of subsidized housing may be more susceptible to the effects of poor IEQ and other environmental stressors due to intersecting social determinants and prior co-morbidities. HC conducted an indoor air quality study to examine the relationship between indoor air quality and lower respiratory tract infections, asthma and skin infections in children living on reserve in First Nations communities in the Sioux Lookout Zone. The results of the study were published in an article and

used to support, develop and disseminate evidence-based, culturally appropriate materials to help occupants recognize and address indoor air quality issues identified by the research.

A number of CEPA programs work with international partners to develop approaches and methodologies related to their work and to conduct specific thematic projects. In particular, CEPA programs work with the Organisation for Economic Co-operation and Development (OECD) on matters related to chemicals and biotechnology. For example, HC has been involved in a forthcoming OECD Working Party of Exposure Assessment publication that will inform how children's exposure to substances in crafts and toys are estimated in CEPA risk assessments, while ECCC co-leads the Expert Group on updating the OECD model for estimating long-range transport potential and persistence of chemicals.

Policy research and socio-economic analysis are also important at the risk management stage, and particularly in the instrument choice framework and the development of the RIAS. This often involves international collaborations, including a project with the OECD on methods and approaches to conducting CBAs in relation to environmental health regulations, which is important to upholding the principles of environmental justice and intergenerational equity.

Annex 3: Terminology Guide

Except where another link is provided, the information below comes from definitions within CEPA, from the CEPA Glossary, or from the Chemical Substances Glossary, which also explain a number of additional terms.

Best Placed Federal Act: an approach in which a risk may be assessed and found to be toxic under CEPA, but another federal Act or minister is identified as being best placed to manage the identified risk. This may mean a regulation or instrument can be made under another Act (e.g., the *Fisheries Act* or the *Food and Drugs Act*) to fulfill the risk management obligations under CEPA.

Bioaccumulation: the process of gradual accumulation of substances in living tissues (from the *Chemical Substances Glossary*).

Biological diversity: defined in CEPA as including the variability among living organisms from all sources, including, without limiting the generality of the foregoing, terrestrial and marine and other aquatic ecosystems and the ecological complexes of which they form a part and includes the diversity within and between species and of ecosystems.

Bridging, braiding, and weaving: concepts used by ECCC's Indigenous Science Division on how to respectfully approach Indigenous knowledge and the integration of Indigenous science with western science. Bridging is about fostering awareness, understanding, and recognition of Indigenous science as a distinct and equal science to western science approaches. Braiding is about bringing together different ways of knowing and being. Weaving is about all of the Indigenous science indicators involved in bridging and braiding as well as the inclusion of self-determined Indigenous methodologies, research paradigms, and worldviews.

Canadian Environmental Protection Act, 1999 **(CEPA):** an important part of Canada's legislative framework aimed at preventing pollution and protecting the environment and human health. It was last amended in 2023 to, among other changes, indicate in the preamble that the Government of Canada recognizes that every individual in Canada has a right to a healthy environment as provided under the Act. Read the Act here and learn more in the *Guide to Understanding CEPA*.

CEPA Management Cycle: a process that was established to support the administration of the Act and especially to identify and assess risks and manage pollution, in order to protect the environment and people in Canada from risks that impact their health. It consists of the following stages: 1) research and monitoring, 2) risk assessment, 3) risk management, 4) compliance promotion, 5) enforcement, and 6) performance measurement, evaluation, and reporting. Public participation, intergovernmental co-operation and engagement with Indigenous peoples are integral elements of the process at all the other steps.

CEPA National Advisory Committee (NAC): is a forum for provincial, territorial, and Indigenous governments to advise on actions being proposed under CEPA, enabling national cooperative action and seeking to avoid duplication in regulatory activity among governments.

Chemicals Management Plan (CMP): a Government of Canada initiative aimed at reducing the risks posed by chemical substances to people in Canada and the environment, including many CEPA activities. Through this program, the Government assesses and manages risks to human health and the environment posed by chemical substances that can be found in food and food products, consumer products, drugs, drinking water and industrial releases.

Cumulative effects: There are different approaches to understanding and analyzing cumulative effects used by different agencies within the Government of Canada, as well as different approaches internationally. The consideration of **cumulative effects** under CEPA, within the CMP, may involve an analysis, characterization, and possible quantification of the combined risks to health or the environment from exposure to multiple chemicals. This is an evolving area of interest for many and is noted as a priority area for research in the Plan of Priorities.

Gender-Based Plus Analysis (GBA Plus): an analytical tool used to support the development of responsive and inclusive policies, programs, and other initiatives. GBA Plus is a process for understanding who is impacted by the issue or opportunity being addressed by the initiative; identifying how the initiative could be tailored to meet diverse needs of the people most impacted; and anticipating and mitigating any barriers to accessing or benefitting from the initiative. GBA Plus is an intersectional analysis that goes beyond biological (sex) and socio-cultural (gender) differences to consider other factors, such as age, disability, education, ethnicity, economic status, geography (including rurality), language, race, religion, and sexual orientation. The term "GBA Plus" is used throughout the Government of Canada, while HC uses Sex and Gender Based Analysis Plus, which includes considerations related to biological sex.

Healthy environment: defined in CEPA as an environment that is clean, healthy, and sustainable.

Human biomonitoring: the measurement of how much of a chemical, or the substance(s) it makes when it breaks down, is present in a person. This measurement (called the level or concentration) is usually taken from blood or urine samples, and sometimes from other tissues and fluids, such as hair, nails, and human milk.

Intersectionality / intersectional approach: recognizing if and how each person or group has multiple identity factors that intersect with each other and can be interdependent and often combined. These can include sex, gender, language, ethnicity/race, religion, age, disability, geography, culture, income, sexual orientation, and education. See the Government of Canada's approach on GBA Plus for the source of this description and additional details.

Mutagenic: property of a substance that can cause changes to the DNA of cells (from the *Chemical Substances Glossary*).

Persistence: property of a substance that remains in the environment for a long time (from the *Chemical Substances Glossary*).

Populations who may be disproportionately impacted by pollution / vulnerable populations: vulnerable populations are defined in CEPA as a group of individuals within the population living in Canada who, due to greater susceptibility or greater exposure, may be at an increased risk of experiencing adverse health effects from exposure to substances. Online consultations with people in Canada on the definition of the term in the context of federal chemicals management activities were held in 2018. ECCC and HC are using the term "populations who may be disproportionately impacted" interchangeably with "vulnerable populations" to recognize that many of these populations are not inherently vulnerable but rather that their susceptibility is associated with circumstances of their lives.

Risk management instruments: preventing or controlling risks is done by selecting and applying instruments that are most likely to achieve environmental and/or human health objectives. A variety of voluntary and enforceable instruments are used to manage risks posed to the environment or human health. Examples of instruments available under CEPA include regulations, pollution prevention planning notices, codes of practice, and release guidelines.

Regulatory Impact Analysis Statement (RIAS): an analysis of expected impacts, based on a Regulatory Impact Assessment, of a proposed regulation. It is published in the *Canada Gazette* with the text of proposed and finalized regulations (*see Section 5.3 at the link*).

Substance: defined in CEPA as any distinguishable kind of organic or inorganic matter, whether animate or inanimate. Among other things, this definition includes any animate matter that is, or complex mixtures of different molecules that are, contained in effluents, emissions, or waste. Substances include chemicals, polymers, biochemicals, biopolymers, nanomaterials, unknown or variable composition complex reaction products or biological material (UVCB), micro-organisms (for example, bacteria, viruses) and living organisms other than micro-organisms (for example, fish, mammals) (adapted from CEPA and from the *Chemical Substances Glossary*).

Substances with endocrine-related effects: certain substances can interfere with the function of endocrine systems. Such effects, referred to as endocrine-related (or hormone-related) effects, can occur when substances mimic natural hormones, prevent hormones from reaching their targets, or change hormone metabolism. Substances that cause changes in endocrine function that result in adverse effects to an organism are referred to as endocrine disruptors. CEPA defines a hormone disrupting substance as one having the ability to disrupt the synthesis, secretion, transport, binding, action or elimination of natural hormones in an organism or its progeny that are responsible for the maintenance of homeostasis, reproduction, development or behaviour of the organism (from the *Consideration of endocrine-related effects in risk assessment fact sheet*)