



# Protecting Vulnerable Populations: An Intersectional Approach to CEPA Reform

## Acknowledgements

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## About The Women's Healthy Environments Network

WHEN is a Toronto-based non-profit charitable organization whose mission is to raise awareness on how one's environment can impact personal health and empower women to influence their communities and improve their health. Using evidence-based information and credible tools, WHEN educates the public and policy makers about environmental health being a key determinant of public health, and advocates for the prevention of environmental health harms. WHEN specifically focuses on reducing individuals' and communities' risk of illness and injury that arise from one's environment – including from the food we eat, the water we drink and the air we breathe. Preventing toxic exposures is a vital component of the protection of human and environmental health, and as such WHEN has been actively promoting the modernization of the *Canadian Environmental Protection Act* ("CEPA") to better protect the health of women and other vulnerable populations.

## Summary

Current risk assessment and risk management processes under CEPA do not adequately consider the impact of an individual's or sub-population's physiological and socio-environmental characteristics (such as sex, gender, race, income, and geography) intersect and increase one's vulnerability to adverse health effects from toxic substance exposures. A case study that is demonstrative of this can be found in Appendix A. CEPA currently operates on the oversimplified assumption that environmental health risks are uniformly distributed across populations and therefore does not adequately protect individuals' or subpopulations' who experience greater risks than the "general population". **We are calling on the federal government to strengthen and pass Bill S-5 without delay.** To better protect vulnerable populations, CEPA reforms must mandate (beyond the preamble):

- Generation and collection of biomonitoring data disaggregated by identity factors, in order to identify unequal distribution of risk
- Conducting risk assessments under the assumption that the person exposed to the toxic substance possesses any and all identity factors that render one vulnerable to health harms from exposure, in order to ensure risks are not underpredicted
- Risk mitigation measures including safe substitution, mandatory hazard labelling, and improved access to information and access to justice mechanisms

For a full list of recommendations for CEPA reform, including the adoption of a more comprehensive definition of vulnerable populations, please see Appendix B.

### **Vulnerable populations are not adequately considered in toxic substance risk assessment**

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The current risk assessment processes for determining whether a substance is toxic under CEPA fails to consider the significant variability in exposure to toxic substances and susceptibility to adverse health effects from such exposures due to an individual's or sub-population's identity factors such as sex, gender, income, or occupation. When assessing the risk of a toxic substance under CEPA, the assumption is that the greater the dose of chemical exposure, the greater the harm to human health. However, this is an oversimplification of the reality: harm to human health from toxic substances varies widely based on **physiological determinants of health** and **socio-environmental determinants of health**, which can intersect and negatively impact an individual's **chemical body burden** (a measure of a person's chemical load or a sum of total exposures from all routes of entry (ingestion, absorption, inhalation) and from all sources (air, water food) from all the places we work, live and play in).<sup>1</sup> The current approach under CEPA narrowly examines the risks of chemicals one at a time, which fails to consider **the reality of multiple, cumulative exposures and interactions between multiple chemicals**. For example, a risk assessment may conclude that exposure to chemical X in isolation at a low dose will not cause harm to human health, but this assessment does not consider the effects of being exposed to chemical X multiple times during the day, or being exposed to chemical X, Y and Z at the same time.

#### ***Physiological determinants of health are not accounted for***

**Sex, age, disability, and ethnicity** are physiological identity factors that impact an individual's **susceptibility** to adverse health effects from toxic substances. The safety of a toxic substance is determined using a margin of exposure evaluation, which calculates the difference between the estimated threshold at which a chemical is considered harmful to human health (i.e. toxicity endpoint) and its estimated exposure levels.<sup>2</sup> However, this approach does not consider how sex, age, and other physiological identity factors can influence the margin of exposure. For example, sex and age can intersect and compound a woman's susceptibility to adverse health effects: in terms of **sex**, women have a unique susceptibility to chemicals due to sex-specific differences in biochemical pathways, hormone regulation, metabolism, body fat composition, blood chemistry and the size of body tissues.<sup>3</sup> Sex-specific differences can result in women having a lower threshold for toxicity, which means that exposure even at a low dose can have negative impacts. Further, many chemicals have sex-specific impacts, such as endocrine-disrupting chemicals ("EDC") which negatively impact metabolic growth and reproductive processes and contribute to the incidence of various diseases such as breast cancer and fibromyalgia.<sup>4</sup> In terms of **age**, epidemiological evidence demonstrates that women are more biologically vulnerable to toxic substance exposures during **critical windows of vulnerability** such as puberty, pregnancy, lactation, and menopause.<sup>5</sup> Therefore, a woman in a critical window of vulnerability is inherently more susceptible to adverse health effects from toxic substance exposure.

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<sup>1</sup> Dayna Nadine Scott, "Testing Toxicity: Proof and Precaution in Canada's Chemicals Management Plan" (2009) 18:1 Rev Eur Community Int Environ Law (Wiley Online: <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1467-9388.2009.00621.x>).

<sup>2</sup> Sarah Lewis & Dayna Nadine Scott, "Regulating Toxics: Sex and Gender in Canada's Chemicals Management Plan" (2014) 10:8 Osgoode Legal Studies Research Paper Series (Osgoode Digital Commons: <https://digitalcommons.osgoode.yorku.ca/cgi/viewcontent.cgi?article=1039&context=olsrps>).

<sup>3</sup> Lewis & Scott, *supra* note 2.

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*

### ***Socio-environmental determinants of health are not accounted for***

**Gender, income, education, language, geography, culture and religion** are socio-environmental identity factors that impact an individual's **exposure** to toxic substances. Exposure to toxic substances can occur through inhalation, ingestion, and skin absorption, and sources of exposure include air, water, food, soil, dust, and through the use of consumer products. To estimate exposure, scientists use standard default values for "receptor characteristics" (i.e. characteristics of a hypothetical person exposed to a substance) such as body weight, drinking water intake, and soil and dust inhalation.<sup>6</sup> These standard default values are supposedly representative of the "Canadian general population", but the federal government does not provide guidance on who constitutes the "Canadian general population", and the use of this term dramatically oversimplifies the diversity within Canadian populations and subpopulations. This approach for assessing exposure raises various concerns, including the use of aggregated, outdated data and data from other countries with significantly different demographics. The use of aggregated data (i.e. data representative of the "general population") conceals health inequities by assuming that exposure will be the same across all subpopulations.

#### **Recommendation 1: Generate and collect disaggregated biomonitoring data**

In accordance with the weight of evidence approach mandated under new CEPA reforms<sup>7</sup>, when conducting research and studies relating to the toxicity of a substance and the role of the substance in illnesses or health problems, said research **must** relate to vulnerable populations and **must** include the collection of data and research that is **disaggregated by socio-environmental and physiological identity factors** in order to identify health inequities that aggregated data may conceal.<sup>8</sup> Disaggregated data can be produced by Statistics Canada.<sup>9</sup> Further, for the purposes of assessing whether a substance is toxic, the relevant Minister **must** collect or generate data regarding the ability of a substance to impact a vulnerable population, cause delayed/latent effects (including carcinogenic, mutagenic and neurotoxic effects) or to disrupt the reproductive or endocrine system of an organism.

#### **Recommendation 2: Use disaggregated data to examine vulnerability considerations and identify inequalities**

For the purposes of considering the ability of a substance to impact a vulnerable population, cause delayed/latent effects or disrupt the reproductive or endocrine system, the relevant Minister **must** conduct a human health risk assessment using a human receptor (i.e. hypothetical person) with predefined physiological and socio-environmental characteristics representative of a **maximally exposed person, in order to ensure risks are not underpredicted**. Contrary to the current approach which defines receptor characteristics according to the "general population", this approach selects physiological and socio-environmental characteristics (such as sex, income, race and other identity factors) that could result in

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<sup>6</sup> Government of Canada, "Canadian Exposure Factors used in Human Health Risk Assessments" (25 June 2021), online: *Chemical Safety*: <https://www.canada.ca/en/health-canada/services/chemical-substances/fact-sheets/canadian-exposure-factors-human-health-risk-assessments.html>.

<sup>7</sup> Government of Canada, "Application of weight of evidence and precaution in risk assessment" (15 June 2017), online: *Chemical Safety* <https://www.canada.ca/en/health-canada/services/chemical-substances/fact-sheets/application-weight-of-evidence-precaution-risk-assessments.html>.

<sup>8</sup> Public Service Commission of Canada, GBA+ Responsibility Centre/Results and Delivery Division, "Gender-Based Analysis Plus (GBA+) Action Plan 2019-21" (May 2019), online: *Government of Canada* <https://www.canada.ca/content/dam/psc-cfp/documents/data-donnees/gba-ac/GBA-action-plan-2019-21.pdf>.

<sup>9</sup> Marilyn Gladu, "Implementing Gender-based Analysis Plus in the Government of Canada: Report of the Standing Committee of the Status of Women" (June 2016), online: *House of Commons Canada* <https://www.ourcommons.ca/Content/Committee/421/FEWO/Reports/RP8355396/feworp04/feworp04-e.pdf>.

higher or more frequent exposures, adverse responses at lower doses, or more severe health effects relative to the “general population”.<sup>10</sup> The hypothetical person would be assumed to have any and all of these physiological and socio-environmental identity factors. This approach therefore **addresses the reality of cumulative health impacts resulting from multiple co-exposures**, and recognizes how the **intersection of identity factors can impact susceptibility or exposure to toxic substances**.

Further, to ensure the systematic consideration of all vulnerable populations, the definition of vulnerable populations in CEPA should be amended to “a group of individuals within the Canadian population who, due to greater susceptibility or greater exposure, may be at an increased risk of experiencing adverse health effects from exposure to substances, including people who are:

- a) infants, children or adolescents;
- b) women, including pregnant women and women in critical windows of vulnerability;
- c) seniors;
- d) Indigenous peoples;
- e) individuals with a pre-existing medical condition;
- f) workers that work with a toxic substance; or
- g) by reason of one or more intersecting identity factors (income, race, colour, culture, sex, gender, disability, age, religion, language, education, sexual orientation, national origin, or geographic location) are subject to a disproportionate potential for exposure to, or for adverse effects from a substance, including a toxic substance, a priority toxic substance, or a substance of high concern

In both generating and examining disaggregated data to identify inequalities, consultation with diverse affected and interested stakeholders must be prioritized with the **goal of receiving feedback and meaningfully taking steps to address concerns**.<sup>11</sup> If critical data gaps are identified, the relevant Minister **must** generate data and diversify sources of information to fill these gaps before determining the toxicity of a substance. In order to meaningfully consider whether a substance may impact a vulnerable population, it is essential to provide opportunity for citizens and communities to express concerns and vulnerability considerations that may have been overlooked. Stakeholders include but are not limited to NGOs, Indigenous communities, health, environmental, labour and women’s organizations and other organizations that represent marginalized communities.

## **Risk management measures are inadequate for protecting vulnerable populations**

### ***Risk management measures place responsibility on the consumer***

Currently, industries/producers are not required under CEPA to identify hazardous substances in their labelling.<sup>12</sup> This prevents consumers from being able to make informed purchasing decisions, and the commercial availability of products which contain but do not identify toxic substances suggest to consumers that they are safe to use. The chemicals management approach places the burden on the consumer to ensure that the products they are using are safe, which individualizes responsibility and relies on personal strategies

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<sup>10</sup> Health Protection Branch, Population and Public Health Division, “British Columbia Guidance for Prospective Human Health Risk Assessment” (April 2021), online: *British Columbia Ministry of Health* <https://www2.gov.bc.ca/assets/gov/health/keeping-bc-healthy-safe/healthy-communities/bc-hhra-guidance.pdf>.

<sup>11</sup> Gladu, *supra* note 9.

<sup>12</sup> Human Rights Council, *Report of the Special Rapporteur (Baskut Tuncak) on the Implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes*, UNGAOR, 45<sup>th</sup> sess, Agenda item 3, UN DOC A/HRC/45/12/Add.1 (2020), online: *United Nations* <<https://undocs.org/A/HRC/45/12/Add.1>>.

of precautionary consumption and distracts from higher level policy and legislative change.<sup>13</sup> Further, consumers bear the burden of having to scour government publications for information surrounding the risks of toxic substances, which raises access to information concerns, especially for communities with reduced access to internet, lower literacy rates, or language barriers.

***Risk management measures do not promote access to justice***

Access to justice is increasingly difficult for victims of toxic exposures, particularly for victims of chronic exposure and vulnerable groups. Obstacles include information asymmetries, power imbalances, limited availability of class actions and legal aid, and financial burden of court processes. Court processes are only a viable option for those with adequate financial resources; those that can't afford it can't pursue legal avenues, which further embeds them in vulnerable positions.<sup>14</sup>

**Recommendation 3: Risk-mitigation measures to control the presence of the substance in the environment must include:**

- ***Safe substitution:*** The current chemicals management approach places priority on exposure control of hazardous substances rather than eliminating hazardous substances altogether. The safe substitution principle places substitution as the priority response to hazardous chemicals, which is accomplished by identifying safer alternative substances or non-chemical replacements and ensuring that regrettable substitution (i.e. substituting a harmful substance with one that has equal or higher hazards) does not occur.<sup>15</sup> The development and use of safer alternatives (when elimination is not possible) should be mandated in CEPA.
- ***Mandatory hazard labelling:*** Consumers have a right to know the content of the products they use in order to make informed decisions.<sup>16</sup> Accordingly, products with toxic substances should be mandated to include hazard labelling which identifies the substance, alerts consumers of specific hazards, and provides directions for safe use.
- ***Improve access to information:*** CEPA must mandate the creation of publicly available information regarding a substance or product, including specific ingredients and associated risks in plain language, that does not require members of the public to seek out this information.<sup>17</sup> Public information strategies must be improved to ensure that this information reaches the most vulnerable communities.
- ***Avenues for access to justice:*** Victims of violations of human rights impacted by toxic exposures have a human right to justice and to effective remedies including restitution, compensation, rehabilitation, satisfaction, remediation of contamination, and guarantees of non-repetition. However, these remedies would require binding legal standards and enforcement.<sup>18</sup> Incorporating enforceable remedies, with adequate timelines, into environmental legislation such as CEPA would

<sup>13</sup> Genevieve Nadeau & Katherine Lippel, "From individual coping strategies to illness codification: the reflection of gender in social science research on multiple chemical sensitivities" (2014) 13:78 Int J Equity Health (Biomed Central: <https://equityhealthj.biomedcentral.com/articles/10.1186/s12939-014-0078-2#citeas>).

<sup>14</sup> Human Rights Council (Baskut Tuncak), *supra* note 12.

<sup>15</sup> Chemicals Management Plan Science Committee, "Combined government discussion paper and science committee report on informed substitution" (January 2018) online: *Health Canada & Environment and Climate Change Canada* <https://www.canada.ca/en/health-canada/services/chemical-substances/chemicals-management-plan/science-committee/meeting-records-reports/combined-government-discussion-paper-science-committee-report-informed-substitution.html#a1>.

<sup>16</sup> Canadian Environmental Law Association, "European and Canadian Law: Best practices and opportunities for co-operation" (January 2007), online: *CELA* [https://cela.ca/wp-content/uploads/2019/07/555\\_EU.pdf](https://cela.ca/wp-content/uploads/2019/07/555_EU.pdf).

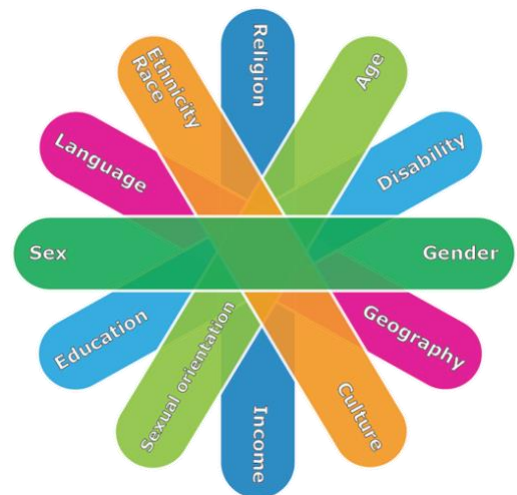
<sup>17</sup> Human Rights Council (Baskut Tuncak), *supra* note 12.

<sup>18</sup> *Ibid.*

better protect human rights to justice and effective remedies for vulnerable populations impacted by toxic exposures. Further, to increase accountability and public oversight, when CEPA violations occur, civil society should be able to call for enforcement on a public interest basis and without the requirement to show specific environmental damage; this can be accomplished by amending the citizen suit provisions in CEPA (subsections 22-38) to enhance public participation and achieve greater enforcement.<sup>19</sup> Financial consequences faced by victims of toxic exposures in pursuing legal avenues can be minimized by implementing the equitable **one-way costs rule**, under which a member of the public can pursue enforcement actions on the expectation of being rewarded if they succeed, but without risks of costs liability if they do not.<sup>20</sup>

### **A note on Gender-Based Analysis Plus (GBA+)**

Examining CEPA from an intersectional feminist perspective reveals the biases that exist when we attempt to legislate for risk, exposures and harms to the “general population” as opposed to specific communities who are overexposed and given inadequate consideration under this legislative framework. Failure to address weaknesses in this legislation will result in preventable toxic exposures, gendered and racialized health harms, environmental injustice and contamination with weak enforcement and remediation. This intersectional feminist perspective is provided by Women and Gender Equality Canada’s (“WAGE”) GBA+ framework, which has been used to inform these recommendations.<sup>21</sup> **GBA+ is an essential analytical tool for developing effective and equitable policies, programs and legislation for diverse populations** by identifying direct or indirect impacts of its initiatives on different sub-populations and subsequently taking steps to mitigate the negative impacts.<sup>22</sup> GBA+ provides a mandated ‘gender lens’ through which sex and gendered impacts of federal government initiatives are to be evaluated and addressed. However, the ‘plus’ in GBA+ extends the analysis beyond sex and gender to include other intersecting identity factors such as income, race, and age, which can contribute to an individual’s or sub-population’s vulnerability to toxic substances.<sup>23</sup> GBA+ identity factors encompass both **physiological and socio-environmental determinants of health**. This effectively **expands the ‘gender lens’ of GBA+ into a ‘vulnerability lens’** as it analyzes how a government initiative can have differential impacts on sub-populations based on their identity factors. GBA+ therefore provides an opportunity to improve the health disparities experienced by not only women but all vulnerable populations due to the current inequitable approach to toxic substance management.



<sup>19</sup> Marcia Valiante, “Welcomed Participants of Environmental Vigilantes? The CEPA Environmental Protection Action and the Role of Citizen Suits in Federal Environmental Law” (2002) 25:1 Dalhousie Law Journal (Env Law Commons): <https://digitalcommons.schulichlaw.dal.ca/cgi/viewcontent.cgi?article=1829&context=dlj>.

<sup>20</sup> *Ibid.*

<sup>21</sup> LOPRESPUB, “Gender-based Analysis Plus in Canada” (26 May 2017), online: *Library of Parliament* <https://hillnotes.ca/2017/05/26/gender-based-analysis-plus-in-canada/>.

<sup>22</sup> Gladu, *supra* note 9.

<sup>23</sup> Women and Gender Equality Canada, “Government of Canada’s approach on Gender-based Analysis-Plus” (last modified 14 April 2021), online: *Government of Canada* <https://women-gender-equality.canada.ca/en/gender-based-analysis-plus/government-approach.html>. **Note:** this is also the source of the intersectionality image on the left illustrating identity factors considered in GBA+.

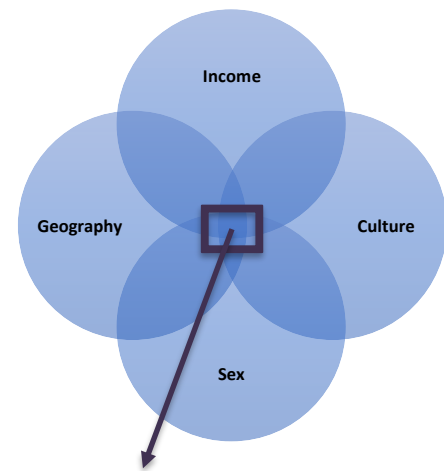
As the **federal government is bound by international and domestic commitments to conduct GBA+ in the development, implementation and evaluation of all federal government initiatives**<sup>24</sup>, we must call on the federal government to uphold its obligations regarding GBA+ in the context of CEPA reform, with oversight by WAGE. Doing so will ensure that GBA+ is meaningfully conducted in a manner that will result in equitable CEPA amendments that are protective of vulnerable populations.

WHEN has endorsed a comprehensive report on the application of GBA+ in CEPA provisions relating to controlling toxic substances (Part 5) and information gathering (Part 3), including a case study on the mismanagement of Talc and a set of recommendations to improve the proposed amendments. These recommendations build from recommendations from the Standing Committee on Environment and Sustainable Development (“ENVI”) and other environmental organizations, including the Canadian Environmental Law Association. The list of recommendations is attached in Appendix B. To see the full report please contact [kanisha@womenshealthyenvironments.ca](mailto:kanisha@womenshealthyenvironments.ca).

## Appendix A: Case study of Chemical Valley

### *The impacts of intersecting physiological and socio-environmental identity factors on toxic substance exposure and susceptibility can be seen in Sarnia, Ontario:*

- **Geography:** Communities located in close proximity to sources of industrial pollution face increased exposure to toxic substances. The residents of the Aamjiwnaang First Nation are surrounded by 40% of Canada’s chemical industry in Sarnia, Ontario (known as “Chemical Valley”) and experience disproportionate health impacts from pollution, including increased rates of cancer, diabetes, developmental and respiratory ailments.<sup>25</sup> This is a **pollution hot spot** (a geographic location where emissions of substances to air, discharges to water, or deposits to land from specific sources, may expose local populations to elevated health risks when considered individually or cumulatively from other nearby sources). ENVI has recommended the addition of this definition into CEPA and recommends that Environment and Climate Change Canada undertake, in consultation with the provinces, territories, Indigenous communities and the public, an



This case study provides an accurate depiction of how the intersection of identity factors can **compound vulnerability to toxic substance exposures**. The identity factors of child-bearing members of the Aamjiwnaang First Nation include sex, income, geography and culture; while these factors alone can impact exposure and susceptibility to toxic substances, the intersection of these factors compound vulnerability and result in the subpopulation carrying **disproportionately heavy chemical body burdens**.

<sup>24</sup> Maryam Monsef, “Interim Progress Report on the Implementation of Gender-based Analysis Plus” (31 March 2017), online: *Status of Women Canada* [https://www.ourcommons.ca/content/Committee/421/PACP/WebDoc/WD8148750/Action\\_Plans/41-PCO-StatusWomenCan-TBS-e.pdf](https://www.ourcommons.ca/content/Committee/421/PACP/WebDoc/WD8148750/Action_Plans/41-PCO-StatusWomenCan-TBS-e.pdf).

<sup>25</sup> Elaine MacDonald (Ecojustice) & Sarah Rang (Environmental Economics), “Exposing Canada’s Chemical Valley: An Investigation of Cumulative Air Pollution Emissions in the Sarnia, Ontario Area” (October 2007), online (pdf): *Ecojustice* <<https://ecojustice.ca/wp-content/uploads/2015/09/2007-Exposing-Canadas-Chemical-Valley.pdf>>.

- assessment of potential hotspots to ensure protection for vulnerable populations.<sup>26</sup>
- **Income:** Landfills, waste dumps and other environmentally hazardous activities are disproportionately situated in neighbourhoods of low-income racialized communities and create serious health risks; this is known as environmental racism and has been experienced by many communities including the Aamjiwnaang First Nation in Sarnia.<sup>27</sup>
  - **Culture:** Cultural differences impact toxic substance exposure; Indigenous communities are disproportionately exposed to toxic substances through food, air and water due to their traditional lifestyles which include hunting, fishing and ceremonial activities. Subsistence diets in the Aamjiwnaang region increase exposure to methylmercury-contaminated fish, which is a known EDC.<sup>28</sup>
  - **Sex:** The Aamjiwnaang First Nation’s sex ratio (i.e. the number of male births divided by the total of all births) has been declining at an alarming rate due to exposure to various chemicals. Studies have shown that populations exposed to environmental contaminants such as EDCs, either through their close proximity to industrial plants or through other sources such as food, can significantly change the reproductive ability of the community, including the sex ratio, as EDCs can interfere with a mother’s hormones at key developmental stages early in a pregnancy, which can induce sex-specific mortality in miscarriage.<sup>29</sup> Altered sex ratios reflect death at earlier stages of development which can be a useful indicator of public health concerns.<sup>30</sup>

## Appendix B: Recommendations to improve CEPA amendments to be protective of vulnerable populations

Current CEPA text	<b>Role of the Minister</b> <b>Section 45:</b> The Minister of Health shall (a) conduct research and studies relating to the role of substances in illnesses or in health problems; (b) collect, process, correlate and publish on a periodic basis data from any research or studies done under paragraph (a); and (c) distribute available information to inform the public about the effects of substances on human health.
Bill S-5 amendment (section 8(1)-(2))	<b>Section 45(a) is replaced by:</b> The Minister of Health shall conduct research and studies, <b>including biomonitoring surveys</b> , relating to the role of substances in illnesses or health problems Section 45 is renumbered to Section 45(1) and is amended by adding section 45(2): for greater certainty, the research and studies referred to in section 45(1)(a) <b>may</b> relate to vulnerable populations
<b>Comments</b>	The specification that the research “ <b>may</b> relate to vulnerable populations”, detracts from the effectiveness of this provision. However, this provision speaks to information gathering, which is vital for GBA+.
<b>Recommendation 1</b>	<b>Recommendation 1:</b> amend section 45(2): For greater certainty, the research and studies relating to the role of substances in illnesses or in health problems <b>must</b> relate to vulnerable populations, and <b>must</b> include the collection of data and research, <b>including biomonitoring surveys and tests</b> , disaggregated by GBA+ identity factors (namely ethnicity, race, religion, age, disability, geography, culture, income, sexual orientation, education, and language)

<sup>26</sup> House of Commons, *Healthy Environment, Healthy Canadians, Healthy Economy: Strengthening the Canadian Environmental Protection Act, 1999: Report of the Standing Committee on Environment and Sustainable Development*, 42-1, (June 2017) at recommendations 22 and 45 (Chair: Deborah Schulte).

<sup>27</sup> Human Rights Council (Baskut Tuncak), *supra* note 12.

<sup>28</sup> Diana Cryderman et al, “An Ecological and Human Biomonitoring Investigation of Mercury Contamination at the Aamjiwnaang First Nation” (2016) 13:4 *Ecohealth* (PubMed Central: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5164849/>).

<sup>29</sup> Dayna Nadine Scott, “Body Polluted: Questions of Scale, Gender, and Remedy” (2010) 44:1 *LMU L Rev* (Osgoode Digital Commons: <https://digitalcommons.lmu.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1020&context=llr>).

<sup>30</sup> Constanze Mackenzie, Ada Lockridge & Margaret Keith, “Declining Sex Ratio in a First Nation Community” (2005) 113:10 *Envtl Health Perspectives* (EHP: <https://ehp.niehs.nih.gov/doi/10.1289/ehp.8479>).



Current CEPA text	<p><b>Information gathering</b></p> <p><b>Section 68</b> For the purpose of assessing whether a substance is toxic or is capable of becoming toxic, or for the purpose of assessing whether to control, or the manner in which to control, a substance, including a substance specified on the List of Toxic Substances in Schedule 1, either Minister <b>may</b></p> <p>(a) collect or generate data and conduct investigations respecting any matter in relation to a substance, including, without limiting the generality of the foregoing,</p> <p>(b) correlate and evaluate any data collected or generated under paragraph (a) and publish results of any investigations carried out under that paragraph;</p> <p>...</p>
Bill S-5 amendment (section 16(2)-16(3))	<p><b>Section 68 (a) is amended</b> by adding the following after subparagraph (iii) and replacing section 68(a)(v) and (vi) by the following:</p> <p><b>(iii)</b> whether organisms are exposed to the substance via multiple pathways</p> <p><b>(iii.1)</b> whether exposure to the substance in combination with exposure to other substances has the potential to cause cumulative effects,</p> <p><b>(iii.2)</b> whether there is a vulnerable population in relation to that substance</p> <p>(v) the ability of a substance to cause delayed or latent effects, including carcinogenic, mutagenic or neurotoxic effects</p> <p>(vi.1) the ability of the substance to disrupt the reproductive system or endocrine system of an organism</p>
<b>Comments</b>	<p>The use of “may” in section 68(a) undermines the comprehensiveness of the assessment of substances; this provision should be mandatory so as to require the consideration of cumulative effects, delayed effects, and disruption of the reproductive and/or endocrine system, as these factors are inherently linked to vulnerability.</p>
<b>Recommendations 2-8</b>	<p><b>Recommendation 2:</b> section 68: for the purposes of assessing whether a substance/product is toxic/capable of becoming toxic, or for the purpose of assessment whether to control, or the manner in which to control a substance or product, the minister <b>shall</b></p> <p>(a) collect and generate data and conduct investigations/tests respecting the matters under section 68(a)</p> <p>(b) correlate and evaluate data collected or generated under paragraph (a) and publish results of investigations carried out under that paragraph, in order to ensure transparency</p> <p><b>Recommendation 3:</b> add an additional subsection under section 68(a), namely a requirement to consider ‘the manner in which the intersection of sex and gender with other identity factors can impact exposure and/or susceptibility’ by meeting the following GBA+ requirements:</p> <ol style="list-style-type: none"> <li><b>(1) Gathering/reviewing data:</b> The generation and use of research/data disaggregated by identity GBA+ identity factors</li> <li><b>(2) Consultation:</b> seek out the perspectives of diverse stakeholders and provide opportunity for meaningful involvement and equal treatment of all Canadians</li> <li><b>(3) Examination of vulnerability considerations:</b> consider whether, based on the research/data and the diverse perspectives of stakeholders, exposure to the substance can affect men and women (and gender diverse people) differently according to education, culture, race, socioeconomic status or other GBA+ identity factors</li> <li><b>(4) Identification of mitigation measures to address inequalities, including:</b> <ol style="list-style-type: none"> <li><b>(a)</b> Mandatory informed substitution (with the goal of eliminating hazardous substances or substituting them with safer alternatives)</li> <li><b>(b)</b> The mandatory hazard labelling of all products containing hazardous substances</li> <li><b>(c)</b> The creation of publicly available information regarding the substance or product, including specific ingredients and associated risks, that does not require members of the public to seek out this information</li> </ol> </li> </ol> <p><b>Recommendation 4:</b> For the purposes of conducting human health risk assessments under section 68(a) (i.e. the ability of a substance to impact a vulnerable population, cause delayed/latent effects, cause cumulative effects, disrupt the reproductive or endocrine system), require the use of a human receptor with predefined physical and biological characteristics representative of a maximally exposed person, in order to ensure risks are not underpredicted, in accordance with BC’s guidance</p> <p><b>Recommendation 5:</b> For the purposes of assessing exposure under section 68(a), expand the prioritized exposure factors to include all GBA+ identity factors, as the presence of one or multiple identity factors can affect exposure</p>

	<p><b>Recommendation 6:</b> Require that the assessment process under section 68(a) involve cooperation with stakeholders including civil society, health institutes, and representatives of marginalized communities</p> <p><b>Recommendation 7:</b> Require that the assessment process under section 68(a) be approved by WAGE, in order to ensure vulnerability considerations are adequately assessed</p> <p><b>Recommendation 8:</b> Add the following definitions to section 3(1):</p> <ul style="list-style-type: none"> <li>- <b>Endocrine disrupting substance:</b> a substance having the ability to disrupt the synthesis, secretion, transport, binding, action or elimination of natural hormones or their receptors in an organism, or its progeny, that affects cellular signaling and gene expression responsible for the maintenance of homeostasis, reproduction, development, immune function, tissue health, or behaviour of the organism and, for the purposes of this act, such a substance is deemed to be <b>inherently toxic</b></li> <li>- <b>Cumulative effects</b> means the sum total of biological effects arising from the aggregate exposures to all substances that have a common mechanism or mode of action, target tissue, or effect, to which a human or environmental receptor is exposed</li> </ul>
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Current CEPA text	<p><b>Weight of evidence and precautionary principle</b></p> <p><b>Section 76.1</b> When the Ministers are conducting and interpreting the results of</p> <p>(a) a screening assessment under section 74,</p> <p>(b) a review of a decision of another jurisdiction under subsection 75(3) that, in their opinion, is based on scientific considerations and is relevant to Canada, or</p> <p>(c) an assessment whether a substance specified on the Priority Substances List is toxic or capable of becoming toxic,</p> <p>the Ministers shall apply a weight of evidence approach and the precautionary principle</p>
Bill S-5 amendment (section 20)	<p><b>Section 76.1(1) is amended:</b> the ministers shall apply a <b>weight of evidence approach and the precautionary principle</b> when they are conducting and interpreting the results of</p> <p>(a) an assessment conducted under this Part, other than under section 83, in order to determine whether a substance is toxic or capable of becoming toxic; or</p> <p>(b) a review of a decision of another jurisdiction under subsection 75(3) that, in their opinion, is based on scientific considerations and is relevant to Canada</p> <p><b>Section 76.1(2) is added:</b> when the Ministers are conducting and interpreting the results of an assessment or review referred to in subsection(1), they shall consider <b>available information</b> on any vulnerable population in relation to the substance and on the cumulative effects that may result from exposure to the substance in combination with exposure to other substances</p>
Comments	<p>While section 76.1(2) states that the minister “shall consider available information” and thus is mandatory, “available information” does not impose an active duty on the minister to seek out this information, which can allow for willful/unwilful blindness. Further, the government should specify how they intend to <b>meaningfully</b> employ the weight of evidence approach and the precautionary principle. Stating that the ministers shall apply the WoE approach and the precautionary approach but not mandating research and information gathering regarding cumulative impacts/ impacts on vulnerable populations seems contradictory. This is supported by the fact that the WoE requires the gathering and assessment of available and relevant information from multiple sources.<sup>31</sup> If the WoE approach was meaningfully applied and a substance was assessed for all possible impacts on diverse Canadians with varying identity factors, in my opinion it is quite possible that the results would suggest erring on the side of precaution with respect to the substance.</p>
Recommendations 9-13	<p><b>Recommendation 9:</b> Expand 76.1 to require that the Ministers <b>shall</b> apply a <b>weight of evidence approach, the precautionary, substitution and environmental justice principles, and GBA+</b> when conducting and interpreting the results of:</p> <ul style="list-style-type: none"> <li>- A screening assessment under section 74</li> <li>- A review of a decision of another jurisdiction under section 75(3) that, in their opinion, is based on scientific considerations and is relevant to Canada</li> <li>- An assessment of whether a substance listed on the Priority Substances List is toxic or capable of becoming toxic</li> </ul>

<sup>31</sup> Government of Canada, *supra* note 56.

	<p><b>Recommendation 10:</b> amend section 76.1(2) to require that, rather than considering “available information”, the Minister shall actively generate information and conduct investigations/tests on vulnerable populations and cumulative effects in relation to the substance (including data disaggregated by GBA+ identity factors) in order to diversify sources of information and lines of evidence and fill critical data gaps (in accordance with the Evaluation and action phases of the IRAP process and the WoE approach)</p> <p><b>Recommendation 11:</b> add a subsection under section 76.1(2) to require that, when conducting and interpreting the results of an assessment or review referred to in section 76.1(1), the Ministers <b>shall</b> consult with stakeholders, including WAGE, health institutes, civil society, and representatives of marginalized communities</p> <p><b>Recommendation 12:</b> add a subsection under section 76.1(1)(a) to require that Ministers demonstrate their findings of the weight of evidence approach, the precautionary principle, the substitution principle, the environmental justice principle, and GBA+ in the assessment of substances, and make this information publicly available in order to ensure transparency</p> <p><b>Recommendation 13:</b> Add the following definitions to section 3(1):</p> <ul style="list-style-type: none"> <li>- <b>Weight of evidence approach:</b> a method of assessment that involves systematic assembly of all data regarding hazard, exposure, and risk from multiple sources of information and lines of evidence, transparent weighing of the totality of evidence, and subsequent synthesis of the totality of the evidence in coming to a decision</li> <li>- <b>GBA+:</b> an analytical framework that considers how [the assessment and management of toxic substances] may affect diverse groups by considering the potential for disproportionate effects on groups based on sex, gender, and other identity factors (namely language, ethnicity, race, religion, age, disability, geography, culture, income, sexual orientation, education and language), as well as the intersection of these identity factors</li> <li>- <b>Precautionary principle:</b> where there are <b>reasonable grounds for concern</b>, lack of full scientific certainty shall not be used as a reason for postponing precautionary measures to prevent environmental degradation</li> <li>- <b>Environmental justice principle:</b> the fair treatment and meaningful involvement of all people, <b>including vulnerable populations</b>, in respect of environmental and human health hazards associated with toxic substances or substances of very high concern in Canada</li> <li>- <b>Fair treatment:</b> no group of people, including a vulnerable population, shall bear a disproportionate risk of experiencing adverse environmental or human health effects from exposure to a toxic substance manufactured, processed, imported or used in Canada</li> <li>- <b>Meaningful involvement:</b> <ul style="list-style-type: none"> <li>- people, including a vulnerable population, shall have a full opportunity to participate in the decision-making process of Canada under this Act regarding a substance that may adversely affect human health or the environment</li> <li>- people, including a vulnerable population, shall be entitled to an opportunity to influence a decision of the government of Canada on a substance and whether it is determined to be toxic and how it will be managed under this Act</li> <li>- the concerns of people, including a vulnerable population, shall be considered by the government of Canada in the decision-making process regarding whether a substance is determined to be toxic and how it will be managed under this Act</li> <li>- the government of Canada shall seek out and facilitate the involvement of people, including a vulnerable population, who may be potentially affected by a substance regarding whether it is determined to be toxic and how it will be managed under this Act</li> </ul> </li> </ul>
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Current CEPA text	<p><b>Substances and assessment of substances</b></p> <p><b>Section 73(1)</b> the Ministers shall, within seven years from the giving of Royal Assent to this Act, categorize the substances that are on the DSL by virtue of section 66, for the purpose of identifying the substances on the list that, in their opinion and on the basis of available information</p> <p><b>(a)</b> May present, to individuals in Canada, the greatest potential for exposure; or</p> <p><b>(b)</b> Are persistent or bioaccumulate in accordance with the regulations, and inherently toxic to human beings or non-human organisms, as determined by laboratory or other studies</p>
Bill S-5 amendment (section 19)	<p><b>Section 73(1) is amended:</b> the Ministers shall, within 2 years of this bill receiving royal assent, develop and publish a plan</p>

	<p><b>(a)</b> That specifies the substances to which the Ministers are satisfied priority should be given in assessing whether they are toxic/capable of becoming toxic</p> <p><b>(b)</b> that <b>may</b> specify the activities or initiatives in relation to assessing, controlling or otherwise managing the risks to the environment or to human health posed by substances that are or will be undertaken under an Act of Parliament for whose administration either Minister is responsible and which the Ministers are of the opinion should be prioritized.</p>
<b>Comments</b>	S 73(1)(b) is discretionary, which is largely problematic, as the determination of which substances should be prioritized could have indirect impacts on vulnerable populations. For example, a substance that may be particularly dangerous to women could be placed lower on the list due to lack of research and knowledge surrounding the adverse health consequences. This is directly related to the activities and initiatives used to assess, control and manage the risks posed by substances; specifying the activities and methods would provide clarity on how information gathering/research will be tailored to consider impacts on vulnerable populations.
<b>Recommendations 14-16</b>	<p><b>Recommendation 14:</b> amend section 73(1)(b) to state that the Ministers <b>shall</b> specify the activities or initiatives in relation to assessing, controlling or otherwise managing the risks to the environment or to human health posed by substances, and make this information publicly available</p> <p><b>Recommendation 15:</b> add subsections under section 73(1)(b) to require that the activities or initiatives <b>must</b> include GBA+, specifically by meeting the following requirements:</p> <ol style="list-style-type: none"> <li><b>(1) Gathering/reviewing data:</b> The generation and use of research/data disaggregated by identity GBA+ identity factors</li> <li><b>(2) Consultation:</b> seek out the perspectives of diverse stakeholders and provide opportunity for meaningful involvement and equal treatment of all Canadians</li> <li><b>(3) Examination of vulnerability considerations:</b> consider whether, based on the research/data and the diverse perspectives of stakeholders, the substance can affect men and women (and gender diverse people) differently according to education, culture, race, socioeconomic status or other GBA+ identity factors</li> <li><b>(4) Identification of mitigation measures to address inequalities, including:</b> <ol style="list-style-type: none"> <li><b>(a)</b> Mandatory informed substitution (with the goal of eliminating hazardous substances or substituting them with safer alternatives)</li> <li><b>(b)</b> The mandatory hazard labelling of all products containing hazardous substances</li> <li><b>(c)</b> The creation of publicly available information regarding the substance or product, including specific ingredients and associated risks, that does not require members of the public to seek out this information</li> </ol> </li> </ol> <p><b>Recommendation 16:</b> add a subsection (c) under section 73(1) requiring the Minister to create an enforceable timeline (including deadlines for public submissions) for undertaking activities/initiatives under subsection (b) and creating the list of substances under subsection (a) in order to ensure the list will be addressed in a timely manner</p>

Current CEPA text	<p><b>Substances and assessment of substances</b></p> <p><b>Section 73(3)</b> When categorizing substances under subsection (1), the Ministers shall examine the substances that are on the Domestic Substances List to determine whether an amendment should be made to the List to indicate that subsection 81(3) applies with respect to those substances</p>
Bill S-5 amendment (section 19)	<p><b>Section 73(3) is amended:</b> in developing a proposed plan, and in implementing the plan, the Ministers</p> <p><b>(a)</b> <b>may</b> consult with the committee, a government department of agency, Aboriginal people, representatives of industry and labour and municipal authorities or with persons interested in the quality of the environment or the preservation and improvement of public health;</p> <p><b>(b)</b> shall consider whether assessing substances by class is more advantageous than assessing them individually; and</p> <p><b>(c)</b> shall take into account the matters referred to in paragraph 68(a)</p>
<b>Comments</b>	According to GBA+, consultation should be required in order to ensure that diverse perspectives are considered. However, the discretionary nature of this provision (s 73(1)(a)) allows for the ministers to circumvent their responsibilities to consult with stakeholders (including affected, research institutes, governmental departments, and civil society). Further, for the purposes of assessing whether a substance is toxic/capable of becoming toxic, stating that the minister “shall take into account” matters referred to in section 68(a) indicates a loose commitment; this is exacerbated by the fact that section 68(a) states that “the minister <b>may</b> collect or generate data and conduct investigations”, which again

	leaves the discretion to the minister. However, the government is committed to employing a weight of evidence approach, as specified in section 76.1(1) of Bill C-28. This approach, if meaningfully applied, requires assessment of stakeholder submissions, which would require stakeholder engagement and participation. <sup>32</sup>
<b>Recommendations 17-19</b>	<p><b>Recommendation 17:</b> add a subsection (d) under section 73(3) stating that the Ministers <b>shall</b> seek out and ensure the meaningful involvement of diverse stakeholders, including civil society, NGOs, Indigenous communities, health, environmental and labour organizations, representatives of marginalized or affected communities, and any other interested stakeholders</p> <p><b>Recommendation 18:</b> add a subsection (e) under 73(3) stating that the Ministers <b>shall</b> provide accessible public legal information pertaining to the plan (including a timeline) and reasonable time and accommodations for stakeholders to make their submissions, in order to increase effective public engagement</p> <p><b>Recommendation 19:</b> add a subsection (f) to 73(3) stating that the Ministers <b>shall</b> consult with and get the explicit approval of proposed plan by WAGE, in order to ensure GBA+ considerations are effectively addressed</p>

Current CEPA text	N/A
Bill S-5 amendment (section 2(4))	<p><b>The following are added to the preamble (paragraph 10):</b></p> <p>Whereas the Government of Canada recognizes the importance of considering vulnerable populations in assessing whether substances are toxic or capable of becoming toxic</p> <p>Whereas the Government of Canada recognizes the importance of minimizing the risks posed by exposure to toxic substances and the cumulative effects of toxic substances</p>
<b>Comments</b>	While these amendments do specify the need to protect vulnerable populations and minimize risks, “recognizing the importance” of something is not the same as taking tangible, enforceable actions
<b>Recommendations 19-21</b>	<p><b>Recommendation 20:</b> amend the preamble (para 10):</p> <p>Whereas the Government of Canada <b>recognizes the importance of conducting GBA+</b> when determining whether substances are toxic or capable of becoming toxic (<b>risk assessment</b>) in order to ensure vulnerable populations are adequately considered</p> <p>Whereas the Government of Canada recognizes the importance of minimizing the risks (by applying the substitution principle wherever possible and using risk mitigation measures to reduce risk to an <b>acceptable risk</b>) posed by exposure to toxic substances and the cumulative effects of toxic substances considering the environmental justice populations in risk assessments and commit to applying environmental justice principles in its decision-making, specifically by recognizing that exposure to toxic substances can adversely affect the environment and health of people, including that of vulnerable populations</p> <p><b>Recommendation 21:</b> Add the following definitions to section 3(1):</p> <ul style="list-style-type: none"> <li>- <b>Acceptable risk:</b> there is reasonable certainty that no harm to human health, future generations, vulnerable populations or the environment will result from exposure to or the manufacturing, processing, import, use or release of a substance</li> <li>- <b>Hot spot</b> means geographic locations where emissions of substances to air, discharges to water, or deposits to land, from specific sources, may expose local populations to elevated health risks, when considered individually or cumulatively from other nearby sources</li> <li>- <b>Significant environmental harm</b> includes but is not limited to harm where the effects on the environment are long lasting, difficult to reverse or irreversible, widespread, cumulative, or serious</li> <li>- <b>Substitution principle:</b> a chemical substance must be substituted when a safer alternative is available<sup>33</sup></li> </ul>

<sup>32</sup> Government of Canada, *supra* note 56.

<sup>33</sup> Chemsec, “Guiding Principles: Substitution” (n.d.), online: *International Chemical Secretariat* <https://chemsec.org/about-us/guiding-principles/substitution/#:~:text=The%20general%20intention%20of%20the,avoid%20danger%20when%20we%20can.>

Current CEPA text	N/A
Bill S-5 amendment (section 4(2))	<b>Definition of vulnerable population was added to section 3(1):</b> vulnerable populations means a group of individuals within the Canadian population who, due to greater susceptibility or greater exposure, may be at an increased risk of experiencing adverse health effects from exposure to substances
<b>Comments</b>	The definition of vulnerable populations speaks to exposure and susceptibility, which are directly related to an individual's identity factors including sex, gender, race and socioeconomic status. This demonstrates the applicability of GBA+ in the CEPA context, as GBA+ should be used whenever a proposed government initiative will or could have adverse effects on individuals or subpopulations based on one or more identity factors. GBA+ provides a framework for analyzing proposed legislation through a lens that considers specific impacts on individuals or population sub-groups who, due to one or more identity factor, are disproportionately vulnerable to toxic substance exposures. Because of the intersectional approach inherent to GBA+, operationalizing GBA+ within the CEPA chemicals management policy offers promise for the federal government to protect not only women, but all vulnerable populations. However, the proposed definition of vulnerable populations should be expanded to reduce ambiguity regarding the consideration of vulnerable populations in the context of chemicals management.
<b>Recommendation 22</b>	<b>Recommendation 22:</b> Amend the definition of vulnerable populations in section 3(1) to a group of individuals within the Canadian population who, due to greater susceptibility or greater exposure, may be at an increased risk of experiencing adverse health effects from exposure to substances, <b>including people who are:</b> (a) infants, children or adolescents; (b) women, including pregnant women and women in critical windows of vulnerability; (c) seniors; (d) Indigenous peoples; (e) individuals with a pre-existing medical condition; (f) workers that work with a toxic substance; or (g) by reason of one or more intersecting identity factors (income, race, colour, culture, sex, gender, disability, age, religion, language, education, sexual orientation, national origin, or geographic location) are subject to a disproportionate potential for exposure to, or for adverse effects from a substance, including a toxic substance, a priority toxic substance, or a substance of high concern

Current CEPA text	<b>Administrative Duties of the Government of Canada</b> <b>Section 2(1):</b> In the administration of this Act, the government of Canada shall, having regard to the Constitution and laws of Canada and subject to subsection (1.1), <b>(a)</b> exercise its powers in a manner that protects the environment and human health, applies the precautionary principle that, where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation, and promotes and reinforces enforceable pollution prevention approaches;
Bill S-5 amendment (section 3(1))	<b>Section 2(1) is amended:</b> In the administration of this Act, the government of Canada shall, having regard to the Constitution and laws of Canada and subject to subsection (1.1), <b>(a)</b> exercise its powers in a manner that: <b>(i)</b> protects the environment and human health, <b>including the health of vulnerable populations</b> <b>(ii)</b> applies the <b>precautionary principle</b> , which provides that the lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation if there are threats of serious or irreversible damage ... ... ...
<b>Comments</b>	Stating that the government will exercise its power in a certain manner without specifying how the government will do so undermines the strength of the commitment. Further, the provisions that do attempt to specify the tangible actions that the government intends on taking to fulfill their commitments (see below) often use discretionary language such as “the minister may”, which demonstrates a lack of mandatory responsibility. Granting discretionary power to the minister with regards to taking actions to protect vulnerable population comes with the understanding that the minister may also NOT take these actions, and thereby risk further excluding vulnerable populations from risk assessment and risk management processes.

<b>Recommendation 23-24</b>	<p><b>Recommendation 23:</b> add a subsection under section 2(1)(a) that required that the government of Canada shall exercise its powers in a manner that applies the <b>weight of evidence approach, the substitution principle, the environmental justice principle, and GBA+</b> (definitions of which can be found in section 3(1))</p> <p><b>Recommendation 24:</b> Amend the definition of the precautionary principle in section 2(1) to remove the reference to cost-effective measures and require that the principle be invoked when there are “reasonable grounds for concern” rather than “threats of serious and irreversible damage”</p>
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Current CEPA text	<p><b>Information gathering</b></p> <p><b>Section 68</b> For the purpose of assessing whether a substance is toxic or is capable of becoming toxic, or for the purpose of assessing whether to control, or the manner in which to control, a substance, including a substance specified on the List of Toxic Substances in Schedule 1, either Minister <b>may</b></p> <p>(a) collect or generate data and conduct investigations respecting any matter in relation to a substance, including, without limiting the generality of the foregoing</p> <p>...</p> <p>(xii) the development and use of alternatives to the substance</p> <p>...</p> <p>(c) provide information and make recommendations respecting any matter in relation to a substance, without limiting the generality of the foregoing, measures to control the presence of the substance in the environment</p>
Bill S-5 amendment (section 16(4)-16(6))	<p><b>Section 68(a) is amended by:</b></p> <ul style="list-style-type: none"> <li>- <b>Replacing section 68(a)(xii) with:</b> the existence, development and use of safer or more sustainable alternatives to the substance or product</li> <li>- <b>Adding section 68(a)(xv):</b> the manner in which the public may be provided with information regarding the substance or product, including, in the case of a product, by labelling it</li> </ul> <p><b>Section 68(c) is replaced with:</b> provide information and make recommendations respecting any matter in relation to the substance or product, including measures to control the presence of the substance or product in the environment</p>
<b>Comments</b>	<p>These provisions support the identification of preventative measures, including safe substitution, and risk-mitigation measures, such as hazard labelling requirements. However, these provisions are discretionary which limits their effectiveness.</p>
<b>Recommendations 25-27</b>	<p><i>[Recall Recommendation 2: amend section 68: for the purposes of assessing whether a substance/product is toxic/capable of becoming toxic, the Ministers shall</i></p> <p><i>(a) collect and generate data and conduct investigations/tests respecting the matters under section 68(a)</i></p> <p><i>(b) correlate and evaluate data collected or generated under paragraph (a) and publish results of investigations carried out under that paragraph, in order to ensure transparency]</i></p> <p><b>Recommendation 25:</b> amend section 68: for the purposes ... the Ministers <b>shall</b> (c) provide information and make recommendations respecting any matter in relation to the substance or product, including measures to control the presence of the substance or product in the environment</p> <p><b>Recommendation 26:</b> add the following subsections under section 68(c):</p> <p>(i): when making recommendations under section 68(c), the Ministers shall seek out and ensure the meaningful involvement of diverse stakeholders, including civil society, NGOs, Indigenous communities, health, environmental and labour organizations, representatives of marginalized or affected communities, and any other interested stakeholders</p> <p>(ii): For greater clarity, measures to control the presence of the substance or product in the environment <b>must include:</b></p> <ul style="list-style-type: none"> <li>- The mandatory development and use of safer alternatives (when elimination is not possible), in order to meaningfully employ the substitution principle</li> <li>- The mandatory hazard labelling of all products that contain hazardous substances</li> <li>- The creation of publicly available information regarding the substance or product, including specific ingredients and associated risks, that does not require members of the public to seek out this information</li> <li>- In cases where GBA+ in risk assessment identifies vulnerability considerations, the mandatory development of risk-mitigation measures to address any inequalities (or written justification must be provided as to why the vulnerability considerations are not relevant to the development of risk-mitigation measures)</li> </ul>

**Recommendation 27:** Add the following to the Preamble paragraph 13:

Whereas the Government of Canada recognizes the importance of encouraging the progressive substitution of substances, processes and technologies with alternatives that are safer for the environment or human health, when they are economically and technically viable

Whereas the Government of Canada recognizes the importance of Canadians having information, including by means of the packaging and labelling of products, regarding the risks posed by toxic substances to the environment or to human health