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Standing Committee on Environment and Sustainable Development
Sixth Floor, 131 Queen Street
House of Commons
Ottawa, Ontario
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Honourable Members of the Standing Committee on Environment and Sustainable Development

Re: Gender, Race, Sex and Toxics: Bill S-5 and the Need for Stronger Chemical Regulations in Canada

We thank the members of the ENVI committee for their work on Bill S-5 which has the potential to represent an important modernization of the Canadian Environmental Protection Act in respect to the regulation of toxic substances and establishing the right to a healthy environment. This submission is supported by the above major women's health and environmental associations in Quebec.

All of our organizations are profoundly concerned by the proliferation of toxic substances and their effect on our health, the health of our families and communities and on our environment. However, in this submission, we look solely at the major effects of toxic substances, particularly endocrine disrupting chemicals (EDCs), on women as a gender and on the sex-specific health effects on cis women and gender diverse people with an ovarian reproductive system.¹ We then outline important amendments that need to be made to Bill S-5 to strengthen Canada's chemical regulations and commitment to the right to a healthy environment.

¹Gender is a spectrum and refers to people's self-identified social category of gender. Biological sex does not define gender and refers to the makeup of chromosomes, hormones, and internal and external reproductive organs. The ovarian reproductive system refers to the ovaries, fallopian tubes, uterus, cervix, vagina, vulva, breasts, as well as the sex hormones, including estrogen and progesterone which drive the growth and functioning of this complex system. "Cis" refers to individuals whose gender identity corresponds to the sex they were assigned at birth.

1. Gender and Toxics

Women have a specific relationship to the issue of toxic exposures. Women know that toxic chemicals including endocrine disrupting chemicals², such as flame retardants, bisphenols including BPA, BPS and BPF, phthalates, parabens, and the huge class of PFAS, all with proven serious, adverse health effects, are used in a wide range of consumer products most often without any labeling to indicate their presence. We know that it is routinely women who determine the choice of products consumed and used in the household, from food and food storage products to cleaning and personal care products to furniture and décor. We know that many women try to navigate this important health issue with very incomplete information, particularly during pregnancy. And we know that gender segregation in the labor market means that certain predominantly female occupations create specific exposures to toxics, for example, hair and nail salons workers, cleaners, and cashiers who handle BPA or BPS coated cash receipts for their entire shift, to name just a few.³

2. Racialized gender dynamics

Intertwined with these gendered dynamics of toxics are racialized dynamics.⁴ A field of research on the “environmental injustice of beauty” has emerged in the United States based on the findings that beauty products geared towards racialized women contain a wider range of toxic substances in higher concentrations.⁵ In addition, the labor market is not only segregated by gender, it is traversed with racialized dynamics so that occupations such as hair and nail salon workers, cleaners and cashiers are often women from racialized groups. Moreover, research has established that racialized communities often find themselves downwind of high levels of toxic emissions from industrial extraction, transport or transformation, or infrastructures such as highways and ports. This environmental racism creates elevated toxic exposures in proximity to certain communities that would never be permitted in proximity to wealthier, primarily white communities with more political power.⁶ Housing in these neighborhoods risks

² According to the Endocrine Society, “Endocrine disrupting chemicals (EDCs) are chemicals or mixtures of chemicals that interfere with the way the body’s hormones work. Some EDCs act like “hormone mimics” and trick our body into thinking that they are hormones, while other EDCs block natural hormones from doing their job. Other EDCs can increase or decrease the levels of hormones in our blood by affecting how they are made, broken down, or stored in our body. Finally, other EDCs can change how sensitive our bodies are to different hormones.

“EDCs can disrupt many different hormones, which is why they have been linked to numerous adverse human health outcomes including alterations in sperm quality and fertility, abnormalities in sex organs, endometriosis, early puberty, altered nervous system function, immune function, certain cancers, respiratory problems, metabolic issues, diabetes, obesity, cardiovascular problems, growth, neurological and learning disabilities, and more.”

[https://www.endocrine.org/patient-engagement/endocrine-library/edcs#:~:text=Endocrine%2Ddisrupting%20chemicals%20\(EDCs\)%20are%20substances%20in%20the%20environment,of%20your%20body's%20endocrine%20system](https://www.endocrine.org/patient-engagement/endocrine-library/edcs#:~:text=Endocrine%2Ddisrupting%20chemicals%20(EDCs)%20are%20substances%20in%20the%20environment,of%20your%20body's%20endocrine%20system).

³ Scott, Dayna Nadine (ed.). (2015). *Our Chemical Selves: Gender, Toxics and Environmental Health*. UBC Press.

⁴ [Tamarra M. James-Todd](#), [Yu-Han Chiu](#), and [Ami R. Zota](#) (2016). Racial/ethnic disparities in environmental endocrine disrupting chemicals and women’s reproductive health outcomes: epidemiological examples across the life course. DOI: <https://doi.org/10.1007%2Fs40471-016-0073-9>

⁵ Ami R Zota and Bhavna Shamasunder (2017). The environmental injustice of beauty: framing chemical exposures from beauty products as a health disparities concern. DOI: [10.1016/j.ajog.2017.07.020](https://doi.org/10.1016/j.ajog.2017.07.020)

Hannah N. Collins et al. (2021). Differences in personal care product use by race/ethnicity among women in California: implications for chemical exposures. DOI: <https://www.nature.com/articles/s41370-021-00404-7>

⁶ Waldron, Ingrid (2018). *There’s Something in the Water: Environmental Racism in Indigenous & Black Communities*. Fernwood Publishing.

being more affected by mold and pests which require potentially toxic treatments in addition to cheaper materials for housing and furniture which create higher levels of indoor pollution. Thus, for women from racialized communities, overexposure to toxics can exist at almost every level of the environment – from personal care products to their homes and workplaces as well as their communities.

Further, Canada does not collect race-based or Indigenous identity health data, so we do not have a clear portrait of racialized health trends, although researchers in Canada think it is very probable that Black women and other racialized women are facing the same health issues here and are calling on Health Canada to collect the necessary race-based data.⁷ The lack of race-based and Indigenous identity health data in Canada is a major structural obstacle preventing racialized communities from being able to identify the causes of the harms they are experiencing and to start working for the necessary changes that would lead to environmental health justice.⁸

3. Sex-specific effects of toxic exposures

Finally, there are sex-specific effects of toxic exposures due to the intricate reproductive system of cis women and gender diverse people with an ovarian reproductive system. Endocrine disrupting chemicals have been demonstrated to increase risks for a broad range of conditions and serious illnesses for these women and people, from early onset puberty, endometriosis, fibroids, PCOS to hormone dependent cancers such as breast, uterine and ovarian cancer. Because of the interconnections in the ovarian reproductive system, certain of these conditions are associated with increased risks for serious illness later. For example, early onset puberty increases the risk of breast cancer later in life, polycystic ovarian syndrome (PCOS) is associated with an increased risk for uterine cancer and new research indicates that fibroids may be associated with an increased risk of breast cancer and ovarian cancer.

4. Environmental toxic substances and the intersection of gender, race and sex

The problem for women as a gender and cis women and people with an ovarian reproductive system as a sex is that gendered and racialized norms and roles create higher exposures to toxic substances that have profound effects on the ovarian reproductive system. The development and functioning of the ovarian reproductive system depend on circulating sex hormones, particularly estrogen and progesterone; it begins in utero and continues throughout life. These exposures and their effects are even greater for women and people from racialized communities for the reasons described above.

Here is a brief survey of some of the major health effects of environmental toxic substances due to these intersections.

Precocious puberty

⁷ Geetanjali Datta, Arjumand Siddiqi and Aisha Lofters. Transforming race-based health research in Canada. *CMAJ* January 18, 2021 193 (3) E99-E100.

Caitlin Dunne, (2020) . Black Women’s Health Matters. <https://bcmj.org/premise/black-womens-health-matters>
Tavia Grant and Denise Balkissoon. [How Canada’s racial data gaps can be hazardous to your health.](#) *Globe and Mail*. February 6, 2019.

Onye Nnorom, et al. (2019) Dying to Learn: A Scoping Review of Breast and Cervical Cancer Studies Focusing on Black Canadian Women. DOI:<https://doi.org/10.1353/hpu.2019.0100>

⁸ Canadian Institute for Health Information (2022). Race-based and Indigenous identity data. <https://www.cihi.ca/en/race-based-and-indigenous-identity-data>

A major concern regarding exposures to endocrine disrupting chemicals has been the role they play in the steady trend of increasingly precocious puberty.⁹ In particular, cis girls and kids with ovarian reproductive systems are 10 times more likely to be subject to precocious puberty than cis boys and kids with testicular reproductive systems.¹⁰ Racialized girls and kids are also at greater risk for precocious puberty.¹¹ Precocious puberty in these children is associated with a wide range of negative health outcomes later in life, including cardiovascular disease and hormone sensitive cancers, particularly breast cancer.

Fibroids (uterine myoma)

Fibroids are non-cancerous growths that develop in or around the uterus. As they grow, they can distort the inside as well as the outside of the uterus. Fibroids can grow large enough to completely fill the pelvis or abdomen. 15 to 30 % of people with fibroids will have severe symptoms including pelvic pain, heavy bleeding, pregnancy complications, and infertility. The only permanent treatment is a hysterectomy. The hormones estrogen and progesterone are involved in their growth.

A range of EDCs are associated with fibroids including certain phthalates, parabens and BPA.¹² Epidemiologic studies suggest exposure to certain EDCs are associated with increased fibroid risk and severity. Research has shown that Black women are disproportionately burdened by fibroids, often experiencing a higher risk of fibroids, an earlier age of onset, and more severe symptoms.¹³ Finally, as mentioned above, fibroids are associated with a higher risk of breast cancer.¹⁴

Endometriosis

Endometriosis is a disease characterized by the presence of tissue resembling the endometrium (the lining of the uterus) outside the uterus. It causes a chronic inflammatory reaction that may result in the formation of scar tissue (adhesions, fibrosis) within the pelvis and other parts of the body. It is a chronic disease associated with severe, life-impacting pain during periods, chronic pelvic pain, abdominal bloating, nausea, fatigue, and sometimes depression, anxiety, and infertility. Endometriosis is an estrogen dependent disease. As such, serious concerns are raised about exposures to estrogenic endocrine disrupting chemicals,

⁹ [Laura Lucaccioni](#), et al. (2020). Endocrine-Disrupting Chemicals and Their Effects during Female Puberty: A Review of Current Evidence. doi.org/10.3390/ijms21062078

[Kim G Harley](#), et al. (2019). Association of phthalates, parabens and phenols found in personal care products with pubertal timing in girls and boys. DOI: <https://doi.org/10.1093/humrep/deg337>

[Deborah J. Watkins](#), et al. (2017). Phthalate and bisphenol A exposure during in utero windows of susceptibility in relation to reproductive hormones and pubertal development in girls. DOI: <https://doi.org/10.1016%2Fj.envres.2017.07.051>

¹⁰ [Joëlle Le Moal](#), et al. (2018). Marked geographic patterns in the incidence of idiopathic central precocious puberty: a nationwide study in France. DOI: [10.1530/EJE-17-0379](https://doi.org/10.1530/EJE-17-0379)

¹¹ Tamarra James-Todd, et al. (2011). Childhood Hair Product Use and Earlier Age at Menarche in a Racially Diverse Study Population: A Pilot Study. DOI: <http://dx.doi.org/10.1016/j.annepidem.2011.01.009>

¹² [Maria Victoria Bariani](#), et al. (2020). The role of endocrine-disrupting chemicals in uterine fibroid pathogenesis. DOI: <https://doi.org/10.1097%2FMED.0000000000000578>

¹³ [Ami R. Zota](#) and [Brianna N. VanNoy](#) (2020). Integrating Intersectionality Into the Exposome Paradigm: A Novel Approach to Racial Inequities in Uterine Fibroids. DOI: <https://doi.org/10.2105/ajph.2020.305979>

¹⁴ Shu-Chun Chuang, et al. (2015). Associations between Medical Conditions and Breast Cancer Risk in Asians: A Nationwide Population-Based Study in Taiwan. DOI: <https://doi.org/10.1371/journal.pone.0143410>

particularly in utero exposures.¹⁵ In addition, endometriosis is associated with an increased risk of ovarian cancer later in life.¹⁶

Polycystic Ovarian Syndrome (PCOS)

Polycystic ovary syndrome (PCOS) is a hormonal condition in which the ovaries produce an abnormal amount of androgens, male sex hormones that are usually present in people with an ovarian reproductive system in small amounts. Symptoms include irregular, heavy, or prolonged periods, infertility, and obesity. According to the National Cancer Institute, people with PCOS are at an increased risk of endometrial cancer. There is no known cure. Causes are thought to be both genetic and environmental, particularly exposure to EDCs. According to researchers of a major review of the effect of toxic exposures on the development of ovaries, “Environmental toxicants have been proven to exert detrimental effects on ovaries causing various reproductive problems. (...) A huge volume of literature is available to establish the contribution of various EDCs in PCOS.”¹⁷

Hormone sensitive cancers

Endocrine disrupting chemicals, particularly those whose effects are estrogenic, affect almost every part of the ovarian reproductive system from its development in utero all through a person’s life. Some of the effects, like those mentioned above, cause conditions with a major impact on the individual’s quality of life and fertility. But hormone sensitive cancers, such as breast, uterine and ovarian cancer, can be life-threatening diseases involving surgery that can be disfiguring, hard therapies that can require years of medications with strong side effects in addition to the personal, professional and economic consequences of these illnesses.

Breast Cancer

As almost everyone knows, breast cancer is the most common cancer diagnosed in cis women and people with an ovarian reproductive system as well as having the second highest mortality rate. The risk for breast cancer is related to the production of estrogen and progesterone which regulate the development and functioning of the reproductive system including the breasts. Just as the uterus changes during the menstrual cycle, estrogen drives the growth of milk ducts during every menstrual cycle, followed by progesterone that drives the formation of the milk glands in preparation of lactation. If pregnancy does not occur, these cells die and are evacuated through the lymphatic system. Any deregulation of this delicate balance of hormones, and the growth and death of breast cells, are cause for serious concern. Endocrine disrupting chemicals have long been studied for their role in breast cancer pathogenesis. It is now understood that harmful EDC exposures starting in utero, but also all through specific windows of vulnerability, can cause malformations of the mammary gland that can lead to breast cancer later in life.¹⁸

¹⁵ Melissa M. Smarr, et al. (2016). Endocrine disrupting chemicals and endometriosis. DOI: <https://doi.org/10.1016/j.fertnstert.2016.06.034>

¹⁶ Celeste Leigh Pearce, et al. (2012). Association between endometriosis and risk of histological subtypes of ovarian cancer: a pooled analysis of case-control studies. DOI: [https://doi.org/10.1016/S1470-2045\(11\)70404-1](https://doi.org/10.1016/S1470-2045(11)70404-1)

¹⁷ Keerthi Priya, et al. (2021), Implications of environmental toxicants on ovarian follicles: how it can adversely affect the female fertility? DOI: <https://doi.org/10.1007/s11356-021-16489-4>

¹⁸ Louisane Eve, et al. (2020). Exposure to Endocrine Disrupting Chemicals and Risk of Breast Cancer. DOI: <https://doi.org/10.3390/ijms21239139>

Tessie Paulose, et al. (2014), Estrogens in the wrong place at the wrong time: Fetal BPA exposure and mammary cancer. DOI: <https://doi.org/10.1016/j.reprotox.2014.09.012>

The scientific literature on EDCs, particularly BPA, and breast cancer is extensive. Many researchers affirm that BPA needs to be considered a carcinogen.¹⁹

Furthermore, the situation of Black women and breast cancer is particularly alarming. Breast cancer trends in the United States and the United Kingdom demonstrate that Black women have higher breast cancer mortality rates than white women, are diagnosed at earlier ages (which is associated with a worse prognosis) and with more aggressive forms of the disease.²⁰ In Canada, we do not collect race-based health data, so researchers do not have a clear picture of the situation, although prominent researchers here are concerned that Black women and other racialized women face these same trends.²¹

An important field of research has emerged that starts to put together these important observations. Black women's hair, in particular, has been a site of white social control and norms. Further, Black women use a variety of hair products which often contain more endocrine-disrupting chemicals than products used by other women and an emerging body of research is linking these chemicals and products to breast cancer.²²

The situation of Indigenous women and breast cancer is of equal concern. The little research that exists indicates that the incidence of breast cancer is increasing in this population, and that patients are diagnosed at later stages of the disease and have poorer outcomes.²³ At the same time, it is known that indigenous communities face higher concentrations of toxic chemicals from a wide range of sources than non-indigenous communities.²⁴

Uterine cancers

¹⁹ Nadeem Ghani Khan, et al. (2021). A comprehensive review on the carcinogenic potential of bisphenol A: clues and evidence. DOI: <https://doi.org/10.1007/s11356-021-13071-w>

Zhe Wang, et al. (2017). Low-Dose Bisphenol A Exposure: A Seemingly Instigating Carcinogenic Effect on Breast Cancer. DOI: [10.1002/adv.201600248](https://doi.org/10.1002/adv.201600248)

Breast Cancer UK. (2015). Bisphenol BPA should be classified as a carcinogen. <https://www.breastcanceruk.org.uk/bisphenol-bpa-should-be-classified-as-a-carcinogen/>

²⁰ E Copson, et al. (2014). Ethnicity and outcome of young breast cancer patients in the United Kingdom: the POSH study. DOI: <https://doi.org/10.1038/nfbc.2013.650>

Iqbal J, et al. (2015). Differences in Breast Cancer Stage at Diagnosis and Cancer-Specific Survival by Race and Ethnicity in the United States. DOI: [10.1001/jama.2014.17322](https://doi.org/10.1001/jama.2014.17322)

²¹ UToronto, Nov. 15, 2019. [Lack of health data hurting Black Canadian women, U of T researchers find.](https://www.utoronto.ca/news/lack-of-health-data-hurting-black-canadian-women-u-of-t-researchers-find)

²² Adana A M Llanos, et al. (2017). Hair product use and breast cancer risk among African American and White women. DOI: [10.1093/carcin/bgx060](https://doi.org/10.1093/carcin/bgx060)

Laura Stiel, et al. (2016). A review of hair product use on breast cancer risk in African American women. DOI: [10.1002/cam4.613](https://doi.org/10.1002/cam4.613)

Dede Teteh, et al. (2019). The Black identity, hair product use, and breast cancer scale. DOI: <https://doi.org/10.1371/journal.pone.0225305>

²³ Katherine Marie Cole, et al. (2021). Breast cancer in Indigenous women living in Canada: a scoping review protocol. https://journals.lww.com/jbisir/Fulltext/2021/12000/Breast_cancer_in_Indigenous_women_living_in.19.aspx

Cancer Care Ontario (n.d.). Diagnosis of Breast Cancer Occurs at a Later Stage among First Nations Women in Ontario. <https://www.cancercareontario.ca/en/cancer-facts/diagnosis-of-breast>

²⁴ United Nations Human Rights Council. (2020). Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G20/328/37/PDF/G2032837.pdf?OpenElement>

Research from the United States shows that cases of uterine cancers are on the rise, particularly more aggressive forms. In addition, mortality rates for these cancers have risen and racial disparities exist with Black women being particularly affected.²⁵

In addition, systematic reviews of EDC exposure and endometrial cancer have shown the carcinogenic mechanisms of these toxic substances. BPA in particular can interact with the carcinogenesis process and thereby favor the development of endometrial cancer.²⁶

Ovarian cancer

As in the case of breast and uterine cancers, deregulation of estrogens has been shown to underlie the pathology of most ovarian cancers and estrogenic EDCs have been shown to contribute to this deregulation.²⁷

And as in the case of breast and uterine cancers, research from the United States shows that women and people from the African diaspora are disproportionately affected by high-grade and aggressive ovarian tumors. They are also more likely to develop resistance to chemotherapy.²⁸

5 Pregnancy and Toxic Exposures

The problem of trying to reduce potentially grave toxic exposures during pregnancy illustrates the profound injustice faced due to gendered roles and bearing the responsibility for a physiological condition where the developing fetus is uniquely vulnerable to lifelong effects and even serious illness due to these exposures.

In utero exposures to toxic substances are recognized as a particularly important window of vulnerability to health harms that can emerge later in life, from neurological and reproductive disorders to breast cancer and other hormone sensitive cancers. Major health associations have issued warnings on the serious and widespread harms of endocrine disrupting chemicals during fetal development.²⁹

²⁵ Megan A. Clarke, et al. (2022). Hysterectomy-Corrected Uterine Corpus Cancer Mortality by Stage and Histologic Subtype. DOI: [10.1001/jamaoncol.2022.0009](https://doi.org/10.1001/jamaoncol.2022.0009)

²⁶ Donatella Caserta, et al. (2022). Endocrine Disruptors and Endometrial Cancer: Molecular Mechanisms of Action and Clinical Implications, a Systematic Review. DOI: <https://doi.org/10.3390/ijms23062956>

Maddalena Mallozzi, et al. (2017). Endocrine Disrupting Chemicals and Endometrial Cancer: An Overview of Recent Laboratory Evidence and Epidemiological Studies. DOI: <https://doi.org/10.3390/ijerph14030334>

²⁷ Julie M. Hall and Kenneth S. Korach. (2012). Endocrine Disrupting Chemicals Promote the Growth of Ovarian Cancer Cells via the ER-CXCL12-CXCR4 Signaling Axis. DOI: [10.1002/mc.21913](https://doi.org/10.1002/mc.21913)

Ratika Samtani, et al. (2018). Effects of Endocrine-Disrupting Chemicals and Epigenetic Modifications in Ovarian Cancer: A Review. DOI: [http://dx.doi.org/10.1177/1933719117711261](https://dx.doi.org/10.1177/1933719117711261)

²⁸ Sophia George (2021). Why Black women with ovarian cancer require greater focus.

<https://www.nature.com/articles/d41586-021-03715-9#:~:text=Women%20from%20the%20African%20diaspora,than%20on%20Hispanic%20white%20women>

²⁹ Isabelle Plante, et al. (2021). Killing two birds with one stone: Pregnancy is a sensitive window for endocrine effects on both the mother and the fetus. <https://doi.org/10.1016/j.envres.2021.112435>

American College of Obstetricians and Gynecologists. (2021). Reducing Prenatal Exposure to Toxic Environmental Agents. <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2021/07/reducing-prenatal-exposure-to-toxic-environmental-agents>.

The burden of attempting to reduce toxic exposures during pregnancy is a highly gendered and racialized issue. It is faced exclusively by women and people with an ovarian reproductive system. Furthermore, women who are socially vulnerable due to their immigration and economic status and are in occupations with particularly high toxic exposures are most often non-unionized. They are therefore without the legal protections and economic means to not work during their pregnancy. In addition, their neighborhoods, homes and consumer products may overexpose them to toxic, endocrine disrupting chemicals. These examples illustrate not only the complexity, but the impossibility, of navigating toxic exposures on an individual basis. Putting the onus on individuals, particularly during pregnancy, is one of the most profound forms of environmental injustice.

Conclusion

Cis women and people with ovarian reproductive systems constitute a vulnerable population due to our complex reproductive system. Our reproductive system is highly susceptible to endocrine disruption with profound health consequences. Gendered and racialized dynamics make the sex-specific impact of toxic substances even greater. In addition, we are required to bear individually the onus of avoiding toxic substances during pregnancy, which is an impossible responsibility.

We cannot possibly reduce exposures to toxic substances for ourselves, our families and our communities by changing our behaviors and what we buy individually. This burden is even heavier for women and people in racialized communities. Strong government regulations combined with a firm political will to implement those regulations are fundamental to starting to push back against the flood of toxic chemicals in our environment and a vast range of goods and products and the consequent serious health harms they are producing in us and our environment.

Recommendations

I. Corporate Accountability, Transparency and Citizens' Right to Know

Mandatory Labeling of Harmful Substances

Currently, businesses have wide latitude in using toxic substances in their products. If they are going to use these substances then, at the very least, they should be transparent and accountable for their use.

In addition, very little information is available publicly on the toxic substances present in consumer products with a few exceptions. Our government has a duty to protect the health of its citizens and without this information being publicly available, it is impossible to have a portrait and data on which toxic substances are being used and where they are used.

1. We recommend that Bill S-5 establishes a new requirement for the minister to ensure harmful substances are disclosed on the labels of consumer products. **[clause 20]**.

Limiting Confidential Business Information

Requests from companies that information on substances in products be treated as confidential business information are currently approved with little justification. Instead, the government should presume that information pertaining to risks to health and the environment should be public.

2. Bill S-5 should establish the presumption of non-confidentiality that not only requires reasons to accompany a request but puts the onus on the requesting party to demonstrate the necessity for confidentiality **[clause 50(2)]**.

It should also mandate disclosure of the names of substances and organisms on the DSL, when in the public interest, such as when permits, conditions, notices or prohibitions apply, consistent with ATIA **[clause 53]**.

Fixing Public Requests for Assessments

Currently, the law allows members of the public to ask the Minister to assess or reassess specific chemicals or groups of chemicals in light of new data. However, there are no requirements regarding how the government responds to these requests (or even that it must respond) or the timeline to complete the assessment.

3. We recommend that Bill S-5 specify that the minister's response to a public request for assessment must include a clear decision to grant or deny the request. Also, ensure integration with priority planning — including a two-year prescribed timeline for completing assessments in response to a public request, if granted **[clause 20]**.

II. Government Accountability

Just as corporations need to be accountable for the substances that they use in their products and production processes, the government must be accountable for its actions that it is required to undertake to protect citizens' health and the environment. Currently, the lack of timeline requirements and updates means assessments and their implementation may drag on for many years, meaning that the public and the environment continue to be exposed to toxic substances during that time.

Accountability Framework

Bill S-5 introduces a new requirement for the ministers to publish a statement respecting the development of subsequent proposed regulations or instruments that specifies "to the extent possible" an estimated timeframe. To provide greater certainty and prevent lengthy delays, Bill S-5 must be strengthened to require timelines for every planned risk management action, (to the extent possible, no longer than two years, corresponding with the existing CEPA-clock requirement) and require the minister to publish regulations and instruments according to the specified timelines.

4. We recommend that Bill S-5 Require the Minister to set out timelines for all measures identified in the risk management plan and implement measures according to the established timelines to improve accountability and help prevent lengthy delays in implementing the full suite of risk management measures, and to the extent possible, require the time frames not exceed two years **[clause 22]**.

Priority Planning Timelines and Updates

Bill S-5 requires that ECCC develop a plan to specify priority substances for assessment.

5. We recommend that Bill S-5 also require the priority plan to include timelines and updates to the plan at least every five years **[clause 19]**.

Time limits for finalizing substance assessments

Currently, multi-year delays for finalizing substance assessments of toxic substances are not exceptional. There is no reason for this to occur once the preliminary assessment has been carried out.. A one-year time limit for final assessments should be established to prevent these situations from occurring.

6. We recommend that Bill S-5 establish a clear timeline for finalizing substance assessments to prevent multi-year delays **[clause 21(2)]**.

III. Ending the Toxic Treadmill

Bill S-5 requires the ministers to maintain a non-statutory list of substances capable of becoming toxic or that have been determined to be capable of becoming toxic (the “Watch List”). The Watch List is a welcome addition to CEPA that begins to address the complex problem of regrettable substitution. To help further prompt a shift in the chemicals management regime from a reactive to a proactive model of protection that does not simply replace one harmful substance with another, we recommend that clause 29 of the bill be amended to recognize that risk-management actions can lead to the use of safer or more sustainable alternatives.

7. We recommend that Bill S-5 specify that when developing risk management plans, actions that lead to the use of safer or more sustainable alternatives should be considered. This would help prompt a shift in the chemicals management regime from a reactive to a proactive model of protection that does not simply replace one harmful substance with another **[clause 29]**.

IV. Committing to the Right to a Healthy Environment

Bill S-5 would recognize the human right to a healthy environment for the first time in Canadian federal law. Bill S-5 should set the stage for robust implementation of the right to a healthy environment by establishing a duty for the government to uphold key principles and providing greater certainty on the scope of the implementation framework, including actions on air quality.

8. We recommend that Bill S-5 Strengthen the legislative requirements for the implementation framework by reinforcing key principles of the right to a healthy environment by establishing them as administrative duties in sec. 2 of CEPA (in addition to the implementation framework as set out in sec. 5.1(2)(a) of Bill S-5).

We also recommend that Bill S-5 require that the framework elaborate on actions that the Ministers will take when ambient air quality standards are exceeded; that the framework outline the process for considering the right to a healthy environment in the assessment of toxic substances and clarify that factors referenced in sec. 5.1(2)(c) are broadly relevant to interpreting and applying the right to a healthy environment, not only determining its reasonable limits