

Review of the Canadian Environmental Protection Act, 1999

Presentation to the
Standing Committee on Environment and Sustainable Development

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Summary of Recommendations

1. Amend s. 2(1) of *CEPA 1999* by adding the polluter pays principle so that its implementation becomes a duty of the Government of Canada.
2. Amend *CEPA 1999* (Part 11-Miscellaneous Matters, sub-parts Economic Instruments and Regulations Respecting Fees and Charges) to explicitly authorize the use of pollution taxes as a means of applying the polluter pays principle.
3. Use the information gathered through the National Pollutant Release Inventory as the basis for a system of national pollution taxes levied on the roughly 370 substances covered by the NPRI.
4. Amend s. 2(1) of *CEPA 1999* by adding the substitution principle so that its implementation becomes a duty of the Government of Canada.
5. Amend the risk management provisions of *CEPA 1999* (Part 5: Controlling Toxic Substances) to require alternatives assessment and place the burden on industry to show that safer substitutes are not available.
6. Requiring safer substitutes for substances already on *CEPA 1999*'s Schedule 1 that are carcinogenic, mutagenic, and toxic to reproduction; very persistent and very bioaccumulative; persistent, bioaccumulative and toxic; and endocrine disrupting should a top priority. Specific examples where Canada lags behind include asbestos, formaldehyde, benzene, air pollution, diesel exhaust, PBDEs, PFCs, and some phthalates.
7. Assessment conducted under CEPA should require industry to provide test results for a comprehensive range of health endpoints including carcinogenicity, mutagenicity, endocrine disruption, neurotoxicity, and reproductive or developmental effects.
8. Amend *CEPA 1999* (Part 5: Controlling Toxic Substances) to require a hazard-based approach for a subset of toxic substances that are of very high concern. For these substances, the presumption will be that the manufacture, import, sale, or use of such a substance will not be permitted in Canada unless industry can provide proof of its safety and that there are no feasible alternatives. This is the approach used in the European Union for substances of very high concern.
9. Amend *CEPA 1999* to suspend the import, export, manufacturing, and sale of substances and products containing substances banned by other member nations of the Organization for Economic Cooperation and Development (OECD), pending review by the Ministers of Health and Environment.

10. Amend s. 75 of *CEPA 1999* to enable any person to trigger a special review of toxic substances that have been severely restricted or prohibited in other member nations of the Organization for Economic Cooperation and Development but are not severely restricted or prohibited in Canada.

11. Amend *CEPA 1999* to fulfill the law's original intent to include the right to a healthy environment, including clean air, safe food and drinking water, a stable climate, a non-toxic environment, and flourishing biodiversity.

12. Amend *CEPA 1999* to strengthen provisions related to access to information, public participation in decision-making, and access to justice. This should include publication every five years of a comprehensive state of the environment report.

13. Amend *CEPA 1999* to include the public's "right-to-know" about chemicals in consumer products and require mandatory hazard labeling of all products containing toxic substances.

14. Amend *CEPA 1999* to ensure that Canadians are protected by environmental standards that are as strong as the standards in other OECD nations.

15. Amend *CEPA 1999* to require Ministers to establish, within a specified timeframe, legally binding and enforceable national standards for air quality and drinking water that are as strong as the standards in other OECD nations.

16. Add a new section to Part 2 of *CEPA 1999* (Public Participation) to enable any person to compel the Ministers to review any federal Act, statutory instrument, or policy alleged to be weaker than a similar measure in force in in another OECD nation or nations.

17. S. 2(1) of *CEPA 1999* should require that the Government of Canada take steps to protect vulnerable and marginalized populations when establishing priorities, assessing health and environmental impacts, developing regulations, standards, guidelines, pollution prevention plans, and other measures intended to protect human and ecosystem health. This should include a definition of vulnerable populations.¹

18. *CEPA 1999* should require that the Ministers complete a national environmental health inequality assessment to comprehensively identify current pollution hotspots and environmental injustices as well as measures to both alleviate those injustices and prevent future injustices (as recommended by the World Health Organization). This assessment must include cumulative effects and must be updated periodically.

¹ See also the comprehensive and thoughtful recommendations regarding environmental justice made by the Canadian Environmental Law Association in a letter to the Standing Committee dated June 16, 2016.

19. Amend *CEPA 1999* to enable members of the public to enforce the law using civil actions, with appropriate but not unduly burdensome safeguards.

20. Amend CEPA to establish specific timelines for actions related to risk management of toxic substances. There should be a maximum of one year from the conclusion of a screening assessment to listing a substance on Schedule 1; a maximum of eighteen months for draft measures to address all risks from newly listed substances; and a maximum of 18 months to finalize those measures.

21. Amend CEPA to establish statutory timelines for

- a) reviewing risk management measures every ten years, or when new/additional restrictions and/or prohibitions are put in place by another OECD nation, or when a person submits substantial new scientific evidence about a toxic substance;
- b) reviewing progress towards goals identified in pollution prevention plans every 5-10 years, with a mechanism requiring stronger measures if goals are not met; and
- c) establishing a 90-day time limit for government responses to Notices of Objection filed under s. 332(1).

A. Introduction

The *Canadian Environmental Protection Act, 1999 (CEPA 1999)* is one of Canada's most important environmental laws. Its fundamental purpose is to protect human health and ecosystem health from the adverse effects of toxic substances and pollution. The original *CEPA* was enacted in 1988. Then-Environment Minister Tom McMillan claimed it would be the "toughest pollution legislation in the western world" and would include "Canada's first environmental bill of rights."² Unfortunately, neither of these promises has been kept.

On the surface, Canada is one of the most beautiful nations in the world, with seemingly abundant fresh water, clean air, and few obvious signs of environmental contamination or degradation. However, looks can be deceiving. Canada has a relatively poor environmental record, and, as a result, Canadians are exposed to environmental hazards that cause cancer, impair the normal development of children, interfere with the respiratory, cardiovascular, reproductive, endocrine, immune, and nervous systems, and inflict damage on skin and organs.³ Over two hundred human diseases and conditions are linked to chemical exposures, ranging from birth defects and asthma to cancer and heart disease.⁴ Specific examples of adverse health outcomes linked to environmental hazards are acute lymphoblastic leukemia, lung cancer, bladder cancer, skin cancer, premature birth, permanent decreases in IQ, behavioural problems, asthma, chronic obstructive pulmonary disease (COPD), Parkinson's disease, heart attacks, strokes, reduced fertility, and acute gastrointestinal illness.

It is widely recognized that air pollution contributes to thousands of premature deaths and millions of episodes of illness in Canada annually.⁵ Rates of physician-diagnosed asthma among children in Canada quadrupled in recent decades.⁶ There have been hundreds of outbreaks of waterborne illness in Canada in the past three decades, most notably the Walkerton, North Battleford, and

² T. McMillan. 1986. Commons Debates, Oct. 10, 1986, pp. 290, 292. T. Vigod and M. Valiante. 1987. *Submission by the Canadian Environmental Law Association and Canadian Environmental Law Research Foundation on the Proposed Federal Environmental Protection Act*. Toronto: Canadian Environmental Law Association, p. 3.

³ See the Canadian Environmental Health Atlas, <http://www.ehatlas.ca>.

⁴ S. Janssen, G. Solomon, and T. Schettler, "CHE Toxicant and Disease Database" (Collaborative on Health and the Environment, 2013), <http://www.healthandenvironment.org/tddb/>.

⁵ D.R. Boyd, *The Air We Breathe: An International Comparison of Air Quality Standards and Guidelines* (Vancouver: David Suzuki Foundation, 2006); Canadian Medical Association, *No Breathing Room: National Illness Costs of Air Pollution* (Toronto: CMA, 2008).

⁶ Health Canada, *Respiratory Disease in Canada* (Ottawa: Health Canada, 2001).

Kashechewan disasters.⁷ Canadian industries release billions of kilograms of toxic substances into the air, water, and soil annually.⁸ One in six Canadians—and one in four low-income Canadians—lives within one kilometre of a major pollution-producing facility.⁹ The reality is that pollution in Canada is pervasive, penetrating every ecosystem and accumulating inside every Canadian. The bodies of adults and children across Canada are contaminated by dozens of industrial chemicals, including pesticides, PCBs (polychlorinated biphenyls), fire retardants (polybrominated diphenyl ethers, or PBDEs), PFCs (perfluorochemicals, found in many consumer products), volatile organic compounds (VOCs), and phthalates (used as fragrances and plastic softeners).¹⁰ Despite Canada's reputation as a relatively clean country, the chemical body burden of Canadians is similar to that of Americans.¹¹ Recent studies even found hundreds of toxic industrial chemicals in the cord blood of newborn infants.¹²

Twenty-first century environmental hazards in wealthy countries like Canada are difficult for individuals to detect – often we can't see the pollution or the microbes in the air we breathe, can't taste the pathogens and chemicals in the water we drink, and can't smell or taste the pesticides and bacteria in the food we eat. We can't distinguish a mosquito harbouring West Nile virus from one that does not. As a result, Canadians depend on governments to protect them from environmental hazards. Some people have difficulty believing that the presence of a chemical in their body in seemingly infinitesimal quantities could harm their health. Yet many common prescription drugs are biologically active at similarly minuscule concentrations. Two examples are Viagra, which is active in the body at levels as low as 30 parts per billion (ppb), and the birth control medication Nuvaring, whose estrogen component is clinically effective at 0.035 ppb. Despite such tiny doses, these drugs can initiate procreation or prevent it, and also cause major side effects.¹³

⁷ C.G. Schuster, A.G. Ellis, W.J. Robertson, et al., "Infectious Disease Outbreaks Related to Drinking Water in Canada 1974–2001," *Canadian Journal of Public Health* 96, 4 (2005): 254–58.

⁸ Environment Canada, "The National Pollutant Release Inventory" (2014), <http://www.ec.gc.ca>.

⁹ Canadian Institute for Health Information, *Urban Physical Environments and Health Inequality* (Ottawa: CIHI, 2011).

¹⁰ Environmental Defence Canada, *Toxic Nation: A Report on Pollution in Canadians* (Toronto: EDC, 2005); Environmental Defence Canada, *Polluted Children, Toxic Nation: A Report on Pollution in Canadian Families* (Toronto: EDC, 2006) Both documents available at <http://environmentaldefence.ca/>.

¹¹ US Centers for Disease Control and Prevention, Department of Health and Human Services, "Third National Report on Human Exposure to Environmental Chemicals" (2009), <http://www.cdc.gov/exposurereport/>.

¹² Environmental Defence Canada, *Pre-Polluted: A Report on Toxic Substances in the Umbilical Cord Blood of Canadian Newborns* (Toronto: EDC, 2013).

¹³ K. Cook, "Testimony" (Subcommittee on Superfund, Toxics, and Environmental Health, Senate Environment and Public Works Committee, February 4, 2010), 3.

CEPA 1999 is a complex law, and requires substantial amendments to fulfill its original aspirations of being the best pollution law in the world and setting forth an environmental bill of rights for Canadians. The following recommendations draw on best practices from Canada and around the world.

B. Polluter Pays Principle

Recommendations

1. Amend s. 2(1) of *CEPA 1999* by adding the polluter pays principle so that its implementation becomes a duty of the Government of Canada.
2. Amend *CEPA 1999* (Part 11-Miscellaneous Matters, sub-parts Economic Instruments and Regulations Respecting Fees and Charges) to explicitly authorize the use of pollution taxes as a means of applying the polluter pays principle.
3. Use the information gathered through the National Pollutant Release Inventory as the basis for a system of national pollution taxes levied on the roughly 370 substances covered by the NPRI.

Pollution taxes are widely embraced by environmentalists and economists as the most effective, efficient, and equitable way of implementing the polluter-pays principle. The polluter-pays principle is already incorporated in the text of *CEPA 1999* in the preamble and sentencing sections (s. 287). However, Canada trails far behind most OECD nations in using taxes to internalize the costs of pollution and environmental damage, in part due to the absence of explicit legislative authority. In my recent book *Cleaner, Greener, Healthier: A Prescription for Stronger Canadian Environmental Laws and Policies* (Chapter 8), I completed a comparative analysis of motor vehicle levies, fuel taxes, energy taxes, pesticide taxes, air pollution taxes, water effluent taxes, and general pollution taxes, comparing Canada with the United States, Australia, and twenty-eight European countries. The results demonstrate that Canada consistently lags far behind European nations and, in most cases, the United States in the use of pollution taxes. These findings confirm the results of a 2013 study published by KPMG, which reported that Canada ranked dead last among industrialized countries in using green taxes to make polluters pay, even trailing newly industrializing nations such as China and South Africa.¹⁴ In a similar vein, the OECD has repeatedly criticized Canada for failing to use pricing mechanisms to internalize environmental externalities.¹⁵

European nations have used pollution taxes with great success in reducing the release of toxic chemicals into air and water, reducing pesticide use, and

¹⁴ KPMG International, "KPMG Green Tax Index 2013" (2013), <http://www.kpmg.com/greentax>.

¹⁵ OECD, *Economic Surveys: Canada* (Paris: OECD, 2012).

reducing emissions of carbon dioxide, sulphur dioxide, and nitrogen oxides.¹⁶ For example, the Netherlands used pollution taxes to achieve a 72–99 percent reduction in various water pollutants.¹⁷ Sweden used a tax on sulphur to reduce sulphur dioxide emissions by over 80 percent, to per capita levels that are one-eighth of the level of emissions in Canada.¹⁸

Back in 1998, Parliament’s technical committee on business taxation recommended establishing a broadly based environmental tax designed to reduce emissions of pollutants and environmentally damaging activities.¹⁹ The Green Budget Coalition, representing many environmental groups from across Canada, has repeatedly recommended establishing a national pollution tax.²⁰ As Canada’s Ecofiscal Commission recently observed, Canada “is behind the curve in shifting to policies that can more closely align its economic and environmental objectives.”²¹

While most of the debate about pollution taxes in Canada has focused on pricing carbon emissions, there is a far broader suite of toxic substances that should also be the subject of taxes in order to internalize existing externalities and discourage their production, use, and release. Placing a tax on one toxic substance while ignoring the rest seems both environmentally and economically irrational. The amendment of *CEPA 1999* to explicitly authorize the use of pollution taxes would enable the creation of a new national pollution tax system targeting all types of industrial air and water pollution. Consideration should also be given to the future establishment of a new tax on pesticides and a complete overhaul of the Green Levy, a pollution tax established by Prime Minister Harper to discourage consumers from purchasing inefficient or gas guzzling motor vehicles.²² Unfortunately, the Green Levy as currently implemented covers only a tiny fraction of the vehicles sold in Canada and is set at levels too small to have a significant influence on vehicle purchase decisions.²³

¹⁶ Ekins and Speck, *Environmental Tax Reform*. For other examples of ecological tax shifting, see D.R. Boyd, *Unnatural Law: Rethinking Canadian Environmental Law and Policy* (Vancouver: UBC Press, 2003), 321–25.

¹⁷ OECD, *Eco-Efficiency* (Paris: OECD, 1998).

¹⁸ D.R. Boyd, *Canada vs. Sweden: An Environmental Face-off* (Victoria: Eco-Research Chair in Environmental Law and Policy, 2002).

¹⁹ Technical Committee on Business Taxation, *Report of the Technical Committee on Business Taxation* (Ottawa: Department of Finance, 1998), 9.16, <http://publications.gc.ca/collections/Collection/F32-5-1998E.pdf>.

²⁰ Green Budget Coalition, *Recommendations for Budget 2005* (Ottawa: Green Budget Coalition, 2005), <http://greenbudget.ca/>.

²¹ Canada’s Ecofiscal Commission, *Smart, Practical, Possible*, 21.

²² Vehicles that consume more than 13 litres per 100 kilometres (L/100 km) are subject to a \$1,000 tax, which rises to \$4,000 for vehicles that consume more than 16 L/100 km.

²³ For example, consider a new car with a fuel efficiency rating of 12 L/100 km. In Norway and the Netherlands, the purchaser of this vehicle would pay a tax of at least 40,000 euros (\$56,000). In Finland and Portugal, the tax on such a vehicle would be at least 15,000 euros (\$21,000). In Austria and Ireland, the tax would be at

While amending CEPA 1999 to explicitly authorize pollution taxes, Canada should concurrently develop a national pollution tax system that applies to releases of specified toxic substances by the large polluters who report to the NPRI. The tax on releases of each substance would be determined by the volume of emissions/releases and their degree of toxicity to humans, wildlife, and ecosystems. Data on pollution gathered by the National Pollutant Release Inventory would serve as the basis for such a new tax system, with the initial fees being relatively modest on a per unit basis, but projected to grow over time (as was the case with British Columbia's successful carbon tax).

A national pollution tax system based on the current NPRI would capture the majority of total toxic emissions in Canada. Over time, the NPRI should be expanded to cover a broader range of toxic substances (e.g. substances newly added to Schedule 1 of *CEPA 1999*). Environment Canada should be required to conduct regular audits of the releases reported by industry, to improve the reliability of the information. The national pollution tax system would need to be designed to build upon the early provincial leaders, as British Columbia and Nova Scotia have already made modest progress in establishing taxes on industrial emissions and effluent. Two of the leading American environmental laws—the *Clean Air Act* and the *Clean Water Act*—require American states to impose taxes on air pollution and water pollution respectively, offering useful precedents for Canada.

A second type of pollution tax could be implemented to protect Canadian taxpayers who are presently on the hook for tens of billions of dollars in liabilities associated with the cleanup and restoration of contaminated sites.²⁴ For example, following the bankruptcy of Royal Oak Mines, the federal government faces a liability of at least \$1 billion for cleanup at the Giant Mine near Yellowknife in the Northwest Territories. The imposition of a very minor environmental income tax, similar to the tax previously collected by the United States under their Superfund legislation, would go a long way towards reallocating the cleanup burden to parties responsible for causing environmental damage. The environmental income tax established in the United States was at a rate of 0.12 percent on taxable income in excess of \$2 million (protecting small businesses from an increased tax burden).

Potential revenues from environmental taxes are substantial. A modest tax on major air pollutants from large industrial polluters, targeting sulphur dioxide, nitrogen oxides, fine particulate matter, benzene, and other toxic substances, would raise billions of dollars in revenue. For example, if Canada applied the tax rates from France's National Pollution Tax to just four categories of air pollution, the annual tax revenue would exceed \$725 million (see Table 1). While this is a substantial sum of money and would be a good first step, it falls short of fully reflecting the health and environmental damages caused by emissions of these toxic substances. Pollution

least 5,000 euros (\$7,000). A purchaser of this car in the United States would pay US\$1,700 under the Gas Guzzler Tax, while Canada's Green Levy would not apply.

²⁴ Commissioner of the Environment and Sustainable Development, "Chapter 3: Federal Contaminated Sites and their Impacts," in *Spring Report to Parliament* (Ottawa: Office of the Auditor General of Canada, 2012).

taxes should be adjusted regularly to reflect changes in scientific knowledge, and also indexed to keep pace with inflation.

Table 1²⁵

Estimated Canadian revenues from tax on four classes of air pollutants, using French tax rates

	SO_x	NO_x	PM	VOCs
Emissions (tonnes per year) ¹	1,130,000	809,000	468,000	693,000
Tax rate (per tonne) ²	\$196.82	\$237.57	\$376.02	\$196.82
Tax generated	\$222,406,600	\$192,194,130	\$175,977,360	\$136,396,260

Notes: SO_x = sulphur oxides; NO_x = nitrogen oxides; PM = particulate matter; VOCs = volatile organic compounds.

- 1 Canadian emissions data include only industrial sources and electric power generation.
- 2 French tax rates are current as of 2014. Amounts in euros were converted to Canadian dollars at the exchange rate of December 10, 2014: 1 euro = Cdn\$1.42.

As mentioned earlier, a modest tax on pesticides in Canada would be an initial move towards internalizing their health and environmental costs. Health Canada's most recent report on pesticide sales indicates that approximately 101 million kilograms of active ingredients were sold in 2014.²⁶ Canada should eventually implement a sophisticated pesticide tax based on the relative toxicity of active ingredients, as is done in Norway and Denmark. In the interim, Canada should apply Sweden's simple approach (\$4.40 per kilogram), plus roughly 2 percent of annual sales revenue to cover administrative costs. This pesticide tax would generate over \$400 million annually in revenue. The Scandinavian nations successfully used taxes to achieve major reductions in pesticide use. Sweden reduced pesticide use by over 80 percent since 1980 by charging a special tax on pesticides, offering economic support for organic agriculture, funding research on alternatives to pesticide use, and providing mandatory education programs for pesticide users to assist them in reducing their reliance on these chemicals.²⁷

²⁵ Sources: Emissions – Environment Canada, *National Pollutant Release Inventory: 2011 Air Pollutant Emissions for Canada* (Ottawa: Environment Canada, 2013); Tax rates – France (Minister of Economy and Finance), *General Tax on Polluting Activities: 2014 Rates* (2014), <http://www.douane.gouv.fr/Portals/0/fichiers/professionnel/fiscalite/tgap-2014.pdf>.

²⁶ Health Canada, *Pest Control Products Sales Report for 2014* (Ottawa: Health Canada, 2016).

²⁷ G. Wossink and T.A. Feitshans, "Pesticide Policies in the European Union," *Drake Journal of Agricultural Law* 5 (2000): 223–47.

If Canada were to merely raise total environmental taxes (currently 1.2 percent of GDP) to average levels among OECD nations (1.66 percent of GDP), this would represent a total of approximately \$8.28 billion in additional tax revenues annually. If Canada raised environmental taxes to a level consistent with European members of the OECD (2.39 percent of GDP), this would double today's environmental tax revenues to approximately \$43 billion per year. These are substantial sums of money, which would give governments significant fiscal flexibility.

The revenue from new or increased Canadian pollution taxes could be used in four different ways: (1) to reduce other taxes (i.e., revenue recycling), (2) to minimize distributional impacts, (3) to avoid or mitigate competitiveness impacts, and (4) to invest in public goods, such as environmental protection efforts or green infrastructure. For example, revenues from taxes on air pollution (including carbon emissions) could be used to reduce emissions, to subsidize renewable energy, to protect low-income Canadians and other households that could suffer disproportionate impacts from rising energy and transportation costs, and to safeguard industries whose international trade profile indicates that such taxes could compromise their competitiveness. Revenues from taxes on water pollution could be targeted towards repairing and upgrading water infrastructure, rehabilitating damaged aquatic ecosystems, or financing improved protection for drinking water sources. Another option would be to finance a just transition strategy for workers who lose jobs due to stronger environmental standards.²⁸ Many experts recommend offsetting new environmental taxes with cuts to payroll and income taxes. This revenue-neutral approach, employed with British Columbia's carbon tax, is expected to produce both environmental and economic benefits.

In developing new environmental taxes, Canada should adhere to the OECD's key considerations for the design and implementation of environmental taxes:

1. Environmental taxes should target specific pollutants and environmentally damaging behaviours.
2. The tax rate should reflect the extent of health and environmental damage.
3. The tax must be significant and its rate predictable.
4. Distributional impacts should be addressed to avoid creating or exacerbating inequities.
5. Competitiveness concerns need to be carefully assessed.
6. Clear communication is critical to public acceptance.
7. Environmental taxes need to be combined with other policy instruments.²⁹

²⁸ Ontario Task Force on the Primary Prevention of Cancer, *Recommendations*.

²⁹ Organisation for Economic Co-operation and Development, *Taxation, Innovation and the Environment* (Paris: OECD, 2010).

C. Substitution Principle

Recommendations

4. Amend s. 2(1) of *CEPA 1999* by adding the substitution principle so that its implementation becomes a duty of the Government of Canada.
5. Amend the risk management provisions of *CEPA 1999* (Part 5: Controlling Toxic Substances) to require alternatives assessment and place the burden on industry to show that safer substitutes are not available.
6. Requiring safer substitutes for substances already on *CEPA 1999*'s Schedule 1 that are carcinogenic, mutagenic, and toxic to reproduction; very persistent and very bioaccumulative; persistent, bioaccumulative and toxic; and endocrine disrupting should a top priority. Specific examples where Canada lags behind include asbestos, formaldehyde, benzene, air pollution, diesel exhaust, PBDEs, PFCs, and some phthalates.
7. Assessment conducted under *CEPA* should require industry to provide test results for a comprehensive range of health endpoints including carcinogenicity, mutagenicity, endocrine disruption, neurotoxicity, and reproductive or developmental effects.

CEPA 1999 should explicitly incorporate the substitution principle, requiring toxic products, processes, and substances to be replaced with safer alternatives. The substitution principle originated in Swedish chemicals legislation, which is regarded as the most stringent in the world, and is now entrenched in EU legislation.³⁰ For almost every application or use of toxic substances in today's society, there are less hazardous and yet economically viable alternatives, particularly when hidden health and environmental costs are considered. For example, researchers have identified viable alternatives to the world's most widely used brominated flame retardant (decaBDE).³¹ Similarly, a study commissioned by the state of Massachusetts found that there are economically feasible substitutes for five commonly used but hazardous materials (lead, formaldehyde, perchloroethylene, DEHP, and hexavalent chromium).³² In countries that have banned asbestos, synthetic aramids (strong, heat-resistant fibers) are used in making brake pads and brake liners. Unlike asbestos, inhalation of synthetic aramids does not pose health threats to the human lungs.³³

³⁰ The European Union has created a Substitution Support Portal, a website offering extensive practical and legal information regarding the application of the substitution principle. See <http://www.subsport.eu/>.

³¹ Lowell Center for Sustainable Production, *Decabromodiphenylether: An Investigation of Non-Halogen Substitutes in Electric Enclosure and Textile Applications* (Lowell: University of Massachusetts, 2005).

³² Toxics Use Reduction Institute, *Five Chemicals Alternatives Assessment Study* (Lowell, MA: TURI, 2006).

³³ K. Donaldson. 2009. "The inhalation toxicology of p-aramid fibrils." *Critical Reviews in Toxicology* 39(6): 487-500.

Incorporating the substitution principle into CEPA 1999 will catalyze the development of a green chemistry industrial sector in Canada, resulting in research and development into cleaner, safer substances that provide tremendous economic opportunities. Green chemistry is defined as the utilization of a set of principles that reduces or eliminates the use or generation of hazardous substances in the design, manufacture, and application of chemical products.³⁴ This sector of the chemicals market is enjoying rapid growth, from less than \$3 billion in 2011 to an estimated \$100 billion in 2020.³⁵

Canada should use *CEPA 1999* to phase out the production, use, sale, import, or release of substances when it is known or probable that these substances cause cancer; birth defects; abnormal development; damage to the brain, nervous system, reproductive system, or immune system; or interference with the endocrine system. In 1995, the Ontario Task Force on the Primary Prevention of Cancer, composed of more than twenty medical experts, called on government to set timetables for the elimination of carcinogens, chlorine, and persistent, bioaccumulative, toxic substances. As the task force concluded, “the only prudent approach to safeguarding the health of the public from known and suspected environmental carcinogens is to be precautionary while the necessary research efforts are being made to resolve the uncertainty.”³⁶ Citizens should be able to trigger the substitution process by submitting evidence that safer alternatives exist or that another OECD nation has prohibited a substance or product that continues to be permitted in Canada.

All chemicals should be tested to assess whether they are carcinogenic, mutagenic, endocrine disrupting, or neurotoxic, or have reproductive or developmental effects. Sweden has already adopted this policy.³⁷

Eliminate exposure to known carcinogens

Given that environmental hazards cause thousands of premature deaths from cancer every year in Canada, it seems obvious that laws and policies should seek to reduce and eventually eliminate involuntary exposures to carcinogens. Priorities should include all substances designated as known or probable human carcinogens by the world’s leading authority, the International Agency for Research on Cancer (IARC). Examples of known carcinogens where Canadian laws and policies are weaker than other countries include air pollution, asbestos, formaldehyde, benzene, and diesel fuel. At present, Canada allows gasoline to contain roughly twice the volume of benzene in gasoline compared to American regulations.³⁸ Given that

³⁴ P.T. Anastas and J.C. Warner. 1998. *Green Chemistry: Theory and Practice*. Oxford: Oxford University Press.

³⁵ Navigant Research. 2011. *Green Chemistry*. <http://www.navigantresearch.com/wp-content/uploads/2011/06/GCHEM-11-Executive-Summary.pdf>

³⁶ Ontario Task Force on the Primary Prevention of Cancer, *Recommendations*, 29.

³⁷ Swedish Ministry of Environment, *New Guidelines on Chemicals Policy: Non-Hazardous Products* (Stockholm: Ministry of Environment, 2000).

³⁸ The US EPA’s *Control of Hazardous Air Pollutants from Mobile Sources (Federal Register 72, 37 2007:8428)* requires benzene concentrations in gasoline to be less than 0.62 percent by 2011, whereas Canada’s *Benzene in Gasoline Regulations (SOR/97-493)* allows benzene concentrations ranging from 1.0 to 1.5 percent.

benzene is a known carcinogen, this anomaly should be rectified as quickly as possible. All types of asbestos fibres are carcinogenic. As more than fifty countries have banned all uses of asbestos, there are obviously effective and affordable substitutes available. All remaining lawful uses in Canada should therefore be eliminated.

Eliminate exposure to developmental neurotoxins

It is well established that some industrial chemicals – including lead, mercury, manganese, arsenic, PCBs, and toluene – cause neurological disorders and brain dysfunction in babies and young children.³⁹ Hundreds of other industrial chemicals – including pesticides, solvents, and heavy metals – are suspected of being developmental neurotoxins but the evidence is not yet conclusive.⁴⁰ The adverse effects caused by developmental neurotoxins include ADHD, cerebral palsy, autism spectrum disorders, and decreased cognition, memory, and intelligence. Because neurodevelopmental damage is often permanent, preventing exposure is essential. Canada should eliminate all exposures to lead, mercury, arsenic, toluene, and other developmental neurotoxins. Canada could be a global leader by pushing for an international agreement that protects the developing brains of the world's children.

Eliminate exposure to endocrine-disrupting chemicals

In recent years, scientists have identified a growing number of manmade chemicals that interfere with the endocrine systems of humans and wildlife, leading to disease or interfering with normal development.⁴¹ Endocrine-disrupting chemicals have been shown to interfere with reproductive systems, increase fat development and weight gain, raise the risk of cancer, and harm both immune and cardiovascular systems. Some endocrine disruptors operate at very low doses and can have multi-generational or trans-generational effects, underscoring the importance of preventing exposures and taking a precautionary approach.⁴² Among the known or suspected endocrine disruptors are phthalates, triclosan, pesticides, flame retardants, and eight hundred other industrial chemicals.⁴³ The European Union's progress in banning or restricting the use of endocrine disruptors should be emulated.⁴⁴

³⁹ P. Grandjean and P.J. Landrigan, "Developmental Neurotoxicity of Industrial Chemicals," *Lancet* 368, 9553 (2006): 2167–78.

⁴⁰ P. Grandjean and P.J. Landrigan, "Neurobehavioural Effects of Developmental Toxicity," *Lancet Neurology* 13, 3 (2014): 330–38.

⁴¹ A. Bergman, J.J. Heindel, S. Jobling, K.A. Kidd, and R.T. Zoeller, *State of the Science: Endocrine Disrupting Chemicals 2012: Summary for Policymakers* (Geneva: UN Environmental Programme/World Health Organization, 2013).

⁴² L.N. Vandenberg, T. Colborn, T.B. Hayes, et al., "Hormones and Endocrine-Disrupting Chemicals: Low-Dose Effects and Non-Monotonic Dose Responses," *Endocrine Review* 33, 3 (2012): 378–455.

⁴³ Bergman et al., *State of the Science*.

⁴⁴ For example, see European Commission, *Regulation 358/2014 of 9 April 2014 Amending Annexes II and V to Regulation (EC) No 1223/2009 of the European Parliament and of the Council on Cosmetic Products*.

Prohibit the import of products containing PBDEs

All PBDEs should be designated for virtual elimination under *CEPA 1999* in order to protect human health and the environment. Regulations already prohibit the manufacture, import, and sale of PBDEs. However, Canada lags behind the EU and other jurisdictions that restrict or prohibit the import of products containing PBDEs. Canada could become a dumping ground for these consumer products, which will then provide decades of damaging and unnecessary exposure.

Prohibit the manufacturing, import, sale, and use of all PFCs in Canada

Canada should replace the current piecemeal approach to regulating PFCs with a regulation that prohibits the manufacturing, import, sale, and use of all PFCs, including perfluorooctanoic acid (PFCA), perfluorooctane sulphonate (PFOS), and their precursors. There are safer alternatives for all of these hazardous chemicals.

Eliminate the use of hazardous phthalates

Canada should emulate the European Union and phase out all uses of butylbenzyl phthalate (BBP), dibutyl phthalate (DBP), diisodecyl phthalate (DIDP), and DEHP. While the use of DEHP in children's products was banned by Canada in 2010, its continued use in a wide range of applications, from food packaging to medical devices, can no longer be justified.

D. Precautionary Principle

Recommendations

8. Amend *CEPA 1999* (Part 5: Controlling Toxic Substances) to require a hazard-based approach for a subset of toxic substances that are of very high concern. For these substances, the presumption will be that the manufacture, import, sale, or use of such a substance will not be permitted in Canada unless industry can provide proof of its safety and that there are no feasible alternatives. This is the approach used in the European Union for substances of very high concern.⁴⁵

9. Amend *CEPA 1999* to suspend the import, export, manufacturing, and sale of substances and products containing substances banned by other member nations of the Organization for Economic Cooperation and Development (OECD), pending review by the Ministers of Health and Environment.

10. Amend s. 75 of *CEPA 1999* to enable any person to trigger a special review of toxic substances that have been severely restricted or prohibited in other member nations of the Organization for Economic Cooperation and Development but are not severely restricted or prohibited in Canada.

⁴⁵ Substances on the EU's REACH Substances of Very High Concern list are:

- substances meeting the criteria for classification as carcinogenic, mutagenic or toxic to reproduction (CMR) category 1 or 2;
- persistent, bio-accumulative and toxic (PBT) substances; or
- very persistent and very bio-accumulative (vPvB) substances;

substances for which there is evidence for similar concern, such as endocrine disruptors

The precautionary principle means that “where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.”⁴⁶ Although already incorporated into *CEPA 1999* (ss. 2, 6, and 76), implementation has not yet lived up to aspiration.⁴⁷ New chemicals and technologies continue to be created and become widely used before their potentially harmful effects on human health and the environment are adequately studied or understood.⁴⁸ Because it is often challenging to reach definitive conclusions about environmental impacts on human health, the application of the precautionary principle is particularly critical for substances of very high concern due to their known properties or similarities with other toxic substances.

Under Part 5 of *CEPA 1999*, the current approach is that substances are innocent until proven guilty. The Government of Canada bears the burden of proof in establishing that a substance meets the definition of toxic, which is a prerequisite to listing on Schedule 1 and the creation of risk management tools. For a selected subset of substances, the elevated risks merit a more precautionary process, using what is known as the hazard-based approach. The European Union’s REACH legislation identifies substances in the following categories as very high concern substances:

- carcinogenic, mutagenic, and toxic to reproduction;
- very persistent and very bioaccumulative;
- persistent, bioaccumulative and toxic; and
- endocrine disrupting.⁴⁹

Using the hazard-based approach means that substances in these categories are prohibited unless industry can provide the government with adequate certainty in two regards—that the substance can be used safely in specific applications and that there are no feasible substitutes. In effect, the burden of proof is reversed for substances of very high concern. This approach is by its very nature more precautionary, as demonstrated by stronger outcomes in the EU for many substances ranging from asbestos and some phthalates to PBDEs and many endocrine disrupting chemicals. Substances that do not fall into the very high

⁴⁶ “Bergen Ministerial Declaration on Sustainable Development,” *Yearbook on International Environmental Law* 1 (1990): 429-31. Endorsed by the Supreme Court of Canada: *114957 Canada Ltee (Spraytech, Societe d’arrosage) v. Town of Hudson* (2001), 40 C.E.L.R. (N.S.) 1 (S.C.C.).

⁴⁷ *Canadian Environmental Protection Act, 1999*, S.C. 1999, c. 33, s. 2(1)(a); *Canada Oceans Act*, S.C. 1996, c. 31, Preamble; *Canada Species at Risk Act*, S.C. 2002, c. 29, Preamble and s. 38; *New Brunswick Clean Air Act*, S.N.B. 1997, c. C-5.2, s. 2(h); *Nova Scotia Endangered Species Act*, S.N.S. 1998, c. 11, ss. 2(1)(h) and 11(1); *Nunavut Wildlife Act*, S.Nu. 2003, c. 26, ss. 1(2)(e), 130(3), 132(1)(e), 132(2), and 134(2)(b).

⁴⁸ European Environment Agency, *Late Lessons from Early Warnings 1898–1998* (Copenhagen: European Environment Agency, 2002).

⁴⁹ Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). <https://echa.europa.eu/regulations/reach/legislation>

concern categories would be subject to the existing CEPA assessment and risk management process. In both processes, industry continues to provide data on health and environmental effects, while government retains the role of evaluating that information and making regulatory decisions.

Section 75 of *CEPA 1999* created a mechanism that was intended to ensure that Canada kept pace with other wealthy industrialized nations in terms of actions to restrict or prohibit the manufacture, import, export, use, and sale of toxic substances and products containing toxic substances. However this mechanism has not been adequately implemented, as is obvious from the ongoing manufacture, import, export, use, and sale of toxic substances in Canada that are restricted or prohibited in other OECD countries. Prominent examples include asbestos, PBDEs, some phthalates, triclosan, and many additional endocrine-disrupting substances.

Section 75 could be strengthened in two ways. First, it could incorporate a rebuttable presumption that a substance or product banned in one or more member nations of the OECD should be subject to an interim ban in Canada, pending a review by the Ministers of Health and Environment. If sufficient information was provided by industry to convince the Ministers that safe uses are possible, then the interim restrictions would be modified accordingly.

A second improvement to s. 75 would involve empowering the public to trigger special reviews of toxic substances severely restricted or prohibited in other OECD nations. This amendment should specify the information to be provided, the timeline for the Ministers to respond, and the options available to the Ministers in responding. For example:

75A. (1) Any person can submit a request for a special review of any toxic substance that could result in harm to human health and/or the environment by sending the following information to the Ministers

(a) the name and address of the applicant;

(b) the specific toxic substance whose manufacture, import, export, use, and sale has been severely restricted or prohibited by another nation or nations belonging to the Organization for Economic Cooperation and Development;

(c) details regarding the adverse health and environmental impacts and the restrictions or prohibitions imposed; and

(d) in concise form, any other evidence supporting the applicant's request.

(2) The Ministers shall analyze the request and, within ninety days, determine whether Canada should adopt the restrictions or prohibitions on the manufacture, import, export, use, and sale of a toxic substance implemented by another nation or nations belonging to the Organization for Economic Cooperation and Development.

(3) The Minister shall either:

(a) publish a plan for adopting, in whole or in part, the restrictions or prohibitions on the manufacture, import, export, use, and sale of a toxic substance implemented by another nation or nations belonging to the Organization for Economic Cooperation and Development, or

(b) publish a response on the CEPA Registry explaining why the Government of Canada will not adopt the restrictions or prohibitions.

(4) The plan to adopt, in whole or in part, the restrictions or prohibitions on the manufacture, import, export, use, and sale of a toxic substance implemented by

another nation or nations belonging to the Organization for Economic Cooperation and Development must be implemented within two years from the date it is published. (5) In extenuating circumstances, the Minister may extend the timeline for implementing the plan to restrict or prohibit the manufacture, import, export, use, and sale of a toxic substance implemented by another nation or nations belonging to the Organization for Economic Cooperation and Development for a maximum of one year by publishing a progress report and reasons for the delay on the CEPA Registry.

E. The Right to a Healthy Environment

Recommendations

11. Amend *CEPA 1999* to fulfill the law's original intent to include the right to a healthy environment, including clean air, safe food and drinking water, a stable climate, a non-toxic environment, and flourishing biodiversity.

12. Amend *CEPA 1999* to strengthen provisions related to access to information, public participation in decision-making, and access to justice. This should include publication every five years of a comprehensive state of the environment report.

13. Amend *CEPA 1999* to include the public's "right-to-know" about chemicals in consumer products and require mandatory hazard labeling of all products containing toxic substances.

Context

Since its original articulation in the 1972 *Stockholm Declaration*, the right to a healthy environment has spread more widely around the world than any other human right.⁵⁰ Of the 193 UN member nations, 100 have constitutions that recognize the right to a healthy environment. An additional 12 have recognized an implicit right to a healthy environment through decisions of their Constitutional or Supreme Court.⁵¹ Regional treaties including this right have been ratified by at least 120 nations.⁵² The right to a healthy environment is articulated in legislation in more than 100 countries.⁵³ When one adds together nations whose constitutions, treaty obligations, environmental laws, or court decisions recognize the right to a healthy environment, then 94 percent of UN nations (181 out of 193) recognize the right to a healthy environment.⁵⁴ In some of these countries this right is more aspirational than enforceable (e.g. in sub-Saharan Africa). But throughout Europe,

⁵⁰ Law and Versteeg (2012, 2011).

⁵¹ Boyd, 2011, RECIEL

⁵² *African Charter*, 52 nations; *Aarhus Convention*, 43 (not including the UK); *San Salvador Protocol*, 16; and *Arab Charter*, 10 (includes 3 nations that have also ratified the *African Charter*).

⁵³ D.R. Boyd. 2012. *The Right to a Healthy Environment: Revitalizing Canada's Constitution*. Vancouver: UBC Press.

⁵⁴ Boyd (2012) *The Right to a Healthy Environment: Revitalizing Canada's Constitution*. UBC Press.

Latin America and parts of Asia, genuine efforts, and in some cases, impressive progress, are being made. Canada, remarkably, is one of the 12 nations that do not yet recognize the right to a healthy environment, along with the United States and several countries not renowned for their environmental or human rights records, such as North Korea, China, Oman and Afghanistan.

There is a substantial body of evidence demonstrating that acknowledging environmental rights and responsibilities leads to improved environmental performance while catalyzing innovation and bolstering economic resilience. For example, countries recognizing their citizens' right to a healthy environment have reduced air pollution faster, reduced greenhouse gas emissions faster, and perform better on broad indices of environmental performance than nations that do not recognize this right.⁵⁵

In response to the unprecedented emphasis on human rights approaches to environmental protection in recent years, the UN's Human Rights Council appointed an Independent Expert on human rights and the environment, Professor John Knox, in 2012.⁵⁶ A series of reports by the UN's Independent Expert have clarified the substantive and procedural obligations facing governments in the context of human rights and the environment. The substantive duties require "States to adopt legal and institutional frameworks that protect against environmental harm that interferes with the enjoyment of human rights, including harm caused by private actors."⁵⁷ The procedural duties require "States to assess environmental impacts on human rights and to make environmental information public, to facilitate participation in environmental decision-making, and to provide access to effective remedies."

In addition to international law, the other reasons why legal recognition of environmental rights and responsibilities is imperative for Canada's future well-being include:

1. Environmental protection has evolved into a fundamental value held by the overwhelming majority of Canadians. Nine out of ten Canadians believe governments should recognize their right to live in a healthy environment.⁵⁸

⁵⁵ D.R. Boyd. 2012. *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights, and the Environment*. Vancouver: UBC Press. C. Jeffords and L. Minkler. 2016. "Do Constitutions Matter? The Effects of Constitutional Environmental Rights Provisions on Environmental Performance," *Kyklos*, 69, 2: 295-334.

⁵⁶ UN Human Rights Council, *Resolution 19/10: Human Rights and the Environment*, (2012), A/HRC/RES/19/10. In 2015, the mandate was renewed as a Special Rapporteur on human rights and the environment. See <www.ieenvironment.org>.

⁵⁷ UN Independent Expert on Human Rights and the Environment, *Compilation of Good Practices*, UN Doc A/HRC/28/61 (2015), p 3. For additional details on each identified good practice, see <http://www.ohchr.org/EN/Issues/Environment/IEEnvironment/Pages/GoodPracticesCategories.aspx>

⁵⁸ Angus Reid/Vision Critical poll. 2012. Study prepared for the David Suzuki Foundation.

2. There is an urgent need to improve Canada's poor environmental performance.⁵⁹
3. It is vital to protect Canadians' health from environmental hazards such as air pollution, contaminated food and water, and toxic chemicals.⁶⁰
4. Environmental rights and responsibilities are fundamental elements of Indigenous law, and acknowledging them would mark an important step in the ongoing project of achieving reconciliation with Aboriginal people.⁶¹

Historical Background

In 1981, the late Liberal MP Charles Caccia brought a private member's motion for a federal environmental bill of rights.⁶² Members of all parties expressed support for the motion, including then environment minister John Roberts (Liberal) and future environment minister Tom McMillan (Progressive Conservative). In response to Caccia's environmental bill of rights motion in 1981, McMillan stated that "I think we do indeed need a bill of environmental rights which, among other things, would state clearly and explicitly that the citizen has the right to a healthy environment, that government has an obligation to protect the environment ... and that government's first priority in accepting or rejecting any proposal must be the protection of the public interest as far as environmental matters are concerned."⁶³ Caccia's motion went nowhere, like most efforts advanced by backbenchers in Canada's Parliamentary system. McMillan expressed regrets that the Liberal government did not include environmental rights in its constitutional reform package.⁶⁴ He introduced a motion calling on Environment Minister Roberts to "explain fully to the House why the government's bill of rights [the *Charter*], while addressing almost every other subject under the sun, contains not a single reference to environmental rights."⁶⁵

In 1986, Prime Minister Mulroney's Progressive Conservatives promised to enact a comprehensive new law called the Canadian Environmental Protection Act. Environment Minister Tom McMillan claimed it would be the toughest pollution legislation in the western world and would constitute Canada's first environmental bill of rights.⁶⁶ A government report called "The Right to a Healthy Environment"

⁵⁹ Conference Board of Canada. 2016. *How Canada Performs: A Report Card*.

⁶⁰ D.R. Boyd. 2015. *Cleaner, Greener, Healthier: A Prescription for Stronger Canadian Environmental Laws and Policies*. Vancouver: UBC Press.

⁶¹ J. Borrows. 2010. *Canada's Indigenous Constitution*. Toronto: U of T Press.

⁶² Private Member's motion, Charles Caccia, "Establishment of Environmental Bill of Rights," Hansard, July 9, 1981, pp. 11385-89.

⁶³ T. McMillan. 1981. *Commons Debates*, July 9, 1981, p. 11387.

⁶⁴ T. McMillan. 1981. *Commons Debates*, July 9, 1981, p. 11389.

⁶⁵ T. McMillan. 1981. *Commons Debates*, July 10, 1981, p. 11405.

⁶⁶ T. McMillan. 1986. *Commons Debates*, Oct. 10, 1986, pp. 290, 292. T. Vigod and M. Valiante. 1987. *Submission by the Canadian Environmental Law Association and Canadian Environmental Law Research Foundation on the Proposed Federal Environmental Protection Act*. Toronto: Canadian Environmental Law Association, p. 3.

stated that the new law's preamble would acknowledge the right of Canadians to a healthy environment and pledged that the federal government would take a leadership role in establishing national standards for environmental quality.⁶⁷ Public workshops held by Environment Canada indicated a broad consensus on the inclusion of the right to a healthy environment in the new law.⁶⁸

However, when the Progressive Conservatives introduced Bill C-74, the *Canadian Environmental Protection Act (CEPA)* in 1987, it did not include a bill of rights. At least a dozen opposition MPs decried this omission, and expressed support for including an environmental bill of rights in the new *CEPA*.⁶⁹ According to the opposition, the Minister of Environment "promised an environmental bill of rights and instead delivered some elegant prose in the preamble which really has no legal status at all."⁷⁰ NDP MP Nelson Riis asserted that the overwhelming majority of Canadians wanted an environmental bill of rights. Riis said "We all agree that Canadians have the right to a healthy environment. If there is any country in the world that is in a position to provide that, it must be Canada."⁷¹

When the *Canadian Environmental Protection Act* was eventually enacted, in 1988, it included no environmental bill of rights but only very limited procedural rights to request investigations and initiate lawsuits. Despite the failure to include an environmental bill of rights in *CEPA*, the concept continued to have champions. While in opposition in the early 1990s, the federal Liberal Party promised to introduce an Environmental Bill of Rights that would guarantee citizens the right to a healthy environment, the opportunity to participate in decision-making and the power to use the courts to ensure that federal environmental laws are obeyed and enforced.⁷² In a document authored by future Prime Minister Paul Martin, the Liberal Party stated:

As we reform the economy from an environmental perspective, so must we do for the legal system. At present, the legal system in Canada discourages citizens from bringing lawsuits in the public interest against polluters to make them accountable for the damages they cause. This can be remedied by legislating an

⁶⁷ T. McMillan. 1986. *The Right to a Healthy Environment: An Overview of the Proposed Environmental Protection Act*. Ottawa: Environment Canada, pp. 16, 25.

⁶⁸ Environment Canada. 1987. *Summary of Workshops: Draft Environmental Protection Act*. Ottawa: Environment Canada.

⁶⁹ N.A. Riis. 1987. *Commons Debates*, Sept. 17, 1987, p. 9054. L. McDonald. 1987. *Commons Debates*, Sept. 17, 1987, p. 9022. R. Skelly. 1987. *Commons Debates*, Sept. 24, 1987, p. 9313. C. Keeper. 1987. *Commons Debates*, Sept. 25, 1987, p. 9350. J. Manly. 1987. *Commons Debates*, Oct. 23, 1987, p. 10336. D. Berger. 1987. *Commons Debates*, Sept. 17, 1987, p. 9061. A. McLaughlin. 1987. *Commons Debates*, Sept. 17, 1987, p. 9062. S. Copps. 1987. *Commons Debates*, Sept. 17, 1987, p. 9070. I. Waddell. 1988. *Commons Debates*, April 20, 1988, p. 14658. S. Langdon. 1988. *Commons Debates*, May 2, 1988, p. 15006. D. Heaps. *Commons Debates*, May 4, 1988, p. 15135.

⁷⁰ W. Rompkey. 1987. *Commons Debates*, Sept. 25, 1997, p. 9325.

⁷¹ N. Riis. 1988. *Commons Debates*, May 5, 1988, p. 15148.

⁷² Martin (1992).

Environmental Bill of Rights that entitles Canadians to a healthy environment by guaranteeing:

- the right to use courts to ensure that federal environmental laws are properly obeyed and enforced; and
- the right to participate fully in the federal government's environmental decision-making.⁷³

In 1993, Liberal MP Ethel Blondin put forward a motion urging the government to “develop a comprehensive environmental *Charter* of rights.”⁷⁴ In its policy platform for the federal election released later in 1993, *Creating Opportunity: The Liberal Plan for Canada*, the Liberal party recognized “Individual Canadians are far ahead of their governments in their desire for environmental protection... A new Liberal government will build on this public awareness and give individuals new tools to protect the environment and to participate in environmental decision-making.”⁷⁵ The document also endorsed the proposal for a legal right to sue those breaking environmental laws. In 1995, the House of Commons Standing Committee on Environment and Sustainable Development recommended that “the Government of Canada develop comprehensive federal legislation respecting the environmental rights of Canadians and Canadian workers.”⁷⁶

Recently before Parliament was private member’s Bill C-469, the *Canadian Environmental Bill of Rights*, which included explicit recognition of the right to a healthy environment.⁷⁷ The *Canadian Environmental Bill of Rights* was drafted by lawyers from Ecojustice on behalf of Friends of the Earth and the Sierra Club of Canada in 2008 and introduced by NDP MP Linda Duncan in 2009. In 2010, with opposition parties out-voting the government, the *Canadian Environmental Bill of Rights* passed second reading and was referred to the House of Commons Standing Committee on Environment and Sustainable Development for review. After hearing from many witnesses, the committee modified Bill C-469 and returned it to the House for third reading in February 2011. However, the bill died on the order paper when Parliament was dissolved for the election in May 2011.

In Quebec, Ontario, the Yukon, the Northwest Territories, and Nunavut, citizens are protected by environmental rights set forth in legislation:

- Quebec included the right in its *Environmental Quality Act* in 1978 and more recently in its provincial *Charter of Human Rights and Freedoms* (2006).
- Ontario passed the *Environmental Bill of Rights* in 1993.
- The Yukon included the right in the *Environment Act* in 1991.
- The NWT passed its *Environmental Rights Act* in 1988.
- Nunavut adopted all of the NWT’s legislation, including the *Environmental Rights Act*, when it became a territory in 1999.

⁷³ Martin (1992).

⁷⁴ E. Blondin. 1993. Commons Debates, Feb. 19, 1993, p. 16235-38.

⁷⁵ Liberal Party of Canada (1993, 68).

⁷⁶ House of Commons Standing Committee on Environment and Sustainable Development (1995, 235).

⁷⁷ Boyd (2010).

It is worth noting that Quebec and Ontario, the only two provinces that recognize the environmental rights of their citizens, are the highest ranked provinces in the Conference Board of Canada's environmental performance rankings.

Based on best practices in Canada and around the world, the following wording is recommended for incorporating environmental rights and responsibilities into the revised CEPA:

Environmental Rights

(1) Everyone has the right to live in a healthy and ecologically balanced environment, including access to clean air, safe water, fertile soil, nutritious food, a stable climate, non-toxic environments, and flourishing biodiversity

(2) Everyone has the right to:

(a) free, timely, and useful environmental information, including information about toxic substances contained in consumer products, toxic substances used in industrial processes, and releases of toxic substances in their communities;

(b) effective mechanisms for participating in environmental decision making; and

(c) fair, fast, and affordable judicial and administrative processes to prevent or remedy violations of their environmental rights.⁷⁸

(3) Everyone has the right to environmental standards that are as strong or stronger than the environmental standards enjoyed by citizens of other nations in the Organization for Economic Cooperation and Development.⁷⁹

Environmental Responsibilities

(1) Everyone has the responsibility to make best efforts to protect, conserve, and where possible, restore the environment.

(2) The Government of Canada is a trustee responsible for protecting, conserving, and restoring the environment within its jurisdiction as a public trust, for the benefit of present and future generations.

(3) The Government of Canada must, within its jurisdiction, protect the right of every resident of Canada to a healthy and ecologically balanced environment.

(4) The Government of Canada must complete a national environmental health inequality assessment to comprehensively identify current environmental injustices.⁸⁰

⁷⁸ These provisions are drawn from the *Aarhus Convention on Access to Information, Public Participation in Decision Making, and Access to Justice in Environmental Matters*, 1998, 38 ILM 515.

⁷⁹ See s. 17(2) of the *Pest Control Products Act*, S.C. 2002, c. 28, for a specific example of the implementation of this principle.

⁸⁰ Recommended by the World Health Organization. WHO (Regional Office for Europe). 2012. *Environmental Health Inequalities in Europe: An Assessment*. Copenhagen: WHO.

Require mandatory labeling of all products containing toxic substances

CEPA 1999 also should be amended to require mandatory hazard labeling of all consumer products (including food) containing substances known or suspected of causing adverse health effects including cancer, birth defects, or reproductive harm. Similar labeling requirements already exist in Europe and California.⁸¹ A key element of the EU's labeling rules is the adoption of the UN's Globally Harmonised System of Classification and Labeling of Chemicals. In 2006, the Canadian Strategy for Cancer Control recommended legislation requiring full disclosure of all known and probable carcinogens in consumer products.⁸²

F. World-class Standards

Recommendation

14. Amend *CEPA 1999* to ensure that Canadians are protected by environmental standards that are as strong as the standards in other OECD nations.

15. Amend *CEPA 1999* to require Ministers to establish, within a specified timeframe, legally binding and enforceable national standards for air quality and drinking water that are as strong as the standards in other OECD nations.

16. Add a new section to Part 2 of *CEPA 1999* (Public Participation) to enable any person to compel the Ministers to review any federal Act, statutory instrument, or policy alleged to be weaker than a similar measure in force in in another OECD nation or nations.

Canadians agree that Canada should have world-class environmental standards. Indeed, the Government of Canada often claims that Canadians already enjoy world-class environmental standards. Unfortunately, peer-reviewed analysis reveals that this is not the case. A recent and comprehensive comparison of Canadian laws and policies governing air quality (outdoor and indoor), drinking water safety, pesticides, and toxic substances with the relevant rules in the US, Australia, and Europe demonstrated that Canada's laws and policies are consistently and substantially weaker than those of our industrialized peers. This indicates that governments and industry are treating Canadians as second-class citizens, causing unnecessary and unjustifiable risks for human health and the environment.

⁸¹ See California's *Safe Drinking Water and Toxic Enforcement Act of 1986*, also known as Proposition 65, which requires businesses to provide clear information to consumers about substances known to the state to cause cancer, birth defects or reproductive harm. See also the EU's 2009 *Regulation on the Classification, Labeling and Packaging of Substances and Mixtures* ("CLP Regulation") sets out labeling requirements for almost all consumer products.

⁸² Canadian Strategy for Cancer Control, National Committee on Environmental and Occupational Exposures, *Prevention of Occupational and Environmental Cancers in Canada: A Best Practices Review and Recommendations* (2006), http://s.cela.ca/files/uploads/BPReport_Final_May2006.pdf.

Air Quality

For example, Canada is the only western industrialized nation without legally binding and enforceable national air quality standards.⁸³ Instead we have voluntary guidelines, and these national guidelines are very weak. Canadian guidelines for particulate matter, ozone, sulphur dioxide and nitrogen oxides are weaker than either European, Australian, or American standards (see Table 2). For example, the sulphur dioxide standard in the US (75 parts per billion) is more than four times stronger than Canada's guideline (334 ppb). Canada does not even have voluntary guidelines for some air toxics for which the EU and US have binding legal standards, including arsenic, benzene, cadmium, and polycyclic aromatic hydrocarbons.

Table 2
International comparison of ambient air quality standards and guidelines⁸⁴

Pollutant	Canada	EU	US	Australia	WHO
Ozone ¹	63	60	75	80	50
Fine particulate ²	28	–	35	25	25
Sulphur dioxide ³	115	48	–	80	8
Sulphur dioxide ⁴	334	132	75	200	–
Nitrogen dioxide ⁵	53	21	53	30	21
Nitrogen dioxide ¹	213	105	100	120	105
Carbon monoxide ⁶	13	9	9	9	9
Lead ⁷	–	0.5	1.5	0.15	0.5

Note: A dash (–) indicates that no standard or guideline has been established.

1 8 hours, parts per billion

2 24 hours, micrograms per cubic metre

3 24 hours, parts per billion

4 1 hour, parts per billion

5 Annual, parts per billion

6 8 hours, parts per million

7 Micrograms per cubic metre, averaged over one year (the United States is more stringent, using a three-month average)

For each of the six criteria air pollutants, there is at least one jurisdiction, and as many as all three other jurisdictions, that have more stringent outdoor air quality standards than Canada. Canada does not have the highest level of health protection

⁸³ Health Canada referred to new and improved Canadian Ambient Air Quality Standards. This is misleading, as these are voluntary guidelines rather than enforceable standards. Testimony of John Cooper, March 8, 2016.

⁸⁴ *Sources:* Canada – Canadian Ambient Air Quality Standards are established by the Canadian Council of Ministers of the Environment (<http://www.ccme.ca>); National Ambient Air Quality Objectives are jointly set by Health Canada and Environment Canada (<http://www.hc-sc.gc.ca> and <http://www.ec.gc.ca>).

for any of the air pollutants. Finally, Canada is the only jurisdiction that has no guideline at all for ambient levels of lead despite the fact that lead is one of the most universally acknowledged environmental threats. There seems to be a pattern of Canadian foot-dragging in response to the threat of lead to children's health. Canada was slow to prohibit the use of lead as a gasoline additive, slow to restrict the use of lead in paint, and slow to restrict lead content in children's jewellery.⁸⁵

Drinking Water

Turning to drinking water, Canada again relies on voluntary national guidelines, which are incorporated into law in some but not all provinces and territories, leading to a patchwork quilt of uneven protection. The lack of enforceable national standards, which puts us behind the United States and the European Union and at odds with the recommendations of both the WHO and the Walkerton Inquiry. Another problem is that in terms of setting maximum allowable concentrations (MACs) for chemical and radiological contaminants, the voluntary Guidelines for Canadian Drinking Water Quality are substantially weaker than the standards set by the United States and the European Union, the Australian guidelines, and the WHO recommendations. Out of sixty-five chemical contaminants, Canada has weaker drinking water quality guidelines than at least one other jurisdiction or the WHO recommendation for more than 80% of these substances (53 out of 65). In some cases, the Canadian guideline is 50, 100, or even 1,000 times weaker than the corresponding European standard.

Toxic Substances

In regulating toxic substances, Canada generally lags behind world leaders. The European Union has the strongest laws and regulations governing asbestos (along with Australia), PBDEs, PFCs (along with Canada), phthalates, and formaldehyde. A petition filed with the federal Commissioner of the Environment and Sustainable Development in 2014 by Ecojustice and the Canadian Environmental Law Association identified twenty-two toxic substances that were banned in the European Union under the EU's REACH legislation but are still used in Canada, including musk xylene, 4,4'-diaminodiphenylmethane (MDA), three phthalates (BBP, DBP, and DIBP), and 2,4-dinitrotoluene (2,4-DNT), reinforcing the evidence that Canada is failing to keep pace with the world leaders in regulating health threats from toxic substances.⁸⁶

Asbestos is completely banned in more than fifty countries including the entire European Union, Australia, Japan, Singapore, Turkey, South Korea, and New Zealand. Canada and the United States restrict asbestos use to some degree, but allow it in a surprising number of products, based on the untenable belief that it can

⁸⁵ Canadian Environmental Law Association and Ontario College of Family Physicians, *Environmental Standard Setting and Children's Health* (Toronto: CELA/Ontario College of Family Physicians, 2000).

⁸⁶ Ecojustice and Canadian Environmental Law Association, "Petition to the Commissioner of Environment and Sustainable Development: Implementation of CEPA 1999, s. 75(3) and EU REACH" (April 15, 2014).

be used safely. The export of asbestos from Canada is still permitted, although no asbestos mines are operating at present. According to Statistics Canada, asbestos imports are rising.

Europe leads the world in regulating the health threats posed by phthalates, particularly DEHP, and in prohibiting the use of DEHP in toys and other children's articles, cosmetics, packaging, and most consumer products. Canada prohibits the use of DEHP in a narrower range of products, including cosmetics, toys, and other children's articles. The European Union is also a leader in regulating formaldehyde, ranging from cosmetics to composite wood products. Canada regulates formaldehyde from vehicle emissions and in cosmetics but not in wood products.

Achieving World-Class Standards

It is time for Canada to adopt legally binding national standards for air quality and drinking water safety. While air and water quality are generally good in Canada, the creation of national standards will ensure that all Canadians have access to these essential amenities. The greatest benefits would be reaped by those living in regions with the worst air quality and the most contaminated water. Under the US Clean Air Act, non-attainment of federal air quality standards triggers a requirement for the development of State Implementation Plans, which are approved by the federal Environmental Protection Agency, who then monitors progress. A failure to develop or successfully implement these plans can lead to the loss of specified federal funds in cases of persistent non-compliance. This system has led to remarkable progress in reducing exposure to fine particulate matter and other pollutants in cities and regions that previously suffered from the dirtiest air in the United States.

To provide a process enabling citizens to contribute to the development of world-class environmental standards for Canada, a mechanism should be created through which members of the public can spur a review of an existing Canadian Act, statutory instrument, or policy that is intended to protect the environment. A person would be empowered to provide evidence that there are stronger provisions in force in another OECD nation. The Commissioner of Environment and Sustainable Development would review the citizen's request to determine if it is well-grounded and if so, would forward the request to the Minister. The Minister, within a defined time period, would then either publish a plan for strengthening the Canadian Act, statutory instrument, or policy, or publish (on the CEPA Registry) an explanation for refusing to do so.

The following wording illustrates the intended process for enabling citizens to hold governments accountable for pledges of world-class standards:

(1) Any person can submit a request for a special review of any Act, statutory instrument, or policy that is intended to protect the environment or that could result in harm to the environment by sending the following information to the Commissioner of Environment and Sustainable Development

(a) the name and address of the applicant;

(b) the specific Act, statutory instrument, or policy alleged to be weaker than similar Act, statutory instrument, or policy in force in another nation or nations belonging to the Organization for Economic Cooperation and Development;

- (c) details regarding the relative weakness of the specified Canadian Act, statutory instrument, or policy; and*
- (d) in concise form, the evidence supporting the applicant's request.*
- (2) The Commissioner shall analyze the request and, within 30 days, determine whether a Canadian Act, statutory instrument, or policy is weaker than a similar Act, statutory instrument, or policy in another nation or nations belonging to the Organization for Economic Cooperation and Development.*
- (3) The Commissioner shall communicate this finding to the Minister and the party requesting the review and post the analysis on the Environmental Registry.*
- (4) The Minister shall review the Commissioner's determination and, within ninety days,*
- (a) publish a plan on the Environmental Registry for strengthening the Canadian Act, statutory instrument, or policy to meet or exceed the similar Act, statutory instrument, or policy in another nation or nations belonging to the Organization for Economic Cooperation and Development, or*
- (b) publish a response on the Environmental Registry explaining why the Government of Canada will not strengthen the Canadian Act, statutory instrument, or policy.*
- (5) The plan to strengthen the Canadian Act, statutory instrument, or policy must be completed within two years.*
- (6) In extenuating circumstances, the Minister may extend the timeline for strengthening the Canadian Act, statutory instrument, or policy by a maximum of one year by publishing a progress report and reasons for the delay on the Environmental Registry.*

G. Environmental Justice

Recommendations

17. S. 2(1) of *CEPA 1999* should require that the Government of Canada take steps to protect vulnerable and marginalized populations when establishing priorities, assessing health and environmental impacts, developing regulations, standards, guidelines, pollution prevention plans, and other measures intended to protect human and ecosystem health. This should include a definition of vulnerable populations.

18. *CEPA 1999* should require that the Ministers complete a national environmental health inequality assessment to comprehensively identify current pollution hotspots and environmental injustices as well as measures to both alleviate those injustices and prevent future injustices (as recommended by the World Health Organization). This assessment must include cumulative effects and must be updated periodically.

* See also the comprehensive and thoughtful recommendations regarding environmental justice made by the Canadian Environmental Law Association in a letter to the Standing Committee dated June 16, 2016

Environmental injustices can take many forms, both substantive and procedural. A huge body of evidence demonstrates that major point sources of industrial pollution and concentrations of industrial polluters (pollution hotspots)—chemical factories, landfill sites, pulp mills, contaminated sites, refineries, and so on—are more likely to be located in communities that are poor and/or populated by visible minorities. These neighbourhoods also suffer adverse effects related to noise, traffic, contaminated soil, odours, fewer amenities, and poorer-quality housing.⁸⁷ Nonpoint source pollution—from vehicles, urban runoff, and agricultural activities—is also inequitably distributed.⁸⁸ For example, low-income communities are more likely to be located beside highways and other busy roads. In urban settings, the proportion of green spaces and the tree canopy are consistently higher in wealthier communities.⁸⁹ There is also compelling evidence that environmental damage caused by the exploitation of natural resources has had, and continues to have, extensive negative health effects on Indigenous peoples.⁹⁰

An additional problem is that populations exposed to a greater proportion of environmental hazards may be more vulnerable to those hazards because their health status is already compromised. This double jeopardy could be due to poverty, poor diet, stress, or other social, psychological, and physical factors. Triple jeopardy may arise when these vulnerable populations, disproportionately exposed to environmental hazards or deprived of environmental amenities, lack access to or are underserved by the health care system.

Vulnerable and marginalized populations in Canada bear a disproportionate burden of environmental harms, are more likely to reside near pollution hotspots, and often lack access to environmental goods and services such as public green spaces and safe drinking water.⁹¹ Indigenous people in all regions of Canada—Kitimat BC, Fort McKay in Alberta, and Sarnia, Ontario—have been and continue to be exposed to elevated levels of air pollution. The ongoing public health disaster at the Aamjiwnaang reserve near Sarnia has been described as “a particularly distressing example of the failure of our regulatory system to uphold environmental justice.”⁹² Indigenous communities that rely on traditional diets are vulnerable to

⁸⁷ S.A. Perlin, K. Sexton, and D.W.S. Wong, “An Examination of Race and Poverty for Populations Living near Industrial Sources of Air Pollution,” *Journal of Exposure Science and Environmental Epidemiology* 9 (1999): 29–48.

⁸⁸ R. McConnell, K. Berhane, L. Yao, M. Jerrett, et al., “Traffic, Susceptibility, and Childhood Asthma,” *Environmental Health Perspectives* 114, 5 (2006): 766–72.

⁸⁹ T.R. Tooke, B. Klinkenberg, and N.C. Coops, “A Geographical Approach to Identifying Vegetation-Related Environmental Equity in Canadian Cities,” *Environment and Planning B: Planning and Design* 37, 6 (2010): 1040–56.

⁹⁰ L. Westra, *Environmental Justice and the Rights of Indigenous Peoples* (London: Earthscan, 2008).

⁹¹ C. Dhillon and M.G. Young, “Environmental Racism and First Nations: A Call for Socially Just Public Policy Development,” *Canadian Journal of Humanities and Social Sciences* 1, 1 (2010): 23–37.

⁹² S. Sabzwari and D.N. Scott, “The Quest for Environmental Justice on a Canadian Aboriginal Reserve,” in *Poverty Alleviation and Environmental Law*, ed. Y. Le

mercury and other contaminants in fish and wildlife. For example, the Indigenous community of Fort Chipewyan, located near the tar sands projects in Alberta, appears to be experiencing disproportionate levels of cancer, and studies have identified high levels of contaminants in their traditional foods, including fish and moose.⁹³ Northern Aboriginals, particularly Inuit eating a traditional diet, have body burdens of toxic chemicals that threaten both their health and the health of their children.⁹⁴ For example, 73 percent of Inuit mothers have PCBs in their blood at concentrations that exceed Health Canada's level of concern, as well as oxychlordan and trans-nonachlor concentrations (from pesticides) that are six to twelve times higher than other Canadian mothers.⁹⁵

It is important to recognize that environmental injustice in Canada is not limited to Indigenous peoples. A striking example is that 1 in 4 low-income Canadians lives less than 1km from a major source of industrial air pollution, resulting in elevated rates of hospitalization for cardiovascular and respiratory disease.⁹⁶ Canadians with lower socio-economic status are much more likely to live near roads with high traffic density, increasing their risks of heart disease, lung disease, and cancer.⁹⁷ The steel- and coal-producing communities of Cape Breton County in Nova Scotia are both socio-economically disadvantaged and among the most polluted areas in North America. Cancer rates in the steel-producing communities, and respiratory diseases and lung cancers in the coal-producing regions, are far above national averages.⁹⁸ It was first reported in 1977 that low-income neighbourhoods in Hamilton suffer a disproportionate amount of air pollution.⁹⁹ A recent study from Toronto suggests that both visible minorities and communities with low socio-economic status "are disproportionately located near

Bouthillier, M.A. Cohen, J.J. Gonzalez Marquez, A Mumma, and S. Smith (Cheltenham, UK: IUCN Academy of Environmental Law/Edward Elgar, 2012), 88.

⁹³ L. Young, "Alberta Report Finds Fort Chipewyan Has Higher Rates of Three Kinds Of Cancer," *Global News*, March 24, 2014, <http://globalnews.ca/news/1227635/alberta-report-finds-fort-chipewyan-has-higher-rates-of-three-kinds-of-cancer/>.

⁹⁴ S.F. Trainor, A. Goduhn, L.K. Duffy, et al., "Environmental Injustice in the Canadian Far North: Persistent Organic Pollutants and Arctic Climate Impacts," in Agyeman et al., *Speaking for Ourselves* (2009), 144–62.

⁹⁵ Indian and Northern Affairs Canada, *Canadian Arctic Contaminants Assessment Report II: Human Health* (Ottawa: INAC, Northern Contaminants Program, 2003).

⁹⁶ Canadian Institute for Health Information, *Urban Physical Environments and Health Inequalities* (Ottawa: CIHI, 2011).

⁹⁷ Canadian Institute for Health Information, *Urban Physical Environments and Health Inequalities* (Ottawa: CIHI, 2011).

⁹⁸ P.J. Veugelers and J.R. Read, "Health Deficiencies in Cape Breton County, Nova Scotia, Canada, 1950–1995," *Epidemiology* 10, 5 (1999): 495–99.

⁹⁹ F. Handy, "Income and Air Pollution in Hamilton, Ontario," *Alternatives* 6 (1977): 18–24.

facilities that release both large quantities and the most harmful pollutants.”¹⁰⁰ These findings were particularly clear for South Asian and Filipino populations.

In the US, progress has been made at both the federal and state levels in addressing the problem of environmental injustice.¹⁰¹ In 1994, President Bill Clinton signed Executive Order 12898, mandating federal actions to address environmental justice in minority and low-income communities. The executive order required that: (1) federal agencies identify disproportionately high and adverse human health or environmental effects on minority and low-income populations that may result from federal government programs, policies, and activities; and (2) the government take action to address such disparities. More specifically, the executive order mandated improved methods of assessing and mitigating the impacts of proposed projects, incorporating health considerations into environmental assessment, collecting data from minority and low-income populations whose health may be disproportionately at risk, and taking into consideration communities that rely on subsistence hunting and fishing.¹⁰²

There is now an Office of Environmental Justice in the US Environmental Protection Agency and a National Environmental Justice Advisory Council. Environmental justice laws have been passed in many states, including Connecticut, Florida, Louisiana, Maryland, and California.¹⁰³ According to surveys published in 2007 and 2010, at least thirty-two states and the District of Columbia have adopted formal environmental justice laws, executive orders, or policies. At least ten additional states either employ full-time environmental justice officers or personnel, or have active environmental justice programs.¹⁰⁴ When announcing new regulations limiting carbon pollution from coal plants in 2014, President Obama noted that “the health issues that we’re talking about hit some communities particularly hard. African-American children are twice as likely to be hospitalized for asthma, four times as likely to die from asthma. Latinos are 30 percent more likely to be hospitalized for asthma. So these proposed standards will help us meet that challenge head on.”¹⁰⁵

¹⁰⁰ S. Kershaw, S. Gower, C. Rinner, and M. Campbell, “Identifying Inequitable Exposure to Toxic Air Pollution in Racialized and Low Income Neighbourhoods to Support Pollution Prevention,” *Geospatial Health* 7, 2 (2013): 274.

¹⁰¹ J. Lester, H. Allan, and K. Hill, *Environmental Injustice in the United States: Myths and Realities* (Boulder, CO: Broadview Press, 2001); W. Bowen, *Environmental Justice: Towards Research-Based Decision-Making* (New York: Garland Press, 2001).

¹⁰² Bullard, *The Quest for Environmental Justice*.

¹⁰³ M.B. Gerrard and S.R. Foster, eds., *The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risk*, 2nd ed. (Chicago: American Bar Association, 2008); S. Bonorris, *Environmental Justice for All: A Fifty State Survey of Legislation, Policies and Cases*, 3rd ed. (Chicago: American Bar Association/Hastings College of the Law, 2007).

¹⁰⁴ Bonorris, *Environmental Justice for All*.

¹⁰⁵ Quoted in B. Mock, “Why Obama’s Carbon Regs Will Help Kids of Color Breathe Easier,” *Grist*, June 3, 2014, <http://grist.org/climate-energy/why-obamas-carbon-regs-will-help-kids-of-color-breathe-easier/>.

The environmental justice paradigm has now spread from the United States to other nations, including the United Kingdom, Australia, South Africa, and Sweden.¹⁰⁶ The World Health Organization published a comprehensive report on environmental health inequalities in Europe.¹⁰⁷

In contrast to the United States and other countries, however, Canadian laws and policies have not yet been revised to take environmental justice considerations into account. The Government of Canada admits “we know that some segments of our population are exposed to unacceptably high levels of environmental pollutants.”¹⁰⁸ Vulnerable groups of Canadians include Indigenous peoples, African Canadians, children, recent immigrants, migrant workers, individuals with compromised immune systems or environmental sensitivities, and people experiencing social and economic disadvantages such as poverty and homelessness. Often these factors operate in combination. For example, authorities have known since the mid-1980s that Ontario children living in poverty are at greater risk of exposure to harmful levels of lead.¹⁰⁹ Aboriginal children in socio-economically disadvantaged communities are exposed to high levels of PCBs, mercury, lead, pesticides, and other harmful contaminants.

Addressing Environmental Injustices in CEPA 1999

To overcome environmental injustices requires the meaningful involvement and fair treatment of all people and communities – regardless of socio-economic status, ethnicity, gender, or age – in the development, implementation, and enforcement of environmental laws, regulations, and policies.¹¹⁰

¹⁰⁶ M. Lloyd-Smith and L. Bell, “Toxic Disputes and the Rise of Environmental Justice in Australia,” *International Journal of Occupational and Environmental Health* 9 (2003): 14–23; L. McCleod, L. Jones, A. Stedman, R. Day, et al., “The Relationship between Socio-Economic Indicators and Air Pollution in England and Wales: Implications for Environmental Justice,” *Regional Environmental Change* 1 (2000): 78–85; R. Haluza-Delay, “Environmental Justice in Canada,” *Local Environment* 12, 6 (2007): 557–64; D.A. McDonald, ed., *Environmental Justice in South Africa* (Cape Town: University of Cape Town Press, 2002); J. Curtice, A. Ellaway, C. Robertson, et al., *Public Attitudes and Environmental Justice in Scotland: A Report for the Scottish Executive on Research to Inform the Development and Evaluation of Environmental Justice Policy* (Edinburgh: Scottish Centre for Social Research, 2005).

¹⁰⁷ World Health Organization (Regional Office for Europe), *Environmental Inequalities in Europe: An Assessment* (Copenhagen: WHO Regional Office for Europe, 2012).

¹⁰⁸ Government of Canada, *Children’s Health and the Environment in North America: A First Report on Available Indicators and Measures. Country Report: Canada* (Gatineau, QC: Environment Canada, 2005), 58.

¹⁰⁹ J. O’Heany, R. Kusiak, C.E. Duncan, et al., “Blood Lead and Associated Risk Factors in Ontario Children,” *Science of the Total Environment* 71, 3 (1988): 477–83.

¹¹⁰ R.D. Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality*, 3rd ed. (Boulder, CO: Westview Press, 2000).

CEPA 1999 should be amended to explicitly require that steps be taken to protect children, pregnant women, people with compromised immune systems, and other vulnerable or marginalized populations when establishing priorities, setting standards, and assessing health and environmental impacts.¹¹¹ Vulnerable and marginalized populations should be defined

As recommended by the World Health Organization, *CEPA 1999* should be amended to require the Government of Canada to complete a national environmental health inequality assessment to comprehensively identify problem areas, followed by laws and policies that improve environmental quality for everyone but provide additional assistance to the most exposed and vulnerable populations.¹¹² *CEPA 1999* should require such an assessment to be updated periodically, perhaps every five to ten years. These assessments must take cumulative health and environmental effects into consideration. The Ministers could appoint an advisory committee under s 7(1) of *CEPA 1999* to oversee the assessment process. In addition, the Canadian Environmental Law Association has provided a comprehensive set of recommendations for addressing environmental justice through *CEPA 1999* in its June 16, 2016 response to questions posed by Committee members.¹¹³

The United States has spent millions on lead abatement programs focused on lead paint hazards in low-income housing. A recent American study concluded: “If we continue to permit children and, by extension, pregnant women to maintain up to 10 µg/dL blood lead level without aggressive intervention to lower exposure, we are still allowing most of the preventable sub-clinical damage to occur.”¹¹⁴ Canada has never made a similar investment in lead abatement, despite the fact that the government estimates that as many as one in four children may be at risk from this environmental hazard. The remediation of lead hazard hotspots where children suffer from elevated blood lead levels (e.g., Trail, BC, and Belledune, New Brunswick) should be a priority.¹¹⁵ The American experience and Health Canada research indicate that the health, environmental, and economic benefits of reducing blood lead levels are likely to be measured in billions of dollars.

¹¹¹ J. Kemm, J. Parry, and S. Palmer, *Health Impact Assessment: Concepts, Theory, Techniques, Applications* (Oxford: Oxford University Press, 2004).

¹¹² World Health Organization (Regional Office for Europe), *Environmental Health Inequalities in Europe: An Assessment* (Copenhagen: WHO Regional Office for Europe, 2012).

¹¹³ J.F. Castrilli and F. de Leon. *CELA Response to Questions Posed by Committee Members at the May 19, 2016 Hearing*. <http://www.cela.ca/publications/2016-cepa-review-cela-response-questions-posed-committee-members-may-19-2016-hearing-an>

¹¹⁴ S.J. Rothenberg and J.C. Rothenberg, “Testing the Dose-Response Specification in Epidemiology: Public Health and Policy Consequences for Lead,” *Environmental Health Perspectives* 113, 9 (2005): 1190–95.

¹¹⁵ S.N. Tsekrekos and I. Buka, “Lead Levels in Canadian Children: Do We Have to Review the Standard?” *Paediatrics and Child Health* 10, 4 (2005): 215–20.

Another environmental justice priority is to improve drinking water quality on Aboriginal reserves. Boil-water advisories in Aboriginal communities are much more common than in non-Aboriginal communities. At any given time, more than a hundred reserves (one in six) face boil-water advisories, many of which drag on for months and even years.¹¹⁶ Although some progress has been made, both in terms of law (the 2013 *Safe Drinking Water for First Nations Act*) and on the ground, Canada needs to accelerate efforts to ensure the provision of adequate drinking water in these communities. Further investments in infrastructure, training, distribution systems, testing, and monitoring are urgently required.

H. Effective Enforcement

Recommendations

19. Amend *CEPA 1999* to enable members of the public to enforce the law using civil actions, with appropriate but not unduly burdensome safeguards.

Even the strongest environmental laws in the world are meaningless if they are not enforced. When the original Canadian Environmental Protection Act was introduced in 1987, Environment Minister Tom McMillan touted it as “the toughest environmental legislation in the western world.”¹¹⁷ One must ask, however, what good a tough environmental law is if it is rarely enforced. The total amount of fines imposed under the *CEPA* in the twenty-three years from 1988 to 2010 was \$2,466,352.¹¹⁸ By comparison, the Toronto Public Library collected more in overdue book fines during a single year (\$3,653,199 in 2012).¹¹⁹ Violations of environmental laws occur every day in Canada. From coast to coast, air is being polluted, water and soil contaminated, and natural habitat destroyed. Yet prosecutions and even administrative penalties are rare. A report published in 2013 revealed that although Alberta Environment recorded more than four thousand violations arising from oil sands pollution between 1996 and 2012, enforcement action was taken in only 0.9 percent of these situations.¹²⁰ Even where action was taken, the median penalty was \$4,500, which provides little incentive for a large company to clean up its act. Data obtained through freedom of information requests by the environmental law organization Ecojustice (after long battles to gain access), also document how governments turn a blind eye to thousands of breaches of federal and provincial

¹¹⁶ Health Canada, “First Nations and Inuit Health: Drinking Water and Wastewater” (2014), <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-eau-eng.php>; M. Mascarenhas, “Where the Waters Divide: First Nations, Tainted Water, and Environmental Justice in Canada,” *Local Environment* 12, 6 (2007): 565–77.

¹¹⁷ Tom McMillan, quoted in Boyd, *Unnatural Law*, 101.

¹¹⁸ Girard et al., “Tracking Environmental Crime through CEPA,” 219–41.

¹¹⁹ Toronto Public Library, “Circulation and Collection Use (Including Fines and Fees) Policy Recommendations 2013” (April 29, 2013).

¹²⁰ K. Timoney and P. Lee, *Environmental Incidents in Northeastern Alberta’s Bitumen Sands Region, 1996–2012* (Edmonton: Global Forest Watch, 2013).

environmental laws every year.¹²¹ Although the federal government has hired additional environmental enforcement personnel since 2007, the amount of enforcement has declined further from levels that were already abysmally low.¹²²

By comparison, federal enforcement of environmental laws in the United States is much more aggressive and dwarfs enforcement in Canada. In 2012, the EPA hammered lawbreakers with over US\$204 million in civil penalties (administrative and judicial), and secured court judgments requiring defendants to pay US\$44 million in criminal fines.¹²³ The agency also sent executives or managers from corporate polluters and despoilers to prison for a total of ninety years and forced law-breaking corporations to invest over US\$19 billion to comply with their legal obligations.¹²⁴ In 2013, BP agreed to pay US\$4 billion to settle criminal charges stemming from the Deepwater Horizon disaster.¹²⁵ According to the EPA, Clean Air Act enforcement actions in 2011 caused lower emissions of particulate matter, sulphur dioxide, nitrogen oxides, and VOCs, resulting in the following health benefits through avoidance of 1,800–4,500 premature deaths, 1,100 emergency room visits or hospital admissions, 1,200 cases of chronic bronchitis, 2,800 nonfatal heart attacks, 30,000 asthma attacks, 230,000 days of missed work, and 1.3 million restricted activity days. The EPA pegged the economic value of the health and environmental benefits of its enforcement action at US\$15–36 billion.¹²⁶

One of the likely reasons for Canada's dismal record of environmental enforcement is a lack of human and financial resources. While federal spending on environmental protection has increased since 1983, it has failed to keep pace with inflation. Spending in 2012 was 13 percent below inflation-adjusted spending in 1983.¹²⁷ Provincial spending on environmental protection peaked in 1993 at \$1.76 billion and fell to \$1.27 billion in 2012, a 28 percent decline.¹²⁸ If 1993 spending is adjusted for inflation, provincial spending on environmental protection is barely half of what it was twenty years ago.

An audit conducted by the Commissioner of Environment and Sustainable Development in 2011 was highly critical of the government's enforcement of *CEPA*

¹²¹ Boyd, *Unnatural Law*.

¹²² Commissioner of the Environment and Sustainable Development, "Enforcement of the Canadian Environmental Protection Act, 1999"; Ecojustice, *Getting Tough on Environmental Crime?*

¹²³ R. Esworthy, *Federal Pollution Control Laws: How Are They Enforced?* (Report for Congress) (Washington, DC: Congressional Research Service, 2013).

¹²⁴ US EPA, "Compliance and Enforcement: Annual Results 2011" (2012), <http://www.epa.gov/compliance/enforcement/annual-results/eoy2011.pdf>.

¹²⁵ US Department of Justice, "BP Exploration and Production Inc. Pleads Guilty, Is Sentenced to Pay Record \$4 Billion for Crimes Surrounding Deepwater Horizon Incident" (press release, January 29, 2013).

¹²⁶ US EPA, "Compliance and Enforcement: Annual Results 2011."

¹²⁷ Government of Canada, *Public Accounts of Canada 1983–2012, Volume II* (1983–2012) (spreadsheets on file with author).

¹²⁸ Provincial Governments, *Public Accounts* (1988–2012) (spreadsheets on file with author).

1999. The Commissioner concluded

-The enforcement program has not been well managed to adequately enforce compliance with the *Canadian Environmental Protection Act, 1999* and ensure that threats to Canadians and their environment from pollution are minimized. The Environmental Enforcement Directorate lacks key information on regulated individuals, companies, and government agencies to know whether it is targeting its enforcement activities toward the highest-risk violators or the highest risks to human health and the environment, as called for by Environment Canada's own environmental enforcement policy.

-The Department's enforcement actions are limited by gaps in its capacity to enforce CEPA regulations. Many of the factors it considers in setting priorities for enforcement have nothing to do with risks to human health or the environment or with the past record of compliance of those regulated. Instead, some regulations are excluded from being priorities due to lack of adequate training for enforcement officers or lack of adequate laboratory testing to verify compliance.

-The Environmental Enforcement Directorate failed to follow up on half of its enforcement actions during the audit period to verify that violators returned to compliance with CEPA regulations. In addition, often it did not apply key management controls to ensure that enforcement officers applied the Act in a fair, predictable, and consistent manner across the country, as called for by the Act.

-The Department has been slow to act on significant shortcomings that continue to impede successful enforcement, such as inadequate gathering and analysis of information to inform enforcement planning and targeting, and inadequate training of enforcement officers. Furthermore, Environment Canada is not measuring the results of its enforcement activities and actions and does not know whether they have achieved the program objectives of encouraging compliance and minimizing damages and threats to the environment.

Similarly, a report published by Ecojustice in 2011 found that despite an increase in the number of enforcement officers, the number of inspections, warnings, investigations, prosecutions, and convictions had steadily declined since 2003-04.¹²⁹

Improving Enforcement under the *Canadian Environmental Protection Act, 1999*

Although authorized under s. 22 of *CEPA 1999*, there have been zero citizen environmental protection actions commenced or concluded in the history of *CEPA*. The obstacles in s. 22 have proven insurmountable. In contrast, public enforcement of environmental laws has proven effective in the US and Australia in promoting compliance, and catalyzing more rigorous government enforcement efforts. These countries have recognized the reality that limited government enforcement resources can be complemented by concerned citizens, and that governments sometimes have conflicting objectives that render enforcement unlikely.

¹²⁹ W. Amos. 2011. *Getting Tough on Environmental Crime?* Ottawa: Ecojustice.

In the US, citizen suit provisions are included in almost all major federal environmental laws dating back to the Clean Air Act of 1970 and including the *Clean Water Act*, *Safe Drinking Water Act*, *Resource Conservation and Recovery Act*, *Comprehensive Environmental Response, Compensation, and Liability Act*, *Endangered Species Act*, and *Emergency Planning and Community Right to Know Act*. Australian environmental laws that include similar citizen enforcement provisions include the *Environmental Planning and Assessment Act 1979* (New South Wales) and *Protection of the Environment Operations Act 1997* (New South Wales).

In both the US and Australia, there are appropriate safeguards in place to prevent a proliferation of citizen-initiated environmental lawsuits. For example, all American citizen suit provisions require would-be plaintiffs to provide the government and any alleged violators with at least sixty days notice prior to commencing legal action. This gives governments the opportunity to investigate and where appropriate commence enforcement actions. It gives alleged violators the opportunity to come into compliance with the law. Another safeguard, intended to avoid duplication, is that citizen suits cannot be commenced if the government is already undertaking enforcement action related to the same set of facts. Additionally, citizen suits are subject to early dismissal and adverse cost awards if they are frivolous, vexatious, or harassing.

The US Senate describes environmental citizen suits as a “proven enforcement tool” that has deterred violators and achieved significant compliance gains.¹³⁰ A federal court observed that “Congress intended citizen suits to both goad the responsible agencies to more vigorous enforcement of the anti-pollution standards and, if the agencies remained inert, to provide an alternative enforcement mechanism.”¹³¹ In the years between 1993 and 2002, there were approximately 80 environmental citizen suits in American federal courts annually.¹³² Given the population difference between Canada and the US, it is reasonable to expect that the number of environmental citizen suits annually in Canada would be one-tenth this level, or roughly eight per year.

Potential wording for a new and improved public environmental protection action under CEPA 1999 to spur and supplement government enforcement actions is offered below:

Environmental Protection Actions

1. (1) *Any person may commence a civil environmental protection action in the Federal Court:*

(a) *against the Government of Canada for*

¹³⁰ See Senate Rep. No. 99-50, at 28 (1985). See also 136 Cong. Rec. S3180 (1990) (“Citizen resources are an important adjunct to governmental action to assure that these laws are adequately enforced. In a time of limited governmental resources, enforcement through court action prompted by citizen suits is a valuable dimension of environmental law.”)

¹³¹ *Baughman v. Bradford Coal Co.*, 592 F.2d 215, 218 (3d Cir. 1979).

¹³² J. May. 2003. “Now More than Ever: Trends in Environmental Citizen Suits at 30.” *Widener L. Rev.* 10, 1 at 3.

- a) violating the right to a healthy and ecologically balanced environment;
 - b) failing to perform any act or duty under federal environmental law which is not discretionary; or
 - c) failing to fulfill its duties as trustee of the environment
- (b) against any person, organization, or government body violating or threatening to violate a federal environmental Act, regulation, or statutory instrument.

(2) A person intending to commence a civil environmental protection action referred to in subsection 1(b) must provide the Minister and any potential defendants with at least sixty days notice prior to filing the lawsuit.

(3) A civil environmental protection action referred to in subsection 1(b) cannot be commenced if the Government of Canada has already completed or commenced enforcement proceedings against the potential defendants.

(4) Civil environmental protection actions are subject to a civil standard of proof and will be adjudicated on the basis of a balance of probabilities.

Mediation

2. All civil environmental protection actions must be referred to mediation for a period of thirty days after issuance of the originating notice of motion, extendible upon agreement of all parties.¹³³

Powers of the Federal Court

3. (1) Notwithstanding remedial provisions in other Acts, if the Federal Court finds that the plaintiff is entitled to judgment in an action under subsection 1 (1), the Federal Court may

- (a) grant declaratory relief;
- (b) grant an injunction to halt the contravention;
- (c) suspend or cancel a federal permit or authorization issued to a defendant;
- (d) order the defendant to cleanup, restore, or rehabilitate any part of the environment;
- (e) order a defendant to take specified preventative measures;
- (f) order a defendant to pay a fine to be used for the restoration or rehabilitation of the part of the environment harmed by the defendant;
- (g) order a defendant to pay a fine to be used for the enhancement or protection of the environment generally;
- (h) order the Minister to monitor compliance with the terms of any order; and
- (i) make any other order that the court considers just.

(2) In making an order under subsection (1), the Federal Court may retain jurisdiction over the matter so as to ensure compliance with its order.

Dismissal

4. A defendant may apply to the Federal Court to have a civil environmental protection action dismissed if

- (a) the action duplicates another legal proceeding that involves the same

¹³³ See Supreme Court of the Philippines, 2010. *Rules of Procedure for Environmental Cases*. Referred to as a global “good practice” by the UN’s Special Rapporteur on Human Rights and the Environment.

- actions, omissions, or environmental damages;*
- (b) the action is frivolous, vexatious or harassing; or*
- (c) the action has no reasonable prospect of success.*

Interim Orders

5. (1) *A plaintiff bringing an action under subsection 1(1) may make a motion to the Federal Court for an interim order to protect the subject matter of that action, when, in the court's opinion, significant environmental harm may occur before the action can be heard.*

(2) An interim order will not be denied on the grounds that the plaintiff is unable to provide an undertaking to pay costs or damages.

(3) Any requirement to provide an undertaking to pay costs or damages in support of the plaintiff's application shall not exceed \$1,000.¹³⁴

Costs

6. (1) *A plaintiff bringing an action under subsection 21(1) that is successful in whole or in part is entitled to their costs, regardless of whether or not they were represented by counsel.¹³⁵*

(2) A plaintiff bringing an action under subsection 21(1) that is unsuccessful may only be ordered to pay costs if the action is found to be frivolous, vexatious or harassing.

I. Legislated Timelines

Recommendations

20. Amend CEPA to establish specific timelines for actions related to risk management of toxic substances. There should be a maximum of one year from the conclusion of a screening assessment to listing a substance on Schedule 1; a maximum of eighteen months for draft measures to address all risks from newly listed substances; and a maximum of 18 months to finalize those measures.

21. Amend CEPA to establish statutory timelines for

- a) reviewing risk management measures every ten years, or when new/additional restrictions and/or prohibitions are put in place by another OECD nation, or when a person submits substantial new scientific evidence about a toxic substance;
- b) reviewing progress towards goals identified in pollution prevention plans every 5-10 years, with a mechanism requiring stronger measures if goals are not met; and
- c) establishing a 90 day time limit for government responses to Notices of Objection filed under s. 332(1).

¹³⁴ Quebec's *Environmental Quality Act*, c. Q-2, s. 19.4 sets a limit of \$500 in similar situations.

¹³⁵ This approach to costs is used in American environmental legislation (e.g. *Clean Water Act*, s. 1365(d)) as well as in Ireland. See *Environment (Miscellaneous Provisions) Act, 2011*, Number 20 of 2011, s. 3.

<http://www.irishstatutebook.ie/eli/2011/act/20/enacted/en/pdf>

In recent years, the Government of Canada has done a yeoman job of categorizing thousands of chemicals. This has been an enormous undertaking and deserves to be acknowledged. One of the primary causes of this success was the fact that *CEPA 1999* included a mandatory timeline for the completion of this process (s. 73(1)). However the challenge ahead is to ensure that the risks from substances identified as toxic to human health and the environment through the categorization process are addressed in a timely fashion. That has not been the case in the past, and amendments are required to ensure that this is not the case in the future.

Huge delays in taking risk management actions are common (e.g. asbestos, PBDEs, triclosan). Asbestos was added to the List of Toxic Substances more than 25 years ago, yet exports, imports, sale all still permitted (while banned in 50+ countries). Therefore it is necessary to amend *CEPA 1999* to ensure that risk management actions are taken in a timely fashion. The adoption of a hazard-based approach for substances of very high concern as set forth in Recommendation xx will be of great assistance, as it will result in precautionary action being taken to prohibit the use of these substances in Canada unless and until industry can demonstrate they can be used safely in specific applications and that there are no feasible substitutes or alternatives. In creating the hazards-based approach for substances of very high concern it will be essential to establish clear timelines for action.

J. Conclusion

A number of the recommendations I am putting forward were also advanced by the House of Commons Standing Committee on Environment and Sustainable Development that reviewed *CEPA 1999* in 2007. This includes addressing vulnerable populations (#17), requiring testing for developmental neurotoxicity (#14), reversing the burden of proof for substances of very high concern (#2), incorporating alternatives assessment and mandatory substitution (#26), enhancing citizens' ability to contribute to effective enforcement (#28), and publishing a regular, comprehensive state of the environment report (#1).¹³⁶

Similarly, a number of the recommendations I am putting forward were also advanced by the Senate Committee that reviewed *CEPA 1999* in 2008. This includes addressing vulnerable populations (Recommendations #9, #10, #24), imposing additional mandatory timelines (#3, #16, #17), enhancing citizens' ability to contribute to effective enforcement (#14, #15), and publishing a regular, comprehensive state of the environment report (#7).¹³⁷

¹³⁶ House of Commons Standing Committee on Environment and Sustainable Development. 2007. *The Canadian Environmental Protection Act, 1999—Five Year Review: Closing the Gaps*.

¹³⁷ Senate Standing Committee on Energy, Environment, and Natural Resources. 2008. *The Canadian Environmental Protection Act, 1999—Rx: Strengthen and Apply Diligently*.

It is worth keeping in mind that the *Canadian Environmental Assessment Act, 2012 (CEAA)* is undergoing a concurrent review. Many of the principles included in this brief should also be incorporated into the amended *CEAA*, including polluter pays, precaution, right to a healthy environment, world-class standards, environmental justice, effective enforcement, and stringent timelines. *CEPA* and *CEAA* need to be carefully integrated in order to maximize Canada's progress towards a sustainable future.

Thank you for the opportunity to contribute to the strengthening of the *Canadian Environmental Protection Act, 1999*, Canada's most important environmental law. Through working together we can make substantial and timely progress towards a cleaner, greener, healthier future for all Canadians.