Federal Environmental Policy and Provincial Challenges: The Case of PFAS in P.E.I.

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Abstract

This essay examines the relationship between federal environmental policy and provincial implementation in Canada, with a focus on the regulation of PFAS, commonly referred to as "forever chemicals." While federal policies set national standards to protect public health, provincial challenges in implementing these regulations can delay remediation, as illustrated by contaminated wells in P.E.I. The essay emphasizes the significance of local innovation and intergovernmental cooperation in achieving effective environmental protection and explores the broader implications of Canadian federalism for environmental governance.

Introduction

PFAS, often called "forever chemicals," are widely used in consumer and industrial products and are linked to serious health risks such as cancer and immune system effects (CBC News, 2025).[1] The federal government has taken steps to regulate PFAS, including listing them as toxic substances under the Canadian Environmental Protection Act (CEPA) and establishing national standards to protect public health (Canada, Environment & Climate Change Canada & Health Canada, 2025). However, implementation largely depends on provincial and local governments, which may face significant challenges. The situation in P.E.I., where residents' private wells are contaminated and local researchers are developing sawdust-based water

[1]CBC News. (2025, April 28). *High levels of 'forever chemicals' found in wells of 9 Hazelbrook homes*. https://www.cbc.ca/news/canada/prince-edward-island/cbc-pei-pfas-hazelbrook-water-health-canada-1.7515617

treatment, illustrates these challenges (CBC News, 2025).[2] Canada's federal policies on toxic chemicals, such as PFAS, are crucial for public health. Still, provincial challenges in implementing these regulations, as exemplified by P.E.I.'s contaminated wells, demonstrate that adequate environmental protection relies on cooperation and innovation at both provincial and local levels.

Federal Policies on PFAS

PFAS are persistent chemicals harmful to human health. PFAS, short for polyfluoroalkyl substances, are a large group of human-made chemicals that have been used since the 1940s in a wide range of consumer and industrial products because of their unique properties, which are resistant to heat, water, and oil (CBC News, 2025).[3] Perfluoroalkyl substances have all the hydrogen atoms on their carbon chain replaced with fluorine atoms. The carbon–fluorine bond is one of the strongest in chemistry, which is why these chemicals are so durable and do not break down easily in the environment or the human body. People are exposed to PFAS through contaminated water, food, dust, air, and everyday products such as cosmetics, non-stick cookware, and food packaging (2025).[4] PFAS are also found near areas where firefighting foams have been used or in landfills containing PFAS products (Canada, Environment & Climate Change Canada & Health Canada, 2025).

According to the "State of Per- and Polyfluoroalkyl Substances (PFAS) Report**:** Environment and Climate Change Canada Health Canada," due to the widespread use of these

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[2] CBC News. (2025, October 31). *P.E.I. researchers turn sawdust into a solution for dirty water*. https://www.cbc.ca/news/canada/prince-edward-island/these-pei-researchers-using-sawdust-to-clean-dirty-water-9.6962202

[3] CBC News. (2025, March 5). *Canada will add PFAS, which are linked to cancer and other health problems, to toxic substances list*. https://www.cbc.ca/news/science/pfas-restriction-canada-1.7475443

[4] CBC News. (2025, March 5). *Canada will add PFAS,*

chemicals in industrial processes and consumer goods, PFAS have been detected globally, even in remote regions (p. 2). Their slow breakdown can lead to repeated exposure and accumulation in the blood, increasing the potential for health risks (p. 1). Federal action listing PFAS as toxic under CEPA enables the development of national risk management and drinking water safety guidelines (CBC News, 2025).[5] In accordance with section 68 of the Canadian Environmental Protection Act, the Minister of Environment and the Minister of Health have prepared a report on the class polyfluoroalkyl substances to provide an overview of the potential impacts of PFAS on the environment and human health (Canada, 1999). CBC coverage emphasizes that federal regulations are designed to reduce exposure nationwide. Connor Lamont's CBC article, "High levels of 'forever chemicals' found in wells of 9 Hazelbrook homes," reflects the status quo regarding the Canadian federalist perspective on environmental issues: the federal government establishes standards, but enforcement and monitoring often fall to provinces and local authorities (2025).

Provincial Challenges in Implementation (P.E.I.)

Many P.E.I. residents rely on private wells, and some continue to await solutions to PFAS contamination in their drinking water (CBC News, 2025).[6] Resource and infrastructure limitations have slowed remediation efforts; for example, several Hazelbrook homes remain contaminated despite PFAS being federally designated as toxic (CBC News, 2025).[7] Health Canada recommends a precautionary "benchmark of approximately 30 nanograms per litre for 25

[5] CBC News. (2025, April 28). *High levels of 'forever chemicals'*

[6] CBC News. (2025, March 5). *Canada will add PFAS,*

[7] CBC News. (2025, October 28). *Some Islanders still waiting for fix to stop 'forever chemicals' from contaminating their drinking water*. https://www.cbc.ca/news/canada/prince-edward-island/pei-pfas-hazelbrook-slemon-park-chemicals-drinking-water-9.6952264

specific PFAS in drinking water." Yet, multiple wells in central P.E.I. "tested in the hundreds of nanograms per litre, with two exceeding 700 nanograms per litre" (2025).[8] While Ottawa announced in March 2025 that it would not ban new PFAS immediately, it initiated a consultation process to restrict their use in the future. Provincially, water filters have been provided to residents of Slemon Park, as well as treatment systems at Ellerslie Elementary and Vernon River Consolidated School, which have reduced PFAS levels below Health Canada's objectives. Engineers are exploring long-term solutions, including new wells or connecting Slemon Park buildings to Summerside's water system (2025).[9] Despite these efforts, many residents remain without definitive answers, highlighting the practical tension in Canadian federalism: federal authority establishes standards, but provincial capacity determines the effectiveness of local outcomes.

Role of Local Innovation and Cooperation

Many residents are frustrated by the slowness of provincial action, as reported by the CBC. Ten months later, in October 2025, some residents remain "in limbo with no clear plan" to remediate their water, despite the federal listing of PFAS (CBC News, 2025).[10] Provinces face resource and infrastructure limitations in implementing federal rules, which may slow clean-up efforts. Local innovations, such as the development of a water filtration solution by P.E.I. researchers from sawdust, demonstrate creative responses to these challenges (CBC News, 2025).[11] CBC coverage frames this situation as a tension in Canadian federalism: the federal government can legislate broadly, but provinces and local communities are responsible for

[8] CBC News. (2025, October 28). *Some Islanders still waiting*
[9] CBC News. (2025, October 28). *Some Islanders still waiting*
[10] CBC News. (2025, October 28). *Some Islanders still waiting*
[11] CBC News. (2025, October 31). *P.E.I. researchers turn sawdust*

implementing the legislation, and gaps in capacity can create delays and frustration. To face these challenges head-on, adequate environmental protection requires collaboration between federal, provincial, and local actors. CBC framing emphasizes that community-led solutions are essential complements to federal policy.

Interaction Between Federal Policy and Local Action

Hueglin explains that federalism is built on cooperation among equal partners who share resources fairly and respect each other's rights and needs (27). He adds that true social solidarity requires all governments to work toward fair living conditions for citizens across the federation, since equality has little meaning without such fairness. In this sense, federal systems are defined by the social relationships among territorial collectivity, making them more than just a form of divided or multilevel governance (Hueglin, 27).

The case of Prince Edward Island (P.E.I.) illustrates how federal regulations can provide an important framework but cannot guarantee immediate results at the local level. The province's contaminated wells reveal the consequences of delayed or incomplete provincial action. This case highlights key lessons for Canadian federalism: coordination, funding, and communication across all levels of government are essential. Local initiatives, such as the sawdust filtration project, demonstrate how community-driven efforts can fill gaps in under-resourced provincial or municipal systems while still supporting federal goals.

CBC coverage reinforces this shared responsibility, demonstrating that adequate environmental protection depends on both federal leadership and provincial implementation (2025).[12] Together, these examples underscore that Canadian federalism is founded on ongoing

[12] CBC News. (2025, October 28). *Some Islanders still waiting for fix to stop*

negotiation and collaboration, with local realities frequently influencing the pace and effectiveness of federal policy implementation.

Federal Policy in Contrast with International Implementations

To contrast Canada's federal and Provincial implementations on the subject, Jones (2025) provides an overview of the emerging research and regulatory developments regarding the dermal absorption of PFAS in April 2024. Noting that the U.S. Environmental Protection Agency (EPA) "established the first-ever national, legally enforceable drinking water standards for six PFAS compounds" (2025). According to these standards, public water systems are required to monitor and reduce PFAS levels to near zero within three years, thereby protecting approximately 100 million people from future risks. The European Union is also focused on regulating PFAS through "Regulation (EC) No 850/2004 (known as the "POP Regulation") (3) and REACH (4)," which came into action in 2007 (Jones, 2025). The UK has been criticized for dawdling behind its European equivalents in regulations, but progress is progress. With international efforts to stand as a guide, it is only a matter of time before Canada follows suit in its policies.

Conclusion

Canada's federal environmental policies, such as the regulation of PFAS, are essential for protecting public health and the environment. However, the P.E.I. case demonstrates that effective protection depends on provincial capacity and local innovation. Provincial responsibilities, infrastructure limitations, and community-driven solutions all influence the implementation and impact of federal standards. Delays in provincial action highlight the structural challenges of Canadian federalism, while local innovations emphasize the importance

of cooperation and problem-solving at multiple levels. In addition to Canadian attempts to mediate these issues, the USA and the UK hope to implement policies that will reduce PFAS, with US policies projecting to reduce levels to zero within three years. Ensuring adequate environmental protection requires coordinated action across federal, provincial, and local governments, integrating national standards with practical, locally driven solutions.

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