Conservation Council of New Brunswick
Conseil de conservation du Nouveau-Brunswick

Improving Freshwater Management in New Brunswick

Purpose

This document highlights the key issues with freshwater management in New Brunswick and recommends steps the province can take to protect and restore our freshwater ecosystems.

Issue Summary

New Brunswick is rich in water resources, with approximately 60,000 kilometres of rivers and streams, 2,500 lakes and ponds, and around 1,460 square kilometres of surface water. However, clean water is not always available where and when needed. The province faces challenges such as localized poor groundwater and surface water quality, as well as occurrences of algal blooms. Climate change worsens these issues and introduces new threats to water systems and the health of the people who depend on them.

Background and Challenges

Water Pollution from Agricultural Runoff

- Agricultural activities contribute significantly to nutrient loading in water due to excessive fertilizer use and improper manure handling (Government of New Brunswick, 2020).
- Over-application of fertilizers and poor manure management on farms leads to nutrient runoff in freshwater. High levels of nitrogen and phosphorus fuel harmful algal blooms, which deplete oxygen, harm aquatic life, and reduce water quality for humans.

Wastewater Discharge

- Industrial operations, urban centers, and private sewage systems in New Brunswick discharge inadequately treated wastewater into freshwater systems. This wastewater often contains toxic substances such as heavy metals, chemicals, and organic waste, threatening aquatic ecosystems and public health. Emerging contaminants such as pharmaceuticals and personal care products, nanoparticles and flame retardants are of particular concern.

- The 2024 Drinking Water Quality Report identified ongoing challenges in maintaining safe drinking water due to industrial discharge, particularly concerning turbidity, lead, and arsenic levels (Government of New Brunswick, 2021).

Habitat Degradation and Wetland Loss

- Wetlands and riparian zones are vital for filtering pollutants, controlling floods, providing critical habitats for wildlife, and capturing carbon. However, urban expansion, infrastructure development, and industrial activities, including harvesting peatlands, have led to significant degradation and destruction of these ecosystems, reducing biodiversity, compromising water quality and releasing carbon.
- The 2019 State of Water Quality report identified erosion and deforestation as significant contributors to sedimentation in rivers and lakes (New Brunswick Department of Environment and Local Government, 2019).

Climate Change Impacts

- Climate change exacerbates water management challenges in New Brunswick. Rising temperatures and shifting precipitation patterns have increased the frequency and severity of floods and droughts, leading to erosion, disrupted water flow, and pressure on aging water infrastructure.
- Climate-driven extreme weather events are intensifying in New Brunswick, disrupting water systems (New Brunswick Climate Change Secretariat, 2021). Additionally, the 2019 State of Water Quality report cited that climate variability is contributing to increased occurrences of harmful algal blooms in the Saint John and Kennebecasis Rivers.

Inadequate Policy and Regulatory Frameworks

- New Brunswick's water management policies lack cohesive integration and robust enforcement, leading to inconsistent watershed protection. Weak policies hinder effective responses to water quality and ecosystem challenges.
- Government has failed to engage stakeholders and commit to public accountability through consistent reporting in the 2024 Progress Report and Review (Conservation Council, 2024). With three years left to implement "A Water Strategy for New Brunswick 2018 – 2028" (New Brunswick Department of Environment and Local Government, 2018), the government has completed only 14 of the 35 actions it committed to.
- The 2019 State of Water Quality report also identified gaps in watershed management strategies and called for improved policy coordination (New Brunswick Department of Environment and Local Government, 2019).

Lack of Provincial Cooperation with Indigenous Communities

- Limited collaboration with Indigenous communities undermines effective and inclusive water governance.
- Indigenous communities possess valuable traditional knowledge and inherent rights to land and water stewardship. Excluding them from decision-making results in missed opportunities for sustainable management and reconciliation.

Recommendations

1. **Implement Enhanced Agricultural Best Management Practices (BMPs)**

    - Enforce stricter regulations on fertilizer and manure application to reduce runoff.
    - Promote sustainable practices such as buffer strips, cover cropping, and crop rotation to minimize soil erosion and nutrient loss.
    - Offer financial incentives and technical support to farmers adopting BMPs.

2. **Continue Upgrading Wastewater Treatment Infrastructure and Promote Proper On-site Sewage System Function and Maintenance**

    - Allocate funding to modernize and expand wastewater treatment facilities.
    - Encourage industries to adopt new green waste management technologies.
    - Strengthen monitoring and enforcement of discharge regulations to ensure compliance.

3. **Strengthen Wetland Protection Policies**

    - Implement and enforce strict regulations to prevent encroachment and destruction of wetlands, including peatlands.
    - Increase the number of protected wetlands, including peatlands, through conservation easements and land purchases.
    - Invest in wetland restoration projects to recover degraded ecosystems and enhance ecosystem resilience.

4. **Integrate Climate Adaptation Strategies**

    - Develop localized climate adaptation plans for each watershed.
    - Improve floodplain mapping and risk assessments to better prepare for extreme weather events.
    - Invest in nature-based solutions, such as riparian buffer restoration and green infrastructure.

5. **Reform Water Governance and Policy Frameworks**
    - Ensure all actions committed to within “A Water Strategy for New Brunswick 2018 – 2028” (New Brunswick Department of Environment and Local Government, 2018) are completed by 2028.
    - Commit to a robust engagement process to develop a new provincial water strategy by 2028.
    - Review and strengthen existing (e.g. Clean Water Act) and develop new (e.g., Coastal Protection Act) environmental laws and regulations.
    - Strengthen enforcement of environmental laws and regulations.
    - Increase accountability through transparent monitoring and reporting.

6. **Promote Indigenous-Led Conservation and Co-Management**
    - Establish formal co-management agreements with Indigenous communities for watershed governance.
    - Incorporate Indigenous traditional knowledge into water policy development and management practices.
    - Provide funding and capacity-building support for Indigenous-led freshwater conservation projects.
    - Ensure Indigenous representation on provincial water advisory boards and committees

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Significance and Impact

- New Brunswick's aquatic systems are crucial for ecological, economic, and social well-being.
- New and Improved practices, policies and legislation will safeguard public health, biodiversity, and carbon storage.
- Indigenous inclusion in water governance is critical for reconciliation and aquatic ecosystem resilience.
- Transparent monitoring and reporting are essential for public trust.

Analysis

Impact on Stakeholders and Rightsholders

1. **Indigenous Communities:** Implementing co-management agreements and integrating traditional knowledge into water policies can enhance Indigenous sovereignty and promote sustainable water stewardship.
2. **Local Communities and Environmental Organizations:** Strengthening policies, practices, and infrastructure will improve water quality and ecosystem health, aligning with environmental objectives and benefiting residents' health.
3. **Agricultural and Industrial Sectors:** Enforcing stricter regulations and upgrading wastewater treatment facilities increase compliance costs, but they are essential to reducing pollution and ensuring long-term resource sustainability.

Risks and Opportunities

Risks

- Policy changes may face opposition from industries and sectors affected by stricter regulations.
- Modern infrastructure and new programs require significant financial investment.

Opportunities

- Potential to leverage federal funds for climate adaptation and infrastructure project

- Broad public backing for stronger environmental protections and climate action.
- Reduction in public health issues related to lack of access to clean water.

Current Status

In January 2024, the government released “A Water Strategy for New Brunswick Progress Report And Five-Year Review” (New Brunswick Department of Environment and Local Government, 2024). The Conservation Council found several problems with this review that the government hasn’t addressed, including:

- Lack of a transparent review process.
- Lack of stakeholder/rightsholder engagement.
- Inconsistent reporting and lack of accountability.
- Incomplete actions.
- Unclear approach to climate change.
- Failure to consider new actions.

In November 2024, Environment and Climate Change Minister Gilles LePage was mandated to “update the Clean Air Act and Clean Water Act to guarantee that everyone in New Brunswick has the right to clean air and water.” Several other ministers were mandated to support these efforts.

Key Contacts

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