An Opportunity for Change: Priorities and Necessary Actions

Healthy functioning watersheds build resilient communities, accommodate a changing climate, and support vibrant local economies. To address its pressing freshwater challenges, build resilience to a changing climate, and respond to local needs, B.C. must change both water management (on-the-ground activities) and water governance (processes of decision-making and holding those making decisions to account). Doing so will position the province as a freshwater leader in Canada and beyond.

With strong public support for enhanced freshwater protection, an increasingly sophisticated freshwater constituency in B.C., and new legal tools in the Water Sustainability Act (WSA) for advancing water management and governance, we are in a critical moment of opportunity for the Province to set forward a bold new water agenda based on a foundation of robust management and transparent and effective governance.

The ten-step plan on page 5 provides the specific elements and actions required to implement a new water agenda for B.C. This revitalized agenda will position B.C. as a world-class leader in water management and governance, creating the foundation for a vibrant circular economy—one that protects and restores natural capital, better balances resource uses with stewardship, and minimizes risks by preserving renewable water flows and healthy clean water bodies. Get the water right and the rest will follow. With this new agenda, B.C. can expect growing water security, increased public confidence through evidence-based decisions, decreased conflicts as natural capital is protected, and greater ability to adapt to the oncoming changes in climate.
Characteristics of Robust Management

- **Linked water and land objectives** in a cumulative effects framework (housed in a fully integrated resource management and decision-making approach) that protects and restores watershed resiliency.
- **Water-centric land use (watershed) planning** that shapes local water and land use decisions through an explicit water sustainability lens.
- Implemented **environmental flow regime** that embeds a risk management approach (including a presumptive standard) to enable sustainable and adaptive management.
- Prioritized **drinking water source protection (and planning)** as a critical element of a **source-to-tap program** to protect community drinking water over other resource development activities on the landscape.
- **Flood plain reconnection** and **natural capital valuation** that recognizes the “services” watersheds provide, such as clean water, carbon sequestration, and flood buffers, as the foundation to local watershed management.
- An **overarching water science strategy** that incorporates Indigenous knowledge, leverages community-based monitoring, makes data publicly accessible, and includes regular and reliable **state-of-water(shed) reporting**. Top priorities include aquifer mapping, hydrometric monitoring, and water use measurement and reporting to **track changes in hydrology** and climate impacts on freshwater systems.
- **Water rentals that provide sufficient resources** for a comprehensive water planning and management regime (with independent oversight and enforcement) and **incentives** for water users to conserve water and protect watersheds.

Characteristics of Transparent and Effective Governance

- **Acknowledged Indigenous water rights** and application of appropriate **collaborative consent** principles that ensure Indigenous nations are equal partners with the B.C. provincial government in protecting, managing, and governing water and watersheds.
- Enabling more **local control** as part of a comprehensive integrated resource management approach for watersheds that emphasizes water sustainability (see Figure 1).
- Increased capacity to enable collaborative **watershed governance** and integrated **watershed and water-centric planning** with local communities starting in priority watersheds.
- A **modernized professional reliance model** to provide incentives for evidence-based decisions and clear accountabilities.
- **Independent oversight** that is responsive to public and community concerns, conducts regular audits of activities on the ground and in the water, provides reliable and verifiable information of activities, and enhances compliance and enforcement related to B.C.’s water and watersheds.

These elements inform the ten-step plan to a revitalized water agenda presented on page 5.
Why a New Approach is Needed Now

British Columbia is endowed with a rich freshwater heritage that is vitally important to all British Columbians. For Indigenous peoples, water is not only the foundation of their Constitutionally-protected rights, but also integral to connections to the land, spiritual and physical well-being, and community and economic development.

Water’s uneven distribution over the landscape and its seasonal and annual variability poses real challenges for water management in the province. Until recently, sustainable water management in British Columbia was only ever a secondary consideration to the priority of building the provincial resource-based economy. Past dominant management practices struck an unsustainable balance, based primarily on draining, channelling, damming, and diverting water out of streams, lakes and aquifers, and dumping waste back into those systems. In the process, watersheds have become fragmented and natural capital has been degraded:

- Many regions of the province are now approaching “peak water” limits; water sources are increasingly experiencing shortages or restrictions.
- Groundwater aquifers are over-pumped, and significant uncertainty persists about groundwater availability, interconnections with surface water, and recharge rates.
- Water quality threats are poorly understood, with limited monitoring and insufficient management tools to address concerns before they become regional- and provincial-level crises with both economic and ecological consequences.
- Climate change exacerbates all these concerns with severe implications for freshwater systems. The back-to-back events of drought in 2015 followed by severe flooding in 2017 has been a jarring wake-up call demonstrating what the “new normal” of more frequent and extreme events might look like in B.C.

The existing government institutions that exist to make and enforce decisions about B.C.’s freshwater future are largely under-resourced, uncoordinated, and ill-equipped to build public confidence or manage risks. British Columbian water managers and experts are concerned that the current approach is insufficient.\(^1\)

Almost ten years ago, the provincial government responded to many of these emerging challenges in its visionary Living Water Smart provincial water strategy. The commitments and outlined actions in this document ushered in a fundamental change in water policy towards a more robust partnership approach with a stronger emphasis on sustainability and integrated management. Living Water Smart led directly to the Water Sustainability Act, which was passed with an initial set of supporting regulations in 2016. While Living Water Smart and the WSA have already set change into motion, time is now of the essence to implement the remaining regulations and other supporting water commitments.

With a new provincial government, British Columbia has a fresh opportunity to bring new energy to the work initiated a decade ago, reinforcing the notion of water as the foundation to a more sustainable circular economy. A circular economy builds economic, natural and social capital and resilience through ecosystem-based resource planning and management, innovation, and restorative and regenerative processes.
The Three Primary Drivers for the New Water Agenda

The three primary drivers for the new water agenda are:

1. **Water Insecurity.** Highly variable weather and climate are directly impacting B.C.’s water and amplifying provincial water insecurity.

2. **Water Priority.** Water remains a high (and increasing) priority for communities, citizens, agriculture, and industry across the province, and it drives the economy.

3. **Appetite for Change.** Public and professional concern about current water management and governance prove a real appetite for change exists.

B.C., Water, and a Circular Economy

Watercourses are the arteries of the landscape: Activities on the ground impact the health of the watershed and, in turn, functioning watersheds support vibrant communities and economies. All resource development—from energy and mining, to forestry, fisheries, and agriculture—impacts the landscape and requires access to substantial volumes of fresh water. Ensuring good water management is the foundation to a sustainable economy.

Furthermore, water infrastructure spending is expected to reach $1 trillion per year globally by 2020. Canada has an opportunity to become a water solutions leader. The global race to get new water technologies to market is real, driven by momentum to mitigate risk, enhance local natural capital, and reach a low carbon future.

A water-centric approach enables a circular economy. Addressing governance is the foundation to avoiding the cycle of ever-increasing management costs. Evidence-based and informed decisions with more engaged local solutions must be built in from the outset before issues become expensive, persistent, and widespread water crises.

B.C.’s bold new water agenda offers the potential for innovation—including new technologies and improved governance—that generates sustainable local economic growth and reduces or avoids future costs. It incorporate new attitudes and thinking across sectors about the role and priority of water for vibrant communities and economies. This more integrated approach focuses on the important services and benefits provided by healthy functioning watersheds and sustainably managed and governed water.

**Good water management is the foundation of a sustainable circular economy—but it requires explicit attention to governance.**

**British Columbia has the potential to become a water solutions leader in Canada and beyond.**
Ten-Step Plan for a Revitalized Water Agenda for B.C.

1. **Follow-through on comprehensive Water Sustainability Act implementation**, including all phase two regulations. A top priority is an environmental flow regulation to guide future decisions and ensure a risk management approach and a presumptive standard is firmly in place in law. New regulations and key sustainability features of the WSA should be tested through watershed governance pilots in 3–5 key areas over the coming 5 years.

2. **Increase provincial water rentals** to better reflect the value of the resource and promote conservation and drive technological innovation. Offer new innovative sustainable funding opportunities through local tax bases, Crown resource rentals, and an enhanced and accelerated Sustainable Funding Task-force to test ideas in practice.

3. **Acknowledge Indigenous water rights** and set environmental flows that incorporate local traditional knowledge providing sufficient water for existing rights and other cultural and spiritual uses. Use collaborative consent for rebuilding a government-to-government approach with Indigenous nations and fulfill commitments to implement the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Set additional regional Indigenous diversion water rights as a true first-in-time, first-in-right priority as part of each watershed’s water balance and diversion commitments.

4. **Build resilience for floods and droughts**, including concerted conservation, flood plain reconnection, natural capital valuation, securing water for agriculture, and implementation of a comprehensive cumulative impacts approach as part of integrated ecosystem-based management.

5. Provide incentives for government at all levels to invest in living green and “blue” infrastructure, including healthy urban streams and wetlands.

6. **Implement water-centric land use (watershed) planning** with a focus on quality and quantity that builds public confidence and better engages local communities. These plans should shape land use decisions through an explicit water sustainability lens. Protection of community drinking water sources must be used to prioritize other resource development activities.

7. **Create a Water Sustainability Fund** that would dedicate ongoing funding to local watershed entities and other water stewardship efforts. This fund should directly support an arms-length province-wide capacity-building organization to catalyze the needed spark to action that would: build public confidence in integrated resource management that prioritizes water sustainability, house critical knowledge concerning watershed governance, provide technical, legal, and planning support, and act as a champion for change towards a watershed governance approach.

8. Develop an overarching water science strategy that incorporates traditional knowledge and leverages community-based monitoring and open data to better understand water and aquatic resources, identify high risk areas, and provide the necessary information to inform water objectives and water sustainability planning. Ensure all information is publicly accessible and supported by a provincial community-based monitoring regime and regular state-of-water(shed) reporting.

9. Review and modernize the professional reliance model to build better oversight and accountability and empower a provincial body to provide independent oversight of B.C.’s land and water to ensure accountability and drive the necessary government changes.

**Priority Additional Law Reforms Needed**

10. Update the WSA to include explicit reference to the Public Trust Doctrine enshrined in the law to provide world-class legal protection for B.C.’s most important resource.
References


3. Environmental flows regulation (as enabled by WSA s.115) must include provision (and terms of reference) for a combined natural and social science-based Environmental Flows Committee. This committee should incorporate traditional knowledge, be co-chaired with First Nations water managers and knowledge holders, and be tasked with providing advice and direction on how to establish environmental flows in critical watersheds in an independent, transparent, and public manner with regular reporting (every 3–5 years) as the provincial regime is brought into effect.

4. Key priority regions include the Cowichan, Skeena, Okanagan, Nicola, and Coquitlam watersheds.


6. For details on the Sustainable Funding for Watershed Governance Taskforce, see https://www.refbc.com/initiatives/working-groups/sustainable-funding-watershed-governance-initiative-task-force


8. Beyond WSA s.40 requirements for reserves as part of the treaty process.


17. Future priorities should include developing the next generation of full-system water legislation, starting with a Watersheds at Risk Act and a Watershed Authorities Act

18. For details on the Public Trust Doctrine, see Brandes, O.M. & Christensen, R. (2010). The Public Trust and a Modern BC Water Act. Available at http://poliswaterproject.org/polis-research-publication/public-trust-modern-bc-water-act/. A simple step to enabling this concept is amending the current Section 2 of the Water Sustainability Act from “the property in and the right to use and flow of all the water at any time in a stream in British Columbia are for all purposes vested in the government, except only in so far as private rights have been established under licences issued or approvals given under this or a former Act” to “the property in and the right to use and flow of all the water at any time in a stream in British Columbia are for all purposes vested in the government in trust for the public and any private rights established under licences or approvals under this or a former Act are subject to be managed in the interest of present and future generations.” The current Water Sustainability Act (s.6) already limits the rights acquired under a water licence to, inter alia, to “divert and use” water and does not grant any rights of ownership over the water. Thus, a crucial aspect of protecting the public trust is already in place. The WSA should be amended to further clarify and could include a clear preamble (or initial section) statement. For example, “Water serves a multitude of public and private purposes, both instream and extractive. This Act provides protections for public uses of water and grants rights to use water for private purposes that may only be exercised in a manner that does not significantly harm public purposes.”