



Awash with Opportunity: Ensuring the Sustainability of British Columbia's New Water Law

By Oliver M. Brandes, Deborah Curran and Rosie Simms, POLIS Water Sustainability Project

British Columbia's (BC) fresh water is under pressure from an array of increasing threats, including climate change, population growth and urbanization, resource extraction, and escalating and competing demands for water.

Watersheds across the province are clearly showing signs of stress linked to these drivers of change. Langley's Hopington aquifer, which provides roughly 80% of the Township's water, has been declining by approximately 30 cm per year for the past 30 years, due to increasing demand and thousands of long-forgotten artesian wells pumping millions of gallons of groundwater to the surface each year. The Cowichan River on Vancouver Island has experienced such low flows recently that trucks had to move salmon upstream when the water became too shallow for fish passage. And in 2015 alone, several regions in the province experienced pronounced water shortages. Parts of BC faced fishing closures due to warm water temperatures and low flow conditions, which put fish stocks in jeopardy. Reservoir levels rapidly declined in several areas, and many cities and municipalities put severe water restrictions in place.

These are just a few examples of the province's growing list of water-related issues and conflicts. If BC does not change its approach

to freshwater management to respond to these realities, the consequences may be acute, as demonstrated by the drought crises experienced in California and Washington, and globally.¹

The good news is that BC has a once-in-a-lifetime opportunity to significantly improve its water law and management regime. In May 2014, the Province enacted the new *Water Sustainability Act* ("Act"), which provides an unprecedented opportunity to fully modernize BC's water laws. While the *Water Sustainability Act* has several promising features, many of the critical details of the legislation have yet to be developed. Effective supporting regulations are essential to fully implement the Act, and for it to reach its full potential as a comprehensive and modern water law. The right regulations and ensuing implementation are needed to put the "sustainable" in the *Water Sustainability Act*.

A new report from the University of Victoria's POLIS Water Sustainability Project,² *Awash with Opportunity: Ensuring the Sustainability of British Columbia's New Water Law*, provides an in-depth analysis of the *Water Sustainability Act* and the core regulations required to bring its sustainability aspects into full effect.³ This research offers clear recommendations for

WSA regulation development based on leading international practices in five key areas:

- 1) Groundwater licensing;
- 2) Environmental flows;
- 3) Monitoring and reporting;
- 4) Water objectives; and
- 5) Planning and governance.

This article is based on the findings of this major research project.

WATER SUSTAINABILITY ACT: PREREQUISITES TO SUCCESS

Full implementation of the *Water Sustainability Act* depends on more than developing the core regulations. Two necessary prerequisites to effective implementation are shifting towards new partnerships for water management and governance, and committing sustainable funding.

A new partnership for management and governance

BC's existing water governance regime does not align with the complexity of today's water issues and current political and legal realities. One size does not fit all, which requires watershed-based responsive water management. Twenty-first century water governance requires a more

collaborative approach where all governments, rights holders, communities and stakeholders in a watershed have roles and responsibilities for water management, with creative integration of top-down and bottom-up planning and decision-making. Successful implementation of a strong *Water Sustainability Act* will ultimately depend on such a partnership between the Province, First Nations, federal and local governments, water licence holders, and community and watershed organizations. In particular, BC cannot have a functional water law regime until First Nations are involved in a substantial and meaningful way.⁴

Sustainable resourcing

Developing effective regulations is only a piece of the puzzle: equally important is ensuring sufficient funding for the people and programs that will bring the Act to life. Professional staff, water managers, scientists, data experts and on-the-ground compliance and enforcement officers, supported with sophisticated and modern programs, will make it possible to realize the many promising new features in the Act. In 2016, the new water fees and rentals scheme will come into effect, with rates varying from \$0.02 to \$2.25 per million litres of water. Given that water rentals will provide a part of the required resources, the Province must implement a regular, periodic review of the water licence pricing and rentals regime to ensure the revenue obtained from water use is sufficient to fully fund implementation of the Act.

KEYS TO SUSTAINABILITY: CORE REGULATION AREAS IN THE WATER SUSTAINABILITY ACT

The POLIS team has identified five regulatory areas as the necessary elements to make the *Water Sustainability Act* truly sustainable⁵ rather than just an updated version of the previous *Water Act*. These are summarized briefly here.

Groundwater: Protecting British Columbia's buried treasure

Despite the importance of groundwater in BC, the Province has never exercised its authority to regulate groundwater use. When the Province brings the *Water Sustainability Act* into force, it will license and apply pricing to non-domestic groundwater use for the first time.⁶

Treating groundwater and surface water as one interconnected resource is one of the *Water Sustainability Act's* significant contributions. There are, however, two outstanding issues with the Province's proposed regulation that require further attention:

1. It will give priority to existing groundwater users with no provision for assessing the cumulative impacts of existing groundwater extraction on aquifer and connected surface water flow sustainability; and
2. There is no legislative requirement for the Province to consider Aboriginal water rights when issuing groundwater licences.

Environmental flows: Ensuring aquatic ecosystems survive and thrive

Environmental flow regimes provide the foundation for healthy and functioning rivers, streams, lakes, and aquifers, and the human communities that depend on these ecosystems.⁷ Despite their importance, until now, BC's water laws only provided limited protection for environmental flow regimes. The *Water Sustainability Act* adds a host of new ways to protect environmental flow regimes, including the *requirement* for decision-makers to consider the environmental flow needs of streams in licence decisions or licence reviews. The Act also introduces the power for the Province

approach ensures that the process for considering flows is transparent with ecological baselines readily available to the public, and thresholds that are ultimately enforceable.

With the new Act, BC has the opportunity to build a world-class environmental flows protection regime. Achieving this will require building the specific ecological and actual water use information needed to make robust decisions, and also fostering a systemic cultural shift within the Province and among the statutory decision-makers towards understanding and prioritizing the water needs for nature.

Monitoring and reporting: Building a foundation for better decision-making

Systematic water monitoring and regular water use reporting are essential to assess aquatic ecosystem status, measure changes in quality and quantity, and build an accurate picture of existing water diversions in relation to water availability. The Province currently has limited information about how licence holders use

water in BC or about the overall health and state of fresh water.

The *Water Sustainability Act* introduces several new monitoring and reporting requirements, including the provision that licence applicants may be required to undertake studies and provide data to decision-makers assessing the impacts of the proposed licence on the environmental flow needs of a connected stream or aquifer.

Ultimately, for monitoring and reporting regulations to be effective, they must require licence holders to play a more substantial

role in data collection, including providing baseline data on water quality and quantity, and regularly monitor withdrawals and report that information to the Province.

Water objectives: Integrating water issues into land and resource use decisions

Land-use activities in BC, such as mining, forestry, hydraulic fracturing, and agriculture, have an array of impacts on water quality and quantity. The *Water Sustainability Act* has the potential to better integrate water issues into land-use decisions through the new authority it creates to set water objectives. Water objectives are site-specific numerical standards for water quality, quantity and aquatic ecosystems that have the force of law when the Province enacts them as regulations. They set out criteria for water quality and quantity that land and resource use decision-makers must consider when making other related decisions about activities on land but that will affect water.

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to issue temporary critical flow and fish population protection orders, which can require licence holders to stop diverting water altogether to protect fish and aquatic ecosystems in times of scarcity.

The environmental flows provisions in the *Water Sustainability Act* are some of the most important aspects of the legislation. But again, there are still many details to iron out and some outstanding issues to address:

1. It is unclear what exactly a decision-maker “must consider” when evaluating environmental flow needs in licensing decisions; and
2. There are limited opportunities to address the impacts of *existing* licence over-allocations on environmental flow regimes.

Regulations are needed to clarify both of these issues. Although there is ongoing discussion about the trade-offs between protecting environmental flows through enforceable regulation, versus more flexible guidelines and policy, the leading jurisdictions protect environmental flow regimes through specific standards and regulations. This

Key lessons BC can learn from the various examples of using objectives as tools to better manage resources are that water objectives must be specific and measurable, required for consideration by *all* relevant decision-makers, legally enforceable, regularly reviewed, and specifically linked to ecological function and ecosystem health.

Planning and governance: Preparing British Columbia for a sustainable future

Water and watershed planning is critically important for long-term water stewardship and to articulate a sustainable vision for the watershed and future uses. Although many types of water and watershed plans exist in BC, most do not have the force of law and they are generally difficult to enforce. Enforceable watershed-based plans in BC can provide a framework for preventing and mediating conflicts, protecting ecosystems, and responding to future water uncertainties. The *Water Sustainability Act* includes a comprehensive planning regime, with water sustainability plans at its core.

The Province will designate water sustainability plans for areas already experiencing some form of water-related conflict. These plans are the only means by which place-based solutions to potential water conflicts can be worked out, including Aboriginal water

rights, and thus are the cornerstone of the Act’s planning regime. Cabinet may give legal teeth to water sustainability plans by bringing them into force through regulation that can address a wide range of issues, including the authority to amend licence terms and conditions.

However, plans will only be successful to the extent that they are fully implemented. Governance – the processes of decision-making and provisions for holding those making decisions accountable – provides this important link to translate plans from paper into action. The *Water Sustainability Act* contemplates the possibility of shared and delegated decision-making that offers significant potential for improved partnerships and innovative governance going forward.

CHECKLIST FOR SUCCESSFUL WATER SUSTAINABILITY ACT REGULATIONS

Groundwater

- ✓ Address Aboriginal water rights and consultation obligations.
- ✓ Obtain more information about BC’s groundwater resources and make it publicly available.
- ✓ Issue initial licences with 5-10 year specified end-dates until it is established that existing uses are sustainable and not damaging environmental flow needs.

Environmental flows

- ✓ Protect environmental flows by regulation, not policy.
- ✓ Establish regional environmental flow regime standards and critical flow thresholds.
- ✓ Evaluate the cumulative impact of any proposed new licence using a consistent set of detailed and stringent criteria.

Monitoring and reporting

- ✓ Require all licence applicants to submit baseline flow and quality data and all water users to monitor water withdrawals and flow, and report that data to government.
- ✓ Require more detailed monitoring and reporting requirements in water scarce areas through water sustainability plans or area-based regulations.
- ✓ Establish a publicly accessible water-use database and produce annual “state of our water” reports.

Water objectives

- ✓ Develop strong and meaningful water objectives that are specific, legally enforceable and ecologically significant.
- ✓ Conduct regular reviews of water objectives.
- ✓ Designate an independent third-party entity to periodically conduct audits and evaluate whether objectives are being met.



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Planning and governance

- ✓ In partnership with First Nations, develop and implement three binding water sustainability plans within the first five years of the Act coming into force.
- ✓ Commit adequate resources to water sustainability plans.
- ✓ Pilot shared decision-making governance models.

WATER LAW REFORM AS PART OF A BIGGER PICTURE

Fully implementing the *Water Sustainability Act*, including ensuring sufficient funding and making a fundamental shift towards a new partnership of risk and responsibility, is an important step towards improving water stewardship and water governance in BC. But implementation is just the first step in a much longer path. The Province must continue to engage key stakeholders, rights holders and the public in a transparent ongoing process while regulations are developed. In partnership with First Nations, licensees, watershed organizations and other stakeholders, the Province of BC will ultimately need to continue to evolve its water law regime and approach to governance to ensure water resources are sustainably managed and that water is shared equitably now and into the future.

ABOUT THE AUTHORS

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REFERENCES

1. For an overview of key lessons that BC can learn from California's drought and groundwater law reform process, see: Randy Christensen and Oliver Brandes' article "Oranges and Apples: Lessons for BC from California's Groundwater Law Reform" in the Summer 2015 issue of *Watermark*.
2. The POLIS Water Sustainability Project is part of the Centre for Global Studies at the University of Victoria.
3. See Brandes, O.M., Carr-Wilson, S., Curran, D., & Simms, R. (2015, November). *Awash with Opportunity: Ensuring the Sustainability of British Columbia's New Water Law*. Victoria, Canada: POLIS Project on Ecological Governance, University of Victoria.

Available at <http://poliswaterproject.org/awashwithopportunity>

4. The Supreme Court of Canada has clearly established that Aboriginal rights and title can no longer be ignored without significant legal implications. For instance, the 2014 Tsilhqot'in decision confirmed that any provincial laws that operate to extinguish Aboriginal title are illegal.
5. A "sustainable" water management regime in this report means permitting the diversion of water for social and economic uses within the context of ecologically robust watersheds – water for nature – and hydrological adaptability.
6. Domestic well users will be from all licensing requirements unless: a) a water sustainability

plan is developed in their area requiring domestic well regulation, or b) the Province passes an area-based regulation requiring domestic well regulation.

7. Environmental flows describe the quantity, quality, and timing of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on those ecosystems (*The Brisbane Declaration: Environmental Flows are Essential for Freshwater Ecosystem Health and Human Well-Being* (proclaimed at the 10th International River Symposium and Environmental Flows Conference, Brisbane, Australia, 3-6 September 2007). 💧

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