

Position Paper on Source Water Protection in the Okanagan Basin

Prepared for the Okanagan Basin Water Board by the Okanagan Water Stewardship Council March 2021

Mobilizing Action

The Okanagan Water Stewardship Council requests that the Okanagan Basin Water Board (OBWB) review this Position Paper and consider the following recommendations for action.

Clarify the State of Source Water Protection in BC

Request that the Province of BC provide a progress report on source water protection in BC. The progress report should include the status of governance, plans, actions, and timelines for full implementation of the *Water Sustainability Act* and the *Drinking Water Protection Act* and their regulations and tools.

Acknowledge Indigenous Values and Commitments to UNDRIP

Source water protection planning in the Okanagan Basin must recognize the unceded lands of the Syilx people and the Province of BC's commitments to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) legislation.

Advocate for a Lead Water Agency

Advocate, through whatever means available, for the assignment of a lead agency within the province to be responsible for, and coordinate, the integration of governance (including federal, provincial, regional and First Nations) and hold authority for all aspects of source water protection.

Request Dedicated Resources

Request that the Province of BC dedicate resources to support source water protection planning in the Okanagan Basin.

Background

Challenges with implementing effective source water protection measures have long been identified in BC. Since 2008, published reports and policy reviews have provided analysis and recommendations to improve source water protection in BC. These have included reports from the Auditor General, provincial ministries, professional associations, non government organizations, and research centres like the POLIS Project on Ecological Governance. The many recommendations for improved oversight and protection of our source waters have not gained traction at the provincial level. The objective of this Position Paper is to garner support from the OBWB to advocate to the Province on source water protection.

In BC, multiple acts and regulations govern water use, protection, conservation and sustainability. The Provincial acts and regulations to manage and protect water are enacted primarily by the Ministry of Environment and Climate Change Strategy, the Ministry of Forests, Lands, Natural Resource Operations

and Rural Development (FLNRORD), and the Ministry of Health. No one Ministry is responsible for water, unlike other resources in BC.

Figure 1 illustrates the complexity of water governance in BC. The *Water Sustainability Act* (WSA), which came into force on February 29, 2016, is the cornerstone of this governance. The blue circles depict legislation enacted by the provincial government, the yellow by federal and the orange by local governments.

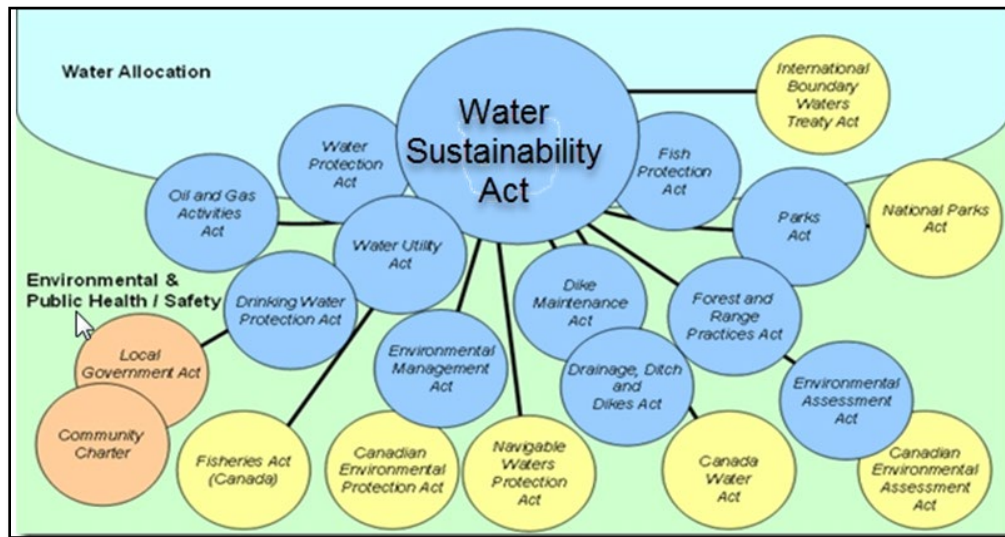


Figure 1: Legislation associated with water in BC

Source Water Protection Recommendations from Past Reports

The following reports and documents were reviewed by members of the Water Stewardship Council's Source Water Protection Committee. Key recommendations from these reports are summarized in Appendix A (available [here](#)).

1. From Crisis to Solutions: Towards Better Source Water Protection and Nutrient Management in the Hullcar Valley, (Brandes et al. 2017).
2. Hullcar (Clcahl) Aquifer Response Plan Report, Ministry of Environment & Climate Change Strategy (MECCS 2018).
3. Verifying Best Management Practices (BMPs) for Livestock Grazing in Community Watersheds in the Okanagan Valley of BC: Final Report, (Roberts et al. 2016).
4. Advancing Freshwater Protection, (Brandes & Simms 2018).
5. Watershed Management Planning - Position Statement, (BCWWA 2013).
6. Watershed Governance Dispatch, Regional District of Nanaimo Drinking Water & Watershed Protection Program 10-Year Review & Action Plan Update, (RDN 2020).
7. Discussion on Water Issues, Water Supply Association of BC, (WSABC 2018).

8. Clean Safe, and Reliable Drinking Water: Provincial Health Officer’s Drinking Water Report 2012/13 – 2016/17, (Provincial Health Officer 2019).
9. The Protection of Drinking Water, (Office of the Auditor General 2019).
10. Towards Watershed Security: The Role of Water in Modernized Land Use Planning in British Columbia, (Brandes et al. 2020).

The reports document the complexity of source water protection in BC. Common themes identified in these reports, which were written between 2013 and 2020, include the need for inter-agency **collaboration** and **communication**. The reports highlight the **complex and overlapping legislative framework** in BC, identify the need for **a single oversight** agency for drinking water protection. Specific report actions are summarized below, and are grouped by theme to demonstrate the consistent findings of these reports:

Recommendation or Finding
Common Theme: <i>Inter-agency collaboration and improved communication</i>
<ul style="list-style-type: none"> • Improve communications with First Nations and stakeholders (Brandes et al. 2017). • Collaborative government-to-government approach between First Nations and the Provincial government (MECCS 2018). • Complete MOUs to build government-to-government relationships (Brandes et al. 2017). • Improve communications between Ministries, including an improved understanding of triggers (water quality changes in aquifers) (Brandes et al. 2017). • Implementing the WSA to its fullest potential will only happen with the leadership of Indigenous Nations, communities and watershed entities working together with the Province to deploy the Act’s key tools and levers for change – using a shared risk and responsibility approach to water management and governance (Brandes et al. 2018).
Common Theme: <i>Complex and overlapping legislative framework</i>
<ul style="list-style-type: none"> • Review the DWPA, especially with respect to time-delayed and cumulative contaminants (impact on water quality) (Brandes et al. 2017). • Clarity is required for how and where the WSA fits within the Provincial hierarchy of acts and regulations over Crown lands (WSABC 2018). • A Legislative Framework Review is needed to evaluate the available legislative tools to protect sources of drinking water under the DWPA and other acts to identify any gaps, areas of overlap or conflict, and triggers for enforcement action. Establish improved processes for coordinating actions taken to compel compliance to protect drinking water (PHO 2019). • Further develop tools to assure that the WSA and DWPA align with Canadian Drinking Water Guidelines (Brandes et al. 2017). • Develop better indicators of safe drinking water that align with the multiple barrier approach (MECCS 2018).

Common Theme: Need for single oversight/lead agency and defined responsibilities

- There should be a lead agency in the integration and authority for source water protection (WSABC 2018).
- Government needs to clearly articulate roles and responsibilities, and ensure that Ministries and agencies are held accountable (Office of Auditor General 2019).
- Compared with other provinces, BC seems to lag behind in comprehensive watershed management planning. Manitoba, Alberta, Ontario, and Quebec were all cited as examples of having provincially-led, effective management frameworks (BCWWA 2013).
- Higher priority and funding are needed at a Provincial level for source protection (WSABC 2018).
- Areas of challenge with the legislative framework include inter-agency coordination in areas of jurisdictional overlap (Brandes et al. 2019).
- As one of the three pillars of the multi-barrier approach, source water protection is crucial in ensuring that water is used sustainably, and that the water entering drinking water systems is as clean and safe as possible and protected from the effects of resource development, agriculture, and other land-based activities. Source protection is an area with multiple actors and pieces of legislation involved. As such, the Ministry of Health's Action Plan for Safe Drinking Water called for clear lines of responsibility and effective inter-agency collaboration (PHO 2019).
- Inter-agency groups tasked with overseeing the implementation of the Action Plan have disbanded, leaving an accountability gap (PHO 2019). Note: *A Memorandum of Understanding (MOU) between Interior Health and multiple provincial agencies (SWIRT) discontinued in 2013. SWIRT was replaced with IAMC (Inter-Agency Ministry Committee). The IAMC was disbanded in 2016.*
- Given the complexity of drinking water protection and the challenges faced by the Ministry of Health, it is time for government to clearly articulate roles and ensures that Ministries and agencies are held accountable (Office of Auditor General 2019).
- Two fundamental shifts are needed to fully realize the potential of land use planning to address the multiple urgent risks facing communities and watersheds, fulfill reconciliation commitments, create greater local economic certainty, and drive resilience in the face of a destabilizing climate and changes in hydrology: Water must play a more central role in modernized land use planning. British Columbia needs a provincial land and water planning framework to support a modernized approach to land management (Brandes et al. 2020).

Many of the recommendations come back to a Legislative Framework review for source/ drinking water protection, coordination and accountability. The complexity in source water protection argues that a **lead agency is necessary**. The *SWPC* also notes that *clarity is required on the hierarchy of acts and regulations as they pertain to source water protection on crown lands*.

Status of Okanagan Source Water Protection

Source protection plans consist of a source water assessment, which identifies risks to drinking water safety and availability, and a response plan that contains actions to mitigate those risks. The SWP committee reviewed the status of current source water assessments and response plans within the Okanagan Basin and found that:

1. It has been a significant challenge to complete source protection plans within community watersheds in the Okanagan Basin.
 - Most community watersheds (85%) in the Basin have completed source water assessments but only 50% of these have completed their required response plans to address those risks (SWP committee report 2018).
 - It appears that local water purveyors do not have the expertise or resources to successfully complete source protection plans, a situation dating back more than 10 years.
2. There is little to no monitoring or assessment of the cumulative effects of recreational and industrial land use activities on source water resources within Okanagan Basin community watersheds. What assessments that have been made have lacked the mandate to look beyond a single industry focus (FPB 2019a, for example).
 - This is a gap recently identified by Brandes and Simms (2018) in current watershed governance that can potentially be filled by using the tools within the WSA. The provincial government has signed several recent agreements with Indigenous communities to pilot WSA tools (in the Nicola watershed, for example).
 - To date these tools have not been developed or implemented by the province in the Okanagan Basin.
3. Unmitigated risks primarily related to road development and stream crossings have degraded water quality and critical fish habitat in Pennask Creek immediately outside the basin (FPB 2020). Given the extent of similar findings in this study in other watersheds in the BC interior, similar conditions likely exist within the Okanagan Basin:
 - This situation is adding avoidable extra costs to purveyors for water treatment.
 - The cost of protecting drinking water is borne by the water purveyors and local government with no authority to regulate these activities.
 - Ever increasing land use pressures in most community watersheds within the Okanagan Basin suggest risks to water quality are increasing. In addition to roads, increasing forest stand removals, as expressed in equivalent clearcut area, enhance spring peak runoff which increases the risk of flooding and sedimentation in watersheds (Winkler and Boon 2017).
4. Communities with deep lake intakes for water supply have struggled to achieve intake protection zones, given the many levels of government involved. Federal, provincial and local government acts, regulations and bylaws govern activities, such as transportation, docks, marinas, storm water outfalls, permits to discharge, and mining. There has been little support to establish intake protection zones on lake intakes. In Ontario, the *Clean Water Act* requires communities to develop collaborative, locally driven, science based protection plans for their existing and future sources of drinking water.
5. The 2019 Okanagan Sustainable Water Strategy Actions 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, and 2-8 speak to source water protection. Recommendations for the OBWB include advocating, communicating and coordinating among levels of government.

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