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Summary

Purpose and overview

• This review assesses Provincial progress for implementing and advancing freshwater policy commitments and priorities in British Columbia.
• Several drivers are making water an increasingly urgent priority for B.C., including accelerating climate change; intensifying cumulative impacts on the land base that affect community drinking water security; and degraded habitats and ecosystems. Government has also made recent commitments to improve how water is managed and governed—from protecting wild salmon, to implementing the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) across all Ministries.
• This study reviewed commitments and recommendations specific to fresh water from several different sources, with a primary focus on Living Water Smart: the Province’s decade-old water plan which still stands as B.C.’s official provincial water policy.
• To provide a fulsome and updated examination of freshwater commitments, this study also evaluated a series of recommendations and commitments made in related government policies and Auditor reports.
• This review is organized around four themes guiding the strategic work of water leaders and funders in B.C.: Policy Innovation, Place-Based Governance, Pooling Water Knowledge, and People: Public Engagement. The theme of reconciliation between Indigenous peoples and the Crown is woven through each of these areas.
• This project provides insight into the importance not only of government making commitments but the equally important need to ensure there is follow through on these promises. Accountability and moving from commitment to implementation are ultimately needed to ensure positive change happens.
• We aim to help hold government accountable to their commitments, provide B.C. freshwater leaders and funders with an up-to-date snapshot of progress, and establish clear direction for future priorities.
What we found

Findings reveal a mix of success and identify clear areas where more work is needed to implement freshwater priorities. In the past decade, B.C. has made substantial headway on several of the Living Water Smart core commitments and other policy recommendations. Nineteen commitments from the Provincial plan (42%) can be considered achieved or underway. The Province (with support and coordinated action from other partners) has advanced the critical commitments around legislative and regulatory reform—including passing the Water Sustainability Act and important provisions like extending water licensing to groundwater and formalizing environmental flow protections. Despite the progress that has been made, 14 (31%) commitments have not been started or advanced effectively. Key gaps include supporting communities, including First Nations, to engage in collaborative watershed planning; reviewing water pricing; and regular state-of-water reporting.

What next: Revitalizing the B.C. Water Agenda

• A decade since Living Water Smart was released, B.C. has an opportunity to refresh its provincial approach to water through a revitalized water agenda to reflect current government’s mandate and commitments and a changing water landscape.
• This review reveals three priority commitments that reinforce the foundational concepts and principles associated with the provincial water strategy from 10 years ago. These commitments are directly linked to the current government’s core mandate, and will begin filling the water gaps that need urgent attention:
  • Comprehensive Water Sustainability Act implementation with Indigenous co-leadership.
  • Review Provincial Water Rentals.
  • Develop an overarching water knowledge strategy.

LIVING WATER SMART PROGRESS AT A GLANCE

ACHieved: 18% (8 of 45 Living Water Smart commitments). In particular, B.C. demonstrated leadership in developing and passing the Water Sustainability Act in 2016, which follows through on a number of the commitments related to water use and ecological protection.

IN PROGRESS: 24% (11 of 45 Living Water Smart commitments). These priorities will have significant positive impacts if they are fully implemented—with the potential to provide a high level of protection for ecological needs, build more resilient infrastructure and communities, and shift towards effective governance.

MINIMAL PROGRESS — PRIORITIES NEEDING URGENT ATTENTION: 31% (14 of 45 Living Water Smart commitments). Yes, others must act, but the Province and other governments have the resources and jurisdiction, so must do their part to initiate, support, and set up the opportunity for success on these commitments.

UNKNOWN: 27% (12 of 45 Living Water Smart commitments). These commitments cannot be assessed due to lack of information or the commitments are no longer relevant.
1. Introduction & Overview

Clear-cut logging in source water watersheds; floods and droughts leaving communities underwater then out of water in a single season; drinking water rendered undrinkable by breached mining operations or agricultural waste. These are just a few of the freshwater challenges that British Columbia’s communities are grappling with as climate and hydrology change, water security is threatened, and cumulative impacts intensify.

Governments at all levels are making commitments to protect freshwater, and tools and solutions are being implemented. A decade ago, British Columbia released the visionary water strategy, Living Water Smart, which established policy and legislative commitments by the provincial government to prepare communities for a water-uncertain future and build a more sustainable freshwater regime. Living Water Smart signaled more serious attention towards fresh water in B.C., although the challenges and opportunities have only intensified in the last decade. Numerous independent experts and external bodies have also outlined urgent and complementary actions to address B.C.’s growing water challenges and build resilience.

Despite bold promises, the priority the government of the day places on water—and the scope and extent of follow through on the various commitments—is not always clear.

British Columbia has changed in a number of critical ways since 2008: from pivotal court cases regarding Aboriginal rights and title; to revitalization of Indigenous law; droughts and threatened fisheries becoming more frequent; to Government commitments and mandates for land use planning and reconciliation. In the reality of an ever-changing institutional context—and as water challenges continue to escalate across the province—regularly revisiting and updating the policy and legislative regime, plans, and commitments only increases in priority. A firm focus on follow-through ensures we are in a good position collectively to protect our most precious resource into the future.
About this report

Based on a comprehensive policy review, this report highlights action to-date on some of B.C.’s most important freshwater priorities—both commitments that government has made itself, and recommendations from expert external bodies and independent offices of the legislature, like the Forest Practices Board. This report also takes stock of areas of achievement, gaps, and actions needed to ensure future water security and resiliency. By doing so, we aim to help hold government accountable to their commitments, provide B.C. freshwater leaders and funders with an up-to-date snapshot of progress, and establish clear direction for future priorities.

Why take stock of policy progress?

Why now?

2018 marks the ten-year anniversary of Living Water Smart, which coincides with a government mandate attuned to reconciliation, collaboration, better balancing environmental protection and economic growth, and building healthy, sustainable, and resilient local communities. This anniversary offers an opportunity to celebrate achievements to-date, and generate renewed focus on B.C.’s freshwater commitments, gaps, and the necessary next steps towards achieving a robust provincial water agenda.

Other jurisdictions (like Alberta, Northwest Territories, and Quebec in Canada, or globally like South Africa, Australia and the European Union) regularly revisit their water policies and plans as a foundation for ongoing development and as a commitment to adaptive management. B.C., on the other hand, has not updated its provincial water plan since Living Water Smart’s inception a decade ago. Living Water Smart although a decade old and set in a very different political and social context, still serves a useful function as B.C.’s overall (and only) freshwater policy. While some of its specific actions are obsolete, as a provincial water plan it established a comprehensive vision for freshwater sustainability in B.C.—and will remain the foundation of and inform any future plans or strategies.

Many legal and policy scholars, experts and practitioners have helped get B.C.’s water and policy regime to its current state. This report is a reminder for the next generation of water leaders and professionals of the progress that has and has not been made. Our findings highlight some pivotal successes and also reveal the actions and reforms that are more stubborn or particularly contentious and difficult to advance.

This review offers B.C.’s water champions, within and outside of government, a benchmark for measuring progress going forward, and an opportunity to reflect on where reinvigorated focus and new strategies are needed.

How this review is organized

Beyond this introduction, the review is organized into three additional sections, and is supported by a detailed appendix.

>> Section 2 describes the review scope, methods, and limitations.

>> Section 3 assesses progress on freshwater commitments within four thematic areas. Although many possible ways of organizing such a review exist, we categorized the research...
and assessment across a set of four clearly identified themes and priorities that are used by several core funders and organizations in B.C.’s freshwater community:

**Policy innovation:** Implementation of Crown freshwater legislation (primarily the Water Sustainability Act) and supporting revitalization of Indigenous water rights, governance, and laws.

**Place-based governance:** Advancing innovative approaches to collaborative watershed governance, co-governance, and sustainable funding models for local water solutions and priorities.

**Pooling water knowledge:** Efforts to improve understanding of watershed health and dynamics, which requires addressing water data availability, accessibility, visualization and integration, and includes multiple ways of knowing such as both science & traditional knowledge.

**Public engagement:** Strengthening the capacity of local groups, communities and watershed organizations to increase broad public awareness and meaningful and sustained engagement on water issues.

Within each of these thematic areas, we assess progress according to the following categories:

- **Key commitments achieved**
- **Commitments in progress**
- **Minimal progress: priorities needing urgent attention**
- **Unknown: important priorities not possible to assess due to lack of information or commitments are no longer relevant**

For each commitment, we also provide details on context, and comment on strengths/weaknesses in implementation. For those commitments that require urgent attention, we highlight immediate actions to drive progress.

**The final section** provides a summary and identifies a number of crosscutting insights and priorities for government and its partners to pursue. In this concluding section, we also revisit POLIS’ 2017 proposed Revitalized Water Agenda, and refresh our thinking based on the insights from this analysis.

**The primary Appendix A** compiles our detailed breakdown and assessment of the full set of Living Water Smart commitments. This detailed work underpins the analysis and the conclusions made in this report. Appendix B compiles a list of other relevant policies or sources of freshwater-related commitments for reference. Both appendices are provided in an accompanying document to this report.
2. Scope of Review and Review Process

A policy review of this nature inevitably has limitations. Context and priorities change, and dates and commitments shift quickly as new political and social situations emerge. Accessing and gathering the necessary information can be a challenge in this work, which makes it difficult to determine if—and how much—progress has been made. Nonetheless, attempting to understand what was promised and status of implementation remains an important part of any thoughtful reflection and must inform any strategies going forward.

What did we analyse?

1. Commitments from government: This review primarily focused on Living Water Smart and its associated action items. A selection of additional relevant water commitments—which are embedded in other policy, plans, and direction-setting documents—were also included and assessed. These include election platforms, mandate letters, media statements, and other cross-government documents. Commitments from B.C.’s current government are listed but not evaluated, as it is likely still too early in this mandate to determine progress.

   This review focused on provincial-level policy and did not explicitly look at local, Indigenous or federal government commitments and actions—though all of these governments are important implementation partners, and remain critical to ensuring a comprehensive approach to water security and sustainability.

2. Recommendations from independent auditing or oversight bodies: Numerous independent actors9 including the Auditor General, Ombudsperson, and Forest Practices Board, have provided oversight and recommendations pertaining to water management and law reform in B.C. Our review includes a progress assessment on a selection of relevant recommendations from these entities.
How we analyzed progress & limitations

The research for this review began in the spring of 2016 and was iteratively refined through review of materials, various briefings and workshops, regular dialogue with provincial government staff, and direct engagement and review by experts and the water leader and funder community.

We specifically evaluated progress and limitations through: review of publicly available information from government; related assessments from independent bodies and experts (such as the Auditor General); reports from academic and non-profit groups related to the status of freshwater, habitat, salmon, climate change and other pressing issues; as well as communications with freshwater specialists within and outside of government.⁹

Access to information was a challenge in this work, often making it difficult to establish a clear picture of progress. This evaluation is our best assessment with available information.
The WSA came into force in 2016 and offers a significant innovation in water law for B.C. If fully implemented, the Act has the potential to achieve better outcomes for B.C.’s lakes, rivers, aquifers and economies. While Living Water Smart and the WSA have already set policy innovation into motion, further work is required to implement the remaining regulations and other supporting law and policy commitments.

Want to learn more about how communities and governments can leverage the Water Sustainability Act’s potential to protect home waters? See POLIS’ briefing note: Advancing Freshwater Protection: Tools and Opportunities in British Columbia’s Water Sustainability Act (September, 2018).11

3.1 POLICY INNOVATION

Policy innovation is at the heart of Living Water Smart—many of the plan’s commitments are directly related to water policy and law reform. Indeed, Living Water Smart’s most important function to-date was to catalyze the Water Act modernization process, which led to the passing of the B.C. Water Sustainability Act (WSA) in 2016. The WSA sets in motion the majority of the law reform commitments made in Living Water Smart. As highlighted throughout this section, advancing innovative freshwater policy solutions also hinges on realizing the Province’s commitments to reconciliation and the United Nations Declaration on the Rights of Indigenous Peoples.
POLICY INNOVATIONS ACHIEVED

Water laws will improve the protection of ecological values, provide for more community involvement and provide incentives to be water efficient.
—LIVING WATER SMART

- Ecological values receive enhanced protection in the Water Sustainability Act through several mechanisms, including environmental flows provisions, water objectives, and sensitive stream designations.¹²
- Opportunities for community involvement in water management and governance are provided in the WSA through water sustainability plans, advisory boards, and the potential for delegated/shared decision-making. The Nicola watershed governance pilot is one promising step towards realizing a partnership approach through co-leadership with Indigenous nations.¹³
- Incentives to be water efficient are embedded in the WSA, including regulation of non-domestic groundwater users, and a definition of “beneficial use” that includes “using water as efficiently as practicable.” 30-year licence reviews provide another mechanism for the Province to review licence terms and conditions, conduct a water conservation audit, and compel water users to improve the efficiency of their water use and make greater efforts at conservation.

This commitment is marked as achieved as the WSA now provides a strong foundation for each of these three elements. However, the extent to which the Act improves ecological protection, enhances community involvement, and increases water efficiency depends on supporting regulations and meaningful on-the-ground implementation—including Indigenous co-leadership, community partnerships, and adequate resources.¹⁴ It is important to note that the Act is vulnerable to legal challenge as many First Nations stated they were not adequately consulted during the WSA’s development, with very real concerns about infringement on rights and title as groundwater licences are issued.

Government will require all users to cut back their water use in times of drought or where stream health is threatened.
—LIVING WATER SMART

Temporary critical environmental flow thresholds and fish population protection orders are provided in the WSA.¹⁵ These orders both can require users to cut back water use in times of drought to ensure enough water is left for fish and ecosystems. Further work is needed to clarify the triggers of these temporary orders (for example, how the orders link to and are activated by the provincial Drought Plan and Drought Levels¹⁶ or how communities can deploy temporary flow protection orders).

In a 2018 B.C. freshwater opinion poll, 78% of respondents Agree or Strongly Agree rights to use water should be decided according to communities’ priorities not just who can afford it or had access first. 75% agree or strongly agree rights to water should be decided according to fairness and equity, not just who had first access or first rights of use.
How stressed are B.C.’s aquifers?
A 2018 study found that one in every five unconfined aquifers in the province is likely stressed. Priority regions include the Okanagan, the Lower Mainland and Vancouver Island—all densely populated areas. A key recommendation from this study is that government is to establish new systems for tracking groundwater use and create and provide public access to data on provincial groundwater sources and volumes of use.

Government will regulate groundwater use in priority areas and large groundwater withdrawals.
—LIVING WATER SMART

Government now regulates all non-domestic groundwater users (as of February 2016), with an ability to regulate domestic groundwater use through area-based regulations and/or Water Sustainability Plans if the need exists. Implementation is ongoing, with more to be done to encourage registration through better provincial communication to groundwater users. Aquifer mapping that reveals the sustainability of past and current groundwater use will be required for effective regulation.

The Province’s incremental approach to groundwater licensing is of particular concern to many communities and Indigenous nations. Without information about total impact of all groundwater withdrawals on a given aquifer, First Nations’ have limited opportunity to respond in a meaningful way to individual licence applications and assess the potential impacts to their rights and title.

The groundwater protection regulation will protect quality and quantity of groundwater.
—LIVING WATER SMART

The Groundwater Protection Regulation, in effect as of February 2016, regulates minimum standards for well construction, maintenance, deactivation and decommissioning, and sets requirements for certification for individuals who drill wells, install well pumps and perform related services, providing enhanced protection for groundwater.

POLICY INNOVATIONS UNDERWAY

New approaches to water management will address the impacts from a changing water cycle, increased drought risk, and other impacts on water caused by climate change.
—LIVING WATER SMART

The WSA introduces new adaptive management approaches to increase flexibility and help deal with increasing uncertainty in the hydrological cycle through several mechanisms, including:

• Water sustainability plans that can change water licence terms and conditions;
• A requirement for environmental flows considerations in licensing decisions; and
• Temporary orders to curb water use in extreme droughts.
Although mechanisms exist in the WSA for increased flexibility, significant barriers to adaptive management still exist. For instance, in general licences do not have fixed end dates and are issued in perpetuity, and limited opportunities exist to address over-allocation. 30-year licence reviews can require a licence holder to improve the efficiency of their water use or to make greater efforts at conservation, but cannot reduce (or cancel) rights, which can only be done if the water is not being put to beneficial use or through a Water Sustainability Plan in stressed regions. Dealing with past, unsustainable decisions made under a different hydrological regime will remain an ongoing (and increasing) challenge as B.C. enters an increasingly uncertain freshwater future.

In addition to the WSA, the British Columbia Drought Response Plan describes drought indicators and recommends actions to reduce drought impacts. The Plan relies on voluntary responses and even at drought Level 4, regulatory interventions are discretionary (and rarely used).

**Did you know?** In each of the past four summers (2015-2018), multiple regions in B.C. have reached Level 4 drought—the highest in the Provincial drought classification system. However, the WSA’s temporary flow protection orders have yet to be put to use.

**ACTION ITEM**

One of the key recommendations in the B.C. Auditor General’s 2018 Audit *Managing Climate Change Risks* is that B.C.: ‘complete its work on a proactive drought management strategy, including an assessment of the potential risks to water resources and efficacy of potential strategies to manage them that is updated on an ongoing basis.’ Follow-through on this commitment will remain a critical priority as B.C.’s climate and hydrology continue to change and droughts and floods intensify.

**Legislation will recognize water flows for ecosystems and species.** —LIVING WATER SMART

The WSA provides multiple new avenues to build a robust regulatory and policy regime for environmental flows protections, including:

- **Section 15:** requires statutory decision-makers to consider the impacts of their decisions on environmental flows (but does not set out what the decision-maker must consider or how)
- **Section 127:** enables the Province to create a regulation to prescribe methods for determining environmental flow needs.
- **Sections 86-88:** set out two separate tools: *critical environmental flows* and *fish population protection orders*. In both cases the legislation can require licence holders to stop or reduce water use during periods of drought to protect ecosystems and fish.
Environmental flows are also important considerations in any of the planning instruments (such as Water Sustainability Plans, Area-based Regulations, or Sensitive Stream designations) and in habitat or riparian considerations related to the construction of other “works” in and about a stream (s. 11).

Concerns persist around the Province’s existing approach to environmental flow protections. The exemption to the requirement to consider environmental flows on existing groundwater licenses during the 3-year transition period is highly problematic. Also, the current regime provides limited opportunities to “pull back” water on overallocated sources. Lastly, it is unclear what decision-makers must consider when evaluating a license’s impacts to environmental flows, or what method they should use. More direction and clarity is urgently needed.

**ACTION ITEM**

An environmental flows regulation is needed to address some of the outstanding concerns related to an effective environmental flow regime. Such a regulation could:

- Set a presumptive standard as a “safety net” across B.C. until region-specific studies are done.
- Provide greater clarity and certainty around what decision-makers must consider when making licensing decisions; and
- Ensure ‘protection’ for good statutory decisions that protect stream health but may limit water allocations.\(^2^3\)
- Holistically incorporate the importance of groundwater to environmental flows.\(^2^4\)
- Offer greater clarity and opportunity to integrate Indigenous water laws and local co-governance and oversight opportunities.

Land and water managers will know what makes a stream healthy and therefore be able to help land and water users factor in new approaches to securing stream health and the full range of stream benefits.

—LIVING WATER SMART

Several new WSA provisions are now in effect to help land and water managers make better decisions to protect stream health. For instance, a 2018 Environmental Appeal Board decision shows that the environmental flows consideration requirement (WSA, s. 15) can effectively give the Province an ability to say “no” to issuing further groundwater licences when a hydraulically-connected stream is already fully allocated and experiences low flows.\(^2^5\) Water objectives (s. 43) have the potential to drive further progress in this area as the regulations that create them can require land and resource-use decision-makers to consider water in their individual decisions.\(^2^6\)

Further action is needed to address the following outstanding concerns:

- Implementation of the Act’s key sustainability features, like water objectives, has not yet occurred.
• Major gaps persist in data and knowledge for sound watershed decision-making; for example, related to water use; stream flows; and groundwater-surface water connectivity.
• A lack of capacity is acknowledged among provincial staff and decision-makers regarding implementation of the new environmental flows regime.  
• The WSA itself does not define or provide criteria for “sustainability” or explicitly set out the desired freshwater and ecological outcomes to be achieved through implementation and regulation. Similarly, the current environmental flows policy does not define the overarching objective for ecosystem health that decisions-makers should be trying to meet.

**ACTION ITEM**
An expanded WSA watershed governance program in three to five regions to test and develop the necessary policy and regulatory tools to solve real problems occurring in B.C. watersheds.

**Government will work toward preserving First Nations’ social and cultural practices associated with water.**  
*—LIVING WATER SMART*

First Nations are leading the work on preserving social and cultural practices associated with water on their own terms, based on inherent Indigenous authority. Approaches include: revitalizing Indigenous water laws; negotiated government-to-government agreements; and developing water declarations, policies, and strategies.

Also, some promising steps are being taken to implement Government’s mandate commitments to reconciliation and implementing the United Nations Declaration on the Rights of Indigenous Peoples—including the emerging government-to-government partnership for freshwater in the Nicola watershed governance pilot.

Several systemic issues persist in B.C.’s approach (or lack thereof) to addressing First Nations concerns:

• Many Indigenous nations deemed Government’s consultation process for the WSA inadequate.
• It is well established that functioning ecosystems are necessary to realize Aboriginal rights and to support Indigenous water uses—for economic, cultural, and social purposes. Yet, B.C.’s water allocation system does not recognize or accommodate Aboriginal rights to water. The only provisions in the WSA that relate to Aboriginal water rights are those that acknowledge current and future water reservations agreed to as part of the treaty process. This is a significant gap.
• Major projects that impact watersheds and Indigenous water rights and water uses—like the Site C dam—continue to be approved without Indigenous consent.
The Ministry of Forests, Lands and Natural Resource Operations work with local
governments to bring them into compliance with the Riparian Areas Regulation
and report publicly on an annual basis about its administration of RAR including:

- Steps taken by the ministry to monitor the compliance of qualified
  environmental professionals (QEPs), proponents and local governments
  with the RAR, the results of that monitoring, and measures taken to
  improve compliance

- Steps taken by the ministry to monitor the effectiveness of the RAR, the
  results of that monitoring, and measures taken to improve the effectiveness
  of the RAR.

—OMBUDSPERSON (2014): STRIKING A BALANCE: THE CHALLENGES OF USING A
PROFESSIONAL RELIANCE MODEL IN ENVIRONMENTAL PROTECTION - B.C.'S EXPERIENCE
WITH THE RIPARIAN AREAS REGULATION.

It is increasingly understood that stronger oversight and compliance is required to protect the public interest in
watersheds. Several recent audits have indicated that the current model of relying on registered professionals to recommend
actions to meet provincial regulations on water and the environment has failed for a variety of reasons.

For instance, the Auditor General of B.C. in its Audit of Compliance and Enforcement in the Mining Sector recommended
that government establish policies and procedures for the use of and oversight of Qualified Professionals across the natural
resource sector.

To address these concerns, in 2017-18 the Province completed a Review of Professional Reliance in Natural Resource
Decision-Making. The final report outlines 121 recommendations to Government to implement a more accountable
professional reliance system. Government has committed to moving forward with the first two major recommendations:
establishing an Office of Professional Reliance and Oversight; and legislating best practices and professional governance.

Government will also be releasing a formal response to the full suite of recommendations.

Further policy and regulation development: Water Objectives; Water
Sustainability Plans; Governance; Dedicated Agricultural Water; s. 126.

—MINISTRY OF ENVIRONMENT (2016, MARCH): WEBINAR: BRITISH COLUMBIA’S WSA
AND REGULATIONS. FURTHER REITERATED IN 2018 SERVICE PLANS (SEE TABLE BELOW:
‘WATER POLICY COMMITMENTS FROM CURRENT GOVERNMENT.’)

WSA regulation development has been slower than initially intended. Several regulations are still to come, including those
for measuring and reporting, water objectives, and environmental flows, and delegated authority.
POLICY INNOVATIONS NEEDING URGENT ATTENTION

Government will limit all new licences to 40-year terms in areas where there is high demand and pressure on water.

—LIVING WATER SMART

Licences for surface and groundwater do not generally have fixed end dates and are issued in perpetuity. A 30-year review process allows Ministry staff to give notice and review licence terms and conditions. These reviews are intended to compel a water user to improve the efficiency of their water use or to make greater efforts at conservation—they are not intended to be a primary mechanism by which allocated rights can be reduced.

The Minister and Premier agree to revisit B.C.’s water fees and rentals structure.

—STATEMENT TO MEDIA, SUMMER 2015

The review of water fees and rentals is one of the most important unfulfilled commitments. Adequate financial resources are a precondition to successful WSA implementation. An appropriate water pricing regime can both promote conservation and provide the necessary resources to implement the promising—and resource-intensive—elements of the legislation. Currently, water license rentals go into general revenue and are not earmarked for water itself. While government agreed to review water-bottling operations in 2015, no results were released.

ACTION ITEM

This review is an opportunity to consider the full suite of licence fees and rentals to ensure sufficient resources are available to fund development and implementation of the new regulations. Such a pricing review should be part of a regular (2-3 year) ongoing review process.
Water Policy Commitments from the Current Government

NDP Election Platform
We will commit to and recognize the right to clean, safe drinking water through a renewed environmental assessment process that works with First Nations and communities to address the cumulative effects of development on ecosystems and watersheds.

We will review the *Water Sustainability Act* to ensure that high volume water users are paying for access fairly, and that drinking water sources are protected.

Ministry of Environment and Climate Change Strategy Service Plan (2018/19-2020/21)
Objective 1.1: Enhanced protection and stewardship of water resources.

KEY STRATEGIES:

- Providing leadership in the development of water strategies, science, policy, legislation and regulations to protect and manage the quality and quantity of surface water and groundwater.
- Collaboratively developing and implementing transboundary water management agreements with neighbouring jurisdictions.

KEY ACTIONS INCLUDE: the development of policies and regulations to support the implementation of the *Water Sustainability Act*, which was brought into force in 2016, as well as the completion of groundwater monitoring and science. Innovative approaches to watershed governance and management are being developed with First Nations to promote environmental sustainability. Implementation of the Hullcar Aquifer Recommendations Report recommendations and reforms to the Agricultural Waste Control Regulation and Organic Matter Recycling Regulation are also underway to further protect B.C.’s water and British Columbians’ rights to clean, safe drinking water.

Objective 1.1: Natural resource management that improves public confidence and trust in the stewardship of natural resources.

KEY STRATEGIES: Fully implement the *Water Sustainability Act*.

Mandate letters: All Ministries
As part of our commitment to true, lasting reconciliation with First Nations in British Columbia our government will be fully adopting and implementing the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP), and the Calls to Action of the Truth and Reconciliation Commission. As minister, you are responsible for moving forward on the calls to action and reviewing policies, programs, and legislation to determine how to bring the principles of the declaration into action in British Columbia.
3.2 PLACE-BASED GOVERNANCE

A handful of commitments made in Living Water Smart relate to “place-based watershed governance”—a governance approach that better balances provincial and Indigenous leadership with local involvement to lead watershed management, planning, and decision-making. The Province has more recently reinforced this important theme in other ways, such as through its commitments around reconciliation and updating strategic land-use planning made in 2017 mandate letters. Place-based governance is still an emerging area of work in B.C.; therefore, none of the commitments or recommendations have yet been “achieved.” These evolutions will inevitably take time and be realized through a learn-by-doing approach.

PLACE-BASED GOVERNANCE COMMITMENTS IN PROGRESS

Government will support communities to do watershed management planning in priority areas.
—Living Water Smart

To-date, no legislated watershed plans have been created in British Columbia. The Province has not completed any Drinking Water Protection Plans under the Drinking Water Protection Act. Nor were Water Management Plans completed under the former Water Act. In recent years, watershed groups and local governments have developed several watershed plans, which provide vision and guidance, but generally lack legal “teeth” and enforceability.

In the lead up to the release of the WSA, emphasis was placed on the importance of good water planning—starting in priority places—as the foundation to an effective provincial approach. The WSA introduces a sophisticated planning regime through water sustainability plans. At this stage, one provincial watershed governance pilot is underway in the Nicola, where the Province and 5 Nicola First Nations recently signed a Memorandum of Understanding (MoU) to address water governance. The MoU sets out the parties’ shared commitment to implement the United Nations Declaration on the Rights of Indigenous Peoples and desire to work together in a government-to-government partnership to address watershed issues. It solidifies an agreement that water/shed planning, decision-making, and management must be informed by Indigenous knowledge and best available science and shaped by Indigenous laws and the Water Sustainability Act.

Although the Nicola watershed governance pilot is a promising first step, ultimately more regions and sufficient resources must be committed to demonstrate a new approach that puts water at the centre of regional planning, integrated resource management, and decision-making. For a comprehensive and effective approach to water security and sustainability, the Province must shift from “one-off” pilots to an ongoing program of work on watershed governance.
In a 2018 B.C. freshwater public opinion poll, 49% of respondents noted they are extremely or very concerned about contamination of drinking water.

**ACTION ITEMS**

- Expand from one watershed governance pilot to a broader program. If implemented in three to five other regions, this governance program can test-drive many of the innovative aspects of WSA and ensure co-governance with Indigenous nations, based on both Crown and Indigenous legal orders.
- Strengthen and diversify local funding options (work that is underway through the Sustainable Funding for Watershed Governance Task Force, of which the Province is the co-Chair) will be critical to lasting planning and implementation success.

**TREATY WATER NEGOTIATIONS AND OTHER RELATED AGREEMENTS SUPPORT PROVIDING A CLEAN AND SAFE DOMESTIC, AGRICULTURAL AND INDUSTRIAL WATER SUPPLY FOR FIRST NATION COMMUNITIES.**

—LIVING WATER SMART

In general, modern treaties set out a specific water reservation for domestic, agricultural and industrial uses. These water reservations have a priority date from the date of the treaty. It has been suggested that the water volumes allocated in modern treaties may not be adequate to fully support Aboriginal rights to water, including keeping fish healthy and ecosystems functioning.

**PLACE-BASED GOVERNANCE COMMITMENTS NEEDING URGENT ATTENTION**

**GOVERNMENT WILL IMPROVE THE QUALITY AND PROTECTION OF DRINKING WATER SOURCES.**

—LIVING WATER SMART

While government has several tools available to protect drinking water sources, to-date these have been under-used. For example, no drinking water protection plans have been completed under the Drinking Water Protection Act, and these plans are extremely difficult to trigger. The Forest Practices Board also identifies several weaknesses in the effectiveness of the community watershed designation in protecting drinking water.

**ACTION ITEM**

The 2017 expert report on the Hullcar Aquifer Situation “From Crisis to Solutions: Towards Better Source Water Protection and Nutrient Management in the Hullcar Valley” outlines several key actions for B.C. to take to build a more robust source water protection regime, including updating the regulatory framework so appropriate protection/planning tools can be deployed efficiently and in a complementary way, and developing legally enforceable land and water plans. Although actions in the Hullcar are leading to improvements, a province-wide sourcewater protection approach has not yet been acted upon.
PLACE-BASED GOVERNANCE COMMITMENTS: NOT ENOUGH INFORMATION TO ASSESS

Strengthening FRPA’s requirements for the protection of drinking water. Government should undertake a review of FRPA’s requirements for the protection of drinking water generally, and in community watersheds specifically. The review should include:

- revising government’s objective for community watersheds with the intent of emphasizing the importance of sourcewater protection;
- revising the water quality practice requirement, in all applicable FRPA regulations, to address the inherent risk to human health associated with sediment;
- clarifying the meaning and scope of cumulative hydrological effects including whether the assessment and management of these effects is appropriate within the confines of FRPA or should be implemented under a different process.

—FOREST PRACTICES BOARD (2014). SPECIAL INVESTIGATION: COMMUNITY WATERSHEDS: FROM OBJECTIVES TO RESULTS ON THE GROUND.

‘Place-Based Governance’ Commitments from the Current Government

NDP Election Platform

In partnership with First Nations and communities, we will modernize land-use planning to effectively and sustainably manage B.C.’s ecosystems, rivers, lakes, watersheds, forests and old growth, while accounting for cumulative effects. We will take an evidence-based science approach and use the ecosystem-based management of the Great Bear Rainforest as a model. We will work with the federal government to improve drinking water quality in B.C. communities and ensure our permitting process prioritizes local drinking water needs.

Mandate letters

FLNR: Work with the Minister of Indigenous Relations, First Nations and communities to modernize land-use planning and sustainably manage B.C.’s ecosystems, rivers, lakes, watersheds, forests and old growth.

All Ministries: As part of our commitment to true, lasting reconciliation with First Nations in British Columbia our government will be fully adopting and implementing the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and the Calls to Action of the Truth and Reconciliation Commission. As minister, you are responsible for moving forward on the calls to action and reviewing policies, programs, and legislation to determine how to bring the principles of the declaration into action in British Columbia.

Ministry of Environment and Climate Change Strategy Service Plan (2018/19-2020/21) Objective 1.1: Enhanced protection and stewardship of water resources

KEY STRATEGIES

Key actions include … Innovative approaches to watershed governance and management are being developed with First Nations to promote environmental sustainability.
3.3 POOLING WATER KNOWLEDGE

Living Water Smart outlines several commitments related to improving hydrometric monitoring, water use measurement, and reporting on the status of freshwater health. The need for adequate information and data that is centrally located, used to inform decision-making, and publicly accessible, is a crosscutting theme across independent audit and expert reports. As with the Place-Based Governance theme, none of these commitments have yet been truly ‘achieved.’ However, many are in progress, and some still require urgent action.

POOLING WATER KNOWLEDGE COMMITMENTS IN PROGRESS

Government is expanding B.C.’s hydrometric and other climate-related networks.

—LIVING WATER SMART

Substantial efforts have been made to expand B.C.’s monitoring networks. Highlights include:

• The Canada-BC Hydrometric Agreement was renewed in 2013. The Canada-BC Hydrometric Network size has remained relatively stable and is now at 447 sites plus 5 partial year stations (2008 – 449 sites). To help address low flow concerns, the number of sites with water temperature monitoring has been increased to 126 (2008 – 22 sites).
• Over the last seven years, the Province has purchased equipment to conduct hydrometric monitoring both annually and seasonally at regional priority sites. Over 100 sites are either established or being planned.
• The Province has increased the number of Ministry of Environment and Climate Change Strategy operated Automated Snow Weather Stations monitoring sites to 40 (2013 – 30 sites).
• The Province has increased the number of sites in the Provincial Groundwater Observation Well Network 189 (2009 – 144 sites). The Province is anticipating increasing the number of wells in the network by 2 to 3 annually over the next few years.

Although these advances are significant, serious data gaps persist in freshwater monitoring, particularly the lack of knowledge about groundwater-surface water interactions. This dearth of data was noted in 2018 Auditor General Audit of Managing Climate Risk: “Geographically, climate networks do not meet international standards for station density, and gaps exist in the northern regions of the province and at high elevations. In addition, there are gaps in hydrometric and groundwater monitoring in the province.” A recent government-led study further daylights the lack of sufficient information about groundwater, and in particular the threats, stresses and interactions between groundwater and surface water. This study sets out a series of recommendations to address data gaps and improve groundwater management, which should be taken into account in monitoring efforts going forward.
**ACTION ITEM**

*Two top priorities are:*

1. Required measuring and reporting for water use to better understand how licence holders currently use water in the province; and
2. Expanded hydrometric station coverage to better manage for environmental flows and critical flows.

**Tools to incorporate traditional ecological knowledge into information and decision-making will be developed by 2015.*

*LIVING WATER SMART*

*Indigenous-led initiatives* such as the Gitanyow Lax’yip Land Use Plan and the Yinka Dene Surface Water Policy are driving Provincial decision-makers to consider Indigenous laws and knowledge in decision-making.

*Local watershed partnerships* are also showing leadership in this area, including:

- The Cowichan Watershed Board operates under clear targets and working groups that draw upon both Indigenous and Western science.47
- The Kootenay Lake Partnership has created a shoreline mapping/inventory tool that includes both cultural and archaeological values.48

*Provincial efforts and collaborations*

- The Nicola watershed governance MoU between the Province and five Nicola First Nations makes a clear commitment to approach planning and decision-making based on both Indigenous knowledge and Western science.
- Bilateral water management agreements between B.C. & Yukon and between B.C. & NWT (required under the *Mackenzie River Basin Transboundary Waters Master Agreement*, 1997) include commitments to consider traditional and local knowledge in the setting and assessment of transboundary objectives.
- Opportunities to include traditional ecological knowledge in WSA water objectives are also being explored.

Significant work is still needed to understand how water decisions can be made in an appropriate and respectful way based on a foundation of both Indigenous knowledge and Western science.
The classification of the province’s aquifers is completed for all priority areas and that the WELLS database is kept up to date. The ministry should also ensure that aquifers are characterized, starting with those classified as having the highest priority.

—AUDITOR GENERAL GROUNDWATER AUDIT (2014)

1100 aquifers have been classified as of January 2016; however, gaps in coverage persist.

**ACTION ITEM**

Improve the Observational Well Network to better quantify groundwater recharge.

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**POOLING WATER KNOWLEDGE COMMITMENTS NEEDING URGENT ATTENTION**

**Government will require all large water users to measure and report their water use.**

—LIVING WATER SMART

The WSA monitoring and reporting regulations are not yet in place. Some individual licences require installation of flow meters or other measuring devices as a condition of the licence, but this is not universally required, nor is there a requirement to regularly (and publicly) report water use.

**Government will publish a report on the state of our water every five years.**

—LIVING WATER SMART

Select water indicators are included in the Province’s general state of environment reporting; however, no comprehensive state of water reports have been completed to-date.
A strategy to set the direction for water science in B.C. will be implemented.
—LIVING WATER SMART

A publicly available overall water science strategy does not currently exist. While the Province is developing processes and portals to allow public access to water-related data and filling in gaps in monitoring (as outlined above), major gaps persist, including an overarching “water knowledge” strategy in order to ensure that both science and traditional ecological knowledge are fully integrated into a provincial strategy.

**ACTION ITEM**

Develop an overarching water knowledge strategy that appropriately incorporates Indigenous knowledge, leverages community-based monitoring, makes data publicly accessible, and includes regular and reliable watershed reporting.

**POOLING WATER KNOWLEDGE: NOT ENOUGH INFORMATION TO ASSESS**

The Government of B.C. should:

- Establish and/or update, as the foundation for cumulative effects management, values that are important for the province to sustain and the acceptable conditions for those values.
- Monitor the condition of values and make that information available to decision-makers.

—AUDITOR GENERAL REPORT (2015) MANAGING THE CUMULATIVE EFFECTS OF NATURAL RESOURCE DEVELOPMENT IN B.C.

**Relevant commitments from the current government**

**NDP Election Platform**

We will take an evidence-based science approach and use the ecosystem-based management approach of the Great Bear Rainforest.

**Ministry of Environment and Climate Change Strategy Ministerial Service Plan Objective 1.1:**

*Enhanced protection and stewardship of water resources*

Developing and implementing monitoring strategies for surface water, groundwater and aquatic ecosystem health.
Recent public opinion polling by McAllister Opinion Research (June 2018) shows the majority of British Columbians are unable to identify where their drinking water comes from.

3.4 PEOPLE: PUBLIC ENGAGEMENT

Living Water Smart made several commitments related to education, providing opportunities for young professionals in the water sector, and building “water IQ.” Although most of the specific programs outlined were not implemented, and government has not made clear commitments around public engagement on freshwater since, B.C. has demonstrated leadership in providing opportunities for public engagement and comment on proposed water legislation and regulations.

The Province has also provided support for an ongoing biennial series of Watersheds forums, which help convene B.C.’s diverse freshwater community, build networks, and enhance capacity for collaboration and watershed governance. Reinvigorating water and watershed education, and investing in young water leaders and the broader freshwater community, is a critical aspect of building B.C.’s overall ability to develop and implement water solutions.

PUBLIC ENGAGEMENT COMMITMENTS IN PROGRESS

Government will work with the private sector and support communities to conserve and restore stream function.

—LIVING WATER SMART

From 2002-2013, the provincial Living Rivers Trust Fund invested in watershed sustainability projects, which included education and engagement and habitat restoration and stewardship. However, no provincial funding of this nature has been committed since the Living Rivers Trust Fund ended in 2013.

ACTION ITEM

Further investment in a Water Sustainability Fund that would support communities to do important watershed stewardship, restoration work, and support watershed-based activities led by Indigenous and non-Indigenous communities to contribute to the economic and environmental transition that is required in rural B.C. Critical activities this fund would support include local stewardship initiatives, riparian and habitat restoration efforts, and area-based planning. Many examples of such funds exist, including the previous Living Rivers Trust.
4. Where to Next: Revitalizing B.C.’s Water Agenda

As this review has revealed, the question of “How is B.C. doing to implement its freshwater commitments?” does not have a single, simple answer. Significant strides have been made in some key areas, but many very important water policy commitments have not been met with substantial—or in some cases any—follow through on implementation.

In 2017, building off the initial research for this report, POLIS released a Revitalized Water Agenda for British Columbia. This included a 10-Step Plan laying out the key steps for B.C. to take to implement a robust water law, policy and governance regime (see sidebar). Each of the ten actions remains relevant for B.C. to take—but three in particular stand out as the most immediate and urgent opportunities to pursue.

These actions reinforce several Living Water Smart commitments (and the spirit and intention of that plan); are directly linked to the current government’s core mandate commitments; and would help fill the gaps that still need urgent attention.

1. **Comprehensive Water Sustainability Act implementation with Indigenous co-leadership.** This specifically entails:
   • Follow-through on development of Phase 2 regulations, prioritizing environmental flows and water objectives.
   • Expanding to three to five watershed governance pilots to test new tools (in particular water sustainability plans and water objectives) via a partnership approach with Indigenous Nations. This is a critical step to inform necessary regulation/policy development, to ensure co-governance with Indigenous Nations based on both Crown and Indigenous legal orders, and to solve pressing water challenges.

2. **Review Provincial Water Rentals** – without adequate resources for the necessary science, knowledge, planning and implementation, further progress will be limited.
10-STEP PLAN FOR A REVITALIZED WATER AGENDA IN B.C.

#1 Comprehensive Water Sustainability Act implementation
- Phase 2 regulations, prioritizing environmental flows.
- 3-5 watershed governance pilots to test new tools and inform necessary regulation/policy development.

#2 Increase provincial water rentals
- Better reflect the value of the resource and provide resources for implementation.
- Promote conservation & drive technological innovation.

#3 Acknowledge Indigenous water rights
- Government to government approaches based on UNDRIP principles.
- Environmental flows regime incorporating Indigenous knowledge & protecting Indigenous water uses.

#4 Implement water-centric land use (watershed) planning
- Prioritizing drinking water source protection.
- Shape land use decisions through a water sustainability lens.

#5 Review and modernize the professional reliance model
- Provincial body empowered to provide independent oversight; ensure accountability for necessary government changes.

#6 Build resilience for floods and droughts
- Measures include climate adaptation policies and plans; comprehensive water conservation (e.g. conservation-oriented pricing regimes); and climate-smart water infrastructure (e.g. integrated rainwater harvesting, efficient irrigation systems).

#7 Incentives for governments at all levels to invest in living infrastructure, like healthy urban streams and wetlands

#8 Create a Water Sustainability Fund
- Capacity-building towards watershed governance approach.
- Ongoing funding to local watershed entities/efforts.

#9 Develop an overarching water knowledge strategy
- Incorporating Indigenous knowledge & leveraging community-based monitoring.
- Make information publicly accessible; supported by monitoring & regular reporting.

#10 Explicit reference to the Public Trust Doctrine in the WSA and to enable ENV Minister to trigger key sustainability tools
- The Public Trust Doctrine is a legal doctrine that recognizes that government does not own water but only holds it in trust for its citizens and future generations. The public trust doctrine emphasizes that government has a fiduciary duty to protect and sustain common resources the use and enjoyment of all, now and in the future.62
3. Develop an overarching water knowledge strategy including enhancing water use measurement and reporting (including groundwater); increasing hydrometric and climate monitoring; respectfully incorporating Indigenous knowledge; leveraging community-based monitoring; and making information publicly accessible (starting with a State of the Waters report).

A fourth rapidly emerging priority—and subject of mounting public concern—is the need to build a more robust source water protection regime for B.C. This work is underway for the Hullcar aquifer in the interior of B.C, as a response to a significant acute drinking water issue. Drinking water and source protection is an ongoing focus for the both the B.C. Auditor General and Auditor General for Local Government.

Overall, this review demonstrates a systemic gap: B.C.’s freshwater policy was written a decade ago, but has not been regularly revisited (except perhaps as internal government processes), and certainly not reported on publicly or updated by executive or cabinet. A renewed approach to policy implementation is required to ensure such commitments do not become underutilized reports that sit on shelves and are quickly forgotten after the fanfare of the release. As stated by Our Living Waters:

“It's important that freshwater policies be renewed regularly, whether reviewed and tweaked or completely overhauled, depending on the context. As policies age, information within them becomes outdated, issues change, and actions promised can get completed or become irrelevant. New policies, ideally, create new commitments based on updated data and knowledge to ensure freshwater sustainability now and into the future.”

At the Living Water Smart 10-year mark, British Columbia has a critical opportunity to implement a renewed strategy and water agenda to incorporate the current government’s mandate and commitments to reconciliation, revitalized land use planning, and source protection. And, the Province cannot do it alone: it will take the sustained and coordinated efforts of all levels of government (including Indigenous nations), water leaders, independent experts, and communities and watershed groups to create the resilient and sustainable water future envisioned a decade ago in Living Water Smart.
ENDNOTES

1 We recognize that the implementation dates do not align with the timelines specified in various commitments due to a number of significant events, such as the global recession and shifting provincial political priorities – so our analysis focused on the achievement of the overall commitment so far.


3 As one example, Indigenous law revitalization projects are underway through the Indigenous Law Research Unit at the University of Victoria: https://www.uvic.ca/law/about/indigenous/indigenousslawresearchunit/index.php


5 The 2017 B.C. government mandate letters outline commitments (among others) to establish a cross-government vision of reconciliation; to fully adopt and implement UNDRIP; and to work with First Nations and communities to modernize land-use planning and sustainably manage B.C.’s environment.

6 Local governments too have clearly signaled interest and support for new watershed governance and management approaches. At the 2018 UBCM convention, the resolution B67 – Watershed Governance Model was passed: “Whereas UBCM has consistently advocated for providing water purveyors with greater control over the watersheds that provide drinking water to their communities; And whereas an integrated watershed governance approach that recognizes indigenous water rights and utilizes a collaborative, consensus building approach to decision making could provide a model that addresses community needs while balancing the resource and capacity limitations experienced by local governments and First Nations: Therefore be it resolved that the Province recognize and support local watershed collaborative governance entities and adequately resource these entities.”

7 Our Living Waters’ Freshwater Policy Impact Measure identifies whether each province or territory has a sustainability-focused public policy on freshwater, see: http://www.ourlivingwaters.ca/freshwater_policy

8 Local and federal governments, industry groups, First Nations, non-governmental organizations, communities and citizens all have important roles to play in achieving water stewardship and play a vital role in achieving the Living Water Smart vision and goals: http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-planning-strategies/living-water-smart

9 See Appendix B, in accompanying document.

10 POLIS hosted a working session with Ministry of Environment and Climate Change Strategy and Forests, Lands and Natural Resource Operations & Rural Development staff and executive in May 2017 to discuss the Living Water Smart component of the project, and ENV staff reviewed an earlier draft of the Living Water Smart table (Appendix A). However, the progress evaluation is a result of POLIS’ analysis alone and has not been endorsed by government.


12 Details on each of these sustainability provisions in the Act are provided in POLIS’ Awasch with Opportunity (2015), Advancing Freshwater Protection (2018) and Water Sustainability Plans: Potential, Options, and Essential Content (Curran and Brandes, forthcoming).

13 The partnership approach for the Nicola pilot is described in a press release from the B.C. government: https://news.gov.bc.ca/releases/2018ENV0012000484; and an article on the POLIS Water Sustainability Project’s website: https://poliswaterproject.org/2018/05/11/nicola-watershed-governance/.

14 The current provincial water pricing regime does not adequately promote water efficiency as licence rentals are still very low (at a maximum $2.25/ million L).

15 For details on each of these mechanisms see the WSA at ss. 86-88; and POLIS’ briefing note Advancing Freshwater Protection (2018) at pp. 8-9.


18 Ibid. at 17.


Doug Halstead and Donna Halstead v. British Columbia (Water Manager), BC EAB Decision, 2017-WAT-007(a), December 18, 2017.

As James Mattison (former B.C. water comptroller) wrote in his 2016 Discussion Paper prepared for WWF-Canada and POLIS Forum on Environmental Flow Needs in B.C.: “There is nothing like an objective ordered by Cabinet through a regulation to help land and water managers know, and land and water users understand, what is required of their proposed activity to ensure stream health.”


This has been reiterated in several places, including in POLIS' (2014) Decision-Makers’ Brief: A Blueprint for Watershed Governance. “A Natural Resources Practices Board is urgently required that would broaden the role of the current Forest Practices Board to all aspects of watershed and water management.”

Enhancing the role of the Forest Practices Board to a Natural Resource Practices Board as one mechanism to improve oversight, highlighted under winning condition #7 in POLIS’ A Blueprint for Watershed Governance in B.C. (2014, January), see: https://poliswaterproject.org/files/2014/01/POLIS-Blueprint-web1.pdf


A similar recommendation was made in the B.C. Auditor General’s Audit of the Management of Groundwater Resources in British Columbia (2010): “Ensure that integrated watershed management plans are developed for all priority watersheds.”

The Township of Langley’s Water Management Plan (2009) was completed but never approved. For example, watershed plans were developed for the Cowichan, Coquitlam, and Comox watersheds. Water sustainability plans are described in detail in POLIS’ Awaak with Opportunity (2015) and the forthcoming brief Water Sustainability Plans: Potential, Options, and Essential Content (Curran and Brandes, forthcoming).


The first two sustainable funding pilots have been launched in the Cowichan and Nechako to test a variety of funding mechanisms; progress and success will be evaluated over the coming year(s).


45 For the full report, see: https://poliswaterproject.org/polis-research-publication/public-trust-modern-bc-water-act/


48 For a detailed description of the mapping/inventory tool, see: http://kootenaylakepartnership.com/resources/

49 For more information about the Indigenous Wisdom Advisory Panel, see: https://www.alberta.ca/release.cfm?xID=47018B800EE55-E91B-85D6-7FF70DD399AE4552

50 See: https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/groundwater-wells-aquifers


52 This commitment is reiterated in the Cohen Commission’s The Uncertain Future of Fraser River Sockeye – Final Report (2012) at recommendation #47.

53 The Oil and Gas Commission has made some progress in Northeast B.C.—effective in 2014, it requires water licences for oil and gas use to be reported.

55 Monitoring the long-term trends in groundwater levels provides a ‘water indicator’ for the Province’s general environmental reporting, see: https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/reporting/environmental-reporting-bc-water-indicators

56 A living archive of the ongoing series of Watersheds forums is available online: https://watershedsforum.ca/


60 This helps address Living Water Smart commitments #1, 2, 3, 8, 10, 17, 19, 39, 40; and reinforces recommendation #3 in the Forstner et al. (2018) report: Mapping Aquifer Stress, Groundwater Recharge, Groundwater Use, and the Contribution of Groundwater to Environmental Flows for Unconfined Aquifers across British Columbia.

61 This has been identified as a key need by several B.C. freshwater leaders, see for example: https://poliswaterproject.org/files/2015/06/SoE-for-regulations-under-WSA_General_June-2015.pdf


63 Our Living Waters is a collaborative network of organizations working together under a common strategic framework to achieve the ambitious goal of all waters in good health by 2030, see: http://www.ourlivingwaters.ca/

POLIS Project on Ecological Governance

Created in 2000, the POLIS Project on Ecological Governance is a research-based organization that is part of the Centre for Global Studies at the University of Victoria. Researchers who are also community activists work to make ecological thinking and practice a core value in all aspects of society and dismantle the notion that the environment is merely another sector. Among the many research centres investigating and promoting sustainability worldwide, POLIS represents a unique blend of multidisciplinary academic research and community action.

polisproject.org

POLIS Water Sustainability Project

The POLIS Water Sustainability Project (WSP) is an action-based research group that recognizes water scarcity is a social dilemma that cannot be addressed by technical solutions alone. The project focuses on four themes crucial to a sustainable water future:

- Water Conservation and the Water Soft Path;
- The Water-Energy Nexus;
- Watershed Governance; and
- Water Law and Policy.

The WSP works with industry, government, civil society, environmental not-for-profits, and individuals to develop and embed water conservation strategies that benefit the economy, communities, and the environment. The WSP is an initiative of the POLIS Project on Ecological Governance at the Centre for Global Studies, University of Victoria.

poliswaterproject.org