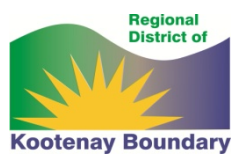


WORKING TOGETHER: GROWING OUR CAPACITY FOR WATERSHED STEWARDSHIP IN THE KETTLE RIVER WATERSHED

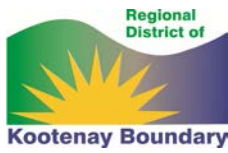


DISCUSSION PAPER 2 – FEBRUARY 27, 2014



Kettle River Watershed Management Plan

The Kettle River Starts Here



Kettle River Watershed Management Plan

The Kettle River Starts Here

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INTRODUCTION

The Regional District of Kootenay Boundary (RDKB) is developing a watershed management plan for the Kettle River in British Columbia. The Kettle River Watershed Management Plan (KRWMP) is a collaborative initiative supported by a Stakeholder Advisory Group with participation from local and provincial governments as well as representatives from multiple sectors and organizations from across the region.

This discussion paper is the second of several papers that provide ideas and options for strategies and actions to be included in the watershed management plan, which will be finalized by summer, 2014. The Advisory Group’s vision for the Kettle River Watershed was articulated in Discussion Paper 1:

“We envision a healthy, resilient and sustainable Kettle River Watershed, with a landscape that functions to meet community needs and values, and communities that act as stewards of the watershed.”

The community needs and values were expressed as a set of goals relating to healthy aquatic ecosystems, safe & secure water, and reliable supplies for community uses of water [17].

The Advisory Group understands that communities of the region will need to find new ways to work together to make progress in watershed management. Many of the constraints to achieving watershed goals in the Boundary relate to governance, including lack of money, resources, capacity, leadership, oversight, regulation and policy application (Table 1).

Table 1. Constraints related to governance and capacity (adapted from Discussion Paper 1)

#	Category	Description
3	capacity constraints	The community’s ability to respond to watershed issues is constrained by capacity, money, policy support and public understanding
3.1	regulatory capacity	Regulatory oversight by provincial and federal agencies has declined for multiple aspects of land and water management. This decreased capacity limits the response to impacts on water supply, quality and watershed function.
3.2	funding and governance	Overall funding in resource management agencies is constrained, meaning fewer resources are available to support programs such as ecosystem monitoring, water quality testing, implementation of beneficial management practices and ecosystem restoration. Fewer staff from federal and provincial agencies (3.1) means less capacity for informed decision-making at all levels of government and in watershed planning groups.
3.3	understanding/commitment	Public and institutional understanding about, and commitment to, watershed health and function limits support for improving policy, watershed stewardship, and individual actions.

So what can our communities do to meet the challenges?

Discussion Paper 1 outlined strategies and management directions relating to governance, collaboration and decision-making. The first overall strategy is to “increase community understanding, support and capacity for stewardship of the Kettle River Watershed,” and the first management direction is to “Develop capacity for watershed stewardship through the development of a governance framework for watershed decision-making, plan implementation and review.”

The purpose of this paper is to discuss needs for watershed governance in context of the development, implementation and updating of the KRWMP, and to outline strategies and actions for growing understanding about the watershed and support for watershed stewardship.

KEYS TO SUCCESSFUL WATERSHED MANAGEMENT

The underlying premise of this planning process is that watershed management requires attention to increasing the understanding, support, and capacity for stewardship across the communities and stakeholder groups connected to the watershed (Figure 1)[15],[16].

Local, provincial, federal, or First Nations government authorities and watershed organizations initiate plans to support decision making and policy about the land and water resources impacted by watershed challenges (Appendix).

An organization’s ability to carry out its mandate in watershed management depends on its capacity, in terms of skilled people, tools, money, and decision-making ability. It also depends on how well they reach out to other levels of government and organizations across the watershed and beyond.

Building *support* takes time and effort in lobbying for resources or policy changes, persuading others to get involved, and reaching out to the public about issues and solutions in the watershed. This also means improving *understanding* of watershed issues by summarizing current knowledge, doing scientific studies to fill knowledge gaps, and sharing that information with the public and stakeholders.

Most importantly, communities need to work on improving our *capacity* to make improvements in how they manage land and water. Capacity means having skills, resources, tools, and most importantly

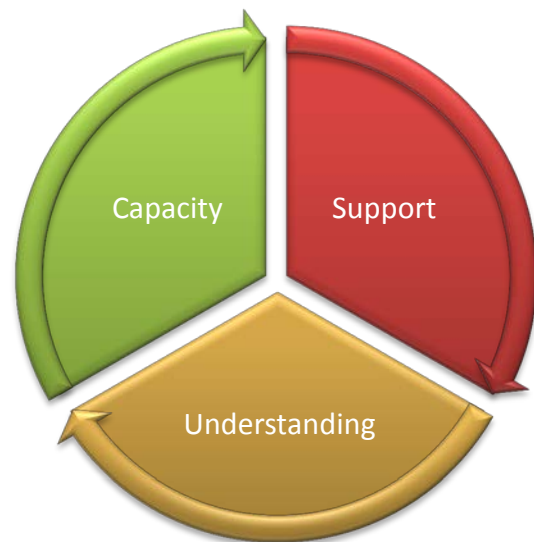


Figure 1. Key ingredients for success in watershed management

people in different organizations and sectors working together. It entails developing partnerships, training, and extension to improve capacity during implementation.

The time to jointly build support, understanding, and capacity has never been more critical. As Brandes and O’Riordan [6] note, there is a grassroots momentum among communities to have a greater role in watershed governance at the same time that all levels of government have a diminished capacity to fulfill their responsibilities to protect and sustain watersheds.

Indeed, a key factor of success for watershed management is how much influence local watershed organizations and partnerships have over water and related resources that affect their communities. Moving towards greater shared decision-making in watershed management is a priority, such that local and regional authorities have increased influence on water issues.

TYPES OF GOVERNANCE ARRANGEMENTS

As the Stakeholder Advisory Group continues its work of developing solutions for watershed issues, it needs to keep in mind *who* will be making decisions, *who* they will involve, *how* they will implement these decisions and monitor progress, and *what* resources and funding are available. This, in a nutshell, is governance – a dual process of making decisions and holding those that make decisions to account [6]. A more technical definition has been proposed by the Commission on Global Governance (see inset).

[Governance is] the sum of the many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflict or diverse interests may be accommodated and co-operative action may be taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interests [7].

As the Stakeholder Advisory Group continues to develop recommendations and prepares to release the watershed plan, it should have in mind plausible options for governance that provide the support, understanding and capacity to successfully implement the recommendations. This will help ‘ground-truth’ the recommendations and promote a smooth transition from planning to implementation. A good governance structure for implementation will also enable better use of resources for projects, information sharing, and capacity of the community to be stewards of the watershed.

Here are four models with examples to open the conversation:

- A. **Informal network**, where one organization (i.e. RDKB) forms the hub for implementation of the watershed plan. Projects would proceed as initiatives of member organizations and information would be shared with the network at regular progress meetings. The lead organization would be responsible for financing and coordinating progress meetings and reporting.
- The KRWMP would be implemented through an informal network if the existing governance structure simply transitions into an implementation role.
- B. **Formal partnership** (i.e. Watershed Management Board) established among the RDKB, provincial & federal governments, urban municipalities, water purveyors, non-profit organizations, and other stakeholders to jointly fund and implement projects. The partnership could be supported by a memorandum of understanding between parties and have a central fiscal agency and coordinating function at the RDKB or other lead municipality to implement research and projects.
- The Beaver Hills Initiative (BHI) in central Alberta is a partnership of over 30 municipalities, government organizations, conservation organizations, research groups and other stakeholders that collaborates on shared initiatives and coordinated action to support biodiversity and ecosystem integrity in a rapidly urbanizing region [3]. Participating municipalities and organizations sign on to a voluntary memorandum of understanding and access various sources of funding and support to implement projects of joint interest.
 - The Cowichan Watershed Board provides leadership for sustainable water management in the Cowichan Watershed and nearby areas. It is a partnership of local governments and the Cowichan Tribes, with a board composed of elected and appointed members. The CWB does not have regulatory authority but does exercise considerable influence through collaborative decision-making and water management done by member organizations individually and in partnership [8].
- C. **Society** with terms of reference that includes all stakeholders noted above in (B). The society would act as the fiscal agent and coordinator of implementation.
- Alberta Watershed Planning and Advisory Councils (WPACs) are the independent, basin-scale non-profit societies and charitable organizations mandated by the Government of Alberta to coordinate the development and implementation of watershed plans and reporting on the state of water resources under Alberta's *Water For Life* policy [1,2]. WPACs are advisory, with voluntary participation by various stakeholder groups including local governments, first nations, industry groups, stewardship groups, academic organizations, and others. Funding is through a combination of operating and project grants from the provincial government, funding organizations, industry and stakeholder contributions, and voluntary funding by member municipalities.

- D. **Watershed Authority.** Where the legislative framework exists (Manitoba, Ontario), organizations with local government powers relating to land and water management have been enabled to fulfill various watershed management and source water protection functions.
- The Okanagan Basin Water Board (OBWB) is an inter-regional local government entity that exists to promote the shared water interests of Okanagan communities by providing leadership, information, communication and funding for water-related initiatives [11]. The OBWB has a Board of Directors including elected or appointed representatives of Okanagan Regional Districts, the Okanagan Nation Alliance, the Water Supply Association of B.C., and the Okanagan Stewardship Council (the Council). The Board and staff receive water information and recommendations from the Council and take action through various basin-wide initiatives such as the Okanagan Water Supply & Demand Project. The OBWB was legislated under the *Municipalities Enabling and Validating Act* and by supplementary letters patent (SLP) to the Okanagan regional districts. The Board has the authority to tax on the basis of assessed values (capped at \$0.036 per \$1000).

Brandes and O’Riordan [6] have also identified a range of features and activities associated with “Watershed Entities” (WEs), which is a broad term encompassing organizations and partnerships dedicated to watershed governance and management.

GOVERNANCE OUTCOMES & ROLES

Discussion Paper 1 did not articulate specific goals related to capacity and governance, but focused on goals for the watershed and overall strategies to achieve them. Subsequent discussion by the Advisory Group and participation in province-wide dialogues [5,6] has allowed us to develop a set of draft governance outcomes to enable long-term success.

The Advisory Group recommends the establishment of a watershed organization, partnership or authority that directly follows from and builds on the current planning work (referred to as the *watershed entity*). To that end, we have identified following outcomes related to governance and capacity:

1. *Communities in the Kettle River Watershed have a fundamental role in the sustainable management of water and related resources* in the region through the watershed entity. At a minimum, this role includes:
 - a. Visioning, planning and review based on watershed function and ecological health
 - b. Integration of mandates, programs, capacities, and responsibilities of different levels of governments at the watershed scale

- c. Engagement, education and awareness building, including promoting water conservation, building resilience into water supplies, and promoting compliance and conflict resolution
 - d. Data collection and information management as part of a provincially-mandated and coordinated state-of-the- watershed reporting framework
 - e. Further roles may be developed with regard to: drinking water source protection planning; monitoring of water allocation and water quality; green infrastructure development and funding distribution; and fish and aquatic ecosystem habitat conservation and restoration.
2. *The roles of the watershed entity are enabled in legislation, supported by the capacity, community interest, and ability to meet accountability and legitimacy requirements.*
 3. *The watershed entity achieves representation from across watershed interests and sectors both informally and informally, with a blend of elected representatives and individuals nominated from core parties, including First Nations and other levels of government.*
 4. *The watershed entity has a sustaining funding base drawn from a diversity of sources that enables ongoing coordination and the fulfilment of priority actions.*
 5. *Proposals and plans regarding water management, resource development, utility establishment, and other initiatives with the potential to affect fresh water are referred to local communities and the watershed entity for consideration, with considerable weight given to their feedback.*
 6. *The watershed entity has a defined and significant role in planning, response and recovery in relation to emergencies affecting water resources such as spills, floods and fires.*
 7. *The watershed entity has a defined and significant role in provincially-led cumulative effects studies and management systems that use whole-systems approaches to ensure clean fresh water is available for nature and human needs.*

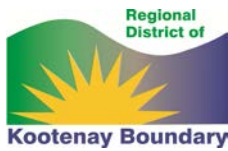
The specific format and structure of the watershed entity will be studied during the transition to implementation, as discussed below.

STRATEGIES AND ACTIONS

The Stakeholder Advisory Group has considered a number of strategies and actions related to building capacity, governance, and stewardship in the Kettle River Watershed, as the foundation for successful implementation of the watershed plan (Table 2).

Table 2. Draft strategies and management directions

#	Keywords	Strategy / Management Direction / Action	When
1	Capacity	Increase community understanding, support and capacity for stewardship of the Kettle River Watershed	
1.1	develop governance	Develop capacity for watershed stewardship through the development of a governance framework for watershed decision-making, plan implementation and review	June 2014
1.1.1	Implementation team	Establish a KRWMP Implementation team to: coordinate implementation of the Plan among stakeholders; act as a bridge to other sectors and organizations; monitor and report on progress; and review new information and update the watershed management plan on a five-year basis. Implementation team would include technical working groups and a Stakeholder Advisory Group [Lead: RDKB & KRWMP Steering Committee]	Summer 2014
1.1.2	Funding model	Develop a long-term funding model to improve capacity for planning, implementation, and monitoring. [Lead: KRWMP Implementation Team, in collaboration with local and provincial levels of government]	Dec 2014
1.1.3	Local gov't integration	Integrate the KRWMP into local government decision-making through coordinated environmental planning, green bylaw development, and municipal conservation and park management planning. [Lead: KRWMP Implementation Team, local governments]	Ongoing
1.1.4	governance plan	Study and recommend a governance model for long-term watershed management that includes greater sharing in decision-making for water management, in consultation with the provincial government and local community members [Lead: Implementation team]	Dec 2014
1.2	build support	Build public and institutional support for improved watershed management, including the development, implementation, and continued support of policies and regulations that safeguard watershed health.	
1.2.1	engage	Develop a public engagement plan for regular public feedback and review, including semi-annual meetings, regular columns, and website/social media [Lead: Engagement & Education Working Group]	Summer 2014
1.2.2	improve compliance	Implement an awareness program to improve community knowledge and understanding of laws, regulations and responsibilities used to manage human impacts on land and water in the watershed [Leads: Government of	Fall 2014



Kettle River Watershed Management Plan

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#	Keywords	Strategy / Management Direction / Action	When
		BC, Implementation Team]	
1.2.3	supporting capacity	Assess and address issues around capacity and effectiveness of regulatory compliance and enforcement [Leads: Government of BC, Implementation Team]	Ongoing
1.3	improve understanding	Improve public understanding of watershed function, integrity, resilience, and sustainability. Fill gaps in understanding through scientific studies and ongoing monitoring.	
1.3.1	Information system	Build a digital map-based watershed information system to collect and share information and data on water and related resources in the Kettle River Watershed and to support local government and stakeholder decision making. [Lead: Project Coordinator, Technical Advisory Committee]	Summer 2015
1.3.2	monitoring framework	Develop and implement a monitoring framework for water quality, water quantity, aquatic ecosystems, groundwater, and land use and management. Framework to include identification of indicators for reporting [Lead: Technical Advisory Committee]	Dec 2014
1.3.3	educational strategy	Develop and implement a watershed education strategy [Lead: Implementation team, Engagement & Education Working Group]	Fall 2014
1.4	improve capacity	Improve capacity for watershed stewardship through financial and technical support of beneficial management practices and ecosystem restoration by landowners, local governments, resource industries and the public.	
1.4.1	conservation and stewardship funding	Investigate and develop a conservation fund for regional land conservation and stewardship on private lands [Leads: Implementation Team, Boundary Habitat Stewards]	Summer 2015
1.4.2	stewardship coordination	Collaborate with stewardship and conservation groups, conservation funding sources, government agencies and landowners to align activities and funding to achieve watershed planning goals [Lead: Implementation Team, Boundary Habitat Stewards]	ongoing

COORDINATION OF PLAN IMPLEMENTATION

A key part of the Kettle River Watershed Management Plan will be the Implementation Strategy, which lays out the prioritization, phasing of and responsibilities for the recommended strategies and actions in the plan. Upon completion of the KRWMP & Implementation Strategy, there will be an immediate need for governance over plan implementation, to fund and coordinate the recommended strategies and actions.

There are several options for coordinating implementation, depending on the governance structure and nature of the lead organization. Determining a long-term governance structure will require significant further study, and the Advisory Group has determined that they do not want to hold up implementation of the watershed plan as governance studies are conducted.

Assuming the RDKB continues to have a lead role in plan implementation, there will be requirements for building capacity in the RDKB for coordination, information management, special projects, and other implementation needs.

Funding for coordinating implementation could come from a combination of sources available to the RDKB, municipalities, and project partners, including: gas tax funds; climate mitigation and adaptation funds; outside granting organizations; and taxation, if required, where activities fall under existing or future municipal and/or electoral area services such as parks or environmental services. The present task of the Steering Committee is to establish a flexible framework for funding and coordinating implementation that can adapt to various available funding sources, including core funding for project coordination.

Steps to Implementation

The following is a suggested course of action for the first year of implementation.

1. RDKB commits to continuing support for project coordination through three years of implementation. The roles, scope, timeline and funding for this coordination will be developed by the Steering Committee. The Project Coordinator will coordinate the implementation team and support each of the working groups, and act as a liaison between different stakeholder organizations, government agencies, and the Steering Committee. The Project Coordinator will also provide project management and delivery, as needed, for special projects undertaken during implementation.
2. The Steering Committee creates a plan “implementation team” on the completion of the KRWMP that is composed of the chair & vice-chair of the Stakeholder Advisory Group, chair of

the Steering Committee, and chairs and representatives of each of the project working groups struck by the Steering Committee.

3. The Steering Committee creates a set of working groups (science & monitoring, stewardship, governance, water conservation, etc.) to coordinate and report on implementation of the strategies and actions as determined in the KRWMP and implementation strategy. The Governance & Funding work would be carried out by the Steering Committee with 2-3 additional Stakeholder Advisory Group representatives.
4. Continue with the existing governance structure for at least one year, or until the new partnership or entity is established. If the major stakeholders do not wish to create a new formal partnership or organization during that period, then the plan implementation will continue as an informal network with RDKB as lead.
5. The Stakeholder Advisory Group continues to meet at quarterly or semi-annual meetings to review progress and provide input on plan implementation. At the transition from plan completion to implementation, all members of the Advisory Group would be invited to continue in an advisory role for implementation and other members of the public and stakeholder organizations would be asked to apply.

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APPENDIX: WATER GOVERNANCE IN BRITISH COLUMBIA

Under the Canadian Constitution, the provinces are “owners” of the water resources and have wide responsibilities for ongoing management. However, responsibilities for water management are divided between federal, provincial and local levels of government as well through First Nations rights and title.

The Federal government is responsible through the Canada Water Act, for setting the framework for federal-provincial and international water management agreements, as well as for a number of specific management areas, notably navigation, shipping, and fisheries management. The Canadian federal legislation that is important in this region includes the *International Boundary Waters Treaty Act*, *Fisheries Act*, *International Rivers Improvement Act*, and *Navigable Waters Protection Act*. The *Canadian Environmental Protection Act* also addresses water quality (Figure 2).

In the Kettle River Watershed and adjoining watersheds, the Syilx peoples of the Okanagan Nations Alliance continue to hold a number of rights to and traditional uses of land and water [9,12]. Their traditional territories extend from the Okanagan, north east to Kinbasket Lake and south to central eastern Washington. The Sinixt have traditional territory from the Arrow and Slocan Lakes south to Oroville, and the eastern portion of the Kettle River watershed are part of their traditional territories [9,13]. While Canada considers the Sinixt extinct and does not officially recognize Sinixt rights and title, a number of agencies have given some informal recognition [10].

First Nations in Canada have considerable authority over many aspects of watershed management. Signatories to the Framework Agreement on Land Management under the federal *First Nations Land Management Act* have far greater autonomous decision-making powers and direct control over land and water management on reserves [14]. First Nations are also demonstrating considerable influence over far-reaching watershed management concerns such as hydro-electric water use planning, and large scale restoration of fisheries, including Pacific salmon.

Within British Columbia, water management is guided by the *Water Act*. It encompasses water allocation (licencing), changes or transfers of water licences, construction in and adjacent to water bodies, water management and planning, and drought management. The three regulations under the *Water Act* are the Water Regulation (addressing allocation), the Groundwater Protection Regulation, and the Dam Safety Regulation.

Section 4 of the B.C. *Water Act* enables the creation of water management plans, which are a tool to allow the government to address area-specific conflicts over water use, stream flow requirements, and water quality. Given that no water management plan has yet been implemented, the proposed *Water Sustainability Act* will enable “water sustainability plans” that are intended to more easily accomplish

these goals. Under the new Act there will also likely be more flexible arrangements for watershed governance.

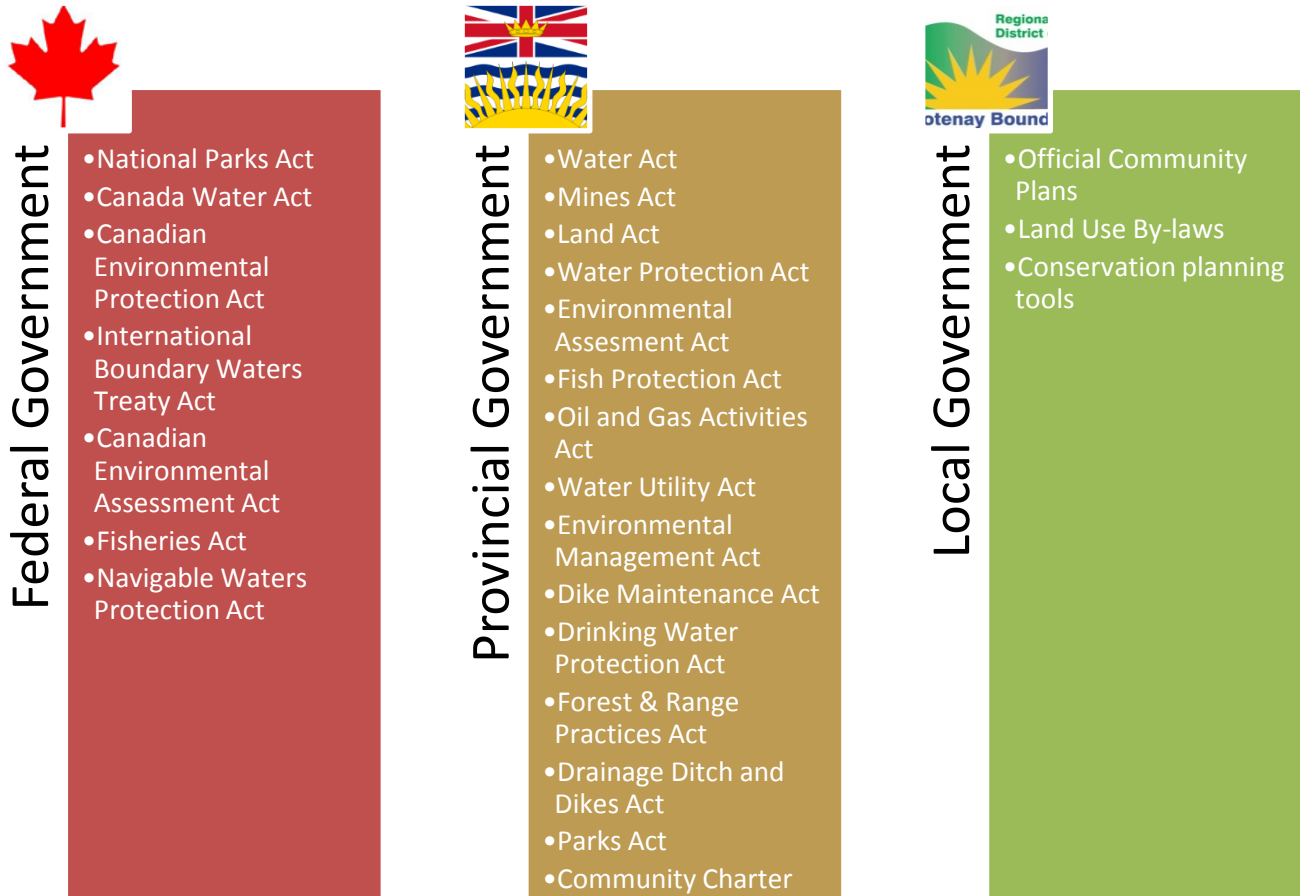


Figure 2. Water-related legislation in federal, provincial, and local levels of government

Local government has some authority over water in the areas of land use and environmental planning, and the *Community Charter* (SBC 2003, Section 9) establishes “spheres of concurrent authority” where municipalities have a shared interest with the province in regulating activities [4]. In consultation with the province, municipalities may pass bylaws relating to public health, protection of the natural environment, animals (wildlife), buildings and other structures, and removal and deposit of soil and other material. Regional Districts have a more limited set of areas that these bylaws may be passed.