

# British Columbia's Water Sustainability Act

## Observations & Recommendations

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**November 15<sup>th</sup>, 2013**

## **Introduction**

It has been recognized for some time that elements of British Columbia's century old Water Act are inadequate to current and emerging water resource management circumstances and aquatic ecosystem realities. The Act has been widely criticized for not actually being a law so much as a colonial resource extraction policy that violates pre-existing Aboriginal water rights and ignores in-stream and environmental flow needs that are the foundation of fundamental ecological integrity.

To its very great credit, the Government of British Columbia is seeking to replace its antiquated provincial water statute with a new Water Sustainability Act. The Water Act Modernization process began in 2009 with a Discussion Paper, which advanced to a Policy Proposal in 2011. The process has now advanced to the critical stage of presenting a Legislative Proposal for public review, the last step before being introduced to the Legislature where elected members will vote to determine if it will become law. This final step is expected to occur in 2014.

The stated object of the proposed new legislation is to bring British Columbia's water laws into the 21<sup>st</sup> century with a series of common-sense changes and updates that balance the needs of all water users. The stated goal of water act modernization is to take steps to ensure British Columbia's supply of fresh, clean water is sustainable – not just to meet the Province's needs today, but for generations to come. To its credit again, the Government of British Columbia has invited public and expert comment on whether or not the proposed new Water Sustainability Act will actually achieve these goals. This brief report is a response to that invitation.

## **Evaluating the Elements of the Proposed New Act**

The proposed new Water Sustainability Act would make improvements in seven key areas:

1. Protection of stream health and aquatic environments;
2. Consideration of water in land use decisions;
3. Regulation and protection of groundwater;
4. Regulation of water use during times of scarcity;
5. Improvement water security, use efficiency and conservation;
6. Measurement and reporting of large-scale water use;
7. New provisions for an expanded range of governance approaches.

Before evaluating the extent to which proposals for change in each of these key areas will permit the stated goals and objectives to be achieved, the members of ACT at Simon Fraser University would like commend the staff of the Water Stewardship Division of British Columbia's Ministry of Environment for their hard work, persistence and vision in developing and putting forward courageous changes in water governance legislation. The following observations should in no way be viewed as criticism of the efforts of this branch of government for, if anything, our greatest concern is that the Water Stewardship

Division may not in the end be granted the financial capital and human resource capacity required to advance water management in the province to the full extent made possible by enabling legislation.

## 1.

### Protecting Stream Health and Aquatic Environments

As proposed, the new Water Sustainability Act would ensure that Environmental Flow Needs are considered in new decisions on water allocation, except in very low-risk situations. Under the new law, Environmental Flow Needs would apply to both surface and groundwater, including amendments to existing authorizations. The new legislation would also expand prohibitions of dumping debris that currently exist under the Fish Protection Act – including human and animal waste, pesticides and fertilizers – into streams and aquifers.

It our estimation it is critically important that the currently existing 40,000 water licenses in the province not be exempt from considerations related to environmental flow needs. If exemptions are permitted then aquatic ecosystem health in many areas of the province in which water supplies are under stress will continue to deteriorate. The protection of stream health and aquatic environments must also become a higher priority in the determination of beneficial use of water and must be a central consideration in the development of specific area based water management recommendations. The protection of stream health and aquatic environments must be seen as a central contribution to long-term social and economic well-being rather than an obstacle to short-term economic benefit.

The issue of departmental capacity surfaces once again with respect to proposed prohibitions on dumping debris and the mobilization of animal wastes, pesticides and fertilizers into streams and aquifers. We are concerned that without adequate funding and staffing that it will be difficult, if not impossible, to monitor and ensure enforcement of regulations related to non-point fertilizer, pesticide and manure mobilization especially after extreme weather events.

## 2.

### Considering Water in Land Use Decisions

The new Water Sustainability Act aims to create a new system in which water objectives can be defined for streams, aquifers or areas of land in a manner that sets out expectations for the protection of water quality, quantity and aquatic ecosystem health. Under the new law, these objectives would have to be considered in water allocation decisions; and could be extended to other land use and resource development decisions. The new Act would also allow for the development of Water Sustainability Plans, which would function to integrate water and land planning within the context of local, regional and provincial planning processes. Under such a regime, each water sustainability plan – and the processes used to develop it – would be unique, reflecting the needs and interests of the area affected.

This is a critically important element of the new legislation, in that without it, the larger goal of the Act to ensure British Columbia's supply of fresh, clean water is sustainable – not just to meet the Province's needs today, but for generations to come, will be difficult, if not impossible, to achieve. This element of the proposed new Act once again underscores the crucial issue of capacity. What this section of the new Act demands is a much greater level of planning coordination at all levels of government. It also requires the integration of this new Act into other pre-existing legislation such as the Forest and Range Practices Act, the Fish Protection Act and current and emerging regulations related to the activities of the oil and gas sector. While the proposed cultivation of watershed stewardship and other non-governmental groups will increase local capacity, leadership by government will be necessary if the goal of sustaining the health of the province's watersheds is to be achieved over the longer term. This will require considerable depth and expanded capacity within the Water Stewardship Division of the Ministry of Environment for which funds must be made available on a reliable on-going basis.

There is also one very serious matter that does not appear to have been resolved in the Legislative Proposal Overview. Will water sustainability plans inform grandfathered FITFIR licenses, or will it be the other way around? While it is extremely unpopular in some circles to say so, Water Act Modernization in British Columbia will depend on regaining stronger control over outmoded licensing mechanisms such as FITFIR. Static water licenses don't work in the changing hydro-climatic circumstances that we are now facing. First-In-Time, First-In-Right licenses are tied to the land and specific uses. Licensees have to use water or they lose the right to it. There is little or no accommodation of environmental flows. First-In-Time, First-In-Right mechanisms of water allocation completely contradict the fundamental principles of adaptive management. It is only a matter of time before changing hydrologic conditions blow this system apart. In our view, failure to squarely address the failure of FITFIR will over time undermine the principles and purposes of the new Act.

### 3.

#### Regulating and Protecting Groundwater Use

The most pressing argument for Water Act Modernization in British Columbia is the long acknowledged need to catch up with the rest of the world with respect to groundwater regulation.

Our greatest fear related to the groundwater clauses of the new Water Sustainability Act relates once again to capacity. We are worried that the Government of British Columbia will not reliably and adequately fund the effort that will be necessary to make up for a century of unforgiveable groundwater mismanagement. In some regions, the extent of change in management required will be met with considerable suspicion and resistance. If British Columbia truly wants to join the 21<sup>st</sup> century and ensure that the province's supply of fresh, clean water is sustainable for generations to come, however, it has no choice but to bite bullet and advance groundwater regulation. That means the Province

has to make a long-term commitment to the development of groundwater mapping, monitoring, licensing, compliance and enforcement programs. The proposed long overdue overhaul of well drilling requirements is also necessary. It is going to take courage and persistence to create and implement these programs. If the Water Sustainability Act is to have any teeth, these programs must be developed and implemented with integrity and consistency, starting as soon as the Act becomes law.

#### 4.

#### Regulating Water Use during Times of Scarcity

The proposed new Act would enshrine in law that, during times of scarcity, water should be made available first for essential human needs, then for environmental needs, with all other uses lower in priority. The Act would give the Government of British Columbia powers to regulate groundwater throughout the province in times of scarcity; allow temporary water use restrictions to protect Critical Environmental Flows to avoid irreversible harm to vulnerable ecosystems; and maintain Ministerial powers under the Fish Protection Act to order temporary reductions in water use to protect fish habitat.

In our view, this is a very strong element of the proposed Act. Once again, however, this will require reliable funding and capacity. The success of the Act hinges on the enforcement of the terms and conditions of licenses and the appropriate management of storage releases. The success of the Act also relies heavily on Area-Based Regulation and the development of meaningful Water Sustainability Plans. This requires boots on the ground in the form of well-trained staff representing the responsible department.

Consideration must also be given to how new legislation will protect cold water systems from invasive species as well as temperature rise; and from the eutrophication that is increasingly resulting from rising water temperatures in regions where extreme weather events are mobilizing more contaminants.

While the Act addresses the specter of drought, it should also address the issue of flooding which, like drought, is likely to occur more frequently in the more highly charged hydro-climatic circumstances we should expect as atmospheric temperatures continue to rise. This will require advancements in monitoring; flood zone mapping; flood prediction; infrastructure redesign and public education not mentioned in the Legislative Proposal Overview for the proposed new Act.

#### 5.

#### Improving Security, Water Use Efficiency and Conservation

The proposed new Act would address water security, water use efficiency and conservation issues by expanding beneficial use requirements to all water users and encouraging efficiency and conservation. It would allow the Government of British Columbia to set water conservation targets and carry audits to determine whether targets are met. It would make water licenses reviewable every 30 years and allow area-based regulations for specific regions facing multiple pressures or unique water management

challenges. The Act would also permit Agricultural Water Reserves to come into existence to protect agricultural land and production.

In our view, these are all advancements that will help the Government of British Columbia achieve the goal of ensuring that the province's supply of fresh, clean water is sustainable – not just to meet needs today, but for generations to come. Once again, however, the issue is capacity.

The proposed Act will allow for Area-Based regulations in the form of customized water management for streams, watersheds, aquifers or regions facing multiple pressures on water resources. Once again the question must be asked: Will area-based regulations trump FITFIR or will it be the other way around? The question of capacity also surfaces again. Who will administer these regulations?

In our view, the new Act should require a much higher public interest test in defining beneficial use. Area Based Recommendations should be broadened to include more public interest tests in water-critical areas.

In changing hydro-climatic conditions, reviewing water licenses every thirty years will not be adequate. In a rapidly changing climate, water licenses should be reviewed every five to ten years; and annually, if necessary, during drought conditions.

## 6.

### Measuring and Reporting Water Use

Currently there is no legal requirement for larger water users in British Columbia to record and report water use. This new legislation would require that large-volume users such as industrial operations measure, record and report their water use and related information. Details, including a definition of “large volume,” would be set out in regulations under the new legislation. Smaller-volume license holders could also be required to measure, record and report water use, but only in specific circumstances, such as under “Area-Based Regulations.”

In our view, the goal over the long term should be for the Province of British Columbia to know how much water it has; how much is being used for what purpose; how much water is being lost to consumptive uses; how much water is allocated to nature relative to how much water nature needs; and how much water is going to be required relative to what is available regionally as populations grow and the climate of the province changes. The general terms of the proposed Act do not take the loss of hydrologic stationarity into account. If the new Act does not take changes in hydro-climatic conditions into account it will not only fail to catch up with 21<sup>st</sup> century water management practices, but British Columbia will also find itself in a situation in which the sustainability goals to which it aspires will remain forever a moving target. The goal of more comprehensive monitoring, measuring, reporting and sharing of data in the face of hydro-climatic change should be incorporated now into the objectives of the new Water Sustainability Act.

## 7.

### Enabling a Range of Governance Approaches

The new Water Sustainability Act would increase flexibility in governance arrangements to better suit local needs. The new Act would see the creation of advisory groups for both surface and groundwater and some delegation of management decisions to people and agencies outside of government but with ultimate responsibility still residing, as it should, with the provincial government.

What the Act proposes in terms of expanding the range of governance options advances British Columbia to the front of the line in terms of 21<sup>st</sup> century water management approaches. As Oliver Brandes at the Polis Project on Ecological Governance at the University of Victoria has observed, uncertainty regarding the future is leading to greater risk, which is demanding greater resilience. Three big ideas are emerging with respect to resilience in water management globally. They include shared water governance; rivers with rights; and new concepts of natural infrastructure. Brandes has predicted that the future is going to coalesce around shared decision-making at the watershed level. This is not a question of *if*, he has stated, but a question of *when*.

As we have seen in the Columbia Basin during public engagement over the reconsideration of the Columbia River Treaty, there is increasing public demand for shared governance throughout British Columbia. There is a shift away from managing watersheds toward managing people in watersheds. Thinking like a watershed means nested thinking. The strengths of this approach include increased social resilience; the higher profile presence of watershed values; expanded local and expert engagement; and collaboration that builds public confidence that affirms the value of further engagement. Senior government, Brandes argues, needs to change its values from command and control to enabler; but still continue to be directly responsible for enforcement. This, it appears, is exactly what the new Act proposes to achieve.

### Conclusion:

#### Capacity is Critical to Implementation and Implementation is Critical to Success

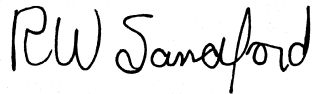
The proposed Water Sustainability Act represents a bold and courageous advancement in water policy for British Columbia. The proposed new Act will reaffirm water as a public resource and will prevent privatization of British Columbia's water resources and the creation of water markets. The Water Protection Act, which was passed in 1995 to prohibit bulk water exports, will remain in place. In tandem these two acts will protect British Columbia's water resources and ensure water security and aquatic and related ecosystem health in the future.

International example suggests that the goals of the proposed Water Sustainability Act are achievable. The question, however, remains one of capacity. That question will take time to answer.

New funding will be required to meet the conditions of the new Act. That funding will have to come from new fees and licenses and from local governments who will depend upon the new Act to help them achieve their own water security and sustainability goals. Adequate and reliable funding in the future may in some areas also require government leverage and private foundation support.

Will the proposed Act ensure that the responsible department will have adequate and reliable funding and staff over the long-term in order to create, implement and sustain ambitious programs of the nature prescribed by the Act itself? If so, the Act will define water management in British Columbia for 21<sup>st</sup> century. If not, the proposed Act will end up being just another hollow government announcement with no real meaning. British Columbia will remain in the 19<sup>th</sup> century in terms of its water management, and over time the goal of water security and sustainability will recede increasingly beyond the reach of the Province. The proposed new Act represents a turning point in the history of the province and in the history of Canada. It is an opportunity that should not be missed.

Respectfully submitted,

A handwritten signature in black ink that reads "R.W. Sandford". The signature is written in a cursive, slightly slanted style.

R.W. Sandford  
*on behalf of*  
ACT (the Adaptation to Climate Change Team)  
Simon Fraser University