From: Toby Pike
Sent: April-24-10 4:30 PM
To: Living Water Smart ENV:EX
Subject: Water Act Modernization - Formal Submission
Attachments: WAM Submission 1.pdf

Ministry of Environment,

Please find attached the WSABC Water Act Modernization Submission. Thanks very much for the opportunity to participate in this process, please contact me, or any of the Directors listed in the submission, if you have any questions.

Regards,

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WATER SUPPLY ASSOCIATION OF B.C.

B.C. Water Act Modernization

Submission

Submitted by the

Regulatory Sub-Committee of the

Board of Directors

April 30, 2010

Contents

1.0 Introduction

This brief provides the collective summary of comments developed and received by the Directors and members of the Water Supply Association of BC (WSABC). The WSABC represents water suppliers throughout the BC Southern Interior that provide irrigation and drinking water to thousands of acres of agriculture and over 200,000 people.

The format for this brief is based on the same format requested within the *Water Act Modernization – Discussion Paper*. We have listed our comments and feedback in the same general categories that are requested. Additional comments not covered in the Discussion Paper are included at the end of the applicable section, where appropriate.

This brief presents concepts, points of discussion, and potential solutions for improving the *Water Act*. We understand there could be additional opportunities for the WSABC to participate in the WAM process through the technical analysis and options development stages. The WSABC welcomes the opportunity to provide additional input as the process moves forward. We trust that the information provided is succinct and easy to understand. You are welcome to contact WSABC Directors with any questions that you may have. We have provided the contact phone numbers and e-mail addresses of the Directors responsible for putting this submission together.

The WSABC represents the collective interests of water suppliers in the BC Southern Interior on issues related to water management, water use and utility operations. As such, our focus applies to the water stressed region in which we operate.

We commend the Province's efforts to improve water resource management under the *Water Act* Modernization process. We caution, however, that without adequate resources to support and uphold either current or future legislation, the effective management of water resources in BC will be compromised.

2.0 Objective of this Brief

As water suppliers within the most water stressed area within the Province, we believe that the WSABC membership is one of the largest stakeholders and will be among those most affected by changes to the *Water Act*.

As stated in the workshops, there are many Ministries whose decisions impact the water resources of this Province. There are also many pieces of legislation in the forms of Acts and Regulations that directly affect water quality, quantity and the environment. It is understood that only the *Water Act* is being revised at this time and the other acts, although they may have issues in need of review, are not part of this undertaking. We recognize this and have tried to focus our comments on those issues that can be addressed in a revised *Water Act*.

Information Reviewed: The following information was reviewed in the preparation of this submission:

- BC Provincial *Water Act* (RSBC 1996)
- Living Water Smart (2008)
- Sustainable Water Strategy - Okanagan Water Stewardship Council (2008)
- *Water Act* Modernization – Discussion Paper (2010)
- Review of "Delegating Water Governance: Issues and Challenges in the BC Context" L. Nowlan and K.Bakker, November, 2007;
- Review of "Setting a New Course in British Columbia – Water Governance Reform Options and Opportunities" O. Brandes and D. Curran, May, 2009;

We attended several venues and listened to many speakers. The following workshops and conferences were attended to receive input.

- Attended the *Water Act* Modernization Workshop – March 12, 2010
- Attended the Okanagan Water Stewardship Council – *Water Act* Modernization speaker, John Thompson, January 14, 2010;
- Review of "Water Regulation within the Province of BC", a presentation by B. Symonds to the Water Stewardship Council, October 12, 2006;
- WSABC Workshop, April 8, 2010 in Kelowna, BC

We have restated in our document what we heard that we agree with from those forums.

3.0 Review of WAM Principles and Overall WAM Objectives

Principles: We agree that good legislation must be grounded in good principles. Setting of good principles provides a foundation on which to build upon. The better the principles followed, generally the better the document and the better the legislation that follows.

In review of the WAM –Discussion Paper Principles, we have the following comments:

1. Item No. 5, rather than "*investment climate*" it would be better to use another term like "more reliable supply across the Province";
2. Item No. 6, flexibility to adapt, should also include reference to a changing water supply regime that considers the possibility for longer growing seasons, extended water usage and expanded water supply requirements due to climate change;
3. Item No. 7, Change the term "*Investors*" to "*Stakeholders*";
4. A principle on Education and Communication is necessary and important for any changes to the *Water Act* and acceptance by the licensees;
5. Consider adding a Principle that "the Cultural and Social values of water be respected and considered in the development of new legislation"

4.0 Goal 1: Protect stream health and aquatic environments

Objective One:

"Environmental flows are considered in all water allocation decisions"

Environmental flows are an important consideration in water allocation decisions. Every water source is unique, however, and decision makers must have the discretion to take into account a variety of factors in making water allocation decisions.

WSABC Recommendation: **A. Environmental Flow Guidelines**

Environmental flow guidelines provide the discretion for decision makers to make water allocation decisions unique to the water license application. The *standard setting* and *detailed assessment* method is a reasonable approach to allocation policy.

Other Comments:

Stream Flow Volumes: The capacity in which to improve stream health within the legislation is primarily focused on the volume of water in the stream. If more water can be stored or allocated to support environmental /conservation flows, particularly at the critical times, then stream health can be improved. We recognize that the majority of controls within the *Water Act* will be focused on stream flow. Conservation or environmental flow requirements on streams with upland storage should be based on natural stream flow estimates unless storage has been specifically developed to provide conservation flows.

Public Opinion: It is apparent that stream health and maintaining the natural environment is a high priority in the eyes of the public. In addition to the protection of fish habitat, protection of the ecosystems created by healthy rivers, streams and wetlands is an objective. The public is ready for changes and formalizing a more secure flow of water for the environment. The challenge will be for individual license holders to allow more water in over-allocated areas, or for the Province to renegotiate the Terms of Agreement of licenses in flow sensitive streams.

Care must be taken in the steps in allocating more water to the environment. If the volume transferred is too large, or results in shortages or the increased risk of communities running out of water, such as Summerland in 2003, then there could be a backlash towards the changes.

Conservation Licenses: Many of the social and cultural requirements related to water by First Nations and the objectives for water by the Non-Government Organizations such as stewardship groups, align well. A mechanism for transferring unused or underutilized licenses to conservation should be allowed for within the revised *Water Act.* These licenses should be supported wherever possible by storage licenses.

Conservation Licensing and Storage: Conservation licensing and storage should be implemented as a normal part of new reservoir construction. If government grant monies are made available to the builder of the dam, then the Province could require that a portion of that storage water be used for conservation flows. While the minimum releases should always match the naturalized inflows to the reservoir, if a conservation storage volume is constructed right off the top, then the potential for conflicts at a later time are reduced.

Watershed Management Tools: The tools utilized for planning and watershed management will depend upon the size of watershed and abilities of the organizations that are stakeholders within the watershed. Appropriate tools and processes must be used for the applicable end use. One size and type of management will not fit all cases so flexibility must be allowed for which processes are to be used. For example, source water protection plans concentrate on specific sub-basin sources contributing to a water system whereas drought management planning can be sub-basin specific as well as expanded to a broader basin-wide approach.

Legislation must allow for flexibility. Water Management Plans (regulatory plan), Water Use Plans (collaborative plan), Local Drought Plans, and Regional Drought Plans are all tools that are available for governing how water is used, protected and restricted in times of low supply.

There are primary stakeholders in many watersheds that may have a greater stake in the water resources than other groups. These primary stakeholders are in a strong position to understand the impact of existing or proposed land uses on local water resources. The existing centralized governance approach would become more effective if these stakeholders were integrated into the process in a way to provide meaningful local input to Provincial decision makers.

In most watersheds, the large water utilities that rely on those water resources have no jurisdiction on land use approvals, regulation, or enforcement on Crown Lands. Yet they control the water levels within the creek, report to the drinking water regulator, are responsible for providing safe drinking water, and have to deal with the damages and abuses created by the decisions of other Provincial Ministries. Provincial government tools for inter-Ministry decisions at the start of a land use decision process are needed. Any decision-making framework for Crown Land land-use decisions by Provincial agencies must first respect water and other natural resources. This must be reflected in an updated *Water Act.*

Objective Two:

"Watershed based water allocation plans include environmental flow needs and the water available for consumptive use."

Not all water sources are stressed and mandatory requirements for water allocation plans for all sources are not necessary.

WSABC Recommendation: **A. The development of water allocation plans is optional**

Water allocation plans should be at the discretion of the Regional Water Manager and be based on consultation with existing licensed users and consider supply, demand and environmental concerns.

Objective Three:

"Habitat and Riparian area protection provisions are enhanced."

The protection of natural habitats and riparian areas is fundamental to the protection of water resources in the Province.

WSABC Recommendation: **B. Amend the *Water Act* to include a prohibition against dumping a wider range of debris and materials into streams, with a requirement for stream health restoration.**

Other Comments:

Community Watersheds: The requirements should further recognize the importance of source water protection in community watersheds and the potential impacts on human health and associated downstream treatment costs. The *Act* should include priority jurisdiction over other conflicting legislation in the multiple use Crown Land context.

5.0 Goal Two: Improve water governance arrangements

The governance of water is a complicated matter. There are many Ministries, agencies and activities that impact on the actual quantity and quality of water. The primary questions raised in the WAM Discussion Paper were in the form of water governance structure and whether a Centralized, Shared or Delegated approach would best suit the province for water governance.

WSABC Recommendation: **A. Centralized approach**

The current regulatory framework now in effect for managing our provincial water resources is sound. There are many aspects of the *Water Act* that could or should be modernized, but the biggest challenge the province has in meeting its water management responsibilities is funding. The Ministry of Environment has a pivotal role to play in water policy, legislation and stewardship and it will continue to fall short without adequate resources.

Government vs. Governance: Governance of water is, in our definition, the act of actively managing the water and the factors that influence and affect the water. Governance of water is occurring in many watersheds by private stakeholders, irrigation districts, regional districts, municipalities, by the Province, or in some cases, by no one. There are primary stakeholders in many watersheds within the Province that have a higher level of care and concern for the water resources than any other group. These primary stakeholder organizations are in a strong position to understand the impact of existing or proposed land uses on local water resources. The existing centralized governance approach would be more effective if there was a way to provide meaningful local input to Provincial decision makers.

Watershed Scale/Management Tools: The scale of watershed for management and planning purposes will depend what management and planning function is being addressed. For example, source water protection plans concentrate on specific sub-basin sources contributing to a water system whereas drought management planning can be sub-basin specific as well as expanded to a broader basin-wide approach. Legislation needs to allow for this flexibility. Water Management Plans (regulatory plan), Water Use Plans (collaborative plan), Water Users Communities, Local Drought Plans, and Regional Drought Plans are all tools that are available for the governing how water is used, protected and restricted in times of low supply.

Funding Options: Funding options vary from organization to organization. At the provincial level funding for the Ministry of Environment to carry out water management activities is not adequate. Staff resources continue to diminish and funding for programs such as the provincial hydrometric network has diminished to the point where the future of the program is in question. In the Okanagan, for example, the number of private hydrometric stations now exceeds government funded stations – clearly the province is not meeting its water resource management obligations under current funding levels. Options for funding include committing a greater share of water license fees directly to the Ministry of Environment, increasing the ministry budget out of general revenue, or both. An increase in water license fees would be acceptable if the additional revenue goes directly into Provincial water resource management programs.

Dispute Resolution: The current avenue of appeal of decisions under the *Water Act* is to the Environmental Appeal Board. While this is a just and effective process it is

resource extensive and takes some time. Consequently some decisions made under the Act may not be appealed because of this extensive process. One consideration could be to implement a less onerous appeal process as a first step in the dispute resolution process. This could take the form of a Tribunal similar to the Human Rights Tribunal.

Sharing Water Stewardship Roles: For any form of governance that is utilized, a local on-the-ground stakeholder group, partner, local government organization or similar entity is required to be the primary stakeholder in a watershed/water source area. The centralized governance approach we recommend for the *Water Act* will be much more effective if it has the flexibility for meaningful local stakeholder input into decision making. The government has the controls but lacks the manpower to patrol or enforce mistakes or inappropriate activities in the watersheds. Decisions in watersheds with a local stakeholder presence will be much more effective in managing water resources if more weight is given to stakeholder input.

Other Comments:

Local/Regional Agencies and Water: In some cases, particularly in water stressed basin within the province, agencies like the Okanagan Basin Water Board can be highly effective in addressing local and regional water management issues. Organizations such as the OBWB and Improvement Districts are particularly effective because their sole focus is water. The Irrigation Districts, particularly the larger ones, are also effective in managing and providing resources and focus on issues facing their water sources.

New Activities in Watersheds: For any new activity proposed in a watershed, the onus of responsibility in proving that the activity is not detrimental to water resources should be on the proponent. If the proposal proceeds, the activity should be monitored for water quality impacts and, if impacts are measured, it will be the proponent's responsibility to either mitigate the impact or stop the activity. All associated costs are to the proponent.

Most community watersheds in the Province are on Crown Land. For many watersheds the Primary Stakeholder is the water utility. These utilities are responsible for providing water service to significant populations, yet they have no authority over their Crown Land watersheds. There needs to be a meaningful mechanism for water suppliers to have formal input to Provincial Crown Land use decisions.

6.0 Goal Three: More flexibility and efficiency in the water allocation system

Objective One:

"The water allocation system emphasizes and encourages efficiencies in both water use and the administration of water as a natural resource"

The responsible allocation of water depends on accurate scientific information on water supply. Accurate hydrological information is needed to develop public policy on water allocation.

WSABC Recommendation: **A. Government determines actual needs**

Allocations should be a role of the Province. If brought down to the local level, politics may enter into the decision making. The allocation of water is based on scientific analysis of whether there is enough capacity to allocate more. The Province must continue to provide adequate resources to maintain skilled staff to perform this function.

Other Comments:

Hydrometric Monitoring: As shown in the well-known graph for Okanagan Lake Annual Inflows, over the last 30 years, there has been increasing variability in the overall basin hydrology. Global warming is real and average annual temperatures are increasing and growing season duration is changing. The water suppliers foresee increasing frequency of wet and drought cycles. Monitoring of the baseline information is important to understanding the changing hydrological cycle. Monitoring stream flow and maintaining the WSC stations and sub-basin stations is hugely important for measuring the variations and determining how we can adapt. Mechanisms within the *Water Act* itself must promote the importance of this information. Water license fees, if increased could contribute to the collection of this data. Again, increases would only be acceptable if the monies were to be designated solely for water management purposes

Objective Two:

"Flexibility is provided to water users and decision makers to quickly adapt to changing environmental, economic and social conditions."

WSABC Recommendations:

All licensed water use must be measured: A primary requirement of holding a water license for any use must be that all water use is accurately measured at the point of diversion and all water use is reported to the Province.

Reporting: Conditions of licensing should be for reporting of withdrawals on a monthly basis. This information will lead to better overall water management through increased knowledge and information in the demand patterns of larger water users.

Storage Licensing: Licensing on storage reservoirs should allow for much larger volumes of water to be held, greater than the annual ability to fill. If this is done, then stringent set points and monitoring is required to ensure that filling is done during wet periods with no detrimental effects downstream and releases are maintained at beneficial levels. Care must be taken during filling operations so that the annual carry-

over volumes do not affect downstream users. At the same time, releases must try to meet the natural flow rates with assistance in drier than average years.

Over-Allocation: It appears that many of the large license holders in the Southern Interior hold more than double the annual volume of water needed to support the demands in their service areas. We are uncertain on why this was allowed by the Province. It appears that this would ensure that the larger community licenses were set in place to provide for secure water to the communities in times of drought. It also appears that the licensed volume of water is sufficient for long term growth projections. It might be worthwhile reviewing these allocations in a long term growth context with a view to rationalizing excessive licensing. Currently these surpluses form a significant component of the conservation flows.

Allocation without Watershed Storage: Water withdrawals should not be allowed in streams in water stressed areas when the streams are at critically low levels, unless the withdrawals are supported by equivalent storage releases from upper watershed reservoirs. There are many licensees that take water from lower elevation creeks that do not have storage reservoirs. These licensees are the ones that are most at risk of not having adequate water during drought cycles. It must be communicated to these licensees that they are most at risk and that they should be considering the development of storage in conjunction with other larger licensees in their local watershed. Collective storage may be an option where a primary stakeholder manages the collective storage facilities for a stream or sub-basin for smaller licensees.

Storage Licensing on Valley Lakes: Within the Okanagan, the valley lakes are regulated by gates that control the water releases and lake levels. Runoff water is held in the lakes and is either used by licensees or is lost to evaporation. Of the Okanagan Valley lakes, only Okanagan Lake has sufficient variable depth that is greater than the annual evaporation so reservoir storage is available. This storage is utilized by downstream licensees and by those utilities that pump out of Okanagan Lake. Storage licenses could be a way of formalizing the dependence of these water users on the lake storage. Comparison of the lake level to monthly average levels is a means of formalizing the triggers for drought management in the region. Without recognizing the dependence on the lake water levels, there is no formal mechanism for demanding efficient water use.

First-in-Time, First-in-Right (FITFIR): This is the current allocation process in place. Although it has problems and shortfalls, there is no obvious strategy that would allow for simple and effective improvement. If the Province moves away from FITFIR, it must be done in stages with legal support and education to avoid legal challenges.

Revised Conditional Water License Agreements: Water licenses are basically water rental agreements between the licensee and the Crown. The terms of license are subject to paying the rental fee and the renewal of the license and terms of the license are in the control of the Crown. The majority of licenses are Conditional Licenses and not Final Licenses. It may be possible for the Crown to revise the Terms of License with the licensee accommodating a wider range of water issues for the sub-basins. As there are approximately 44,000 water licenses in BC, this would be an extensive process. We believe that it could be done in a staged process with the stressed sub-basins/watersheds taking priority.

License Fee Structure: Currently the Province has a consumptive rate for that portion of water used under license. We believe that the Province should rethink the rate structure for charging for water. In addition to increasing the base license, the Province

should consider a regular rate for the amount of water used on an annual basis, and then allow a buffer of approximately 25% of the licensed amount in the event of drought or for future growth allocation. Beyond that volume, there should be a surcharge for the additional licenses held that could be considered to be excessive. This will create an incentive to return surplus water to the Crown, provide additional revenue and give the Province additional management flexibility.

Return Flows: Although there are significant volumes of water returned to the environment from Waste Water Treatment Plants, water is also returned to the environment by means of disposal to ground, septic tank/tile field returns, or reuse through spray irrigation.

Water is also used for heating and cooling and this water is completely returned, yet no license fees are charged.

Objective Three:

"The water allocation system integrates the management of groundwater and surface water resources where required in problem areas."

WSABC Recommendation:

Groundwater Regulation: Groundwater licensing and regulation is needed in water stressed areas of the province. A modified FITFIR system could be implemented with priority of existing groundwater use based on well development records and evidence of beneficial use. Private groundwater licenses should only be issued to individuals in areas already serviced by a public water utility if an application for service is denied by the water purveyor.

Objective Four:

"Water users will be required to conserve water during drought or when stream health is threatened"

WSABC Recommendation:

D. Priority date. The current FITFIR system is an effective management tool and provides a defensible approach to managing water scarcity. This system will become more effective if amendments are made to rationalize and improve existing licenses. A modified FITFIR system could also take under consideration some or all aspects of the discretional, sharing and hierarchy approaches under severe drought conditions.

Other Comments:

Discretional: During periods of severe drought we believe empowering the decision-maker to use discretion in cases of severe hardship could be made within the context of a modified FITFIR system. This could include a provision in the *Water Act* to implement an emergency protocol to allow decision makers to override FITFIR. Every water source will have a unique set of hydrological and licensing regimes to consider during drought and it would be very difficult to develop a set of prescriptive actions well suited to such a diverse set of conditions.

Sharing: The concept of sharing between individuals on a proportional reduction could fall under the decision-maker's authority in extreme circumstances. This could work under a modified FITFIR and the Act would have to be amended to allow this approach.

Priority Water Use: Prioritizing the beneficial use of water by water suppliers should be considered in the revised *Water Act*. While FITFIR governs the ability for water suppliers (local governments, local authorities, water use communities) to access water resources, additional support can be given to local authorities to regulate the use of water on a priority basis. The order of priority for water use by water suppliers would generally be in the order of:

1. Lifeline supply to communities to maintain health, drinking water and sanitation;
2. Stream health (and First Nations indigenous interests as directed by Crown);
3. Water for community fire protection;
4. Agriculture and food production including food gardens;
5. Livelihood supply[1] needs to maintain income and necessary services;
6. Community parks and school playfields where community services outweigh individual needs;
7. Other domestic uses including gardens and lawns.

[1] Livelihood supply: This is a supply of water that is needed for business activities so that the business can maintain their livelihood. The supply would be for activities such as car washes, industrial washing processes or other similar uses. This use is not as high on the priority list as other uses.

7.0 Goal Four: Regulate Groundwater Extraction and Use

Objective One:

"Groundwater extraction and use is regulated in priority (critical) areas and for all large withdrawls"

Options for determining thresholds for large groundwater extractions

WSABC Recommendation:

A. A large use threshold of 500 m3/day for unconsolidated material and 100 m^3/day for bedrock wells is a reasonable start for a groundwater licensing and reporting system.

Options for determining priority areas to regulate groundwater extraction and use

There are many conditions that should be used to determine priority areas to regulate groundwater extraction: heavy extraction, supply availability, importance to the community, trans-boundary aquifers and demand on the resource.

WSABC Recommendation:

A, B, C, D, E & F (WAM *Discussion Paper, page 32)*.

Other comments:

Geothermal Extractions: The use of groundwater as a geothermal energy source should also be subject to regulation. Small uses such as houses should be issued under permit. Presently the whole issue of geothermal extractions is below the radar. Extractions do not require any permits or reporting. Larger geothermal installations greater than a certain size should be regulated use. Many of the aquifers for geothermal are the same sources for the community drinking water. Temperature changes can affect the biological stability and the chemistry of the natural water. Presently the reporting and controls on geothermal installations is non-existent and many utilities do not even have it identified as a quality concern issue.

Groundwater regulation should include permitted use for small geothermal installations, that way they are in the Provincial database and regulated (licensed use) for the large geothermal installations (same size as groundwater well regulation (greater than 500 cubic metres per day)

Public Utility Priority Groundwater extraction should not be permitted by individuals in areas serviced by a public water utility.

8.0 Closure

The Water Supply Association of BC thanks the Province for the opportunity to comment on this important initiative. We believe that water suppliers have a significant role in the management of our water resources. We would welcome the opportunity to discuss the issues related to water management with you and your senior staff.

We trust that the information provided is clear and self-explanatory. If not, please do not hesitate to call the WSABC contacts listed below. Thank you for taking the time to review this brief.

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