From: ***PERSONAL IDENTIFIERS REMOVED***
Sent: April-30-10 11:03 PM
To: Living Water Smart ENV:EX
Subject: Comments on Water Act Modernization

The attached PDF contains comments on the water act modernization discussion paper. Thank you for the opportunity to submit comments.

water_act_modernization.pdf

PERSONAL IDENTIFIERS REMOVED

Water Act Modernization
Innovation and Planning Team
Ministry of Environment
PO BOX 9362 STN PROV GOVT
Victoria, BC V8W 9M2

April 30, 2010

Re: Water Act Modernization

Thank you for the opportunity to provide comments on proposed changes to the Water Act. The following comments in generally reference the section and/or page number in the Discussion Paper.

4. Principles

Water rights are held and granted by the Crown. The first and most important principle must be that water belongs to all British Columbians. Consequential to this, the greater good of the general public should always outweigh private interests when making decisions on a Crown resource.

A heirarchy of water uses should be the second principle. Beneficial use must incorporate a range of values which have different priorities. First and foremost is human consumption for drinking and sanitation. The second tier is a balance between environmental use such as baseline flows and water used to directly produce food crops (vegetables, fruits, etc) for sustainable local agriculture. Following this is consumptive animal use (livestock watering). The lowest level of uses are non-consumptive crops such as hay, along with industrial usage, mines, and decorative landscaping (lawns and golf courses). The water act should recognize this heirarchy in licensing decisions, as well as in drought management.

On the fourth principle, integration across all levels can be interpreted in many ways. The province is the only level of government with significant expertise and in-house capacity on high level decisions relating to water, although ongoing cuts to the Ministry of Environment are eroding that capacity. There is no lower level of government that will ever be able to assemble a comparable team of specialists, including hydrologists, hydrogeologists, and biologists who focus on water. As such, most decision making should remain at the provincial level, and abandonment or abrogation of provincial responsibility should not be encouraged.

The sixth principle discusses flexibility. While flexibility is often more desirable than rigid and unbending rules, strong guidelines are required to prevent abuse. As an example, Keynesian economic theories offered governments the flexibility to borrow in bad times, and repay in good times. Unfortunately, from the 1960's through the 1990's (and later in many countries), this flexibility was abused by many governments, leading to spiraling debt. Too much flexibility allows every year to be a "bad" year that requires reductions in environmental flows, with the potential for long term damage to streams and fisheries.

The seventh principle is inappropriate. Incentives for reducing consumption only reward those who overuse, waste, or otherwise abuse the resource today. Increased water pricing and setting a standard of proof for beneficial use would be better tools to ensure societal benefits, generate revenue for enforcement, and limit waste.

5. Goal One - Protect Stream Health and Aquatic Environments

Setting environmental flows to maintain minimum flows for dilution is approaching the problem of point and non-point source pollution from the wrong end. The long term goal should be to eliminate use of British Columbia's waterways for waste disposal, and require that permitted discharges be reduced in a drought. Instead of increasing the range of materials that cannot be dumped into a stream, all dumping should be prohibited, apart from existing licenced use, which should be phased out through pollution prevention planning.

Consistent decision-making is highly desirable, and can only be provided at the provincial level. Separate water authorites or other lower level organizations such as regional districts will lack consistency, as has been demonstrated in recent years with the varying approaches taken by different health authorities towards drinking water notifications. At this time, some large licencees have conditions on their water licences that are not applied equally to all licencees on the stream.

More consideration needs to be given before placing objectives for streams into the Water Act. Many issues arise from current application of objectives, including inappropriate application by contaminated sites staff of surface water objectives to groundwater that discharges to a wetland. There is also significant natural variability within streams and wetlands, so objectives will need to be flexible to the point of uselessness. There is also a limited data set for many streams, which could lead to poor decision making and unnecessary restrictions or costly requirements due to application of a regional objective.

Under 5.2, consideration of environmental flows needs to apply to existing licences and not just new licensing. In addition, some licencees store and release water to avoid impacts to base flows. Other licences, mostly agricultural, permit withdrawals from stream base flows which are often unsustainable in summer conditions or drought years. These different licences (storage backed, and non-storage backed) must be treated differently when it comes to maintaining environmental flows, since most of the impacts arise from non-storage backed licencees who have not invested in reservoirs or other storage structures. These non-storage backed licences should be reduced the furthest in times of drought, as they are not offsetting their consumption from stored reserves.

Any definition of small irrigation (mentioned on top of Page 9) needs to consider not only the instantaneous withdrawal rate, but also the volume relative to stream flows. A withdrawal defined as small from the Fraser River could be a cripplingly large withdrawal from a minor creek, or from a stream which is already fully allocated.

Environmental flows should not be permanent, but should permit review and reassessment as conditions change and more information is obtained. Depending on the available hydrology information, an interim flow should be initially assigned to a stream, and reviewed for a two to five year period before assigning a value for stream flows in the longer term. With the potential for seasonal changes in stream flows under various climate change models, environmental flows should remain subject to reassessment in the long term. A ten to twenty year period between review of environmental flows on a stream should provide an appropriate balance between environmental protection and economic certainty for water users

If environmental flow guidelines be adopted, a public review and comment period should be included for variances to the guidelines, so that third parties such as environmental groups and other licencees are able to comment on proposed deviations from the guidelines. In

addition, any deviation should have a licence term that cannot be longer than the review period for adjusting environmental flows, and should be in the five to ten year range. Should the province move away from perpetual (FITFIR) licences as is recommended later in this submission, review of deviations could be part of the licence renewal process, which could include a web-based automated public input process as well at each renewal.

The ability for an applicant to "scientifically" demonstrate that their application will not impact stream health should not be permitted. The Ministry of Environment will be using science-based methods for all of their work, and second guessing by paid (and biased, for they know that clients sign their paycheques) consultants will not aid in protection of the environment. In the land development sector, some consultants who prepare environmental impact reports are well known as "bio-stitutes". These "bio-stitutes" rarely see significant impacts for any project, and never advise against a project proceeding. The role of the province and the Ministry of Environment should be to protect the environment, and the new Water Act should ensure that protection is in place to prevent the minority of unprincipled consultants from being able to "scientifically" determine impacts in place of ministry staff.

In the review of options on page 11, the second bullet point in Option B should finish with "and" rather than "or". The Comptroller of Water Rights should have the authority to order a plan in any licensing decision, as a list of priority areas may not be entirely exhaustive, and new information could be brought forward during a public review and comment process. A trigger level may also be required for plans, to automatically require a plan depending on the size of the licence application, the size of the stream, the presence of red or blue listed species, and the volume of existing withdrawals.

Under Objective Three, Option B (page 12), the option should be adjusted to read "Amend the Water Act to include a prohibition against dumping of ALL debris and materials into streams unless a permit is granted, with a requirement...".

6. Goal Two - Improve Water Governance Arrangements

At the top of page 12, a reference is made to local expertise. While many local experts exist such as Don Dobson of Dobson Engineering in the Okanagan, there are few if any local areas that have access to the same breadth and width of resources and expertise as does the Ministry of Environment. Most local experts who do exist work as consultants, and are not employed by organizations such as regional districts, municipalities, or water authorities such as the OBWB.

Section 6.1, also on page 12, includes a set of objectives for improving water governance. While they may sound nice in principle, implementation of these principles could be messy, complex, uncoordinated, and costly, and leave the province with a fragmented patchwork of disjointed authorities.

In section 6.2, page 16, Figure 2 shows provincial and federal responsibilities as including the provision of science and information systems, monitoring agreements, and enforcement. Policy and budget decisions of past decades include abdication of these responsibilities through near-abandonment of the stream flow monitoring network, reductions in per-capita environment ministry staff to the lowest levels in many decades (with more cuts to come), limited enforcement, and downloading to local and regional governments. The provincial and federal governments need to dedicate appropriate amounts of resources, and return to fulfilling their roles and responsibilities in the area of water management.

With respect to options for improving water governance, there appears to be a high level of reliance on the reports referenced on page 15. While the paper by Nowlan et. al. was not reviewed, critical flaws exist in the paper by Brandes and Curran (*Setting a New Course*). In reading this paper, one model is clearly pre-selected and preferred by the authors, and this raises concern regarding the objectivity of their review of the governance models they selected. Their analysis is deeply flawed in that it assigns a pre-determined and arbitrary set of abilities for each model in areas such as transparency. The strengths and weaknesses that are then discussed for the models (Status Quo, Watershed Agency, etc) do not reflect the wide range of possible outcomes that could be obtained through each model, but are instead based on the particular basket of abilities that were assigned by the authors to each governance model.

In order to be a useful document for a change in something so important as water governance, *Setting a New Course* should have considered what areas are important (such as transparency, etc), reviewed possible ways that these goals could be achieved or delivered by each of the governance models, and then considered strengths and weaknesses on that basis. As it stands, one model was clearly viewed through rose coloured glasses, while other(s) were little more than straw men. This conclusion is based on the abilities and limitations that were arbitrarily selected by the authors and assigned to the various governance models without any real rationale for doing so. Most of the benefits touted for any of the models could also be acheived from any of the others, invalidating the table in *Setting a New Course* which purports to show strengths and weaknesses of each model developed by the authors.

While space does not permit a full review of *Setting a New Course*, other critical concerns with that reference document include:

- the benefits of an arms length role for province do not seem apparent
- while provincial direct costs for each model appeared to be a priority in Setting a New Course, the cumulative costs of other models such as a Watershed agency were not considered. There is only one taxpayer, and the citizens of British Columbia deserve water governance that is effective and affordable. The concept of "shared funding" simply transfers the costs to local government, but the time and costs for establishment of new bureaucracies were not considered. There is insufficient information in *Setting a New Course*, and too many questionable assumptions in the comparisons as noted above to permit even a preliminary cost/ benefit analysis of each governance model. However, there is no reason to believe that setting up multiple new agencies will cost taxpayers less than the current system.
- "collaborative" roles and NGO / non-profit involvement in water governance is likely to add delays, increase consultative and administrative burdens, and reduce transparency. Only democratically elected governments that represent all British Columbians should have any role in water governance.

Returning to the Water Act Modernization, on page 17, the Shared Approach contemplates delegating decision making and water management to First Nations. Since First Nations leadership are not elected by all British Columbians, or accountable in any way to all citizens of British Columbia, they are not an appropriate organization for transfer of resource management and decision making.

Overall, the province alone has the experience, staff capacity, financial resources and ability for deliver consistency in water management to all British Columbians. Watershed planning is most appropriate in the regional scale (between stream and basin level, subject to conditions). Funding to operate the licensing and water operations (enforcement, etc) for

the Ministry of Environment should be from licensing revenue, which already far exceeds the costs of operating the Ministry. While a delegated approach is strongly opposed, the Province will need to offer an appeal process, as well as the ability for third party organizations to act as intervenors during any dispute resolution process. Few, if any benefits of shared roles exist that could not be otherwise acheived at a lower overall cost through changes in the existing policies.

7. Goal Three - Introduce more flexibility and efficiency in the water allocation system

The emphasis of the third paragraph on page 20 is not consistent with the ownership of water by the Crown, which should be managed for the benefit of British Columbians. The goal should not be to maximize use of water as stated in the first sentence, but to maximize the benefits from use of the water. In the second sentence, the statement "mechanisms in the current Act to allow them to make better use of their water savings should be reviewed" is also troubling. Any such mechanism could be gamed by large licencees, and rather than encouraging conservation, it will encourage licencees to obtain excess licensing so that they can push for markets to re-sell water. Examples of the flaws in this system are visible in some emissions cap and trade systems, which ultimately reward the largest polluters by allowing them to turn their historic excessive pollution into an ongoing revenue stream - effectively enshrining a right to pollute. This type of scheme will be particularly dangerous for overallocated streams in the interior, and it also is the first step towards turning water from a crown resource into private property.

In the fourth paragraph, restoring ecological health and adapting to changing stream flow conditions should be a higher priority than bringing more lands into production.

The objectives in Section 7.1 place too much emphasis on flexibility. Since some organisms such as fish can have populations nearly wiped out by extreme low flow conditions, there should be more emhpasis on getting it right the first time when creating plans and ensuring that water allocation decisions consider drought conditions. If too much flexibility or discretion is allowed, there is a greater potential for decisions to become politically driven based on a short-term direction of government rather than based on science and the long-term good of British Columbians.

On page 22, the first paragraph in Objective One speaks of providing incentives to conserve water. Most utilities find that it is generally better to charge more for water, and to penalize excessive consumption. Offering incentives increases costs to the provincial water licensing program, would be extremely difficult to monitor apart from self-reporting by licencees, and could be rife with abuse. Some opportunities to re-use reclaimed waste water have very high lifecycle costs, and may not be justifiable on that basis, along with health authority reluctance to see this in urban areas due to cross-connection potential.

Three options are presented to encourage water use efficiency on page 22. In the first, the potential for licence amendment should exist alongside the potential for licence cancellation. Options A and B should be "and" rather than "or". Codes of practice are vital, but the government must retain the ability to step in and directly put a stop to wasteful water use. Under Option C, bonuses should not be considered for many reasons. In addition to the cost of a bonus program in a ministry that cannot even fund proper stream flow monitoring, bonuses feed the mentality that the water is there to be consumed, and increase the sense of entitlement among water wasters. Money should never be given back, as it encourages over-licensing or the sale of excess water by licensees for profit. A rebate or bonus model

could also prevent future beneficial uses, as it may not permanently free up secure medium-long term capacity for new licensing.

On page 23, blanket permission for specific uses is problematic in streams which are fully allocated. Another concern arise for streams in which works such as reservoirs or dams are installed and operated by one licencee (typically a utility). These works would benefit all smaller unlicenced users without any compensation to the dam owner for costs incurred in installing or maintaining the works. Some streams and areas may be able to support this type of blanket authorization, but due to the seasonal low summer flows throughout the interior of the province, this blanket permission could be difficult to manage while still maintaining stream health.

Some administrative efficiencies may be possible through a web-based renewal process such as is used for fishing licences, and a web-based comment / appeal process on licence renewals. This web-based renewal process could also be used as to trigger for MoE to review the need for water plans on a stream. However, there is room on the revenue side, as water is underpriced in BC. For a water utility, water licensing costs represent approximately $4 per connection, or around $1 per capita. Provided that any increased revenues were actually directed towards managing water resources (enforcement, science, monitoring), increases to revenue by increasing licence fees should be considered. This would also free up allocated capacity, as increases to the cost of holding large allocations may drive some licencees to reduce their licenced capacity to better match their actual consumption.

On page 26, near the top of the page, a reference is made "to use water for a higher economic purpose". A higher social benefit is more desirable than higher economic purpose. An emphasis on economic benefits, or assigning values to water based solely on economic use is inconsistent with the stewardship enshrined in existing legislation in areas as diverse as environmental protection to the Agricultural Land Reserve.

Further down on page 26, under Objective Three, groundwater is almost always connected to surface water, although the ability to measure direct impacts from groundwater withdrawal can vary based on factors such as distance from surface water. Groundwater licensing is necessary in BC, particularly in areas with limited surface water supplies.

Under Options for water allocation system, FITFIR needs to be replaced. Among other shortcomings, FITFIR:

- prevents new entrants and new business from making use of water, as existing water supplies may be fully allocated to a use which offers limited social or economic benefits.
- does not recognize a heirarchy of uses, and in times of drought, does not allocate water on basis of need or societal benefits, but instead allocates water on basis on duration of tenenacy
- turns water into a private property rather than a public resource due to the permanent nature of the licenses
- makes it very difficult to adjust licences in response to changing climatic conditions or the need to preserve environmental flows, due to the perpetual nature of the licenses.

The current FITFIR system is comparable to the land ownership system, but since the Crown owns the resource, water licencing should instead be structured more like a lease or a mineral license. All existing surface water licences should be assigned an end date, which could be staggered over a 5-10 year period to even out the adminstrative burden for renewals. At the time of renewal, actual consumption should be reviewed, along with the

need to re-allocate a portion of the licence for environmental flows. Licence renewals should be publicly viewable and permit comments from the public (eg, other licencees or environmental groups). These comments could be reviewed by MoE staff in the course of licence renewal, and could be an additional trigger for development of a water plan for a stream.

Objective four on page 27 reviews how to address temporary water scarcity. A balanced model should be used, with a heirarchy of uses that also requires some level of shared reductions in water consumption.

8. Goal Four - Regulate Groundwater Extraction and Use

In the fourth paragraph on page 29, the Phase Two GWPR is discussed. This regulation has long since become a case of "too little, too late", and was supposed to be in place several years ago. Licensing of all large groundwater withdrawals needs to be built into the GWPR as soon as possible. In much of the province, groundwater is viewed as a free and inexhaustible resource that is there for the taking, but the resource is far from inexhaustible and increasing reliance on groundwater will lead to more conflicts over time. The thresholds for "large" as presented on page 31 are quite high, and 250 m3/day for non-bedrock aquifers (based on pump capacity) would be a more appropriate threshold. All new wells should be metered with annual consumption reported to MoE, and meters should also be added to existing wells by their owners during a transition period. Priority areas for regulating groundwater extraction and use would include all of those listed on page 32.

SUMMARY

Water licensing in BC should be amended. The amendments should reflect the value of water, and ensure that the societal benefits for all British Columbians are maximized, while maintaining ecological flows.

The provincial government remains the best organization to deliver water management as they alone have the organization size to maintain in-house expertise, and also are best able to offer consistency throughout the province. In addition, since there is only one taxpayer, the provincial government is likely to be more efficient than a collection of duplicate smaller authorities scattered across the province.

The existing FITFIR water licensing model is a relic of the past that impedes proper management of BC's water resources. FITFIR does not permit the societal benefits of water use to be maximized, or offer sufficient flexibility and responsiveness to meet the needs of British Columbians either today, or in the future. A renewable, fixed term water license structure is strongly preferred to overcome the limitations of FITFIR.

Darren Schlamp
Westbank, British Columbia

Note: the author of these comments has served as a trustee for Westbank Irrigation District for eight years, and has worked in management at another improvement district for the past four years, along with nine years spent as an environmental consultant. The above opinions are solely those of the author, and do not represent the position of the Westbank Irrigation District, or his employer.