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Sent: April-26-10 11:25 AM
To: Living Water Smart ENV:EX
Subject: Letter of Response to Modernizing the Water Act
Attachments: Modernization of the Water Act_D Allen.pdf

Please find attached a letter of response in relation to modernizing the Water Act.

Sincerely, Diana

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April 26, 2010

RE: Letter regarding modernizing the Water Act.

To whom it may concern:

I write this letter in general support of the initiative for modernizing the BC Water Act. In my view, this initiative will bring BC into the 21st century (and beyond) in respect to water stewardship across the province. As a member of the Ground Water Advisory Board, I am particularly supportive of the objectives for the protection of stream health and aquatic environments, and the regulation of groundwater extraction and use as these two are inextricably linked; however, I also support the other objectives for improving water governance arrangements and introducing more flexibility and efficiency in the water allocation system as these will both influence how water is used and managed in the province.

I also wish to say, up front, that I was unable to attend any of the information sessions. I just happened to pick up a copy of the document at a workshop. I have not participated in any discussions nor have I supported any other letters of response. As such, this letter expresses my own views. Below I summarize my thoughts with respect to these objectives, which as a whole are generally well-conceived and timely.

Protection of stream health and aquatic environments

Up front, let me say that I am shocked that Section 5 of the Fish Protection Act is not in force. My read on this is that neither the Water Act nor the Fish Protection Act speak to the protection of aquatic environments.

- 1. Environmental Flows:** Two options are presented, although from the paragraph above in the document that describes what methods are available for determining environmental flows, it is clear that a combination of methods may be possible. This would be my preferred option for the following reasons.



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First, it is unlikely that the Comptroller of Water Rights or the Regional Water Manager will have the detailed knowledge to determine if lesser requirements are justified. In my view, there should be some minimum standards, but if the applicant retains a qualified professional (hydrologist or hydrogeologist with professional accreditation from APEGBC) who is willing to sign off that greater use of water will not adversely impact aquatic habitat, then the allocation can be approved. This puts the burden on the water use applicant or the qualified professional, and not the province. In fact, having minimum standards that can be overridden by a qualified professional is how the Ground Water Protection Regulation is written for things like well construction. Minimum standards exist, but a qualified professional may alter these minimum requirements if they can demonstrate that there will be no adverse effects.

2. Watershed-based allocation plans: I think that water allocation plans should be required for specific areas of the province, but not for the province as a whole. I also support the idea that the Comptroller can order a water plan be developed. Clearly not all areas of the province will require such plans. There are very remote areas with little development, and it seems unreasonable to require this level of planning in such areas. However, if a problem does develop, then the Comptroller could order a plan be developed.

I also think that a set of criteria should be developed that are used to determine which areas require water allocation plans. These areas can be prioritized. The Water Act already has provision for establishing Water Management Plans, and Langley has already taken steps to have such a plan developed. However, my feeling with the process, as it is now written in the Act, is that having to go to Cabinet to approve the plan is too extreme. Why can't these plans be approved by the Comptroller?

I think that guidelines can be established to help communities / watersheds draft their plans. Input from stakeholders and levels of government will be needed, otherwise the plan will not have traction. There needs to be buy in from all parties or the plan will be abused. At least, this is what should happen in an ideal world, and there are great success stories where such watershed planning committees have successfully implemented plans. The province, though, must support these initiatives, for example through provision of monitoring.

Should these plans be enforced? I don't know who the decision maker is, in the document. If these plans are for the watershed (and I think if at all possible, plans



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should be developed at the watershed scale, although I know that this may be difficult), then who is making the decisions? My feeling is that the watershed council (if we call it that – the group responsible for developing and implementing the plan) should be the decision maker, and so it is in their best interest to follow their own plan. However, their decisions (plans) may impinge on other users of the water, as most watershed or aquifer boundaries do not coincide with political boundaries. In cases with clear and coinciding boundaries, I think that water allocation can be done locally, but in cases with overlapping boundaries, a larger basin council (such as Okanagan Basin Water Board), with membership from the province is needed. The province should take a watchful eye on all watershed plans to ensure that they are reasonable. They should also be enforced, not viewed as guidelines. If, for some reason the plan is not working, then the plan needs to be revised.

Habitat and riparian area protection: Option B. Amend the Water Act to include prohibition against dumping of a wider range of debris and materials into streams, with a requirement for the person responsible for dumping to restore stream health.

Improving water governance arrangements

Let me first say that there will likely be other respondents who are much more informed on governance, and I provide only brief comments below.

In my comments above, I have essentially supported the Delegated approach for water governance. In reading this section, the document is clear on the delegated approach (who is responsible for what, and what the role of the province would be); however, there are some aspects that I do not agree with. First, monitoring should be a joint effort with the province. If the province hands over the responsibility of monitoring to each individual watershed, then at the provincial level, there will be no means to monitor multiple watersheds. Also, the way the document is written, it sounds like off-loading, and I do not support this because the province is ultimately responsible for its water. It is unfortunate that the Shared approach is poorly described in the document – it lacks detail compared to the other two options. As it reads, I expect that most respondents will not support this option. In my view there is a potential for integration of Shared and Delegated.

Introducing more flexibility and efficiency in the water allocation system

I strongly support the objectives. Water use is abused in BC. We see evidence in declining groundwater levels, increasing conflict among water users, and BC boasts one of the worst records in North America for water use. I have few comments on this section, largely because I do not feel well enough informed on the various options



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presented. However, any measures that can be put in place to protect water through more efficient use of the resource should be a priority for the government. This being said, I feel that all water use should be licensed. For those with existing licenses, they should be required to demonstrate beneficial use. They should also be required to use efficient technologies so as not to waste (or pollute) water. Finally, all water use should be measured, and reported, to allow for better management of the resource at the watershed or province scale. The first in time, first in right method of water allocation is out-dated. Many jurisdictions across the world are now struggling with this method of water allocation, particularly in some parts of the US where water is scarce. With climate change and increased development there will be growing demand for water, and it needs to be used in the most efficient manner and in a way that is most equitable, and at the same time does not threaten aquatic habitat. Water allocations must be made explicitly for ecosystem services, and if this means reducing a water allocation for an existing user, then so be it.

Regulation of groundwater extraction and use

I am most strongly informed on the issues raised in this section, as I am an expert on groundwater and I have been a member of the Ground Water Advisory Board since its inception in 2003. While the document only lists one objective, several of the objectives in the other sections apply equally to groundwater, and will go a long way to protecting this resource.

Groundwater is not a separate resource. In some respects, I am bit surprised to see regulation of groundwater extraction and use appearing as a separate section in this document. Groundwater should not be treated any differently to surface water because the two are in fact one. So, I do not support the stated objective of regulating groundwater extraction and use in priority (critical) areas and for all large withdrawals. This is a half way response to a problem that will continue to threaten the quantity of freshwater across the province. I also feel that being choosy of what areas are priority areas and what the thresholds is fraught with problems.

Thresholds for large: Two options are provided for large thresholds. While I agree that the quantity of water that a particular aquifer can produce is largely a function of its properties (here presented as unconsolidated or consolidated), this does not mean that there should be two separate threshold because some consolidated aquifer can yield higher quantities of water than unconsolidated one (e.g., fractured rock versus fine sand). In my view, these thresholds are also arbitrary. Why should a well producing 500 m³/day be regulated, while one producing 499 m³/day not be regulated? If such thresholds are established, I would not be surprised if there were many, many wells installed with pumps that can produce just up to the threshold.



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Also, what if there are multiple wells within a small area? The cumulative effects of pumping will far exceed this threshold, but the effect will be the same or worse. The document indicates that thresholds may otherwise be determined by Water Management Plans. However, who will make this decision? Will there be a requirement for a qualified professional to step in and pass judgment? What happens over the long term – institutional memory (or lack thereof) - is a huge potential problem.

Priority Areas: A list of options for determining priority areas is given. Again, I question who will make the decision as to whether a particular area should be a priority area. All of these are valid options, and should of course be considered in combination. In fact, I expect that many regions of the province could argue that such criteria are already being met. Why are domestic wells excluded in these priority areas? Again, the issue of cumulative impact of pumping should be considered. On the Gulf Islands, for example, most of the groundwater extracted is for domestic use. Many of the wells are very low capacity wells, but yet there are significant problems with salinization in some areas due to too much water being pumped – even by these domestic wells. The two criteria based on areas of known quantity concern, or areas where groundwater is in direct hydraulic connection with surface water in areas of known quantity concern are also somewhat ill-founded. How might the province know if an area has quantity concerns if well pumping is unregulated? This might be known reasonably well today, but what about in the future. I have yet to see a stream that is not fed by groundwater during the summer, unless it is ephemeral. So, having a criterion that only those situations where groundwater is in direct connection with surface water makes no sense.

I understand that licensing all wells in the province regardless of size, use, and area will not be popular, and that bringing in licensing will be expensive. However, BC needs to take this bold step. The cost will be far outweighed by the long-term benefits of protecting of the resource now to ensure its long term security. If thresholds are set, or if intended use or priority areas are used to determine if a license is needed, then the system will be abused and the regulations will be next to impossible to enforce. Why should some individuals have to have a license, while others are not required to have one simply because of where they live? This does not seem to me to be an equitable system. All wells in BC should be licensed, regardless of aquifer material, size, intended use (which by the way can change), or location within a priority area.

My final comments, which are not addressed in this document, relate to the recommendations made by the GWAB as part of Phase 2 regulation development. The board recommended several regulations, yet none of these have yet been



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implemented. This is very distressing, and I am sure that the groundwater community in BC is frustrated as I am that all of this effort was made, but there has been no progress. These recommendations were made by a group of professionals who felt that for the protection of groundwater, these were very important. To cherry pick, based on implications for resources, is inconsistent with the Living Water Smart plan, and is also inconsistent with what the province is hoping to achieve through modernizing the Water Act. If the province is serious about water, then not only should it move forward with modernizing the Act, but it should also recommend to the government that Phase 2 of the Groundwater Protection Regulation be implemented.

Sincerely,

A handwritten signature in black ink that reads "Diana M. Allen". The signature is written in a cursive, flowing style.

Dr. Diana M. Allen, P.Ge.
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