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## Ground Water Protection Regulation – Phase 2

### Consultation Response Form

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We welcome your input to Phase 2 of the Ground Water Protection Regulation. Phase 2 has not been finalized and your input to this process can contribute to important changes in the draft regulation.

#### Phase 2:

Area:	Comments or Suggestions:
<p>Well siting – setbacks from:</p> <ul style="list-style-type: none"> <li>• sources of contamination</li> <li>• other supply wells</li> <li>• rivers or springs</li> </ul>	<p>Although the list of probable sources of contamination is not a complete list, we would have thought that there should be some requirement to identify existing soil contamination from past underground storage tanks or from surface sources. What is the relationship, if any, between the contaminated sites regime and the siting of wells? In some cases there are known contaminated sites which are a source of probable contamination.</p> <p>We agree that siting distances should be greater for large capacity wells. The standards should be developed in a precautionary manner.</p> <p>We have concerns over the proposal to allow qualified professionals (QPs) to provide confirmation that risks are minimal as a means of permitting exceptions to be made to rules which have been established either for public safety or for the protection of a public resource. In our opinion, such a system will leave QPs open to undue pressure to provide such opinions, and provides insufficient procedural protection to the public and/or to BC's water resources. We are already receiving calls from well owners/riparian owners reporting that new wells are impacting their water supply and surface water flow despite QP assurances that this would not occur.</p> <p>We would respectfully recommend that if exceptions are going to be considered, that such decisions be referred to a team of experts independently and properly charged with protecting the public interest in preserving a safe and sustainable ground water supply.</p> <p>We also recommend the institution of a public right to appeal</p>

	<p>deviations from established standards. Such a right of appeal would also be able to deal with conflicting expert opinions, which has recently arisen as an issue under other legislation involving reliance on QPs. The Environmental Appeal Board is the obvious body to hear such appeals, as it already hears appeals under the Water Act.</p>
Cross connection of aquifers	<p>We are concerned that a driller determining the likelihood of encountering salty water actually be qualified to make such a determination. Assuming that “driller” in the power point refers to a qualified well driller, as defined in the regulations, it is not obvious that a driller qualified under s. 3(b)(i) of the Groundwater Protection Regulations will have any knowledge of how to determine an appropriate site near the ocean. We would have thought that the use of a QP where there is a risk of salt water contamination, again with a public right of appeal by affected well users, would be appropriate.</p> <p>Also, the use of the word “likely”, which can be interpreted as “more likely than not”, does not suggest a precautionary approach. The power point is unclear what is to be done if the driller determines that encountering salt water is likely.</p>
Controlling artesian flow	No additional comment.
<p>Construction standards:</p> <ul style="list-style-type: none"> <li>• casings and liners</li> <li>• hazardous substances</li> <li>• sediment content</li> <li>• disinfection after drilling</li> </ul>	No additional comment.
Well construction reports	No additional comment.
Well pump installation	No additional comment.
<p>Well pump installation:</p> <ul style="list-style-type: none"> <li>• activities</li> <li>• standards</li> <li>• reports</li> </ul>	No additional comment.
<p>Flow tests:</p> <ul style="list-style-type: none"> <li>• yield &amp; pumping tests</li> <li>• standards</li> <li>• reports</li> <li>• responsibility</li> </ul>	<p>As part of the minimum requirements for pumping tests, minimum rate and duration for a permanent well should include either full seasonal testing or include extrapolative consideration of flows in other seasons. Full seasonal testing should be required for large capacity wells.</p> <p>Reporting of well information: reporting that has been voluntary should be made mandatory.</p>

Well water quality analysis	No additional comment.
Storage near the wellhead	No additional comment.
General comments?	<p>We are concerned with any system that relies exclusively on the use of privately retained qualified professionals. Our concerns are two-fold: (1) we would like to see established training and certification requirements for QPs, to ensure professional capacity in this area; and (2) there needs to be a method for public scrutiny and appeal of data and decisions. While we recognize the challenges of government capacity, there is an important public role for government to play in carrying out independent monitoring, inspection and enforcement functions, and independent decision-making on matters that involve exceptions to established standards.</p> <p>We are concerned over the proposed exclusion for "horizontal geothermal heat loops". We would like to see regulations established that will address risks to ground or surface water quantity, quality or temperature created by the installation of heat pump/geothermal heat loops, whether open loop or closed loop, vertical or horizontal. Especially given climate change and the growing impetus to find alternative energy sources (evidenced by the fact that your power point is now very prominently noting ground water's value as a geothermal energy resource), we believe there is a pressing need to ensure proper regulation of geothermal energy projects. In our view, both open and closed loop geothermal systems may pose risks to the resource and therefore, a base system of regulation to guide development activities and ensure appropriate monitoring and remedies in the event of an unanticipated mishap.</p> <p>Similarly, we are unsure about the noted proposed exclusion for holes related to drainage. It is well known that road runoff poses one of the most significant threats to our surface water resources, as a result of toxins that accumulate in drainage waters. It is our concern that a hole drilled for the purpose of drainage could pose a similar threat to groundwater quality, and that this activity should be appropriately regulated with a view to risks (e.g. persistent bioaccumulation) rather than excluded altogether from the regulative scheme.</p>

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We would also like to welcome your input to Phase 3 of the Ground Water Protection Regulation. In Phase 3, we expect to deal with regulations for implementing water management plans in designated

areas, setting standards for well operation and developing requirements relating to aquifer protection, and ground water quantity, and use.

### Phase 3:

Area:	Comments or Suggestions:
Standards for well operation	No additional comment.
Requirements relating to aquifer protection, and ground water quality, quantity, and use	<p>For water management plans, we recommend establishing a system that will ensure that source assessment reports and water protection plans are developed, adopted and implemented for all areas of the province, to ensure the continued protection of this important resource. Independently obtained scientific opinion should form the basis of decision-making by properly charged and funded independent government authorities.</p> <p>With respect to protecting ground water quantity, we need to know not only what is there but what is being withdrawn, and we need to establish a permitting or licensing system for ground water withdrawals. When establishing a licensing system, the rationale for authorizations should be based on a system of decision-making should be both scientifically defensible and socially equitable, not just "first in, first of right."</p> <p>Water management plans – including watershed planning - should be required in all jurisdictions and should be required to precede local government land use planning and development activities under local government jurisdiction. These should include considerations of both ground water and surface water.</p>

### Your vision for ground water in BC:

In your experience, what measures would potentially benefit the ground water issues in your area?

We would recommend that hard legislative linkages be established between laws that protect water resources (ground and surface) and laws regulating land development activities. In particular, it is our view that watershed assessments and plans should be required to precede, inform and limit local government-regulated land use planning and development activities. As evidence of the existing problem, we regularly receive calls from the public raising concerns that new land developments are being permitted under circumstances where there is huge uncertainty whether the watershed will be able to sustain the new loads and pressures placed upon it by the development. The failure to have mandatory assessment and planning procedures in place puts both our water resources and public health at risk.

There is a need for proactive scientific and legal measures to assess and protect our ground water resource, in light of impacts anticipated to this resource as a result of climate change. So much depends on protection of water supply and quality. Ground water in particular, is exceedingly vulnerable: once contaminated, it can be difficult or even impossible to clean it up.

Describe your top three ground water issues.

1. There is an urgent need for universally applied **source** protection laws and procedures, including the need to include water planning as a pre-condition to local government land use planning, as described above, and decision-making about resource use and tenure.

2. There is an urgent need for ground water withdrawals to be licensed, to ensure that withdrawals are sustainable and equitable. This need is particularly pressing for regions of the province with a history of over-use.

3. The Water Act currently addresses groundwater and surface water independently, and gives no direction as to the impacts of groundwater extraction on surface water flow, with the resulting economic and environmental impacts. With increased knowledge of hydrology, this interaction needs to be addressed.

Please feel free to add any other comments relating to ground water regulation that you would like us to hear.

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**Please forward this form to:**

**Bob Brown  
Water Stewardship Division**

**By mail at: PO Box 9362 Stn Prov Govt  
Victoria, BC, V8W 9M2**

**Or by fax at: (250) 356-1202**

**Or, if you have received this form electronically, you may return it by  
e-mail to Bob Brown at: [Bob.Brown@gov.bc.ca](mailto:Bob.Brown@gov.bc.ca)**

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