



CANADIAN ASSOCIATION
OF PETROLEUM PRODUCERS

November 15, 2013

Water Sustainability Act
Ministry of Environment
Water Protection and Sustainability Branch
PO Box 9362 Stn Prov Gov
Victoria BC V8W 9M2

Sent via e-mail: livingwatersmart@gov.bc.ca

Dear Sir or Madam:

Re: Feedback on A Water Sustainability Act for B.C. Legislative Proposal

The Canadian Association of Petroleum Producers (CAPP) appreciates the opportunity to review and provide feedback on *A Water Sustainability Act for B.C. Legislative Proposal*. CAPP supports the Government of British Columbia's initiative to update and replace the existing *Water Act* with a modernized water management framework for the province.

For your consideration CAPP offers the following comments regarding the unintended consequences of the proposed definition of saline groundwater, as well as feedback on each of the seven key policy areas and the water fee/rental structure.

Unintended Consequences

The exemption of saline/unusable groundwater from groundwater regulation and protection is strongly supported by the oil and gas sector. However, CAPP has a significant concern with the proposed definition of saline groundwater as: "*groundwater found under 600 metres below the ground surface that contains either: >10,000 mg/L total dissolved solids; or >4,000 mg/L total dissolved solids and contains amounts of hydrocarbons or hydrogen sulfide*". [Note: We interpreted 'under 600 metres' to mean below (deeper than) 600 metres.] The depth and parameter criteria add layers of complexity that will have the unintended consequence of discouraging the oil and gas sector's use of lower quality groundwater sources that are only suitable for industrial applications. As written, the definition would protect otherwise unusable groundwater with the same rigour as non-saline groundwater that is suitable for human consumption or agriculture and livestock use. Many saline/unusable groundwater resources currently or potentially sourced by the oil and gas sector would not meet the proposed criteria.

To provide statutory decision-makers with the flexibility to consider regional needs in both the protection of usable groundwater and the use of water that is fit for purpose, CAPP recommends that

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the criteria for exemption from the requirement to obtain a water licence or short-term water use approval be based on the usability of the groundwater resource. There are existing results-based regulations and water policy in British Columbia that reference ‘usable groundwater’ for domestic and agricultural purposes; generally, this is accepted as groundwater found at depths shallower than 300 metres and containing total dissolved solids (TDS) concentrations that meet applicable Canadian water quality guidelines. Industry’s responsible development of natural gas resources to supply British Columbia’s emerging LNG industry is dependent on certainty of access to otherwise unusable groundwater supplies.

Key Area 1 – Protect Stream Health and Aquatic Environments

- We support the protection of streams and the discretionary consideration of Environmental Flow Needs (EFN) by decision-makers where an application could be potentially impactful to stream flow or aquatic habitat.
- CAPP retained a consultant to conduct *A Review of Environmental Flow Assessment Methods for Application to Northeastern British Columbia (January 2013)*, which provides a recommendation and supporting rationale for a method to determine EFN for streams in northeastern British Columbia. The report is available on CAPP’s website: <http://www.capp.ca/canadaIndustry/naturalGas/ShaleGas/Pages/default.aspx>
- Detailed EFN assessments are likely to be time and effort-intensive for applicants, and it is difficult to assess the potential impact of the proposed EFN requirements on industry in the absence of criteria that clearly define how applications will be evaluated to determine whether they require only desktop assessments versus more detailed assessments. What would constitute a ‘complex’ application?
- The legislative proposal states that an applicant may be required to conduct a detailed EFN assessment. If a detailed assessment has already been completed on the stream by another applicant, does this negate the requirement? If there are multiple applicants for a given stream, will a detailed assessment be required to be prepared on a collaborative basis?

Key Area 2 – Consider Water in Land Use Decisions

- We understand that further detail on Water Sustainability Plans is being developed. Without details on when these Plans would be applied and under what conditions, it is difficult to evaluate potential implications.
 - Will the completion of a Water Sustainability Plan in a watershed be required before a project is approved? A project may not be fully defined at that stage.
 - Will watersheds be prioritized for the phased development of Water Objectives and Water Sustainability Plans?
 - How will Water Sustainability Plans consider activities on private land and what is the expected involvement of private landowners in their development?

- Clear and consistent requirements for the timing of public consultations, the process and deadlines for public input, and estimated timeframes for final decision-making should be applied to avoid unnecessary project delays.

Key Area 3 – Regulate and Protect Groundwater Use

- We support the exemption of saline/unusable groundwater from groundwater regulation.
- As noted earlier in this submission, the proposed definition of saline groundwater appears to be unnecessarily restrictive and will have the unintended consequence of discouraging the oil and gas sector's use of otherwise unusable groundwater as an alternative to higher quality non-saline water sources. There is no conflict with other water users in regions where industry is using saline or brackish groundwater. Further, saline groundwater use by industry is already subject to additional burdens during extraction, transport, storage and treatment. Groundwater that is unsuitable for human consumption or agricultural and livestock use (using depths <300 metres and TDS thresholds consistent with applicable Canadian water quality guidelines) should be exempt from regulation. This would protect usable groundwater while promoting industry's use of lower quality water sources.
- The following examples illustrate the unintended consequences of the proposed definition:
 - Industry is investing significantly in development of liquids-rich Montney assets in northeastern British Columbia. To supplement this development, investigation into alternatives to usable groundwater has been ongoing. The Cadotte Member (within the Peace River Formation) has been identified as a potential water source for the oil and gas industry and would be unusable for other parties based on depth. This source, however, would not meet the *Water Sustainability Act*'s proposed saline groundwater definition that is based on both depth and salinity. Typical characteristics for groundwater in the Cadotte Member are: depth of ~900 to 1,000 metres; and TDS ranging from 2,500 to 4,000 mg/L.
 - To meet the water needs for projects in the Horn River Basin, industry is looking for subsurface sources of water to supplement or replace our surface and shallow subsurface (fresh to brackish) water sources. The Debolt and Elkton Formations are known potential water sources for the oil and gas industry, and are already being used as such in the southern portion of the basin. The typical TDS averages ~20,000 mg/L and often there are traces of H₂S and potentially some minor hydrocarbons. These parameters render the water source unusable for other parties. In the northern portion of the basin, the top of the Debolt Formation occurs at depths as shallow as 300 metres below surface; therefore, the bulk of this potential water source is shallower than the 600 metre depth limit. Consequently, this source would not meet the proposed definition of saline groundwater under the *Water Sustainability Act*.
- The proposed saline groundwater definition also has implications for compliance with regulations pertaining to groundwater protection. The requirement for casing depth is set out

in the Drilling and Production Regulation under the *Oil and Gas Activities Act* (OGAA), which specifies isolation for aquifers shallower than 600 metres that “*contain non-saline groundwater that is usable for domestic or agricultural purposes*”. Counter to the direction provided by OGAA, an unintended consequence of the proposed saline groundwater definition is that protection of groundwater that is unusable for domestic or agricultural purposes may be required. The incremental costs of these requirements would be significant.

- CAPP recommends that the Reviewable Projects Regulation under the *Environmental Assessment Act* be amended to exempt saline groundwater extraction projects from requiring an Environmental Assessment to align with the *Water Sustainability Act*.
- CAPP requests more detail on the proposed licencing process for existing groundwater wells in order to evaluate the anticipated time and resources required to comply.
- Would a qualified well driller be required for activities such as seismic shock-holes if drilling through the potable zone?

Key Area 4 – Regulate During Scarcity

- We support enabling decision-makers to preserve critical environmental flows during times of drought or scarcity. The Oil and Gas Commission (OGC) has the ability to suspend oil and gas water withdrawals, and has exercised this authority during drought conditions in northeastern BC in the past.
- While we understand that the principle of first-in-time first-in-right (FITFIR) will be upheld, please confirm this will not preclude the ability of licence holders to work together on creative solutions to share water during times of drought or scarcity. Such collaborative efforts may avoid a situation where junior water rights-holders are cut off altogether, while still preserving critical environmental flows.
- The Government of British Columbia may wish to look at other legislative provisions that currently discourage water sharing; e.g., the *Water Utility Act* could be modified to allow for sharing of water infrastructure within a play without being deemed a utility.

Key Area 5 – Improve Security, Water Use Efficiency and Conservation

- We support the requirement for all users to use water beneficially, but it is unclear how this requirement will be applied; i.e., what information should a water user collect to satisfy a request from the decision-maker for beneficial water use information?
- A consistent definition for beneficial use should be reinforced.

Key Area 6 – Measure and Report

- We support requirements for water users to measure and report actual water use.

- Alignment of water use reporting categories with other provinces would facilitate consistent data collection, management and reporting. For the oil and gas sector, these categories could comprise: 1) injection (waterflood/conventional oil); 2) drilling and completions (conventional, non-fracturing); 3) drilling and completions (multi-stage horizontal hydraulic fracturing); and 4) oil & gas plant processing/plant utility water.
- All stakeholders should have timely access to factual information, and government should provide context to the water data collected for the benefit of the public.
- A priority for government should be the development of a transparent, centralized database for groundwater and surface water quality and quantity information across the province. Protocols for the collection and provision of data to this system should also be developed.
- Increased government resources may be needed to manage the increasing volume of information and to ensure the online reporting system/database is sustainable.
- ‘Qualified person’ for well measurements should be defined.

Key Area 7 – Enable a Range of Governance Approaches

- We support the delegation and/or sharing of responsibility for decisions related to water management. In particular, CAPP commends the delegation of responsibility to the OGC for regulating industry’s groundwater and surface water use given the capacity, resources and expertise in regulating oil and gas activity that resides within the Commission.
- Delegating responsibilities outside of the provincial government should only be pursued where there are efficiencies to be gained by doing so, such as in the case of the OGC. Since the provincial government ultimately maintains accountability for decisions made by delegated third parties, there is a potential for additional complexity and decreased efficiency in water and watershed governance.

Water Fees and Rentals

- Part 3 of the proposal summarizes the current framework for water fees and rentals in B.C. and outlines the potential changes they may undergo. While CAPP is supportive of a fee increase that covers administrative costs, we would request that any fee increases maintain the relative rates between consumptive and non-consumptive uses, as per the current oilfield use fee schedule.
- Saline/unusable groundwater should be exempt from the water pricing structure. In addition to these water sources being unsuitable for other uses, there are additional extraction, transport, storage and treatment costs associated with their use.
- CAPP would like to participate in the consultation process anticipated to advance potential changes to the current water fee and rental structure.

We welcome further discussions on the points raised in this submission. Please contact the undersigned at payment@capp.ca or 403-267-1104 if you wish to arrange a conference call or a meeting.

Sincerely,

A handwritten signature in black ink that reads "Tara Payment". The signature is written in a cursive style with a large, stylized 'T' and 'P'.

Tara Payment, M.Sc.
Manager, Water and Reclamation
Canadian Association of Petroleum Producers

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