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WEST COAST ENVIRONMENTAL LAW BACKGROUNDER –

Coalbed Methane Produced Water Code of Practice Raises Concerns

The BC Ministry of Water, Land and Air Protection has released a “Code of Practice Intentions Paper” – a summary of its proposed Code of Practice for the Discharge of Produced Water from Coalbed Gas Operations.

Once approved and finalized, the Code will become a Code of Practice under the *Environmental Management Act* – BC’s primary pollution prevention law.

The government is seeking to expand oil and gas operations in the province. Key to its plans is the development of coalbed methane, a gas that is found trapped in coal deposits in various locations around the province. Coalbed methane is not yet in production in BC; but work is now being done on an exploratory and experimental basis.

Production of coalbed methane often requires the extraction of large volumes of water, known as produced water. The water needs to be removed in order to release the pressure that traps the gas in the coal seam.

How to safely dispose of the produced water is an important environmental issue. Produced water may be highly saline, or may contain heavy metals – both of which may be harmful to the receiving environment.

West Coast has reviewed the proposed Code of Practice, as set out in the Intentions Paper, and has many concerns about the proposed regulatory regime for handling coalbed methane produced water. In a nutshell, West Coast is concerned that the regulatory regime proposed is not sufficiently stringent or precautionary, and could result in the degradation of BC’s streams and groundwater and/or do potential harm to both drinking water supplies and fish populations.

Some of our key specific concerns are the following:

- 1) We believe that discharges of produced water should not be regulated by a Code of Practice. Rather, the use of individual permits under the *Environmental Management Act* would enable a more precautionary approach to coalbed methane development, which is new to BC; specifically, it would allow industrial development proposals to receive individual attention necessary to address site-specific concerns. The generic approach proposed is a concern, especially when it has been shown elsewhere that water quality and quantity not only vary from location to location, but also over time at the same location: the risk cannot be expected to be uniform. For reasons such as these, Alberta does not regulate produced water with a generic Code of Practice. Instead, all discharges in Alberta require individual permits.
- 2) The proposed Code neither requires, nor legally prefers, deep well injection of the produced water – which research in the United States confirms is the most sustainable method of

disposal. Instead, the Code provides generic rules for discharge to the surface – both into streams, and to the ground.

- 3) West Coast is concerned that the prescribed standards fall short of the standards necessary to protect the waters of British Columbia from degradation. Requirements for dilution still allow the concentration of various contaminants to increase by up to 10% of the concentration in the discharge, which means that in pristine BC streams, the concentration of total dissolved solids (TDS) or chloride could increase substantially. The standards and the minimal dilution requirements allow water quality to be reduced; whereas the standards for specific discharges should be that the quality of the discharge not be any worse, within a measurement error, than the quality of a stream. An alternative could be to limit the discharge to BC drinking water standards and aquatic life standards.
- 4) The most substantial effects of degradation, with potential negative impacts on fish, other aquatic life, and drinking water, could result from cumulative impacts of the discharge. The Code should establish a minimum distance between discharges to the same stream or groundwater aquifer, which would help prevent contaminant loads from building up to deleterious levels. As well, establishing some kind of cumulative limit is particularly important, given that coalbed methane development typically involves a high number of closely spaced wells.
- 5) The proposed Code does not guarantee that monitoring data will be submitted on a routine basis to government or made available for public review – which oversight would encourage compliance. Also, the Code has not stipulated any process for a review (by the public or the government) of the success of the Code's implementation, in the years to come.
- 6) The proposed Code relies heavily on the use of "qualified professionals"; however, these have not been defined.
- 7) Finally, enforcement responsibility will lie not with the Ministry of Water, Land and Air Protection but with the Oil and Gas Commission. This is a concern, not only because MWLAP has greater expertise in the area of environmental protection, but also because the OGC's independence has been compromised since legislative changes were made in to the Oil and Gas Commission Act. There is emerging concern about the ability of the Oil and Gas Commission to respond effectively to public concern. Given recent cutbacks in staffing by the government, West Coast also has concerns about the government's overall capacity to properly enforce the standards which it has set.

West Coast does not support coalbed methane development proceeding at this time. As stated in *Oil and Gas in British Columbia: 10 Steps to Responsible Development* (West Coast et al, 2004; available on our website), we do not support coalbed methane development until such time as "...comprehensive studies into well spacing and water issues are completed to the satisfaction of affected communities, and until appropriate safeguards are put in place."

West Coast's detailed concerns about the proposed Code are set out in two documents available on our website (<http://www.wcel.org>):

- 1) A Technical Review of the Intentions Paper, prepared on behalf of West Coast by the Center for Science in Public Participation; and

- 2) A West Coast report, which reviews the Intentions Paper in light of West Coast's *Checklist for BC Code of Practice for Discharge of Produced Water from Coalbed Gas Operations*.

West Coast hopes that the Ministry will address these concerns, as it develops and finalizes its proposed regulatory regime; and also hopes that the Ministry will engage in a formal process of full and transparent public consultation.

For further information, please contact:

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