

March 27, 2013

Our File: 05220

Minister Diane McQueen
204 Legislature Building
10800 97 Avenue
Edmonton, AB
Canada T5K 2B6

Dear Minister McQueen,

RE: Comments on the Water Conversation

The Environmental Law Centre (ELC) is an Edmonton-based charitable organization established in 1982 to provide Albertans with an objective source of information about environmental and natural resources law and policy. The ELC's vision is an Alberta where the environment is a priority, guiding society's choices. It is the ELC's mission to ensure that Alberta's laws, policies and legal processes sustain a healthy environment for future generations.

The ELC is pleased to provide comments regarding water management issues arising under the government's *Water Conversations*.¹ The ELC recommends using this policy and law review as an opportunity to amend the *Water Act* to reflect the principles of environmental protection and sustainability, principles central to managing water in the public interest. The ELC begins comments are presented as follows:

1. Public interest goals for a public resource;
2. Water management;
3. Hydraulic fracturing;
4. Healthy lakes; and
5. Drinking water and waste water.

¹ See Government of Alberta, *Our Water, Our Future, A Conversation with Albertans*, (Edmonton: Government of Alberta, 2013), online: Alberta Environment and Sustainable Resource Development <<http://environment.gov.ab.ca/info/library/8771.pdf>> and related materials at <<http://environment.alberta.ca/04132.html>>.

1. *Public interest goals for a public resource*

The ELC recommends incorporating increased recognition that water is a vital public resource and should be managed in fashion that meets prescribed environmental criteria and goals. Managing water to meet environmental goals will occur when environmental law principles are embedded in legislation. These environmental law principles, as espoused by academics and the judiciary, and incorporated in various pieces of legislation across Canada, include:

- sustainability;
- precautionary principle;
- pollution prevention;
- polluter pays;
- addressing cumulative impacts;
- intergenerational equity; and
- public participation.

For further information about these principles see the ELC’s “Core Environmental Principles for Environmental Laws, Policies and Legal Processes.”² Table 1 identifies how the current *Water Act* is failing to adequately incorporate environmental principles. The table is followed by recommendations to address this shortcoming.

Table 1: Environmental law principles and the *Water Act*

Principle	Water Act approach
Sustainability (bring a sustainable environment into the equation)	Allocation decisions are driven by private interests insofar as consideration of impacts on private licence holders is mandatory and consideration of environmental impacts is discretionary. Participation in decision making is generally limited to private interests.
Precautionary principle	A precautionary approach is not a mandatory part of the legislation except where impacts on other users are concerned. (Arguably the closure of the South Saskatchewan basin to

² Environmental Law Centre, “Core Environmental Principles for Environmental Laws, Policies and Legal Processes”, February 2012, online: Environmental Law Centre <http://www.elc.ab.ca/Content_Files/Files/CoreEnvPrinciples.pdf>.

	allocations shows a level of precaution, but one that was taken years too late from an environmental standpoint.)
Pollution prevention	Pollution is not the focal point of the <i>Water Act</i> , although allocation decisions often involve impacts on surface water quality, either through return flows or reduced flows. There are no substantive provisions limiting allocation decisions based on impacts on water quality.
Polluter pays (internalizing environmental costs)	The user/polluter pays principle is not directly adopted by the <i>Water Act</i> (or the <i>Environmental Protection and Enhancement Act</i>).
Cumulative impacts	Decisions to manage around cumulative impacts exist but have been underutilized. (Examples of the limited exercise of this discretion include the issuances of licences for meeting water conservation objectives, Crown reserves, and the discretion to refuse the granting of a licence where cumulative effects are known).
Intergenerational equity	Recognized in the purpose of the Act but is fundamentally undermined by: <ul style="list-style-type: none"> • FITFIR; • Deemed licences; and • Lack of flexibility to deal with climatic/supply variability.
Public participation	Directly affected parties can participate in decisions which have been interpreted to limit standing to those with private and primarily economic interests. This limits the submission and testing of evidence to competing private interests, not the broader public interest.

ELC Recommendations

The ELC recommends amending the *Water Act* to incorporate the following:

1. Integrating substantive environmental criteria into the *Water Act* that act to constrain discretion around water allocations. These criteria will include:
 - a. A science based environmental base flow;
 - b. Identification and protection of species at risk;
 - c. Substantive water quality criteria as impacted by available flow and allocations.

2. Erring in favour of protection of the environment where information of environmental impacts from allocations is unknown.
3. Placing the burden of proof on an applicant for a diversion to illustrate that volumes, timing of diversions and return flow quality and quantity do not adversely impact the environmental criteria.
4. Creating a statutory planning and restoration system focused on the restoration and maintenance of aquatic habitat.
5. Ensuring that costs associated with maintaining water quality in return flows are borne by the polluter/user.
6. Integrating tools to minimize impacts of past allocations on aquatic health, including retroactive application of conditions on deemed licences.
7. Publishing reasoning around allocation decisions and addressing prescribed environmental criteria and principles of public trust and intergenerational equity.
8. Enabling legal participation in decision making by groups who can establish a genuine interest in environmental outcomes to ensure that decisions may be tested for their concordance with the public interest.

2. Water management

Water management in the province evolved near the end of the last millennium with the proclamation of the *Water Act*; however, the foundational prior allocation system of water management was maintained. The empowerment of senior licence holders and the relative inflexibility in maintaining this system (and the grandfathering of licences) limits opportunities to address environmental and public interest outcomes. Augmentation of the current legislative structure is needed to be responsive to environmental needs and to adapt to variable supply.

The water management system needs to be augmented in three fundamental ways: First, to allow for increased flexibility to preserve stream flows in over-allocated basins; second, to ensure future allocation decisions sufficiently incorporate and abide by environmental considerations; and third, to prescribe proactive and precautionary planning and assessment to avoid future harmful decisions and to drive conservation.

The concept of “protected water”

While establishing “protected water”, as espoused in the *Water Conversations* documents, is laudable in the abstract, the proposed use of water conservation objectives does little to ensure against harm to the environment. Any legislative tool for protected water needs to be guaranteed a level of priority relative to licenced diversions and any statutory test based on preventing “significant harm to the viability of environmental systems” must be demonstrable through objective and regulation based standards. That is to say “significant harm” must be empirically defined and regulated in a manner that ensures accountability in decisions.

One need only consider that the water conservation objective (WCO) for the South Saskatchewan Basin reflects a compromise in an over-allocated basin and does not reflect scientific needs to maintain or restore ecological integrity.³ “Protected water” must begin with a scientific discussion of what is needed to maintain (and in some cases restore) the health of the aquatic system. Any movement away from the scientifically based value must be clearly espoused and must be accompanied by sound reasoning and canvassing of alternatives.

Further, there is an indication that the WCO amount would be protected by government; however, how this would occur in over-allocated basins remains to be described. Would the government commit to purchasing a portion of senior licences to return flows?

The question of water storage

Water storage opportunities should focus on natural storage functions that have been lost on the landscape. A starting point would be to make financial commitments equal to the historical expenditures on engineered storage to restore natural storage that has been removed. Other aspects of offstream storage must also be accompanied by a thorough assessment of impacts. Onstream storage/dams should not be considered due to their environmental impacts. In the United States many structures have now been targeted for removal due to these impacts.⁴

The ELC recommends investing in protecting and restoring natural storage systems and only proceeding with offstream storage projects that can be shown to operate while protecting key ecological indicators (as prescribed in Recommendation 1, above).

The policy of repurposing of licences

By adopting a policy of repurposing licences, the Government has adopted a policy stance that enhances the rigidity of the allocation system and contributes to unnecessarily empower senior

³ In the Red Deer Basin the setting of the WCO is further removed from the legislative intent of WCOs insofar as it appears to merely mimic the rest of the basin when the opportunity existed to more protective of wildlife and waste assimilation flows.

⁴ For example, see dam removal projects for the Elwha and Klamath Rivers in the Northwestern United States.

licence holders even further than was historically the case. This, in effect, allows senior licence holders, none of whom have direct accountability to the Alberta public, to become brokers and water masters. Tools under the *Water Act*, such as water transfers, could be used to provide greater social and environmental equity in allocation decisions.

The ELC recommends that the Government of Alberta abandon its policy in relation to amending licencing purposes and pursue avenues (including retroactive application of legislation to historic licences) to reallocate water where required and where justified in the public interest.

Leveraging regional planning

The discussion document outlines “opportunities” to integrate with regional planning endeavours. Again, this is laudable in theory; however, the legal reality of integration is confronted with the fact that water quantity laws under the *Water Act* have legislative supremacy over the contents of a regional plan. This in effect makes integration of water quantity and land use decisions in over-allocated basins (like the SSRB) minimal at best.

The ELC recommends identifying how legislation might be changed to address the disconnect between regional planning and water allocation and use decisions under the *Water Act*.

3. Hydraulic fracturing and water

Hydraulic fracturing has a host of potential impacts that must be properly regulated. Regulations must cover not only well specific impacts, but also the cumulative impacts of development, which requires strategic planning and assessment. In many respects the regulatory horse is still in the stable while the fracking cart is barreling down the hill.

Cumulative effects management

The use of hydraulic fracturing has expanded the potential scope of oil and gas production such that past impacts on the environment are likely to be maintained and expanded. The cumulative effects of energy developments (in conjunction with other activities) must be properly assessed and binding approaches to limit impacts on biodiversity are required. For instance, where there are ongoing impacts on needed habitat the approval and licencing of additional well sites must be limited.

Water conservation

The amount of water used in fracking is often significant and results in at least a portion of the water being injected into a deep well and removed from the water cycle. Due to this there is a need to impose a direct, per cubic metre cost on all water deep well injected, where that water is derived from a potable source. This will drive conservation efforts and the seeking of environmentally friendly alternatives while recognizing the loss of this resource.

While incorporation of fracking activities under the *Water Conservation and Allocation Guideline for Oilfield Injection* is one step towards conservation there remains a need to further promote avoidance of non-saline water sources through pricing and by placing a significant burden to canvass alternative sources.⁵ There is a need to prescribe criteria and standards to determine the adequacy of attempted avoidance of use of potable water sources. As with numerous other “avoidance, compensation and mitigation” policy approaches there is significant risk of simply jumping to compensation or mitigation.⁶ A robust audit system of the policy is also needed to ensure it is being applied in an appropriate manner.

Fracking fluid disclosure

The industry has been extremely slow to disclose specifics about fracking fluids being used and this must change. Considering the risks involved any arguments around proprietary interests must give way to the public interest in protecting water resources. Full disclosure of fracking fluid constituents and concentrations must be prescribed. In addition, all fluids, if not traceable by the nature of their constituents, should include a mandatory, environmentally benign tracer.

Monitoring and enforcement tools and resources

There is a need to ensure adequate monitoring and enforcement of fracking activities to ensure that impacts are known and addressed. This requires increased capacity to identify impacts not only in the settled area of the province but on Crown lands as well. Currently, the risks management approach associated with fracking appears to be focused on risks to water supplies rather than general risks to the environment. There is a need to increase monitoring in this regard.

There is also a need to fully revamp the fines and administrative penalty structure in the province, particularly around oil and gas legislation. Administrative penalties must be available and sufficient to act as a deterrent. The *Responsible Energy Development Act* provides the Regulator with discretion around administrative penalties and this is a step forward when compared to current statutory schemes.⁷ Administrative remedies need to be fully resourced and penalties should be increased to the \$100,000 - \$500,000 range. Similarly monetary penalties resulting from prosecution under oil and gas legislation must be increased significantly.

⁵ Government of Alberta, online: Alberta Environment and Sustainable Resource Development <http://environment.alberta.ca/documents/Oilfield_Injection_Guideline_2006.pdf>.

⁶ A recent study has shown how this takes place in relation to wetlands. See Shari Clare and Naomi Krogman, “Bureaucratic Slippage and Environmental Offset Policies: The Case of Wetland Management in Alberta” *Society & Natural Resources: An International Journal* (March, 2013), online: Taylor & Francis Online <<http://www.tandfonline.com/doi/full/10.1080/08941920.2013.779341>>.

⁷ S.A. 2012, c. R-17.3, (awaiting proclamation) at s.70. Fines under the Oil and Gas Conservation Act and the Oil Sands Conservation Act remain unreasonably low (at s.110 and s.26 respectively)

4. Healthy lakes

The “health” of Alberta lakes is not easily defined, particularly where a lack of study has resulted in an inability to determine the naturally occurring nutrient budget for a lake. Regardless, the impact of development and resulting source and non-point source inputs into our lakes need to be minimized. This in turn will require significant commitments to research as well as commitment to implement needed policy and regulatory action to maintain and restore water quality parameters to a level that ensure sustainability of our lakes.

The regulation and management of many of Alberta’s Lakes is further confounded by numerous overlapping jurisdictions and a host of regulated and unregulated activities that are likely to contribute to lake quality. There is a need to unify objectives and planning under a watershed approach to management of lake development that drives towards common environmental outcomes.

Currently it appears doubtful that regional plan under the *Alberta Land Stewardship Act* will be sufficiently detailed in relation to management of lakes to provide the regulatory framework that is likely necessary. Robust environmental management frameworks may be engaged but must take an expansive approach to include activities which were not or are currently governed by regulation. An example of this may be prescribing limitations on individual septic systems around lakes or inclusion of phosphorous nutrient management or total maximum nutrient loading plans for a watershed.

5. Drinking water and waste water

The ELC acknowledges the need for sustainable infrastructure, but the Government of Alberta must take a more holistic approach to managing drinking water and waste water. This requires policy and regulatory frameworks that focus on increasing the quality of water supplies through source waters/head waters protection. Policies must also recognize the ecosystem services carried out by healthy riparian areas and wetlands. Substantive protection and restoration of these areas must be the focus.

There is also a need to recognize the acute and cumulative effects of waste water systems and the fact that many approvals currently in place may result in significant adverse effects on the environment.⁸ Many existing wastewater systems were granted authority to operate in a manner that was likely to contravene the federal *Fisheries Act* (prior to the passage of the Wastewater System Effluent Regulations).⁹ This indicates an inadequate assessment of water

⁸ See Environment Canada “Town of Beaverlodge Sentenced to Pay a \$20,000 Penalty for Water Pollution”, (August 27, 2008) online: Environment Canada <<https://www.ec.gc.ca/alef-ewe/default.asp?lang=En&n=CCAA8EDB-1>>. The Town was operating within its conditions of the provincial authorizations but violated federal fisheries laws in relation to a wastewater outflow during a low flow period.

⁹ SOR/2012-139.

quality metrics, environmental impacts, and flow related information to properly avoid adverse environmental effects.

If regionalization of infrastructure is to take place there is a need to understand the impacts and account for all environmental parameters when issuing an approval. There may be net benefits in regionalizing services if wastewater infrastructure that is causing environmental harm is decommissioned. Regionalization is also likely to bring its own unique impacts, which must also be considered prior to moving forward. Transport of water and waste from region to region may either ameliorate or exacerbate existing cumulative environmental effects.

Conclusion

Water laws in Alberta have been slow to evolve to reflect the challenges of our time. The prior allocation system maintained in Alberta poses significant challenges to managing for environmental outcomes due to its significant rigidity and the power granted to deemed senior licence holders. The other side of the water management coin is a lack of substantive criteria to guide water management in a manner that will facilitate environmental outcomes. The end result is a system that favours private interests over the public interest, while paying limited lip service to maintaining and restoring water quantity and quality so that future generations of Albertans can enjoy our water resources.

Please do not hesitate to contact the Environmental Law Centre should you have any questions.

Yours truly,

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cc. Andy Ridge