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Our File: 5256

Honourable Kyle Fawcett
Minister of the Environment and Sustainable Resource Development
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Dear Minister Fawcett,

RE: Updating allocation and change of purpose policies in Alberta

Please find attached the Environmental Law Centre's (ELC) recommendations regarding the creation and amendment of existing policy to ensure healthy aquatic ecosystems. These policy recommendations are focused on ensuring decisions about water allocations, water licence renewals, water allocation transfers and change of licence purposes are fully informed and give due consideration to environmental impacts.

The 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.

We would be interested in discussing these policy amendments with you and your staff.

Yours truly,

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cc: Shannon Flint
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enclosure

Refining water allocation and change of purpose policies

Water is fundamental to both our economy and the environment. Alberta's population continues to grow as does its reliance on water supplies. Only through sustaining our environment (both aquatic and terrestrial) will we sustain our quality of life and economic drivers that are generated by the environment.

Current legislation and policy guide government discretion in making water allocation decisions. This includes decisions regarding initial water allocations, licence renewals, water allocation transfers and changes of purpose of existing licences.

The Environmental Law Centre has reviewed the allocation framework and recommends amending these policies to ensure sustainable environmental flows into the future.

The recommendations focus on:

- Water allocation transfer, water licence renewal, and change of purpose decisions in basins that have an approved water management plan (AWMP);
- Water allocation decisions and renewal decisions in basins where no AWMP exists; and
- Temporary diversion licences in all basins.

Current law and policy regarding allocation decisions

Water allocation decisions are governed by *Water Act* provisions which prescribe various mandatory and discretionary considerations in making a decision.¹ The only mandatory considerations relate to the "matters and factors" that appear in an "approved water management plan" whereas discretionary considerations include the physical and biological contexts of a potential diversion. "Existing, potential, or cumulative" effects on the aquatic environment, hydrology and hydrogeology can be considered, as can the impacts on a water conservation objective or water guideline.² In addition, the impacts on other users may also be considered in this context.

In addition to general policy considerations there exists sector specific policy for enhanced hydrocarbon recovery under the *Water Conservation and Allocation Guideline for Oilfield Injection (2006)*.³

¹ See s.51.

² *Ibid.*

³ (Edmonton: Government of Alberta, 2006), online: Alberta Environment and Sustainable Resource Development <<http://environment.gov.ab.ca/info/library/7700.pdf>>

Table 1 sets out the various considerations that go into a water allocation or water licence renewal decision. There is a significant policy vacuum around how some of the discretionary considerations are to be undertaken, which in turn may allow for decisions that are not scientifically based or lack sufficient analysis to ensure healthy aquatic ecosystems are maintained.

Table 1: Water allocation considerations and policy guidance

Considerations	Nature of consideration	Policy guidance
Matters and factors of an approved water management plan	Mandatory	Approved Water Management Plans: <ul style="list-style-type: none"> • South Saskatchewan River • Battle River
Aquatic environment	Discretionary	Guide to Groundwater Authorization, March 2011. <ul style="list-style-type: none"> • Evaluation of interference with surface waters. • Groundwater Quality assessment (regarding discharges to surface water bodies)
Hydraulic, hydrological and hydrogeological effects	Discretionary	Guide to Groundwater Authorization, March 2011.
Effects on household users, other licensees and traditional agriculture users	Discretionary	
Public safety	Discretionary	
Suitability of land for irrigation	Discretionary	Procedures Manual For the Classification of Land for Irrigation in Alberta, 2004 (Alberta Agriculture) ⁴
Other matters as appropriate (such as implementation of WCOs, guidelines, and WMP)	Discretionary	

Policy should be developed to provide clarity around when allocation decisions may be refused due to aquatic impacts and when mitigation measures may have a role in ensuring decreased impacts on aquatic environments.

This policy framework should focus on ensuring that:

- ecological and hydrological information is sufficient to make scientific decisions (with minimal uncertainty);

⁴ It should be noted that a decision under the *Water Act* should not be based on extra-departmental policies as there is a risk that government officials may be fettering their discretion. This procedure manual focuses on

- effective and efficient management of information is married with decision making at the Director level;
- detailed assessments are triggered when risks to aquatic environments are found to exist; and
- acute, chronic and cumulative aquatic impacts are captured by the policy framework.

1) Recommendations for expanded policy regarding water allocations, licence renewals and transfers

Recommendation #1: Information and water availability forecasting is sufficient to determine ecological effects of proposed diversions

There is a need to ensure that allocation decisions are not resulting in degradation of the aquatic environment. Sufficient ecological and hydrological knowledge must be integrated in the water allocation decision making process.

Decisions must be informed by:

- up to date monitoring and forecasting to determine water availability for ecological functions;
- a desktop assessment process that enables the identification of potential acute, chronic and cumulative impacts on the ecological components of a water body that may result from a proposed diversion (see Recommendation #2 below); and
- the setting of trigger points in potential effects that would require increased site specific information related to a proposed project.

Recommendation #2: Desktop assessment of availability and aquatic impacts

For water allocation applications that come before the government there should be an integrated flow model (with sufficient data support) allowing for aquatic assessments to identify potential impacts arising from a given allocation. This system should include a cumulative and acute effects determination and should determine any impacts on specified aquatic ecological criteria. Key reference materials include:

physical and chemical characteristics but fails to consider other biological/ecological characteristics of land. An integrated approach must assess suitability of land conversion on a holistic level.

- a *Desk-top Method for Establishing Environmental Flows in Alberta Rivers and Streams*⁵
- a quantitative and qualitative assessment of allocations against ecological criteria;⁶
- an assessment protocol of water diversions on water quality;
- an assessment protocol for identification of potential acute, chronic and cumulative effects;
- an assessment of regulated versus natural flows and possible management options/implications; and
- trigger mechanism where desktop assessments are elevated to site specific assessments.

Where deleterious effects on aquatic environments are found through the initial desktop assessment, the proponent should be provided the opportunity to provide further details that establish minimal harm or to allow for the proposal of site specific mitigation. Where the proponent fails to provide sufficient additional information or where mitigation is not appropriate or insufficient, refusal of the application will be justified.

This approach should be used on the significant tributaries to mainstem rivers with sufficient monitoring to inform decision making. Further modelling may be used for assessing impacts of tributaries further upstream.

Recommendation #3: Audit and inclusion of aquatic health assessments for temporary diversion licences

The temporary diversion licence (TDL) system should be accompanied by the integrated modelling and assessment of potential harms and risks related to TDL grants to minimize risks at low flow periods and in areas where ecologically valuable habitats are located. Under the current system the knowledge and assessment of impacts based on TDL volumes is insufficient.

⁵ Government of Alberta, *A Desk-top Method for Establishing Environmental Flows in Alberta Rivers and Streams* (Edmonton: Government of Alberta, 2011), online: Alberta Environment and Sustainable Resource Development <<http://www.environment.gov.ab.ca/info/library/8371.pdf>>.

⁶ See for instance, Alberta Water Council, *Provincial Ecological Criteria for Healthy Aquatic Ecosystems*, online: Alberta Water Council <http://www.albertawatercouncil.ca/portals/0/pdfs/peach_report_final.pdf> and Alberta Environment and Sustainable Resource Development *Aquatic Environmentally Significant Areas in Alberta* <http://environment.gov.ab.ca/info/library/8392.pdf>

Additional policy recommendations for the promotion of healthy aquatic ecosystems

Recommendation #4: Remove undefined “significant” harm tests in the “matters and factors” of approved water management plans and replace with empirical assessment and ecological benchmarks for decision making.

Decision making under approved water management plans should be based on quantitative assessments of harm. Reliance on terms like “significant” are not instructive for the decision maker as to what is acceptable versus unacceptable impacts on the aquatic environment. The “significant harm” approach should be abandoned or informed by a quantitative definition of what will be deemed “significant”. A benchmark for when “harm” will be assessed as a barrier to development will provide greater certainty to decision makers and applicants alike.

Recommendation #5: An assessment of environmental consequences of land conversion where applications are for the purposes of irrigation should be used when determining “suitability” of the diversion.

Lands of high ecological value, which include species at risk or other valued ecosystem components are not suitable for land conversion facilitated by irrigation diversions. When determining the “suitability” of lands for irrigation under the *Water Act* the Director should ensure that valued ecological components are not undermined.⁷ Refusal of applications for diversions of water to facilitate land conversion of important habitat is justified as these lands are not suitable for irrigated agriculture.

Recommendation #6: Promote alternatives to potable water use for enhanced recovery water diversions and other “downhole” uses by applying an appropriate “water consumption” fee to account for “abandoned” water.

Water licences, TDLs, and renewals should integrate fees pursuant to s.168 of the *Water Act* by creating a new class of licence fees based on the end point of diverted water.⁸ Specifically where water is being diverted to aquifers for enhanced recovery, fracking or waste disposal there should be a sliding scale fee for all “abandoned” water.⁹ The fee should be based on an assessment of an effective financial driver for promotion of alternatives.

⁷ See for example the proposed diversions for the *Special Areas* and applications of the Bow River and Western Irrigation Districts, online: Alberta Environmental and Sustainable Resource Development <<http://esrd.alberta.ca/water/forms-applications/documents/OutstandingApplications-SouthSaskRiver-May2014.pdf> >

⁸ There may be a concern around the scope of authority and flexibility around fees under section 168(1)(b) or (e) and this should be evaluated further to determine whether legislative changes are required.

⁹ “Abandoned” water may be described as that water volume that is injected into areas where it is no longer readily available to the general hydrological cycle or is rendered un-potable.

“Abandoned” water should be defined as the volume of water that remains within an aquifer for a specified purpose and is not released to surface or to other potable aquifers. This will promote further avoidance of potable water for these purposes.

2) Recommendations for policy changes for water licence “repurposing” decisions

The “repurposing” of water licences (i.e. the addition or changing of a licence purpose) issued under the *Water Act* and predecessor legislation should be guided by environmental criteria. The *Water Act* is largely silent on the exercise of discretion around the change of licence purpose. For the most part the limitations of a licence are typically constrained by infrastructure limitations and the appurtenance provisions of the *Act*, which tie the water diversion and use to the land to which the licence pertains.¹⁰

The change of licence purpose, when compared to requiring a water allocation transfer, effectively limits Crown flexibility and oversight for water management. Historic allocations of water are left with senior licence holders for purposes that were beyond the scope of the historic licence grant (and beyond the historic legislative purpose and structure of irrigation districts in a specific instance). In practice, senior licence holders do not have an environmental mandate in relation to their repurposed water, which is justified as pressures mount on aquatic ecosystems.

Change of purpose policy

The *Water Licence Change of Purpose Administrative Licensing Criteria*¹¹ sets out government considerations around when change in purposes may be allowed. The criteria include a need to provide public notice, including specifics regarding the quantity of water for each purpose and any new work to deliver on the use, and any changes in return flow.¹² In addition, further redistribution from those who are benefiting from the repurposing is prohibited.¹³

Licence amendments are also to be limited to instances where allocations are over 1,230,000 cubic metres. New purposes are limited to the 1,230,000 cubic meters plus 2% of anything above the remaining amount. Changes in purposes may only apply to water being used under the licences at the time of the application or that has been used in the previous three years and has been conserved.¹⁴ The

¹⁰ See ESRD *Guidelines Regarding Appurtenance*, ESRD, Water Quantity, 2014, NO. 1 online: Alberta Environment and Resource Development <<http://esrd.alberta.ca/forms-maps-services/directives/documents/GuidelinesRegardingAppurtenance-Apr23-2014.pdf>>.

¹¹ ESRD Water Quantity, 2014, No. 2, online: Alberta Environment and Resource Development <<http://esrd.alberta.ca/forms-maps-services/directives/documents/WaterLicenceChangePurpose-Apr23-2014.pdf>>.

¹² *Ibid.*

¹³ This is reflective of diversion and licencing requirements of the *Water Act*.

¹⁴ *Ibid.*

policy also indicates that water that is “wasted” will not be “eligible for inclusion” in the repurposed volume.¹⁵

Recommendation #7: Licence repurposing should not be used where water conservation objectives or environmental flows are not being met.

While the existing criteria have a measure of protection against the repurposing of “sleeper” rights (i.e. unused rights) the repurposing still fails to provide a mechanism to return flows for WCO or environmental outcomes. For this reason, repurposing should only be considered and approved where the repurposing has proven ameliorative or provides beneficial effects on environmental flows.

Recommendation #8: Repurposing of water resulting from publicly funded conservation efforts should require an allocation transfer to a WCO licence of equal volume to the repurposed amount

Public investment in water conservation efforts should serve multiple public good purposes, including environmental protection. Where public money is used to finance conservation initiatives it is appropriate to require a transfer of the saved water for restoration of flows. This should be made as a stipulation of public funding and result in the transfer of an allocation to a WCO licence under the *Water Act*.

¹⁵ *Ibid.*