



January 24, 2025

Environment and Protected Areas
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RE: Water Availability Engagement

To whom it may concern,

The Environmental Law Centre (ELC) is a registered charitable organization that provides services to government, civil society, the general public and other interested stakeholders. The ELC seeks to ensure our regulatory system and administration of these systems are guided by science and are effective at protecting water, air, soil and ecosystems. We are pleased to provide our feedback in relation to the challenge of increasing water availability in Alberta.

As will be seen, the ELC recommends a significant evolution of water governance in the province. This approach requires the reconsideration of key aspects of the *Water Act* to bring a new paradigm to both water management and environmental management. Relevant areas of the Act as currently written are highlighted for context.

This submission provides a summary of recommendations which should be subject to further analysis, consultation and deliberation with all Albertans. A foundation of the recommendations is that the current regulatory system is not practically functional in times of significant drought, as illustrated by recent emergency voluntary water-sharing agreements. Further, the recommendations focus on increasing accountability for environmental flows.

The key recommendations are as follows:

1. Conduct evaluations and further consultations in relation to volumetric water pricing for water licences. It is recommended that these volumetric pricing opportunities be considered in direct connection with related expenditures of monitoring, planning and management around water (including diversions, watershed-related impacts, and impairments and restoration of the aquatic environment). (See examples of BC and New South Whales Australia)



2. Amend the *Water Act* such that all licences are subject to review and renewal. The *Water Act*'s approach to historic licences perpetuates barriers to water sharing and increasing water conservation.
3. Consider statutory amendments to the *Water Act* and the *Irrigation District Act* that will provide additional autonomy to individual water users to provide for increased ease in transfers and conservation initiatives (whether it is for other uses or for environmental flows).
4. Codify water-sharing approaches and governance systems for times of low flow or drought (with a central connection to a delegated officer of environmental flows and conservation (as set out in 5)
5. Amend the *Water Act* to establish a delegated officer that has a sole focus on environmental flows and conservation. This officer would have a direct role in water transfers, holdbacks, monitoring and reporting around WCOs and on scientifically derived instream flow needs.
6. Any consideration of augmenting return flows requires the creation of regulatory and policy direction that assesses, plans, and administers a system of assuring that augmentation of return flows are not adversely affecting other water users and the environment. This needs to occur at various watershed scales.
7. Interbasin transfers should only be considered through the former process of a Special Act of the Legislature. The discretion for the Cabinet to approve interbasin transfers in emergency situations should be repealed.

Uncertainty reigns for aquatic systems

Underlying the issue of drought, water supply, and water availability are the inherent risks to the aquatic environment. A healthy aquatic ecosystem is only viable where water quantity and quality are maintained within certain ranges. That amount, often referred to as an instream flow need or IFN, will vary by hydrological function and can be irreparably impacted by excessive water diversions and other water-impacting infrastructure.

Further, attaining legal clarity or accountability for either an IFN or an ecosystem base flow has been elusive under the *Water Act* and how it has been administered. As will be discussed *Water Act* tools such as water management plans and water conservation objectives have, in this author's opinion, failed to meet their potential. (See [Future flows : climate resilience, environmental flows and Alberta's water law](#) by Jason Unger (Environmental Law Centre (Alberta))).

As will become evident below, drought and flow impacts on aquatic systems, require robust systems of monitoring, planning and management. Central to this concept is the ability to move past a certain level of rigidity of water management that has governed Alberta in the past century.

The Issue Areas, the current law and recommendations

1. Water measurement and reporting

Engagement proposal

The *Water Act* could potentially be amended to ensure any licensee can be directed to monitor and report their water use, including how monitoring should be undertaken to be consistent with and supportive of allocation and management decisions.

What the *Water Act* currently says

Section 54(1)(a)(iii) of the Act already allows the Director to amend (on their own initiative) “a term or condition that relates to a monitoring, reporting or inspection requirement.”

The challenge with this provision is that it seems to focus on amending existing terms or conditions around monitoring and reporting and fails to allow for the addition of new terms or conditions in these areas.

The value of an amendment

Clearly, if the expectation is that government will carry out a role of water management a clear understanding of water use and reporting is essential. The challenge is to ensure reporting and monitoring of water use is integrated with and considers supply forecasts as well as other topics of relevance.

Monitoring and reporting are essential to water and watershed management overall, and must consider the full suite of water quantity and water quality issues of concern. Specifically there is a clear need to build monitoring and reporting around water use, water supply, water forecasts, environmental flow needs, and water quality and loading from both point and non-point sources.

Amendments to foster these monitoring changes are a foundational to watershed management generally. Many of these areas of monitoring go far beyond the functions of individual licence holders and this requires that annual departmental budgets are sufficient to undertake government-managed monitoring and reporting, and that there is full integration of monitoring and reporting conducted by licencees regulated by the Alberta Energy Regulator.

This recommendation of monitoring and reporting goes hand and hand with the financial discussion set out below as part of volumetric water pricing.

2. Water conservation, efficiency and productivity

Finding additional water in an over-allocated basin logically leads to a discussion about whether there is an opportunity to use water more efficiently. As such, a major consideration of the consultation is focused on conservation efforts and efficiency and yet there are significant barriers to increasing efficiency within the FITFIR system.

Engagement proposal

The focus of the availability consultation documents is on options focused on promoting the change of behaviour around water use. Central incentivizing notions are around market-driven approaches of the sale of water rights (which currently exists in the SSRB) and volumetric water pricing (which exists in BC).

The consultation also considers the use of voluntary conservation targets and of a variety of mandatory tools, including:

- Province-wide and/or area-specific mandatory water conservation targets
- Urban water use objectives based on indoor, outdoor, commercial, industrial and institutional and water loss efficient standards
- Sector or industry-based water use efficiency objectives or standards
- Mandatory water audits
- Installation and use of indoor and outdoor low-flow appliances

What the *Water Act* currently says

The *Water Act* has limited provisions focused on conservation and efficiency at the licence level. Still, it does enable the creation of water conservation objectives and water management plans for fostering this purpose.

In practice to date, conservation, efficiency and productivity have all been largely voluntary measures.

The notion of conservation arises in various aspects of the Act, including:

- The purpose of the Act includes promoting the “conservation” of water and recognizes the “need to manage and conserve water resources to sustain our

environment and to ensure a healthy environment and high quality of life in the present and the future” and that it is a “shared responsibility of all residents of Alberta for the conservation and wise use of water in their role in providing advice with respect to water management planning and decision-making”.

Beyond the purpose provisions, however, there are few provisions that mandate conservation.

- The Act enables the identification of water conservation objectives (WCO) that are a clear link with the conservation purposes outlined above. A WCO is defined as an “amount and quality of water” necessary for the protection of the aquatic environment, protection of certain functions of water (tourism, recreation, waste assimilation), or management of fish or wildlife. The government may issue and hold a licence for the purpose of providing a licence priority to a WCO. (Only government can hold these WCO licences and this has been interpreted to mean that licences for instream purposes can not be held by individuals or organizations – see *Water Conservation Trust of Canada v Alberta (Environmental Appeals Board)*, 2015 ABQB 686 (CanLII), <<https://canlii.ca/t/glwpw>>).
- The Act enables “agreements” that may be entered into by government and any person or local authority for the purpose of water conservation.
- In making a decision to amend a licence the Director must be assured that the ability to “conserve or manage a water body” is not adversely affected by the amendments.
- The Director also has the power to not reissue a licence (that is subject to renewal) where a WCO is not being met.
- The Director may also consider whether a WCO is being met when making a decision about whether to approve a transfer of a water allocation.
- In the case of transfers, the Director may “withhold up to 10% of an allocation of water under a licence that is being transferred” to have some water returned for instream, WCO purposes.
- Water management orders may be issued “if the Director is of the opinion that water is not being conserved or that a person has wasted any water that is diverted pursuant to an approval, licence, registration or this Act and the wastage is contrary to a water conservation guideline respecting wastage of

water, the Director may issue to any person a water management order for conservation purposes.

Note: No water conservation guidelines respecting wastage exist (although some other sector-specific policies exist around water conservation).

- Finally, the Minister may expropriate land or works for programs related to the conservation and management of water

Legislative barrier to conservation and efficiency

The *Water Act* maintains the First in Time, First in Right (FITFIR) allocation system which provides certainty in the time of water shortage that more senior licence holders are entitled to their entire allocation under the law. In a closed basin (where no further applications for surface water diversions are being accepted), there may be incentives to conserve water to sell off an unused portion of the water allocation through a transfer. For senior licence holders who don't wish to transfer allocations there is little incentive to conserve water, as they are secure in their priority set up by the Act (and can use the Act to "call", or enforce, that priority)

Under the FITFIR (or prior allocation system) there is an assumption that the whole allocate volume is available for use (within the context of the licence purpose). Whether the use is "wasteful" or "efficient" is not governed by a robust level of administration oversight or policy direction although there may be conditions in licences that may deal with requirements around return flows or maintenance of infrastructure that can act as proxy.

There remains some discretion under licences that could conceivably be applied by the government to promote alternative approaches to water management for senior licence holders. This includes the condition that the government might "diminish" diversions for the "equitable apportionment" of water and to diminish volumes for the purposes of defining the "duty of water". (see for example see an irrigation licence issued in 1945 - [Document 00044792-00-00 EASTERN IRR DIST, WR, 01881](#))

Further, in the instance of irrigation licences, there are significant constraints on the autonomy of individual irrigators to participate in conservation efforts in a way that impacts the overall district licence to facilitate public interest outcomes in making additional water available to other users or the environment.

Opportunities

Incentivizing efficiency

Incentivizing efficiency and conservation have primarily taken the form of direct monetary incentives or public funding in the form of grants or low-interest loans. The financial incentives may take the form of reduced pumping and treatment costs or direct subsidies and grants to augment infrastructure to evaporative losses or leaks. Significant efficiency gains have been made by certain sectors, such as the irrigation sector, through the expenditure of both public and private funds to upgrade infrastructure to minimize losses.

Mandating efficiency

Mandating efficiency should also be a tool for consideration under our law however it is challenged by the underlying premise of FITFIR. Another way of considering “conservation and efficiency” from a public policy lens is avoidance of waste. Under the Act, water management orders can be issued around water waste however I am not aware of instances where a licence holder has been found to be wasting water.

In the absence of promulgating a waste guideline and issuing WMO, there is the ability to cancel a licence where there is non-use for 3 years and there is no prospect of resumption of a diversion. Whether this provision results in licence holders having a “use it or lose it” mentality is debatable.

Volumetric pricing or water rents

Volumetric pricing can provide incentives for conservation and can provide a revenue source that can be committed to water and watershed monitoring and management.

BC has put in place volumetric pricing in relation to their licencing and most recent revenue assumptions identify the amount of rents moving from \$466million in 2023/24 to a planned \$543 million in 2026/2027. (see page 140 in [Budget and Fiscal Plan – 2024/25-2026/27](#) at Appendix 5 Material Assumptions –Revenue)

These rents include minimum annual fee and the volumetric rates vary by purpose from 11 cents to 2.25 per 1000cubic meters.

Much of the revenue appears to be from BC Hydro so it is unclear the revenue potential in Alberta.¹

¹ Details regarding licence revenues are not publicly reported.

Australia has also put in a fee system where by water management is covered by water users. In New South Whales, for example, the costs of the Water Administration Ministerial Corporation (WAMC) is covered, in part, through management charges and other fees, including elevated volumetric charges during drought (see <https://www.waternsw.com.au/customer-services/water-pricing/fees-and-charges>) .

These activities undertaken by WAMC include water management planning and a variety of administrative and operational activities.

The implications and opportunities should be considered with broad public consultation and engagement.

Recommendations

Volumetric pricing should be seriously considered in relation to water conservation, efficiency and productivity. Revenues generated from licenced volumes (less administrative costs) should be applied to water monitoring, measures and programming around watershed restoration and resiliency that serves the environment, water users, and the economy at large. Exemptions similar to BC in relation to First Nations water use and exercise of Treaty rights should apply. (The specific rental rates for volumes of water will need to be focused on reaching conservation objectives and economic factors – as can be seen in the BC approach).

Further, there is a need to clarify what “efficient” water use is and when water waste is occurring. As this determination will vary by the water use and relate directly to water allocations that have been granted, this issue runs directly into the legal barriers created by FITFIR. Clearly, enabling of water management orders regarding waste reflects the valid and important issue of water waste and yet the FITFIR system makes the use of such orders administratively difficult (and likely highly litigious).

Reforms to *Irrigation Districts Act* should also be considered to provide opportunities for irrigators to make individual conservation and efficiency choices that may facilitate water transfers for the purpose of alternative uses or for environmental flows.

Law reforms should include the creation of a new delegated official in charge of identifying, monitoring, reporting and managing environmental flows (including WCOs). This position can be modelled after the Australian position of the Commonwealth Environmental Water Holder (under Part 6 of the country’s Water Act 2007 https://www.austlii.edu.au/cgi-bin/viewdb/au/legis/cth/consol_act/wa200783/ . This position should have centralized administrative authority (for environmental flow

regulation covering both the licencing and management decisions of Alberta Energy Regulator and Environment and Protected Areas)

3. Use of Rainwater

Engagement proposal

The water availability consultation seeks to understand whether rainwater collection should be exempt from licencing for specific volumes. The consultation also notes how defining rainwater for the purpose of clearly identifying allowable uses.

What the *Water Act* currently says

Under current law all “water in the province” is owned by the Crown. There may be perceptions that this does not apply to rainwater, i.e. water that is intercepted prior to the ground is not owned by the Crown.

Discussion and Recommendations

The extent and implications around whether the Crown owns water in airspace is, while thought provoking, it is probably an unnecessary distraction of the intention of the *Water Act*. Clarity in the *Water Act* definition may assist in this way however it may be unnecessary if dealt with through exemptions and exemption definitions in the regulations. It is important that any exemptions to the diversions are minimal in volume (both individually and cumulatively) and should only be put in place where risks to the environment and other users are negligible.

4. Water allocation and transfers

Engagement proposal

The availability consultation suggests that amendments of the *Water Act* could focus on seeking opportunities to increase the efficiency of water allocation transfers. The consultation proposes various areas for consideration under this topic heading, primarily focused on how unused water should be subject to evaluation and how additional flexibility may allow for additional opportunities for water allocation transfers.

What the *Water Act* currently says

The *Water Act* currently does not have a system of evaluation for whether all water is being “beneficially used”, rather this is largely assumed after an allocation is made. The

government retains the discretion to cancel licences for which no water has been used for 3 years and there is no prospect of it being used. A licence is not subject to this provision if any water is used.

The use of water may be reviewed for those licences that are subject to renewals in prescribed circumstances. This includes where the Director is of the opinion that the renewal is “not in the public interest”, where it is inconsistent with an approved water management plan, or where a relevant WCO is not being met.

Licences issued prior to the *Water Act* coming into force (under the Water Resources Act or predecessor legislation) are not subject to renewal.

Water allocation transfers are enabled where part of an approved water management plan or as authorized by Cabinet.

The Act also states that the Director must conduct a “public review of a proposed transfer” “in a form and manner that the Director considers appropriate”. Administrative guidelines regarding transfers seem to limit public review to notice and “public forums”. In practice, the nature of “public review” has been very limited, as the author is not aware of open meetings where a “review” of a proposed transfer has occurred. The language of the Act must be read to mean something and by using the word “review” it is clear that public notice alone is insufficient.

Deconstructing equity arguments in relation to water licence transfers of unused water

Notably, the consultation cites fairness and transparency as a goal of liberalizing how licence transfers may be allowed around unused licences. A clear counter argument can be found in the legislation itself around cancellation for non-use: It is not in the public interest to perpetuate an unused entitlement in a public resource. The fact that the government has not exercised its discretion to cancel an unused entitlement acts to perpetuate perceptions of a property right in water.

The position that it is potentially unfair to cancel an unused allocation is to ignore the fact that the creation of a water market results in what can be viewed as unjust enrichment of a licence holder, as no economic benefit was accruing to the public purse as a result of the allocation.

Perspective on use values and licence augmentation

Effective water management requires ongoing review and analysis of the use of public resources. This includes responding to variability of supply and changes in expectations

around water use and water conservation. Yet the Act and the FITFIR system cannot be said to be climate responsive insofar as facilitating water sharing in times of drought.

Recommendation

All licences should be subject to review and renewal.

The *Water Act* (and regulations) adopted older licences (pre Jan 1, 1999), granted them priority, granted them the rights that were previously issued, created a paramountcy of licence provisions over the *Water Act*, and enabled the transition of non-permanent licences into permanent ones. This deeming of old licences under the Act creates a legal barrier to review and manage licences fully, and this in turn significantly undermines effective government management of water.

While these historic licences have various conditions that could still be used the inherent variability and paramountcy of deemed licence conditions over the Act creates legal and practical barriers to pursuing a cohesive, equitable and transparent system around water use and environmental flow protection in the province. This regulatory “chill” of deemed licences in turn undermines effective water management and more generally and fails to clearly provide accountability for environmental flows.

Insofar as this is undoubtedly a contentious area it is important to note that allocations themselves are not necessarily going to change as a result of this proposal. Rather, the recommendation is aimed at recognizing the practical reality of managing water in a constrained system and doing so in an equitable manner where certain parties have significant leverage and power that is embodied in the FITFIR system. The starting point is to recognize that shutting off water to others is a failure of effective management of a public resource, particularly in the absence of economy-wide conservation and sharing efforts.

5. Interbasin transfers

Engagement proposal

Interbasin transfers are set out as a potential way to find additional water, presumably from less allocated basins into over-allocated basin. The consultation document poses various questions around the removal of legislative safeguards around interbasin transfers and seeks clarification where interbasin transfers should be allowed. Further the transfer contemplates the transfer of authority to approve interbasin transfers to cabinet.

What the *Water Act* currently says

Interbasin transfers are enabled in two ways in Alberta. The *Water Act* requires any interbasin transfer to only occur once a special act of the legislature is approved for this purpose. Alternatively, where an emergency is declared, a special Act of the legislature is not required and only a Cabinet order is required (as of amendments in 2024—see [The Alberta Emergency Statutes Amendment Act, 2024 Surges Executive Powers under the Water Act.](#))

Interbasin transfers risks and purposes

Interbasin transfers represent a significant departure from natural watershed function, in terms of water quantity, water quality and the potential for introduction of non-native species. A principle of maintaining watershed integrity should guide the management and regulatory approaches.

Invasive species are a primary result of interbasin transfers of fish, invertebrates, plants and other organisms (moving either aquatically or terrestrially).

The consultation documents highlight the ability to put forth mitigation conditions on approvals and licences as a mechanism to counteract these risks. However, it is clear that where an interbasin transfer is occurring the likelihood of importing invasives or unwanted organisms and substances between basins is a relative certainty (i.e. a “when” not “if” proposition for invasives) whereas maintaining prohibitions against interbasin transfers provides the possibility of maintaining the integrity of the watershed.

Further, taking water from other basins should be the last resort, after all conservation and efficiency gains have been fully exhausted. If Alberta undertakes a revision to the FITFIR system there may be significant water conservation gains to be achieved.

Recommendations

The breadth of risks and potential impacts of broadly using interbasin transfers justify the highest level of scrutiny and accountability. This means retaining the system that requires a Special Act of the Legislature.

6. Alternative water sources and waster reuse

Engagement proposal

The consultation document sets forth a variety of potential areas of water reuse and focuses on return flows as areas of potential water availability. The consultation

document does highlight challenges with water reuse as return flows can be essential for downstream users and the environment.

The consultation document inquires how the *Water Act* may deal with return flows and water use in a way that clearly identifies areas for increasing water availability, through clarifying water licence requirements and opportunities and proposing potential regional considerations.

What the *Water Act* currently says

Currently, the *Water Act* has limited context for water reuse and return flows. Licences can be issued with a variety of conditions. Water reuse of waste water has occurred under the Act (a prime example of which is in Edmonton where treated wastewater has been diverted for industrial use) and nothing prohibits the repurposing of water and relicencing it under the Act.

Discussion

As the consultation document identifies the consequences of diverting return flows can result in adverse impacts on downstream users and the aquatic environment. As a practical matter the nature of return flows can often be overlooked or are not prescribed in a licence.

The discussion of re-use then raises a variety of issues raised earlier for which legislative amendments may be required, including variability in the conditioning of licences and monitoring of return flows.

Recommendation

Return flows, both their quantity and quality, are central components of managing water and impacts on ecosystem health. Any movement toward altering return flow requirements must only occur in the context of a clear assessment, evaluation, and planning around the impacts of augmenting return flows (at multiple scales of hydrologic units – from course to fine(HUC2-HUC 8 or 10) , either on an individual licence or on a cumulative sub-watershed basis. The level of assessment required is not well served by licence by licence decisions, where

7. Exemptions from authorizations

Engagement proposal

The consultation canvasses opportunities to exempt uses from the need for licences and in changes to the amounts of existing uses.

Examples provided include:

- Approvals and licence exemptions for dugouts
- Licence exemptions for certain volumes of stormwater use,
- Exemptions for wetland replacement projects
- new exemptions for certain borrow pits in the Green Area

What the *Water Act* currently says

The *Water Act* allows for exemptions for approvals and licences by way of regulation. Under current regulation, there are limits for exempt dugout diversions, including where a “dugout is located in a watercourse frequented by fish or in a lake or a wetland,..., water is pumped into the dugout, ...the dugout has a capacity greater than 12 500 cubic metres in volume, ... the total diversion of water from the dugout is greater than 6250 cubic metres per year, or ...the diversion of water is restricted by an approved water management plan.

It is notable that under the current regulation, increasing “availability” through augmenting the dugout provision would require augmenting provisions around the diversion restrictions in the approved water management plan in the South Saskatchewan River Basin.

Discussion

The use of exemptions can be viewed as an end run around availability issues around water management. Indeed, it would appear that the approved water management plan in the South Saskatchewan River Basin and the priority system itself could be undermined by extensive exemptions. The current exemptions framed by the consultation document appear small however there are outstanding questions about how beneficial use of these resources are going to be tracked and enforced.

Further, it is not at all clear how licence and/or approval exemptions for borrow pits in the Green area provides additional water availability.

Another tool that government can use to streamline authorizations is to create a Code of Practice. Codes are typically used when an activity is lower risk, consistent and repeatable, but still needs rules and requirements to make sure activities are conducted safely and responsibly and will not cause negative impacts to others or the environment. The codes provide written standards and conditions that set out all requirements to start,

undertake, and complete an activity. The proponent is required to follow the code and only notifies the department they will be undertaking the activity.

This is a more appropriate way to streamline authorizations than outright elimination or creation of exemptions from licence/approval requirements. Elimination or exemptions make monitoring and management of water allocations and availability more difficult and less accurate. Expansion of codes and better licensing of water re-use situations will be improvements in monitoring and management.

Other overarching recommendations

In considering water availability there is a need to increase flexibility and align governance structures to ensure flexibility in responding to variable water supply. In this regard the following recommendations are made:

1. Consider statutory amendments to the *Water Act* and the *Irrigation District Act* that will provide additional autonomy to individual water users to provide for increased ease in transfers and conservation initiatives (whether it is for other uses or for environmental flows).
2. Codify water sharing approaches and governance systems for times of low flow or drought (with a central connection to a delegated officer of environmental flows and conservation (as set out in 5)

Conclusion

When addressing Alberta's water challenges it is foundational to recognize that water use should be responsive to changes through time, whether those are climatic changes, knowledge changes in water efficiency and conservation practices, changes in use patterns and changes in our understanding and value of environmental outcomes. In this regard, the notion of managing the public resource for a variety of public goods should be central to an effective water management system.

Yet, historically, there has been a trend for government to treat water use (historic and present) as a carved off right, treating it like private property, rather than a public resource. This approach is supported by the prior allocation (FITFIR) system and the deemed permanency and paramountcy of older licences has resulted in a feeling that government prefers a “licence it, then leave it” approach to water management. This can be seen historically through the augmentation of purposes in historic licences rather than requiring new purposes to obtain new licences and in the issues surrounding how WCOs

are being met (or not) and their minimal relevance in decision making around licence renewals and prioritizing for instream uses

The Environmental Law Centre would welcome an opportunity to discuss these recommendations further.

Best regards,

A handwritten signature in black ink, appearing to read "Jason Unger". The signature is fluid and cursive, with a large, sweeping underline that loops back under the name.

Jason Unger
Executive Direction
Environmental Law Centre (Alberta)

cc. Kate Rich, Assistant Deputy Minister, Policy

Jaclyn Schmidt, Executive Director, Water Availability and Partnership Branch