

Question received	Response
<p>1. Is there a timeline for establishing Water Management Plans for all basins in the province?</p>	<p>No.</p>
<p>2. The Water for Life Strategy aim is “balancing environmental protection with economic development” yet how do we ensure that the cumulative effects of Temporary Water Diversion Licences in a sub region that is experiencing water scarcity are not weighted more in favour of industry over the ability for the aquatic ecosystem to function, recreation, and downstream users including agricultural landowners?</p>	<p>To balance water uses, temporary diversion licence (TDL) applications are reviewed against the Surface Water Allocation Directive (SWAD) for areas with no water management plan in place or where there are no water conservation objectives or no requirements for instream objectives to be met. SWAD incorporates principles to manage cumulative water allocation, availability of water, and sustainability of allocations at a water body and watershed scale. This minimizes impacts to downstream aquatic ecosystems and habitats; and provides limits for rates of diversion from lakes/wetlands.</p> <p>SWAD can be found by visiting open.alberta.ca and searching for “surface water allocation directive.”</p> <p>Environment and Protected Areas (EPA) and the Alberta Energy Regulator (AER) coordinate their management and regulatory actions when low flows are expected and escalate their interventions when low flows are observed. As a routine allocation tool, TDLs are issued when water is determined to be available and adverse impacts are unlikely. They are relatively low risk for managing water because they are a short-term use (one year or less), carry no priority number, and can be cancelled at any time.</p> <p>When significant low flows happen, one of the first management actions is the cancellation of any existing TDLs. For critical water users during water shortage, TDLs can be an effective tool to provide an alternative source of water. For example, users could be directed to larger more sustainable sources as opposed to smaller, sensitive streams.</p>
<p>3. Prioritizing the reduction of high-quality, non-saline water for hydraulic fracturing has been listed in Water for Life plans and action reports, and government correspondence, since 2006. Yet total water use and water use intensity by multi-stage hydraulic fracturing operations are sharply increasing. Why is this the case when certain oil and gas sectors (particularly In-situ) have had significant improvements in water use efficiency in part due to water conservation policies?</p>	<p>The Water Conservation Policy for Upstream Oil and Gas Operations (WCP) was released in December 2020. It applies to oil sands mining operations, oil sands thermal in situ operations, enhanced oil recovery and cold bitumen enhanced oil recovery operations, and multi-stage hydraulic fracturing operations in horizontal wells. The objective of this policy is to minimize the use of freshwater in upstream oil as operations through the use of saline groundwater, alternative non-saline water sources such as recycled wastewater, and/or non-water technologies. It builds on the 2006 Water Conservation and Allocation policy, which saw significant freshwater use productivity improvements.</p>

	<p>The WCP includes quantitative performance measures to assess attainment of policy objectives. The performance measures include trend lines of:</p> <ul style="list-style-type: none"> • allocation volumes and actual use of non-saline water; • the ratio of non-saline water use to hydrocarbon production; • allocation of non-saline water to upstream oil and gas operations as a percentage of all water allocation by basin; and • trend lines of applications for operations that use alternative sources and non-saline water. <p>This question has also been referred to the AER to respond, as they lead the implementation.</p>
<p>4. Are “in-stream flow needs” as listed in water licences true water conservation objectives (WCOs) or not? How can the minimum in-stream flow needs for rivers be increased? Is it a political decision?</p>	<p>They are essentially the same thing and achieve the same outcome but are implemented in two different ways. An in-stream flow need on a licence is determined by the director as part of their decision to allocate water and provides a cut-off where a licensee is required to reduce or cease diversion. Similarly, a WCO also sets the amount of water quantity or water level established as necessary for a water body, but a WCO has gone through a formal and public consultation process and must be published by the director. It may result from, but does not require, a political decision.</p> <p>To date, WCOs have only been established where a basin water management plan was completed, for example, in the South Saskatchewan River basin and the Battle River basin. When there is a WCO formally established, the director uses that as the “in-stream flow need” that appears as a condition of the licence.</p>
<p>5. Do TDLs fall under the Water Conservation Policy for Upstream Oil & Gas Operations? If not, how are they regulated? If so, see all questions for AER.</p>	<p>Applications Under the Water Conservation Policy for Upstream Oil & Gas Operations do not apply to TDLs, per the AER’s Manual 025.</p> <p>TDLs are required to divert or use any surface water of groundwater to a maximum of one year. The licence identifies the source of water, location of diversion, allocated volume, and the conditions under which the diversion and its use must take place. Applications are submitted through the Digital Regulatory Assurance System (DRAS) for those regulated by the EPA and through WATERS for those regulated by the AER.</p> <p>It is recommended water sources for TDLs be sourced where there is minimal impact on the aquatic environment. Recommended sources include surface runoff dugouts, sloughs, and non-fishing-bearing bodies of water. Fish-bearing lakes and creeks are least recommended. EPA and the AER TDLs are taken into consideration when determining if an area is locally constrained.</p>

<p>6. How do we incentivize hydraulic fracturing water users to reduce their use? Is it possible to set a price or hard targets on reductions?</p>	<p>The <i>Water Act</i> does not allow charges for water, so pricing is not currently an available mechanism for government to incent behaviour change. In the last two decades, increasing water Conservation, Efficiency, and Productivity (CEP) of major water users in Alberta has largely been achieved voluntarily. For example, Water for Life set a goal of a 30 per cent increase in CEP between 2005-15, and the Alberta Water Council reported in 2017 the provincial target was met (and exceeded), by measuring progress across seven major water using sectors.</p> <p>While other major water users are not subject to any specific conservation policies, the upstream oil and gas sector has been directed by various policies since 2006 that provide specific guidance to industry on demonstrating level of effort and alternatives evaluation toward minimizing their use of high-quality non-saline water. The degree to which any major water users, including irrigation, municipalities, power generators, petrochemical, and pulp and paper, could have specific policies, standards, or incentives considered is one of the options being evaluated by EPA under the Premier’s mandate letter to increase water availability and water licences for water users.</p>
<p>7. Can TDLs with no flow-back into the system be dealt with differently than other TDLs?</p>	<p>The degree to which a licence is consumptive is considered as part of licence decision. Note that, for example, irrigation licences are similar to oil and gas or hydraulic fracturing because either of these uses generally result in no-return flow. It makes little sense to try to single out one industry when others have the same or similar net effect.</p>
<p>8. Why is the AER not funded by general tax revenue and instead by industry levy? The AER is being funded by the industry they are monitoring and policing which is a clear conflict of interest.</p>	<p>This question has been referred to the AER to respond.</p>