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## Water availability engagement – Phase 1

(October 2024 – January 2025)

### Questions and answers

An online question and answer tool was available during phase 1 of the water availability engagement. Below are the questions that were submitted and the responses provided in their original form without edits or alterations.

Would like to use my dugout water for spraying my crops but the water is not compatible for use with the chemicals so would like to know if there's any government program to assist me with getting a treating system at the pond to purify my water and be able to use it.  
Thanks.

Hi there! Thanks for the question. Please call 310-FARM (3276) or email [310farm@gov.ab.ca](mailto:310farm@gov.ab.ca) to be connected with a local specialist who can address your concerns.

What management model, including climate change scenario, is being used to assess water availability for irrigation expansion.

Hi there, thank you for your question. Planning for irrigation expansion is done independently by individual irrigation districts. In the South Saskatchewan River Basin, which is closed to new water licences, a decision to expand irrigation would be informed by a district's opportunities to increase water efficiency and/or increase or optimize water infrastructure including storage. Water and climate modelling is used to inform a district of their options considering factors such as crop water demands, acreage, available storage etc. to estimate total water use and water supply risk – particularly in drought years. Aside from irrigation expansion, climate change modelling is used to inform water management more broadly. Using the projections of the Coupled Model Intercomparison Project Phase 6 (CMIP6), EPA has generated high-resolution future climate data for Alberta derived from multiple general circulation models (or global climate models) to evaluate the impacts of climate change on freshwater availability using hydrologic modeling. For example, these climate change datasets were recently used by WaterSMART in the latest Adaptation Roadmap for the SSRB (Phase 3) released in March 2024 that evaluated strategic water management options using the South Saskatchewan River Operational Model (SSROM).

Why are inter basin water transfers being considered at all as a water availability option, when the Alberta government itself has struck down this concept numerous times (during PRIME, 1999-2004 drought, etc.) due to the extreme risks they pose? Background: With the recognition that each river basin is ecologically distinct, the nutrient, mineral, temperature, and chemistry differences between the source and receiving watersheds could alter and even degrade downstream habitat conditions. Inter-basin diversions would increase the risk of transferring non-native, invasive species between watersheds. A particular concern would be furthering the spread of whirling disease, of which Alberta's endangered native trout species are especially susceptible. Impacts would also not be limited to just the receiving river basins - diversions would decrease volumes in the source watershed (and water available to licensees downstream), disrupting its overall flow and ecology, and reducing the basin's resilience to change, particularly its ability to accommodate pollutants and other inputs through dilution. In addition to the substantial environmental and socioeconomic costs associated with building and maintaining related infrastructure, there are many reasons inter-basin diversions have been rejected repeatedly in the past.

How much water will the mine being proposed in the Crowsnest Pass use and what will be the effect on agriculture in places like Lethbridge?

Inter-basin water transfers (IBTs) have been enabled in Alberta since 2002, subject to strict conditions. Under Alberta's *Water Act*, IBTs require legislative approval through a special act. Several other provinces similarly allow IBTs, with varying considerations and restrictions. Since the first application in 2002, five special acts remain active for IBTs to supply relatively small quantities of treated drinking water to rural hamlets, counties, and small communities in Alberta. Applications for IBTs are subject to a rigorous review process including assessment of water supply alternatives and an environmental, social, and economic impacts assessment, followed by consultation with affected stakeholders and Indigenous communities in both the source and recipient river basins. Additional information can be found in the IBT water management issue sheet. As part of the water availability engagement, we are seeking feedback on potential concerns regarding IBTs, and the administration and review process for IBT applications. Thank you for participating in the engagement and sharing your views on IBTs.

Thanks for your question. Uses of water for coal mining activities are regulated under the provincial *Water Act*. This use is subject to the same regulatory review, notification, and authorizations framework as other water uses regulated under the Act, including considerations for potential impacts on other water users such as irrigators and municipalities.

The amount of water required for coal mining activities can vary greatly depending on the scope, scale, and stage of the coal project life cycle (e.g. exploration, construction and operations, and closure). The South Saskatchewan River Basin (SSRB) was closed to new allocations of water in 2007. For temporary uses of water (less than one year), water users may apply for a Temporary Diversion Licence (TDL) under the *Water Act*. However, for longer-term uses of water, a water licence transfer must be obtained from another existing water licensee. Some exceptions apply in the upper Oldman River basin, where a limited quantity of water (11,000 acre-feet) was reserved for specific purposes upstream of the Oldman Reservoir under the Oldman River Basin Water Allocation Order. Applications for new water licences may be considered for the specific purposes as specified in the Order. 150 acre-feet of the water reserved under the Order can be used for industrial purposes such as coal mining. The Alberta Energy Regulator regulates the full life cycle of coal projects in the province subject to all applicable provincial legislation, which would include any such activities in the Crowsnest Pass area.

#### How will Alberta Environment and Protected Areas (Schulz) make sure AER does its job for the environment?

The Alberta Energy Regulator (AER) and Environment and Protected Areas (EPA) have shared jurisdiction of water licensing in Alberta. The AER oversees water use related to energy resource development, and EPA for water use related to non-energy purposes. The Government of Alberta (GoA) sets policy direction on the allocation of water for activities such as hydraulic fracking. The AER is required to implement those policies set by the GoA and works closely with EPA staff to ensure consistent implementation of those policies. AER's compliance assurance program describes how it ensures compliance, and AER's compliance dashboard gives insight into how the AER responds to and investigates incidents, enforces the rules, and penalizes companies when the rules are not being followed.