Fact Sheet

Alberta Energy Regulator

Managing the Energy Industry's Water Use In Alberta

The Alberta Energy Regulator (AER) provides for the efficient, safe, orderly, and environmentally responsible development of energy and mineral resources in the province through our regulatory activities. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

This fact sheet provides information on how the AER manages water use by the energy industry, a responsibility that is governed by Alberta's *Water Act*.

? Who manages water use in Alberta?

The Government of Alberta's (GoA) role

Alberta Environment and Protected Areas (AEPA) sets water policy direction for the province:

- It is responsible for water management planning and determining water allocation policy for all sectors, including the energy industry.
- It oversees water use for all sectors except the oil and gas industry, including agriculture, municipalities, forestry, and others.
- It constantly monitors networks such as groundwater wells, lake levels, river flows, snowpack accumulation, and other environmental data across the province.

The AER's role

The *Responsible Energy Development Act (REDA)* clarifies the AER's water management responsibilities. These include the following:

- regulating responsible water use for the energy industry
- reviewing energy and mineral resource applications relating to the *Water Act*
- evaluating and issuing water approvals for energy and mineral resource activities near waterbodies and wetlands, and *Water Act* licences for activities that require water, in accordance with GoA policy direction
- monitoring energy industry water use, as well as water conditions as they evolve

The AEPA and AER work together to manage water resources during periods of low water flow or droughts.

? What does the application review process look like?

Under *REDA*, the AER thoroughly reviews all energy industry water use licence applications, which are guided by *Manual 025*, the *Water Conservation Policy for Upstream Oil and Gas Operations*, and any other relevant policy set by the GoA, like the *Surface Water Allocation Directive* and area water management plans. During these reviews, we consider things like the risks associated with a project, how the environment and other users will be affected, and the water management plan for the associated basin.

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? What type of licences does the AER issue?

We issue two *Water Act* licence types to energy industry applicants.

1 **Term licences for long-term water use.**

2 **Temporary Diversion Licences (TDLs) for short-term water use, up to one year.**

All licences contain enforceable conditions to protect aquifers, lakes, wetlands, rivers, and streams and ensure that sufficient water remains for other users and the environment. For more information or to view issued water licences for all sectors (including the energy industry) please visit:

- Public Notice of Application (AER)
- Publication of Decision (AER)
- Authorization Viewer (AEPA)
- Geospatial Alberta (GoA)
- Alberta Flow Estimation Tool for Ungauged Watersheds (GoA)

? How does the AER monitor short-term water diversions?

Almost all TDLs issued by the AER have monitoring conditions to assess if diversions can take place based on environmental limits such as water level or flow limits. Companies determine the rate of diversion up to the specified maximum diversion rate in their licences. Additionally, all TDLs and almost all term licenses must report water use. For reference, these licences point to the flow network on the Alberta River Basins website (rivers.alberta.ca), but when there is no suitable hydrometric station nearby or recorded data is unavailable, licences will specify the requirement for manual flow measurements.

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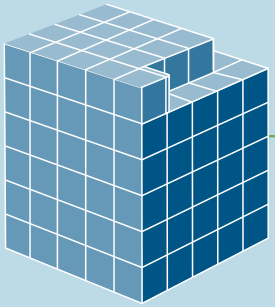
How does the AER monitor and protect groundwater?

Groundwater is protected through a series of directives, guidelines, and manuals that govern activities like well drilling and construction, fracturing, abandonment, and production operations. Specified enactments related to groundwater protection include the *Water Act* and *Environmental Protection and Enhancement Act*, supported by "base of groundwater protection" elevation data. Conditions are also added to water licences issued by the AER to protect aquifers, the environment, and other groundwater users. For example, monitoring conditions may include constructing observation wells, low level shut-off requirements, or continuous or frequent monitoring of water volumes, rates, levels, and chemistry.

Snapshot: energy industry water use

2024 Nonsaline Water Availability and Allocation

Of the total amount of nonsaline water available in the province, about 7% (9.49 billion m³) was allocated for use in 2024.



Water Availability in Alberta (surface and groundwater)
143.10 billion m³

7% Overall allocated water **9.49 billion m³**

ALL USERS (including agriculture, forestry, municipalities)

0.78% Energy allocation **1.11 billion m³**

0.22% Used for energy extraction **310 million m³**

ENERGY INDUSTRY

The energy industry used 28% (310 million m³) of its water allocation for energy extraction.

That's 0.22% of all the nonsaline water available in Alberta.

Read the full Alberta Water Use Performance Report at **aer.ca**

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Learn more, ask a question, or have your say

The AER is always listening to questions and feedback from Albertans on energy industry water use and management.

Want to share your thoughts?
Connect with the AER
Customer Contact Centre
@ inquiries@aer.ca
1-855-297-8311

Have an operational concern?
Contact the **Energy and Environmental Emergency 24-Hour Response Line**
1-800-222-6514

Need more information?
Visit the AER's website to learn more about how the AER manages energy industry water use, or visit these Government of Alberta websites:

alberta.ca/water
Provincial water management, protection, and more.

rivers.alberta.ca
Current information on water advisories across Alberta.

Get involved in the discussion about energy development and regulation

Find out more about how the AER protects water