



Fracking with Freshwater

A record-breaking giveaway
of our most precious resource



Earlier this year, the first liquefied natural gas (LNG) export terminal in Canada, LNG Canada, came online, creating a new demand for fracked gas from B.C.'s Peace River region. As the number of new fracking wells surges to meet increased demand, we are beginning to see even more social and environmental impacts to the communities in the Peace Region due to resource extraction. Water consumption by the oil and gas sector, which increased by a record-breaking 50% in 2024, may be one of the first places where we can measure those impacts and see what it could mean for long-term safe and reliable access to freshwater resources for communities.

Industrial water users in B.C., including the oil and gas sector, pay some of the lowest water rates anywhere in Canada.

Increased competition for water, which has been exacerbated by a prolonged drought in the region, threatens both the agricultural sector and communities' access to drinking water. The most alarming example of this is in Dawson Creek, where city officials are scrambling to find new sources of municipal drinking water because their current source, the Kiskatinaw River, has nearly run dry.

To add insult to injury, industrial water users in B.C., including the oil and gas sector, pay some of the lowest water rates anywhere in Canada. Because the fees are not even high enough to cover the cost of administering the permits effectively, the current water permitting system costs the Provincial Government more than the revenue it generates.

The way that the Province of B.C. manages water for the oil and gas sector must be updated to meet the realities of growing fracking and LNG demand. This is why we are making four policy recommendations based on proven technologies and regulatory frameworks that have been successfully applied in other jurisdictions.



Fracking companies shatter previous freshwater extraction record

New data released by the B.C. Energy Regulator (BCER) shows that in 2024, oil and gas companies took over 9 billion litres from lakes and rivers in B.C. — an increase of 50% over the year before.¹ That means that in 2024, oil and gas companies in B.C. have used and polluted the equivalent of the household water needs of 111,530 Canadians — or the entire population of the City of Nanaimo.²

In 2024, oil and gas companies took over 9 billion litres from lakes and rivers in B.C. — an increase of 50% over the year before.

This is the third consecutive year that the oil and gas sector has broken its previous record for freshwater extraction in the Peace River region — the center of the province's oil and gas extraction — while communities are in the grips of a multi-year drought.

Unlike other water users, oil and gas companies remove the water they use from the water cycle permanently. After they are done with it, it is so polluted that it must be disposed of in disposal wells. Fracking wastewater contains high levels of salt; contaminants like arsenic, lead, hexavalent chromium, barium, chloride, sulphates, boron, and benzene; and normally occurring radioactive materials, many of which are known carcinogens. In B.C., there are no requirements for fracking companies to conduct baseline testing of water systems surrounding disposal wells, or to conduct ongoing monitoring of these water systems, which would alert regulators to wastewater finding its way into ground water aquifers. There are also no requirements to monitor or disclose what kind of contaminants are in wastewater being disposed of in disposal wells.

Freshwater usage by oil and gas continues to rise as drought takes hold

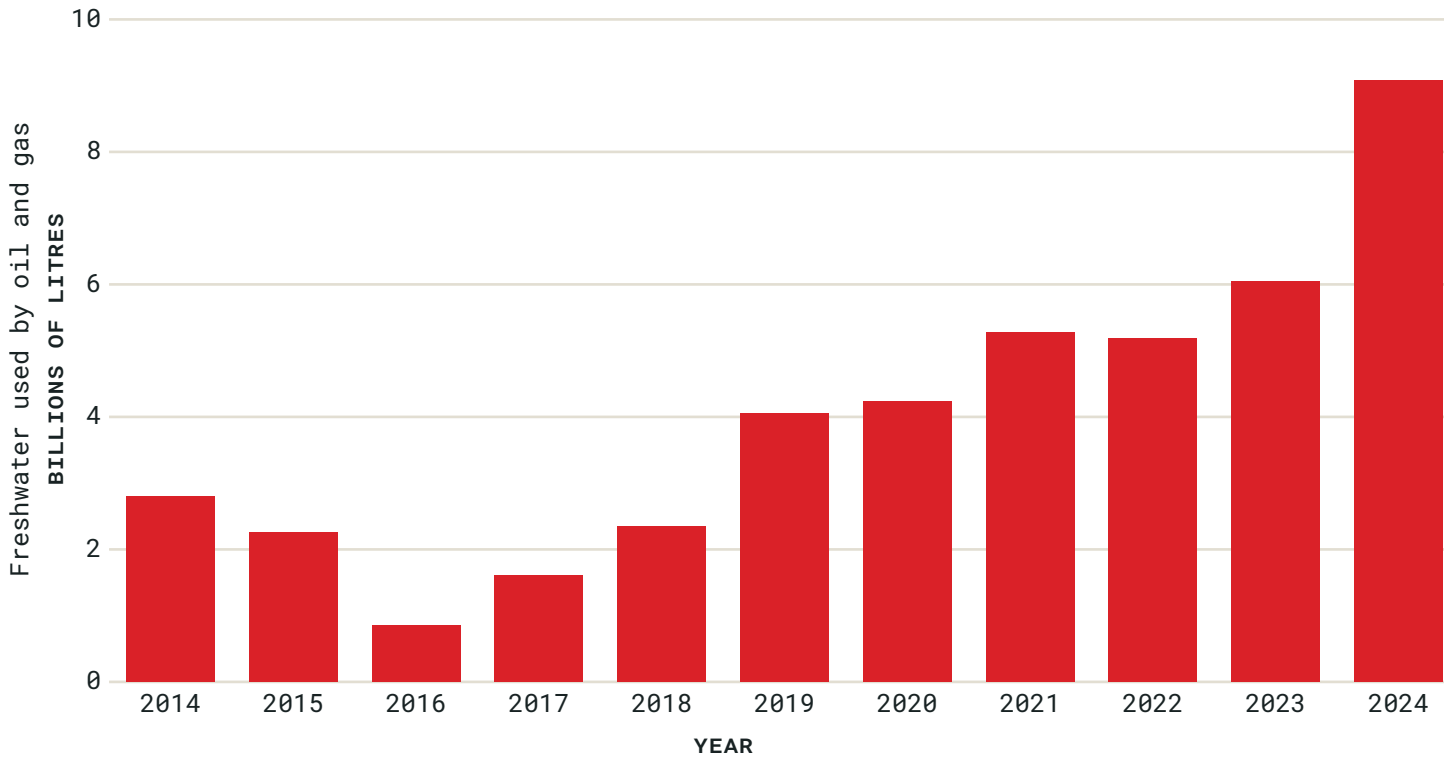


Photo: Wilderness Committee | Agathe Bernard





Record water usage in a region struggling with drought

In the last three years, B.C.'s northeast faced a water shortage so dire it ranked among the worst drought conditions in Canada. The region reported water level conditions so low it impacted both local people and wildlife.³ These impacts can range from reduced water availability for households and local businesses; to warmer river temperatures affecting fish and aquatic life; changes in groundwater levels; reduced crop quality and smaller harvests; and increases in agricultural pests.⁴

Home to three of B.C.'s major hydroelectric dams, the Peace River faces ongoing drought conditions that present challenges to hydroelectric power generation. Water scarcity is putting a strain on the province's hydroelectricity reservoirs, forcing officials to purchase power from outside the province to meet demands. As currently proposed, coastal LNG projects, like Cedar LNG and Ksi Lisims LNG, will cause electricity demands to spike. Water-intensive fracking operations in the Peace Region will increase electricity demands. Together, this will create dangerously low levels of water which will threaten the province's ability to generate sufficient power – even with the new capacity of Site C – as demand for power increases.

The Peace River Valley was once known as the "Breadbasket of the North." A land of rolling hills, boreal plains and expansive cattle and forage farms, the Peace Agricultural Region produces over three-quarters of the province's grains and contains 32% of the province's Agricultural Land Reserve lands.

However, water scarcity is putting growing pressure on local farmers and cattle ranchers. Canola and wheat farms are dependent on water from snow and rainfall throughout the year to maintain ideal growing conditions. Cattle ranchers rely on local feed supplies to keep their herds strong. They need rain to replenish their water dugouts. While farmers and ranchers face tough decisions about the long-term viability of their livelihoods, fracking operations in the region are booming. Fracking uses lots of freshwater from local aquifers, rivers, and farming dugouts. Combined with existing drought conditions, this water use has catapulted the region into a state of ongoing water scarcity.

In recent years, drought conditions have also led to increased wildfire risk in the region. Between 2023 and 2024, B.C.'s northeast became a major hotspot for wildfires, including the Donnie Creek Wildfire – the largest the province has ever recorded. In June 2025, the community of Tumbler Ridge was forced to drain its community's water supply to fight an apartment fire.⁵ Residents were asked to immediately restrict water usage for all non-essential activities including washing machines and dishwashers. Tumbler Ridge is among numerous communities in northeastern

B.C. that are under significant wildfire threat as the region enters its third year straight of significant drought conditions, which leave the area dry and extremely susceptible to fire.

Water scarcity is putting further pressure on local communities to develop new infrastructure that is resilient to the growth of industrial development in the area and the impacts of climate change. Dawson Creek is facing a severe water shortage due to four consecutive years of drought. To secure its water supply for the next 50 to 100 years, the city plans to build a \$100 million pipeline to the Peace River, located 55 kilometres north.⁶

While farmers and ranchers face tough decisions about the long-term viability of their livelihoods, fracking operations in the region are booming. Fracking uses lots of freshwater from local aquifers, rivers, and farming dugouts.



Cattle ranch next to the Pine River



British Columbia charges industrial water users, like the oil and gas sector, less than other provinces

Here in B.C., we charge industrial water users just \$2.25 in water rent per million litres they use. That means that the entire oil and gas sector will pay the Province of B.C. just over \$20,000 for nine billion litres of freshwater they used in 2024. That's not even enough revenue to cover the salaries of the B.C. Energy Regulator staff that administer and track these permits.

Unlike other provinces, B.C. charges the same rate to all industrial users regardless of how much water is withdrawn, or whether or not the water is returned to the water cycle. This disproportionately benefits the oil and gas sector which extracts and poisons massive amounts of water in a way that will never be returned to the water cycle.

For these reasons, we recommend that B.C. make a significant increase in industrial water rates to encourage better water management and conservation, and adopt a scaled approach with higher rates for water users that don't return all the water they take to the water cycle.



Policy recommendations to increase transparency and reduce freshwater use by the oil and gas sector

Our recommendations are based on existing technology that has been successfully deployed elsewhere, and regulatory frameworks from other jurisdictions.

- 1 Require the treatment and increased reuse of fracking wastewater to reduce the amount of freshwater used in the process.
- 2 Improve standards for disposal wells, and begin baseline and ongoing testing of water systems impacted by the oil and gas sector.
- 3 End special treatment for the oil and gas sector by centralizing the power to issue water licenses and permits for the industry to the Ministry of Water, Land and Resource Stewardship.
- 4 Charge fracking companies a higher price for water that is significant enough to encourage the conservation of freshwater.

Notes

- 1 Quarterly Oil and Gas Water Management Summary Oct–Dec (Q4) 2024, BCER https://www.bc-er.ca/files/reports/Water-Management/2024-Q4-Water-Management-Summary_April-2025.pdf
- 2 Based on StatsCan data that shows Canadians use on average 223 litres of water per day for household needs <https://www.statcan.gc.ca/o1/en/plus/5814-world-water-day-eh>
- 3 This corner of B.C. amid worst drought in Canada. <https://www.vancouverisawesome.com/highlights/this-corner-of-bc-amid-worst-drought-in-canada-8913150#:~:text=Studley%20says%20they've%20resorted,only%20ones%2C%E2%80%9D%20she%20said.>
- 4 British Columbia will experience more drought and water scarcity as the climate continues to warm. <https://climatereadybc.gov.bc.ca/pages/drought-water-scarcity>
- 5 Water shortage in Tumbler Ridge, B.C., after apartment burns, displaces dozens. <https://www.cbc.ca/news/canada/british-columbia/tumbler-ridge-apartment-fire-water-usage-1.7556174>
- 6 Dawson Creek eyes \$100M water pipeline as deepening drought threatens drinking supply. <https://www.cbc.ca/player/play/video/9.6863118>



Photo: Wilderness Committee | Agathe Bernard

Credits

Authors:

Sven Biggs

Kiki Wood

Photography:

Solaye Snider

Wilderness Committee | Agathe Bernard

Copyright © Stand.earth

DISCLAIMER: This document has been prepared using best practices and due diligence using information available at the date of publication. All information is subject to change. All data is obtained from public or government sources including but not limited to B.C. government data sources, publicly available reports and media reports. If you believe there is an error or inaccuracy in this report, supplemental information can be sent to Sven@Stand.earth.