



# Water



**Water is a precious resource.** Progress Energy is committed to the responsible use of water in all our operations. Water is used during natural gas drilling operations to help release natural gas that is trapped deep within tight rock formations. At Progress Energy, approximately 64 per cent of the water used for producing natural gas is recycled. The remaining is freshwater, representing less than 0.1 per cent of the available watershed.

## Water sources

Approximately 64 per cent of the water we use to produce natural gas is recycled. Sources of water we use include:

- Surface runoff water captured in Progress Energy's own storage ponds from snow melt and rain.
- 'Flowback' or water recycled from hydraulic fracturing operations is recycled.
- River water, with volumes moderated by provincial regulation.

## Research guides operations

To ensure the water supply in our operating area is sustainable for all users, we conduct watershed studies and select water sources that are abundant and local. Our priority is to minimize the impacts of our operations on the environment by ensuring a sufficient and healthy water supply for the natural ecosystems and by protecting groundwater aquifers.





## Water use is regulated

Canada's natural gas industry and Progress Energy's operations are strictly regulated. There are specific laws and regulations that minimize the impacts of exploration or production, and that protect freshwater sources including water use and disposal. Progress Energy is required to obtain water licences or permits to use freshwater.

We work with government, industry associations and regulators to design and implement regional groundwater monitoring programs to ensure the quality of water is not compromised by our operations. We report our water use monthly to the BC Oil and Gas Commission who regulate the oil and natural gas industry in British Columbia.

## Efficient use of water

Progress Energy uses technology and industry best practices to ensure the most efficient use of water. We safeguard the quality and quantity of regional surface and groundwater resources and will use a recycled water supply prior to using freshwater sources. Our 25-year water use strategy takes individual property needs into consideration and sees increasingly more water recycled in future, reducing our freshwater use significantly over time. Recycled water is a core component to our water use strategy to limit our freshwater use and ensure sustainability of supply.

For example, after a well has been hydraulically fractured, between 20 and 40 per cent of the water used flows back to surface with the natural gas. This water is captured and reused for future wells. When a well is drilled, steel casings are cemented into the wellbore to protect groundwater aquifers and prevents any drilling fluids from coming into contact with groundwater.

Further, Progress Energy is an active participant in the Montney Water Operators group, which consists of producers in the area who have the common goal of collectively reducing the amount of freshwater used in operations. Through this group, producers can share produced water to be reused in each other's operations, reducing the overall need for freshwater.