Progress

Water Management

Water is an essential and precious natural resource.

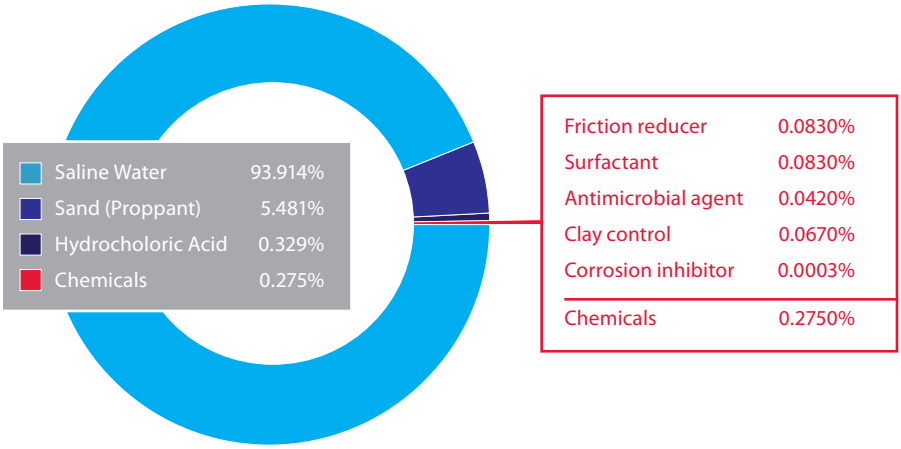
Progress Energy embraces water's fundamental value and uses rigorous conservation and protection practices throughout its operations to reduce the risk of adverse impacts to water sources. We continuously strive to improve our environmental performance and work with communities, governments and environmental groups to develop sustainable water management approaches for natural gas development—an approach that is embedded in the intent of our Environment, Health and Safety Policy and Commitment.

For more than 50 years, hydraulic fracturing (known as 'fracing') has helped release oil and gas from surrounding formations and improve well production. Fracing involves high pressure injection of a water and sand mixture through the wellbore and into the reservoir. Shale gas development uses relatively more water in the fracing process because the hydrocarbon-bearing shale formations, thousands of metres underground, need significantly more stimulation to help the natural gas flow out from the tight rock layers.

Progress is currently advancing its shale gas development plans for the Montney formation in northeast British Columbia. Although the amount of fresh water used in natural gas development is a small fraction of the total available water in the area, we recognize it is a finite resource so every drop counts. As our shale gas activities increase, we constantly seek ways to responsibly source water for our fracing processes, to reduce fresh water use and to protect groundwater from being affected by our operations. Progress meets these challenges using these key strategies:

- Managing our impact on available water sources
- Optimizing our water use
- Protecting groundwater and the environment

Composition of hydraulic fracture fluid (by volume)



Chemical Definitions and Common Uses

Hydrocholoric Acid dissolves cement, used in food processing and household cleaners

Friction reducer helps fluids move through pipe; used in water treatment

Surfactant prevents emulsions that reduce well productivity; used in multi-purpose cleaners

Antimicrobial agent prevents water contamination and corrosive byproducts; used in cosmetics

Clay control prevents clay swelling; used in animal and human food supplements

Corrosion inhibitor protects steel from corrosion, used in automobile fluids

Managing our impact on available water sources

Progress Energy recognizes the importance of water to the communities and regions where we work. We engage our neighbours and other stakeholders regarding respectful and sustainable water use. A responsible and efficient approach to the sourcing, use, transport and disposal of water throughout our operations is essential to our success. Our industry's water use in British Columbia is regulated by the BC Oil and Gas Commission.

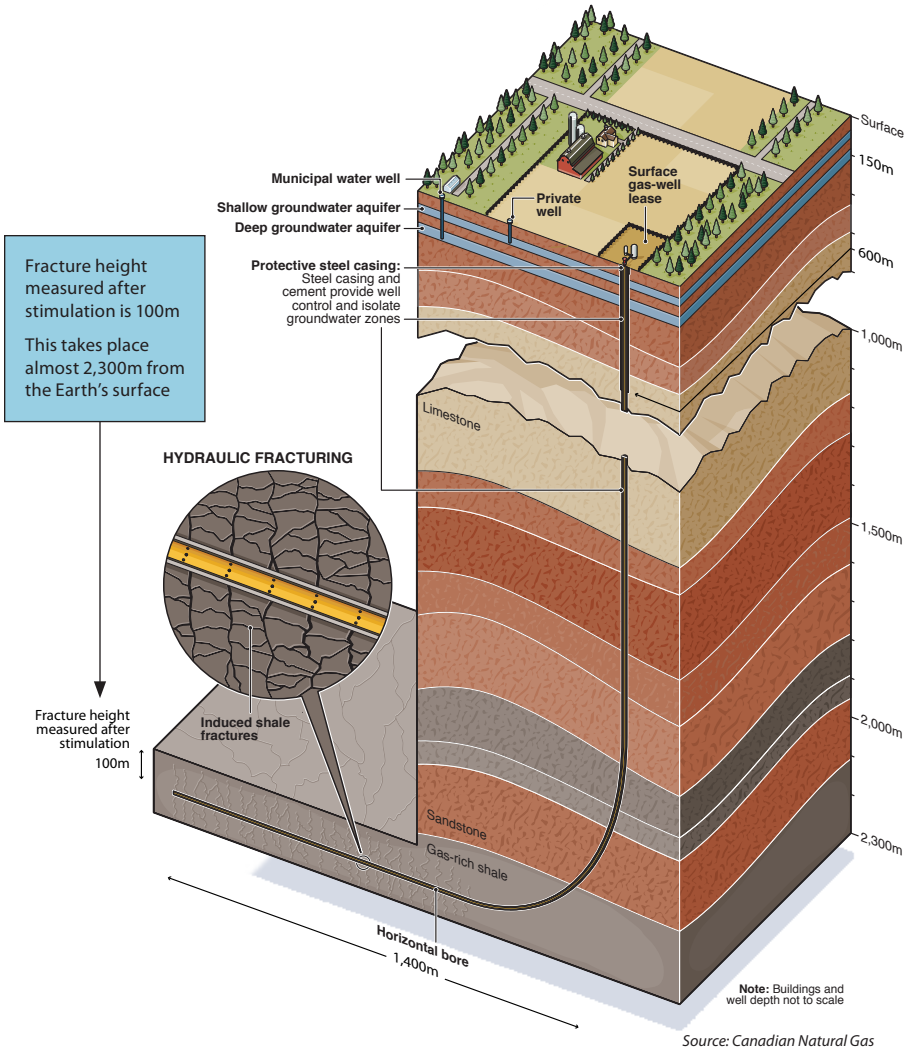
- We meet or exceed the regulatory requirements for safe and sustainable water sourcing
- We track and report stored water volumes and water usage for all of our shale gas operations
- We educate our employees, contractors and service providers to make conscious and responsible decisions that reduce daily water consumption
- We are partners in Geoscience BC's Montney Water Project, a collaborative effort with Geoscience BC, industry and the government to provide a comprehensive inventory of water sources in the Montney Gas Play area
- We are researching methods to use deep saline water sources for our fracing processes that could further reduce our demand for fresh water

Optimizing our water use

Progress Energy has a vested business and social interest in knowing how much fresh water is being used in all operations, ensuring that all appropriate licenses are in place and are properly followed, and reducing the proportion of fresh water used for all activities.

- We recycle and reuse a significant portion of the produced water from our fracing processes, which now accounts for more than 20 per cent of all water requirements
- We capture water run-off in storage ponds during spring peak flows, which supplies water for much of our operations
- We employ technological advances and industry best practices to ensure we are being as efficient as possible with water use

Schematic of a horizontal well relative to ground water



Source: Canadian Natural Gas

Protecting groundwater and the environment

Protecting groundwater is a primary objective for Progress Energy. We always focus our drilling and completions practices on the protection of groundwater, and we modify our practices appropriately as new technologies evolve. Progress complies with all applicable regulations and standards where we work, and we follow industry recognized standards to protect freshwater aquifers and wells from damage and contamination.

- We follow rigorous wellbore casing installation practices to protect aquifers throughout the drilling process and through the final completion of the well
- We complete our shale gas wells approximately two kilometers below the surface, well below any fresh water aquifer source
- We use extensive monitoring procedures during the life of a well to ensure the wellbore`s integrity.
- We use geological monitoring practices to help us measure and understand what is happening in the formation during the fracing process
- When produced water cannot be recycled for further use in fracing, we only re-inject it into government-approved, deep disposal facilities that are isolated from all non-saline water sources
- We meet and strive to exceed the strict fracing requirements set out by industry regulators
- We incorporate spill management systems to reduce the risks of potential adverse environmental impacts
- We encourage the suppliers of fluids used for fracing to improve the public disclosure of fluid composition and to advance the development of environmentally responsible fluids

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