

Drinking Water Protections in COGCC's Amended Rules

The COGCC's amended rules add several protections for drinking water supplies in Colorado.

Public Water System Protections

The COGCC adopted new provisions that will minimize the potential for accidental contamination of public drinking water supplies due to oil and gas operations in Colorado. The amended rules create protection zones and performance requirements that will apply within certain distances of drinking water tributaries for a distance of five miles upstream from a drinking water intake. These zones are shown on maps incorporated into the COGCC's rules and available on the agency's website.

The amended rules establish an "internal buffer zone" in which new oil and gas activities are excluded, unless the operator gets a variance. This most-protective zone serves as a "setback," because a significant release in these areas would likely contaminate surface used as drinking water source quickly, before parties could respond effectively to protect the public water system. Recognizing the need to balance protection of drinking water with development of energy resources, the rules include allowances for oil and gas operations that existed prior to the amendments in the internal buffer zone to remain in place and to expand under certain conditions.

The amendments also require operators to collect baseline water quality data and employ protective measures such as pitless drilling systems and fluid containment in areas further away from protected stream segments.

Monitoring during hydraulic fracturing

Almost all wells in Colorado are stimulated in some way to increase oil and gas production, and hydraulic fracturing is a technique where fluid is pumped into a well at high pressure, causing the producing rock formation to fracture and release more oil and gas for production from the well.

The amended rules require operators performing hydraulic fracturing activities to monitor pressures, because a high pressure may indicate that stimulation fluid has entered the open space in the well casing, which could lead to groundwater contamination. By requiring regular pressure monitoring, this rule will ensure that fluids are not lost and will not harm drinking water.

Water well sampling near coalbed methane development

Finally, operators developing coalbed methane will be required to sample nearby water wells to ensure that they are not contaminated by gas or other pollutants. This will help guarantee that improperly plugged oil and gas wells, orphaned wells, or conventional wells in which the coal seams have not been properly isolated do not act as conduits for the migration of coalbed methane gas into groundwater or surface water or to the ground surface.