THE 'FRACKING' RULES

by Brydon Ross

As the use of hydraulic fracturing—or fracking—has grown, and as the practice has become more controversial, states have taken action in three primary ways.

FRACKING & GROUNDWATER

PAVILLION, WYO.—Louis Meeks holds a jar filled with water from a contaminated well on his property near Pavillion, Wyo. One concern about hydraulic fracturing is the possibility of groundwater contamination from the process.

[Chemical Disclosure]

To address concerns some people have with the chemicals used in the fracking process, several states have adopted disclosure rules.

Wyoming's law requires public disclosure of the chemical compounds used in fracking solutions before operations begin. It also requires companies to list the actual names of chemical additives, compound type and concentration rate before and after the process. Wyoming's law served as a framework for the Bureau of Land Management's recent proposal to require chemical disclosure of fracking operations on federal land.

Several states—including Arkansas, Colorado, Texas and Wyoming—require operators to publicly disclose the chemical makeup of fracturing solutions on the website, *http://FracFocus.org*.

[Moratoriums, Bans]

Some states, like New York, have acted quickly to slow down the development of shale deposits and have been a high-profile battleground for policies related to fracking.

Former New York Gov. David Paterson vetoed the legislature's ban on the practice in 2009, but he issued an executive order directing further environmental review by the state Department of Environmental Conservation. The executive order created a de facto moratorium until a final decision is issued.

And, although no producer has applied for a permit to use the fracking technique, the Vermont House of Representatives in February passed a three-year moratorium on any hydraulic fracturing activities.

[New Regulations]

State legislation relating to fracking wastewater treatment, disposal and transportation has markedly increased over the past few years. According to an Associated Press analysis, hydraulic fracturing generated roughly 10 million barrels of flowback, or wastewater, in the last half of 2011, with 97 percent of it either being recycled or sent to deep underground injection wells or waste treatment plants.

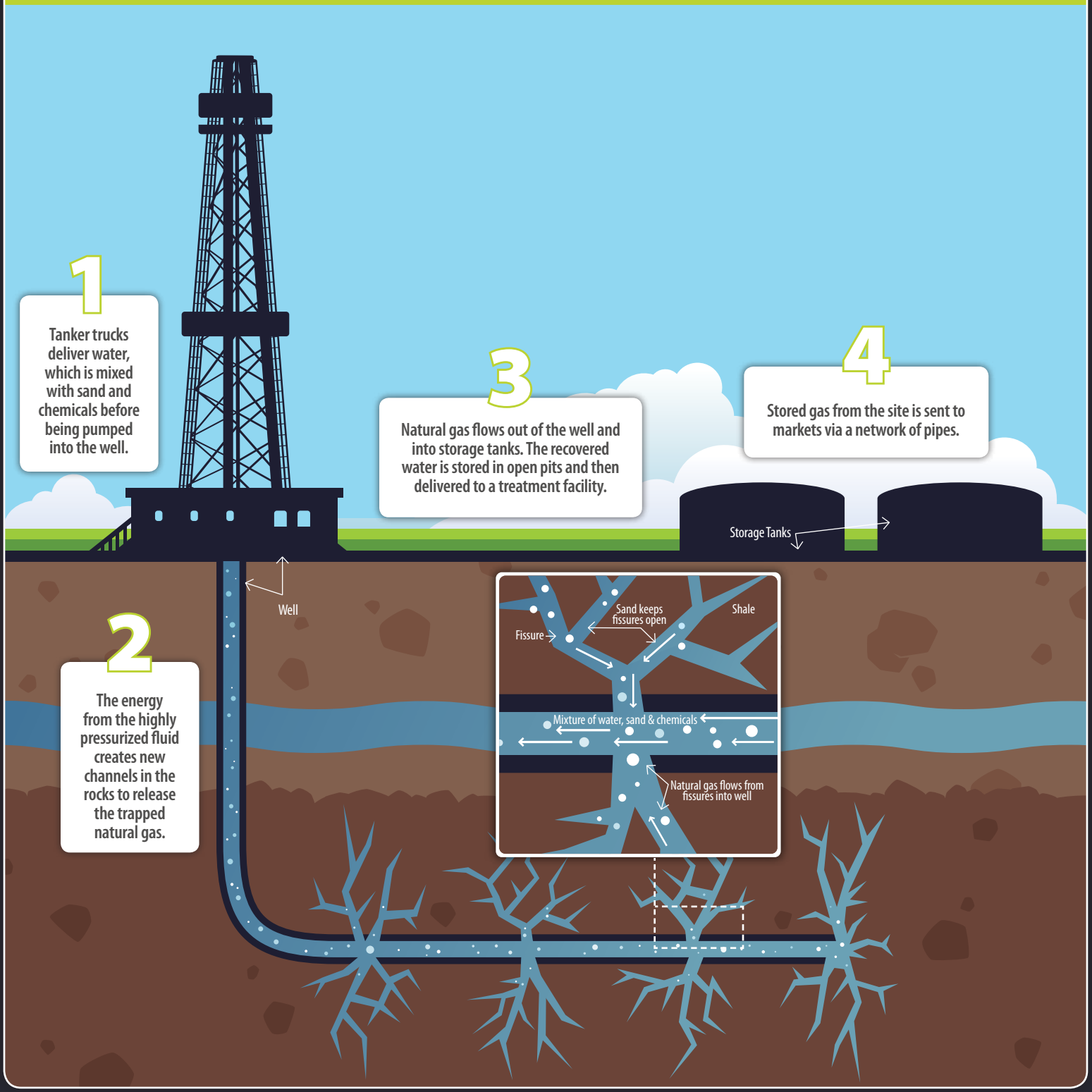
Sending flowback to municipal sewage treatment plants has become increasingly worrisome for regulators in states like Pennsylvania. The state Department of Environmental Protection has found high concentrations of dissolved salts like bromide in treated water, which has proved harmful to water quality and public health. In April 2011, Gov. Tom Corbett directed that all drilling operations in the state voluntarily comply with a ban on sending flowback to wastewater treatment plants.

Earthquakes in northeastern Ohio in late 2011 raised concerns about increased seismic activity when thousands of gallons of wastewater are injected in reservoirs at high pressure. In response to public concerns, Gov. John Kasich shut down wastewater injection within five miles of the well where the earthquakes were taking place. He recently proposed expanding the regulatory reach and the severance taxes the industry pays.

Legislation introduced in both Maryland and New Jersey would ban the shipment and treating of wastewater from fracking operations in the nearby Marcellus region.

Hydraulic Fracturing

In hydraulic fracturing, commonly called "fracking," more than a million gallons of water are injected at high pressure into a well to create millions of tiny cracks to release natural gas contained in rock. The injected fluid contains sand, which becomes lodged in the cracks to provide a path for the gas to flow up the well. The fluid also contains chemicals to allow the water to flow easier under high pressure and to keep the sand suspended.



Information Source: Environmental Protection Agency