

PQ: *Local governments can regulate disposal wells if they have the appropriate laws in place...*

Communities May Have Say on Disposal Wells

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Horizontal Marcellus wells aren't being permitted yet in New York, but many communities are already concerned about where to put the waste once drilling begins. The draft Supplemental Generic Environmental Impact Statement (SGEIS) included a requirement for drilling companies to provide a disposal plan for fluid wastes. The current options for drillers are: trucking brine and flowback to a treatment plant in Pennsylvania or other neighboring state; sending it to a suitable sewage treatment plant in NY; or injecting brine into an underground disposal well.

Pennsylvania has already experienced water pollution problems from brine treated in municipal wastewater treatment plants. The high level of total dissolved solids in the brines managed to escape through the treatment plants and into local rivers that provide drinking water for downstream communities.

Right now the only municipal wastewater treatment plant in NY accepting drilling waste is Watertown, and they are accepting only limited quantities of brine from a local vertical well.

The safest disposal alternative may be injecting fluid drilling wastes into deep wells, says Environmental Protection Agency (EPA) hydrologist Karen Johnson. She notes that Texas has close to 7,000 brine disposal wells, requiring one brine disposal well for every four production wells. "I think the gas companies will go back to depleted and unproductive wells and try to use them as underground injection wells," Johnson told a Pennsylvania audience last year.

Currently, there are only six active injection wells in NY and eight in PA. Ohio has 159 active state-regulated injection wells, making the state an attractive destination for drillers hauling flowback and brine. Ohio lawmakers, concerned about the enormous increase in the projected amount of wastewater expected from Marcellus drilling, are contemplating a 20-cents/barrel tax on out-of-state brine.

Local Say

The state controls permits for drilling, but local municipalities may have permitting power over disposal wells, says attorney Rachel Treichler. She addressed permitting issues at a recent forum on disposal wells in Ithaca.

Local governments can regulate disposal wells if they have the appropriate laws in place, Treichler said. She pointed to the recent events in Pulteney, where Chesapeake Energy had applied for permits to convert the Bergstresser, a no-longer-producing Trenton-Black River well, into an underground injection well.

"Chesapeake needed to obtain a special use permit from the town," Treichler said. If municipalities do not already have such laws in place, then they should waste no time in

developing local legislation to regulate disposal wells, she explained. “It can be done through a local permitting process.”

Injection wells are regulated by EPA under the Safe Drinking Water Act. NY Department of Environmental Conservation (DEC) has its own list of criteria and municipalities may provide further permitting requirements. EPA rules require any wastes to be injected below the drinking water aquifers. Because wastes are being injected back into cracks and crevices in deep rock strata, it is vital that injection pressures remain below the fracking pressure – otherwise the injection will begin to hydraulically fracture the rock.

Because of their depth – 8,000 or more feet – and the relatively large spaces in the rock, Trenton-Black River wells offer attractive options for waste disposal. Indeed, two years ago Fortuna (now Talisman) applied for a permit to test the Mallula well in Van Etten for possible waste injection. But unlike the Bergstresser well in Pulteney, the Mallula well is horizontal and more than one landowner in the drilling unit expressly prohibited the storage of brine or other materials under their property. That, combined with public outrage, has kept the Mallula well project on ice.

But Trenton-Black River isn't the only formation that can accept waste fluids. Because of their porosity and permeability, the Oriskany and Medina sandstones and the Potsdam layer are likely candidates for disposal.

Whereas gas wells may be permitted under a generic environmental statement, underground injection wells require more individual scrutiny. Before a company may drill a disposal well – or convert an abandoned deep well to that use – it must apply for a number of permits including: an EPA permit for a Class IID injection well; a DEC State Pollutant Discharge Elimination System (SPDES) permit for brine disposal; a SPDES permit for storm water runoff; a DEC MRB well permit to drill a brine well or convert a well to that purpose; a Municipal Special Use permit – if required by local law; and a State Environmental Quality Review (SEQR) for a brine disposal facility. The company must also obtain permission of the landowner.

Right now communities have an ideal opportunity to take steps to protect themselves from potential environmental problems related to disposal of hazardous drilling wastes. “Municipalities may issue permits if their local laws require it or if zoning requires it” Treichler said. She encouraged all municipalities to adopt local laws without delay, as Marcellus drilling will likely produce a huge demand for disposal wells.

For more information, see Broader View article archives:

How EPA regulates disposal wells -

http://www.tiogagaslease.org/images/BVW_04_24_09.pdf

DEC regulations at - http://www.tiogagaslease.org/images/BVW_11_07_08.pdf