

Pulteney Residents Protest Planned Disposal Well

Regional communities take notice

by Sue Smith-Heavenrich

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Close to 400 people crowded into the Pulteney Fire Hall on Sunday to protest Chesapeake's plans for converting a natural gas well into a disposal well for frackwater and brine. People vied for leaning-space against the wall and unlucky late-comers lined up in the lobby just beyond the notice warning "maximum occupancy 278 persons". However, everyone stayed for the two-hour meeting on hydraulic fracturing, disposal wells, and the impact of the gas industry on the Keuka Lake wine country.

Congressman Eric Massa opened the meeting with comments on the NY Department of Environmental Conservation's environmental study on horizontal drilling and hydraulic fracturing. Referring to the draft Supplemental Generic Environmental Impact Statement (SGEIS) released last September, Massa observed that DEC would prohibit fracking in the New York City watershed.

"This raised a bunch of red flags in my mind," Massa said. If DEC had to mention protecting the NYC water supply, then how safe is it to drill in the aquifers in other parts of the state, he wondered.

"What does NYC have that we don't?" Massa asked Pulteney residents. It all boils down to influence, he said. Influence and spin. There have been a lot of accusations about NIMBY-ism, (Not In My Backyard) Massa observed. But there's nothing wrong with protecting our back yards for the future generations, he continued. And if we can't do it individually, we need to do it collectively.

"I am absolutely opposed to this proposal," Massa said, referring to Chesapeake's plan to convert the Bergstresser well into an underground disposal well. "I will do anything in my power to stop it," he said, adding that if required, he would lay down on the road in front of the waste-hauling trucks. "And we'll be lining up behind you," shouted a person in the crowd.

In addition to Massa, Sunday's panel of speakers included Cornell engineering professor Tony Ingraffea; Walter Hang, president of Toxics Targeting; Art Hunt, owner of Hunt Country Vineyards; SUNY Geneseo geology professor Richard Young; Steve Coffman of the Committee to Preserve the Finger Lakes; and Rachel Treichler, an attorney and environmental advocate.

Long Term Considerations

Tony Ingraffea, a professor of civil engineering at Cornell, has been studying rock fracture mechanics for over 30 years. So when he ponders the proposed wastewater facility in Pulteney he doesn't ask "if" disposal wells are safe. He is more concerned with whether the engineering and geology of the area have reduced the probability of accidents to an acceptable (and very low) level.

“Engineers base their designs on what they are allowed to do or not allowed to do,” Ingraffea said. And one thing they are allowed to do is design underground injection wells for the disposal of wastewater produced by oil and gas development.

In October, Chesapeake applied to the U.S. Environmental Protection Agency (EPA) for a permit to convert the Bergstresser well (a Trenton-Black River gas well) into a Class II underground injection well. According to the EPA there are approximately 144,000 Class II injection wells operating in the U.S. Most of these wells are for the disposal of brine.

“Right now there are no underground injection wells for frack fluid,” Ingraffea said. And that is what Chesapeake wants: a place where they can inject not only brine, but flowback and other wastewater from Marcellus wells in NY and PA.

Underground brine disposal is preferred because it reduces the chances of surface contamination from drilling wastes, Ingraffea pointed out. However, all states using underground injection require that the brine be injected into the originating formation or into formations that are similar to those from which it was extracted.

“So brine is OK,” Ingraffea said. “But ethylene glycol? Biocides?” The regulations, Ingraffea explained, say nothing about injecting fracking chemicals into the disposal wells. The Bergstresser well is located less than a mile from Keuka Lake, Ingraffea noted, so we need to know as much as possible about its structural integrity. Not only that, it is surrounded by 17 other existing wells within a five-mile radius, so engineers must be certain there is no inter-connectivity between the wells.

Engineers need to know what is going down the well, how much wastewater there will be, the structural capacity of the well, the geology – whether the formation will accept the wastewater – and how long the disposal well will be used. Ingraffea said that this information becomes part of the calculation that then helps determine such things as the injection pressure – which in this case is going to be over 3200 psi, very close to fracking pressure – and the requirements for on-site storage of brine.

“And all of these have some failure potential,” Ingraffea said. Add to that the parking, the truck trips, the valves and pipelines and you get a better picture of the true costs of a disposal well.

The Bigger Picture

Aside from the fact that a majority of Pulteney residents don’t seem to like the idea of having a disposal well in their back yard, what’s the big deal about using the old Bergstresser well for brine and frack fluid? According to Tom Murphy, from Penn State Cooperative Extension, old Trenton-Black River wells make ideal underground injection wells. He believes that gas companies will continue to drill into Trenton-Black River because once they extract the gas it gives them a place to dump their Marcellus waste.

There are currently 112 active Trenton and Black River wells in New York State. Most of these are located in Steuben County, but more than 40 are located in Chemung County. But not all of these “active” wells are producing a lot of gas. And two of them – the Bergstresser well in Pulteney and the Mallula well in Van Etten – have been selected as potential underground injection wells for disposal of brine and Marcellus wastewater.

As the number of permits for drilling Marcellus wells in Pennsylvania increases – Governor Rendell estimated 5000 or more permits in 2010 – the question of what to do with the millions of gallons of wastewater becomes more acute. Public wastewater treatment plants are not equipped to deal with the salinity and the high volumes of wastewater coming out of the wells.

“As the [Trenton-Black River] gas fields become depleted, they’ll probably turn these wells into disposal wells,” Scott Cline said on Sunday. Cline is a summer resident of Pulteney and worked in the petroleum industry for 20 years. He believes that Trenton-Black River wells make good candidates for underground injection wells.

“But not here,” Cline said. He ticked off a list of problems with the Bergstresser well: too much traffic on a windy rural road, the wine industry, tourism, and more.

“But the truth is, if we’re going to have horizontal drilling, we’re going to have to deal with the fluids,” Cline said, “There may be other locations that are more suitable.” It’s possible, he said, to dispose of well wastewater safely. “But not here.”

You can read our earlier article, “Chesapeake Eyes Pulteney Gas Well for Disposal Options” at http://www.tiogagaslease.org/images/BVW_01_28_10.pdf