

Chesapeake Eyes Pulteney Gas Well for Disposal Options

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The small town of Pulteney sits in the northeast corner of Steuben County, overlooking the most western shore of Keuka Lake. The scenic area is best known for its vineyards and wineries. While there are a few Trenton-Black River wells from the nineties, there hasn't been a lot of gas-related activity in the area. Until now.

Last fall Chesapeake Energy began talking with William Weber, Pulteney Town Supervisor, about upgrading the facilities at one of their wells. But it's not gas that they're interested in – Chesapeake is looking for a place to dump their wastewater. To do that, they need a special use permit from the Town of Pulteney.

On Tuesday, January 12 not many people in the town and surrounding area even knew that Chesapeake had submitted an application to convert a local gas well – the Bergstresser – into a disposal well. But by the time Weber gave the town meeting to order some 24 hours later, 60 locals crowded into the meeting room and another 20 packed the vestibule just outside, standing quietly to hear the proceedings.

The Bergstresser well was drilled in 1997 to tap gas trapped within the Trenton-Black River formation. It is less than one mile west and uphill from Keuka Lake. The well's proximity to the lake concerns some people. They worry that spills from leaky valves or brine tanks may wash into the lake. Others are concerned that the two-lane road is too narrow for the truck traffic that would result. "It's closer to a one-and-a-half lane road," said one person. "It's fine for the occasional grape truck during harvest time – but the brine trucks will create heavy truck traffic throughout the entire year."

At the board meeting, town supervisor Weber stated that the town had only learned of the proposal two weeks earlier, in the latter part of December. At that time the NY Department of Environmental Conservation (DEC) asked the town to let DEC act as "lead agency" on the State Environmental Quality Review (SEQR) of the project. Without consulting the rest of the town board, Weber gave DEC the nod to take over.

Weber also said that the town has no involvement with the project, other than issuing a special use permit. He assured people that the town planning board will schedule public hearings before issuing such a permit. Weber also said that he plans to recuse himself from any decision-making processes on the application, as he has leases with Chesapeake.

What Weber neglected to tell the Pulteney residents was that he had been corresponding since September with ALL Consulting, a company completing the environmental assessments for Chesapeake. At one point Weber sent Steve Dutnell of ALL Consulting an e-mail stating that the special use permit was bound to be a hot topic, and he warned Dutnell to "get all your permits in place" before approaching the town for the necessary special permits.

In addition to the permit from the town, Chesapeake needs permits from the Environmental Protection Agency (EPA) and the DEC. Chesapeake filed a 119-page application to the EPA in October for an underground injection control (UIC) permit. They also filed a state environmental assessment form and State Pollutant Discharge Elimination System (SPDES) permit application with DEC.

According to Chesapeake's EPA application, they will use the Bergstresser as an injection (disposal) well for wastewater from their Queenston, Trenton-Black River and Marcellus wells located in New York and Pennsylvania. Although they have not done any injection tests to see just how much wastewater the Bergstresser well can handle, Chesapeake plans to inject up to 4320 barrels of wastewater a day (181,440 gallons/day). They base this figure on data from injection wells in other locations.

Given that the average brine-tankers hold close to 120 barrels (5,000 gallons), that means 35 or more trucks will drive the country roads hauling wastewater each day – or about 70 truck trips in and out of the disposal facility. To handle that amount of wastewater, Chesapeake plans to build six concrete unloading bays. Trucks will dock at the bays and pump wastewater into one of six 1,000-barrel (42,000 gallon) above-ground storage tanks. Pipes will connect the tanks to a filtration vessel, and from there the wastewater will be pumped into the injection well.

In addition, Chesapeake noted that they may need to add corrosion inhibitors and biocides to the wastewater. So they will store chemicals on site as well.

Chesapeake provided lab analyses of brine samples in their EPA permit application. The tests included data on acidity, conductivity, dissolved solids, chlorides and some metals: barium, iron, lead, magnesium, manganese and sodium. Even though DEC tests of Marcellus wastewater in NY indicates that there is a higher level of radionuclides in the brine, Chesapeake did not include any tests for radioactivity in the materials they provided to EPA.

Chesapeake isn't the only company to look to Trenton-Black River wells as potential disposal sites. According to Tom Murphy, a Penn State extension agent in Lycoming County, there is renewed interest in the Trenton- Black River formation as a potential site for underground injection wells. Residents in Van Etten learned this last year when Fortuna received a permit from DEC to test the Mallula well for use as an injection well. So far there has been no injectivity testing, but the permit has been renewed and may be renewed every 6 months over the next four years until the testing is completed.

As more wells are drilled in the region – especially if the number of Marcellus wells is anywhere near the thousands anticipated – wastewater disposal will become an increasingly critical issue. While dumping salty water down old gas wells looks like a good solution to the industry as well as DEC and the EPA, residents living near the wells worry about potential contamination of their drinking water wells.