

Fracking issues raised by Auburn wastewater report

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In this 2011 file photo, protesters outside of Auburn Memorial City Hall rally against the city's policy of accepting wastewater created during natural gas drilling. John Berry / The Post- Standard (*John Berry / The Post- Standard*)

AUBURN, N.Y. -- An engineering firm hired by Auburn to clear the way for the city to accept wastewater from gas drilling has concluded the city's wastewater treatment plant can't handle it.

The firm's study could have broad implications in New York's debate about hydrofracking.

The report, by the engineering firm GHD, Inc., in Cazenovia, said that because of the high levels of chlorides (a constituent of salt) in gas drilling wastewater, the Auburn wastewater treatment plant "has no additional capacity to accept vertical natural gas well wastewater."

While the report, for the moment, stalls Auburn's consideration of accepting gas drilling wastewater of any kind, it also raises questions about the capabilities of any municipal waste water treatment plant in New York state to handle the wastes of high-volume hydraulic fracturing, or hydrofracking, without greatly modifying wastewater treatment systems. The horizontal wells of hydrofracking typically extend farther and deeper than vertical gas drilling wells, and their by-products can contain higher concentrations of chlorides and other pollutants.

Walter Hang, an environmental consultant with Toxic Targeting, in Ithaca, said the report speaks to a core issue of gas extraction, including hydrofracking.

"This report is an indication that a lot of these technical questions about gas drilling wastewater can't be answered on a comprehensive basis," said Hang.

Auburn's waste water treatment plant discharges into the Owasco River, which drains into the Seneca River, which empties into Lake Ontario.

In addition to processing human sewage, Auburn's wastewater treatment plant, handles lots of other industrial wastes, including leachate from landfills, water from General Electric/Powerex - [an US EPA SuperFund site outside of Auburn](#), as well as wastewater from factories like McQuay, Goulds Pumps, Nucor Steel and Owens-Illinois, according to the report. Those users contribute to the plant's "atypically large chloride load," the report said.

"Chloride is already high in our waste stream, and adding the gas well water that's got chloride in it would possibly create issues with our biological process that nitrifies the water, that converts ammonia to an inert form," said Douglas Selby, Auburn city manager.

The report notes that Auburn could possibly handle gas drilling waste water if it underwent additional studies and changes to its treatment system.

Selby said he would not recommend that to city councilors, given the costs of studies, the fact that "the regulatory climate may be against us getting permission," and the uncertainty of getting back clients the city lost two years ago when [Auburn enacted a ban on accepting drilling wastewater](#).

"We're not really eager to jump forward on it right now," Selby said.

Three years ago, Auburn, a city of 27,000 west of Syracuse, found itself at the center of the fracking debate as its city councilors weighed the income from the natural gas

industry against the risks of pollution. The year before the ban went into effect, the city brought in \$815,000, treating 16.5 million gallons of water from natural gas wells in Pennsylvania and in Seneca, Cayuga, Yates, Steuben and Chemung counties, according to documents with the report.

Eight months after the ban was enacted, and after an election that brought new members to Auburn's city council, [the city lifted the ban](#).

But before the city could accept gas drilling wastewater, it had to conduct this study, called a headworks analysis, according to state Department of Environmental Conservation and U.S. EPA guidelines.

Auburn's previous headworks analysis had been conducted in 2001. In the intervening years, water monitoring requirements of the EPA have become stricter, the new report says.

"This gives an objective accounting of what our wastewater treatment plant can or cannot take," said Terry Cuddy, Auburn city councilor, and a founding member of the Cayuga Anti-Fracking Alliance, which worked to implement Auburn's ban on gas drilling wastewater.

Libby Ford, co-chair of the hydrofracking committee of the New York Water Environment Association, an association of water treatment plant operators, and a senior environmental health engineer for Nixon Peabody, in Rochester, said that Auburn's wastewater treatment plant is a biologically-based system, and that biological systems on their own "are not designed to take out dissolved constituents such as chlorides."

Only one wastewater treatment system in New York is non-biological - the Niagara Falls plant.

"That plant was built when they still had a lot of heavy chemical industry in the Niagara Falls area," she said.

Two years ago Niagara Falls city council voted to not allow any natural gas drilling activity in the city, including trucks moving drilling wastewater to the regional treatment plant.

Hang, who opposes hydrofracking in New York, says Auburn's report reveals lax oversight by the DEC over the city's handling of gas drilling wastewater. The city was accepting the wastewater after getting DEC approval in a phone message, according to a document in the report.

"The report basically says this plant can't handle the gas drilling wastewater because of the extraordinarily high chloride content of the gas drilling wastewater," said Hang. "And they (Auburn) obviously accepted like 16 million gallons of this stuff."

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<http://www.scribd.com/doc/219928101/Auburn-Headworks-Analysis>