

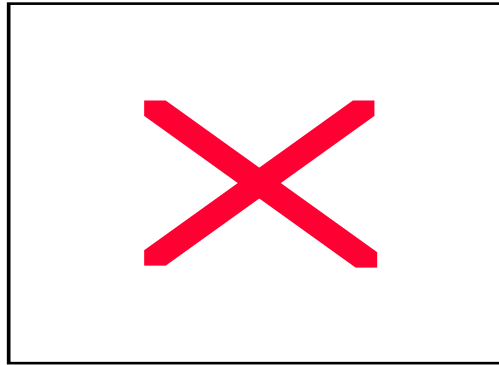
**What the EPA told the DEC  
about its proposed  
brine-spreading regulations**

“... the NYSDEC will not allow road spreading of flowback\* water but will allow this activity for produced water\*\*. It is unclear why this distinction was made by the NYSDEC as produced water will have higher concentrations of natural contaminants such as total dissolved solids, chloride, bromide, and radionuclides than flowback water.

“Also, produced water may still contain some of the chemicals used in the hydraulic fracturing fluids if not all the fluids returned in the initial flowback period.”

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- \* “Flowback water” is the “burp” of the fluids that are used in the hydraulic fracturing process: of the millions of gallons used in each well, at most 1/3 gush back up the wellbore as soon as fracking is finished. It’s not water in the common-sense use of the word.
  - \*\* “Produced” water, also known as “formation water,” is the liquid that exists in the shale rock, which is sopping wet. This liquid comes up with the gas and is stored on site until disposed. It’s referred to as “brine” because it’s salty. It’s not “water” either.

**LOCAL ROADS WHERE  
INDUSTRY IS ALREADY  
SPREADING BRINE WASTE**



To see this map in detail, go to  
[http://toxicstargeting.com/sites/default/files/pdfs/Overview\\_110720\\_1500\\_12.pdf](http://toxicstargeting.com/sites/default/files/pdfs/Overview_110720_1500_12.pdf)

**Spreading brine is how drillers  
avoid the cost of proper disposal.**

**The cheapest disposal is closest  
to the well. Spreading on your  
roads will increase as new wells  
are drilled.**

**Concerned?  
Find an action group near you**

**[www.gasmain.org](http://www.gasmain.org)**

**SPREADING  
GAS WELL WASTE**



**The gas industry wants to  
dispose of *its* waste  
on *your* roads**

**WHAT’S IN IT?**

**WHO’S SPREADING IT?**

**WHAT CAN WE  
DO ABOUT IT?**

## **It's promoted as a low-cost ice melter and dust-control agent.**

### **What are the hidden costs?**

The shale formations that yield natural gas through the application of high-volume hydraulic fracturing are sopping wet. When the gas is extracted, it comes up the wellbore accompanied by liquids that are separated at the wellhead. The liquids are kept on-site until picked up by a spray truck. This very salty liquid is referred to as "formation water," "produced water" or "brine." It's not the brine Grandma used in making pickles.

Salt (sodium chloride) is the major constituent of brines, which are many times saltier than seawater. A little salt running onto your lawn may be harmless, but the cumulative impact of repeated use of brines can poison your drinking water sources and makes your land sterile.

Marcellus shales are rich in lead, barium and other toxic heavy metals. They're also rich in radon and volatile organic compounds, which cause immediate respiratory harm.

"When Marcellus shale brine is spread or spilled on roads we expect to see more serious metals impacts because of the different rock chemistry that brings higher concentrations of heavy metals, sometimes even radioactive isotopes of radium."

<http://soilandwater.bee.cornell.edu/Research/shalegas/roadbrine.htm>

## **Who decides whether gas well brine is spread in your town?**

### **What regulations are in place?**

Since brine disposal is expensive for the drillers (it's illegal to put it through water-treatment plants), it's given to localities "free of charge," though those localities may pay contractors (like All-Kleen and Vestal Asphalt) to spread the stuff. That of course appeals to local governments with short-range interests in keeping taxes low.

DEC now requires analysis of brine before it's spread — a recent innovation. However, DEC does not list what concentrations of these chemicals would be unsafe for spreading, nor the cumulative impacts of 20 years of brine use, winter and summer.

"... the actual concentration and/or radioactivity of contaminants in the produced water spread on land or roads would be unknown at any given time since the amount and type of contaminants in produced water varies from well to well and even in the same well over time unless each truckload is tested, which would be a monumental task given the amount of produced water that is expected to be generated from Marcellus and Utica shale gas extraction and available for road spreading."

**US Environmental Protection Agency**

## **What can we do to prevent the road-spreading of gas well brines in our communities?**

Your town clerk should have a letter of contract from around June 2010. Ask to read it. Then go to your town board and object to using brine for waste. The trucks carrying this have to be marked by the DEC as "Part 364, regulated waste." Your neighbors should know this is happening and should be put on watch.

In Wooster, Wayne County, Ohio, private well-water contamination resulted from brine spreading uphill from a local business. Because of the incidence of private well-water contamination at this and other locations, residents and community members are now pressuring the local legislative body to ban brine spreading throughout the county.

[http://www.freedrinkingwater.com/water\\_quality/quality2/j-17-08-what-are-brine-wells.htm](http://www.freedrinkingwater.com/water_quality/quality2/j-17-08-what-are-brine-wells.htm)

**Don't count on the assurances of your highway superintendent that he'd never use gas well brine waste. Every gas well that comes on line increases the pressure on local governments to agree to brine spreading.**

**Your town has the right to outlaw brine spreading on its roads.**