



Dot Earth

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The Challenges in Public Policing of Gas Drilling

By ANDREW C. REVKIN

I'm publishing a pair of "Your Dot" reactions to my post on [citizens' efforts to build mapped data bases](#) as a tool for tracking the gas drilling surge in the United States.

The first, below, describes potential pitfalls in such "do it yourself" efforts. Tomorrow, you'll hear from Frank O'Donnell, a [seasoned clean-air campaigner in Washington](#), about the substantial potential benefits of public methane monitoring.

The cautionary reaction came from Walter Hang, a longtime environmental consultant from upstate New York.

Hang has been doing the same kind of mapping work for decades through his company [Toxics Targeting](#) (in my news-reporting days, I talked to him about everything from [brownfields in Buffalo](#) to a [controversial "lake source" cooling plant](#) at Cornell University). More recently, he has become a prominent critic of New York State's proposed rules for gas drilling using hydraulic fracturing, or fracking, methods.

He's a prime [ally of anti-fracking](#)

[campaigners](#) and has come in for [withering criticism from the gas industry](#).

Hang's main concerns about do-it-yourself online mapping relate to quality control. [Nov. 16, 10:23 a.m. | Updated Jamie Serra, who created

[fracktrack.org](#), has [posted a long response to Hang](#).]

Here's Hang's "Your Dot" post:

Toxics Targeting, an environmental consultancy in upstate New York, has developed [a mapped data base of information](#) on old and abandoned wells.

From Walter Hang, Toxics Targeting:

Citizen mapping efforts sound good, but they are plagued by serious limitations and spatial errors that advocates gloss over and the public does not know about.

Compiling data and mapping sites accurately are both difficult to do well. That is why Apple's digital maps have such massive and embarrassing problems.

I understand that the well-meaning woman you referenced reportedly mapped approximately 100 unplugged wells in Pennsylvania. I only took a quick look at a piece about her work, but here are a few obvious concerns.

First, she will never find all the hundreds of thousands of unplugged wells in Pennsylvania. Second, someone looking at the map where she has not yet searched around might conclude that there are no unplugged wells there. Third, unplugged wells are often extremely hard to spot, so she might have missed some. Fourth, mapping sites with a handheld GPS unit is often inaccurate. I only mention that since I do not know how she determined well locations. Those concerns are potential source of false negatives.

The other group you mentioned reportedly aggregates data. The moment I read that, I cringed. It sounds simple, but they might not understand how to do that with sufficient quality control. As a result, citizens might review data that are mislabeled, mischaracterized, outdated or incomplete.

This happens all the time. A local group reportedly mapped mineral leases in a county. When I took a look, there were huge errors due to a wide range of problems that they failed to deal with, notably recording errors.

I have been compiling and mapping government data for more than 30 years. I believe that is usually the best source of information to support public policy decision-making. That is why government data are usually not copyrighted.

As you know, I recently mapped 5,046 unplugged and abandoned gas, oil and other wells in NYS using a database that I obtained through the Freedom of Information Law from the Department of Environmental Conservation. I believe that is a far better approach to educating the public about this concern than trying to find them on your own even though I have occasionally also done that as well. It is really hard. [See the overview map](#). See the Department of Environmental Conservation database [posted in upper left corner here](#).

I have posted an interactive map of unplugged and abandoned wells. Just [type in "Barney Mills NY" here](#). You can also type in "Liberty Street Elmira, NY" to see an unplugged well near a river and a fault as well as multiple residential homes in an urban neighborhood.

There is a huge legend of data categories as well as disclaimers. I talk to citizens almost every day who need help using and reading the map. I even give them map coordinates that they can use with their iPhone if they go into the field to find a specific unplugged well.

On the extremely rare occasions when I or my colleagues map sites in the field, we cross-reference sites using a base station so that the accuracy is less than one-meter. The D.E.C.'s well coordinates are accurate to within 100 feet or so.

For three years, my colleagues and I have worked very hard to develop our New York Marcellus Shale Internet map server to allow citizens concerned about gas and oil extraction to access a great deal of highly useful data. I invite your readers to check it out. Citizens also can similarly use my firm's toxic site internet map server.

In conclusion, I believe the best way to protect public health and the environment from gas extraction hazards is to alert citizens to the problem via the press and organize them at the grassroots level to fight for essential safeguards. That approach is why New York is the only state in the nation that has avoided shale gas fracking problems where the activity has been proposed. It remains to be seen whether we get meaningful safeguards.



Toxics Targeting

An [abandoned well in Alma, New York](#), located and mapped by Toxics Targeting, an environmental consultancy created by Walter Hang.