

The Farmer and the Well

While fracking supporters say the mining practice will provide jobs and capital for struggling farm communities, opponents argue the damage will far outweigh the good

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Last Thursday, anti-drilling contingents held a press conference in Binghamton before the New York State Department of Environmental Conservation's hearing on fracking. One of the speakers, ecologist Sandra Steingraber, held up a mason jar of water and a loaf of bread.

"I invited everyone to take a breath of air," she recalls, "and pointed out they had just inhaled a pint of atmosphere, and that we are made of rearranged molecules of air, food and water, including this bread and this water. If we poison these things, we poison our children and we poison ourselves."

This is not the first time Steingraber has brought these props to help articulate the science and sentiment behind her objections to high-volume hydraulic fracturing, aka fracking, a mining process that retrieves natural gas from shale using water and a proprietary cocktail of undisclosed chemicals.

The water in the jar is from her well. The bread is from Wide Awake Bakery, made with flour milled by Farmer Ground Flour in the town of Trumansburg, outside Ithaca. The wheat and other grains are grown nearby, on land that sits on the Marcellus Shale. This land is valuable to multinational gas companies for the natural gas trapped, like champagne bubbles, as Steingraber has described, in the rock below.

In addition to the bread and water, this time Steingraber brought three reams of paper to symbolize the 1,537 pages of the SGEIS, the Supplemental Generic Environmental Impact Statement, which was the subject of the hearing.

This fall, the DEC has been holding hearings throughout the state to allow regional officials and the public to weigh in on the draft SGEIS that was issued in September, a revision of an earlier environmental impact statement on drilling in the Marcellus Shale. During the hearings, which will conclude in New York City on Nov. 30, pro- and anti-drilling factions have voiced their concerns, loud and clear.

Those in favor of drilling consider fracking an essential economic development for struggling farm communities. Those against drilling see a fundamental problem in industrializing a functioning agricultural landscape and threatening air, water and soil quality. This year, a series of articles in *The New York Times*, a documentary called *Gasland*, and the efforts of numerous grassroots advocacy groups have raised public awareness of the risks of fracking.

Just this month, the EPA found evidence of a fracking compound in an aquifer in Wyoming. Residents have long complained of health problems, but this is the first time a smoking gun has been tied to natural-gas drilling in the area.

Steingraber says that anti-drilling people left the Binghamton hearing Thursday feeling jubilant. Because this particular hearing was located in a region where many people stand to gain from drilling, there was concern that an army of pro-drilling supporters would appear. The fact that the gas industry could pull together only a few hundred people was good news to anti-fracking activists.

"At the top of the session, the elected officials got to speak first. The majority were against [drilling], and that kind of set the tone for the day," says Steingraber. "One of the things that I noticed was that the messaging of the pro-drilling side was really consistent. They had the same talking points over and over again as though it came from a script."

Key phrases that kept cropping up were *we need the jobs* and *these are desperate times*. A year prior, Steingraber notes that pro-drilling forces were hailing fracking as the bridge to green energy. Over the past year, this argument has largely been dropped.

Steingraber is a prolific author on the intersection of the environment and health. Her work began when she discovered that the form of cancer she got at age 20 was linked to industrial toxins. She recently won the Heinz Award for her environmentalism, and is dedicating the \$100,000 that comes with it to defeating fracking.

At the hearing, Steingraber criticized the SGEIS for failing to discuss health consequences. The size of the draft was roughly the size of a Thanksgiving turkey, she said, and yet lacking in important information.

“There is no attempt to even look at health effects in these pages,” says Steingraber, “and most people in New York assume if there’s going to be an impact study, then somebody must have studied the impact on our health. But the fact is that it’s not a part of this huge document.”

The word cancer appears only 10 times in the report. Words like endocrine disruptor or pregnancy do not appear in the SGEIS, either. These words matter to Steingraber, because the chemicals in the fracking fluid, and elements released by the drilling process, have been found to be carcinogenic.

Steingraber and Lois Gibbs, a cancer survivor who helped found the Love Canal Homeowners Association, are prime signatories on a letter to Gov. Andrew Cuomo sent by cancer advocacy groups from around the state. The letter criticizes the SGEIS for lacking, among other elements, “. . . any discussion of the economics of the healthcare burden likely to be caused by the release of fracking chemicals and the attendant air pollution that invariably accompanies fracking operations.”

The letter is not the only plea for further analysis. An October letter from 250 physicians and medical professionals asked that the state thoroughly assess the impacts of hydraulic fracturing on human health. Beyond health concerns, other New York groups are worried that the SGEIS does not address other critical issues. CADE, the Center for Agriculture Development and Entrepreneurship, works in Central New York. Director Chris Harmon notes that CADE is neither for nor against drilling, but wants to see more investigation into impacts on agriculture.

“There’s a lot of things we don’t know,” Harmon says. “One of the biggest concerns is that the draft GEIS isn’t adequately addressing the impacts on agriculture, and we don’t necessarily feel that the people at the DEC have the expertise to analyze the impact on agriculture.”

For example, the draft calls for monitoring of well water, disregarding the fact that farms rely largely on surface water for irrigation and watering livestock. Another overlooked impact on farming is the shift of the labor force. Take the instance of trucking: Faced with the option of driving milk for dairies or water for hydrofracking, truckers would likely choose the latter industry, which can offer far more cash. Harmon also points out that, while the Clean Water Drinking Act, the Safe Water Drinking act and the Clean Air Act apply to farmers, they do not apply to the gas industry.

While the New York Farm Bureau is in favor of regulated fracking, in large part because the sale of mineral rights could be reinvested in existing farms, Harmon is among those who wonder if people will do so, or if they will take the money and leave farming. Some reports state that in Pennsylvania, 25 percent of farmers who received royalties for gas drilling left farming. Those that stay may face limited resources.

“For farmers to be successful, it’s necessary to have the infrastructure in place to support them,” Harmon says, “meaning large animal veterinarians, slaughterhouses, feed mills, tractor supplies, tractor dealers, farm supply implements—all of that support infrastructure that is necessary for farming to be profitable.”

If farmers opt to leave the industry, when the boom period from selling mineral rights inevitably ends, trying to rebuild a farm economy with limited infrastructure will be very tough.

Harmon believes the Department of Agriculture and Markets should be commenting on the SGEIS and how fracking affects agriculture; he thinks it is that department’s responsibility to call on the DEC to hire

consultants who can assess the practical and financial impacts of this kind of mining on farming in New York state.

The commissioner of Agriculture and Markets, Darrel Aubertine, takes a stance similar to the Farm Bureau. “Natural gas drilling could provide an important source of revenue to struggling farmers, as evidenced by the many comments made by agricultural landowners at DEC’s public hearings last week,” says Aubertine. “However, increased drilling activity could change the landscape in the affected areas. Department of Agriculture and Markets will work with DEC to develop permit conditions, best management practice requirements and reclamation guidelines to be followed when the proposed disturbance is larger than 2.5 acres on a farm in an agricultural district. In addition, DEC’s proposal includes the ability to stage development to minimize cumulative impacts.”

This assurance doesn’t put the entire farming community at ease.

“A lot of farmers are concerned they’re going to lose their organic certification,” says Ana Tinsly, spokeswoman for Frack Action.

Another threat is rumbling from customers who want clean food. Park Slope Food Coop sent a letter to then-Governor-elect Cuomo last December detailing its investment in New York farms, and its willingness to shop beyond New York State should fracking interfere with food safety. The letter named \$2.4 million as the amount the co-op spent each year on meats and produce, and this figure did not include dairy or cider products.

Farmers feel the pressure. Erick Smith of Farmer Ground Flour and Cayuga Pure Organics, which sells beans and grains through Park Slope Coop and other health-food cooperatives and farmers markets in New York City, wasn’t aware of the letter. But, as a longtime organic producer, he is familiar with the role that customer confidence plays in successfully marketing nonconventional foods.

“People look at farmers like us and feel confident in what we’re doing,” says Smith, pausing briefly from harvesting beans on a recent Sunday. When the harvest ends, he plans to get involved in protesting fracking. In the meantime, bread made from his grain is serving as testimony against fracking, delivered to local hearings by Wide Awake Bread baker Stefan Senders, and Sandra Steingraber.

Pennsylvania farmers already have faced marketing issues. Ruth Tonachel has observed vegetable operations in her community losing customers, because they’re located in Bradford County, 95 percent of which is leased for gas.

Organic and sustainable farmers are “the single most adamant holdouts,” says Tonachel of the farms that have refused to lease their mineral rights, “and they’re being punished by outside customers.”

Tonachel works for the Northern Tier Cultural Alliance, her husband is a teacher. Their 500 acres of farmland haven’t been active in 75 years, but the couple rents the land to dairies for haying, and manages trees for productive timber.

Tonachel hasn’t signed a lease herself because she began to investigate hydrofracking in Wyoming and Colorado, and got leery. However, her mind is not set.

“If I were able to obtain what I thought was an adequately protective lease, that did not put a well on our property, just a nonsurface lease, I would still consider signing,” she says. “I’ve been really ambivalent because, on the one hand, I don’t like the idea at all. On the other hand, I’m totally surrounded. If at some point it becomes untenable to live here, I don’t want to be the idiot who didn’t take any money and can’t get out.”

The New York Times Magazine ran an article this past Sunday about the health effects of fracking on the communities of Amwell Township, Pa. While Ruth Tonachel doesn't know people who have experienced health problems like those described in the story, she doesn't doubt they are true.

"We're just a big experiment here," she says. "There was no foresight."

The example of Pennsylvania speaks volumes to New York state Sen. Greg Ball (R-Patterson), who invited Gov. Cuomo and his colleagues to tour the devastated farmland across the border in August.

The senator toured affected areas of the state himself with filmmaker Josh Fox, who made *Gasland*. In a famed scene from the film, contaminated water from a kitchen tap is lit on fire. But igniting methane, Ball says, is only a small problem compared to the environmental degradation he saw in Pennsylvania.

"This industry has proven itself reckless in other states," says Ball. "Whether we're going to allow that same red-carpet treatment and loopholes to create havoc in this state can be decided by the government and the Legislature."

It is their responsibility, Ball says, to make sure that the industry is properly regulated to protect farmers, property owners, and sportsmen in a way that hasn't happened in Wyoming or Colorado. Sen. Ball criticizes a provision of the 2005 energy bill dubbed the Halliburton loophole—which stripped the EPA of its authority to regulate hydrofracking—for laying the burden of regulation on states like New York.

"We are just not in the position as a state to avoid the hardships other states have seen," he says, citing unfair contracts and lack of state funds and manpower as obstacles to implementing even the minimal regulations laid out in the draft SGEIS.

Ball introduced a property owner's bill of rights to try to address the way that industry is not taking responsibility for the damages it has caused. The bill passed in the Assembly, and has strong bipartisan support in the Senate.

"If it passes, it's a comprehensive regulation of the industry that doesn't exist now," says Ball. Sen. Ball is leading a group of colleagues on a tour of Pennsylvania on Dec. 4 and 5, and has again extended an invitation to Gov. Cuomo to join him.

"If the governor also saw that firsthand," says Ball, "I know he would do the right thing, and put the brakes on the process, open up the discussion."

Assemblywoman Barbara Lifton (D-Ithaca) has been discussing fracking for a long time, bringing science, skepticism and the opinion of her constituents to the matter. She sat on the Assembly Energy Conservation Committee and asked questions of the DEC Commissioner at a hearing in October. In Binghamton, she spoke about the dearth of information in the hefty SGEIS.

"We know that the DEC hasn't responded in this second draft to a lot of the major concerns that have been raised," says Lifton, adding that "the original scoping document was badly flawed."

The document didn't address wastewater treatment and disposal, the issue of a health study, cumulative impacts on the environment, air pollution, or climate change. Not to mention agriculture.

"What we said from the beginning is that all these other state agencies should have been involved," says Lifton. "The Department of Health should have been a co-lead agency. The Department of Transportation—we already have too many trucks on the road, where's the DOT in all of this? Where are Ag and Markets? Is anyone looking at the farmers and trying to mitigate?"

Lifton is calling for a withdrawal of SGEIS because the flaws in it are not going to prepare the state to regulate the industry, if the state does allow the industry to enter.

The irony of this debate about land use is the fact that Gov. Cuomo made a grand gesture in appointing the commissioner of the Department of Agriculture and the commissioner of the Department of Economic Development/president of the Empire State Development Corporation on the same day in the spring. Agriculture is the backbone of New York's economy, the new governor seemed to say.

Yet, if agriculture is so significant to New York's economy, why is it being overlooked as the state considers a major change in land use whose long-term impacts can't yet be estimated?

This question is very much on the mind of Martha Goodsell, who for 15 years has run Fallow Hollow Deer Farm in Tioga County with her husband.

"I am really concerned about the fact that we are having discussions about agriculture without bringing fracking into the picture," says Goodsell. "We have discussions about fracking without bringing agriculture into the picture. . . . We're putting farming and our food at risk to think about a very, very short-term energy policy, and for me that's wrong."

"We need an agricultural policy that pay the farmers a fair price so that they don't have to come in and lease their farms and sell out their mineral rights," she says.

This is not just an intellectual matter for Goodsell, but a personal one. A small portion of her fifth-generation family farm—less than half an acre—is tied up in a drilling unit comprising 420 acres. Her father signed the lease in 1997, just as his father had signed a lease in the 1960s.

Allowing use of natural resources in farming is a tradition, and often, nothing came of signing drilling leases. But this is not your grandfather's gas lease.

As early as 1999, Goodsell started to see that this type of mining would be vastly different. Pennsylvania and other states offered a window on its invasiveness, with increased accidents, pollution and livestock poisoning.

"Will our deer be able to drink from the springs on this farm?" she asks. "Because that's how we water our livestock. Will we be able to continue to grow good forages for the deer?"

Goodsell is deeply invested in the place she calls home. She sat on the agriculture advisory board when Sen. Hillary Clinton was in office, and recalls how the senator worked to promote the area for organic farming. Maps on the *New York Times* website illustrate a large concentration of organic and sustainable farms in this region.

Now, facing an uncertain economy, and losing her workforce as her children leave home, Martha Goodsell has downsized her farming operations in only a few years from 2,500 deer to 250.

"Do I make an investment in my farm knowing that gas and mineral rights trump surface rights? How much do I invest? Will the gas companies come in two years from now and say we're going to tear your fencing down?" asks Goodsell. "I'm reluctant to build a business knowing what I do could be for naught."

Goodsell does not see agriculture and fracking successfully coexisting. Not in the short term, while drilling occurs. Maybe after the wells are done, maybe after the environment is cleaned up. But even then, she says, she has her doubts if farming can return, because of the radioactive material unleashed by deep drilling and flowback. Pollution knows no boundaries, and the toxins involved in this type of gas drilling can easily migrate to soils, water, and animals.

Ruth Tonachel, who is in the thick of things in Bradford County, Pa., holds hope that fracking and farming could share the same land.

“I feel like there is the potential to do it very carefully and do it right. I just don’t see that happening,” she says. “New York State and Pennsylvania are essential to the foodshed of the East Coast. In the long run, we’re the people that need to be producing food for Boston, New York, and Washington.”

The public has the chance to weigh in on the debate through Dec. 12, when the current DEC comment period on the draft SGEIS closes.