

MOUNTAIN WATCH

Spring, 2010

What's Wrong With Hydrofracking?

With 'alternative energy sources' a new political mantra, and with many landowners hoping to reap a windfall through leasing mineral rights, the rush to extract natural gas from the Marcellus shale seems on the fast track. Mountainwatch explores where that track might lead...

The Marcellus shale is a huge expanse of marine sedimentary rock named for a distinctive outcropping near Marcellus, New York, a small village near Syracuse. The Marcellus was formed some 450 million years ago, during the era when land plants developed, and is made up primarily of black shale, interspersed with lighter shales and limestone layers. The limestone layers contain the fossil record, which offers important paleontological insights about plant development. The shale, which is easily eroded—thus presenting an engineering challenge—contains the iron ore that was so important to the early economic development of the region and the natural gas that many think will fuel the region's future.

The gas is held like bubbles in the bedrock formation of the shale, and the cheapest way energy companies can get to it is through a process called hydraulic fracturing—hydrofracking. Less costly than the deep drilling that would otherwise be necessary, hydrofracking is aimed at expanding existing fractures in the bedrock and cracking

open new fractures by subjecting the bedrock formation to enormous pressure. The pressure is applied by pumping a fracturing fluid, typically a sand-and-water mixture, into the formation structure at an ever-increasing rate until—crack!—the bedrock separates. Once new fractures are opened, a solid material known as a proppant is injected to keep them open. The proppant typically consists of particulates that serve as a permeable conduit through which the gas, released by the fracturing process, can now rise to the surface—laden with whatever was in the fracturing fluid, with the proppant particulates, and with the natural toxins that were also resident in the shale and that were released along with the gas.

Trade Secrets?

What comprises the fracturing fluid that is used to crack the bedrock? Energy companies, claiming their rights to maintain trade secrets, won't say, but tests by the EPA of groundwater near hydrofracked sites around the country have found Benzene, a known carcinogen, and other harmful compounds. In Colorado, when rates of cancer and other diseases spiked near a hydrofracked site, a scientist tracked the manifests of trucks bringing



From CHA Chairman Rich Schaedle

This issue of *Mountainwatch* highlights two of the most profound threats to the future of open space in our region—headlong mega-development and the insatiable appetite for energy. As always, both are being promoted as keys to economic development for the many, although there is skimpy evidence, at best, that the jobs, tax savings, and fattened wallets routinely promised from such development ever actually materialize. In fact, history has shown—time and again—that “developments” like the proposed Belleayre resort and Marcellus shale hydrofracking invariably result in profit for only a few, while the vast majority of us pay for that profit both with tax subsidies and in the harmful consequences to our environment, our way of life, and our economy.

This spring and summer, CHA wants to get that message out to as wide an audience as we can. Right now, as this issue of *Mountainwatch* goes to press, the would-be developer of the Belleayre mega-resort is once again carrying out a well-funded public relations campaign claiming, in the same tired language he has been using for ten years, that his proposed development will be good for the economy. It will not. In fact, it is a private investment venture that will draw jobs and income away from communities and homegrown businesses; it therefore threatens the local economy, and that's what we are going to make clear.

Inside...

Belleayre Resort Update

We need your help to do that. We're up against deep pockets that can buy exposure and influence; we have to reach people in other ways—and the spring and summer seasons are the crucial times to do that.

Please help us transmit the message that while our communities and our wilderness are being asked to pay the price for developments like the mega-resort and hydrofracking, someone else is going to walk off with the benefits. With your annual dues of \$10, won't you please send an additional gift?

Help us take the next step

\$500 \$250 \$100

\$50 \$25 Other _____

Please make your check payable to CHA and send it, **along with this form**, to:

CHA Treasurer
P.O. Box 88
Shandaken, NY 12480

Name _____

Email _____

Phone _____

Address _____

The Catskill Heritage Alliance is a grassroots organization dedicated to preserving the harmony between the villages of the central Catskills and the surrounding wilderness through community revitalization and open space conservation. The CHA is a 501(c)3 not-for-profit organization, and your donation is tax-deductible to the full extent provided by law.

material to the site, then tested water and soil samples from the nearby waste pits and groundwater, and found some 200 harmful chemicals—Benzene among them.

The Fracturing Responsibility and Awareness of Chemicals Act—the FRAC Act—led in part by local Representative Maurice Hinchey and Senator Charles Schumer, would, among other actions, force the energy industry to disclose the composition of the sandwater mixture it injects into the bedrock. Until the bill is passed, it is difficult to ascertain for certain that the water contamination in places close to hydrofracking sites is the direct result of dangerous chemicals leaching into groundwater from the sites. But it's a good bet. In New York, "sites close to hydrofracking" would represent an enormous swathe of the state, including the New York City watershed; as we go to press, mineral rights are being leased to energy companies in quick time throughout our region.

Yet water contamination isn't the only issue. As the key player in the fracturing process—hydrofracking, after all—water must be present in sufficient amount to crack open bedrock. That takes a lot of water. Where is it to come from?

Those who live beside rivers, streams, and lakes near hydrofracking operations tell of heavy-bodied tanker trucks thundering past their houses around the clock, triggering their high-volume pumps and sucking water out of the waterway through thick hoses. Apart from the disruption, there's no telling what the impact of this wholesale removal might be on water level.

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We don't yet know where the water for hydrofracking the Marcellus shale would come from, but it doesn't bode well for the many waterways in our area. We know even less about where the water will go once it has been pumped down into the bedrock and through all those new fractures. What we do know is that the U.S. Department of Energy lists water produced from gas drilling as among the most toxic of any oil industry byproducts. One reason may be that natural radioactivity that isn't a problem deep underground can become a serious waste problem in water.

And there's still another issue with hydrofracking: seismicity. The injection of fluid into subsurface geological structures reduces the effective normal stress across those structures. If parallel or tangential stress rises as normal stress is reduced, the structures might slip, generating tremors or other seismic events over a range of magnitudes.

'Gaps' in Regulation

We don't know about the source of water for Marcellus hydrofracking or about the disposition of wastewater because when asked, the DEC, which has the authority to issue any permits for the Marcellus hydrofracking, had no answer. Nor could the DEC

Continued on opposite page.

Developer's Version of 'New' Resort is Much Like the Old: Too Big, Too Exclusive, Too High — and a Threat to the Economy and Environment

Since there has as yet been no formal proposal for the "revised" Belleayre mega-resort, anticipation ran high over developer Dean Gitter's much-ballyhooed appearance before the Ulster County Chamber of Commerce February 18 — especially because five years ago, Gitter treated the same group to an aggrieved rant in which he excoriated opponents of his proposed Belleayre mega-resort as "environmental jihadists" and called NYC environmental staffers "hired assassins."

This time, the former showman was less shrill — perhaps because the message he delivered proved old, tired, and empty.

Two hotels, conference facilities, golf course, time-share and stand-alone houses: all the elements of the old plan are still there and ignited little enthusiasm. Besides, this developer has offered so many iterations of his mega-resort that what the project might consist of has by now become a moving target, and the public is justifiably reluctant to

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accept what Mr. Gitter says until we see the details in writing.

They'll be laid out in the supplemental draft environmental impact statement, or SDEIS, that the developer must submit to the state's Department of Environmental Conservation (DEC), the lead agency for the state-mandated environmental quality review of the resort. The DEC will review the SDEIS for "adequacy," then accept it or return it for changes.

Readers will recall that the Agreement in Principle (AIP) of 2007, the "compromise" engineered by then-Governor Eliot Spitzer, links the private, for-profit commercial resort and the expansion of the public Belleayre Mountain Ski Center, requiring that the two must be

The statement proposed regulations for hydrofracking was almost universally criticized as incomplete at best, inept at worst.

Such failure of oversight could be just one more thing that's wrong with hydrofracking.

reviewed jointly. That means that the DEC in its turn must amend its Unit Management Plan (UMP) for the ski center expansion and prepare its own DEIS.

After reviewing the adequacy of both the Crossroads SDEIS and its UMP-DEIS, and revising them as needed, DEC will create yet a third document — namely, a Cumulative Impact Analysis of the "combined" effects of the expansion embodied in the DEC's UMP-DEIS and Crossroads' resort plan.

It's anybody's guess when the SDEIS, the UMP-DEIS, and the Cumulative Impacts statement will be issued; the timing of those issuances is in the hands of the developer and his partners. Once the documents are published, there will be opportunity for public review and comment, as follows:

1. DEC publishes a notice that the documents have been accepted for public review
2. Public comment period
3. DEC decides whether or not to hold a public hearing
4. Final EIS is prepared reflecting public comments
5. DEC publishes its environmental quality review findings of the resort proposal.

Bottom line: Stay tuned...

MOUNTAINWATCH

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Come to a meeting

The Catskill Heritage Alliance membership meets on the **last Sunday of each month at 4 pm** in the Pine Hill Community Center, Main Street, Pine Hill, New York. All are welcome. If you would like to be on the email list for meeting announcements and other alerts, please submit your email address to info@catskillheritage.org.

Write letters

It's difficult to overstate the importance of keeping up a steady stream of citizen letters expressing opposition to the proposed Belleayre mega-resort. Whether your opposition is rooted in your fears of the resort's environmental destruction, its adverse impact on our economy or community character, the evasion of public review and failure of good governance embodied in the Agreement in Principle, the developer's attempts to obtain public subsidy for his private profit, or something else altogether, let your voice be heard by your elected representatives.

How to find your representatives

To find your state Assembly representative, go to:

<http://assembly.state.ny.us/> and click on Click Here to search by Zip Code.

To find your state Senator, go to:

<http://www.nysenate.gov/senators> and type in your address and zip code.

To communicate with your Ulster county legislator, go to:

<http://www.co.ulster.ny.us/legislature.html#1>.

To locate your town supervisor in Delaware County, go to:

<http://www.co.delaware.ny.us/departments/cob/bos.htm>.

And don't forget:

Governor David A. Paterson

State Capitol, Albany, NY 12224

518-474-8390