

## Local Officials Hear Review of Gas Drilling Water Use Regulations

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*Broader View Weekly*, April 1, 2010

More than 50 town and village trustees, members of local planning and zoning boards and residents gathered in Owego's Hubbard Auditorium on Monday, March 29 to learn more about water use for Marcellus gas drilling. Paula Ballaron, director of the regulatory program for the Susquehanna River Basin Commission (SRBC), and hydrogeologist Damian Zampogna reviewed water withdrawal regulations relating to natural gas drilling in the basin.

The Susquehanna River Basin encompasses 27,510 square miles in New York, Pennsylvania and Maryland, from where the river begins near Cooperstown to where it spills into Chesapeake Bay. State and federal governments collaborate on regulations that protect the water resources throughout the basin.

Zampogna listed the three things SRBC regulates: water withdrawals, consumptive use, and diversions. He emphasized that the basin regulates water withdrawals from all sources of surface water and ground water, everything from rivers to private ponds.

Many industries use water from the basin: power plants, municipal drinking water treatment facilities, golf courses, and gas wells. Zampogna listed the use levels that trigger SRBC oversight; water withdrawals of 100,000 gallons/day over a 30 day average will require a permit, he said. So will consumptive use of 20,000 gallons a day.

Unless you are using the water in drilling for natural gas. Then, any amount of water – even one gallon – will trigger a water use permit review by SRBC, Zampogna said.

SRBC regulates water withdrawals because, said Zampogna, “We want to make sure there's water in the streams when the fish need it.” There are a number of things SRBC considers during a permit review. Stream classification is important, he said, because trout streams are treated differently than other streams. SRBC also makes sure that the gas company withdrawing water has proper access across land to reach the water supply. Because of the nomadic nature of gas drilling, the commission is also studying invasive aquatic species.

In 2009 a total of 198 million gallons of water was withdrawn for gas drilling, Zampogna noted. Using data from Marcellus wells drilled in Pennsylvania, SRBC found that on average it took 2.7 million gallons of water to hydraulically fracture a well. Of this, about 2.2 million gallons were fresh water; the remaining 0.5 million was re-used flowback. Some wells used even less water in their frack jobs as they injected foam to assist with the fracturing, Zampogna said.

As for recovery of fluids, SRBC found that only 15 percent of the fluids returned to the surface; the remaining 85 percent of the water containing frack chemicals remained in the formation.

Zampogna explained that once a gas drilling company withdraws water from a stream, it is lost to downstream uses. Because of the chemicals used in fracking, SRBC considers

all water withdrawn for drilling to be “consumptive use”. Gas companies pay a fee for the water they use – 28 cents per thousand gallons, or about \$750 for the 2.7 million gallons needed to frack a well. SRBC uses these funds to pay for storing water that can be released during low-flow seasons.

To protect freshwater resources, SRBC encourages drilling companies to consider using treated wastewater as well as recycling flowback from the wells. To reduce paperwork, the commission has approved water withdrawal sites that may be used for multiple wells.

Once a permit application is submitted, SRBC begins environmental screening and an aquatic sources review. They also notify the towns which then have a few months to respond. It usually takes anywhere from six to nine months for SRBC to complete a permit review, Ballaron said. “This gives people adequate time to comment on the application,” she added.

“How can town boards be more pro-active in this process?” asked Candor Town Supervisor Darlene Cobler. Ballaron responded that SRBC is in the process of uploading permit applications onto their website to make it easier for municipalities to review pending actions.

After SRBC approves water withdrawal permits, the town and county planning boards may then apply local regulations such as noise ordinances or permit requirements for activities in flood plains. Tioga County Planning Director Elaine Jardine urged municipal officials to give thought to their zoning and site plan review processes as they prepare for future water withdrawal permits.

To learn more about the water use permits go to the SRBC website at <http://www.srbc.net>.