

Breaking new ground on well water

By Nancy Petersen
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When EPA scientists talk about plumes, they don't mean feathers.

Plumes, for the U.S. Environmental Protection Agency, usually mean groundwater pollution of the worst kind — the kind often associated with Superfund sites.

Pennsylvania has 67 counties and 96 Superfund sites, but no statewide program for regulating wells and well-water quality. Nine of those sites are in Chester County.

Concern over hazardous plumes has led to the creation of a unique joint venture between the EPA and the Chester County Health Department to prevent people from drilling wells in dangerous areas, or have them take certain precautions if contaminants are found in their well water.

The program is being touted by the EPA as a model for the rest of the country. It began in November with the EPA supplementing Chester's well-permit program with a mound of federal data on the location of pollution plumes — the teardrop-shaped areas of underground contamination — and the types of contaminants found at the county's nine Superfund sites.

In turn, Chester County health officials are requiring anybody who

wants to drill a well into a Superfund site's plume area to first test for the specific contaminants that the EPA has found, said environmental health supervisor Maria Goman.

If standardized tests show that unsafe levels of the contaminants are present in the water, the county can deny the permit or require that the well owner install filtration systems, said Goman.

"It's an easy, low-effort procedure with high environmental benefits," said EPA project manager David G. Byro. "This way, we can protect people from drilling in dangerous areas."

Byro said that EPA typically will recommend that no new wells be drilled in areas of contamination around Superfund sites, but it's expensive and time-consuming to enforce such recommendations.

"There is no existing mechanism to stop people from drilling wells into the plume area," he said. "If someone wants a well, they drill."

Unless the well digger is in Chester County.

For years, the Chester County Health Department has run the only countywide well-permit program in the state, said Goman.

The program not only sets well-construction standards but also requires that the well water be tested

to make sure it is safe to drink. Usually, these tests are for elements like acidity, nitrates and bacteria, said Goman.

"In Pennsylvania, if you live outside of Chester County you can drill anywhere you want," said Goman, "and it's up to the homeowner to test for what they want. Many times, they will test for bacteria, but that's it."

Judging the safety of a glass of water strictly by taste, odor or color is foolhardy at best, according to Richard Stump, laboratory director for Suburban Water Testing Labs Inc. in West Chester.

"Some of the hazardous stuff doesn't smell at all or only smells when it's way beyond the safe level," he said. "Bacteria has no taste, odor or color, and it can make you sick in a matter of days."

Stump said the cost of a contaminant test is usually around \$150 but can go as high as \$300 or \$400. That's in addition to the normal testing required by the health department, which costs \$85, he said.

Thomas G. Keyes of Frazer has been drilling wells for 45 years, and has been trying to get some sort of state regulation of private wells for about that long, too.

"The state registers the people who own the machines," said Keyes. "But the industry recognized early [that]

people were dumping unacceptable solutions into the ground water and threatening it."

Any time the well-drilling industry tried to get some action at the state level to protect consumers, he said, it was ridiculed and accused of self-interest by legislators in Harrisburg.

While the need for state standards goes unanswered, Keyes says, he does what he can to protect his clients.

"We try to educate our customers about construction methods, and we do minimum testing for our customers for free," said Keyes. "Where permits aren't required, we recommend they get further testing."

Flo Neilson of the environmental group Clean Water Action said the lack of a state policy on wells is astonishing given the number of Superfund sites and the number of people dependent on groundwater.

"The perception people have, though, is that the government is taking care of these things," said Neilson.

Pointing to Chester's program, EPA project manager Byro said, "There is the potential to gain further environmental benefits nationwide by implementing similar procedures wherever a local government agency has a well-permitting program."