Sent: Tuesday, March 28, 2006 5:22 PM

Subject: NORTH CAROLINA PROBLEMS ARE MIRRORED ALL OVER THE WORLD

Dear Aguathin Dealer OnLine;

I have detailed to you in previous NewsBulletins and at Aquathin University, that "small" water systems, sometimes referred to as secondary water systems serving populations of 10,000 and 5,000 or fewer, have less restrictive / protective regulations than larger municipal water supplies...in other words, the 91 regs in the Clean Water Act do not completely apply.

Recently I sent you a NewsBulletin where an environmental attorney said water is bad, getting worse and there isn't enough funding in the foreseeable future to correct it. His educated opinion is ringing true loud and clear in the quick read below discussing 7000 small water systems serve 6.5 million people contaminated water...AAAAAAND there isn't enough people to check the systems, not enough money...and no enforcement to collect fines.

What you all need to understand is that this issue reaches large numbers of small water systems and their communities around the world. Keep watching your local newsmedia, cut out these articles, discuss them with your sharp Sales and Tech Teams, so that they are able to respond to questions from prospective Customers.

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Let me know what you AquathinK!

Warmest regards to all...as well, your comments are always welcome and very much appreciated.

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"Alfie" Alfred J. Lipshultz, President

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N.C. Water: Safe to Drink?

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Counties: Wake | Durham | Orange | Johnston | Chatham Topics: Crime & Safety | Health & Science | Education | Columnists: Dennis Rogers | Barry Saunders | Ruth Sheehan | Melanie Sill | Road Worrier

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State failing to ensure suppliers test your water Regulators overwhelmed by 7,000 systems; violators face little threat



ARSENIC: Because her tap water is contaminated, Crystal Marley uses bottled water in the confections she makes for the baking business she runs out of her Cedar Woods home near Hickory in Western North Carolina.

Staff Photos by Juli Leonard

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TODAY'S KEY FINDINGS

The News & Observer's investigation into the state's regulation of drinking water reveals disregard for safety of private wells, weak regulation of public water systems and widespread problems with lead testing.

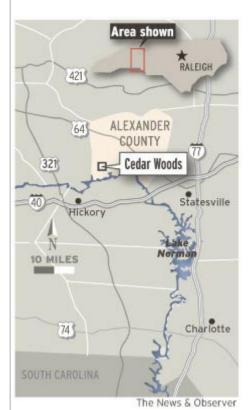
Highlights of today's report:

* North Carolina has an unusually high number of public water systems -

View a

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- nearly 7,000 -- and not nearly enough regulators to watch over them. Many of the systems are not being inspected by the state, and thousands don't test properly.
- * The Public Water Supply Section says it doesn't have enough people to investigate hundreds of cases of bacterial contamination reported each year by small water systems.
- * Hundreds of public water systems that are supposed to have a licensed operator don't, and state regulators have done little to enforce the requirement.
- * The state sends lots of letters threatening fines but rarely follows through. Two-thirds of the fines go uncollected.



Related Content

- Using The N&O as a guide, state responds to issues
- Small-time suppliers create big-time headache for state
- Worried about your water?

- Interactive map
- Violations Database: Public water systems in North Carolina
- Warnings, but no penalty (PDF)
- ☑ Most fines aren't collected

More N.C. Water: Safe to Drink?

- Clean wells left to chance
- State failing to ensure suppliers test your water
- Flawed test data hides contamination

PAT STITH AND CATHERINE CLABBY, Staff Writers

Kristi Killian, mother of a 5-year-old girl and pregnant with a baby boy, keeps a strict rule in her Alexander County mobile home: No one drinks tap water.

Her mother, who runs a cake-baking business next door, steers clear, too. Crystal Marley mixes bottled water in her Scooby Doo birthday treats and wedding day confections. Neighbors across the road won't even let their dogs drink it.

Supplied by a tiny and troubled utility, water in their Cedar Woods neighborhood is laced with arsenic at levels the state deemed unacceptable beginning in 2002. Repeatedly, state regulators have ordered the owner, pharmacist Alden King, to develop plans to clean it up. They have threatened him with fines. King missed state deadlines but never paid a cent. The water he pumps to close to 40 households remains contaminated.

"It's poison," said Marley, who has lived for 19 years in Cedar Woods, a mix of new and old manufactured homes in a rural stretch near Hickory, about 170 miles west of Raleigh. "I would have expected someone to step in and fix this."

Most people don't give water a second thought. They bathe in it, cook with it, give it to their children to drink. They trust their government to make sure their water is safe.

They are leaving a lot to chance.

A News & Observer investigation shows that the state agency responsible for making sure drinking water is safe isn't getting the job done. The Public Water Supply Section, with 98 employees, has been overwhelmed trying to monitor safety tests required of nearly 7,000 public water systems.

Those tests include checks for contaminants such as arsenic at Cedar Woods. Systems must also test for bacteria that can sicken or kill, but thousands of small systems don't obey laws requiring them to test their water and clean up contamination. The state has been unable to force compliance.

Jessica G. Miles, chief of the section, has repeatedly asked for help, but her requests for more people have been sidetracked by the state Department of Environment and Natural Resources and the Governor's Office.

The state appropriates just \$1.4 million a year -- 17 cents per person -- for Miles' budget. Most of

her section's \$10.6 million budget comes from federal and local money and from water system permit fees, which haven't been raised since they were instituted in 1992.

Immediate concern

North Carolina has more public water systems than any other Southern state and double the national average. Most are small mom-and-pop operations serving a few dozen to a few hundred people in rural neighborhoods or supplying water to schools, churches, day-care centers or small businesses in out-of-the-way places. Thousands of them aren't performing required tests, records show.

Bad water can kill quickly with bacteria, or it can kill slowly with arsenic or other contaminants. Lead, even in small amounts, can cause learning disabilities and behavioral problems in children.

Miles' immediate concern is bacterial contamination.

"That's what I worry about ... where you have somebody drink a glass of water and die," she said in an interview. "Or several people who drink a glass of water and die, and then we have the data to show that we knew that it was a problem."

Miles expressed confidence in the large public water systems, such as those in Raleigh or Durham. But she said if she were on the road in a rural area, she might not drink from a fountain at a gas station.

"I don't know if they're doing their testing or not," Miles said. "I might get the bottled water."

Until recently, it was impossible to know where all the problems were; employees were months behind in entering inspection records and test results. Documents in a Raleigh state office building were stacked on shelves or piled in boxes. Some documents needed to resolve violations might not have been missing. They just hadn't been filed.

"I'm not making excuses," said Terry L. Pierce, Miles' supervisor and director of the department's Division of Environmental Health. "It is what it is, and we're trying to correct it."

Last year, Miles said in her budget request that bacterial contamination had been found in 376 water systems in the past year and that most were not investigated. She said she needed 26 more employees, including inspectors. She didn't get any.

"Each positive sample has the potential to become another [Walkerton], Canada, or Milwaukee, Wisconsin, incident where people become sick or die as a result of insufficient state response to known or suspected contamination," her budget request said.

She said almost the same thing five years ago, in 2001, with the same result.

In Walkerton in 2000 and Milwaukee in 1993, a total of about 400,000 people got sick, and dozens died.

What was left out

What Miles did not put in her budget request is just as disturbing: More than 40 percent of North Carolina's 6.5 million public water system customers drank water last year that had not been

properly tested for various contaminants or, if the water was tested, it flunked.

So far, Miles' fears of widespread sickness from bacterial contamination have not been realized.

There were only 76 cases of cryptosporidiosis, which causes abdominal pain, nausea, diarrhea and, in rare instances, death, reported in North Carolina in 2004, the most recent year for which complete statistics are available.

"We investigate every one of those, and we have never traced it back to a public water supply," said Dr. Jeffrey Engel, the state epidemiologist. "We have traced it back to recreational exposures, maybe a single contaminated well, but never to a large distribution system."

The state enforces standards set by the federal Safe Drinking Water Act, which are beyond the technical expertise of some owners and operators. Meanwhile, water quality standards are getting stricter, one reason why more systems are failing water quality tests.

In Alexander County, for example, Alden King's water system was OK under previous standards for arsenic, which allowed 50 parts per billion. Now, the standard is 10 parts per billion, and he doesn't think he should be forced to meet the tougher test.

King doesn't believe arsenic, which occurs naturally in soil and minerals and can dissolve into water, is as dangerous as the government says.

"That's such an insipid thing; it's long range," said King, 73. "I don't think you could live long enough for it to hurt you."

Ken Rudo, a state toxicologist, says arsenic in drinking water is unsafe at its lowest detectable level, 1 part per billion. He says people should buy filters or switch to bottled water if arsenic is detected.

Arsenic levels in Cedar Woods have sometimes been more than double the 10-part-per-billion state standard, which the EPA instituted nationwide in January.

King drilled a well in 1985, buried pipes and started his own water system after carving up and selling part of a 60-acre farm he owned north of Hickory. People bought lots, moved into mobile or manufactured homes, and started buying water from him for \$10 a month.

Again and again, King's operation has come to the attention of the state Public Water Supply Section. In 1989, there was coliform bacteria in his water, state records say. In 1994, the state faulted King for not proving he tested for volatile organic chemicals, which can cause cancer. In 1997, on at least three occasions, an inspector said he saw no evidence that the well had been disinfected with chlorine, which is applied to kill bacteria.

But no problem at Cedar Woods proved as stubborn as arsenic, which when ingested over years can cause skin, bladder and other cancers, according to the EPA.

On July 23, 2002, the Public Water Supply Section informed King that arsenic contamination in his well -- at 18 parts per billion -- exceeded the limit of 10 parts per billion that the state adopted that year, four years ahead of EPA.

The state gave King almost 30 months, until Jan. 1, 2005, to submit a plan to reduce the

contamination. Less than a month later, the arsenic level rose to 23 parts per billion. King was ordered to submit his plan within 30 days.

After that, there were more tests, more violations and more letters, but King never delivered a plan.

King said in an interview that he tried but was unable to find an affordable way to fix the arsenic problem. He said he wasn't going to spend the \$65,000 or so he was told it would cost to install a filtering system to reduce the arsenic level.

The state threatened to fine King \$25,000 a day. But that didn't bother him because the state never followed through, he said.

"That's the way I'm natured," he said. "I can't worry about every little thing every day."

Fines go uncollected

Only as a last resort does the state fine public water systems that don't do the tests required of them or that won't fix contamination problems. And then, more often than not, it doesn't collect. The state reported to EPA that it has collected \$174,174 in fines over the past five years, 28 percent of what it estimates it assessed.

"We could get tougher with them...but we've not gone that route," said John McFadyen, Jessica Miles' deputy. "We're trying to get compliance. I guess if you issue a big fine, maybe that would encourage compliance. But, a lot of them, it would make it impossible for them to stay in business."

State computer records have been so poorly maintained that early this year, state officials couldn't say how many systems don't have certified operators. After ordering an inspection of paper records at its regional offices, they determined that at least 397 don't. That estimate is conservative, however, since many systems aren't being inspected.

Miles' agency essentially stopped enforcing the requirement for operators a year or two ago. The strategy was to wait until a system failed to perform the required tests, or until its water was contaminated, and then take action.

In her budget request last year, Miles asked for about \$1.5 million to hire additional staff. To get that money, she proposed raising the permit fees the state charges the larger public water systems serving residential communities. Those fees, which range from \$150 to \$850 a year, haven't been raised since 1992, when they were first imposed.

Her department, Environment and Natural Resources, knocked her request down to \$1 million and 17 new positions and then, in effect, killed it by assigning a low priority rating. Out of 27 items on its wish list of new budget items, the department ranked Miles' request 25th.

Dan Gerlach, a senior policy adviser who makes budget recommendations to Gov. Mike Easley, said that William G. Ross Jr., secretary of environment and natural resources, ranked the request so low that he didn't even look at it.

"I'm saying that they didn't make any case beyond what was on this paper," he said, referring to Miles' warning.

Ross said he felt he had made a "strong" case for the additional positions by proposing to pay for them with higher permit fees.

"We thought, hoped and argued that because it was receipt-based that it would be approved," he said.

But Gerlach said the governor had instructed him to consider an item's priority rating, not how it was to be financed.

As for Miles' earlier requests for help, in 2001 and 2003, Ross said the state had so little money then that it was a struggle just to keep the employees Miles had.

Help on the way?

The struggle may finally be ending with the Cedar Woods system -- with a push from state government. Four years after tests of Cedar Woods water alerted the state to the arsenic problem, King's system might be acquired by a company willing to fix it.

The Public Water Supply Section has designated about 50 water companies as troubled and nominated them for takeover by a larger system.

Last year, the agency's regional office in Mooresville pushed to add Cedar Woods to the list. The state would like to see it taken over by Aqua North Carolina, which owns close to 725 water systems in the state. With permission from the N.C. Utilities Commission, Aqua North Carolina would be allowed to pass on the cost of fixing the Cedar Woods arsenic problem to all of its nearly 75,000 customers.

Aqua North Carolina, which once operated King's system but dropped it because of liability concerns, intends to lay pipe to connect Cedar Woods with water originating in the city of Hickory, company President Neil Phillips said. King will turn his water system over to the utility practically for free. Cedar Woods residents, some of whom refuse to pay King the \$20 monthly fee he now charges, should receive clean water for about \$35 a month.

A deal, all concerned parties say, is close. But even if it goes through, it won't settle all the questions troubling King's current and past customers.

For years, they received conflicting messages. In 2003, the state required King to circulate notices saying that customers need not use an alternative water supply and that arsenic in water causes skin damage, circulatory problems and cancer only after "many years" of drinking tainted water.

But in 2004, the message changed. The N.C. Division of Public Health recommended people use bottled water or some other source for drinking and cooking.

Lewis Beckett and his wife, Thelma, lived in Cedar Woods for seven years before moving to land nearby serviced by their own well, which is free of arsenic. Like others in the neighborhood, they're not sure whether a colorless and tasteless menace harmed them.

"It couldn't have been good for us," Beckett said.

(Database editor David Raynor and news researcher Brooke Cain contributed to this report.)



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