

Chemical triggers alarm across U.S.

Town a case study on perchlorate, water and thyroid concerns



Ric Francis / AP file

The town of Rialto, Calif., population 91,000, has had to close six of its 13 water wells due to perchlorate contamination.

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The Associated Press

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RIALTO, Calif. - Like dozens of other towns in 36 states nationwide, this working-class suburb is facing an emerging threat of uncertain dimensions — a chemical used in rocket fuel and defense manufacturing that has befouled nearly half its drinking water supply.

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Concern spread along with the underground plume of water that carries the chemical from barren land that once housed World War II munitions, Cold War weapons-makers and, now, fireworks warehouses and a dump.

As one city well after another tested positive for perchlorate — six of the city's 13 wells in all — projected cleanup costs ballooned to more than double Rialto's \$40 million annual budget. The town sued the Defense Department and dozens of other suspected polluters, pleaded with residents to conserve water and hiked water rates 65 percent.

Officials and townspeople, meanwhile, want to know just how hazardous perchlorate is. High amounts can be dangerous — the chemical can interrupt the production of thyroid hormones, which are needed for pre- and post-natal development. But how much exposure should be permissible sparks debate in governmental and scientific circles.

The conclusion of city leaders: Piping any amount of perchlorate into homes posed an unacceptable gamble.

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Rialto is a case study of what can happen when a community refuses to take that risk. The choices faced here — when to close wells, whom to sue and how not to get sued — confront officials in 36 states where the Environmental Protection Agency says perchlorate has been detected.

A majority black and Latino town of 98,000, Rialto has palm-dotted streets with small single-family homes, its downtown a mix of old-time churches, homes, businesses and strip malls. Residents work in manufacturing or retail jobs, some slogging through a 50-mile commute west into Los Angeles.

The source of Rialto's perchlorate problem is a 2,800-acre plot north of downtown, once isolated but now surrounded by new homes, notes Bill Hunt, a geologist consulting for the city.



The military used the site as a pit stop for weapons bound for the Port of Los Angeles and then the Pacific theater in World War II. Later, Cold War defense contractors built, tested and stored rockets and munitions. Then came the fireworks industry and the county dump.

With each successive tenant, city officials believe, came growing deposits of perchlorate, an oxidant used in fireworks and road flares and as an accelerant in rocket fuel.

"We'll probably never know definitively who did what and how much," says Hunt.

Seven-mile plume

What the city does know is that 400 feet below ground begins a 7-mile plume of perchlorate that's polluting Rialto's aquifer, as well as groundwater drawn by residents of other nearby communities.

Standard filtering doesn't work on perchlorate, so the town has invested hundreds of thousands of dollars in equipment that uses a resin to rid water of perchlorate molecules. The water rate increases paid for those systems on two of the six contaminated wells — the others remain shut — and for the town's legal fight against the Pentagon, San Bernardino County and a host of corporations large and small, from General Dynamics to Pyro Spectaculars Inc.

"The city is trying to do their best, but by going after the polluters they've raised the water bills," said former Rialto resident Jan Misquez, who now lives in neighboring San Bernardino. "Us taxpayers are having to foot the bill."

None of the 42 defendants has admitted liability and some of the companies no longer exist, leaving the city to battle insurance companies with only paper connections to the events of decades ago.

Controversy over new standard

Perchlorate was little-known before 1997, when tests were developed that could detect it at lower levels than before. Soon afterward, the chemical was discovered in Rialto and found to be widespread around military bases and defense manufacturing sites.

In February, the EPA issued a safety standard that any amount of perchlorate less than 24.5 parts per billion in drinking water was safe. That was much higher than the 6 parts per billion California set as a

public health goal, and higher still than EPA's original draft standard of 1 part per billion, a proposal environmentalists embraced.

Pentagon officials, who could face billions in cleanup costs, criticized the 1-part-per-billion standard, instead favoring 200 parts per billion. A Pentagon spokesman declined comment for this story.

Thus far no state has issued a final drinking water regulation, and the EPA, under pressure from both sides, hasn't decided whether it will take such a step. A regulation would force cleanup, while the agency's safety standard offers only its guidance on exposure levels.

Town takes conservative approach

With Rialto's detections ranging as high as 88 parts per billion, city officials decided to shut down any well where perchlorate was found.

"Until there's more clarity on what is the safe amount of perchlorate for the human body to ingest, our council has chosen not to serve any amount," said City Attorney Bob Owen. "We can go online right now and find a Web site saying, 'Do you live in Rialto? Have you drunk water in Rialto? And if you have, join our group, we're going to all sue them.'"

No lawsuit has been filed, said Owen, who credits in part the town's decision to adhere to a zero-tolerance standard, unlike some other municipalities.

So far, Rialto has also managed to avoid any water shutoffs, thanks to a combination of conservation, recycling wastewater for non-drinking uses and tapping supplies from neighboring water districts on high-demand days.

Town officials believe the only long-term solution is forcing polluters to fund a cleanup.

"For us it's critical," said Rialto's water superintendent, Peter Fox. "We just don't have other water available to us."

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