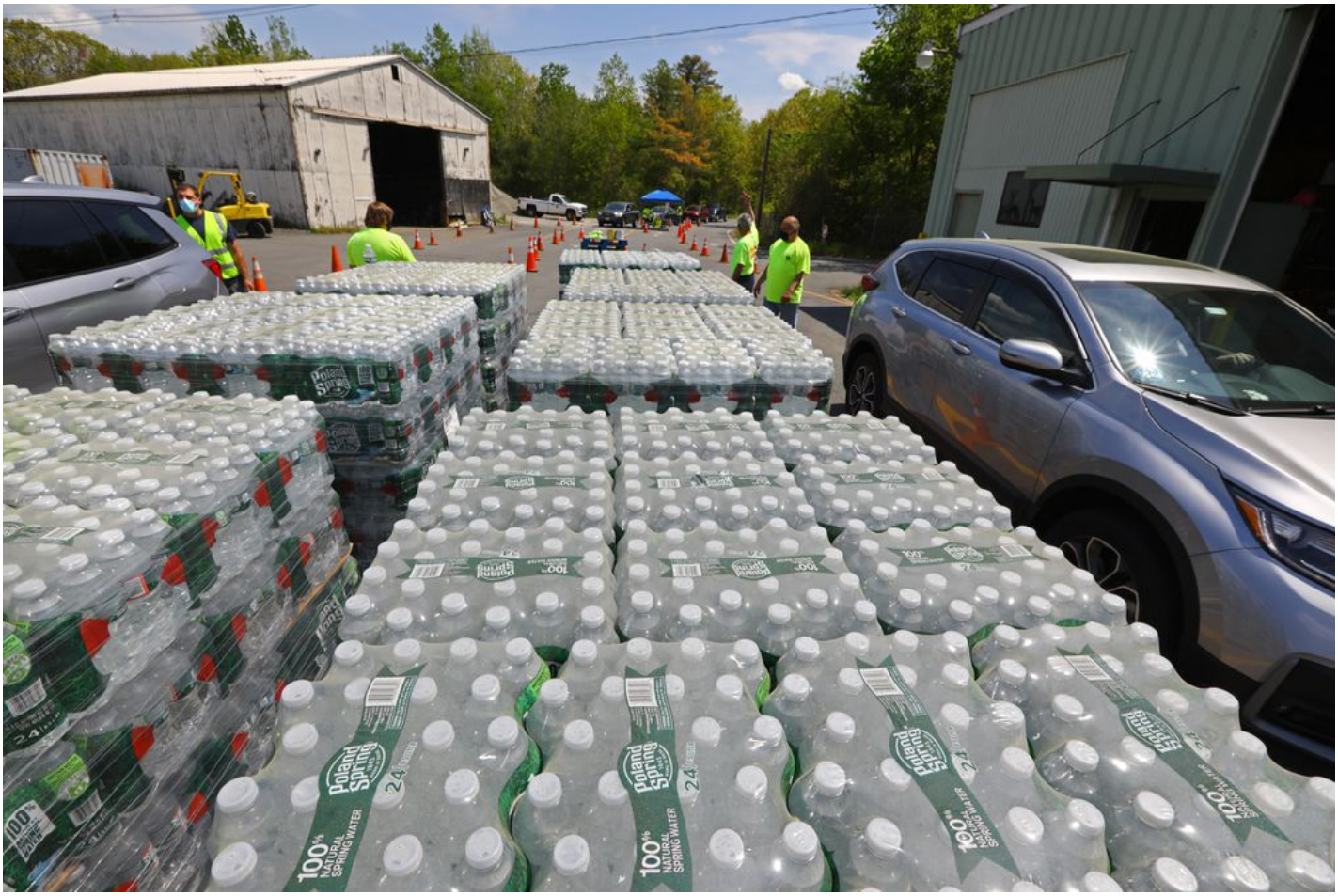
More communities are finding toxic chemicals in their drinking water

By **David Abel** Globe Staff, Updated May 23, 2021, 6:12 p.m.



Because of the elevated levels of PFAS found in its public water sources, Wayland had been distributing bottled water to the public. PAT GREENHOUSE/GLOBE STAFF

In Wayland, local officials had been distributing cases of bottled water to 1,400 households a week — nearly a third of the suburb's residents — and may have to seek a new water source that could cost more than twice the town's annual budget.

Facing similar contamination in their drinking water, Natick officials plan to spend millions of dollars on a high-tech filtration system. In Wellesley, after shutting down the

primary well that provided water to half their residents, officials are contemplating strict water-use limits for the first time.

“We’re definitely concerned,” said David Cohen, Wellesley’s public works director. “We’ll take all the steps we need to to address this.”

Since Massachusetts enacted new safety regulations last fall, more communities have found elevated levels of toxic chemicals known as PFAS in their drinking water.

Results are now available from half of those public water sources required to start testing — those that supply more than 10,000 people. Of them, 20 percent have reported concentrations above what state regulations allow.

Many, including Easton, Holbrook, and Randolph, are continuing to deliver the water, despite a growing body of research that links PFAS exposure to health risks. Known as “forever chemicals” because they never fully break down in the environment, polyfluoroalkyl substances have long been used in everything from non-stick pans to water-repellant clothing. They have been linked to cancer, compromised immune systems, and a range of diseases.

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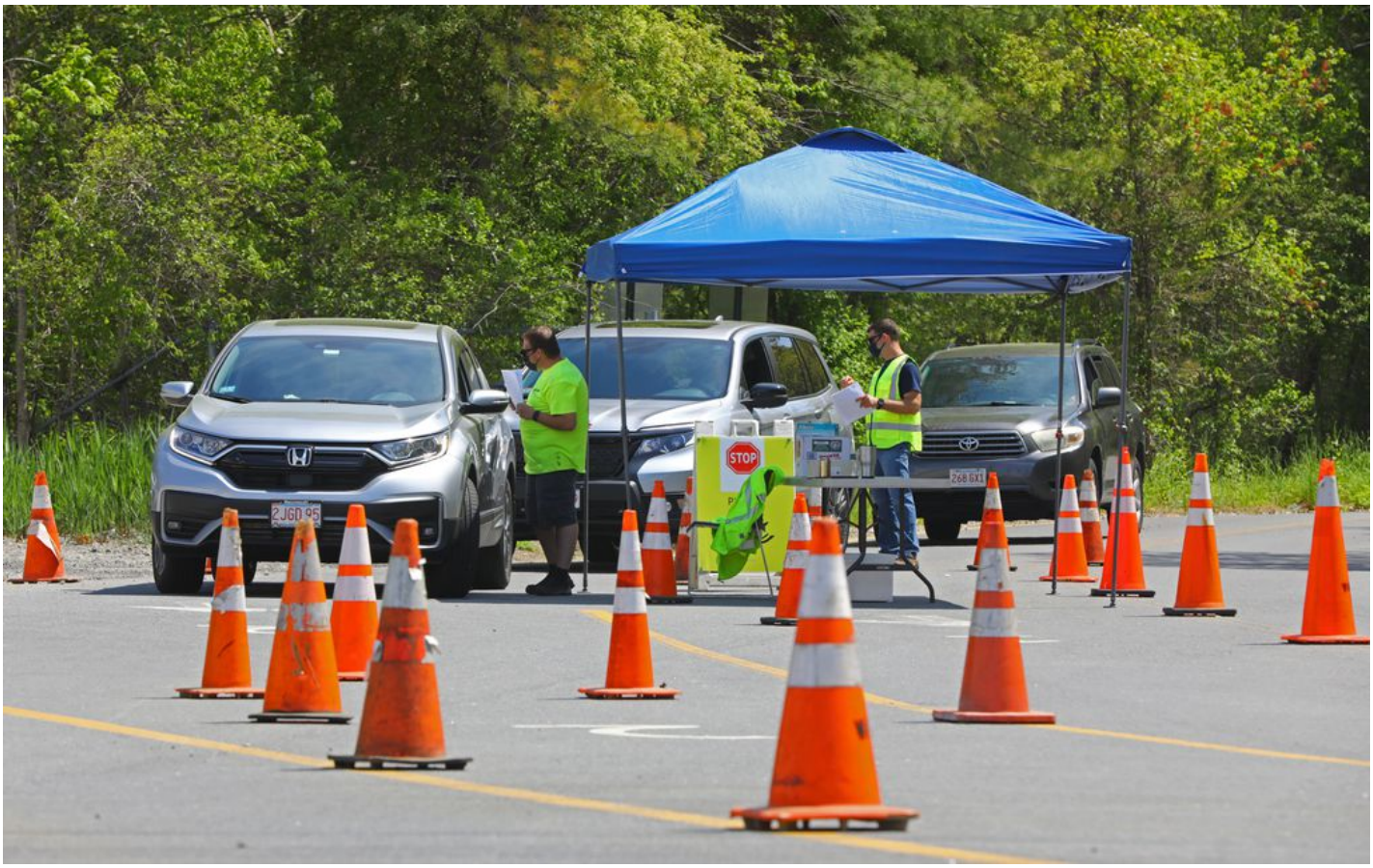
Last fall, state officials implemented some of the nation's most stringent rules, which require public water systems to test for six of the more common chemicals. If their concentrations exceed more than 20 parts per trillion — the equivalent of about 20 grains of sand in an Olympic-size swimming pool — water providers must alert their users and reduce the concentrations as soon as possible.

The number of communities in Massachusetts — and beyond — with elevated levels of PFAS has increased the concerns of scientists.

Some assert that the chemicals are so toxic, no quantity is safe in drinking water.

Last year, a study in the journal Environmental Science & Technology Letters estimated that as many as 80 million Americans could be exposed to more than 10 parts per trillion of just two of the chemicals in their drinking water. Scientists and environmental advocates are urging federal and state regulators to do more to protect the public, noting that there are no federal rules regulating PFAS and arguing the state's standards should be more stringent.

"It is extremely concerning to see such a potent and persistent class of toxicants that are pervasive in drinking water remain unregulated at the federal level," said Elsie Sunderland, a professor of environmental chemistry at Harvard University.



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Kyla Bennett, a former scientist at the US Environmental Protection Agency, noted that Massachusetts requires testing for just six of more than 9,000 known PFAS, some of which were recently detected in breast milk.

"We are only measuring a tiny fraction of potential contamination," said Bennett, who now serves as director of Public Employees for Environmental Responsibility in New England, an advocacy group. "While Massachusetts has one of the strictest PFAS limits in the country, it is still not protective of human health. Scientists have yet to find a safe PFAS."

As of mid-May, of 242 public water sources in Massachusetts that had reported test results, 50 had concentrations of PFAS that exceeded state rules. More than 1,000 smaller public water sources will be required to start testing later this year or next year.

State environmental officials say they're constantly reevaluating their standards but have no plans to change the rules to make them more stringent or ban the chemicals in specific products, as have several states. Last week, Vermont became the first state to ban PFAS in ski wax, carpets, and after-market treatments to carpets. It also joined several others in prohibiting the chemicals in food packaging.

"Massachusetts is aggressively addressing PFAS," said Martin Suuberg, commissioner of the state Department of Environmental Protection. "We will continue to work with communities and water suppliers to find these contaminants and ensure that all residents have safe water."

The state is allocating $2 million to help water systems with elevated PFAS levels, he said. Communities can use the money on short-term measures, such as providing bottled water or renting temporary filters. The state had previously set aside more than $28 million to help communities test for PFAS and improve their water systems.

"PFAS contamination poses a significant risk to public health, so it is imperative that public water suppliers address elevated PFAS levels in a timely manner," Kathleen Theoharides, the state's secretary of energy and environmental affairs, said in a statement.

While most suppliers have found ways to reduce their PFAS levels — either by blending contaminated wells with others that have lower concentrations of the chemicals or by connecting to alternate sources — at least 21 have had no choice but to continue delivering the contaminated water to residents, state officials said.

Among the communities still delivering water with elevated PFAS levels are Acton, Ayer, Dudley, Easton, Holbrook, Natick, Randolph, and Wayland.

"We're in non-compliance," said Louise Miller, town administrator of Wayland, which

provides water to about 14,000 residents. "We need to provide another source of water."

With repeated tests this year showing their wells exceeding the state limit, and no other viable options in the near term, the town has been spending $20,000 a week to provide thousands of residents with bottled water — a significant cost for a community with an annual budget of $4 million. The town recently switched from giving out bottled water to a rebate program for residents.

For a permanent solution, the town is debating whether to buy a special filter that would likely cost millions of dollars or connect to pipes from the Massachusetts Water Resources Authority, which could cost Wayland as much as $10 million, Miller said.

Like others, she worries what will happen if the federal government imposes more stringent regulations or the state stiffens its rules. It's unclear whether they would have to spend more to ensure they remain in compliance.

"To impose all of it on ratepayers at the local level seems unfair and really burdensome," she said. "I think both the federal and state government should look at spending more on specific water infrastructure. We're talking about a lot of money."

In Natick, officials had to shut down their largest well, which pumped as much as 5 million gallons a day to many of the town's 36,000 residents. They're now planning to spend at least $3 million on a carbon filtration system.

In recent weeks, as more people learn that their water had elevated levels of PFAS, town officials have been receiving more calls.

"They want to know how detrimental it is to their health," said Bob Rooney, Natick's interim town administrator. "People are really concerned, and all we can do is direct them to places where there's more information."

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