

How much of these 'forever chemicals' is in the water in your Taunton-area town?

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State Sen. Marc Pacheco said PFAS has been on his radar for years.

“PFAS has become a national top tier environmental and public health issue,” the Taunton Democrat said.

But it wasn't until citizens of Berkley and Carver approached him regarding their wells being contaminated by PFAS from landfills that he “became aware of the real world impact by PFAS on citizens I represent, from hearing from them directly, and from them not being able to use their own water source.”

In 2020, the Massachusetts Department of Environmental Protection set new drinking water standards for PFAS chemicals — a large group of dangerous man-made contaminants that have increasingly drawn the attention of regulators.

Often referred to as “forever chemicals,” per- and polyfluoroalkyl substances (PFAS), are found in industrial processes that produce things like furniture, clothing, cookware and fire retardants.

According to the DEP, the chemicals are toxic, don't degrade, spread fast and easily into water, soil, food and air, and have been linked to a number of cancers, birth defects and conditions that weaken the immune system.

And PFAS chemicals have been found to be detectable in the blood of at least 98% of Americans, according to a report from the CDC.

Municipalities are now required to test for PFAS levels in public water systems. The state and many cities and towns test for up to 18 PFAS chemicals, but they are specifically regulating six of the most adverse compounds under that contaminant group, referred to as the PFAS6.

The maximum contaminant limit set by the DEP for PFAS6 levels per drinking water sample is 20 ppt (parts per trillion). According to the DEP, 20ppt was established as the threshold for most people to safely drink the water.

Here are test results for Taunton-area towns:

Dighton

For Dighton's water system, PFAS levels are well below all thresholds, said Jeffrey Cloonan, superintendent for the Dighton Water District.

“If we have something in our water, I want to know about it, and I want to be public with it. You can't hide it. These are people's lives and livelihoods. If you have something in your system, you want to fix it, no matter the cost. This is public health and public safety,” Cloonan said.

The most recent testing from January of this year had levels at 5.4ppt, with the previous test from last year at 6.8ppt — well below the 20ppt limit.

Cloonan said due to the low PFAS levels, Dighton's on a reduced annual testing plan.

"We're extremely lucky. We're in good shape. The day we got these numbers was a very good day," he said.

Taunton

For 2021, the city of Taunton's quarterly testing for PFAS6 yielded results well below the limit, according to Michael Arruda, superintendent for Taunton's Water Division.

Results coming directly from Arruda were as follows: 4.74ppt in January; 2.34ppt in April; 2.25ppt in August; and 0ppt detected in October.

If PFAS levels were detected over 20ppt, repeat sampling would be done by the Water Department and the DEP, as well as area sampling to determine where it is originating.

"If the repeat samples came back high, the Water Department would work with DEP regulators to determine the best treatment process to remove the PFAS," said Arruda.

Arruda said that since every test produced low results, testing will only need to be done annually from now on.

Raynham

Raynham has two water districts.

Jon Chase, Superintendent for Raynham Center Water District, submitted the most recent test results, dated March 11. The finished treated results for its three water sources were 11.8ppt for the Lake Nippenicket well, 2.50 ppt for the North Main Street well, and 19.8ppt for Gushee Pond.

According to Chase, when it comes to Gushee and Lake Nippenicket, each site is comprised of multiple wells. Chase said when raw water from one of these wells registers high PFAS levels the state allows to blend from other wells to dilute concentrations and keep levels below 20ppt when treated.

Chase remains concerned about PFAS.

"Once out in the environment, PFAS won't go away. You would almost be better off to have a fuel spill, because at least when it's cleaned up, the residuals will go away over time," Chase said.

Over at the North Raynham Water District, the most recent PFAS test results, submitted by Superintendent Arthur Bendinelli, tested on Jan. 7 of this year, yielded no detectable results at its King Philip Treatment Plant, and 2.30ppt at the Arrowhead Filtration Plant.

Bendinelli noted the King Philip site utilizes an activated carbon removal filtration system. According to the EPA, activated carbon is a proven method for filtering out most, if not all, PFAS compounds.

The DEP lists the Raynham Athletic Club as a location that detected PFAS6 levels over the maximum contaminant level back in October 2021. Raynham Athletic Club has a private

water supply not under the purview of any of the town's water districts. The DEP classifies it as a transient non-community water system, which isn't subject to the maximum contaminant level for PFAS or the same regulations of public water systems.

Moles Environmental Services, based in Taunton, is contracted by the Raynham Athletic Club as consultant and operator of its water system. Owner Alex Moles explained the state is only requiring new quarterly testing to confirm the previous analysis, and those new results will determine how the Athletic Club proceeds. Until then, Moles said the Athletic Club isn't serving drinking water straight from the tap, but it is still safe and permitted for its water to be used for other purposes, like cleaning and showering.

Berkley

Free testing kits have been provided by the state for private well owners in towns where 60% or more of the drinking water comes from these sources, like Berkley. The DEP is ceasing accepting applications for free testing as of April 15.

17 residences participated in the free well testing program provided by the state. Only one of those wells tested with PFAS levels, approximately 7.61ppt, still well below the 20ppt threshold. All other wells did not find detectable results of PFAS.

Sharon Jamieson, secretary for Berkley's Board of Health, explained that many homes' private wells have filtration systems, or are highly encouraged to install one.

No further actions were needed according to the letter from the DEP provided with testing results.

Berkley Town Administrator Heather Martin-Sterling explained that the contamination from the landfill, located on County Street, that Pacheco alluded to goes back several years, but is currently only affecting three residences on Holloway Street who can't use their well water for consumption.

According to Martin-Sterling, most of Holloway Street receives its water from a waterline coming from Taunton. Plans are to extend the waterline to serve the homes on that street with the contaminated wells. The town administrator couldn't provide a timetable regarding the project.

Towns with water coming mostly from private wells still have to test water sources for public buildings. The most recent PFAS testing for Berkley, dated October 2021 in the EEA data portal, all had results below 20ppt.

Easton

Easton, back in 2019, discovered PFAS levels three times the safety standards in several of its wells. The town had to spend nearly \$10 million on new treatment processes to decontaminate the water and save the wells.

Bridgewater

In November of last year Bridgewater announced to its residents that samples from two of their wells had exceeded state safety standards, coming in at 20.65ppt, slightly above the limit. The town has contracted with an engineering firm for treatment and PFAS reduction plans.

Testing the waters

In 2021, according to guidelines published by the DEP, municipalities were mandated by the state to begin quarterly testing, though the start dates varied according to population sizes.

The bigger cities started at the beginning of the year and the smallest towns with less than 10,000 people didn't have to conduct their first round of testing until fall of last year.

The state's PFAS limits are stricter than the EPA's. The current federal advisory standard for PFAS in drinking water is still at 70ppt.

According to the DEP, the threshold established by the state concerns the more sensitive groups of people, pregnant women, infants and people with compromised immune systems, who are more susceptible and should switch to other sources of drinking water.

'Would you want to drink that water?'

Last October, a report from the Massachusetts Sierra Club, utilizing data from the DEP's testing database, showed that at least 70% of all the communities in the state have detectable levels of PFAS in both the ground water and treated water. At the time, 75 water systems in 56 communities had exceeded the quality limits for PFAS6, according to the DEP. Clint Richmond, toxic policy chair and member of the Executive Committee for Massachusetts Sierra Club, explained that, for the report, he took the highest observed value of each of the six PFAS chemicals tested in a municipality's water sources for a sum of detected levels.

While DEP testing standards are for finished or treated water, his report attempts to shed light on all sources by including raw, untreated water in his numbers.

"I'm saying this is a snapshot of your town, not just your drinking water. This is looking at water coming from your ground, whereas the DEP is instead trying to regulate what comes out of your tap. I tried to show the degree of contamination that's inherent," he said.

Richmond said the DEP and municipalities are only testing for 18 chemicals and regulating six, yet there are thousands of PFAS chemicals in existence.

"Everyone should care about the total PFAS burden, not just the six. There are towns that are below the DEP limit on the six, but extremely high for other chemicals. Would you want to drink that water?" Richmond asked.

Where does that leave Taunton gasification plant?

Legislative efforts in Massachusetts to regulate and reduce PFAS exposure continue to gain ground.

There are currently no standards of safety regarding PFAS levels in the air, which is why Pacheco, Taunton's state senator, earlier this year, presented bill S.2655, which attempts to establish a moratorium for all future city, town and state procurement of facilities that would emit PFAS.

Pacheco says the genesis of this bill is Taunton's current proposal to open up a gasification plant that would process sludge, a huge source of PFAS. The proposed plant would emit trace amounts of emissions via a smokestack.

“The bill uses a common-sense approach. Until we have those standards, this shouldn’t move forward, a facility that could emit cancer-causing chemicals into the air,” said Pacheco.

Other PFAS-related bills include Bill [S.1387](#) seeks to restrict PFAS chemicals in common consumer products, like beauty care products, cookware, and furniture.

Bill [S.1494](#) seeks to ban any food packaging containing PFAS chemicals. Often, packaging has PFAS chemicals to resist grease and fats from sticking to it.

Though not a sponsor, Pacheco is a proponent of these bills.

“In the long term, we need to get rid of these dangerous chemicals from the waste stream. The way to do that is to get rid of them upstream,” said Pacheco, adding that regulations will put pressure on manufacturers to find safe, or safer alternative chemicals for their products.

Individual testing results for water systems in municipalities can be attained through the [Executive Office of Energy and Environmental Affairs Data Portal](#).