

Raynham warned about PFAS in water

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RAYNHAM — More than half the town of Raynham was recently notified to take extra precautions with its drinking water.

Notices were sent to customers of Raynham Center Water District of elevated levels of PFAS chemicals found in recent testing results.

Often referred to as “forever chemicals,” per- and polyfluoroalkyl substances (PFAS), are man-made contaminants 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.

Jon Chase, superintendent for Raynham Center Water District, explained to Selectmen on Aug. 9 that all municipalities in the state are required to test for PFAS levels in public water systems.

The testing itself is specifically for 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).

Raynham Center Water District has three treatment plants: North Main, John P. Lynn and Lake Nippenicket. Only the John P. Lynn Treatment Plant tested higher than standard levels for PFAS6.

According to the mailed notice, distributed on Aug. 1, quarterly test results for the months of April, May and June at John P. Lynn Treatment Plant were

34ppt, 27ppt and 22.3ppt. for PFAS6. Chase explained the state requires notification to residents when the average of the quarterly results exceeds 20ppt.

What does this mean for Raynham?

Raynham Center Water District provides water to 60% of the town, according to Chase.

According to the resident notice, which pulls information from the Massachusetts Department of Public Health and the DEP, the 20ppt threshold is applicable to a lifetime of drinking the water. Short durations of consumption of water above the 20ppt limit are believed to be lower risk for most adults and older children. The notice indicates the water can be safely used for washing foods, brushing teeth and showering.

Otherwise, Chase said it comes down to a judgement call for the consumers, though he emphasized to Selectmen that the numbers are trending downward, saying the July test results for PFAS6 at John P. Lynn Plant came in at 21ppt. "The levels are so close to the standard right now," Chase said. Those people who are immunocompromised, such as receiving chemotherapy, or infants consuming formula mixed with water, are advised to only use bottled water for consumption. Chase also advised not to boil water because it does nothing to reduce the PFAS level. PFAS aren't bacteria. They are chemicals. All boiling will do is evaporate the water.

The cause

Chase believes a primary culprit for the elevated PFAS levels has been the drought this season. Chase said the water table in Raynham is the lowest it's been in at least five years. It's not that there's more PFAS. It's that the lower water table has meant higher concentrations of PFAS in wells.

According to Chase, each plant gets its water from multiple wells. When raw water from one of these wells registers high PFAS levels the state allows the town to blend water from other wells to dilute concentrations and keep levels below 20ppt when treated. Currently the North Main and Lake Nip treatment plants have increased their capacities while John P. Lynn Treatment Plant has reduced its output. Less well water is being utilized from Gushee Pond, the primary source for John P. Lynn.

Chase told the Selectmen that if the water table continues to drop, more restrictions on outdoor water use will have to be implemented by the town. Otherwise, his district will never be able to bring the PFAS levels back down to acceptable levels.

What about North Raynham?

This news only applies to customers of Raynham Center Water District. North Raynham Water District is reporting little to no detectable levels from its two treatment sources, according to Arthur Bendinelli, superintendent.

North Raynham's King Philip Plant had no detectable PFAS levels from its most recent test in July. King Philip 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. North Raynham's other treatment site, the Arrowhead Filtration Plant, detected only 2.1 ppt of PFAS6 from its test back in July. Bendinelli said that in light of Raynham Center's issues with PFAS, his district will be petitioning the DEP to activate a carbon removal filtration system for either the Arrowhead Plant or the well site feeding the plant that yielded the detectable PFAS levels.

What's being done to fix this issue?

Raynham Center Water District will continue regular testing and measures to bring PFAS levels back down to acceptable levels at John P. Lynn Plant. Chase said the district will be publishing monthly testing results for PFAS on its website from now on.

Chase told the Selectmen that before any long-term solution via active carbon filtration can be employed a pilot study approved by the DEP must first be done in order to assess what the most compatible system is for the district.

Chase said this pilot study will happen and will take several months to complete. The earliest that results from the study will be ready is December, meaning permanent treatment via active carbon filtration won't happen until sometime next year.

The intention is to install active carbon filtration at two sites. The most immediate plan will be installation either at the well site for Gushee Pond or the John Lynn Treatment Plant. The second installation would be for the Lake Nip treatment site, which, Chase said, has had PFAS levels creeping upward.

"In the meantime, we will do our best to keep the levels down," said Chase.

How much?

The biggest obstacle to this solution will be funding. Chase told Selectmen it will cost millions of dollars to purchase and install active carbon filtration systems. These are purchases that will eventually be passed down to the ratepayers, Chase said, through higher water bills.

The district is looking into funding options, such as grant opportunities, seeking either a zero-interest loan or one with principle forgiveness, or registering with the state's revolving fund program. Selectman Joseph Pacheco recommended tapping into the town's remaining American Rescue Plan Act (ARPA) funds for at least part of this expenditure. Chase said he doesn't think water districts qualified for that money.

But Pacheco said he doesn't believe there are any infrastructural limitations regarding the ARPA funds, saying Selectmen recently approved \$948,000 from the account for the Sewer Department's purchasing six replacement generators to prevent stoppage during a power outage.

"I believe it can be utilized to cover projects that would otherwise have to be passed down to the taxpayers," said Pacheco, adding the Selectmen don't require any approval from the state or town vote to authorize ARPA funds.

Pacheco said the board will look into and verify ARPA funds as an option for water treatment.