March 9, 2022

SUPPORT S 2298

PFAS in Drinking Water, Groundwater and Surface Waters Act

Honorable Dawn Euer
Chair, Senate Committee on Environment and Agriculture
82 Smith Street
Providence, RI 02903

Dear Chair Euer and Committee members:

We write in strong support of S 2298 - the PFAS in Drinking Water, Groundwater and Surface Water Act – to set a standard for poly- and perfluoroalkyl substances (PFAS). The bill would develop maximum contaminant levels (MCLs) for 6 PFAS: perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorohexanesulfonic acid (PFHxS), perfluorononanoic acid (PFNA), perfluoroheptanoic acid (PFHpA), and perfluorodecanoic acid (PFDA).

In the interim, the bill would also set an interim standard of 20 parts per trillion (ppt) for each of the six PFAS and for total PFAS in drinking water and also set standards for PFAS in ground and surface waters and adopt standards for PFAS monitoring in landfills.

Founded in 1936, Consumer Reports (CR) is an independent, nonprofit and nonpartisan organization - with over 9,000 members in Rhode Island - that works with consumers to create a fair and just marketplace. Known for its rigorous testing and ratings of products, CR advocates for laws and company practices that put consumers first. CR is dedicated to amplifying the voices of consumers to promote safety, digital rights, financial fairness, and sustainability. The organization surveys millions of Americans every year, reports extensively on the challenges and opportunities for today's consumers, and provides ad-free content and tools to 6 million members across the U.S.

While we welcome the proposed establishment of MCLs for PFOA, PFOS, PFHxS, PFNA, PFHpA and PFDA, we would like to outline recommendations on how the bill could be modified to set enforceable standards for the 6 PFAS, to reduce the proposed levels for total PFAS from 20 ppt to 10 ppt, and to set interim levels and final MCLs for PFOA, PFOS, PFHxS, PFNA, PFHpA and PFDA to 3 ppt.

PFAS are a group of more than 4,700 chemicals that are very widespread and dangerous. Three characteristics of PFAS make them especially dangerous to humans. First, they are extremely persistent, resistant to breaking down naturally in the environment and remaining in people’s bodies for years. This is why they have been described as “forever chemicals.”

Second, they are highly mobile, spreading quickly in the environment and prevalent throughout our environment. Finally, they can be toxic at very low doses—even at parts per trillion levels, they have been associated with a variety of severe health effects, including cancer.

Because PFAS are so persistent, prevalent, and toxic, they must be regulated. Indeed, given their widespread use, PFAS are detectable in the blood of 97 percent of people in the United States.[1] Some of the toxic effects associated with exposure to these chemicals include immunotoxicity, cancer, thyroid disease, birth defects, and decreased sperm quality.[2] They reduce the immune response to childhood vaccines and may increase the risk of infectious disease.[3]

In addition, PFAS exposure has been directly linked to several underlying conditions that make people more vulnerable to severe symptoms of COVID-19, including obesity, asthma, kidney disease, and high cholesterol.[4] Compared to people with no underlying conditions, patients who have these conditions are six times as likely to be hospitalized with COVID-19 and 12 times as likely to die of the disease.[5]

Rhode Island should be commended for its efforts to regulate PFAS contamination of drinking water. However, deciding to develop MCLs for only 6 of the more than 4,700 PFAS compounds just addresses the tip of the iceberg in terms of these chemicals. At a minimum, the bill should consider setting interim limits and MCLs for the 29 PFAS chemicals that the EPA states can be accurately detected using laboratory testing methods 537.1 and 533.[6]

Furthermore, we also believe that the interim limit and individual MCL are too high. The proposed total interim limit and individual MCLs are all 20 ppt. We note that there is far more toxicity data on PFOA and PFOS compared to any other PFAS. A number of studies have shown that very low doses of PFOA and PFOS can have adverse effects. A study published in 2013 found a decreased vaccine response in children that correlated with their body burden levels of PFOA and PFOS, thus demonstrating an adverse effect on the immune system.[7] This epidemiological data was used to recommend a limit of 1 ppt in water for PFOA or PFOS and this was assuming that all exposure to PFOA or PFOS was coming from drinking water, which we know is not the case.

A study by EPA and NIEH scientists, published in 2011, showed that the lowest dose of PFOA tested (10 ppb) in pregnant had an adverse effect on mammary gland development in the offspring.[8] Applying a 30-fold uncertainty factor to derive a reference dose yielded a recommended target limit of 0.8 ppt.[9]

Thus, 1 ppt would be an appropriate MCL for PFOA and PFOS. We note that the minimum reporting level for the 6 PFAS compounds (PFOA, PFOS, PFHxS, PFNA, PFHpA and PFDA) that are part of EPA testing methods 537.1 and 533 varies and can be as high as 3

ppt. Thus, the MCLs for PFOA, PFOS, PFHxS, PFNA, PFHpA and PFDA should be set at 3 ppt.

We also support treating all the PFAS compounds as a class. EPA's 2015 Significant New Use Rule for PFOA- and PFOA-related chemicals provided a definition for a category of a subgroup of the so-called long-chain PFAS chemicals, which are defined as having 8 or more carbon atoms. The idea was that these long-chain PFAS have more persistent in the environment and more likely to bioaccumulate than short-chain PFAS (having 7 or fewer carbon atoms), and so short-chain PFAS should be not persist in the body, so would not bioaccumulate and would consequently be less toxic.

However, in July 2020, FDA announced a voluntary phase out of use of certain short-chain PFAS (6:2 FTOH) for use as food contact substances after FDA scientists published their analyses of certain short-chain PFAS that showed that they did persist in rodent studies, such that "the data suggest the potential of 6:2 FTOH to also persist in humans from chronic dietary exposure. Further scientific studies are needed to better understand the potential human health risks from dietary exposure to food contact substances that contain 6:2 FTOH."[10]

In addition, an October 2021 EPA toxicity assessment of a short chain PFAS, GenX chemicals (a replacement for PFOA), show that GenX chemicals are more toxic than PFOA.[11] Thus, the short-chain PFAS are not necessarily less persistent in the human body and nor significantly less toxic than long-chain PFAS. In addition, a study published in 2020 looked at the Key Characteristics of Carcinogens framework for cancer hazard identification for 26 PFAS chemicals, including long-chain and short-chain PFAS (and all 6 PFAS mentioned in H 7233), and found that all 26 chemicals had at least one key characteristic of a carcinogen.[12] These studies suggest that short-chain PFAS are not necessarily safer than the long-chain PFAS that they are replacing.

Although there are thousands of PFAS, EPA has classified 669 as being active in commercial use.[13] In addition, in 2019 EPA scientists published a study testing for PFAS in paired source and treated water in 25 drinking water treatment plants throughout the US and found PFAS in all of them, with most having 10 or more of the 17 PFAS tested for (which included all 6 of the PFAS compounds mentioned in H 7233).[14]

Given the large number of PFAS, and the lack of adequate safety studies for the vast majority of them, and their widespread presence in the environment and drinking water systems, we think that all PFAS should be treated together as a class rather than looked at one at a time. Furthermore, given the lack of adequate safety studies for the vast majority of these compounds, we think that all of them should be considered to be as toxic as PFOA and PFOS, until such time as all adequate safety studies have been done that would suggest otherwise. To be protective of

public health, this would suggest that MCLs for all PFAS, and especially all 29 PFAS that can be tested for should have MCLs of 1 ppt. However, since the minimum reporting level for the 6 PFAS can be as high as 3 ppt, we urge that MCLs be set at 3 ppt for each of them.

S 2298 also sets an interim limit of 20 ppt for any of the 6 PFAS or for total PFAS. The International Bottled Water Association has urged FDA to set an enforceable limit of 5 parts per trillion (ppt) for one PFAS compound and 10 ppt for multiple PFAS.[15] This shows that an interim limit of 10 ppt for total PFAS can be achieved.

In sum, enactment of S 2298 would represent significant progress toward protecting consumers from exposure to PFAS through PFAS in drinking water. We urge you to modify the proposed bill to set MCLs for the all 29 PFAS, and not just the 6 PFAS mentioned, and to set interim limits of 3 ppt for PFOA, PFOS, PFHxS, PFNA, PFHpA and PFDA and a limit of 10 ppt for total PFAS. We strongly urge you to support this legislation that will protect Rhode Island residents from chemicals that threaten public health.

Sincerely,

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Senior Scientist

Brian Ronholm
Director of Food Policy

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[2] https://www.atsdr.cdc.gov/pfas/health-effects/index.html

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[6] https://www.epa.gov/pfas/epa-pfas-drinking-water-laboratory-methods

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[9] https://www.ewg.org/research/ewg-proposes-pfas-standards-fully-protect-children-s-health

[10] https://www.fda.gov/news-events/press-announcements/fda-announces-voluntary-agreement-manufacturers-phase-out-certain-short-chain-pfas-used-food

[11] https://www.epa.gov/system/files/documents/2021-10/genx-final-tox-assessment-general_factsheet-2021.pdf
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[13] https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/tsca-section-8a7-reporting-and-recordkeeping
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[15] https://www.consumerreports.org/bottled-water/fda-delays-setting-limits-on-pfas-in-bottled-water-a8292013869/