



Horsham Water & Sewer Authority

Comments to PADEP Proposed Rule to Set Maximum Contaminant Levels (MCLs) in Drinking Water for Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic acid (PFOA)

April 27, 2022

The Horsham Water and Sewer Authority's (HWSA) public water system supplies drinking water to approximately 8,000 residential, commercial and industrial customers using multiple deep water wells and purchased water from two adjacent water suppliers. Since July 2014 HWSA has been responding to the discovery of perfluoroalkyl and polyfluoroalkyl substances (collectively called PFAS) in local groundwater resources. We believe our experiences in piloting, permitting, installing and operating PFAS treatment systems in Pennsylvania gives us an unique perspective to comment on this proposed rule.

As background, in 2009, EPA established Provisional Health Advisories (PHA) of 200 parts per trillion (pp, or ng/L nanograms per liter) and 400 ppt for PFOS and PFOA, respectively. PHAs are health based advisories that serve as interim guidance while further research relating to the contaminants is performed.

Both compounds were detected at elevated levels in groundwater on the former Naval Air Station Joint Reserve Base Willow Grove (NASJRB) the existing Biddle Air National Guard Base (BANGB), and the former Naval Air Warfare Center (NAWC) linking the presence of PFAS in the local groundwater resources to historical activity at these military facilities.

Monitoring of HWSA's public supply wells performed in accordance with the EPA's Third Unregulated Contaminant Monitoring Rule (UCMR3) in 2014 revealed that five of the HWSA wells, 10, 17, 21, 26, & 40 contained concentrations of several PFAS. PFOS and PFOA levels in Wells 26 & 40 were found to be in excess of the PHA and both wells were immediately taken out of service. Both compounds were also detected in Wells 10, 17 & 21, but at levels below the PHA. Subsequent testing of the public supply wells at lower sensitivity levels than those prescribed by EPA under UCMR3 revealed the presence of PFAS at all 14 of HWSA's active wells.

As a result of sampling performed on behalf of the Navy, PFOS and PFOA were also discovered in many private wells surrounding NASJRB and BANGB at levels in excess of the PHA.

In May 2015, EPA issued an Administrative Order to the Air National Guard (ANG), a component of the U.S. Air Force, and the U.S. Air Force mandating response actions relating to the contamination and designating specific areas of responsibility outside of the BANGB boundaries to the ANG. Although none of HWSA's public supply wells are within the ANG area of responsibility, the area does include numerous impacted private wells.

Given the tie of the contamination to both military facilities, in July 2015 and November 2015 respectively, HWSA entered into Cooperative Agreements (CA) with both the Navy and the National Guard Bureau (NGB) providing grant funding to carry out the necessary response actions associated with the

contamination. Through the CA with the Navy, HWSA was able to install permanent Granular Activated Carbon (GAC) treatment units on Wells 26 and 40. Temporary treatment units were installed on Wells 10, 17 and 21.

In May 2016, EPA replaced the PHA with a Lifetime Health Advisory of 70 ppt for the combined concentration of PFOS and PFOA, prompting the shut-down of the HWSA's public supply Wells 10, 17, and 21 and doubling the number of private properties with individual private drinking water wells exceeding the health standard.

In light of concerns as to the evolving nature of the science regarding PFAS contamination in drinking water and the chronic, historic consumption in the communities immediately surrounding the military facilities, in June 2016, and October 2016 respectively, the Township and HWSA jointly adopted aggressive short and long term plans with a goal of reducing the average PFOS/PFOA concentrations over its entire water system to non-detect levels. A PFAS surcharge for the purpose of funding recurring short and long term remediation efforts outside of those being funded by the military was subsequently instituted in September 2016. Through the efforts of State Representative Todd Stephens, with the support of Gov. Tom Wolf, Horsham was awarded a \$10M grant in a bill that passed as part of the 2016-2017 state budget process. This funding was designated for capital costs associated with the long term plan. Through this grant, permanent GAC treatment units were installed on Wells 2, 4, 19, 20 and 22 as well as on the interconnection with Aqua Pennsylvania.

In 2017, HWSA began a pilot study to investigate the use of Anion Exchange (IX) treatment at our Well 10 in conjunction with the temporary GAC treatment. This pilot was among the first in the country for using IX for PFAS removal in drinking water and had the potential for Pennsylvania to truly be on the forefront in addressing PFAS contamination in drinking water. Unfortunately PADEP compelled HWSA (and our neighboring water systems in Warminster and Warrington) to pilot IX for *nearly 4 years* before granting HWSA construction permits for IX treatment at Wells 10, 17 and 21 in January 2021. It should be noted that anion exchange is commonly used in Pennsylvania for nitrate removal and is actually listed by USEPA as a "best available technology" (BAT) for perchlorate removal. Thus, it is not a particularly "innovative" or not well understood technology for those of us in the water industry. Sadly, during the 4 years we spent piloting IX, numerous IX systems for PFAS treatment were permitted, constructed and placed into operation in other states such as New Jersey, Connecticut, Colorado and California and the opportunity to be on the forefront was lost. The lack of communication and support from PADEP drove our utilities to write a joint letter to the Governor at one point just to get a meeting with PADEP to understand why our permit requests were not being approved. Providing real support and interacting with utilities dealing with PFAS contamination should be an essential element of any new PFAS regulation. When utilities feel it necessary to write the Governor to try and force a meeting with PADEP, it quite frankly is hard to characterize that as supportive.

Upon full transition from the short to long term plan once the IX treatment has been completed at Wells 10, 17 and 21, Horsham's public water supply will be sourced by 10 wells, all with permanent PFAS removal filters installed, purchased water from one adjacent supplier, also with a permanent PFAS removal filter installed, and purchased water from a second adjacent supplier that has PFAS at or around non-detect levels. HWSA has lost the routine use of 4 production wells as PFAS treatment is not currently in place at these wells.

Built upon the background provided above, the HWSA has been in the forefront in dealing with PFAS contamination in Pennsylvania's drinking water and has gained a wealth of experience on which to base our comments and recommendations enumerated below:

**Comments:**

1. Drinking water standards must be based on science and developed with transparency. HWSA applauds PADEP for contracting with Drexel University to provide professional independent toxicology services, investing in a monitoring program to get occurrence data, and conducting public meetings to bring transparency to this rule.
2. HWSA supports the establishment of MCLs for PFOA and PFOS, and supports the use of the existing federal Standard Monitoring framework for these compounds.
3. PADEP is characterizing this rule making as "an unprecedented step of setting a Pennsylvania-specific MCL for drinking water". This is not entirely true. When there is no reliable method that is economically and technically feasible to measure a contaminant at concentrations to indicate there is not a public health concern, EPA and PADEP set a "treatment technique (TT)" rather than an MCL. A treatment technique is an enforceable procedure or level of technological performance which public water systems must follow to ensure control of a contaminant. Under the Safe Drinking Water Act, MCLs and Treatment Techniques are considered equivalent as Primary Drinking Water Standards. As such the underlying processes for establishing either should be equal as well. They are at the federal level. However, Pennsylvania has at least two (2) times in recent years (the Pennsylvania Groundwater Rule and the Disinfection Residual Rule), established Treatment Techniques more stringent than federal regulations. Neither of those rules, particularly the Pennsylvania Groundwater Rule, came anywhere close to having the diligent underlying analysis or public participation process that has accompanied this rulemaking.
4. HWSA believes this rulemaking was conducted in an extremely professional and appropriate manner.

## Recommendations:

1. It can be anticipated that this rulemaking will uncover new water systems impacted by PFAS contamination. As HWSA can attest, this can be an almost nightmarish experience for water systems. Many of these systems will be small or medium sized systems with limited available resources. These systems will need support, both technically and perhaps financially, and they will need them immediately. PADEP, or perhaps the Governor's Office, should establish a point person above the PADEP program levels to work with the effected communities and water systems to help guide, navigate and if needed, expedite state actions. The intent of this rule is to provide safer, cleaner drinking water to Pennsylvanians, not to punish water systems, particularly for something they had no guilt in creating. A different mindset is needed when looking to assist utilities as opposed to just regulating them. Mitigating the impacts of PFAS contamination within a regulatory environment that is still evolving at both the state and federal level should be a collaborative process between PADEP and water utilities. Unfortunately, we have found that has not always been the case for us. Our hope is that utilities in Pennsylvania that are found to PFAS contamination under this rule making can experience a more collegial relationship with PADEP than we have had.
2. The existing analytical methods call for Field Reagent Blanks (FRBs) to be taken when utilities sample for PFAS. A field blank is used to document that contamination is not introduced during sample collection. The analysis of an FRB essentially doubles the analytical costs as another sample is analyzed in conjunction with the environmental sample. It is understandable when samples are first being taken that a FRB might be appropriate to give confidence in the results. However, once a utility has been determined to have PFAS contamination and has gone so far as to install treatment as we have, FRBs provide no useful purpose. HWSA has now a database of over 14,000 PFAS samples. What possible benefit or relevance does an FRB provide us? The answer is none. They are only driving the costs up at the ratepayers or taxpayers expense. Once utilities begin regular monitoring for PFAS, they should have the option to not take FRBs. PADEP needs to not be driven by the commercial laboratories but allow the use of common sense by utilities to protect its customers' interests.
3. The thorough, professional, open, transparent and scientifically based manner in which this rulemaking was conducted should serve as a model for the appropriate level of examination and analysis for Pennsylvania in establishing any future primary drinking water standard more stringent than federal regulations, whether an MCL or TT.