California Farm Bureau

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Office of Ground Water and Drinking Water
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Docket ID No. EPA-HQ-OW-2022-0114, Per- and Polyfluoroalkyl Substances National Primary Drinking Water Regulation

The California Farm Bureau is a non-governmental, non-profit, voluntary membership California corporation whose purpose is to protect and promote agricultural interests throughout the state of California and to find solutions to the problems of the farm, the farm home, and the rural community. California Farm Bureau is California's largest farm organization, comprised of 53 county Farm Bureaus currently representing approximately 29,000 agricultural, associate, and collegiate members in 56 counties. California Farm Bureau strives to improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable food and fiber supply through responsible stewardship of California's resources.

On behalf of California family farmers and ranchers, California Farm Bureau appreciates the opportunity to submit these comments to the U.S. Environmental Protection Agency ("EPA") in response to its proposed rule to set National Primary Drinking Water Regulations (NPDWR) for six PFAS chemicals,[1] including perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). While California Farm Bureau supports EPA's underlying goal of addressing widespread contamination of the environment caused by historic use of PFOA and PFOS, the proposed Maximum Contaminant Level (MCLs) of 4 ppt for PFOA and PFOS and the designation of a hazard index for PFNA, PFHxS, Gen X, and PFBS overlooks the many challenges that will be placed on farm families located in rural communities.

California Farm Bureau shares the concerns regarding the health impacts of PFAS exposure. The research to prove causation is still under development and we encourage this work to continue. In addition, many additional factors must also be considered when developing regulatory limits. For this reason, we offer the following comments which outline the challenges we foresee with setting the drinking water MCL for PFOA and PFOS at the very low level of 4ppt. We are additionally concerned that the costs to rural farming communities will be disproportionally burdensome and ask that this review be taken into consideration.

[1] "Perfluoroalkyl or polyfluoroalkyl substance" (PFAS) means a non-polymeric perfluoroalkyl or polyfluoroalkyl substance that contains at least 2 sequential fully fluorinated carbon atoms, excluding gases and volatile liquids, that is a hazardous substance (as defined in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601)).

The Challenges in Reaching These Levels Have Been Underestimated

While farmers, ranchers, and other agricultural producers support a national drinking water standard for PFOA and PFOS and other PFAS chemicals based on the best science available and an evaluation of risk, there are substantial questions and concerns related to EPA's current proposal. The extensive review of the proposed cost-benefit analysis, completed by the U.S. Chamber of Commerce, highlights costs associated with this rule have not been accurately calculated for a variety of reasons. For example, the U.S. Chamber analysis highlights the following:

- **Lack of occurrence data at the proposed MCL level**. EPA does not have a robust understanding of occurrence levels at the proposed MCL levels for PFOA and PFOS or the other four PFAS. This lack of occurrence data for a preliminary regulatory determination requires more thoughtful and thorough analysis.

- **The hazard index approach is problematic.** The hazard index approach for PFNA, PFHxS, Gen X, and PFBS has never been used in setting an MCL, and it presents both technical and legal questions about how it would be implemented.

- **There is limited understanding of risk at these levels.** EPA's Reference Dose for PFNA, GenX, PFHxS, and PFBS chemicals is based entirely on laboratory animal studies, even though EPA itself advises "Adequate human data are the most relevant for assessing risks to humans." There is significant uncertainty regarding the health risks at the proposed MCL levels for all six PFAS. The World Health Organization's recent study on potential guidelines for water quality, for example, proposed 100 ppt based on the most relevant public health data and seems to be consistent with known risk. EPA's Science Advisory Board expressed these same sentiments and determined that EPA needs more transparency in how they assess studies, better information on the metrics of including specific studies or not, and inclusion of more human studies in their assessment.[2]

- **The Safe Drinking Water Act requires consideration of the costs and benefits.** The estimated annualized costs for a proposed MCL of 4 ppt for PFOA and PFOS are exorbitant. The significant costs and impacts, and their connection to other elements of the PFAS Strategic Roadmap such as the proposed hazardous substance designation under CERCLA, require further analysis and consideration.

[2] See Science Advisory Board Letter to Administrator Regan, August 22, 2022, available at: https://sab.epa.gov/ords/sab/f?p=114:0:6179756424602:APPLICATION_PROCESS=REPORT_DOC:::REPORT_ID:1105

- **Failure to use non-metro median income data.** The cost-benefit analysis that the agency prepared relies solely on national median income which is not representative of the entire country. EPA fails to consider the non-metro median income, where this rule will have a disproportionate impact.

- **Infrastructure Investment and Jobs Act (IIJA) funding will be insufficient to cover the costs of compliance.** The investment needed to reach proposed MCL levels moves well beyond the ability of communities to afford and beyond the potential funding available in the IIJA. Simply put, the compliance costs are too high.

There are a number of other issues associated with the proposed MCLs that deserve in-depth discussion, including the benefits identified by the agency, the health end points, and the possible conflict between other Administration policies. We hope that the EPA will consider all of these factors before finalizing this proposed rule.

Rural Communities Will Be Disproportionately Impacted

Unfortunately, rural communities often have far less resources and the economy of scale to address expensive federal regulatory requirements. For this reason, we believe that drinking water utilities in many rural areas will experience additional challenges in meeting the 4ppt standard outlined in this proposed rule as they seek to comply. Such agencies often end up incurring capital, annual operating and maintenance, life-cycle, and annualized costs, resulting in such costs being passed on to water users. We are specifically concerned about the costs associated with acquiring and maintaining technology, obtaining appropriate testing, and methods related to disposal and destruction of media which we project will weigh heavily on rural communities.

Technologies
In order to meet the 4ppt standard for PFOA and PFOS, rural water utilities will have to obtain and install new technologies. As outlined in the American Water Works Association's (AWWA) recent *WITAF 56 Technical Memorandum: PFAS National Cost Model Report*, treatment strategies for PFAS in drinking water include both proven, commercially available technologies as well as emerging technologies. Commercially available technologies that have been demonstrated at full scale in the field to reduce concentrations of PFAS in drinking water are limited to the following:

- Granular activated carbon (GAC).
- Ion exchange (IX).
- Nanofiltration (NF) and reverse osmosis (RO).

Treatment considerations for the application of each of these technologies are described in the full report. While there are many variables that contribute to the specific costs associated with reaching the 4ppt standard, the report incorporates the most obvious operating costs into their cost models. These include media replacement, membrane replacement, power, maintenance, water disposal, chemical consumption, and labor. The report also contains considerable explanation of their methodology and ultimately finds that the national cost for water systems to install treatment to remove PFOA and PFOS to levels required by this proposal will exceed $5.2 billion annually.

Specific to rural drinking water utilities, we are additionally concerned about the availability of these technologies, especially since drinking water utilities will be required no more than three years to obtain, install, and implement such systems. Further, we have been advised that supply chain issues are impacting technologies such as granular activated carbon, creating additional concern that supplies will be further limited. Historically, priority is often given to large, metropolitan systems, meaning rural facilities will undoubtably face more challenges in obtaining high-demand technologies.

Access to contractors needed to install these technologies has additionally been identified as a concern by organizations representing rural water communities. Because contracts with large water systems are more lucrative, smaller systems inevitably fall to the bottom of the priority list. Facilities will also need to bring in more employees to oversee the operations, maintenance, and treatment of the equipment. This will require specific training and trainer shortages have already presented challenges. Staff shortages, even for the existing work required to safely operate and maintain drinking water systems, are widespread. For example, a 2021 AWWA survey on staffing and supply chain needs, found that 40 percent of drinking water utilities of all sizes are struggling to fill positions at their facilities, and employee turnover has doubled. For these reasons, we urge the agency to reevaluate the implementation period and consider the option of a tiered roll out with larger utilities moving ahead first to prevent a bottleneck on technologies and financial resources.

Testing
Testing availability is a significant concern for all drinking water utilities regardless of size. National implementation of additional MCLs will further compound the shortage. Many water utilities are already having to comply with state issued drinking water standards and are experiencing long delays in getting results back from laboratories. According to the AWWA, there are 66 laboratories that are available nationwide for PFAS testing. Currently, these labs test between 20,000-25,000 samples annually. Should the proposed rule be finalized, initial monitoring requirements will trigger testing requirements on up to 66,560 systems. It is estimated that over a three-year period, upwards of 280,000 samples will need to be tested to determine initial status, sampling for piloting, and performance testing. We believe that testing availability presents a significant hurdle and EPA must develop a plan. Additionally, while there may be an opportunity for large facilities to create an in-house testing method, that will not be a universal option for smaller operations. Accuracy also remains a concern given the proposed MCLs for PFOA and PFOS are incredibly low. There is a high risk of contamination during the testing process and inaccurate results has the potential to result in costly compliance measures.

Disposal
EPA is obligated by statute to issue periodic guidance, every four years, on the destruction and disposal of PFAS compounds. EPA's initial guidance document submitted to Congress reported on various technologies that have been utilized as well as those under evaluation for use in the management of PFAS and PFAS-contaminated media. The lack of clear guidance and standards for the management, treatment, and destruction of PFAS compounds continues to present significant challenges for those parties managing PFAS compounds and contaminated media.

Because of this, much of this material is being stored in anticipation of EPA issuing more definitive guidance.

EPA's PFAS Strategic Roadmap only committed to meeting its statutory deadline of December 2023. This proposed drinking water standard of 4 ppt will require drinking water providers to treat drinking water sources for PFOA and PFOS and thus create more of a need for the management of treatment residues. Additionally, the Roadmap did not identify plans to address PFOA and PFOS under the Resource Conservation and Recovery Act (RCRA), which, among other things, would have required EPA to conduct a rulemaking to establish management, treatment, and disposal standards that would apply to all RCRA-regulated PFOA and PFOS waste anywhere in the United States. The absence of regulatory requirements, or at least clear guidance on management, treatment, disposal, and destruction guidelines, hampers the ability of drinking water utilities to develop the management infrastructure needed to address PFOA and PFOS contamination. Additionally, responsible parties lack places to send contaminated materials for appropriate management and disposal.

American Water Works Association | WITAF 56 Technical Memorandum

Appendix A. Modeled Cost Comparison Tables

Table A-1 National Cost Burden by System Size for 4 ppt PFOA, PFOS

4 ppt PFOA, PFOS MCL						
PWS Size Category	Population Range	Average CAPEX/PWS	Average O&M/PWS	Annualized PWS Cost	Estimated Number of Impacted PWSs	Annualized National Cost
1	<100	$1,920,000	$72,000	$253,000	2167	$548,251,000
2	101-500	$3,400,000	$60,000	$381,000	2469	$940,689,000
3	501-1,100	$4,620,000	$63,000	$499,000	609	$303,891,000
4	1,001-3,300	$5,510,000	$57,000	$577,000	858	$495,066,000
5	3,301-10,000	$10,560,000	$176,000	$1,173,000	781	$916,113,000
6	10,001-50,000	$24,490,000	$372,000	$2,684,000	255	$684,420,000
7	50,001-100,000	$45,510,000	$512,500	$4,808,000	64	$307,712,000
8	100,001-1,000,000	$110,880,000	$891,000	$11,357,000	71	$806,347,000
9	>1,000,000	$507,500,000	$3,045,000	$50,949,000	4	$203,796,000
	All Systems				7278	$5,206,285,000

Given the costs and the challenges associated with obtaining the necessary technologies, availability of testing, and the lack of disposal methods that we have already outlined, we recommend that the EPA consider extending the implementation period, particularly for small, rural water utilities. We strongly believe these systems need additional implementation time and resources to ensure that they are in compliance with any new standard adopted in a final rule. As previously mentioned, at minimum, the EPA should consider a tiered roll out on implementation.

Costs to Rural Households
Individual households will also experience financial impacts from this proposed rule. While financial impacts to individual households will vary by specific PFAS levels, system size, and other factors, we are specifically concerned about the impacts on rural households. As illustrated in the graph below, meeting the 4ppt standard would be significantly more expensive for public water systems that service less populated areas. AWWA estimates the annual costs of the proposed rule on communities with populations of less than 100 will cost between $10,000 and $11,000 per household, a significant increase for these households.

American Water Works Association | WITAF 56 Technical Memorandum

Table 7-1 Annual Costs to Household for Removing PFAS from Drinking Water

PWS Size Category	Population Range	Average Service Population	Approximate Range of Costs per Household
1	<100	59	$10,090 - $11,150
2	101-500	245	$4,045 - $4,245
3	501-1,100	736	$1,765 - $1,910
4	1,001-3,300	1,939	$765 - $800
5	3,301-10,000	5,696	$525 - $545
6	10,001-50,000	20,613	$335 - $340
7	50,001-100,000	67,417	$185 - $195
8	100,001-1,000,000	204, 194	$145 - $160
9	>1,000,000	1,700,000	$80 - $105

Federal Funding is Limited

The agency has claimed that various federal funding streams are available for drinking water utilities to adapt to this rule. However, there remains a failure to recognize the difficulties that small, rural communities face in competing for and obtaining these monies. In a May 11th Small Business Environmental Roundtable, EPA staff highlighted the following funding opportunities that were authorized through the IIJA:

- $11.7 billion to the Drinking Water State Revolving Fund (SRF)
- $4 billion in SRF for emerging contaminants
- $5 billion to Water Infrastructure Improvements for the Nation (WIIN) Grants to address emerging contaminants.

While it is encouraging to see this level of federal investment in protecting our drinking water and addressing emerging contaminants like PFAS chemicals, there is not sufficient financial resources to cover the costs of this rule for every water utility. Additionally, these resources are often devoted to projects that benefit large population areas.

Conclusion
California Farm Bureau encourages EPA to reevaluate the proposed MCLs for these six PFAS chemicals so that the final rule includes an achievable standard that is not disproportionally burdensome to rural communities. If there are questions about these comments, please contact Kari Fisher at kfisher@cfbf.com.

Sincerely,



Jamie Johansson
President
California Farm Bureau