BACWA
BAY AREA
CLEAN WATER
AGENCIES

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Washington, DC 20460
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Subject: BACWA Comments on 2024 Draft PFAS Human Health Water Quality Criteria (EPA-HQ-OW-2024-0454-0001)

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to provide comments on the draft human health water quality criteria for perfluorooctanoic acid (PFOA), perfluoro-octane sulfonic acid (PFOS), and perfluorobutane sulfonic acid (PFBS). BACWA is a joint powers agency whose members own and operate publicly owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over seven million people in the nine-county San Francisco Bay Area (Bay Area). BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health.

As shown in the table below, the draft water quality criteria for PFOA and PFOS are several orders of magnitude lower than concentrations recently measured in Bay Area wastewater effluent and in San Francisco Bay. The draft water quality criteria for PFOA and PFOS are also several orders of magnitude lower than the detection limits for these compounds in wastewater and in San Francisco Bay, far below the detection limits in EPA's proposed Clean Water Act analytical method (Method 1633A), and also far below EPA's drinking water Maximum Contaminant Level of 4 ppt (not shown). The wide gap between the proposed water quality criteria and current environmental concentrations demonstrates the enormity of the challenge facing POTWs.

Criteria or Measured Concentration	**Concentrations of PFAS compounds** (ng/L or ppt)		
	PFOA	**PFOS**	**PFBS**
EPA Draft Human Health Criteria: Water and Organisms	0.0009	0.06	400
EPA Draft Human Health Criteria for Organisms Only	0.0036	0.07	500
Bay Area Wastewater Effluent[(a)], Average ± Standard Deviation	7±1.4	5.3±1.7	2±2.3
San Francisco Bay Concentrations[(b)], Average ± Standard Deviation	1.1±0.93	1.5±1.6	0.68±0.82
Detection Limits			
Method Detection Limits for Bay Area Wastewater Effluent[(a)], Range	0.37-1.5	0.37-1.5	0.37-10.8
Method Detection Limits for San Francisco Bay[(b)], Range	0.44-0.55	0.44-0.55	0.44-0.55
Method 1633A Pooled MDL[(c)]	0.54	0.63	0.37

Sources:

(a) Table 7 and Table D.3 of Lin, D.; Mendez, M.; Paterson, K. 2024. *Study of Per- and Polyfluoroalkyl Substances in Bay Area POTWs: Final Report*. SFEI Contribution No.1145. San Francisco Estuary Institute, Richmond, CA.

https://www.sfei.org/sites/default/files/biblio/2024-11/BACWA%20PFAS%20Final%20Report%20w%20Appendices_Mar%202024.pdf

(b) Table 2 and Table A1 of Mendez, M; Trinh, M; Miller, E; Lin, D; Sutton, R. 2022. *PFAS in San Francisco Bay Water*. SFEI Contribution No.1094. San Francisco Estuary Institute, Richmond, CA. https://www.sfei.org/sites/default/files/biblio_files/PFASinBayWater2022_Final_0.pdf

(c) EPA. 2024. *Method 1633, Revision A - Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS.* EPA 820-R-24-007. https://www.epa.gov/system/files/documents/2024-12/method-1633a-december-5-2024-508-compliant.pdf

Although treatment technology is emerging to sequester and destroy PFAS in specific applications, such as industrial waste streams and drinking water, it is not yet economical to deploy such technology at POTWs. BACWA has supported recent scientific studies of PFAS in Bay Area wastewater and found that residential users – rather than industrial users -- appear to be a dominant source of PFAS to Bay Area wastewater treatment plants[1]. Since PFAS is ubiquitous in residential wastewater and treatment is currently infeasible, BACWA strongly believes that **source control is our most important tool to address PFAS pollution**.

Bay Area wastewater agencies are already working on PFAS source control on scientific, legislative, regulatory, and public outreach fronts. We respectfully ask for EPA's assistance in this effort, which would result in reduced public exposure to PFAS from consumer products, as well as reduced PFAS loading to POTWs. The draft human health criteria for PFOA and PFOS indicate that a coordinated, multi-agency response is needed on source control. BACWA suggests the following EPA actions, at a minimum:

- Development and adoption of Effluent Limitation Guidelines under the National Pretreatment Program for known industrial sources of PFAS, including landfills. EPA has already committed to action on this front under Effluent Limitation Guidelines Program Plan 15 and should hasten to complete the effort. Although industrial sources may not be the dominant source of PFAS at many POTWs, including those in the Bay Area, they are a source for which existing regulatory tools could result in load reductions.

- Completion of a nationwide study of PFAS in wastewater treatment plant influent, including domestic and industrial sources. BACWA has already completed a similar study in the San Francisco Bay Area[1], and the effort has informed our belief that source control efforts should include consumer products, not just industrial sources of PFAS.

The two actions listed above were both previously identified in the EPA PFAS Strategic Roadmap[2]. In addition, BACWA requests EPA's cooperation on efforts to eliminate non-essential PFAS from consumer products such as food packaging, cosmetics and personal care products, textiles, paints, automobiles, sports equipment, electronics, and pet care products. The scientific information used to develop the draft human health water quality criteria amply demonstrate that PFOA and PFOS – and their precursor compounds -- should not be used in such products. To continue developing scientific information to support these efforts, BACWA is currently working with San Francisco Estuary Institute on the *PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay* project, which is partially funded by a grant from the EPA's San Francisco Bay Water Quality Improvement Fund. We plan to collect additional wastewater samples as part of this study in the coming year.

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[1] D. Lin et al. "Residential Wastewater as a Major Source of Per- and Polyfluoroalkyl Substances to Municipal Wastewater." *ACS ES&T Water,* 2024, 4, 11, 4847–4857. https://doi.org/10.1021/acsestwater.4c00507.

[2] PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024. https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024.

Thank you for your consideration of our comments. We look forward to continued cooperation with EPA on understanding and solving the problem of PFAS pollution.

Respectfully Submitted,

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Bay Area Clean Water Agencies

cc: BACWA Executive Board
BACWA Permits Committee