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ORANGE COUNTY WATER DISTRICT
ORANGE COUNTY'S GROUNDWATER AUTHORITY

October 27, 2021

Hermelinda Jimenez
Pesticide and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency
P.O. Box 4010, MS-12B
1001 I Street,
Sacramento, California 95812
Attention: PHG Program

Transmitted via electronic upload to <https://oehha.ca.gov/water/comments/comment-submissions-announcement-availability-draft-technical-support-document-and>

Subject: Comments on Draft Technical Support Document for Proposed Public Health Goals for (PHGs) for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) in drinking water

Dear Ms. Jimenez,

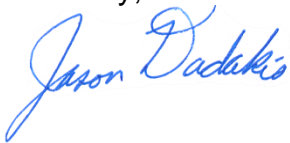
The Orange County Water District (OCWD) appreciates the opportunity to provide comments to the Office of Environmental Health Hazard Assessment (OEHHA) on its proposed draft Public Health Goals (PHGs) for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) in drinking water and the associated draft technical support document released on July 22, 2021. OCWD manages the Orange County Groundwater Basin, which typically provides more than 75% of the local water supply for 2.4 million residents. Ensuring the safety of drinking water supplies is a high priority for OCWD and the public water systems it serves. PFOA and PFOS have had a significant impact on local groundwater supplies; more than 60 public water system wells in the OCWD service have been taken offline following the Division of Drinking Water's (DDW) issuance of Notification and Response Levels, which are underpinned by earlier recommendations from OEHHA.

OCWD supports OEHHA's development of PHGs for PFOA and PFOS as a required initial step before DDW can begin its effort to establish enforceable drinking water maximum contaminant levels (MCLs) for both chemicals. Please find attached with this letter a short memorandum from Intertox, a toxicological consulting firm we have retained to assist us with our review and understanding of the draft PHGs and the associated draft technical support document. The memo contains a few questions and requests for clarification. OCWD believes that meaningful responses to these questions

by OEHHA will enhance public understanding of the PHGs as well as help demonstrate that the risk assessment meets the state's statutory requirements for the development of PHGs under the California Health and Safety Code §116365 subdivision (c)(1).

Development of the PHGs for PFOA and PFOS is a welcome step towards the state's adoption of enforceable MCLs. OCWD appreciates OEHHA's consideration of these comments and looks forward to its responses. If you have any questions regarding these comments, please don't hesitate to contact me at jdadakis@ocwd.com or (714) 378-3364.

Sincerely,



Jason Dadakis
Executive Director of Water Quality and Technical Resources

Attachment: Intertox Memorandum dated October 20, 2021

MEMORANDUM

To: Orange County Water District

From: Intertox

Re: Comments to the Office of Environmental Health Hazard Assessment on its *Proposed Public Health Goals for Perfluorooctanoic Acid and Perfluorooctane Sulfonic Acid in Drinking Water, July 2021*

Date: October 20, 2021

We have several questions as we aim to understand the Office of Environmental Health Hazard Assessment's (OEHHA) proposed Public Health Goal (PHG).

- 1) OEHHA presents a further analysis of the data presented in Shearer et al. (2021) and Vieira et al. (2013). These studies both present Odds Ratios (OR) for Renal Cell Carcinoma (RCC). OEHHA uses these ORs as the basis of a linear regression to derive Cancer Slope Factors (CSF) for each study which it then averages.
 - a. Beyond utilizing the findings from Shearer et al. (2020) and Vieira et al. (2013) publications, did OEHHA obtain and analyze the underlying raw data?
 - b. What was OEHHA's methodology for evaluating the appropriateness of utilizing these studies, which are based on ORs, to develop a CSF?
 - c. What was the basis for averaging CSFs from measured serum data and modeled serum data?
- 2) Does OEHHA have plans to evaluate the recent study by Bartell and Vieira (2021)?
- 3) Could OEHHA estimate the serum values that would correspond to the draft PHG for PFOA to compare to the serum values presented in Shearer et al. (2020) and Vieira et al. (2013) studies?

References:

Bartell SM, Vieira VM. 2021. Critical review on PFOA, kidney cancer, and testicular cancer. *Journal of the Air & Waste Management Association (1995)*, 71(6): 663–679. <https://doi.org/10.1080/10962247.2021.1909668>.

Shearer JJ, Callahan CL, Calafat AM, Huang W-Y, Jones RR, Sabbisetti VS, Freedman ND, Sampson JN, Silverman DT, Purdue MP, Hofmann JN. 2020. Serum Concentrations of Per- and Polyfluoroalkyl Substances and Risk of Renal Cell Carcinoma. *JNCI Journal of the National Cancer Institute*, 113(5): 580–587. <https://doi.org/10.1093/jnci/djaa143>.

Vieira VM, Hoffman K, Shin H-M, Weinberg JM, Webster TF, Fletcher T. 2013. Perfluorooctanoic acid exposure and cancer outcomes in a contaminated community: a geographic analysis. *Environmental Health Perspectives*, 121(3): 318–323. <https://doi.org/10.1289/ehp.1205829>.