



April 7, 2025

Submitted via: OW-Docket@epa.gov and biosolidsprogram@epa.gov

U.S. Environmental Protection Agency  
David Tobias  
Office of Science & Technology  
Office of Water  
Mail Code 28221T  
1200 Pennsylvania Ave NW  
Washington, DC 20460

**RE: Draft Sewage Sludge Risk Assessment for PFOA and PFOS – Docket ID No EPA-HQ-OW-2024-0504**

Dear Mr. Tobias,

On behalf of the City of Santa Rosa Water Department (Santa Rosa Water) I am writing to provide comments to the U.S. Environmental Protection Agency (USEPA) on the Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) ("Risk Assessment").

Santa Rosa Water delivers approximately six billion gallons of drinking water, each year, to over 54,000 customer accounts, and maintains the sanitary sewer system for over 49,000 customer accounts in Santa Rosa, serving a population of approximately 178,000 residents. Additionally, Santa Rosa Water operates the Santa Rosa Regional Water Reuse System, which serves approximately 230,000 residents in Santa Rosa, Rohnert Park, Cotati, Sebastopol, and unincorporated portions of Sonoma County. The hub of the Water Reuse System is the Laguna Treatment Plant, which cleans and recycles approximately 7 billion gallons of wastewater each year from homes, businesses, and industry in the region. During dry to normal years nearly 100% of our tertiary recycled water is beneficially reused for agricultural and urban irrigation, as well as to recharge the Geysers steamfields to produce clean and renewable energy.

While we appreciate USEPA's attention to PFAS issues, the Risk Assessment and accompanying communications have created uncertainty and confusion across the nation, and threaten to unnecessarily jeopardize the safe, sustainable, and proven practice of land applying biosolids. For the reasons outlined in detail below, we request that the Risk Assessment not be finalized until additional data is considered using new or soon to be published credible research as we

believe it to grossly overestimate actual risk. Moreover, we request that future USEPA communications regarding the Risk Assessment highlight the fact that it was completed without the essential risk management component, which is unprecedented to our knowledge.

#### **The Risk Assessment Fails to Include the Essential Risk Management Component**

Most notably, USEPA released the draft assessment without first conducting a risk management analysis. This is unprecedented and could leave the public with the false impression that biosolids pose a substantial risk from land application or surface disposal. The risk management analysis is critical for putting the actual risk in perspective and for providing context. This includes a risk-benefit analysis, which would consider the risk of PFOA and PFOS from other exposures (carpeting, food packaging, cosmetics, dental floss, cookware, etc.) and the additional incremental risk from an indirect biosolids exposure. It would also evaluate the benefits of biosolids land application such as climate change mitigation via carbon sequestration and the avoidance of fossil fuel intense inorganic fertilizer utilization. Other benefits include improved soil tilth, increased crop yields, reduced need for irrigation, and increased soil organic carbon which also inhibits movement and bioavailability of PFOA and PFOS in the agricultural ecosystems. The risk management piece must be completed and incorporated in advance of releasing any revised Risk Assessment. We believe the risk management assessment would demonstrate indirect exposures to PFAS from land applied biosolids is an incredibly small fraction of everyday exposures for the general public, and exposure is far more prevalent from an abundance of common household products.

#### **The Risk Assessment Fails to Acknowledge Limited Biosolids Management Options**

The Risk Assessment also fails to mention the practical reality of limited biosolids management options. There are over 15,000 municipal wastewater treatment plants across the nation providing the essential public service of cleaning our water and treating the solids produced from that process. There are only four options for managing the biosolids that are produced daily as a byproduct of treatment. The draft Risk Assessment identifies three of them (land application and reclamation; surface disposal, and incineration) as likely posing an *unacceptable* risk. The fourth option of municipal solid waste landfilling was not considered given that landfills are regulated elsewhere in 40 CFR part 258. Many states, including California, have identified landfills as significant contributors to climate change due to fugitive GHG emissions (notably methane), and are thus requiring organic waste, including biosolids, to be diverted from landfills for beneficial use. Given the findings of this Risk Assessment, it is not clear what current, and available alternatives exist for biosolids management. While such practical questions may be beyond the scope of the assessment itself, it is a reality that must be addressed by the USEPA and considered as a logical outcome of this assessment.

#### **The Risk Assessment Paints an Unrealistic Scenario Surrounding Land Application**

There are several elements within the Risk Assessment that are problematic because they do not accurately reflect land application practices across the nation.

As a practical example, the “modeled farm family” that serves as the focus of the assessment is assumed to have consumed food crops grown every year on land *contaminated* with PFOA and

PFOS laden biosolids. In contrast, the vast majority of land applied biosolids across the nation are *non-contaminated* and typically contain de minimus background levels of PFAS. In addition, existing biosolids land application regulations require waiting periods between biosolids application and harvest. Assuming application of a Class B product, the waiting periods required for harvesting crops grown in the soil (or which may touch the soil) are between 14 and 38 months, and the land required to comply with those requirements would far exceed that of the “modeled family.” The assessment also assumes runoff to a pond used for fishing, though existing regulation does not allow such runoff to occur from compliant land application practices. These elements of the Risk Assessment (and others), paint an entirely unrealistic scenario without consideration of existing regulations, and it uses that scenario to make inaccurate conclusions about the risks posed by land application of biosolids.

### **The Risk Assessment Does Not Include Important Recent Research**

There is an abundance of recent research and ongoing research near completion conducted on typical biosolids, none of which was included in the Risk Assessment. This important research must be included before the Risk Assessment can be finalized. The scant research used in the draft Risk Assessment was largely based on studies or data from biosolids that were highly contaminated by industrial sources, and/or used unrealistically high application rates. The more current research findings rely on long-term application sites across the country and generally demonstrate that there is limited migration of PFAS to groundwater and negligible crop uptake due in large part to low soil concentrations of PFAS, high organic carbon content, use of agronomic loading rates, and reduced mobility/bioavailability due to interactions with the solid-water and air-water interfaces. The reviews from several expert research scientists illustrate these critical elements in greater detail and highlight other areas where the Risk Assessment needs to be improved or refined.

Thank you for your consideration of the above comments. We look forward to working with the USEPA to improve the Risk Assessment for accuracy, incorporate a risk management component, rely on the most up to date research, and contain more realistic and practical discussion of the impact on biosolids management. Santa Rosa Water is also a member of the California Association of Sanitation Agencies (CASA), which represents more than 135 local public agencies engaged in the collection, treatment and recycling of wastewater and biosolids to protect public health and the environment. We are fully supportive of the comments and suggestions CASA has provided to the USEPA on the draft Risk Assessment.

If you have any questions, please feel free to contact Zach Kay, Biosolids Coordinator at (707) 543-3374 or [ZKay@srcity.org](mailto:ZKay@srcity.org).

Sincerely,

A handwritten signature in black ink that reads "Jennifer Burke". The signature is written in a cursive, flowing style.

Jennifer Burke  
Director of Santa Rosa Water






# COSR\_PFOA Risk Assessment

Final Audit Report

2025-04-07

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