



**EPN Comments on
EPA's Draft Guidance for Reducing Risk from PFOA and PFOS in Biosolids
Docket ID no. EPA-HQ-OW-2026-2509
October 05, 2026**

The [Environmental Protection Network](https://www.epa.gov/system/files/documents/2026-06/draft-guidance-reducing-risk-pfoa-pfos-biosolids.pdf) (EPN) harnesses the expertise of more than 800 former Environmental Protection Agency (EPA) career staff and confirmation-level appointees from Democratic and Republican administrations to provide the unique perspective of former regulators and scientists with decades of historical knowledge and subject matter expertise.

Introduction

On July 1, 2026, EPA (hereinafter also referred to as “the Agency”) released the memorandum *Draft Guidance for Reducing Risk from PFOA and PFOS in Biosolids*,¹ announcing that this guidance was designed to provide recommendations to help operators of wastewater treatment plants (WWTPs) or publicly owned treatment works (POTWs) and related facilities, landowners and farmers, state and Tribal water agencies, and the public mitigate risks from PFOA (perfluorooctanoic acid) and PFOS (perfluorooctanesulfonic acid) while managing sewage sludge and biosolids.

EPN finds that the draft guidance fails to provide any meaningful information for WWTPs, farmers, state and Tribal water agencies, or the public. We believe that the real purpose of releasing this document is to let the public know the Agency will not be finalizing the 2025 draft *Sewage Sludge Assessment for PFOA and PFOS*² because of “flaws” the new administration has found in this risk assessment. Most of the nine-page memorandum is focused on describing the alleged flaws in the draft 2025 biosolids risk assessment. Only at the end of the document does EPA list the following well-known mitigation measures: 1) WWTPs should monitor sewage sludge for PFOA and PFOS and, if present, consider adding liners for sewage sludge monofills and monitoring for incomplete combustion products in the air emissions from sewage sludge incinerators; 2) Farmers should avoid biosolids application to leafy green and root vegetables and where egg-laying hens forage; and 3) the public should research suppliers of biosolids to find uncontaminated ones and avoid application where children play and where vegetables are grown. After listing these brief suggestions, EPA asks the public to respond to eight questions requesting data and information on practices and policies to mitigate risks from per- and polyfluoroalkyl substances (PFAS)-contaminated biosolids, apparently depending on the public to write the guidance for the Agency since the draft guidance lacks any meaningful recommendations for farmers and bulk land applicators, gardeners, operators of sewage sludge monofills and incinerators, or state/Tribal water agencies and wastewater utilities. While EPA

¹ Draft Guidance for Reducing Risk From Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) in Biosolids; Establishment of a Public Docket; Request for Feedback, 91 Fed. Reg. 41020 (published July 06, 2026), <https://www.epa.gov/system/files/documents/2026-06/draft-guidance-reducing-risk-pfoa-pfos-biosolids.pdf>.

² Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS), 90 Fed. Reg. 3859 (published January 15, 2025), <https://www.epa.gov/system/files/documents/2025-01/draft-sewage-sludge-risk-assessment-pfoa-pfos.pdf>.

makes a distinction between “treated” and “untreated” biosolids in the guidance document, the Agency does not explain that treatment is only required for heavy metals and pathogens and does not reduce PFAS concentrations. Furthermore, EPA does not explain that biosolids from industrial operations such as pulp and paper mills have also been land-applied, causing contamination in Maine³ and elsewhere. This biosolids guidance should address the issue of land applying biosolids from any wastewater treatment plant.

EPN urges EPA to finalize the risk assessment and use the findings to promulgate national standards limiting the concentration of these chemicals in biosolids applied to land. Clean Water Act (CWA) Section 405(d) requires EPA to “establish numerical limits and management practices that protect public health and the environment from the reasonably anticipated adverse effects of toxic pollutants in sewage sludge.” The draft biosolids risk assessment did just that, consistent with EPA’s previous risk assessments of other pollutants in biosolids. Since 2008, EPA has known that biosolids applied to agricultural fields in Decatur, Alabama contaminated drinking water with PFAS.⁴ 18 years later, it is critical that EPA finalize the biosolids PFAS risk assessment as expeditiously as possible. EPN further urges EPA to move forward with all the actions it has delayed in the past year including: 1) implementing the POTW Influent PFAS Study; 2) promoting pretreatment of PFAS discharges to POTWs to prevent biosolids contamination; 3) proposing national treatment requirements for PFAS dischargers through the effluent limitation guideline program; and 4) finalizing the PFAS water quality criteria proposed in 2024.

EPN will focus our comments in each of the sections below on critiquing the alleged “flaws” in the 2025 draft biosolids risk assessment and identifying the actual flaws in the 2026 draft guidance memorandum. We find no basis for rejecting the draft risk assessment and urge EPA to finalize it as soon as possible to support actions by WWTPs, farmers, state and Tribal agencies, and the public to minimize exposures to PFOA and PFOS. The draft guidance memorandum identifies the following three flaws: 1) Failure to base the draft risk assessment on a national survey of the occurrence of PFOA and PFOS in sewage sludge; 2) Focus only on scenarios with higher risk potential without assessing how often these scenarios occur or how the general public is impacted; and 3) Evaluation of risks from biosolids with assumed PFOA and PFOS concentrations of 1 part per billion (ppb) each, implying 1 ppb is the safe level of those chemicals.

EPA falsely claims the biosolids risk assessment is flawed because it was not accompanied by a national survey of PFOA and PFOS concentrations in sewage sludge.

A national survey has never been a required pre-requisite for conducting a risk assessment. It is clear that PFAS have contaminated water resulting from biosolids application. Once that exposure

³ Bureau of Remediation and Waste Management. Maine Department of Environmental Protection. Status of Maine’s PFAS Soil and Groundwater Investigation at Sludge and Septage Land Application Sites. January 15, 2025. <https://www.maine.gov/ifw/docs/PFAS%20Soil%20and%20Groundwater%20Investigation%20Report%202025%20FINAL.pdf>

⁴ U.S. Environmental Protection Agency. FACT SHEET Perfluorochemical (PFC) Contamination of Biosolids Near Decatur, Alabama. May 2009. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100X3SG.PDF?Dockkey=P100X3SG.PDF>

pathway has been established, EPA has a responsibility to conduct a risk assessment. Waiting years to design and complete such a survey is not protecting public health. Such a survey, if properly designed, can provide information on the extent to which U.S. waters have been contaminated, but a risk assessment is needed to determine the severity of the contamination. In the draft guidance, EPA states that not all sewage sludge has been found to have detectable or elevated levels of PFOA or PFOS. It is unclear what this statement is based upon, as a national survey has not been conducted. In the 2024 biosolids risk assessment, EPA evaluated seven state surveys of PFAS in sewage sludge (ME, MI, MN, VT, CT, NH, CA). Since 2024, seven more state surveys have been conducted (HI, DE, CO, WA, NC, ND, MA). EPN believes that the 14 state surveys provide EPA with adequate data on the range of PFOA and PFOS concentrations in sewage sludge to add to the risk assessment a sensitivity analysis on the range of health risks expected from biosolids with varying levels of contamination. Most sludge tested in every state survey has been found to contain PFAS. A 2025 report from Massachusetts found that every sludge sample taken from 114 WWTPs contained high concentrations of PFAS with mean concentrations of PFOA and PFOS of 8 ppb and 30 ppb, respectively.⁵ In addition, Maine determined that “individuals living in an area with historic application of PFAS-contaminated biosolids had elevated and highly correlated concentrations of PFOA in drinking water and blood serum.”⁶

EPN is aware that EPA could have supported such a sensitivity analysis using data from the Agency’s POTW Influent PFAS Study if the new administration had not delayed implementation of that study. This study is designed to get 400 POTWs nationwide to answer a questionnaire on their potential PFAS sources and then to monitor PFAS in their influent, biosolids, and effluent in order to update the National Sewage Sludge Survey and identify sources of PFAS contamination. In October 2024, EPA sent to the Office of Management and Budget (OMB) the questionnaire for the POTW Influent PFAS Study, and OMB sent that questionnaire out for public comment which closed in November 2024. EPA has still not sent the questionnaire out to the 400 POTWs. If EPA had sent the questionnaire out to POTWs in 2025, responses would be available by now, and EPA would be in the process of collecting national monitoring data on concentrations of PFOA, PFOS, and 38 other PFAS chemicals in POTW biosolids, influent, and effluent. It is disingenuous for EPA to claim that the draft biosolids risk assessment cannot be finalized without a national sewage sludge survey that the Agency has been delaying for 1 ½ years.

EPA falsely claims the biosolids risk assessment is flawed because it erroneously focused only on high-risk scenarios and ignored the general public exposure.

⁵ Massachusetts Department of Environmental Protection. Data Analysis Report: MassDEP PFAS Testing Study for NPDES POTWs (PRF77). June 30, 2025.

<https://www.mass.gov/doc/massdep-pfas-testing-study-for-npdes-potws/download>

⁶ Criswell, R., Senechal, K., Mullin, A. M., Calafat, A. M., Botelho, J. C., Rokoff, L. B., & Fleisch, A. F. (2025). Concentrations of per- and polyfluoroalkyl substances (PFAS) in private well drinking water and serum of individuals exposed to PFAS through biosolids: The Maine Biosolids Study. *Environmental pollution* (Barking, Essex : 1987), 386, 127259. <https://doi.org/10.1016/j.envpol.2025.127259>.

In the draft risk assessment, EPA explained that while 60% of sewage sludge is land applied annually, this equates to only 1% of the country's farmland. As a result, EPA explained that they did not present a general public exposure scenario because most of the food crops and livestock in the country would not be contaminated by biosolids. To verify this assumption, EPN recommends that FDA conduct a full market basket survey for PFAS in a Total Diet Study. EPN further recommends that in the final biosolids risk assessment, EPA should add a discussion of general public exposure to include the biosolids impact on downstream drinking water and fisheries. Research has shown that PFAS from land-applied sludge can migrate into the underlying groundwater. Because PFAS are extremely persistent, repeated sludge applications cause concentrations in soil to accumulate over time. PFAS from contaminated biosolids can runoff or leach into surface waters, contaminating downstream drinking water supplies and fisheries. In June 2025, Waterkeeper Alliance published a report⁷ which documented elevated levels of PFAS downstream from 80% of the sites where PFAS-contaminated biosolids were applied to the land. EPA's National Aquatic Surveys have found PFOS in every fish sampled in waters throughout the country so contaminated biosolids can be contributing to this widespread fish contamination.⁸ EPA should also add to the risk assessment an estimate of the impacts on people recreating on parks and golf courses where biosolids have been applied.

In the draft risk assessment, EPN agrees that EPA appropriately estimated the health risks of the family farmer, which they have done in previous biosolids risk assessments for other contaminants. The family farmer high exposure scenario is well-documented as occurring throughout the country. In Maine, PFAS contamination from biosolids land application forced the closure of Stoneridge Farm after testing revealed high PFAS levels in soil, livestock, and water.⁹ PFAS contamination has since been identified in more than 200 wells and water sources in the region, and a "do not eat" advisory was issued for deer harvested in areas where sludge was applied. Maine has established a \$60M fund to help farmers address PFAS because of widespread contamination from biosolids applications. In Michigan, officials shut down a farm that had land-applied sludge for years after finding high PFAS concentrations in soil.¹⁰ In Johnson County, Texas, officials are seeking federal assistance and considering declaring a state of emergency after testing revealed high PFAS concentrations in soil, surface water, and well water near properties where biosolids had been

⁷ Waterkeeper Alliance. Unnatural, Unbreakable, Unseen: Uncovering PFAS Contamination in Frontline Communities. June 26, 2025.

https://waterkeeper.org/wp-content/uploads/2025/06/PFAS-Phase-II-Report_FINAL_SPREADS-6.24.25.pdf

⁸ Barbo N, Stoiber T, Naidenko OV, Andrews DQ. Locally caught freshwater fish across the United States are likely a significant source of exposure to PFOS and other perfluorinated compounds. *Environ Res.* 2023;220:115165.

<https://doi.org/10.1016/j.envres.2022.115165>.

⁹ Valdmanis R and Schneyer J. Reuters. March 19, 2019. The curious case of tainted milk from a Maine dairy farm.

<https://www.reuters.com/article/business/environment/the-curious-case-of-tainted-milk-from-a-maine-dairy-farm-idUSKCN1R01AI/>

¹⁰ Clayton C. Michigan farm is cautionary tale of PFAS contamination and sewage sludge fertilizer. *DTN Progressive Farmer.* May 9, 2022.

<https://www.dtnpf.com/agriculture/web/ag/livestock/article/2022/05/06/michigan-farm-cautionary-tale-pfas>

applied.¹¹ Testing found PFAS concentrations of 3,200 parts per trillion (ppt) in a newborn calf and PFOS concentrations as high as 74,000 ppt in catfish from a pond on an impacted farm. In the final risk assessment, EPA can estimate how many of these family farm scenarios exist nationwide using state data. It should be noted, however, that this estimate is not necessary when there is already an abundance of anecdotal evidence indicating the family farm is at high risk for health risks from land application of PFAS-contaminated biosolids.

EPA falsely claims the biosolids risk assessment is flawed because it assumed PFOA and PFOS biosolids concentrations of 1 ppb, confusing the public by implying that is the safe level.

EPA clearly stated in the draft biosolids risk assessment that 1 ppb was selected for PFOA and PFOS concentrations because that is the detection limit for those two chemicals in sewage sludge when using EPA's analytical method 1633.¹² EPA never stated or implied that 1 ppb is a safe level. The standard approach for a preliminary risk assessment is to run the analysis using the lowest detectable level of a chemical. If that concentration results in health risks, you can be certain that higher levels of the chemical will result in higher health risks. In the final risk assessment, EPA can use the 14 state sewage sludge survey data to estimate risks using mean, maximum, and minimum concentrations of PFOA and PFOS, but all of those concentrations will result in even higher risks than the 1 ppt used in the draft risk assessment.

EPN identifies major flaws in the 2026 draft biosolids guidance.

EPN finds that the draft biosolids guidance fails to provide recommendations on how wastewater utilities can reduce or eliminate PFAS in their biosolids. The 2026 guidance should have expanded upon the recommendations in EPA's December 2022 memorandum entitled "Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs."¹³ In this 2022 memorandum, EPA stated that while the Agency worked to revise effluent limitation guidelines and develop water quality criteria to support technology-based and water quality-based effluent limits for PFAS in NPDES permits, the Agency urged state permit writers and POTWs to take steps to reduce the discharge of PFAS using existing authorities. The 2022 memorandum recommended that state permit writers require POTWs to monitor PFAS quarterly in their effluent, influent, and biosolids and require them to identify and locate all possible industrial users that might be discharging PFAS. The memorandum further recommended that industrial users discharging PFAS to a POTW be required to implement Best Management Practices (e.g., pollution

¹¹ Ladis, Lucy. Dangerous 'forever chemicals' found in Johnson County soil and water, disaster declared. NBC Dallas Fort Worth. February 11, 2025.
<https://www.nbcdfw.com/news/local/johnson-county-declares-state-of-disasters-after-discovering-forever-chemicals/3768012/>

¹² U.S. Environmental Protection Agency. Method 1633, Revision A: Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. December 2024.
<https://www.epa.gov/system/files/documents/2024-12/method-1633a-december-5-2024-508-compliant.pdf>

¹³ EPA has since removed the 2022 memorandum from online access.

prevention measures, product substitution, and good housekeeping practices) or meet local pretreatment limits.

The 2026 biosolids guidance never mentions this 2022 memorandum and never mentions EPA's plans to revise effluent limitation guidelines which would require national pretreatment limits for industrial dischargers to POTWs. In the previous administration, EPA was ready to propose PFAS effluent limitation guidelines for chemical factories in 2025 and was developing them for metal finishers and landfills. The current administration has not released any of these PFAS effluent limitation guidelines. In December 2024, EPA issued draft human health criteria for three PFAS and requested public comment through April 29, 2025.¹⁴ EPA has still not issued final criteria. These criteria are developed under CWA Section 304(a) and serve as important guidance that states/Tribes can consider in adopting legally enforceable water quality standards to protect drinking water and fisheries from contamination. If EPA wants to protect the health of people who live in the U.S., the Agency must prioritize finalization of these effluent limitation guidelines and human health criteria.

Rather than building on the 2022 guidance, EPA states on page five of the 2026 guidance that EPA is not endorsing state source reduction and pretreatment programs, sewage sludge land application prohibitions, or POTW permit monitoring requirements. This is stunning, particularly in light of the recent D.C. Circuit Court support for EPA's designation of PFOA and PFOS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). EPN has just learned that in August 2026, Assistant Administrator Kramer announced that EPA is rescinding the 2022 memorandum because it caused confusion for states and permittees, resulted in inconsistent application, and lumped together maximum contaminant levels (MCLs) with permit limits. EPN notes that the 2022 memorandum could not have confused states and POTWs because it simply urged them to use the authorities they already have under the CWA to permit both direct and indirect discharges of PFAS. Forty-seven states are authorized to issue NPDES permits, and POTWs are required to have pretreatment programs if they treat more than 5 MGD of wastewater or have significant industrial contributors. As EPA has recently delayed or terminated all previous actions to reduce PFAS contamination of our drinking water and fisheries, it is critical that states and POTWs step up and require pretreatment for any PFAS dischargers to their sewers in order to prevent their biosolids from becoming hazardous wastes. Dependence on state actions will certainly lead to inconsistent application as states vary in their capability to address PFAS, but current EPA rollbacks leave no other option to protect public health. With regard to EPA's August 2026 concern about conflating MCLs with permit limits, EPN notes that all states have a narrative water quality standard of "no toxics in toxic amounts" which allows each state to interpret that standard using numerical values that ensure the water will be safe to drink. Because EPA has failed to finalize its draft human health water quality criteria for PFOA and PFOS, states only have final MCLs available to provide a numerical translation of their "no toxics in toxic amounts" narrative criterion.

¹⁴ Draft National Recommended Ambient Water Quality Criteria for the Protection of Human Health for Perfluorooctanoic Acid, Perfluorooctane Sulfonic Acid, and Perfluorobutane Sulfonic Acid, 89 Fed. Reg. 105041 (Proposed Dec. 26, 2024), <https://www.federalregister.gov/d/2024-30637>.

EPN is also aware that in 2025, EPA cancelled over \$15 million in grant funding to university teams studying how crops and livestock accumulate PFAS from contaminated biosolids and how farmers can reduce the risks of contamination. Clearly, EPA's current administration does not plan to protect farmers or the public from the health risks of PFAS-contaminated biosolids.

Costs to POTWs

Utilities will experience a cost savings by having a pretreatment program for PFAS so that they are not left with the burden of removing PFAS in order to control levels of PFAS in biosolids from their facility. The comparative cost of managing PFAS upstream from industrial and commercial sources would be less expensive than at the downstream POTW. Possible scenarios for a utility having to remove PFAS-contaminated biosolids include treatment in a dedicated onsite landfill with subsequent treatment of the landfill leachate. A second option would be management of biosolids in a thermal process. Any sort of thermal process to manage biosolids would be an extremely expensive alternative due to high fuel costs. Upstream pretreatment at the source of the PFAS would shift the burden from the POTW to the industrial contributor. This cost issue supports the value of EPA publishing a PFAS pretreatment standard that could be enforced in NPDES pretreatment permits.

Liability Issues

One of the challenges in the management of PFAS-contaminated biosolids is that wastewater treatment plant operators, farmers, and others fail to recognize the potential liability they can face for applying contaminated biosolids. The situation is complicated by the lack of a numeric limit for the land application of PFAS-contaminated biosolids. PFAS-contaminated biosolids can contaminate crops, contaminate farmland so that it is no longer safe for growing crops, contaminate drinking water wells, contaminate fish so that they are unsafe to consume, and cause other impacts. Liability can take two forms. First, there is Superfund liability for the contamination, which can make responsible parties liable for the cost of cleanup. Second, tort liability, which allows parties harmed by contamination to sue for damages, has also been used against those responsible. Either cleanup costs for contaminated land or payments from court cases are expected to be far more expensive than the savings gained from using PFAS-contaminated biosolids instead of commercial fertilizer. However, in its exercise of Superfund enforcement discretion, EPA does not normally pursue WWTPs that have spread biosolids (sewage sludge) on farmlands.

Backsliding Issues

The proposed guidance for the management of PFOA and PFOS not only fails to follow the risk-based framework established under the EPA rule governing the management of sewage sludge that contains contaminants, but it also ignores the science. Neither the MCL for PFOA nor the MCL for PFOS has been rescinded. Similarly, the toxicity values, which provide the peer-reviewed toxicity information needed for a risk assessment, remain in place. The implementing regulation to address contaminants in biosolids is 40 CFR Part 503.

Under the CWA, EPA is required to set numeric standards for PFAS in biosolids. Section 405(d) of the CWA¹⁵ is the operative authority. This section requires EPA to identify uses for sewage sludge, including disposal, and to promulgate regulations for each identified use that protect public health and the environment from “reasonably anticipated adverse effects” of pollutants in sewage sludge. Section 405(d)(2)(C) requires EPA to review the biosolids regulations at least every two years to identify additional toxic pollutants and set limits for them “as necessary.”

Given the above, EPA's failure to either adopt numeric limits for the land application of PFAS-contaminated biosolids or update the 2025 risk assessment for PFAS in biosolids to support such limits means that its proposed guidance—which fails to provide numeric limits for the application of PFAS-contaminated biosolids—should be characterized as backsliding that fails to meet the requirements of the CWA.

¹⁵ 33 U.S.C. § 1345(d)