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Adam Krantz

October 5, 2026

Tess Richman
Engineering and Science Division
Office of Water (Mail Code 4504-T)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Re: Comments on the EPA's Draft Guidance for Reducing Risk from Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) in Biosolids and Request for Feedback

Dear Ms. Richman:

The National Association of Clean Water Agencies (NACWA) appreciates the opportunity to provide comments on the U.S. Environmental Protection Agency's (EPA) Draft Guidance for Reducing Risk from PFOA and PFOS in Biosolids (hereafter Draft Guidance) and Request for Feedback published in the Federal Register.¹

NACWA represents the interests of over 360 publicly owned wastewater and stormwater utilities of all sizes across the country. Our members are cornerstones of their communities that provide the essential service of managing, treating and transforming billions of gallons of our nation's wastewater and stormwater, as well as managing the millions of tons of biosolids generated as a natural result of the wastewater treatment process in a manner that ensures the continued protection of public health and the environment.

NACWA and its members have been engaged with EPA throughout the Agency's biosolids work, beginning with the Science Advisory Board's review of EPA's revamped biosolids screening tool and risk framework in 2023, continuing through EPA's development of the Draft Risk Assessment for PFOA and PFOS, and now with the Draft Guidance. This sustained engagement reflects what is at stake for the public clean water utility community: the potential erosion of EPA's longstanding support for the beneficial land application of municipal biosolids if the Agency does not properly assess and determine the potential risk of per- and

¹ 91 Fed. Reg. 41020 (July 6, 2026).

polyfluoroalkyl substances (PFAS) in biosolids. If EPA's support for land application is weakened or eliminated without sufficient scientific support, many communities could be left without practical management options. While some communities could shift to landfilling or incineration, that will not be an option for many communities given economic and environmental considerations.

NACWA commends EPA for issuing the Draft Guidance and views it as an important and positive step forward in the biosolids PFAS discussion because it reaffirms the Agency's continued support for the land application of municipal biosolids, acknowledges the challenges clean water utilities face as passive receivers of PFAS, and helps refocus the conversation on mitigating potential risks to the public. PFAS chemicals are widely used throughout commerce and everyday life. The 2025 Draft Risk Assessment created unsupported confusion and fear by relying on unrealistic assumptions about biosolids use and suggesting that all biosolids may pose greater risks to the general public and the environment than the many PFAS-containing products and materials encountered in one's daily life or even through alternatives to municipal biosolids, such as synthetic fertilizers, that may contain PFAS.

For those reasons, EPA's clarification in the Draft Guidance of key elements of the Draft Risk Assessment is especially important not only to correct public misunderstanding, but also to preserve an accurate understanding of the role biosolids play in providing a reliable, sustainable outlet for nutrient-rich materials that are continuously and inevitably generated through the wastewater treatment process and in offering farmers and landowners an alternative to often more costly synthetic fertilizers or soil amendments. The public clean water community, our agricultural partners, and EPA have recognized for decades the beneficial and sustainable uses biosolids offer. NACWA appreciates that the Draft Guidance reiterates this important link between the clean water utility community and farmers in managing this natural fertilizer that has tangible agricultural and environmental benefits.

NACWA welcomes several aspects of the Draft Guidance and encourages its finalization, while offering the following comments to strengthen and clarify the document as EPA moves forward.

Recognition of the Lack of Occurrence Data

NACWA strongly supports EPA's acknowledgment that the Draft Risk Assessment was developed without corresponding national occurrence data for PFOA and PFOS in biosolids. As EPA notes, previous biosolids risk assessments were informed by national sewage sludge surveys that provided necessary data to contextualize potential risks and inform regulatory decision-making. Without information regarding the actual concentrations and distribution of PFAS in biosolids nationwide, it is difficult to assess the real-world relevance of modeled risks or determine the extent to which particular scenarios may occur in practice. EPA's recognition of this limitation is an important step toward ensuring that future evaluations are supported by a more complete scientific foundation.

Recognition That the Assessment Relied on Atypical Scenarios

NACWA also appreciates EPA's acknowledgment that the Draft Risk Assessment focused on a limited number of higher-risk hypothetical scenarios that do not reflect the actual realities of biosolids land application practices in the United States. Publicly owned treatment works operate under extensive federal and state regulations governing biosolids treatment, management, and land application, and many utilities have implemented additional oversight, monitoring, and source control programs—especially with PFAS in mind. Evaluating only highly conservative exposure assumptions without assessing their frequency of occurrence can create a misleading impression regarding potential risks associated with the broader biosolids program. Further, EPA's clarification that the modeled scenarios are not representative of most land application activities provides important context for stakeholders and policymakers evaluating the Draft Risk Assessment.

Clarification of the 1 ppb Modeling Assumption

NACWA also strongly supports EPA's clarification that the 1 part per billion (ppb) concentration used in the Draft Risk Assessment was a modeling input and was not intended to represent a health-based standard, regulatory threshold, or universally applicable "safe level." NACWA believes EPA can provide additional certainty by clarifying that states should not treat the 1 ppb as a de facto standard. Over the past year, NACWA has observed numerous instances in which the 1 ppb value has been cited incorrectly in the media and in proposed state legislation as evidence that biosolids containing PFAS above that concentration pose unacceptable risk. In some cases, this misinterpretation has incorrectly informed policy discussions regarding land application restrictions despite the absence of supporting regulatory or scientific justification. EPA's clarification is therefore essential to correcting public misunderstanding and ensuring that the preliminary findings of the Draft Risk Assessment are not applied beyond their intended purpose.

Recognition of Public Confusion and Mischaracterized Risk

Additionally, NACWA commends EPA for recognizing that the Draft Risk Assessment contributed to the misconception that *all* biosolids use and disposal practices pose unacceptable risks to human health. That perception has created significant uncertainty for utilities, farmers, regulators, and local communities and has, in some instances, prompted calls for restrictions that are not supported by science. EPA's acknowledgement that the assessment did not evaluate risk to the public, did not estimate the prevalence of the modeled scenarios, and lacked critical contextual information is an important and necessary correction. NACWA believes this recognition will help support a more balanced, science-based discussion of PFAS risk management while preserving sustainable biosolids management options that are critical to communities nationwide.

Guidance Should Give States Greater Clarity that EPA Supports a Carefully Constructed Tiered Management Pathway Coupled with Best Management Practices

The Draft Guidance highlights existing state practices designed to reduce PFAS in biosolids while continuing to support beneficial reuse. In particular, the Draft Guidance discusses Michigan's comprehensive approach to identifying upstream industrial dischargers and requiring reductions in PFAS loadings to publicly owned treatment works. Michigan paired that industrial source reduction strategy with a thoughtful and comprehensive biosolids monitoring program. Once Michigan had sufficient data, it established non-risk-based endpoints in order to create a tiered concentration structure to distinguish industrially impacted biosolids from non-industrially impacted biosolids and allow land application to continue where appropriate. Under this framework, land application restrictions and best management practices are triggered when PFOA and PFOS concentrations exceed 20 ppb, and fully restricted at 100 ppb. Michigan has revised and lowered the tiers once, suggesting an approach that can be responsive to new information, and Michigan's approach has become a leading model for other states that have been evaluating how to address and manage PFAS in biosolids.

Other states, like Maryland, Minnesota, Wisconsin and Virginia, are beginning to establish a similar tiered approach to Michigan's. NACWA supports the tiered system and encourages EPA to provide greater encouragement for other states to set up this type of transparent, carefully planned, and stakeholder-informed framework. It is critical that states start with collecting biosolids data and industrial source reduction strategies, along with gathering stakeholder input, while developing recommendations on tiers that are best suited for a particular state and its specific circumstances and needs. NACWA believes EPA can provide greater clarity in that the Agency supports these types of programs and could provide assistance for states to set up sampling strategies and industrial source control. Clean water utilities and the agricultural community would benefit most from such clear, understandable language from EPA.

The Draft Guidance would also be strengthened by providing additional information on best management practices that can help utilities and farmers better understand practical approaches for mitigating potential PFAS concerns associated with biosolids land application. Such practices could include developing source reduction plans and investigating potential PFAS sources when concentrations exceed an identified threshold; implementing pollution minimization plans; reducing land application rates where appropriate; establishing setbacks from known drinking water sources or groundwater wells; considering alternative risk management strategies, such as notification to state agencies and/or farmers; and tracking cumulative application rates over time.

The Draft Guidance Needs to Recognize that All Biosolids are Not Equal

NACWA believes that EPA must recognize the different classes of municipal biosolids supported by the Clean Water Act's (CWA) Part 503 regulations. EPA's Draft Guidance incorrectly makes the

assumption that *all* municipal biosolids are the same and therefore should have the same management practices when inherently they do not. Most notably, EPA does not make any distinction or mention in the Draft Guidance of 'Exceptional Quality' or 'EQ' Class A biosolids, which NACWA believes warrant special consideration. Class A EQ biosolids represent the highest class of biosolids, meeting the most stringent pollutant, pathogen, and vector attraction reduction requirements, and subsequently qualify for greater site applicability than other classes. Clean water utilities invest significant resources to upgrade their treatment works to have the ability to qualify their biosolids as EQ. As a result, EQ biosolids may be purchased by the public from hardware stores, home and garden centers or at the local wastewater treatment plant and are approved for use on residential lawns and public spaces like flower beds, parks and playgrounds, and golf courses. EPA must clearly differentiate and provide reassurance to the public that these biosolids are safe to be distributed to the general public and commercial market and applied more broadly.

Persistent Laboratory and Analytical Method Issues

NACWA has consistently raised concerns that sampling and laboratory analysis for PFAS in biosolids remain subject to significant variability, particularly for materials with higher aqueous content where sample handling, solids content, extraction, and matrix effects can meaningfully influence results. These inconsistencies can make it difficult for utilities, regulators, and the public to compare data across facilities or draw reliable conclusions about actual PFAS concentrations in biosolids. It would be helpful for EPA to acknowledge these concerns in the Draft Guidance.

For example, a recent study from the Washington Department of Ecology highlighted the significant challenge in interpreting PFAS results for biosolids samples, noting that substantial variability can occur even among replicate analyses of the same sample, particularly for liquid biosolids with low solids content.² This intra-sample variability can reduce confidence that a single analytical result accurately represents the true PFAS concentration of the material, making it difficult to distinguish between actual differences in contamination levels and normal analytical variation. As a result, individual results should be interpreted with caution, and additional sampling, replicate analyses, and method refinements may be necessary to improve confidence in the data and support informed regulatory or management decisions. The findings underscore the importance of considering analytical uncertainty when developing policies or compliance decisions based on PFAS concentrations in biosolids.

While EPA's proposed Method 1633A provides an important step toward greater analytical consistency for PFAS across aqueous, solid, biosolids, and tissue samples, it has not yet been promulgated for Clean Water Act compliance monitoring through rulemaking. EPA should therefore clearly acknowledge the current limitations and evolving nature of PFAS analytical methods for

² Assessment of PFAS Levels in Washington State Biosolids (2025), Washington State Department of Ecology, Available at: <https://apps.ecology.wa.gov/publications/documents/2507057.pdf> (last accessed August 7, 2026).

biosolids and avoid relying on monitoring results in a manner that implies a level of precision, comparability, or regulatory certainty that the underlying methods may not yet support.

Source Identification

EPA's Draft Guidance recommends that wastewater treatment plants consider "source-identification, pollution prevention and monitoring," including monitoring PFAS in sewage sludge to help determine whether sources of PFOA and PFOS are present and "give an indication as to which sources are likely contributing these chemicals to the sewer system." NACWA recommends that EPA clarify this statement because sampling only at the final stage of the wastewater treatment process is not a reliable way to identify or apportion specific PFAS source contributions. NACWA has expressed this concern to EPA for several years.

EPA should instead build out this recommendation around upstream source identification and collection-system monitoring, including both industrial and domestic sources where appropriate. Public clean water utilities may be able to use pretreatment and source control tools to address industrial contributions entering their systems, but they have far less ability to control PFAS from household and consumer product use. Increasing evidence indicates that domestic sources—including everyday household products—can significantly contribute to PFAS loadings in wastewater systems. EPA should therefore acknowledge the limits of end-of-pipe biosolids monitoring and provide more practical guidance on upstream monitoring, industrial source reduction, and public education strategies that reflect the range of PFAS sources entering clean water utility systems. Utilities should retain flexibility to design monitoring and source investigation programs appropriate for their systems.

NACWA Responses to Specific EPA Questions in Federal Register

Are the recommendations for farmers and bulk land appliers of biosolids sufficient to provide clarity? What other information should the agency consider?

NACWA believes the recommendations for farmers and bulk land appliers would benefit from additional specificity to ensure they are practical, consistently understood, and capable of being implemented in the field. Several of the Draft Guidance recommendations use terms that are open to broad interpretation, including references to avoiding application "near" certain areas such as fishable waters or drinking water sources. EPA should provide greater clarity on what constitutes "near," particularly because almost any surface water could be characterized as a fishable water depending on the context. Without more precise definitions or examples, utilities, farmers, land appliers, and state regulators may interpret these recommendations differently, which could create uncertainty and inconsistent application across states and facilities while also not meaningfully protecting public health.

EPA should also clarify how clean water utilities, farmers, and land appliers are expected to evaluate areas to which children may have access, particularly when the Draft Guidance appears to contemplate future or potential land uses that may not be known at the time biosolids are applied. Utilities and land appliers generally can assess current site conditions, application restrictions, setbacks, and landowner-provided information, but they may not be able to predict future recreational uses or changes in property use. EPA should consider framing this recommendation around documented site conditions and reasonable recordkeeping expectations, such as maintaining records of application sites, known nearby sensitive receptors, applicable setbacks, landowner certifications, and any state-required use restrictions.

Finally, as noted above, EPA should distinguish more clearly among different classes of biosolids, including Class A and Class A Exceptional Quality biosolids. Recommendations developed for bulk land application should not be written or interpreted in a way that assumes all biosolids present the same management considerations. EPA should therefore ensure that any recommendations for farmers and bulk land appliers reflect the existing Part 503 framework and recognize that different biosolids classes, treatment levels, uses, and exposure scenarios warrant different management considerations.

[Are the recommendations related to surface disposal and incineration of sewage sludge sufficient to provide clarity to stakeholders? What other information should the agency consider?](#)

NACWA believes that EPA's recommendations related to surface disposal and incineration should be strengthened to more fully reflect the practical, regulatory, operational, and environmental challenges clean water utilities face in switching biosolids management options when land application is constrained or unavailable.

The Draft Guidance identifies surface disposal in a sewage sludge-only landfill (monofill) as a potential regulated outlet for municipal biosolids, but many clean water utilities also rely on municipal solid waste landfills or other solid waste facilities. While the Draft Guidance appropriately acknowledges landfill capacity concerns, it should also recognize that landfills often must maintain specific solid-to-liquid ratios to preserve operational stability, which can limit their ability or willingness to accept biosolids, particularly wetter materials. EPA should provide a more complete discussion of the factors which utilities must consider when evaluating disposal alternatives, including transportation distance, fuel use, tipping fees, facility acceptance requirements, and the increased greenhouse gas emissions associated with hauling biosolids longer distances. EPA should also recognize the cyclical relationship between wastewater utilities and solid waste facilities: landfill leachate can contain elevated PFAS concentrations because PFAS are present in many consumer and commercial products, and that leachate is often returned to wastewater treatment plants for management. Thus, switching to landfilling, even where feasible, will not solve the PFAS problem.

EPA should also reconsider the Draft Guidance recommendation for additional engineering controls at biosolids surface disposal facilities, such as the use of composite liners. Many of the risk reduction management practices discussed in the Draft Guidance are already incorporated into the EPA 40 CFR Part 503 Biosolids Rule and existing federal, state, and local solid waste management regulatory programs that govern biosolids disposal sites. These programs were designed to minimize contaminant migration, reduce exposure pathways, protect water resources, evaluate site suitability, and implement monitoring, recordkeeping, and operational controls. As a result, they already achieve many of the Draft Guidance's stated risk reduction objectives. EPA should place greater emphasis on leveraging and recognizing these existing regulatory frameworks. Similarly, EPA should avoid recommendations that may be interpreted by permitting authorities as de facto design standards. The Draft Guidance does not demonstrate that such broadly applicable recommendations would provide meaningful risk reduction beyond the protections already required through existing solid waste permitting and regulatory programs. Facility design and operational requirements are most appropriately determined through site-specific evaluations that consider local hydrogeologic conditions, facility characteristics, monitoring data, potential exposure pathways, and existing regulatory requirements.

A one-size-fits-all national recommendation is unlikely to provide additional environmental benefit in many circumstances and could impose significant costs, reduce disposal capacity, or create pressure to modify or close facilities that are already operating in compliance with applicable state and federal requirements. In addition, because the Draft Guidance does not provide detail or context regarding specific mitigation methods, highlighting a single mitigation method such as a composite liner is likely to create confusion regarding the broader portfolio of risk management options available for biosolids disposal.

Instead, EPA should encourage coordination with state regulatory authorities and reliance on established solid waste and biosolids management programs which are specifically designed to evaluate and address site-specific risks and identify the most appropriate mitigation measures based upon those risks.

The Draft Guidance also provides limited direction for sewage sludge incinerators (SSIs), noting only that incineration may not be an effective PFAS treatment method and that utilities may consider performance testing to better understand potential PFAS releases. NACWA encourages EPA to provide more meaningful guidance for utilities that operate or rely on SSIs, including how EPA expects utilities to evaluate incineration as a management option, what information performance testing may generate, and how utilities should weigh incineration against other available biosolids management pathways given cost, air emissions, permitting, capacity, and other considerations.

[Are the recommendations related to the protection of public health and pollution prevention sufficient to provide clarity to states, Tribes, and utilities about how to reduce](#)

concentrations of PFOA and PFOS in sewage sludge and biosolids? What other information should the agency consider?

As described above, NACWA encourages EPA to build out its guidance around reducing PFOA and PFOS concentrations in sewage sludge through source-identification, pollution prevention and monitoring to help determine whether sources of PFOA and PFOS are present that could be addressed.

In terms of other information, NACWA appreciates EPA's recognition that biosolids are land applied to less than one percent of farmland annually and that typical agronomic practices do not involve applying biosolids to fresh produce or crops where the edible portion comes into direct contact with soil. Rather, biosolids are more commonly used on crops where the edible portion is not in contact with the soil, or for non-food crops like fuel and fiber. EPA should provide additional clarity that the general public is unlikely to consume food products which came into direct contact with bulk municipal biosolids used in agricultural settings. EPA should additionally distinguish these materials from Class A Exceptional Quality biosolids products available for public purchase, which must meet the most stringent federal treatment, pollutant, pathogen, and vector attraction reduction standards before they may be used in home gardens and other public settings.

NACWA also encourages EPA to provide a more balanced context for the public regarding other PFAS exposure pathways associated with products applied to land and used in homes, farms, and gardens. Other lawn and garden inputs including fertilizers, pesticides, and herbicides may contain PFAS as intentionally added ingredients, inert ingredients, formulation aids, or manufacturing byproducts, and these products may be applied directly to farmland, crops, lawns, and gardens. The public may purchase and use these products from the same retail settings where biosolids-based products are also sold. EPA should therefore consider providing additional information on these other PFAS-containing products and potential exposure pathways so that utilities, farmers, regulators, and the public can understand biosolids within the broader context of PFAS sources encountered in agricultural and household settings.

Whether and how state approaches to reducing PFAS concentrations in sewage sludge that is not risk-based but focused on achieving practical reductions of PFOA and PFOS is effective in mitigating risks to public health?

NACWA encourages EPA to include recommendations for establishing tiered management programs that go beyond PFAS sampling and monitoring alone. A holistic framework, modeled on Michigan's approach, should include industrial source identification and reduction, pollution minimization planning, clear stakeholder engagement, and consumer and household education to support practical reductions across the full range of PFAS sources entering wastewater systems.

The public may not realize that ordinary domestic, commercial, and industrial activities are contributing PFAS to the wastewater system. NACWA urges EPA to more directly recognize the role of domestic sources in contributing PFAS to wastewater systems and, ultimately, to biosolids. Everyday household use of PFAS-containing products is a very significant part of the broader PFAS loading picture, and public education should be part of any effective risk reduction strategy.

NACWA views EPA's focus on "achieving practical reductions" of PFOA and PFOS as one of the most constructive elements of the Draft Guidance. This framing appropriately recognizes that meaningful risk reduction must be grounded in realistic, implementable strategies, particularly for clean water utilities that are passive receivers of PFAS rather than manufacturers or direct users of these chemicals. National biomonitoring data have shown meaningful declines in PFOA and PFOS blood levels since the phaseout of these legacy compounds, although legacy uses, imports, and environmental persistence remain ongoing challenges.

Given the widespread presence of PFAS in commerce, consumer products, and the environment, as well as the continued approval, production, and manufacture of PFAS chemicals beyond PFOA and PFOS, it is not realistic to expect clean water utilities to "regulate away" PFAS from their industrial dischargers or to be able to treat PFAS to extremely low concentrations at the wastewater treatment plant. Utilities currently lack broadly available and cost-effective treatment technologies capable of eliminating PFAS from the huge volume of wastewater and biosolids they manage, and even when such technology becomes feasible, the costs will be borne by local communities.

[What practices are not included in the draft guidance that can reduce risk when land applying biosolids, surface disposing, or incinerating?](#)

See answer above.

[What next steps should EPA take regarding the Draft Risk Assessment and should the Agency reevaluate the underlying framework? If so, how?](#)

As outlined in our public comments to the EPA in recent years, NACWA believes that the Draft Risk Assessment requires significant revision if it is to be finalized. Aside from the immediate implications of the Draft Risk Assessment with respect to PFOA and PFOS, finalizing it would be precedent setting in that is the first risk assessment conducted under the EPA's new Biosolids Screening Tool and risk framework that was developed between 2021-2023.

During the risk framework's development, the Science Advisory Board (SAB), NACWA and other stakeholders shared concerns that were not ultimately addressed by EPA, including that the framework needed to consider the unique characteristics of biosolids, incorporate individual chemical fate and transport, reflect a more realistic exposure framework, avoid compound conservatism (outlined further below), and better consider how the framework would be implemented. Considering these significant issues remain in the risk framework which then

influenced the Draft Risk Assessment, NACWA strongly believes that EPA should consider revisiting and modifying the underlying framework itself as a central component of any changes to the Draft Risk Assessment.

NACWA believes that EPA needs to revise the framework itself because it is flawed at its core – which will not be a quick process and would require the Agency in some sense to go back to square one. However, EPA could pair changes to the draft risk assessment and its underlying framework with a risk management study (or look to the states that are already requiring monitoring of PFOA and PFOS in their National Pollutant Discharge Elimination System (NPDES) permits) and collect the necessary empirical data to inform the risk assessment. This is historically how EPA assessed the risks of pollutants in biosolids.

EPA released the Draft Risk Assessment in January 2025 along with a corresponding report from an external peer review group tasked to review the framework underpinning the Draft Risk Assessment. The perception of publishing both the Draft Risk Assessment and the external peer review of the framework simultaneously was that stakeholder commentary received on the Draft Risk Assessment would not matter since a panel of external scientists had provided their expertise on the issue. Even though EPA formally responded to the SAB and the peer review panel at various points in the Draft Risk Assessment process, changes were never made to address concerns from NACWA and others about the underlying risk assessment framework, calling into question whether EPA was ever really willing to refine the framework or its Draft Risk Assessment in the first place.

Making changes to and finalizing the Draft Risk Assessment without fixing the problems in the underlying framework would be like trying to repair a damaged house without first fixing its faulty foundation. The foundation must be rebuilt first. At a minimum, the underlying risk assessment framework needs revisions for these reasons, which were called out by NACWA as well as the SAB:

- To use a probabilistic risk assessment which would include uncertainties of each model factor and provide clarity on where uncertainty rests;
- To revise the farm family assumptions that are central to the framework to reflect actual present day agricultural practices.

In addition, the Draft Risk Assessment for PFOA and PFOS needs revision because it:

- Ignores the complete risk picture—it is not outside the scope of this effort for EPA to consider other relative source contributions of PFOA and PFOS that are found in everyday uses;
- Ignores background level or screening levels of PFAS in soils that have not been treated with municipal biosolids and are not near known PFAS sources (and precipitation); and
- Inflates fate and transport and toxicity based on a limited number of real-world in situ farm studies and epidemiological studies.

Furthermore, consistent empirical data demonstrating PFAS fate and transport in the field, to groundwater, and up and through plants was practically nonexistent when the Draft Risk Assessment was written. Such data is still evolving, but there is some emerging research demonstrating how complicated it is to generalize this issue without using site specific and plant specific detail and having a historical knowledge of land use. The clean water utility community and the agricultural community deserve to have reliable and repetitive science that demonstrates how PFAS chemicals move through the environment and in crops in actuality, not in greenhouse (lab) studies or in theory.

[Should EPA evaluate policy options that would consider current and future land use practices? What strategies should the EPA consider for protecting public health, future land uses, landowners, and property values?](#)

NACWA supports EPA's consideration of current and future land use practices as part of any future evaluation of PFAS risk management options. However, such evaluations must be grounded in a comprehensive understanding of all significant sources of PFAS entering the environment and should avoid placing disproportionate emphasis on biosolids without considering other pathways that may contribute to PFAS loading on agricultural and non-agricultural lands.

As EPA acknowledges in both the Draft Guidance and the Draft Risk Assessment, landowners may be exposed to PFAS from a variety of sources. To support informed decision-making regarding future land use, property management, and public health protection, EPA should work collaboratively with the U.S. Department of Agriculture (USDA) and the U.S. Food and Drug Administration (FDA) to better characterize and communicate the relative contribution of PFAS from fertilizers, pesticides, herbicides, soil amendments, irrigation sources, consumer products, and industrial sludge and how these may impact farmland, agricultural feedstock and food crops. In particular, EPA should evaluate and publicly report available information regarding PFAS concentrations in commercial fertilizers, herbicides, and pesticides, including products that may contain PFAS as an active ingredient, inert ingredient, formulation aid, or as a byproduct of the manufacturing process. Efforts towards these ends are beginning in some states.

NACWA believes that policy decisions affecting land application, agricultural production, and property use or values should be informed by comparative risk assessments that evaluate the relative significance of all PFAS sources rather than focusing on municipal biosolids in isolation and should focus on the actual risk associated with PFAS that may be present on land. This is inherently more valuable than placing limitations on one type of input that may or may not impact risk associated with a property (or could even inadvertently encourage use of an alternative input which greater PFAS risk). Failure to consider these additional sources risks creating an incomplete understanding of PFAS occurrence in soils, crops, livestock, and water resources and could lead to policies that do not effectively reduce overall PFAS exposure or protect farmers or landowners, their property values, or future land uses.

To protect public health, future land uses, landowners, and property values, EPA should prioritize strategies that improve source identification and source reduction at their origin, expand monitoring and occurrence data collection, and enhance public access to information regarding PFAS-containing products used on agricultural lands. EPA should also continue working with states to support tiered management frameworks that distinguish between varying PFAS concentrations and site-specific conditions rather than relying on blanket restrictions or prohibitions. Such approaches will better protect public health while preserving important and sustainable land management options where risks can be effectively managed.

Finally, NACWA encourages EPA, USDA, and FDA to jointly develop a coordinated federal strategy for communicating PFAS risks across agricultural systems. Landowners, farmers, utilities, state regulators, and the public will be best served by a transparent and consistent framework that provides information regarding PFAS concentrations and potential exposure pathways across the full spectrum of products and materials applied to land. A collaborative interagency approach will improve public understanding, support science-based policymaking, and help ensure that future land use decisions are informed by the most complete and accurate information available.

Conclusion

NACWA appreciates EPA's continued work on this important issue and the Agency's willingness to listen to municipalities and farmers—those directly impacted by the uncertainty created by PFAS biosolids contamination, despite the fact that they do not manufacture these pollutants. As EPA moves forward, NACWA urges the Agency to ensure that its policies are grounded in the realities of how municipal biosolids are used in agricultural settings and evidence-based science, practical implementation considerations, and a clear recognition of the essential role municipal biosolids play in sustainable clean water and agricultural systems. For clean water utilities and the communities they serve, environmental protection, affordability and long-term planning depend on sound, transparent, and durable federal policy.

If there are any questions regarding these comments, please contact me at eremmel@nacwa.org or 202/533-1839.

Sincerely,

A handwritten signature in black ink, appearing to read "Emily Remmel". The signature is fluid and cursive, with a large loop at the end.

Emily Remmel
Senior Director, Regulatory Affairs