



MESERB

Minnesota Environmental Science
and Economic Review Board

Using science and economics to improve environmental regulations

December 12, 2024

Re: MESERB comment on MPCA's interim biosolids strategy

As a representative of the Minnesota Environmental Science and Economic Review Board (MESERB), I am writing to provide comments on the Minnesota Pollution Control Agency's ("MPCA") proposed PFAS in biosolids strategy. MESERB is a municipal joint powers organization comprised of 60 publicly owned wastewater treatment plants ("POTWs") in Greater Minnesota, and a leader in working with the MPCA to identify, reduce, and eliminate sources of PFAS to POTWs. Thank you for the opportunity to address MPCA's questions and provide feedback on the development of an interim strategy for managing PFAS in biosolids. MESERB appreciates MPCA's efforts to work collaboratively on this issue and engage stakeholders early in the process.

While MESERB is generally supportive of the biosolids PFAS strategy, many of our members have concerns that MPCA is moving too quickly and without the proper legal authority in the development and implementation of this proposed strategy. It is our position that Minnesota Rules Chapter 7041 does not give MPCA express authority to regulate PFAS in biosolids, but only to require PFAS monitoring. However, as public servants, we also recognize that PFAS presents an important public health problem, and we have adopted the following key priorities with respect to PFAS in biosolids:

- Protection of human health and the environment.
- Promotion of the highest and best use of biosolids.
- PFAS source identification, reduction & elimination for industrially impacted biosolids.
- Protection for local governments against unfair PFAS related liability.

Based on these priorities, MESERB supports the development of an interim and stepwise strategy to address PFAS in biosolids prior to the finalization of a federal risk assessment and the adoption of formal regulations. We believe identifying and reducing sources of PFAS to the environment—especially PFOA and PFOS—is an important public health priority.

Our comments on MPCA's proposed strategy are as follows:

- MPCA's top PFAS priority should be source elimination and aggressive implementation Amara's Law and the Tier 3 -4 requirements should not be implemented until the first cropping year after January 1, 2026.*

The most efficient and effective method for addressing PFAS in the environment is to ban the use of PFAS chemicals in industrial and domestic products, which are the sources of PFAS in wastewater and biosolids. The passage of Amara's law is a significant step in this progress; however, the phased implementation of the law means that many of its benefits may not be realized for several years. For example, the PFAS ban in 11 categories of domestic products will go in effect in January 2025, but it could take significant additional time before this PFAS ban

results in reduced levels of PFAS from domestic sources that reach wastewater treatment facilities. As a result, we recommend that MPCA delay implementation of the Tier 3 – 4 requirements (i.e., no land application and reduced spreading rates) until the first cropping year after January 1, 2026. This would allow time for the most recent PFAS bans to be implemented and have an impact. It would also allow data collection and the implementation of PFAS PMPs before facilities would be faced with potentially expensive and crippling adjustments to their biosolids programs. MPCA could always make exceptions and require additional risk mitigation strategies (including land application bans and imposition of reduced spreading rates) if it finds unusually high concentrations of PFAS in biosolids on a case-by-case basis.

- ii. *MESERB generally supports the proposed thresholds in tiers 1-4; however, implementation of the tiers should be delayed by one year or the Tier 4 threshold should be increased.*

The tier structure proposed by MPCA is generally reasonable and consistent with the approach used by the states of Wisconsin and Michigan. However, as noted above, MESERB requests that MPCA delay implementation of the Tier 3 – 4 requirements until after January 1, 2026, and make the following simple adjustment: The levels of PFOA and PFOS for the four tiers should be adjusted to Tier 1 ($\leq 20 \mu\text{g/kg}$), Tier 2 ($21\text{--}50 \mu\text{g/kg}$), Tier 3 ($51\text{--}125 \mu\text{g/kg}$), and Tier 4 ($> 125 \mu\text{g/kg}$). We believe this slight adjustment will provide some additional flexibility and certainty—especially for those facilities that find themselves in tiers 1 and 2.

If MPCA does not delay the implementation to allow for Amara’s law to take effect and make an impact, MESERB would request that the Tier 4 threshold be raised to $> 150 \mu\text{g/kg}$ and that Tier 3 be adjusted to $51\text{--}150 \mu\text{g/kg}$ for the first applicable cropping year.

- iii. *Tier 4 should not include a ban on land application of biosolids and should account for technically and operationally feasible alternatives.*

MESERB is opposed to the implementation of a ban on land application in the tier 4 category. Instead, MPCA should limit additional site approvals, impose reduced application rates, and/or impose other risk mitigation strategies. We believe that a ban is premature both legally and scientifically without risk assessment data demonstrating that such an approach is necessary to protect human health. Outright bans on the land application or other beneficial reuse of biosolids—like what was enacted in Maine—have proven to be unstable and unsustainable.

Such bans eliminate the benefits of recycling organic matter and nutrients back into the soil and leave wastewater utilities with essentially only one option for managing biosolids: landfilling. The PFAS in biosolids that are landfilled do not disappear because they are landfilled. Landfill leachate is known to contain PFAS, and often leachate is discharged to a sewer or hauled to a POTW, where a portion will end up back in the biosolids. Disrupting this PFAS cycle with leachate treatment is possible but the technologies to do so are still emerging and costly. It is our understanding that this has caused significant problems in Maine both in terms of cost increases and diminished landfill capacity resulting in the need to truck substantial amounts of biosolids out of state and out of the country—increasing greenhouse gas emissions and other risks.

As a result, MESERB proposes to eliminate the “no land application” option that MPCA identified as a response action in tier 4. The only exception to this should be in the unlikely event

that the MPCA identifies, on a case-by-case basis, PFOA or PFOS in such high levels that there is an immediate and substantial threat to public health under Minn. Stat. § 116.11.

- iv. *The tier-based response actions should allow flexibility when determining land application rates and/or other risk mitigation strategies.*

With respect to the reductions on application rates, MPCA's proposal references imposing a reduced application rate of 1.5 dry tons/acre. This reduced application rate is used in both the Wisconsin and Michigan strategies, but it is not based on risk assessment data for protecting human health and the environment.

We are concerned that setting a rigid reduced application rate (1.5 dry tons/acre) for the tier 3 and 4 categories is overly proscriptive and could potentially cause more harm than good. For example, the 1.5 dry ton/acre reduction rate does not take into consideration critical differences between dry cake biosolids versus liquid biosolids and their varying application methods (e.g. surface application vs. injection). Further, we are concerned that for some facilities the 1.5 dry ton/acre application rate could necessitate significantly increasing the total acreage of application sites, while at the same time substantially reducing nitrogen rates—diminishing the utility of biosolids (and the main selling point) to farmers participating in the beneficial reuse program.

To address these concerns, we suggest implementing a general range from 1.5 to 3.5 dry/tons per acre, but explicitly stating that any reduced application rate should be determined case-by-case. We also support the following language in the strategy: “or an alternative risk mitigation strategy.” This language is consistent with Wisconsin's strategy¹ and would allow POTWs to propose—and MPCA to approve—site-specific risk mitigation strategies in the tier 3-4 categories. Ultimately, allowing flexibility to select an application rate or other risk mitigation strategy on a site-specific basis will allow MPCA and POTWs to make modifications that are protective of human health, feasible, and consistent with the best available science.

- v. *Sampling should allow mobility between tiers.*

MESERB recommends that MPCA explicitly allow mobility between tiers based on sample results. Allowing mobility between tiers would incentivize POTWs to aggressively pursue source identification and reduction. This would also provide POTWs in higher tiers that are successful in source reduction to reduce and/or eliminate restrictions on land application. POTWs should be allowed to take multiple samples and use the median results for determining the applicable tier. This would address concerns about using draft sampling methods and potential inaccuracies in data.

Due to uncertainty in PFAS sampling (e.g., lab methods that are not multi-laboratory validated, potential for sample contamination, discrepancies between results from different labs), a provision should be made for the ability to retest solids. The cost impacts of moving to a more restrictive regulatory tier could be significant and should not be fully reliant on one sampling event. There is enough uncertainty in PFAS sampling to recommend that MPCA undertake initial sampling to determine the tiers that a POTW falls into be done with duplicates going to

¹ The Wisconsin strategy calls reduction of land application rates to 1.5 dry-ton/acre and/or the implementation of an “alternative risk mitigation strategy” that is approved by the regulator.

two different labs. This would increase sampling costs, but costs could be reduced by focusing on plants with elevated levels of PFAS in effluent sampling.

- i. *The interim strategy should be voluntary, and MPCA should create incentives for participating in the strategy, such as funding for sampling and liability protections.*

The interim strategy should be voluntary but at least applicable to all POTWs that land apply biosolids and have one or more known Industrial Users. This approach is consistent with Wisconsin, and MPCA could consider at least initially focusing on facilities that had elevated PFAS levels in effluent testing or only those POTWs with Significant Industrial Users. A voluntary approach is preferable because it will encourage a collaborative response from POTWs.

MPCA should also develop some incentives for POTWs that voluntarily participate in the strategy, which should include state funding for the required sampling and enforcement discretion and liability protections under MERLA. Providing these incentives will encourage broader engagement and cooperation in the pursuit of effective PFAS management at POTWs throughout the state.

Thank you for considering MESERB's comments. We believe that a well-crafted and stepwise strategy, rooted in the best available science and practical considerations, will contribute significantly to the successful management of PFAS in biosolids. If you have any questions, please reach out to me at jgad@mankatomn.gov.

Sincerely,

MINNESOTA ENVIRONMENTAL SCIENCE AND ECONOMIC REVIEW BOARD

A handwritten signature in blue ink, appearing to read 'Joshua Gad', with a stylized flourish at the end.

Joshua Gad
MESERB President
WRRF Superintendent, City of Mankato
jgad@mankatomn.gov